



Albert Schultens as an innovator of Hebrew etymology and lexicography

Historical, lexicographic and conceptual background and
Schultens' own theory, method and practice of the field

by
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Abstract

Focusing on the Dutch Orientalist Albert Schultens, this volume examines the theory and practice of the field of Hebrew lexicography in early modern Europe and Schultens' development of etymological Hebrew lexicography, which served as a corrective to previous research on semantic origins and semantic change.

The first part surveys the split of the Dutch Reformed Church into Voetians and Cocceians and the reception of British empiricism in the 18th-century Netherlands, and demonstrates Schultens' affiliation with the Cocceian party and empiricism.

The second part explores the theoretical and methodological development of Hebrew lexicography from the early 16th century until the early 18th century in accounting for the sources and ideas that underpinned and guided the making of Biblical Hebrew dictionaries and polyglot dictionaries of Semitic languages.

The third part explores the discursive and conceptual background, including the early modern discussion of whether Hebrew was the primeval language of mankind, the analytical tools used in early modern linguistic research, such as the concepts of morphological regularity (*analogia*) and primary word meaning and the phonetic and semantic principles of the Stoics and in early modern Hebrew lexicography

The fourth part explores Schultens' theory and method of Hebrew etymology, more specifically his approach to sound correspondences, morphology, and semantic origins and change, and especially his etymological semantics. It also demonstrates that Schultens preferred an empiricist method and argues that Lockean sensationalist empiricism was a source of inspiration to him.

The fifth part explores Schultens' practice of etymological lexicography in his dictionary of Biblical Hebrew, extant in records of his dictation and titled *Stricturae ad origines Hebraeas*, "Brief remarks on the original meanings".

Keywords: analogy, Arabic, dialect, empiricism, etymology, Hebrew, lexicography, original meaning, sound correspondences, semantics, Semitic languages

Cover image: Male and female date palms. Colour lithograph by Adolphe Philippe Millot and Lucien Lefèvre. Source: G. Dujardin-Beaumetz and Ed. Égasse, *Les plantes médicinales indigènes et exotiques*, Paris 1889, plate 18. Courtesy of the Natural History Museum of Denmark.



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Preface with acknowledgements

The Dutch Orientalist Albert Schultens (1685/86–1750) innovated the theory and method of Hebrew etymology and philology. Until now, a thorough study of his theoretical and methodological achievements has been lacking. To fill this gap in scholarship, I present a study in two volumes titled *Albert Schultens as an innovator of Hebrew etymology and lexicography* (vol. 1) and *Albert Schultens as an innovator of Biblical Hebrew philology* (vol. 2).

In October 2017, I presented an outline of a monograph on Schultens as an innovator of comparative Hebrew philology at the seminar on Semitic languages at the Department of Linguistics and Philology, Uppsala University. The project gradually evolved into the two research monographs that are now being published. Both before and after 2017, I also prepared textual editions of Schultens' drafts and lecture notes and the records of his dictation. This work has resulted in a further volume titled *Albert Schultens' unpublished manuscripts on comparative Hebrew philology*, planned for publication in Brill's series Texts and Sources in Intellectual History.

My research on Albert Schultens derives from a project conducted between 2009 and 2014, which dealt with views on the origins and relationships of languages and linguistic change in early modern Semitic and Germanic language studies. The project was made possible by two research grants. The first was provided by the Royal Society of Humanities in Uppsala (*Kungl. Humanistiska Vetenskaps-Samfundet i Uppsala*). The second was awarded by the Foundation for Humanities and Social Sciences in Sweden (*Riksbankens Jubileumsfond*), which also supplied funding for travel to Leiden University Library to study the manuscript archives of Albert Schultens, Jan Jacob Schultens, and Henric Albert Schultens.

The early stages were directed towards the editing of Albert Schultens' manuscripts on Biblical Hebrew philology and of Henric Albert Schultens' historiography of his grandfather's innovation. Subsequently, my research focus shifted to Albert Schultens' innovations in Hebrew etymology and his improvement of comparative Hebrew philology on the basis of his published works and his unpublished dictionary of Biblical Hebrew (1740 through 1749), which is still extant in records of his dictation. This research was supported by grants (awarded between 2016 and 2022) by the Carlo Landberg Foundation for Semitic Language Studies at Uppsala University, which enabled me to carry out further research in the Schultens family archives and to explore Schultens' philological and linguistic publications.

Over the past two years, I have undertaken a thorough revision of the book manuscripts while conducting another research project – the editing and philological analysis of a Hebrew translation of the Gospel of Matthew (1703) and the Epistle to the Hebrews (1713), made by the Christianized rabbi Johan Kemper of Krakow. This project was supported by the Olle Engkvist Foundation (*Olle Engkvists stiftelse*) during almost the same period (November 2023–October 2025).

A grant from the Helge Ax:son Johnson Foundation (*Helge Ax:son Johnsons stiftelse*) in June 2025 has made it possible to revise both volumes, make substantial additions, and complete them.

Grants for the printing of this volume have been provided by the Carlo Landberg Foundation at Uppsala University.

It is with sincere gratitude that I acknowledge the receipt of research grants, travel scholarships, and printing grants.

I wish to express my deep gratitude to Frank Polak, Professor Emeritus of Biblical Studies at Tel Aviv University, for his general comments on the contents of this first volume and for his detailed suggestions and corrections during the peer review. Thanks to his attentive reading, I have deepened my understanding of various matters relating to Hebrew and Arabic linguistics, Dutch political history, and the history of the medieval Jewish linguistic tradition. Professor Polak should also be acknowledged for improving the accuracy of several quotations in Hebrew, Arabic, Latin, Dutch, and French. My sincere thanks also go to Geoffrey Khan, Regius Professor of Hebrew at Cambridge University, for his efforts in peer-reviewing this book.

I am obliged to my father, Mats Eskhult, Professor Emeritus of Semitic languages, for his diligent reading of the book manuscript at the various stages of its development.

By exploring the origins of the comparative research tradition in Hebrew studies, the present volumes primarily contribute to the history of Hebrew, Arabic, and Semitic philology in the early modern period. They are based on primary sources in Latin, which was the main vehicle for conveying ideas, pursuing scholarly debates, and producing new knowledge. Thus, Latin served as the principal language of oriental philology and of scholarship in all other areas. Latin philology involves textual interpretation, translation, and description. Insofar as the Latin linguistic tradition underpinned the concept of language as a system of grammatical and rhetorical qualities and provided conceptual tools for analysing aspects of phonology, morphology, and semantics, the history of classical philology is also addressed. A wide range of other branches of learning, such as the history of philosophy, intellectual history, the history of biblical hermeneutics, and church history, are also involved in contextualizing linguistic ideas. Through the use of primary sources and an interdisciplinary approach, I hope that these historiographical volumes will contribute to a better understanding of the origins, nature, forms and functions of Hebrew and Semitic language studies in the early modern Western world. I wish to express my sincere gratitude to Professor Eleanor Coghill for kindly allowing me to publish them in *Studia Semitica Upsaliensia* and for proofreading the final draft of the first volume.

Uppsala, 5 May 2026

Josef Eskhult

Table of contents

PART 1. INTRODUCTION AND SCHOLARLY BACKGROUND.....	11
1. General introduction	13
1.1 Purpose and scope: Schultens as an innovator	13
1.2 Schultens as a biblical scholar and an Orientalist.....	14
1.3 Sources and method.....	15
1.4 Schultens' programme of comparative Hebrew philology	16
1.5 State of research.....	18
2. Historical background in the Netherlands	32
2.1 Political setting: The Dutch Republic.....	32
2.2 Educational setting: Chairs of Hebrew and Oriental languages in Franeker and Leiden	33
2.3 Denominational setting: The Dutch Reformed Church	38
2.4 Intellectual setting: The adoption of British empiricism	44
3. Philological background: The Western rise of Arabic philology	53
3.1 Motives for learning Arabic, and access to textbooks	53
3.2 Scholarly approaches to Arabic in biblical scholarship.....	55
3.3 Schultens' studies of Arabic	62
PART 2. LEXICOGRAPHIC BACKGROUND	67
4. Hebrew lexicography in the Middle Ages: The Jewish tradition.....	69
4.1 Periodization, sources and centres of study	69
4.2 Saadia Gaon, Ibn Quraysh, and others.....	70
4.3 Yehuda Hayyuj, Ibn Janah, and Ibn Barūn.....	71
4.4 David Kimchi, Ibn Kaspi, ben Kalonymus, and Elias Levita.....	72
5. Arabic lexicography.....	75
5.1 Indigenous tradition.....	75
5.2 Western approaches.....	77
6. Biblical Hebrew lexicography: The achievements of Christian scholars in early modern times (1500–1750).....	79
6.1 State of research.....	79
6.2 Western acquisition of rabbinical learning	83
6.3 Anti-rabbinical reaction.....	87
6.4 Returning to the authority of the rabbis	93
6.5 Comparative approaches.....	95
6.6 Logical approaches	106
6.7 Etymological approaches.....	121
6.8 Hebrew lexicography after Schultens.....	125
6.9 Summary and conclusions	130

PART 3. METHODOLOGICAL AND CONCEPTUAL BACKGROUND	133
7. The primeval language and Hebrew	135
7.1 Discursive background	135
7.2 The first critical stance towards Hebrew linguistic primacy	140
7.3 Defence of the Hebrew linguistic primacy	144
7.4 Rationalist criticism of the 17 th century	148
7.5 Reinforced criticism of the 18 th century	155
7.6 Patriotic endeavours	157
8. Morphology: The concept and principle of regularity	160
8.1 Linguistic analogy as a polysemous concept	160
8.2 Greco-Roman antiquity	161
8.3 Classical philology in early modern times	164
8.4 Hebrew grammar-writing in early modern times	176
9. Etymology: Ancient tradition and 17 th -century renewal	181
9.1 Greco-Roman views on language	181
9.2 Stoic etymology	186
9.3 Proper meaning as a concept	188
9.4 Semantic change	190
9.5 Lockean cognitive semantics and etymology	192
9.6 Leibnizian semantics and etymology	197
10. Hebrew etymology in the 17 th and 18 th centuries	200
10.1 Phonetic principles: classification and regularity	200
10.2 Semantic approaches	209
10.3 Digression: Modern approaches to semantic etymology	214
PART 4. SCHULTENS' THEORY AND METHOD	217
11. Classificatory principles	219
11.1 Reclassification of Semitic languages	219
11.2 Views on the previous discourse on the primeval language	221
11.3 Views on the Confusion of Languages at Babel	224
11.4 Hebrew as a dialect in a Semitic group of languages	225
12. Hermeneutical challenges and semantic problems	231
12.1 Restoration of Biblical Hebrew	231
12.2 Rejection of competing positions	233
12.3 Polysemy of Biblical Hebrew and its state of non-homonymy	236
13. The principle of linguistic regularity	239
13.1 Analogy as a principle of regularity	239
13.2 Analogy in morphology	241
13.3 Analogy in semantics and syntax	242
14. Views on semantic origin and change	243
14.1 Conceptual basis: Original and primary meaning	243

14.2 Epistemological bases: the nature of original meaning	244
14.3 Semantic development.....	246
14.4 The idea of “natural rhetoric”	248
15. Phonetic and morphological principles.....	251
15.1 Phonetic principles: Sound correspondences.....	251
15.2 Morphophonological principles of root formation	260
PART 5. SCHULTENS’ ETYMOLOGICAL LEXICOGRAPHY	267
16. Lexicographical goals and contexts.....	269
16.1 Goals and results of Hebrew lexicography	269
16.2 Predecessors and self-understanding as a renewer	270
16.3 Rejection of the opponents as metaphysical.....	271
17. Schultens’ views on his lexicographic predecessors	274
17.1 Views on Rabbinical grammarians and lexicographers.....	274
17.2 Views on Christian lexicographers of Hebrew	277
18. The preparation of a Hebrew dictionary	286
18.1 The autograph draft: <i>Stricturae ad origines</i>	286
18.2 The printed sample: <i>Lexicon Hebraeum</i>	288
19. The dictation of an etymological Hebrew dictionary	290
19.1 Inventory of the manuscript records	290
19.2 Outline, dating, purpose, and cross-references	295
19.3 Morphological macrostructure.....	301
19.4 Lexicographical microstructure.....	306
19.5 Practice of Hebrew etymology: Examples	309
19.6 Epilogue: Schultens’ horizon and the pitfalls of etymology.....	316
20. Excursus: Owner history and historical use of dictionary records.....	320
20.1 Owner history of the extant manuscripts of the dictionary.....	320
20.2 Scholarly use and references in the 18 th century.....	327
20.3 Owners according to the sale catalogues of private libraries.....	335
Summary.....	343
Tables of transliteration	346
Bibliography	350
Manuscript sources	350
Printed sources.....	352
Modern literature (after 1900)	375
Indices.....	390
Index I. Names.....	390
Index II. Subjects and key words.....	411
Index III. Words in Semitic languages	420

Illustrations	424
List of illustrations.....	424
Early modern Hebrew and comparative Semitic dictionaries:	
Title pages and samples.....	426
Schultens' unpublished Hebrew dictionary: The draft, the printed sample and a selection of records of the dictation	456

PART 1.
INTRODUCTION AND SCHOLARLY
BACKGROUND



Figure 1. Portrait of Albert Schultens. Oil painting by Hieronymus van der Mij, 1736 (H. van der Mij fecit. A[nn]o. 1736). Source: Leiden University Libraries, *Icones Leidenses* Collection, *Icones* 144 (available in the Digital Collections). Location: Leiden, the Academy Building, Senate Chamber. Size: 76,5 x 61 cm. The caption reads: “Albertus Schultens. Groninganus. Linguarum Orientalium prof. ordin[arius] 20/6 MDCXXXII. Natus 22/8 MDCLXXXVI. Denatus 26/1 MDCCL”

In 1735, the Academic Senate enjoined its members to have portraits painted of themselves at their own expense to be exhibited publicly in the new Senate Chamber. In the painting, he is depicted as a Leiden academic, posing in a refined ceremonial apparel and the fashionable wig of the time, and as an ordained minister in the Dutch Reformed Church, dressed in clerical bands. The caption states his title and rank as professor. Devoted to Oriental philology and biblical interpretation, he is thus portrayed as a representative of *philologia sacra*, “sacred philology”. His facial expression conveys learning, thoughtfulness, persistence, and self-assurance.

1. General introduction

1.1 Purpose and scope: Schultens as an innovator

In the history of Semitic philology, the Dutch Orientalist, Hebraist, and Arabist Albert Schultens (1685–1750) is widely recognized as a pioneer in the comparative study of Hebrew. This recognition rests on his innovative use of cognate languages, especially Arabic, to interpret Biblical Hebrew, not only in morphology but also – and primarily – in etymology. From the 19th and 20th centuries onwards, Semitic linguists, such as Wilhelm Gesenius, Hermann Hupfeld, Ferdinand Mühlaus, James Barr, and Moshe Goshen-Gottstein, have generally agreed that Schultens' analysis of Hebrew morphology and etymology was epoch-making and paved the way for an unbiased approach to the study of Ancient Hebrew as both a human language and a sister language of Arabic and Aramaic.¹

This volume examines the background, content, and impact of Schultens' innovations in comparative Hebrew philology. The introductory chapter of the first volume situates his innovation within the context of the Cocceian party of the Dutch Reformed Church and the intellectual environment of the early Dutch Enlightenment. The main background chapters trace the development of medieval and early modern Hebrew lexicography, while other introductory chapters briefly outline the practice of Arabic philology and lexicography in early modern Europe.

Both the first and the second volumes examine how Schultens: (1) systematized trains of thought in earlier discourses on Hebrew lexicography and grammar, biblical philology (*philologia sacra*), classical philology, and the empiricist theory of knowledge creating a coherent programme of Hebrew philology; (2) introduced a methodology for classifying the sources of knowledge about Biblical Hebrew; (3) transformed earlier approaches to semantics into the study of Hebrew etymology, using existing conceptual tools to address sound correspondences, morphology, semantic origins, and semantic change; (4) shifted from a logical approach to the directionality of semantic change to an empiricist, sensational approach by applying Lockean epistemology; (5) developed the comparative method of Semitic philology by systematizing regular and sporadic sound correspondences; (6) based this method on a reclassification of the Semitic languages, downgrading Hebrew

¹ For the 18th and 19th-century reception, see Eskhult, *Schultens as an innovator*, Vol. 2, Uppsala 2026, Chapters 10–12. For modern Semitists, Section 1.5.3 below.

from its status as the primordial language and conceptualizing Semitic languages as historical dialects of a single ancestor language, with Arabic considered the best aid for reconstruction; (7) extended the application of the comparative method to explain *all* linguistic data, no longer limiting his use of Arabic to clarifying the form and meaning of uncommon and obscure Hebrew words, but also employing it to explore the origins of common and frequent words; and finally, (8) uprooted the old idea in language theology or ideology that Hebrew was the holy, divine, and primeval language of mankind, establishing it as a human language subject to the same conditions as other languages.

Since the mid-17th century, scholars of *philologia sacra* had grappled with textual, grammatical, lexical, and semantic problems in the Hebrew Bible. Schultens set out to challenge existing interpretations of the available data. In doing so, he innovated the theory and methodology of Hebrew philology. Although he was aware of his role as an innovator, for apologetical reasons, Schultens presented himself as merely a renewer of the comparative method, which he believed had been neglected amid the prevailing anti-comparativist sentiment of his time. Thus, he viewed himself as a restorer of “the old and royal method of studying Hebrew”.

He had access to the same linguistic data on Semitic languages as his contemporaries, used the same grammatical and lexicographical tools, and worked within the same conceptual framework for classifying and interpreting that data. However, he reinterpreted the data using a new theory and methodology to clarify the linguistic history of Hebrew and its cognate languages, particularly Arabic.

Given the deep and pervasive impact of Schultens’ research paradigm, it is all the more justified to regard him as an innovator rather than a renewer. These volumes reconsider and reassess his complex role as a pioneering transitional scholar between early modern and modern Semitic linguistics.

1.2 Schultens as a biblical scholar and an Orientalist

As a biblical scholar, Schultens reformed *philologia sacra* (“biblical philology”), a branch of learning recognized as a sub-discipline of theology. Applied to Hebrew, it encompassed textual criticism of the Hebrew Bible and its ancient translations, Hebrew and Semitic language studies, and the cultural and societal background of the Israelites and neighbouring peoples, including geography, chronology, religion, customs, history, and flora and fauna. He taught Hebrew, Aramaic, Arabic, and Syriac, emphasizing their early stages of development. He specialized in Hebrew etymology and in early Arabic prose and poetry. His textual criticism aimed to defend the transmitted Hebrew text of the Old Testament.

As an Orientalist by profession, Schultens engaged in an intercultural exchange between the West and the Near East. By studying the languages, literature, and history of the Orient, he sought to understand and represent

Near Eastern cultures on their own terms to improve understanding of Biblical Hebrew. Although his geographical concept of the Orient can be equated with the extent of the Ottoman and Safavid Empires,² he restricted the term “Oriental languages” to those related to Hebrew and known to European scholars through a literary tradition. These were Aramaic (then called “Chaldaic”), Syriac, Arabic, Ethiopic, and Samaritan, as represented in the London Polyglot Bible (1654–1657) and the polyglot dictionary of Johann Heinrich Hottinger. Before the introduction of the term “Semitic languages” at the end of the 18th century, the designation “Oriental languages” was used for lack of a more precise term. In the pursuit of comparative Hebrew philology, Schultens defined the Oriental languages as “the ancient and genuine languages of the Orient”.³ For the sake of clarity, he excluded Turkish and Persian, “which, since they now hold sway in the Orient and use the Arabic script, are by many people thought to be counted among the Oriental languages”.⁴ Nevertheless, he did not confine himself to the study of Semitic languages; he apparently acquired a good command of Ottoman Turkish and Persian, and had some rudimentary knowledge of Coptic and Armenian.

1.3 Sources and method

This first volume is based on primary sources, including both the published and unpublished writings of Schultens, as well as those of Semitic and classical philologists and other scholars in the field of *philologia sacra* in early modern Europe. These sources comprise Hebrew-Latin and polyglot dictionaries along with introductions to the study of the Hebrew Bible.

In exploring these sources, I have employed several methods: (1) textual interpretation and translation, (2) description and content analysis, (3) conceptual historical analysis, and (4) intellectual historical analysis. Since Latin was the principal language of early modern scholarship, the primary sources are generally in Latin. As a Latin philologist, I have endeavoured to break down the linguistic barrier for a modern non-Latinate readership and thus to provide access to Schultens’ linguistic thought. Based on primary and secondary sources, this volume outlines the confessional, intellectual, and scholarly contexts of Schultens’ linguistic ideas. Schultens employed linguistic concepts from classical philology as tools to develop his theory and method of Hebrew etymology. To reconstruct his conceptual frame of

² The Levant (Palestine, Phoenicia, and Syria), Anatolia, Mesopotamia, Armenia, the western regions of the Arabian Peninsula (Hijaz and Yemen), and Egypt.

³ Schultens, *Origines Hebraeae*, vol. 2, Leiden 1738, p. 17: “Sat dilucide [...] expinxisse mihi videor, quanam sint linguae illae Orientis antiquae et genuinae, quae cum Hebraea eundem succum radicalem imbiberunt” [...].

⁴ Schultens, *Origines Hebraeae*, vol. 2, p. 15: [...] “lingua Persica, et Turcica, quae quia nunc dominatum tenent in Oriente et caractere utuntur Arabico a multis ambitu Orientalium linguarum comprehendendi existimantur.”

reference as a Hebrew etymologist and lexicographer, I have explored the origins and development of his linguistic key concepts. Through this approach, the theoretical and methodological development of Hebrew lexicography in the early modern period is examined.

1.4 Schultens' programme of comparative Hebrew philology

1.4.1 Contents and thematic range

In developing his theory and methodology, Schultens addressed various topics that he had inherited from earlier discourses in the lexicography and the grammar of Biblical Hebrew, in classical philology, including the Greco-Roman linguistic tradition with its bipartite concept of language and its tools for dealing with semantic origin and semantic change, in biblical philology, and in the empiricist theory of knowledge in its Lockean manifestation. He also engaged with new questions in his debates with contemporary scholars, transforming previous and recent topics into a programme for comparative Hebrew language studies. These topics include: (1) the sources of knowledge about Biblical Hebrew; (2) the epistemic need for comparison with related languages; (3) the nature of semantic origin and semantic change; (4) the directionality of semantic change, i.e. whether it progresses from denoting perceptible and concrete referents to abstract and general significations or vice versa; (5) the extent of phonetic identity and the existence and frequency of sound correspondences between Semitic languages; (6) the principle of regularity (*analogia*) and irregularity (*anomalia*) in the structure of root morphemes and their derivatives; (7) the internal relationships between the Semitic languages; (8) the external and internal factors that contribute to the diversification of Semitic languages into regional and ethnic dialects; (9) the study of Hebrew using principles similar to those applied to Latin and Greek (as proposed by Jean Le Clerc); and (10) the question of whether Ancient Hebrew was only a written language and not the spoken vernacular of the Israelites.

1.4.2 Prerequisites

In 1709–1713, Schultens deepened his knowledge of classical Arabic by studying Arabic poetry in its oldest known stages in the collection of Arabic manuscripts available at Leiden University Library, where the unique and extensive manuscript collections of Jacob Golius and Levinus Warner had been bequeathed. From his interpretation of the linguistic data, he concluded that Arabic was the most ancient and archaic of the Semitic languages in terms of phonology, morphology, and semantics, and deserved a key position in the investigation of the etymology of Ancient Hebrew.

1.4.3 Targets

Schultens' theory and practice of Hebrew etymology and grammar served a twofold purpose – philological and textual. First, it aimed to reach a better

understanding of the meanings of words and phrases in the Hebrew Bible, and secondly, it aimed to devise a method by which the transmitted Masoretic text could be safeguarded against various attacks on its integrity (that is, its completeness and uncorrupted state) and linguistic intelligibility. He took exception to the extreme textual criticism pursued by the 17th-century Orientalists and theologians, such as Jean Morin, Louis Cappel, and Richard Simon, and he rejected the view that our knowledge of Ancient Hebrew cannot possibly be restored, as had been argued by Isaac Vossius in his assumption of a complete epistemic eclipse of Ancient Hebrew after the Babylonian Captivity (586–539 BC). Schultens also sought to defend the Masoretic text against the charge of being inferior to the Vulgate, as claimed by post-Tridentine Roman Catholic scholars, such as Robert Bellarmine. Nonetheless, he took a critical stance against Jewish textual scholars (the Masoretes), insofar as he disapproved of their opinion that Hebrew is marked by linguistic anomalies, and in that he did not always accept their vocalization, preferring the pre-Masoretic consonantal text (*ketiv* variants) to the Masoretic readings (*qere* readings) instead.

1.4.4 Principal epistemic trends

In the historiography of linguistic thought and other humanities, there is a general assumption of a break in continuity between early modern (1500–1800) and modern (1800–) studies. Ideas before this divide are considered pre-comparative in linguistics and in other disciplines, even pre-scientific. Schultens lived a couple of generations before the shift of paradigm. Is it possible, then, that he paved the way for the comparative Semitics of the 19th century? To answer this question, it is relevant to distinguish between three epistemological trends in Schultens' linguistic thought on Hebrew: first, a traditional-biblical trend, which in the areas of linguistic prehistory was informed by the Bible and the assumptions made on its basis; secondly an empiricist trend, founded on an observational epistemology, in particular Locke's sensationalist empiricism; and thirdly, a rationalist trend, manifest in his own structuralist linguistic assumptions about Hebrew morphology, tracing back to the same rationalist linguistic thought as the grammar and logic of the Port-Royal school.

It is also necessary to specify a set of subordinate questions: What are the basic biblical-traditionalist, empiricist, and rationalist ideas and trends in Schultens' methodology of comparative Hebrew language studies? How do they interact? And how do they inform and shape his linguistic thought in general and in particular? The biblical paradigm provided a storehouse of topics, including the question of the nature and identity of the primeval language of humankind. In dealing with questions of language origins, Schultens took for granted the Jewish-Christian world chronology with its landmarks, the Creation, the Flood of Noah, the Tower of Babel, Abraham's migration and the Babylonian Captivity. He presumed the historical truth of

the indigenous Jewish and Arabic traditions on the ethnic origins of the Hebrews and the Arabs (the southern Arabian nations from Qaḥṭan/ Joktan and the northern from Ishmael). Still, he did not refrain from re-evaluating the issue of the status of the Hebrew language as sacred and primeval.

1.5 State of research

1.5.1 Different historiographical perspectives

In modern overviews of the history of Hebrew and Semitic philology, Schultens' theory and method of comparative Hebrew language studies have not been explored in their full range. Admittedly, there are surveys that touch on selected aspects of Schultens' scholarship, but the overall lack of research has contributed to ignorance, oversimplification, misunderstanding, and distortion of his general programme and specific linguistic ideas.

Comparative Semitic linguistics in its early 19th-century development has often been understood merely as an application and extension of Indo-European linguistics to Semitic language studies. To illustrate this point, it is sufficient to quote the British Semitist Edward Ullendorf in his account of the historical emergence of comparative Semitics:

Real progress, advance of a decisive character, did not, however, occur until Bopp's epoch-making studies on the relationship of the Indo-European languages placed linguistic researches generally on a scientifically more secure as well as more fruitful basis. And here is a remarkable facet of Semitic scholarship: methodological progress, notions of linguistic discipline, almost invariably came from without, usually from the Indo-European side. But men like Sacy, Gesenius, Ewald and others in the early 19th century applied these new recognitions to the study of the Semitic languages and thus laid the foundations of the remarkable progress which Semitic researches experienced throughout the last century. Nöldeke's [...] contributions ushered the golden period of comparative Semitics. This was the era of giants: Dillmann, Praetorius, Guidi, William Wright.⁵

Ullendorf did not observe the points of continuity between early modern and 19th-century Semitic lexicography and grammar. In the 1970s and 1980s, the significance of Schultens' scholarship began to be rediscovered by Eduard Yechezkel Kutscher, James Barr and Moshe Goshen-Gottstein. On their authority, some Semitists have acknowledged Schultens' importance. Others have continued to repeat Gesenius' appraisal of Schultens as a hyperarabist,

⁵ Ullendorf, "Comparative Semitics", in G. L. della Vida (ed.), *Linguistica Semitica: presente e futuro*, Rome 1961, p. 16. This historiographical perspective still persists. Rebecca Hasselbach restates the same claim in her article "The comparative method in Semitic linguistics", in J. Klein, B. Joseph, M. Fritz, *Handbook of comparative and historical Indo-European linguistics*, vol. 1, Berlin & Boston 2017, p. 94.

while only a few have escaped the impact of Johann Fück's unfavourable judgement of Schultens as an Arabist and a Hebrew comparativist.

As a consequence of Kutscher's indistinct claims, some historians of linguistics (Fellman, Covington, and Muller) have discussed the question of whether Schultens ever developed the concept of a Semitic proto-language. Other historians of premodern linguistic ideas (Borst, Droixhe, and Neis) have drawn attention to the fact that Schultens rejected the ancient idea that Hebrew is holy and divine by defining it as a human language.

Schultens' theory and method of Hebrew philology have yet to be analysed on the basis of all his publications. Most scholars have relied on his first treatise, *Disputatio theologico-philologica de utilitate linguae Arabicae in interpretanda Sacra Scriptura*, "A theological-philological treatise on the utility of Arabic in interpreting the Holy Scripture", Groningen 1706. Only a few scholars (e.g., Nat) have taken some of his main publications into consideration, primarily *Origines Hebraeae* (2 vols., 1724–1738), and *Vetus et regia via Hebraizandi* (1738), but no one has paid attention to his unpublished works, such as the dictated records of his etymological Hebrew dictionary, or his entire published exegetical-linguistic authorship.

1.5.2 Fück, Nat, Kraus and Borst

In his exploration of the history of Arabic in the West and in his chapter on the history of comparative Semitics,⁶ Johann Fück expresses an unfavourable verdict on Schultens' theory, method, and practice of Hebrew language studies on the following grounds: (1) his classification of Hebrew as the original and primeval language of humankind,⁷ (2) his declaration of a very close relationship between Hebrew and Arabic, (3) his claim for a very high antiquity of Arabic literature, (4) his contention that Arabic has been preserved intact ever since antiquity and may serve as a linguistic repository for the elucidation of Biblical Hebrew, and (5) his overuse of Arabic derivations in his lexical and semantic studies of Biblical Hebrew. Fück's judgement strikes some methodological weaknesses of which Schultens himself was aware and which he attempted to defend in the second volume of *Origines Hebraeae*. Fück's criticism, however right it may seem, does not adequately consider how Schultens addressed the objections raised by his contemporaries (see *Schultens as an innovator*, Vol. 2, Section 6.6.8).

In his previous publication, Fück presents the history of Arabic studies in Europe as a process of emancipation from the predominance of theology and biblical philology. For that reason, he criticizes Schultens for using Arabic solely for exegetical purposes, treating it as a handmaid to theology (*ancilla theologiae*). This criticism echoes that of Johann Jacob Reiske from the mid-

⁶ Fück, *Die Arabische Studien in Europa bis in den Anfang des 20. Jahrhunderts*, Leipzig 1955, and idem, "Geschichte der semitischen Wissenschaft", in *Handbuch der Orientalistik*, vol. 3: Semitistik, Leiden 1964, pp. 31–39.

⁷ This point is not relevant, as it does not apply to Schultens' later linguistic theory.

18th century.⁸ Since Fück's analysis, the claim that Schultens failed to release Arabic from its "theological fetters" has become a recurring theme, as seen in Brugman and Schröder (1979) and Goshen-Gottstein (1992).

In his history of Arabic studies, Fück also provides an account of Schultens' views on the origins of the Arabs, the Arabic language, and Arabic literature. Rejecting these views as fanciful and linguistically untenable,⁹ he fails to assess how they interacted with the ideas of Schultens' time, when the biblical ethnographic paradigm still held sway. This implies that he attributes the prevailing historical views of his time to Schultens. In his claim about the descent of the Arabs in South Arabia from Joktan (Gen 10:25) and in his assumption that the Joktanides soon established a kingdom in South Arabia (in the early second millennium BC), Schultens took his point of departure from Arabian historiography.

In his later publication, Fück argues that Schultens' belief in a close relationship between Arabic and Hebrew is misguided. This misconception not only led Schultens to use Arabic vocabulary to etymologically analyse Hebrew words rarely found in the Bible, but also led him to ascribe Arabic meanings to many well-known, commonly used Hebrew words.¹⁰ In assessing Schultens' practice of Hebrew etymology, Fück gave prominence to Schultens' misuse and excessive reliance on Arabic, particularly his etymological mistakes.¹¹

In his history of Arabic studies, Fück emphasizes Schultens' view that the Semitic languages are closely related dialects. Schultens often compared them to the principal dialects of ancient Greek – Doric, Aeolic, Ionic, and Attic. Fück illustrates this comparison by referring to Schultens' master's thesis from 1706:

Schultens [...] trug bereits 1706 als Zwanzigjähriger in seiner *Dissertatio theologico-philologica de utilitate linguae arabicae in interpretanda sacra lingua* die Ansicht vor daß im Arabischen, Chaldäischen, Syrischen und Äthiopischen Tochttersprachen oder Dialecte vorlägen, die zum Hebräischen in gleichen Verhältnis stünden wie etwa Äolisch, Jonisch und Attisch zum Griechischen.¹²

⁸ Fück, *Die Arabische Studien in Europa*, p. 124.

⁹ Fück, *ibidem*, p. 125.

¹⁰ Fück, "Geschichte der semitischen Wissenschaft", pp. 32 f., p. 344. The emphasis on the differences between Leibniz and Schultens regarding the relationship between Hebrew and Arabic is inadequate. Notably, in the 1730s, Schultens revised his stance and abandoned his belief in Hebrew as the original language of mankind.

¹¹ Fück, *Die Arabische Studien in Europa*, pp. 106–107.

¹² Fück, *Die Arabische Studien in Europa*, p. 105. Fück here misquotes the title of Schultens' treatise, replacing "sacra Scriptura" with "sacra lingua". This error recurs throughout subsequent surveys. In the passage cited, Schultens still regarded Arabic, Aramaic, and Ethiopic as daughter dialects of Hebrew. In his later publications, he

In his thesis on Semitic language studies in the Netherlands during the 18th and 19th centuries, Jan Nat surveys Schultens's main publications in chronological order, accompanied by some biographical information.¹³ His account is well-informed, as it is founded on his own reading of the sources discussed. Nat asserts that Schultens can rightly be considered "the pioneer of comparative Semitic language studies."¹⁴ He argues that Schultens' historical linguistic theory evolved over time. Initially (from 1706 to 1715), he adhered to the old view that Hebrew is the mother or ancestor language of Chaldaic, Syriac, Arabic, Samaritan, and Ethiopic. By 1729, his perspective matured to recognize the sisterly kinship between Hebrew and Arabic. Ultimately, in *Origines Hebraeae* (vol. 2, 1738), he distinguished a definite group of Oriental (Semitic) languages, excluding Persian and Turkish. Nat emphasizes that distinguishing Semitic languages from non-Semitic ones within the previously indiscriminate group of Oriental languages marks "an important step on the way towards comparative language studies."¹⁵

In the historiography of Old Testament scholarship, Hans-Joachim Kraus is recognized for his work on the history of historic-critical research on the Old Testament (published in 1956). Kraus situates Schultens within the context of three schools of biblical philology: the rabbinical, the critical, and the philosophical-demonstrative. He argues that Schultens resolved tensions among these schools through his comparative method. For the first time, Hebrew was classified simply as a Semitic language, more specifically as "a branchlet of the Semitic language branch" ("ein Zweig des Semitischen Sprachstammes"). This classification marked a shift away from regarding Hebrew as holy. Schultens' chief contribution was the conceptualization of Hebrew as a human language. To underscore this point, Kraus quotes Ludwig Diestel's pertinent observation:

Das epochenmachende liegt darin, daß er die Sprache auf das Niveau des Echtmenschlichen rückte und sie dadurch zum Objekt wissenschaftlicher Forschung machte, daß mithin die ganze Basis der Grammatik eine andere wurde und ihre Aufgabe nicht mehr in Darstellung der

redefined them as sister dialects of Hebrew. In English, the passage reads: "Schultens [...] already in 1706, at the age of twenty, in his *Dissertatio theologico-philologica de utilitate linguae arabicae in interpretanda sacra lingua*, expressed the view that there existed daughter languages or dialects in Arabic, Chaldaic, Syriac and Ethiopic that stood in the same relation to Hebrew as, for instance, Aeolic, Ionic and Attic do to Greek."

¹³ Nat, *De studie van de Oostersche talen in Nederland in de 18e de 19e eeuw*, Purmerend 1929, pp. 37–57.

¹⁴ Nat, *ibidem*, p. 37: "Schultens [...] kan als banbreker van de vergelijkende Semitische taalstudie worden beschouwd."

¹⁵ Nat, *ibidem*, p. 48: "Het was een belangrijke schrede op den weg der vergelijkende taalstudie dat dit onderscheid goed gezien werd."

Vokalveränderungen aufging, daß er endlich den Bann rabbinischer Tradition für immer brach und einen echt wissenschaftlichen Weg deutlich zeigte.¹⁶

In his work on the historical perspectives on ethnicity and the identity of the primordial language from antiquity to the present, the German medievalist historian Arno Borst emphasizes Schultens' theoretical innovation. By asserting that Hebrew is a human language and challenging its claimed divine status, Schultens opened new avenues for understanding. Borst argues that this re-conceptualization of Hebrew's nature was crucial to the foundation and advancement of comparative Semitic linguistics:

Diese Richtlinien [...] führten [...] Albert Schultens zur Begründung der modernen Orientalistik. [...] Hebräisch und Arabisch sind Zwillingsgeschwestern. Seit 1724 rekonstruierte Schultens vielmehr das Hebräische mit Hilfe der Schwestersprache, denn beide Idiome wichen voneinander nicht weiter ab als das Niederländische vom Deutschen. Damit war Hebräisch in die Reihe menschlicher Sprachen gerückt, die moderne Sprachwissenschaft ermöglicht.¹⁷

1.5.3 Barr, Kutscher, Fellman, and Goshen-Gottstein

Some Semitic linguists have proposed a different perspective on Schultens' achievements as a comparative philologist. While they did not explicitly distance themselves from Fück, they reaffirmed his role as an innovator, pioneer, and revolutionizer in Semitic linguistics.

The British biblical scholar James Barr was the first Semitist to reassess Schultens. In his analysis of Hebrew comparative philology, Barr underscores Schultens' role in moving away from the earlier idea of Hebrew as the primeval and divine language. Instead, "he regarded Arabic as the

¹⁶ Kraus, *Geschichte der historisch-kritischen Erforschung des Alten Testaments*, 1st ed., Neukirchen 1956, p. 72, and 2nd ed. Neukirchen-Vluyn 1969, p. 82. Cf. Diestel, *Geschichte des Alten Testaments in der christlichen Kirche*, Jena 1869, pp. 450–452 and 454–455. In English, the quoted passage reads: "The ground-breaking achievement is that he raised the language to the level of the real human and thus made it an object of scientific research, that the entire basis of grammatical description therefore became another one, and its task was no longer just to represent vowel changes, and that he finally broke the spell of rabbinical tradition forever and clearly showed a truly scientific path."

¹⁷ Borst, *Der Turmbau von Babel: Geschichte der Meinungen über Ursprung und Vielfalt der Sprachen und Völker*, vol. III:2, Stuttgart 1961, p. 1456. In English, this passage reads: "These guidelines [...] led [...] Albert Schultens to found modern Oriental studies. [...] Hebrew and Arabic are sister languages. Since 1724, Schultens reconstructed Hebrew with the help of the sister language, as both idioms differed no more from each other than Dutch does from German. Thus, Hebrew was placed among human languages, allowing for modern linguistics."

purest and clearest of the Semitic languages and attached Hebrew to the Semitic group as one dialect among many.”¹⁸ While acknowledging that Schultens’ 1706 dissertation contains some less plausible etymological suggestions, as Fück (1955) points out, Barr also calls attention to several more plausible etymologies.¹⁹

In his *Encyclopaedia Judaica* account of early modern Hebrew studies, Barr attributes Schultens’ innovation to the broader linguistic horizon afforded by polyglot Bibles and polyglot Semitic dictionaries. He notes that this collection of resources enabled a more comprehensive and wide-ranging comparative philological approach than had been possible for medieval Jewish philologists. The Dutch Republic emerged as a centre for advancing new perspectives: “Far from accepting the traditional view that Arabic (like other languages) was a degenerate form of Hebrew, Schultens maintained that Hebrew was only one Semitic dialect, while the purest and clearest such dialect was Arabic.”²⁰ Although his use of Arabic was “infelicitous and far from commendable even from the point of view of an Arabist”, Schultens can be regarded as a pioneer of comparative Semitic linguistics. However, the historical aspects of his method required further refinement: “the method, though comparative, was as yet imperfectly historical in character.”²¹

In the Hebrew-language study “History of research on the Hebrew language against the background of general linguistics”, published in 1970, the Israeli Hebrew linguist Eduard Yechezkel Kutscher refers to Fück’s account of Schultens’ hypothesis regarding the dialectal closeness among the Semitic languages.²² He argues that Schultens exerted an intermediate influence on Sir William Jones in conceptualizing a similar relationship between European and Indian languages. He provides evidence that Sir William Jones was acquainted with Schultens’ grandson, Henric Albert Schultens, and that he corresponded with him. Kutscher ultimately cautions that “this hypothesis needs thorough probing”.²³

¹⁸ Barr, *Comparative philology and the text of the Old Testament*, Oxford 1968, p. 67.

¹⁹ Barr, *Comparative philology*, pp. 67–68.

²⁰ Barr, “Linguistic literature, Hebrew,” section 5: From the 16th century to the present, *Encyclopaedia Judaica*, vol. 16, Jerusalem 1971, pp. 1394.

²¹ Barr, *ibidem*, p. 1395.

²² Kutscher, תולדות מחקר הלשון העברית על רקע הבלשנות הכללית, Jerusalem 1970, vol. 2, chapter 7 on “Hebrew linguistics among the Christians in the medieval period”, p. 69 (referring to A. Schultens): “He noted that Arabic, Aramaic, Syriac and *Ge’ez* [Ethiopic] are all dialects (ניבים) that reveal the same relation to Hebrew as the Greek dialects to the Greek literary language.” English translation by Frank Polak. In chapter 8, headed “General linguistics of the new age”, p. 78, Kutscher compares Johann David Michaelis’ views on the Semitic languages as closely related dialects to the similar views of Albert Schultens.

²³ Kutscher, *ibidem*, p. 78 in chapter 8. On the question of H.A. Schultens’ impact

Jack Fellman takes exception to this hypothesis:

Indeed, we cannot agree that Jones' thinking on the relation between the Indo-European languages could have been significantly affected by a Semitic model. Firstly, the Schultens' model is far from clear. On one reading, it may well reduce to the false hypothesis that the Semitic languages noted by him are daughters or dialects of Biblical Hebrew.²⁴

Nonetheless, Fellman acknowledges that comparative Semitics likely laid the groundwork for the later development of comparative linguistics:

The Semitic language hypothesis should not be lightly dismissed, however, for it may well have provided part of the eighteenth-century preparatory groundwork for the acceptance in the nineteenth century of large-scale comparative and historical work on languages and language families.

Among modern scholars, the Israeli Semitist and Hebrew lexicographer Moshe Goshen-Gottstein has emphasized the importance of Schultens' comparative approach. He sought to give this perspective a prominent place in his planned, though apparently unfinished, monograph, *Hebrew studies and the Bible I: theology, humanism and the rise of Semitic philology 1470–1670*. In one of his articles, he argues that Schultens' programme arose from the interaction between early modern textual study of the Hebrew Bible and the comparative study of Biblical Hebrew.²⁵ In another piece, he states that Schultens' comparative Semitics was ground-breaking:

It was the medieval symbiosis of Hebrew, Arabic, and Aramaic that provided one happy set of circumstances to launch Comparative Semitics. The newly discovered languages in the Renaissance-humanistic environment of 1500–1550 provided another matrix.²⁶ Again, the

on Sir William Jones, see Eskhult, *Schultens as an innovator*, Vol. 2, Section 10.1.9.

²⁴ Fellman, "Semitic linguistics and Indo-European comparative and historical grammar", *Linguistics*, 16 (1978), pp. 52 f. Fellman is right with regard to what Schultens states in his 1706 dissertation, but in his later writings, such as *Origines Hebraeae*, vol. 2, Leiden 1738, pp. 1–22, Schultens revised his early position, arriving at the concept of common origin. See also his essay *Theses de lingua primaeva*, §§ 82–90 (Leiden University Libraries, Special Collections, MS Or. 1469, envelope 12). An edition of this treatise is forthcoming in Eskhult, *Schultens' unpublished manuscripts on comparative Hebrew philology*.

²⁵ Goshen-Gottstein, "Comparative Semitics — A premature obituary", *Essays on the occasion of the seventieth anniversary of the Dropsie University (1909–1979)*, edited by Abraham I. Katsh and Leon Nemoy, Philadelphia, Pa, 1979, p. 146.

²⁶ In a footnote, Goshen-Gottstein announced his plan for the monograph *Hebrew studies and the Bible I*. Although not completing it, he expressed his views on the

changing *Weltbild* after Leibniz and Spinoza made it possible that the pseudo-prehistoric construction of Schultens could have the revolutionizing effect which started the era of pan-Arabism in Comparative Semitics in the first half of the 18th century – long before it is usually said to have started.²⁷

In a footnote to this quotation, Goshen-Gottstein adds:

The positing of a paleo-Hebrew language, [...] which may be recovered by Arabic, is the single most ingenious hypothesis in the history of Semitic studies between 1550 and 1800. To be sure, Schultens had his predecessors. But he evolved the new brand of Comparative Semitics almost singlehandedly – largely for the use of etymology. Were practitioners of Semitic linguistics better acquainted with the history of their discipline, they would appreciate that the notorious pan-Arabism of the 19th century is the direct result of Schultens' life work.

Goshen-Gottstein underscored the significance of Schultens for the development of comparative Semitic lexicography. In an article on the history of Hebrew lexicography, he states:

In comparing Arabic and Hebrew words he laid the foundation of what was to become for the following two centuries the basis of comparative Semitic lexicography. His inventive scholarly acrobatics by which he showed, as it were, how the Arabic word-stock can be used as a mine to find original Hebrew meanings, needs no detailed reaction here. In his view, the original sense had been preserved by the seclusion of the tribes in the desert. In any event, if up to his time the relationship between Hebrew and cognate languages was an open question, it was the work of Schultens which turned Arabic into a kind of proto-Semitic basis for Hebrew lexicography.²⁸

1.5.4 Continued historiography (1970–2017)

After 1970, scholars specializing in Semitic linguistics (Cohen, Zwiép), Old Testament interpretation (Burnett, Kaltner), Arabic studies in Europe (Loop) and in the Netherlands (Brugman & Schröder and Vrolijk & van Leeuwen), the history of linguistic ideas (Covington, Muller, Neis, Noordegraaf), and Church history in the Netherlands (van der Berg) have examined various

16th-century rise of Hebraic knowledge in the article: “Humanism and the rise of Hebraic studies: From Christian to Jewish Renaissance”, in Meyers and O'Connor (eds.), *The word of the Lord shall go forth*, Winona Lake 1983, pp. 691–694.

²⁷ Goshen-Gottstein, “The textual criticism of the Old Testament: rise, decline, rebirth”, *Journal of Biblical literature* 102:3 (1983), p. 378.

²⁸ Goshen-Gottstein, “The lexicography of Hebrew”, *Lexicographica* 7 (1992) p. 79.

aspects of Schultens' contributions to comparative Hebrew studies. An overview of their perspectives is presented below in chronological order.²⁹

The French Semitist and lexicographer David Cohen notes that Schultens' comparative phonological and lexical study, *Clavis dialectorum* ("Key to the dialects", 1733), is a ground-breaking work that marked the beginning of the comparative era of Semitic linguistics. However, Cohen is incorrect in dating it to 1748:

Plus tard, dans sa *Clavis dialectorum* (1748), il réalisait un petit traité comparatif avec des indices arabe et hébreu qui constituent eux-mêmes des lexiques comparatifs. Cette oeuvre sur laquelle on reviendra, me semble constituer l'annonce et peut être l'amorce de l'ère comparatiste dans laquelle nous trouvons encore et qui s'ouvre, et très rapidement s'épanouit, avec Hupfeld, Gesenius, Dillman, Praetorius, Nöldeke et d'autres.³⁰

Cohen argues that there is continuity between early modern lexicography of the Semitic languages and modern Semitic lexicography, exemplified here by Gesenius and Dillmann:

Mais que dire de Castell, Ludolf, Schultens, qui sont à la base de tous les nouveaux travaux, cités et discutés comme des références de premier ordre? On peut dire que, loin de se trouver en rupture avec toute la recherche qui les avait précédés, Gesenius et Dillmann travaillent sur un fonds constitué en grande partie avant eux.³¹

In their exploration of Arabic studies in the Netherlands from the 17th to the 19th century, Brugman and Schröder discuss Schultens' role as an Arabist. They contend that his fame as the founder of comparative Semitic philology emerged posthumously, gaining prominence only in the 19th century. Although the academic discipline of Semitic philology developed

²⁹ For more information about van der Berg's views, see Sections 2.3.4 and 16.3.

³⁰ Cohen, "La lexicographie comparée", in *Studies on Semitic lexicography*, edited by Pelio Fronzaroli, Florence 1973, p. 188. In English translation, this passage reads: "Later, in his *Clavis dialectorum* (1748), he produced a small comparative treatise with Arabic and Hebrew indices, which themselves constitute comparative dictionaries. This work, to which we will return, seems to me to be the proclamation, and perhaps the first beginning, of the comparative era, in which we still live and which began – and very soon flourished – with Hupfeld, Gesenius, Dillman, Praetorius, Nöldeke and others."

³¹ Cohen, *ibidem*, p. 190. In English translation: "But what to say about Castell, Ludolf, and Schultens, who are the basis of all the new works and who are cited and discussed as references of the first rank? One may argue that Gesenius and Dillmann built on a ground that to a great extent was established before them and that they are far from breaking with all the research that preceded them."

generations after Schultens' death, his reputation as an innovator of Hebrew etymology and grammar is well attested in 18th-century Hebrew philology.³² Moreover, Brugman and Schröder point out that Schultens' programme for comparative Hebrew language studies faced challenges during his lifetime, citing objections from his former student Johann Jacob Reiske as evidence.³³

Michael Covington opposed Jack Fellman's rejection of Kutscher's hypothesis (Section 1.5.3). In a brief article, he demonstrates that Schultens believed Aramaic, Syriac, Arabic, and Hebrew were "all derived from an unknown proto-language".³⁴ However, Jean-Claude Muller took a more cautious stance: "I would, however, not backproject a belief on Schultens' part in an 'unknown proto-language into this text'", while adding that "more research on the possible influence of Semitic linguistics on the Indo-European hypothesis is needed".³⁵

In sketching the historical background of the use of Arabic in Biblical Hebrew lexicography, John Kaltner touches upon the role of Schultens. By presenting Schultens as a break with the long-established hypothesis of a supreme Hebrew linguistic primacy, he argues that this shift contributed to the development of comparative Semitics:

A situation developed, then, in which Hebrew was viewed as the parent tongue and Arabic and the other Semitic languages were seen as its offspring, with Aramaic as a corrupted form of Hebrew. This situation changed dramatically in the eighteenth century, when scholars began to recognize that these languages were to be seen as equal with, and not subordinate to, Hebrew. The person most responsible for this shift was A. Schultens (1686–1750), who initiated what has been termed a period of hyperarabism in Semitic studies. Hebrew began to lose its place of privilege in comparative work as a result of the increase of Arabic studies and a recognition of the great wealth of material found in the Arabic sources. (...) This development began a new chapter in the study of comparative Semitics.³⁶

In another study, Kaltner once again emphasizes Schultens' role in bringing about the paradigm shift:

³² See further Eskhult, *Schultens as an innovator*, Vol. 2, Chapters 10–11.

³³ J. Brugman and F. Schröder, *Arabic studies in the Netherlands*, Leiden 1979, pp. 26–27.

³⁴ Covington, in "Albert Schultens on language relationship", *Linguistics*, vol. 17 (1979), pp. 707–708, relies on Schultens' preface to the second volume of *Origines Hebraeae*, where a close kinship is claimed to Hebrew, Aramaic, Syriac and Arabic.

³⁵ Muller, "Early stages of language comparison from Sassetti to Sir William Jones (1786)", *Kratylos* 31 (1986), p. 20.

³⁶ Kaltner, *The use of Arabic in Biblical Hebrew lexicography*, Washington, DC, 1996, p. 4.

Prior to the eighteenth century, the tendency was to see Hebrew as the parent language in the Semitic family, with Arabic and others as its descendants. This was largely due to the sacred status Hebrew had as a biblical language, but there was no factual basis for this view. With the work of A. Schultens in the first half of the eighteenth century, things changed dramatically. He argues for an approach that did not privilege one language over the others, but he believed that Arabic could be particularly useful due to the immense amount of material available in the Arabic dictionaries.³⁷

In a 1996 article, Jan Noordegraaf examines Schultens' grammatical ideas, shedding light on their potential influence on John Horne Tooke, as suggested by Johannes Bruckner in the late 18th century. He also explores Schultens' classification of Semitic languages and its implications for Sir William Jones. While Noordegraaf mentions Fellman's report on Kutscher's hypothesis, he fails to credit its originator. He underscores the acquaintance between Jones and H.A. Schultens, as evidenced by their correspondence.³⁸ In another article, Noordegraaf analyses the epistemological foundations of Schultens' linguistic theory. He argues that Schultens was substantially influenced by British empiricism, particularly the ideas of John Locke. He shows that the Dutch classicist Tiberius Hemsterhuis (d. 1766) embraced Lockean empiricism, whereas his contemporary, the Dutch Germanist Lambert ten Kate (d. 1731), favoured Newtonian empiricism for its more direct opposition to Cartesianism.³⁹

Jan Loop has commented on Schultens' Oriental scholarship from multiple perspectives. In one article focusing on Reiske, he notes that Schultens reduced Hebrew from its status as a divine and holy language to a purely human one, subject to historical linguistic change. This shift implies a humanization and desacralization of Hebrew. Loop remarks that this

³⁷ Kaltner, the chapter "Arabic", in *Beyond Babel: a handbook for Biblical Hebrew and related languages*, ed. by John Kaltner and L. McKenzie, Atlanta 2002, p. 79. After the passage quoted, Kaltner notes that the use of Arabic was particularly aimed at clarifying "obscure and problematic" Hebrew words. However, it is important to recognize that Schultens did not limit his use of Arabic to rare Hebrew words; he also employed it to explore common, frequently encountered words.

³⁸ Noordegraaf, "Dutch philologists and general linguistic theory: Anglo-Dutch relations in the eighteenth century", in *Linguists and their diversions. A Festschrift for R. H. Robins on his 75th Birthday*, edited by Vivien Law and Werner Hüllen, Münster 1996, pp. 224 f. (addressing the Tooke–Bruckner controversy) and p. 233 (on the impact on Sir William Jones). Noordegraaf cites Jan Nat's report regarding Schultens' classification of Semitic languages.

³⁹ Noordegraaf, "A matter of time. Dutch philosophy of language in the eighteenth century", in Thomas F. Shannon and Johan P. Snapper (eds.), *Janus at the Millennium: Perspectives on time in the culture of the Netherlands*, Dallas, Lanham, Boulder, New York, Oxford 2004, pp. 211 and 213.

degradation of Hebrew to the level of a human language is considered Schultens' primary contribution in the historiographical tradition from Herder to Diestel, Borst, and Droixhe.⁴⁰ He maintains that this was the basis and precondition for Schultens' comparative analysis of Biblical Hebrew.⁴¹ He concludes:

Er fundierte seine Arbeiten damit auf linguistisch-komparativistische Annahmen, die gegen Ende des 18. Jahrhunderts von August Ludwig Schlözer und Johann Gottfried Herder terminologisch erfasst und dann von William Jones systematisch auf die Untersuchung der semitischen wie auch der indoeuropäischen Sprachfamilien angewendet wurden.⁴²

Loop notes that Schultens classified Arabic as the most conservative Semitic language, closest to "proto-Semitic". In their pursuit of linguistic conservatism, the pre-Islamic Arabic poets, thanks to Arabia's political and cultural isolation, were able to preserve the original forms and primary meanings of the words.⁴³

In his book on Hottinger's career and work as an Orientalist, Loop notes that Schultens applied his views of the Arabic language to his etymological theory. This approach conferred a stable function on Arabic, offering "purity, stability, and philological certainty" to the Hebrew language after its alleged disintegration and dissolution as a spoken, living language.⁴⁴ Consequently, Arabic served as "a linguistic archive" that "disclosed the original, true meaning of the Hebrew and the Hebrew texts".⁴⁵ The key role of Arabic helped to contextualize the Hebrew language of the Old Testament within an Oriental culture, which, in hindsight, contributed to the Orientalization of Judaism and Christianity.⁴⁶

⁴⁰ Droixhe, *La linguistique et l'appel de histoire: rationalisme and révolutions positivistes*, Geneva 1978, p. 42, stresses two key aspects of Schultens' programme: the comparison of Hebrew with cognate Semitic dialects and the desacralization of Hebrew from its status as a divine language to that of a human one.

⁴¹ Loop, "Kontroverse Bemühungen um den Orient. Johann Jakob Reiske und die deutsche Orientalistik seiner Zeit", published in H.-G. Ebert und Th. Hanstein (eds.), *Johann Jakob Reiske – Leben und Wirkung* [...], Leipzig 2005, pp. 54–61.

⁴² Loop, "Kontroverse Bemühungen um den Orient", p. 59, footnote 51. In English: "He based his treatises on linguistic-comparative assumptions that were articulated in a terminology by August Ludwig Schlözer and Johann Gottfried Herder towards the end of the 18th century, and then systematically applied by William Jones to the study of both the Semitic and Indo-European language families."

⁴³ Loop, *ibidem*, pp. 55 and 59.

⁴⁴ Loop, *Johann Heinrich Hottinger: Arabic and Islamic studies in the seventeenth century*, Oxford 2013, p. 9.

⁴⁵ Loop, "Kontroverse Bemühungen um den Orient", p. 60; *idem*, *Johann Heinrich Hottinger*, p. 9.

⁴⁶ Loop, *ibidem*, pp. 59–60.

In Loop's view, Schultens' re-evaluation of the role of Arabic in the study of Biblical Hebrew had implications for his genealogical classification of Semitic languages. This re-evaluation overturned the traditional hierarchy that placed Hebrew above Arabic.⁴⁷ Schultens' contribution to the history of Hebrew scholarship is regarded as "enormously underestimated", a point noted explicitly only by Goshen-Gottstein to date.⁴⁸

In a survey of the pre-modern Christian Hebraists – Louis Cappel, Albert Schultens, and Benjamin Kennicott – Stephen Burnett observes that Schultens' views on the internal relationship among the Semitic languages evolved over time: In the 1706 dissertation, Hebrew is presented simply as the mother of all Semitic languages, including Arabic. However, in 1729, by the time of his oration on the origin and continuity of Arabic, he describes Hebrew and Arabic as two sister dialects, even twin dialects, "both descending from a now lost mother Semitic language", with Arabic preserving more archaic features than Hebrew.⁴⁹ Burnett refers to Goshen-Gottstein in suggesting connections between early modern textual criticism of the Hebrew Bible and comparative Semitics in Schultens' works.⁵⁰

In her thematic dictionary of linguistic concepts from the 17th and 18th centuries, Cordula Neis links the historicization and desacralization of Hebrew to Schultens' comparative approach. She argues that Hebrew lost its status as the primordial and holy language and was ultimately recognized as a historical and human language:

Die Konzeption einer hebräischen Ursprache wird mit Nachdruck auch von dem niederländischen Gelehrten SCHULTENS bekämpft. [...] Um dem Konzept einer hebräischen Ursprache Einhalt zu gebieten, fordert SCHULTENS einen Vergleich des Hebräischen mit den anderen semitischen Sprachen, an dessen Ende das Hebräische als eine unter mehreren Sprachen hervorgehen werde.⁵¹

⁴⁷ Loop, *Johann Heinrich Hottinger*, p. 9,

⁴⁸ Loop, *ibidem*, p. 9, footnote 41.

⁴⁹ Burnett, "Later Christian Hebraists", in *Hebrew Bible / Old Testament: the history of its interpretation*, vol. 2, ed. by Magne Sæbø, Göttingen 2008, p. 793.

⁵⁰ Burnett, *ibidem*, pp. 791 f. and 794. The interrelation between textual criticism and comparative philological analysis can be supported by Schultens' assertion in the preface to his commentary on Proverbs (*Proverbia Salomonis*, Leiden 1748, preface, p. 1), where he states that his comparative Semitic language studies serve to defend "the integrity and dignity" of the Masoretic text (*Hebraei Codicis integritatem dignitatemque*) against bold and yet misguided criticism.

⁵¹ Neis, 'Ursprache' in *Lexikon sprachtheoretischer Grundbegriffe des 17. und 18. Jahrhunderts*, Berlin & New York, vol. 1, p. 499. In English: "The concept of a Hebrew primeval language is vehemently opposed by the Dutch scholar Schultens. [...] To combat the idea that Hebrew is the primeval language, Schultens calls for a comparison of Hebrew with other Semitic languages, at the end of which Hebrew will emerge as one among several languages."

Irene Zwiep emphasizes the links between Schultens' linguistic methods and Dutch empiricism. In her analysis in *Encyclopaedia Judaica* (2nd ed. 2007), she informs the reader:

Schultens employed the inductive empirical method characteristic of Dutch enlightened science. His comparative methodology (known as the Dutch School) was based on the theory of the 'sisterly relationship' between Hebrew and Arabic, and deeply influenced the 18th-century study of Hebrew, both in the Netherlands and abroad.⁵²

In an article on the history of Hebrew linguistics, Zwiep outlines the results of Schultens' empiricist comparativism as follows:

In the 18th century, Hebrew lost its prime position, when scholars such as Albert Schultens and his rational empiricist Dutch School began to emphasize the *utilitas* [utility] of other oriental dialects for reconstructing the *origines* of Hebrew. No longer regarded as the mother of all languages, the holy tongue became Arabic's inferior sister language.⁵³

In the entry on Schultens in *Lexicon grammaticorum*, Zwiep argues that Tiberius Hemsterhuis and Schultens shared a common approach to etymology, as both were influenced by the Dutch Enlightenment's empirical tradition. Hemsterhuis employed reductive, language-internal reconstruction linked to analogy, while Schultens, in his etymology, used the comparative method, in which he "appears to have been more liberal in his handling of Arabic vocabulary, which for him came to represent the most authentic layer of the human language".⁵⁴

In their survey of Arabic studies in the Netherlands, Arnoud Vrolijk and Richard van Leeuwen concentrate on Schultens' editing of Arabic texts and his role as a state translator. They critically assess his comparative method, suggesting that Schultens "entered a dead alley", as "the origins of Semitic languages are far more complicated than he thought". Arabic is not "a well-preserved twin sister of Hebrew" but rather "an autonomous language". Still, Schultens dared to question the hypothesis that positions Hebrew as the "mother of all languages", thereby "he prepared the way for further research in the domain of Biblical studies and comparative linguistics".⁵⁵

⁵² Zwiep, "Schultens, Albert", *Encyclopaedia Judaica*, 2nd ed., vol. 18, p. 173.

⁵³ Zwiep, "Hebrew linguistic tradition", in Geoffrey Khan (editor), *Encyclopaedia of Hebrew language and linguistics*, Leiden 2013, p. 259.

⁵⁴ Zwiep, "Schultens, Albert", in *Lexicon grammaticorum*, 2nd ed., 2009, p. 1365.

⁵⁵ Vrolijk and Van Leeuwen, *Arabic studies in the Netherlands: a short history of portraits 1580–1950*, Leiden 2014, pp. 73–79; for the quotations, see pp. 78–79.

2. Historical background in the Netherlands

2.1 Political setting: The Dutch Republic

In the mid-17th century, the Dutch Republic (1581–1795) reached its political and economic heyday. However, as Great Britain emerged as the leading nation in trade and shipping, the Republic began to stagnate and regress economically. Following the Peace of Utrecht in 1713, which in the Netherlands brought an end to the War of Spanish Succession, a period of further political and economic decline ensued.⁵⁶

After the 1660s, the student population at Dutch universities began to decline from an average of 110 enrolments per year. The Universities of Leiden and Groningen saw a steady decrease in the number of matriculated students, while the University of Franeker experienced a brief resurgence in enrolments towards the end of the 17th century (c. 1685–1695).⁵⁷ By 1700, Schultens enrolled at the University of Groningen as one of fifty-eight students, eighteen of whom chose theology as their principal subject.⁵⁸

Schultens' academic career extended over fifty years, from 1700 to 1749, coinciding with the second Stadtholderless period (1702–1747) in the history of the Dutch Republic. This was a political era in which the United Provinces of the Netherlands lacked a common highest official, *Stadtholder*. Until the Orangist revolution in the spring of 1747, William IV of Orange-Nassau served as Stadtholder only in the northern provinces – Frisia, Groningen and its surroundings, and Drente and Guelders. Schultens was of patrician descent and received patronage from the noble Wassenaer family, who supported anti-Orangist politics. Nonetheless, he dedicated two of his major scholarly works – *Origines Hebraeae* (vol. 1) in 1723 and *Proverbia Salomonis* in 1748 – to Willem Carel Henric Friso. At the time of the first

⁵⁶ See further Jonathan Israel, *The Dutch Republic: its rise, greatness and fall 1477–1806*, Oxford 1995.

⁵⁷ For the levels of Dutch and foreign students at Leiden University in 1575–1774, see Willem Otterspeer, *Groepsportret met Dame, vol. 2: De vesting van de macht. De Leidse universiteit, 1673–1775*, Amsterdam 2002, p. 189. For the University of Franeker, see J.A.H. Bots and W. Th. M. Frijhof, “De studerende populatie de Franeker academie: een kwantitatief onderzoek (1585–1811)”, in *Universiteit te Franeker*, Leeuwarden 1985, p. 57. For the enrolments between 1614 and 1830 at the University of Groningen, see Klaas van Berkel, *Universiteit van Noorden: vier eeuwen academisch leven in Groningen*, part 1, Hilversum 2014, p. 220.

⁵⁸ *Album studiosorum Academiae Groninganae* for the year 1700, pp. 147–148.

dedication in 1723, the dedicatee was a young regent of the northern Dutch provinces. By 1748, he had become a hereditary ruler (*Stadtholder*) of all the Netherlands, taking the name William IV. The dedicatory letters of these publications place Schultens' scholarship within a political context.

2.2 Educational setting: Chairs of Hebrew and Oriental languages in Franeker and Leiden

2.2.1 Hebrew as a requirement in theological education

In the 17th century, the process of confessionalization among the major denominations in Europe (the Catholic, Reformed, and Lutheran), combined with the resurgence of scholasticism underpinned by neo-Aristotelian epistemology, caused a significant shift in focus from biblical interpretation to dogmatics and polemics. However, in the Dutch Republic, there remained a strong interest in exegetical and philological theology, as well as an emphasis on Classical and Hebrew philology. This interest aligned with a growing appreciation of historical context in biblical interpretation. The efforts of the Dutch Orientalist Sixtinus Amama (1593–1629) in Franeker also elevated the status of linguistic studies of the Bible. He required theology students to study Hebrew as a prerequisite for passing the church ministry examination (*examen ministerii ecclesiastici*).⁵⁹ Moreover, provincial synods required that theology students present a testimony from their professors of Greek and Hebrew to be eligible for the theological examination.⁶⁰

⁵⁹ Henk Jan de Jonge, "The study of the New Testament", *Leiden University in the seventeenth century*, p. 67, mentions Amama's proposal for this qualification to the provincial synod of Friesland in the petition *Cort Vertoogh*, "Short remonstrance" (Franeker 1624), and to the Synod of South Holland. The Latin version of this petition appears in Amama's *Anti-barbarus biblicus*, Amsterdam 1628, pp. 196–239 (de Jonge, "Study of the New Testament", p. 102, n. 37).

Peter van Rooden, *Theology, Biblical scholarship and rabbinical studies in the seventeenth century*, Leiden 1989, p. 65, rephrases de Jonge and on p. 231 describes this "campaign for Hebrew" as "a means to promote personal piety rather than as an aid to defend Reformed orthodoxy." Cf. J.E. Platt, "Sixtinus Amama (1593–1629): Franeker professor and citizen of the Republic of Letters", in Jensma, Smit & Westra (eds.), *Universiteit te Franeker 1585–1811*, Leeuwarden 1985, p. 236.

⁶⁰ De Jonge, "Study", p. 67. Johannes Leusden, *Philologus Hebraeus*, Utrecht 1694, p. 195 (diss. no. 17 on the origin and antiquity of Hebrew) refers to the publication of the synodal decrees in Amama's *Antibarbarus Biblicus*, p. 147 ff., but states that "this praiseworthy decree" was hardly observed at the University of Utrecht. Van Rooden, *Theology, biblical scholarship and rabbinical studies*, p. 185, reports that Constantine L'Empereur, in the chair of Hebrew at Leiden University, had only a small number of students; that his successor, Allardt Uchtmanns, complained that the decree was not implemented; and that his successor, Carolus Schaaf, refers to the fact that his testimonials were accepted by the congregations. For references to the primary sources, see van Rooden, *ibidem*, p. 185 (n. 3, n. 5).

2.2.2 Schultens' predecessors in Franeker

To better understand Schultens' contributions as a Hebraist and Arabist in the Netherlands, it is important to consider his academic environment. More specifically, we should examine his place among the distinguished Dutch scholars who previously held the chair of Hebrew and biblical antiquities at the University of Franeker, as well as those who taught Hebrew, Arabic, and Oriental languages at the University of Leiden.

Schultens was involved in both institutions of learning and felt a strong affinity for the prominent scholars who had advocated biblical and Semitic learning at these universities. He laid the groundwork for comparative Hebrew studies at the University of Franeker, where he was appointed *professor linguae Hebraicae* in 1713. He served in this role until the middle of 1729, when he moved to Leiden for another appointment. In his inaugural speech on the sources of knowledge about Biblical Hebrew (in 1713), he argued that Arabic was the only effective means of studying its semantic etymology.

Among his predecessors, he could count a number of renowned scholars. When the University of Franeker was founded in 1585, the Flemish Orientalist Johannes Drusius (1550–1616) became the first holder of the chair of Hebrew, having previously held similar positions at Oxford (1572–1577) and Leiden (1577–1585). Drusius remained at Franeker for thirty-one years, specializing in Hebrew grammar, biblical antiquities, and Old Testament interpretation. He was succeeded by one of his pupils, the distinguished Orientalist and Bible scholar Sixtinus Amama (1595–1629). One of Amama's students was the renowned Johannes Cocceius (1603–1669), who held the chair from 1636 to 1650. The next notable Orientalist in Franeker was Campegius Vitringa the Elder (1659–1722), who occupied the chair briefly (1680–1682) before being promoted to the chair of theology, which he held when Schultens was inaugurated as professor of Hebrew on 9 November 1713. Schultens developed a close relationship with Vitringa. In his academic teaching and Bible commentaries, he drew on Vitringa's commentary on Isaiah (1720). Vitringa's successor, Jacob Rhenferd (1754–1712), held the chair for thirty years, from 1682 to 1712, and introduced a comparative approach to Semitic languages at the Frisian University. In his early career, he published works on the Mishnah and Jewish antiquities. Later, he specialized in Palmyrian and Phoenician palaeography and wrote a pre-comparative grammar of Semitic languages.⁶¹ Schultens (*Vetus et regia*

⁶¹ Rhenferd, *Periculum Palmyrenum sive literaturae veteris Palmyrenae indagandae et eruendae ratio et specimen* [Palmyrian attempt or a method and a treatise aimed at exploring and establishing the ancient Palmyrian alphabet], Franeker 1704; *Periculum Phoenicium sive literaturae Phoeniciae, qua late olim per Asiam, Africam et Europam patuit, eruendae specimen*, Franeker 1706. Jacob Rhenferd (pres.)/ Johannes Leonard Schlicher (resp.), *Rudimenta grammaticae*

via *Hebraizandi*, p. 23) noted that Rhenferd gave public and private courses in Hebrew, Aramaic, Syriac, and Arabic.⁶² He viewed his own curriculum as a continuation and revitalization of Rhenferd's teaching.⁶³ At Schultens' installation, Julius Sterringa (1660–1724) wrote a congratulatory poem praising Schultens for his new approach to Hebrew semantics. Sterringa ranked him among the Netherlands' brightest stars in Hebrew learning, alongside Drusius and Amama.⁶⁴

2.2.3 Schultens' predecessors in Leiden⁶⁵

Since its establishment in 1575, the University of Leiden has had a chair of Hebrew and Aramaic at the Faculty of Philosophy. In 1599, a separate chair of Oriental languages was established at the same Faculty, with a particular focus on teaching Arabic.⁶⁶ This addition became especially important after the death of Franciscus Raphelengius, the Flemish-born printer, publisher, and Orientalist who held the chair of Hebrew at Leiden from 1586 to 1597, the last decade of his life.

In early 1613, Thomas Erpenius (1584–1624) became the first permanent holder of the chair of Arabic – more precisely, the chair of Arabic and Oriental languages other than Hebrew and Aramaic⁶⁷ – and from 1620, he

harmonicae Orientalium linguarum Hebraeae, Chaldaeae, Syriacae et Arabicae, Franeker 1706.

⁶² Schultens, *Vetus et regia via Hebraizandi*, Leiden 1738, p. 23, states that his predecessor, Rhenferd, followed “the old and royal method”, certainly influenced by the rabbis, yet continually inculcating the primary position of related languages over the rabbis (“dialectorum prae illis principatus”) and giving lectures on Hebrew, Aramaic, Syriac, and Arabic (“collegia Hebraica, Chaldaica, Syriaca, Arabica, dum floreret, habuerat, florentissima”).

⁶³ Schultens, *Vetus et regia via Hebraizandi*, p. 26: “Exercitia mea publica et privata pro ratione muneris [...] studium linguarum Orientalium suscitare atque in pristinum vigorem restituere conabantur.”

⁶⁴ Julius Sterringa, *Ἐλεγίδιον eruditionis gloria clarissimo celeberrimoque viro D. Alberto Schultens [...] sacrum*, verse 53. This poem in elegiac distichs is included in the 1714 publication of Schultens' *Oratio inauguralis de fontibus*, etc. Sterringa was familiar with Old Testament scholarship and had authored a Pentateuch commentary titled *Animadversiones philologico-sacrae in Pentateuchum* (Leeuwarden 1695).

⁶⁵ As far as the Leiden Orientalists are concerned, the study below draws on *Album studiosorum Academiae Lugduno-Batavae* 1575–1875, pp. xli, xlv, and xlvii, and on the lecture catalogues (*series lectionum*) published by Molhuysen, *Bronnen tot de geschiedenis der Leidsche universiteit (1574–1809)*, vol. 1–5, The Hague 1909–1921. Occasionally, other sources are cited in the footnotes below.

⁶⁶ Molhuysen, *Bronnen*, vol. 1, The Hague 1909, p. 120.

⁶⁷ On 9 February 1613, the Board of Curators appointed Erpenius professor of Arabic. See Molhuysen, *Bronnen*, vol. 3, The Hague 1918, p. 48. According to the Academic Senate's decree and the Board of Curators' clarification (Molhuysen, *Bronnen*, vol. 3, pp. 46, 48), Hebrew and Aramaic were exempted from his official duties.

also held the chair of Hebrew and Aramaic.⁶⁸ Erpenius was restlessly engaged in advancing Arabic studies by writing new teaching aids – publishing Arabic historical and literary textbooks with Latin translations and notes, and editing an Arabic translation of the New Testament and the Pentateuch. He planned to write a treatise on the kinship of Arabic, Hebrew, and Aramaic, which he mentions in a letter to Isaac Casaubon in 1610 and in the preface to his publication of Cappel's *Arcanum punctuationis* in 1624. He began compiling an Arabic dictionary that would surpass the Raphelengian one. As an Arabist, Schultens regarded Erpenius as his great precursor (see his preface to the 1748 republication of Erpenius' Arabic grammar).

After Erpenius succumbed to the plague in Leiden in 1624, the chairs of Hebrew and Arabic were divided between different holders. Constantine L'Empereur succeeded Erpenius to the chair of Hebrew and Aramaic in 1627 and held it for twenty years, until 1647,⁶⁹ while Jacob Golius (1596–1667) succeeded his teacher to the chair of Arabic in 1625 and tirelessly upheld it for more than forty years.⁷⁰ As a professor of Arabic, Golius lectured on Arabic and Persian texts. The schedule of public academic lectures is preserved from 1654 to 1667. He lectured on Muhammad ibn Arabshā's life of Timur (Tamerlane), the Koran, Abulfeda's Geography, and even the Persian work *Gulistān* ("the Flower Land/ the Rose Garden", from 1258) by Sa'dī. Golius is best known for his Arabic dictionary (*Lexicon Arabico-Latinum*, 1653), which he presents as a continuation of Erpenius' project to advance Arabic lexicography in the West (see the preface to his dictionary). From his early career onwards, Schultens made extensive use of Golius' Arabic dictionary. His heavily annotated copy is held at Leiden University Library. He was certainly not content with the unsystematic order in which Golius presented the meanings of each entry word, but it provided him with a starting point for further exploration. In his own copy, he supplied the exact source for any author cited by Golius.

From 1667, after Golius' death, the chair of Arabic remained vacant for 43 years. In 1648, Allardt Uchtmanns, in some capacity, succeeded L'Empereur in teaching Hebrew, but held the post only as an extraordinary lecturer. In 1680, Carl Schaaf succeeded Uchtmanns as reader in Hebrew and Aramaic, though he was not appointed to the ordinary chair. He taught Hebrew, Aramaic, and Syriac in Leiden for almost fifty years, the first forty

⁶⁸ Willem van der Codde (Coddæus) held this chair from 1601 to 1619 but was dismissed for suspected Remonstrantism. In the records of the Academic Senate of Leiden University, Erpenius is referred to as *Arabicae linguae professor* and, after 1620, as *linguarum Orientalium professor*.

⁶⁹ The teaching of Hebrew in Leiden by Constantine L'Empereur is examined by Peter van Rooden, *Theology, biblical scholarship and rabbinical studies in the seventeenth century* (PhD thesis), Leiden 1989, pp. 185–198.

⁷⁰ Golius held the chair of Arabic from 1625 (Molhuysen, *Bronnen*, vol. 3, p. 121) and the chair of mathematics from 1629 (Molhuysen, *Bronnen*, vol. 3, p. 146).

as a lecturer and the last ten as an extraordinary professor. Specializing in Aramaic and Syriac, Schaaf published an Aramaic grammar. (*Opus Aramaeum*, 1686), the Syriac Peshitta of the New Testament (*Novum Testamentum Syriacum*, 1709), and a concordance-dictionary of the Syriac New Testament (*Lexicon Syriacum Concordantiale*, 1709).

Only in 1710 did the Board of Curators in Leiden fill the vacant chair of Arabic by appointing the Orient-traveller Johannes Heyman,⁷¹ who became the first chair professor of Oriental languages in Leiden. In a letter to the Board of Curators, Heyman claims that he has acquired knowledge of Ottoman Turkish (during his stay in Izmir) and of Arabic in its “literary and vulgar forms” during his travels through Egypt, Palestine, and Syria.⁷² He also reports that he had the opportunity to acquaint himself with Persian and to learn Syriac and Samaritan.⁷³ According to the lecture catalogue, he gave courses on biblical philology, on Arabic universal history using the historical portion of an encyclopaedia by the medieval Egyptian historian al-Nuwayrī as a source, and on the Islamic religion from a comparative religious perspective.⁷⁴ Heyman’s general achievements as an Orientalist were often downplayed in earlier historiography, but have been partially reassessed due to his unpublished manuscript editions of Arabic texts.⁷⁵

When Schultens was appointed director of the State College of Theology in Leiden in 1729, he was also granted permission to teach Hebrew to students of both the College and the University. In practice, as a lecturer in Oriental languages, he in some way succeeded Carl Schaaf. Schultens’ readership was transformed in 1732 into a new chair of Oriental languages.

⁷¹ Heyman remained in the Ottoman Empire from 1700 to 1709, spending the first six years as chaplain to the Dutch merchant community in Izmir (Smyrna) and the remaining years as an educational traveller. Upon his arrival in Izmir in 1700, Heymann knew neither Arabic nor Ottoman Turkish; he knew only Biblical Hebrew from his theological studies in Franeker in the 1690s. See further Maurits H. van den Boogert, “Learning Oriental Languages in the Ottoman Empire: Johannes Heyman (1667–1737) between Izmir and Damascus”, in J. Loop, A. Hamilton and Ch. Burnett (eds.), *The teaching and learning of Arabic in early modern Europe*, Leiden 2014, pp. 294–309.

⁷² Molhuysen, *Bronnen*, vol. 4, The Hague 1920, see appendix no. 970, p. 120* f. The letter is dated 5 June 1709 in Hadrianople.

⁷³ Molhuysen, *Bronnen*, vol. 4, p. 120* f.

⁷⁴ Molhuysen, *Bronnen*, vol. 4, pp. 142*–165* (*series lectionum* between 1714 and 1723) and idem, *Bronnen*, vol. 5, p. 43* (*series lectionum* in February 1733).

⁷⁵ G.W.J. Drewes, *Levinus Warner and his legacy*, Leiden 1970, p. 19; J. Schmidt, “Johannes Heyman (1667–1737). His manuscript collection and the Dutch community in Izmir”, in C. Imber, K. Kiyotaki, and R. Murphey (eds.), *Frontiers of Ottoman Studies*, vol. 2, London 2005, pp. 75–90, especially pp. 76–82.

2.3 Denominational setting: The Dutch Reformed Church

2.3.1 Introduction: *Schultens' denominational profile*

In his confessional identity, Schultens was a Reformed scholar. As a pupil of Johannes Braunius in Groningen, who was himself a pupil of Johannes Cocceius, he belonged to the Cocceian party of Dutch Reformed orthodoxy. Influenced by the Cocceian focus on biblical languages, Schultens embodied the scholarly type that combined theology with Biblical Hebrew philology rather than the types of dogmatic orthodoxy.⁷⁶ Still, he sought to reconcile Reformed orthodoxy with his empirical linguistic findings. This striving was evident in his general acceptance of the Masoretic consonantal text and vocalization as reliable, and in his critical assessment of claims of intrinsic holiness and primordially attributed to Hebrew. His concept of grammatical analogy (i.e. morphological regularity) and his postulation of a lexically rich and grammatically regular Ancient Hebrew, recoverable through comparison with related languages, were his response to the textual controversy. His refutation of the idea that Hebrew was divine and sacred, and his emphasis on its communicative function as a human language, were his reply to the language theology of the Reformed and Lutheran orthodoxy.

2.3.2 *The Cocceian school and its difference from the Voetian party*

Johannes Cocceius stands out as one of the foremost exponents of exegetical-philological theology in the Dutch Republic in the 17th century.⁷⁷ In his “federal theology”, he offered an interpretation of the relationship

⁷⁶ Although he did not publish on dogmatics, Schultens demonstrates that he was very well informed about the tenets of Reformed theology in his expositions of the Heidelberg Catechism at the State College, delivered in a course given from 1729 to 1732: *Collegium theologicum theoretico-practicum ad Catechesin Heidelbergensem* (see Jan Jacob Schultens' letter to Johan Barueth, dated 11 May 1775, published by Barueth, *Briefwisseling tusschen Jan Jacob Schultens en Johan Barueth*, Dordrecht 1776, p. 4). A record of the course is preserved in the Cluj-Napoca branch of the Academy Library of Romania: *Commentarii in Catechesin Heidelbergensem*, MS R. 1386:I-II (730 pages). Another record is extant in Aiud, Documentary Library of Bethlen Gabor College, *Explicationes Catecheticae*, MS 114 (646 pages). Barueth, a student of Schultens (matriculated at Leiden University on 12 May 1726), translated this catechismal explanation into Dutch from his own notes and published it in two volumes titled *De Leere der waarheid vervat in den Heidelbergschen Catechismus* (Dordrecht 1777), but suppressed the name of the real author.

⁷⁷ Cocceius was first and foremost a philologist and Bible interpreter by profession. He held the chair of sacred philology in Bremen (1630–1636), a position created for him and open to his own definition, viz. biblical hermeneutics and Old Testament interpretation. He took up the chair of Hebrew in Franeker in 1636, and from 1643 he also held the theological chair, where he focused on both Old and New Testament interpretation. As a professor of theology in Leiden (1650–1669), he taught Old Testament interpretation for four academic years and New Testament interpretation for the remainder of his career.

between the Old and New Testaments and historicizing conceptions of covenant and of divine revelation.⁷⁸ His federal theology grew from his practice of philological and typological interpretation of the Old and New Testaments. Through his linguistic analysis, he sought to determine the literal sense of words and phrases and to demonstrate the links between the two Testaments according to the principles of *analogia fidei* and *analogia Scripturae*, “the analogy of faith and of the Scriptures”.

Cocceius was the originator of a Dutch school of theology, the characteristics of which can be described as follows: (1) the primacy of biblical interpretation and of liberal-minded biblicity over dogmatics and exegetical traditions, (2) the call for the implementation of biblical theology into the praxis of religious piety, (3) the emphasis on a covenantal theology, by which the biblical salvation history was interpreted in terms of different covenants of God with humankind, and (4) the opposition to the neo-Aristotelian scholastic theology of the contemporary Dutch Reformed orthodoxy.⁷⁹

Cocceius’ historicizing conception of the covenant and divine revelation in the 1650s led to open conflict with two representatives of Dutch orthodoxy, Gisbert Voetius, who promoted a logical-scholastic, non-historical approach to theology, and Samuel Maresius, who denied the necessity of Hebrew studies for theology.⁸⁰ They both regarded Cocceian theology as a threat to Dutch Reformed orthodoxy as set out in the three formulas of concord at the Synod of Dort in 1618.

On the hermeneutical level, Cocceius presupposed that new knowledge can be deduced from fundamental biblical doctrines and speculated on the relationship between divine revelation and historical development.⁸¹ On an

⁷⁸ Cocceius put forward his dogmatic theology in *Summa doctrinae* (1648) and *Summa theologiae* (1655), which were investigated by Willem Jan van Asselt, *The Federal Theology of Johannes Cocceius*, Leiden 2001. Ludwig Diestel, *Geschichte des Alten Testaments in der christlichen Kirche*, Jena 1870, analysed Cocceius’ federal theology as an application of a historical perspective and as a counterpart to Grotius’ rationalistic principle of biblical interpretation: “Cocceius bemüht sich, die Offenbarung in der Schrift als geschichtlichen Verlauf zu fassen: er urgirt die religiöse Seite in historischen Princip, wie Grotius der zeitgeschichtliche.”

⁷⁹ For these characteristics, see Heinz Schnepfen, *Niederländischen Universitäten und Deutsches Geistesleben*, Münster 1960, pp. 88 f. These historiographical views on Cocceius have, to some extent, been revised by later research, which argues that Cocceius’ liberal mind and opposition to scholasticism are overemphasized. See, for instance, Dmitri Levitin, “Introduction. Confessionalization and erudition in early modern Europe: A comparative overview of a neglected episode in the history of the Humanities”, in N. Hardy and D. Levitin (eds.), *Confessionalization and erudition in early modern Europe*, Oxford 2019, pp. 59 f.

⁸⁰ Cf. Levitin, “Confessionalization and erudition in early modern Europe”, p. 60.

⁸¹ See further Grete Möller, “Föderalismus und Geschichtsbetrachtung im XVII. und XVIII. Jahrhundert”, *Zeitschrift für Kirchengeschichte* 50 (1931), pp. 395–413.

exegetical level, Cocceianism had two directions: exposition of the literal and historical meaning, and the prophetic and typological theology.⁸² The dogmatic differences between the Voetian and Cocceian schools concern the interpretation of the concept of covenant and the views on the relationship between the Old and New Testaments that result from it. The conflict was also fuelled by differing attitudes towards the status of the official Dutch Bible translation (the States' translation, decreed at the Synod of Dordrecht in 1618 and completed in 1637), where Cocceius claimed the philological position that a Bible translation cannot be equated with the source text, while the Voetians regarded the States' translation as reliable.⁸³

The controversy was intensified by the growing tension between advocates of neo-Aristotelian scholasticism and the emerging anti-Aristotelian Cartesianism, which involved the question of whether theology or philosophy should be defined as the leading discipline. Voetians opposed Cartesian philosophy because it unified the theological and philosophical realms of knowledge, whereas Cocceian theologians generally adopted it because they separated the epistemic domains of philosophy and theology.⁸⁴ Some Cocceian theologians – Abraham Heidanus, Christoph Wittich, and Ruardus Andala – applied Cartesian philosophy to theology.⁸⁵ In Cartesian philosophy, Cocceius saw a counterbalance to the Aristotelian scholasticism of Dutch Reformed orthodoxy. He found no fault with Cartesianism as a philosophy, provided it remained subordinate to theology as a handmaiden.⁸⁶

⁸² Jacob van Sluis, *The library of Franeker University in context, 1583–1843*, Leiden 2020, p. 36. Van Sluis notes that both directions were subsumed in Cocceius' hermeneutical rule: "verba significant, quicquid significare possunt", "the words mean whatever they can mean" (*Commentarius in epistolam ad Romanos*). For an analysis of Cocceius' prophetic theology, see Möller, *ibidem*, pp. 413–429.

⁸³ Cf. Van Asselt, *The federal theology of Johannes Cocceius*, p. 119. The conflict about the status of the States' Dutch Bible is described by Johannes Henric Cocceius in the preface to the *Opera omnia* edition of his father's collected works.

⁸⁴ See Levitin, "Confessionalization and erudition in early modern Europe", p. 60.

⁸⁵ On Cocceian Cartesians, see further Ernestine van der Wal, "Orthodoxy and scepticism in the early Dutch Enlightenment", in Richard H. Popkin and Arjo Vanderjagt (eds.), *Scepticism and irreligion in the seventeenth and eighteenth centuries*, Leiden 1993, pp. 125–141; Israel, *The Dutch Republic* etc., pp. 890–891; van Asselt, *The federal theology* etc., pp. 81–85; van Asselt and Paul Abels, 'The seventeenth century', in Herman J. van Selderhuis (ed.), *Handbook of Dutch Church history*, Göttingen 2015, pp. 341–345; Andrea Strazzoni, *Dutch Cartesianism and the birth of philosophy of science*, Berlin 2019, pp. 73–75.

⁸⁶ Cocceius notified his position to Cartesianism and to Cartesian controversies at Leiden University in a letter in July 1669 to Louis Tronchin (1629–1705), a Swiss Reformed theologian, see Cocceius, *Opera omnia*, 1689, vol. 6, letter 181 (Epistula CLXXXI), pp. 58–59 in the page numbering of the letter-collection. In a letter to Tobias Andreae (1604–1676), a member of the Dutch network of Cartesians (cf. Strazzoni, *Dutch Cartesianism*, p. 4), Cocceius touches on his intermediate position

The controversy extended to differing views on the validity and application of the Sabbath commandment. Cocceius did not consider it necessary to observe the Sabbath (arguing that it had been abolished in the New Covenant), while the Voetians insisted on observing it under the influence of English Puritanism. The fact that Cocceian theology won approval among Republicans, while the Voetians were Orangists (that is, supporters of the Stadtholder House of Orange), heightened tensions.⁸⁷

2.3.3 *The Remonstrant denomination: Jean Le Clerc*

Before this intra-denominational division of Dutch Reformed orthodoxy into Voetians and Cocceians, the Dutch Reformed Church had split into Orthodox Calvinists and Arminians (also called Remonstrants) at the Synod of Dordrecht, where Calvinist orthodoxy was defended against the tenets of Jacob Arminius (1560–1609), who held a chair of theology at Leiden. Arminian Remonstrant doctrines were then condemned as heresy by Calvinist orthodoxy.

Some important Bible commentators and hermeneutical theorists, such as Hugo Grotius, Simon Episcopius, and Jean Le Clerc, belonged to the Remonstrant denomination and applied rationalist and historical principles to biblical interpretation.⁸⁸ Le Clerc – a Swiss theologian, philosopher, historian, critic, and publicist at the Remonstrant seminar of Amsterdam – was one of the greatest celebrities of the early modern Republic of Letters. In the preface to his commentary on Job, Schultens assessed Le Clerc's scholarship on the occasion of Le Clerc's recent commentary on Job (1732), which evidently did not meet Schultens' expectations. He declared his attitude to Le Clerc in the following terms:

I acknowledge this scholar's extensive learning. I do not withhold from him his due praise in the art of criticism – except for the Bible, where it is usually rash – and I admire his endowments and judgement, formed by his long training in writing and teaching. I do not interfere with his personal philosophical and theological opinions, to which he is addicted, and much less do I evaluate or judge them. But as regards the purport and the method of his commentary on Job, the things that I require are many – indeed many – and great.⁸⁹

(*Opera omnia*, 1689, p. 9, letter 27, dated 24 February 1652). Both these letters are excerpted in English by Van Asselt, *The Federal theology*, pp. 80–81.

⁸⁷ See van Asselt, *The federal theology of Johannes Cocceius*, p. 24.

⁸⁸ On Grotius' historical principle, see Diestel, *Geschichte des Alten Testaments in der christlichen Kirche*, p. 396.

⁸⁹ Schultens, *Liber Jobi cum [...] commentario*, Leiden 1737, preface, p. ***2v: "Agnosco copiosissimam in viro eruditionem; criticae artis aliquam laudem Sacris exceptis, ubi ruere solet, ei nullus detraho; eiusdem ingenium et iudicium longa scribendi docendique palaestra subactum suspicio; in privas opiniones philosophicas

2.3.4 Cocceian and Voetian philologists and theologians

The majority of the Dutch Hebraists and Bible interpreters in the late 17th century and early 18th century belonged to the Cocceian party, which are divided into three classes:⁹⁰ Cartesian Cocceians (e.g., Salomon van Til,⁹¹ Johannes Braunius, and Antonius Driessen), “Green” or “Leiden” Cocceians (e.g., Henric Groenewegen and Taco Hajo van den Honert), and “severe” Cocceians (e.g., Jacob Alting, Johan van der Waeijen, and Campegius Vitringa the Elder).

Some Cocceian scholars were very important to Schultens’ education and work as a Hebrew philologist, either as his teachers, such as Johannes Braun and Salomon van Til; as his friends and colleagues, such as the Bible commentator and Hebraist Vitringa the Elder; as his precursor in grammatical teaching, viz. Jacob Alting; or as his opponents: Taco Hajo van den Honert and Antonius Driessen. During his academic education, he also encountered Voetian scholars. In Groningen, he was taught theology by the Voetian Paulus Hulsius. In Leiden, he attended à Marck’s lectures in the academic year 1706–07. In his Hebrew grammar and his commentary on Proverbs, he quotes from à Marck’s Bible commentary. In his private library, he kept the publications of both Cocceian and Voetian theologians.

At the end of his obituary of Vitringa, Schultens states that his colleague adopted an intermediate position between Voetianism and Cocceianism:

He refrained from the zeal of parties as from a fearful promontory. Cocceius was dear to him, as was Voetius, but truth was still dearer. Thus, he was not fully pleased with any of these factions, but he was pleased with God; he was pleased with quiet and moderate minds, with those who love the peace of Zion, and with his own judgment, and he brought back the sweetest reward and fruits of a good conscience.⁹²

et theologicas, quibus semet addixit, me non immisco, multo minus arbiter iudexque de iis sedeo, sed quod ad vim et methodum commentationis in Jobum attinet, multum est, per sane multum et magnum quod in ea requiro.”

⁹⁰ See van Asselt, *The federal theology of Johannes Cocceius*, pp. 26 f., and p. 340. Annaeus Ypey, *Geschiedenis van de Kristlijke Kerk in de achttiende eeuw*, vol. 8, Utrecht 1979, pp. 400 ff., catalogues Dutch Cocceian theologians and philologists.

⁹¹ On van Til’s Cartesianism and Cocceianism, see Matthias Mangold, *Towards a Reformed Enlightenment: Salomon van Til (1643–1713) and the Cartesio-Cocceian debates in the early modern Dutch Republic*, Leiden 2024, pp. 64–455.

⁹² Schultens, *Laudatio funebris in memoriam admodum venerandi et celeberrimi viri Campegi Vitringa* [...], Franeker 1722, p. 82: “A studio partium tanquam a scopulo resiliuit. Amicus ei Cocceius, amicus Voetius, sed magis amica veritas: sic neutri, ut fit, factioni satis placuit, sed placuit Deo, placuit quietis ac moderatis ingeniis, placuit pacem Zionis amantibus, placuit domestico suo iudici, atque conscientiae mercedem ac fructum tulit suavissimum.” Schultens paraphrases a fashionable maxim: “Amicus Socrates, amicus Plato, amicus Aristoteles, sed magis amica veritas”, which is attested in Johann Heinrich Alsted, *Encyclopaedia* (1630), book

Schultens belonged to the Cocceian party. This is reflected in his high regard for Cocceius' biblical interpretation and Hebrew lexicography. He viewed Cocceius as the foremost lexicographer (*princeps lexicographorum*). After graduating from the Voetian-minded University of Groningen, Schultens deliberately chose Dutch universities in which the Cocceians predominated (such as Franeker and Leiden). He considered Franeker University an optimal choice because Gousset's anti-comparative method did not appeal to this liberal-minded university, where he enjoyed the unanimous support of his colleagues.⁹³ At the same time, Schultens held an irenic position, that is, an endeavour for conciliation rather than polemics in theological and philological issues. As the Dutch church historian Johannes van der Berg points out: "He was a man of independent mind, whose thinking had outgrown the patterns of the seventeenth century division between the followers of Gisbert Voetius and Johannes Cocceius".⁹⁴ The philological and lexicographical heritage of Cocceius was developed and modified by Schultens in his Hebrew philology and Hebrew lexicography.

2.3.5 *Interreligious implications*

Schultens was concerned about the interreligious threat to Dutch Reformed orthodoxy. He argued that Judaism had infiltrated the Christian Church through a set of conceptions involving "a holy Hebrew script, a holy Hebrew language and a holy Hebrew nation", which had occupied Christian theological thinking after being accepted as "articles of faith"⁹⁵ and which penetrated "the strongholds of theology" and "of orthodoxy".⁹⁶ When defending the text and the verbal inspiration of the transmitted Hebrew Bible,⁹⁷ Christian Hebraists adopted these Jewish "imaginations"⁹⁸ without realizing that they are actually anti-Christian. Schultens maintained that the idea of a holy Jewish nation and a holy Hebrew language underlies all Jewish theology⁹⁹ and argued that in this way "the Spirit of grace and glory

IV, ch. 2, p. 90, where it highlights the Ramist principle of freedom in the search for knowledge. The maxim traces back to Aristotle, *Nicomachean Ethics* 1096a11–15 and to Plato, *Phaedo* 91b–c. These passages were first put together by the English scholastic philosopher Roger Bacon (d. 1292), *Opus maius* I, 5: "Nam Plato dicit: Amicus est Socrates, magister meus, sed magis est amica veritas. Et Aristotelis dicit se magis velle consentire veritati, quam amicitiae Platonis."

⁹³ Schultens, *Vetus et regia via Hebraizandi*, p. 23, lines 11–12 and 22–25 (§ 31). Cf. Jacob van Sluis, *The library of Franeker University in context*, p. 37.

⁹⁴ Johannes van der Berg, *Religious currents and cross-currents: essays on early modern Protestantism*, Leiden 1999, p. 233.

⁹⁵ Schultens, *Proverbia Salomonis*, Leiden 1748, preface, xi.

⁹⁶ Schultens, *ibidem*, p. xi: "arx divinitatis"; Schultens (ed.), *Thomae Erpenii Grammatica Arabica*, Leiden 1748, preface, p. clviii: "arx orthodoxiae".

⁹⁷ Schultens, *Thomae Erpenii grammatica Arabica*, preface, pp. lxxxix and cxvii.

⁹⁸ Schultens, *Proverbia Salomonis*, preface, p. xxviii–xix.

⁹⁹ Schultens, *Thomae Erpenii Grammatica Arabica*, preface, p. cxlviii.

in the Old and New Testament is blasphemed”.¹⁰⁰ As a means of safeguarding Christianity from such tenets, he advocated studying Hebrew through related languages.¹⁰¹

2.4 Intellectual setting: The adoption of British empiricism

2.4.1 *Schultens and Dutch intellectual life*

Schultens developed his theory and practice of Hebrew philology within a specific historical and intellectual context. He was influenced by the rise of empiricism, the dominant intellectual current during the early European Enlightenment.¹⁰² Schultens applied John Locke’s linguistic empiricism to his etymological semantics of Biblical Hebrew (*Origines Hebraeae*, 1724–1738; commentaries on Job, 1738; and on Proverbs, 1748; and his Hebrew dictionary) and to his theory of the societal and communicative functions of the original language of humankind,¹⁰³ and at the same time, he took a firm stand against the application of logic and metaphysics to Hebrew etymology and semantics in the wake of Cartesianism. In one of his methodological works, *Vetus et regia via Hebraizandi* (1738), his principal target of criticism was logical semantics. The subtitle reads: *asserta contra novam et metaphysicam hodiernam*, “defended against the new and contemporary metaphysical method”. He carried on a polemic with advocates of logic and metaphysics while exploring semantic origins and development.¹⁰⁴

Schultens was well informed about the controversies between Cartesians and Newtonian empiricist thinkers in the Dutch Enlightenment. During his professorship at the University of Franeker, he witnessed the controversy between Ruardus Andala (1665–1727) – “the last of the major Dutch Cartesians”¹⁰⁵ and chair professor of philosophy at Franeker – and his empiricist antagonist, Johannes Regius (1656–1738), who taught theology there. They debated the nature and relationship of Cartesianism, Spinozism, and empiricism. Schultens possessed Andala’s key publications.¹⁰⁶

¹⁰⁰ Schultens, *Thomae Erpenii Grammatica Arabica*, preface, p. clviii.

¹⁰¹ Schultens, *Thomae Erpenii Grammatica Arabica*, preface, p. clx.

¹⁰² Jonathan Israel, *Radical Enlightenment: philosophy and the making of modernity 1650–1750*, Oxford 2001, pp. 477–501.

¹⁰³ Schultens, *De lingua primaeva per theses ad meam mentem*, §§ 1–12, Leiden UB MS 1460, envelope “d”, fols. 1r–3v; *Theses de lingua primaeva*, §§ 1–10, Leiden UB, MS Or. 1469, envelope 12, fol. 1r.

¹⁰⁴ Schultens, *Vetus et regia via Hebraizandi*, pp. 30, 38, 66, 80, 82, 87, 94, 95, 97, and 98. Schultens used the terms *logica* and *metaphysica* to designate the logical method of semantics, and he called its followers *metaphysici originum indagatores*, “metaphysical investigators of etymological meanings”.

¹⁰⁵ Israel, *Radical Enlightenment*, p. 480.

¹⁰⁶ Andala, *Syntagma theologico-physico-metaphysicum* (1711) and *Cartesius verus Spinozismi eversor* (1719), the latter of which was the answer to Regius’ *Cartesius verus Spinozismi architectus* (1719). See *Pars bibliothecae Schultensianae* (Leiden 1750), p. 35, nos. 620 and 619 in quarto.

2.4.2 Dutch empiricism and Dutch Enlightenment

Early modern empiricism emerged in England with the works of Francis Bacon (*Novum Organum*, 1620), Thomas Hobbes (*Leviathan*, 1651), Isaac Newton (*Philosophiae naturalis principia mathematica*, 1687), and John Locke (*Essay Concerning Human Understanding*, 1689).¹⁰⁷ In its Newtonian and Lockean shapes, British empiricism spread to the Continent via the intermediary interpretation of the Dutch Enlightenment in the first half of the 18th century before it was adopted in France and Germany.¹⁰⁸ In the words of Jonathan Israel, “Dutch mainstream Enlightenment” can be described as “the overthrow of Cartesian deductive science and its replacement with *philosophia experimentalis*, a mania for scientific classification, which spilled over beyond the realm of the natural sciences”.¹⁰⁹

In the decades before and after 1700, the empiricist movement was not entirely opposed to Cartesian rationalism. In historiography, the currents of rationalism and empiricism are usually considered to be antagonistic. Rather, in the 17th and early 18th centuries, there was an interplay between these intellectual currents. Both schools, or methods, of intellectual thought were originally designed to oppose neo-Aristotelianism as the predominant philosophy in the first half of the 17th century.¹¹⁰

In his *Novum Organum sive indicia vera de interpretatione naturae*, “The new organon or true criteria on the interpretation of nature” (1620),¹¹¹ Francis Bacon proposed a combination of empiricism and rationalism as the ideal inductive method. In a set of one hundred and thirty aphorisms, Bacon discusses the obstacles to attaining reliable knowledge, namely “the idols” of preconceived opinions. In his explanation of the idol of theatre, by which he means established methods in the science of nature, *historia naturalis*, he rejects exclusive applications of empiricism and rationalism because both

¹⁰⁷ Schultens owned these key publications by Newton and Locke. See *Pars bibliothecae Schultensianae*, p. 35, no. 623 in quarto: *Principia philosophiae naturalis mathematica*, Amst. 1723, and p. 37, no. 677: L’Entendement humain par Locke. 1729, which was the authorized French translation of Locke’s *An Essay*, etc.

¹⁰⁸ Jonathan Israel, *The Dutch Republic: its rise, greatness and fall*, Oxford 1995: p. 1043, argues that Dutch scientists transmitted Newtonian physics to the Continent and, in doing so, also made new empiricist discoveries in the microscopical science and in the disciplines of botany, anatomy and medicine.

¹⁰⁹ Israel, *ibidem*, p. 1045. This corresponds to the general intellectual changes of the Enlightenment, *ibid.*, p. 1038: “a shift to toleration, secularization, classification of knowledge, and popularization, the last particularly as regards science”.

¹¹⁰ Wiep van Bunge, “Dutch Cartesianism and the advent of Newtonianism”, in M Dobre and T. Nyden (eds.), *Cartesian empiricisms*, Dordrecht 2013, pp. 89–104. Idem, “The early Enlightenment in the Dutch Republic, 1650–1750”, *Intellectual news*, Winter 2004, p. 65.

¹¹¹ The expression *indicia* is often translated “true directions”, but Bacon here aims at distinctive marks or signs in the sense of criteria.

methodologies are founded on “too narrow a basis” (*nimis angusta basis*, aphorism no. 62; cf. also the aphorisms nos. 63–64 and 96 on empiricism and nos. 67 and 97 on rationalism). Bacon points out that one can and ought to unify these methods by striking a middle ground, thereby gaining solid knowledge. In one of his best-known aphorisms (no. 95), he compares it to the activity of bees:

Those who have treated the sciences were either empiricists or dogmatists. Like ants, empiricists only collect and use; the rationalists make webs like spiders out of themselves, but the bee takes the middle method. It gathers stuff from the flowers in the garden and the field, but transforms and arranges it through its own ability. The true making of philosophy is not dissimilar. It is not only or mainly supported by the powers of the mind, nor does it store stuff, which it provides from natural history and mechanical experiments, in the memory in an undivided form, but in a form that is changed and worked upon by the intellect. Therefore, from a closer and firmer union of these abilities (the experimental and the rational ones), much can be hoped.¹¹²

The founders of Dutch empiricism were the chemist, botanist, and physiologist Herman Boerhaave (1668–1738) and the physicist and mathematician Jacob Willem van ‘s-Gravesande (1688–1742).¹¹³ In their academic speeches, they discussed the certainty of empirical knowledge. Boerhaave’s *De comparando certo in physicis*, “On attaining certainty in natural sciences” (1715) was considered “a manual of the experimental

¹¹² Francis Bacon, *Novum Organum*, book 1, aphorism 95: “Qui tractaverunt scientias aut empirici aut dogmatici fuerunt. Empirici formicae more congerunt tantum et utuntur: rationales araneorum more telas ex se conficiunt: apis vero ratio media est, quae materiam ex floribus horti et agri elicit, sed tamen eam propria facultate vertit et digerit. Neque absimile philosophiae verum opificium est, quod neque mentis viribus tantum aut praecipue nititur neque ex historia naturalis et mechanicis experimentis praebitam materiam in memoriam integram, sed in intellectu mutatam et subactam reponit. Itaque ex harum facultatum (experimentalis scilicet et rationalis) arctiore et sanctiore foedere (quod adhuc factum non est) bene sperandum est.” The English translation of this passage is my own. I have consulted the complete English translation of *Novum Organum*, as found in *The Works of Francis Bacon*, vol. VIII (translations of the philosophical works), part 1, published by James Spedding, Robert Leslie Ellis, and Douglas Denon Heath.

¹¹³ For the Dutch adaptation of Newtonianism, see Gerhard Wiesenfeldt, “The practical tradition of Dutch Newtonianism”, in *Reading Newton in early modern Europe*, ed. by E. Boran and M. Feingold, Leiden 2017, pp. 89–101. For ‘s-Gravesande’s foundation of Newtonian physics in interaction with the Cartesian heritage, see Strazzoni, *Dutch Cartesianism*, pp. 171–197. For the influence of Descartes and Locke on ‘s-Gravesande’s theory of the logic of ideas, see Paul Schuurman, *Ideas, mental faculties and method*, Leiden 2004, pp. 129–135.

method”.¹¹⁴ It implied the public rejection of Cartesianism at Leiden University.¹¹⁵ As professor of mathematics and astronomy,¹¹⁶ ‘s-Gravesande asserted empiricism in his inaugural speech *De matheseos in omnibus scientiis, praecipue in physicis, usu*, “On the usefulness of mathematics in all sciences, especially in physics” (1717). The same empiricist assertion appears in his speeches *De evidentia* (1724) and *De vera philosophia* (1734). Also, Pieter van Musschenbroek (1692–1762) stands out as a leading exponent of Newtonian empiricism.¹¹⁷ Their main publications were characterized by a theoretical quest for a scientific, inductive, and experimental method modelled on Newton’s empiricist methodology.

In the decades around 1700, the intellectual climate in the Dutch Republic can be viewed as a dialectic between Cartesian and Newtonian empiricism on the one hand, and metaphysical speculation on the other, and as a shift in the balance toward the overthrow of the latter under the impact of Lockean empiricism. This relation of matters was described more than fifty years ago by the Dutch philosopher Ferdinand Sassen:

In this way, the intellectual climate, in which Boerhaave lived and worked, was determined by empiricism and speculation, empiricism in the spirit of both Newton’s and Descartes’ investigation of the nature, speculation on the basis of Cartesian metaphysics and anthropology, and supported by the certainty that clear and distinct knowledge could be obtained concerning transcendental things themselves. The rising influence of John Locke [...] led in the Netherlands to a gradual decrease in speculation. For Boerhaave, the result of this influence was a shift in balance between empiricism and speculation – so thoroughly inculcated in his student days – in the direction of empiricism.¹¹⁸

This agrees with how Schultens himself perceived the nature of the opposing intellectual currents, in which Boerhaave was to develop the theory and practice of chemistry, botany, and anatomy. In his eulogy on

¹¹⁴ Jan G. Gerretzen, *Schola Hemsterhusiana*, Nijmegen 1940: p. 11, with reference to Pierre Brunet, *Les physiciens hollandais et la méthode expérimentale en France au XVIIIe siècle*, Paris 1929, p. 42. Boerhaave delivered this oration on 8 February 1715, when he resigned his office as rector magnificus of Leiden University.

¹¹⁵ Israel, *Radical Enlightenment*, p. 478.

¹¹⁶ ‘s Gravesande was appointed for this chair in Leiden in August 1717 on Isaac Newton’s recommendation.

¹¹⁷ Schuurman, *Ideas, mental faculties and method*, pp. 156–164.

¹¹⁸ Ferdinand Léon Rudolphe Sassen (1894–1971), “The intellectual climate in Leiden in Boerhaave’s time”, *Boerhaave and his time*, ed. by G. A. Lindeboom, Leiden 1970, p. 15. For more recent historiographical perspectives on H. Boerhaave, see Harold J. Cook, “Boerhaave and the flight from reason in medicine”, *Bulletin of the history of medicine* 74 (2000), pp. 221–240.

Boerhaave, he describes two opposing principles in the approach to the sciences as a continuous antithetical dialectic between empiricism and imaginative ingenuity: “There has always been among people, and as long as time proceeds, there will be a twofold principle of treating and cultivating sciences, completely disparate and not separated by a less difference than that which divides light from darkness.”¹¹⁹ Schultens equates the empiricist principle with experiment (*experimentum*) and with rational conclusion (*ratiocinatio*), which he thinks may be drawn from either natural evidence or mathematical experience. He derives the imaginative principle from both ingenuity (*ingenium*) and imagination or speculation (*imaginatio*).¹²⁰ Schultens himself never conceptualized any dialectical interplay between the domains of experience and reason. Rather, he seems to assume that reason forms part of empiricism in its capacity to achieve rational selection and demonstration from the number of facts gathered from experience, which is in agreement with Francis Bacon’s quest for a tenable scientific method in *Novum Organum*, as shown above. In Dutch intellectual history, there are examples of scientists and scholars who belonged to both the Cartesian and the Newtonian or Lockean schools around 1700, such as Johannes de Raey, Burchard de Volder, Wolfert Senguerd, and Jean Le Clerc.¹²¹

Schultens possessed the principal publications of contemporary empiricist scientists in Leiden.¹²² He had the opportunity to make their

¹¹⁹ Schultens, *Oratio academica in memoriam Hermanni Boerhavii*, Leiden 1738, p. 44: “Regnavit semper inter mortales et quamdiu secula evolventur regnabit geminum scientias tractandi colendique principium toto coelo disparatum atque non minore discedio diremptum, quam quod lumen a caligine seiungit.” The nature and effects of the two opposing principles are rhetorically evaluated in a set of six antitheses (see Schultens, *ibidem*, pp. 44–45). In the last antithesis, he represents the former as “the propagator of truths” (*veritatum propagatrix*), the latter as “the disseminator of errors” (*errorum seminatrix*).

¹²⁰ Schultens, *ibidem*, p. 45, cf. p. 32 (lines 1–7).

¹²¹ On the positions of de Raey, de Volder, and Senguerd and on the transition from Cartesianism to Newtonianism, see Andrea Strazzoni, *Dutch Cartesianism and the birth of philosophy of science*, Berlin 2019, pp. 105–141. On Jean Le Clerc, see Paul Schuurman, *Ideas, mental faculties and method. The logic of ideas of Descartes and Locke and its reception in the Dutch Republic 1630–1750*, Leiden 2004, pp. 70–88.

¹²² In the auction catalogue of a selection of A. Schultens’ library, *Pars bibliothecae Schultensianae*, Leiden 1750, we encounter Boerhaave’s *Elementa chemiae*, Leiden 1732, see p. 34, no. 591 in quarto, and Boerhaave’s *Aphorismi*, Leiden 1715, his *Institutiones medicae*, Leiden 1739, *Consultationes medicae*, The Hague 1743, and *Atrocis nec decripti prius morbi historia* (“An account of a cruel and previously not described disease”), Leiden 1728, see p. 57, nos. 451–454 in octavo. Moreover, we find ‘s Gravesande’s *Physices elementa mathematica*, Leiden 1742 [1st ed. 1725], see *ibidem*, p. 34, no. 624 in quarto, Musschenbroek’s *Institutiones physicae*, Leiden 1748, *Elementa physices*, Leiden 1744 and *Institutiones logicae*, Leiden 1748, see *ibidem*, p. 58, no. 473–475 in octavo. Schultens owned an edition of Newton’s *Principia mathematica*, Amsterdam 1723, see p. 35, no. 623 in quarto. He possessed

acquaintance and evidently became friends with Boerhaave.¹²³ At Schultens' death, Musschenbroek declared himself ready to deliver the funeral oration for him,¹²⁴ which bears witness to their close acquaintance.

In linguistics, Dutch exponents of empiricism were the Germanist Lambert ten Kate (1674–1731)¹²⁵ and the classicist Tiberius Hemsterhuis (1685–1766).¹²⁶ Through their individual enterprises, these two laid the foundation for scientific etymology in Germanic and Greek. Ten Kate stands out as “a typical exponent of the eighteenth-century *esprit systematique*”.¹²⁷ Schultens appears to have been well acquainted with ten Kate's publications.¹²⁸ During his Franeker period, Schultens interacted with his friend and colleague Tiberius Hemsterhuis, with whom he shared the inductive-empirical method characteristic of Dutch Enlightenment science.¹²⁹

The Swiss-Dutch theologian and philosopher Jean Le Clerc (Johannes Clericus) was an exponent of a combination of rationalism and empiricism. Schultens was acquainted with Le Clerc's writings, to which he often referred, though he opposed Le Clerc in detail. He possessed the key philological publications of Le Clerc.¹³⁰ In some respects, Schultens relied on Le Clerc more than he was willing to acknowledge. In Schultens' first treatise *De utilitate linguae Arabicae* (1706), the theoretical bases are a restatement of Le Clerc's guidelines in his hermeneutical handbook *Ars critica* (1697).¹³¹

works of Wolferd Senguerd, who advocated an empirical rationalism: *Rationis atque experientiae connubium*, Leiden 1715, see p. 58, no. 478 in octavo.

¹²³ Schultens, *Oratio academica in memoriam Hermanni Boerhavi*, pp. 3 and 79.

¹²⁴ See Molhuysen, *Bronnen*, vol. 5, The Hague 1921, p. 309. See the last sentence in the records of the Academic Senate from its meeting on 27 January 1750.

¹²⁵ Noordegraaf, “Historical linguistics in the Low Countries: Lambert ten Kate”, in *History of the language sciences*, vol. 2, edited by S. Auroux, E.F.K. Koerner, H.-J. Niederehe and K. Versteegh, Berlin 2001, pp. 1115–1124.

¹²⁶ Gerretzen, *Schola Hemsterhusiana*, pp. 11–12; Slofstra, *Tiberius Hemsterhuis. Lectio publica de originibus linguae Graecae*, pp. 17–18.

¹²⁷ Jonathan Israel, *The Dutch Republic: its rise, greatness and fall*, p. 1045.

¹²⁸ Schultens, *Vetus et regia via Hebraizandi*, p. 107, refers to ten Kate's practice of etymology.

¹²⁹ Zwiép, “Schultens, Albert”, in *Lexicon grammaticorum*, 2nd ed., 2009, p. 1365.

¹³⁰ Schultens possessed several publications of Jean Le Clerc: his *Ars critica*, first edition, Amsterdam 1697, two volumes (*Pars bibliothecae Schultensianae*, p. 55, no. 360 in octavo), his church history *Historia ecclesiastica*, Amsterdam 1716 (p. 21, no. 186 in quarto), his collected philosophical works, *Opera philosophica*, Amsterdam 1722 (p. 58, no. 169 in octavo), *Parrhasiana* including Le Clerc's autobiography (p. 64, no. 650 in octavo), *Quaestiones Hieronymianae* (p. 45, no. 59 in octavo) and his Latin translation and commentary on the Pentateuch and the historical books of the Old Testament, Amsterdam 1710 (p. 3, no. 52 in folio).

¹³¹ See Eskhult, *Schultens as an innovator*, Section 5.1.2, pp. 106–110.

2.4.3 Schultens as an exponent of empiricism

In his intellectual outlook, Schultens turns out to be an exponent of the European pre-Enlightenment. This is reflected in his criticism of religious zeal, his confessional toleration, his systematic inquiry into the historical sources of knowledge about Ancient Hebrew, his desacralization of Hebrew in its preconceived status as an intrinsically holy language, and his pervasive classificatory efforts and endeavours.

In his theory and practice of comparative Hebrew language studies, Schultens denounced Cartesian rationalist metaphysics and logic and declared empirical knowledge the basis of his scientific system.¹³² Still, he often cites nature, reason, and analogy as additional sources of knowledge alongside experience and experimental evidence.¹³³

This seeming contradiction was due to the continued interplay between empiricism and rationalism, and, more precisely, to the fact that Schultens, in his epistemology, was an empiricist,¹³⁴ whereas in his linguistic philosophy, he was a rationalist or pre-structuralist. In Schultens' linguistic thought, the terms nature, reason, and analogy are intra-linguistic parameters rather than epistemic concepts.

2.4.4 Schultens on Boerhaave as an empiricist

In his biographical eulogy on Boerhaave,¹³⁵ Schultens praises both his empiricism and his rejection of non-empiricist scholastic medicine, which “metaphysical and Hermetic randomizers” (*metaphysici et hermetici medicinae temeratores*) practice.¹³⁶ Under the impact of Francis Bacon, Boerhaave had read Hippocrates as a champion of empirical medicine¹³⁷ and

¹³² Schultens, *Excursus tertius ad editionem primam et secundam dissertationis de lingua primaeva eiusque additamentum apologeticum*, Leiden 1739, pp. 1–2.

¹³³ Schultens, *Proverbia Salomonis*, Leiden 1748, preface, p. lxxxix.

¹³⁴ Schultens argued that empirical certainty (*experimentalis certitudo*) should be considered incontestable. See *Origines Hebraeae*, vol. 2, preface, p. 13.

¹³⁵ Schultens' biography was the source of the biographical essays on Boerhaave of Samuel Johnson (in *The Gentleman's Magazin*, January–April 1739) and William Burton (*An account of the life and writings of Herman Boerhaave*, London 1743). Cf. Harold J. Cook, “Boerhaave and the flight from reason in medicine”, p. 222. Jan Jacob Schultens translated the speech into Dutch (*Academische redevoering ter gedachtenisse van den grooten Herman Boerhaave*, Leiden 1739).

¹³⁶ Schultens, *Oratio academica in memoriam Hermannii Boerhavii*, Leiden 1738, pp. 31 f., cf. p. 48.

¹³⁷ John Powers, *Inventing chemistry: Hermann Boerhaave and the reform of Dutch chemical arts*, Chicago 2012, pp. 31 and 208. In his handbook of medicine (*Institutiones medicae*, 1708) and in his academic lectures on it (collected by Albrecht von Haller in *Praelectiones academicae in proprias institutiones rei medicae*, six volumes, 1740, in English translation: *Academical lectures on the theory of physics*, 2nd ed. London 1751), Boerhaave regarded himself as the inheritor

presented this empiricist interpretation of Hippocrates in his oration for attaining the combined lectureship of medicine and botany at Leiden, *Oratio de commendando studio Hippocratico*, in 1701. This “Hippocratic method” (*Hippocratica methodus*) is recommended by Schultens as the spirit of learning (*anima doctrinae*), a method that “through continuous experience accumulates and accomplishes knowledge”.¹³⁸ Boerhaave’s empiricist thesis, stated at the outset of *De comparando certo in physicis* (1715), is quoted, according to which all knowledge is derived from sense perceptions:

It is evinced by the light of reasons and in force of demonstration that the principles of everything in nature are completely hidden from us; only from our sense perceptions can such qualities of them be learnt that are known by experience or such qualities that are gathered from them by a certain mathematical reckoning after having been first explored in this sole way.¹³⁹

Schultens interprets this speech as a discourse directed against all non-empiricist natural philosophers, both of antiquity and of modern times, who are “tired of the slow research of experiments”¹⁴⁰ and therefore wish to introduce the idea that the knowledge of nature can be known just “by the discernment of their own intellect”,¹⁴¹ that is, through pure reasoning.¹⁴² He

of Hippocrates and William Harvey, whose doctrine he presented as an explanation of Hippocrates; see Boerhaave, *Academical lectures*, London 1751, vol. 1, p. 42.

¹³⁸ Schultens, *Oratio academica in memoriam Hermanni Boerhavii*, p. 33: “quae scientiam perpertua experientia cumulat atque consummat”.

¹³⁹ Schultens, *ibidem*, p. 34: “Vincitur rationum lumine, demonstrationum pondere omnium rerum principia omnino nos latere, solis autem sensuum observatis addisci illas earum dotes, quae experiundo noscuntur, aut quae ex his, hac una via exploratis prius, geometrici calculi firmitate eliciuntur.” In Boerhaave, *Sermo academicus de comparando certo in physicis*, Leiden 1715, pp. 2 f., this passage reads as follows: “rerum principia omnino nos latere, solis autem sensuum observatis addisci illas earum dotes, quae experiundo noscuntur, aut quae ex his, hac una via exploratis prius, geometrici ratiocinii firmitate elici possunt.” In the quotation, Schultens added *omnium* to *rerum*, replaced *ratiocinium*, “demonstration”, by *calculus*, “reckoning”, and altered *elici possunt*, “may be gathered”, to *eliciuntur*, “are gathered”. Cook, “Boerhaave and the flight from reason”, thus exaggerates the difference between Schultens’ approach to Boerhaave’s method and his own characterization of it in stating, p. 221: “Rather than trying to reconcile reasoned theory with sensory experience, Boerhaave placed all his confidence in the latter” [...].

¹⁴⁰ Schultens, *Oratio academica in memoriam Hermanni Boerhavii*, p. 34: “pertaesi lentae indaginis experimentorum”. Boerhaave, *De comparando certo in physicis*, p. 2, says: “Pertaei quippe lentae indaginis eorum effectuum”.

¹⁴¹ Schultens, *ibidem*, p. 34: “de intelligentiae suae perspicacia”. Boerhaave, *De comparando certo in physicis*, p. 2 “de perspicacia suae intelligentiae”.

¹⁴² Rina Knoeff, *Herman Boerhaave (1668–1738): Calvinist chemist and physician*, Amsterdam 2002, p. 99.

appraises this oration as a lasting source of deeper wisdom; everyone will experience its sweetness and gain new profit, even after reading it ten times.¹⁴³

In his biography, Schultens comments on the objections raised by Ruardus Andala to Boerhaave's *De comparando certo in physicis*. Andala could not accept Boerhaave's hypothesis that the first principles of nature are unknown, reportedly because he "suspended the orthodoxy of our most holy faith on Cartesianism".¹⁴⁴ Andala designated himself as "the most orthodox Cartesian",¹⁴⁵ but realizing that Cartesianism was about to collapse completely (*funditus labefactari*), he resorted to religious weapons: "In order not to seem to struggle for his own small glory, he pretended the case and glory of God," Schultens explains.¹⁴⁶ If Cartesian philosophy falls, Andala argued, then it follows that:

This is the end of the Christian Church, faith, and religion. Everything will not only turn to skepticism (*Pyrrhonismus*) but also to Spinozism if the principles of nature are unknown and if Descartes is rejected with his elements and his doctrine of vortices,¹⁴⁷ by which he ingeniously built the edifice of this universe.¹⁴⁸

Schultens ridicules the religious pretension to defend an imaginative philosophical architecture. Adopting a physico-theological stance, he states: "O philosopher, this is the faith of the church: the smallest herb, drop, and hair preach the infiniteness of its Creator", and, as said in Job, chapter 38, "only the surface of nature and all physics may be known by man".¹⁴⁹

¹⁴³ Schultens, *Oratio academica in memoriam Hermanni Boerhavii*, p. 34: "Orationem hanc interioris sapientiae medulla refertam qui decies legerit, nova semper dulcedine se perfundi, novo fructo mactari sentiet."

¹⁴⁴ Schultens, *ibidem*, p. 35: "Cartesiasismi unicum fere statorem ferebat indeque orthodoxiam fidei nostrae suspendebat."

¹⁴⁵ Schultens, *ibidem*, p. 35.

¹⁴⁶ Schultens, *ibidem*, p. 35 "Ne pro sua tamen gloriola depugnare videatur, causam et gloriam Dei praetexit."

¹⁴⁷ According to René Descartes, the motion of the planets depended on whirlwinds (*vortices*) around their own axes. In *Philosophiae naturalis principia mathematica* (1687), Isaac Newton explained planetary motion by his laws of motion and gravity. Silently adopting Newton's stance, Schultens here derides Cartesian cosmology.

¹⁴⁸ Schultens, *ibidem*, p. 35 f.: "Actum esse de ecclesia, actum de fide et religione: Non ad Pyrrhonismum, sed ad Spinocismum omnia revolvi, si principia rerum ignorentur in physicis et Cartesius cum sibi suis elementis et vorticibus, ex quibus universitatem hancce ingeniosissime architectatus est, explodatur."

¹⁴⁹ Schultens, *Oratio academica in memoriam Hermanni Boerhavii*, p. 36.

3. Philological background: The Western rise of Arabic philology

3.1 Motives for learning Arabic, and access to textbooks

In early modern Europe, Arabic studies were justified according to religious, scientific, theological, and commercial motives.¹⁵⁰ The first motive was the refutation of the Koran and the conversion of Muslims to the Christian faith. The second reason was the practical value of Arabic scholarship in philosophy, history, geography, jurisprudence, poetry, medicine, mathematics, and astronomy. These purposes originated in the Middle Ages, when Europeans came into closer contact with the Arabs in the wake of the Crusades and when Muslim Spain served as a bridge for Arabic culture through Latin translations of ancient Greek scientific and philosophical texts previously known only in Arabic.

In the early 17th century, Western scholars underscored the value of acquiring knowledge from Arabic medicine, mathematics, and astronomy, but over the course of the century, the new experimental nature of European science rendered these insights obsolete. At the same time, the Greek originals of scientific texts, discovered in the Renaissance and previously available only in Arabic, rendered the Arabic translations superfluous. The religious motive was broadened when closer ties to the Oriental Christian Churches were established.

The theological motive refers to the use of the Arabic language in biblical interpretation; the use of Arabic Bible translations for the textual criticism of the Old and New Testaments and for illustrating Church history and biblical interpretation; and the use of patristic writings that have survived only in Arabic for the history of dogmatic theology. The exegetical use involved recourse to Arabic to explain rare Hebrew words and phrases and to illustrate Oriental customs and ceremonies found in Arabic writings.

The commercial motive followed from Western commerce with Arabic-speaking states of the Mediterranean, mainly by Dutch and English traders. This trade necessitated diplomatic relations and enabled the import of Arabic literature in manuscript to Europe. Scholars such as Edward Pococke and

¹⁵⁰ The early modern motives for studying Arabic are succinctly discussed by Kees Versteegh, *The Arabic language*, 2nd ed., Edinburgh 2014, ch. 1, pp. 1–9, where each main reason referred to below is considered.

Jacob Golius accompanied the merchants to Syria, where they purchased numerous Arabic manuscripts with public subsidies.

A comprehensive survey of the utilities (*utilitates*) of Arabic is found in Brian Walton's introduction to Arabic in the prolegomena to the London Polyglot Bible (1657).¹⁵¹ Systematically, he reviews the reasons advanced by previous and contemporary Western Orientalists: by Thomas Erpenius in his inaugural lectures (1613 and 1620),¹⁵² by the Swiss Johann Heinrich Hottinger in his historical and theological analects, *Analecta historico-theologica* (1652),¹⁵³ and by Pococke in his sample of Arab historical writing, *Specimen historiae Arabum* (1650). They all comment on the usefulness of Arabic for biblical exegesis (see Section 3.2).

In addition to the uses of Arabic outlined above, Erpenius and Walton emphasized its utility for travel in the Near East and the Asian regions closest to it. Citing the assertion of the French Orientalist and polymath Guillaume Postel that one can talk with the inhabitants of Mauritania, Egypt, Syria, Persia, Turkey, Tartary and India without an interpreter, only by means of Arabic,¹⁵⁴ Walton argues that Arabic serves as an almost universal means of communication for Western travellers across the whole of the Orient, throughout the rest of Asia, and in a large part of Europe.¹⁵⁵

At European universities, Arabic was generally taught in the faculty of theology by the professor of Old Testament interpretation and in the faculty of philosophy by the professor of Oriental languages. It was learnt as a foreign language through the study of texts such as Arabic translations of the

¹⁵¹ Brian Walton's critical introduction to *Biblia sacra polyglotta*, vol. 1, London 1657, viz. "In Biblia polyglotta prolegomena", ch. 14 "De lingua Arabica et Scripturae versionibus Arabicis", pp. 97–101.

¹⁵² Erpenius, *Orationes tres de linguarum Ebraeae atque Arabicae dignitate*, Leiden 1621. The first speech, *Oratio I de lingua Arabica*, comprises 38 pages, of which pp. 23–37 deal with the various uses of Arabic. In the second speech, *Oratio II de lingua Arabica*, Erpenius discusses the utility of Arabic on pp. 54–72.

¹⁵³ Chapter 2 (*De heptaplis Parisiensibus*, pp. 83–141) deals with the Paris Polyglot Bible, and chapter 6 (*De usu linguae Arabicae*, pp. 233–316) examines the use of Arabic in theology, medicine, jurisprudence, philosophy and theology.

¹⁵⁴ Postel, *Linguarum duodecim characteribus differentium alphabetum introductio* ("Introduction into the alphabets of twelve languages that differ in terms of written characters"), Paris 1538, fol. DII^r under the heading "De lingua Punica Arabicave".

¹⁵⁵ Walton, "In Biblia polyglotta prolegomena", in *Biblia sacra polyglotta*, p. 99. In the latter part of his argument, Walton relies on Erpenius' first speech on Arabic, p. 24 f., which forms part of a passage where Erpenius similarly argues in favour of Arabic as an almost universal means of communication in the whole of Africa and Asia. Brugman and Schröder, *Arabic studies in the Netherlands*, p. 16, quote the entire passage in English translation. Erpenius, *Oratio II de lingua Arabica*, p. 70–71, distinguishes between regions where Arabic is the vernacular (Egypt, Libya, and the Mediterranean coast of Africa, Arabia, and Palestine) and regions where it is only the learned language (Turkey, Armenia, Mesopotamia, Persia, India, Tatar).

Bible, editions of the Koran in Arabic, Arabic grammars and dictionaries, and textbooks on different kinds of Arabic literature, for instance, gnology, eloquence, poetry, history, and scientific literature.¹⁵⁶

3.2 Scholarly approaches to Arabic in biblical scholarship

3.2.1 Pococke, Bochart, and Hottinger

In viewing Arabic chiefly as a handmaid of biblical exegesis, Schultens was influenced by several Western scholars of Arabic philology: Samuel Bochart in France, Hottinger in Switzerland, and Pococke in England. All of them emphasized the importance of Arabic for improving the quality of linguistic interpretation of the Hebrew Bible. Schultens acquainted himself with their views while studying biblical philology in Groningen. In his master's dissertation of 1706, Schultens cited relevant treatises by these scholars.¹⁵⁷ In all his subsequent publications, Schultens confined himself to this biblical exegetical use of Arabic.

In his notes to his edition and translation of Moses Maimonides' *Porta Mosis*, Pococke recommended the usefulness of Arabic as follows:

The study of Arabic recommends itself to you only because of its blessed service as a handmaid of Hebrew. Even those who doubt that Arabic is useful to theological students admit how helpful it is across all the branches of human learning. However, in my opinion, I consider it so

¹⁵⁶ Hartmut Bobzin, "Geschichte der arabischen Philologie in Europa bis zum Ausgang des achtzehnten Jahrhunderts", in W. Fischer (ed.), *Grundriß der arabischen Philologie*, vol. III: Supplement, Wiesbaden 1992, pp. 166–171. Cf. the various articles in *The teaching and learning of Arabic in early modern Europe*, edited by J. Loop, A. Hamilton, and Ch. Burnett, Leiden 2017.

¹⁵⁷ Schultens, *Disputatio theologico philologica de utilitate linguae Arabicae in interpretanda S. Scriptura*, Groningen 1706. In the prolegomena, p. 5, Schultens declares that knowledge of Oriental languages is required for an accurate understanding of Biblical Hebrew and refers to Pocockes's Miscellaneous notes to his edition of *Porta Mosis*, Bochart's Biblical geography (*Geographia sacra*, vol. 1: *Phaleg*, Caen 1651) and his treatise on the biblical fauna (*Hierozoicon*, London 1663), Louis de Dieu's commentary on the Old Testament (*Animadversiones in veteris Testamenti libros omnes*, Leiden 1648), Hottinger's polyglot dictionary, *Lexicon Harmonicum*, (1661) and *Smegma Orientale* (1658), Louis Cappel's critical notes on the Old Testament (a work published posthumously, *Commentarii et notae criticae in Vetus Testamentum*, Amsterdam 1689), and Hiob Ludolf's commentary to his Ethiopic history (*Ad suam historiam Aethiopicam antehac editam commentarius*, Frankfurt am Main 1691), where a comparative study of rarely attested Hebrew words through Ethiopic is recommended (see book 1, chapter 15, note 106, pp. 202 f.). On page 10, Schultens states that scholars such as Pococke, Bochart, and Hottinger have written much on this topic: "Look up Hottinger's *Smegma Orientale* and *Thesaurus philologicus*, pp. 501 and 502, Pococke's notes to *Porta Mosis*, Cappel's *Critical notes*, and Bochart's *Hierozoicon*".

useful to a theologian that he cannot be without it without falling into prejudice, not to say the loss, of the truth whenever he thinks it necessary to thoroughly explore the Hebrew biblical text.¹⁵⁸

In his biblical geography, *Geographia sacra* (vol. 1: *Phaleg*, 1651), Samuel Bochart recommended the usefulness of Arabic in Bible commentary:

Arabic contributes to the perfect knowledge of Hebrew much more than has been believed so far. This fact is proven by Jewish commentators on the Bible, who take recourse to this language as a holy anchor whenever they are uncertain; they would have made many more observations from Arabic in order to shed light on the holy text, had they only been more skilled in this language.¹⁵⁹

At the end of the preface to his pioneering work on the biblical fauna, *Hierozoicon* (1663), Bochart recounts his education as an Orientalist. At a young age, he studied Hebrew “to drink from the source and hear the holy prophets speaking in their own language”.¹⁶⁰ Having realized that many words of a language “being dead for two thousand years” were unknown to medieval Jewish scholars, he learnt Aramaic, Syriac, and Arabic from Cappel in Samour and from Erpenius in Leiden, and later added Ethiopic under the guidance of Hiob Ludolf (1624–1704). Equipped with this erudition, he “attentively compared not only ancient Bible translations in difficult passages but also the languages with each other”.¹⁶¹ Thus, he discovered that “what has been lost in Hebrew is found in Babylonia, Syria,

¹⁵⁸ Pococke, *Porta Mosis [...] una cum appendice Notarum Miscellanea*, Oxford 1655, notes on chapter 1, pp. 11–12: “Merito interim vobis commendatum reddat linguae Arabicae studium vel unus hic eius usus, quo Hebraicae [p. 12] tam feliciter ancillatur. Quam late pateat per totam humanioris literaturae ἐγκυκλοπαιδείαν eius usus fatebuntur multi, qui ulla ex parte theologiae studioso conferat plane dubitant. Ego vero, si quid sentiam, theologo adeo utilem existimo, ut si textum Hebraicum aliquando penitius excutere necessarium ducat, ea sine veritatis praeiudicio, ne dicam dispendio, carere non possit.” This passage is also found in *The theological works of the learned Dr. Pocock*, London 1740, pp. 133 f.

¹⁵⁹ Bochart, *Geographia sacra*, vol. 1, 2nd ed., Frankfurt am Main 1674, p. 66 (referring to the Arabic language): “Ad Hebraeae linguae perfectam cognitionem multo plus confert quam creditum est hactenus. Quod Hebraeorum in Scripturam commentaria docent, qui quotiens haeret calculus ad hanc linguam confugiunt tanquam ad sacram anchoram. Quamvis longe plura observassent ex Arabismo ad sacri textus illustrationem, si illius linguae fuissent peritiores.”

¹⁶⁰ Bochart, *Hierozoicon sive bipartitum opus de animalibus Sacrae Scripturae*, Leiden 1712 (1st ed. 1663), p. 62: “ut ex ipso fonte biberem et sacros vates consulerem propria lingua loquentes”.

¹⁶¹ Bochart, *Hierozoicon*, p. 62: “non solum veteres Scripturae versiones in locis difficilibus diligenter contuli, sed et ipsas inter se linguas”.

and Arabia, and among the faraway Ethiopians”.¹⁶² In doing so, he drew the greatest advantage from Arabic as a comparative resource. It surpasses the aids that may be drawn from the Talmud and the rabbinical literature.:

As a matter of fact, nothing has helped me so much as knowledge of the Arabic language. In the other dialects of Hebrew, there is hardly anything of importance apart from some translations or paraphrases of the Bible, whereas the Arabs, for almost nine hundred years, have cultivated all the sciences with great diligence and have written extensively on each subject, often using words that are precisely Hebrew or have a strong affinity with Hebrew words. Therefore, if anyone industriously explores the bookstores of the Arabs, he would draw more from them for the solid knowledge of the holy tongue than from the vast miscellanea of the Talmudists or from all the commentaries of the Rabbis. This is what I have learnt from writing this book on animals. Although I possess only a few Arabic books and have read even fewer, much light has shone on me from these few books.¹⁶³

In his defence of comparative Hebrew philology, Schultens (*Origines Hebraeae*, vol. 2, p. 116) cited Bochart's autobiographical account and recommended it as a mirror for every student of Hebrew.

¹⁶² Bochart, *Hieroicoicon*, p. 62: “Et quod Hebraeos fugerat, in Babylonia, Syria, Arabia quaerebam aut inter extremos Aethiopes.”

¹⁶³ Bochart, *Hieroicoicon*, p. 62: “Sed ut dicam quod res est, nihil mihi tam profuit quam Arabiae linguae qualiscunquae cognitio. Cum enim in reliquis Hebraicae linguae dialectis praeter aliquot Scripturae versiones aut paraphrases vix quicquam habeatur quod sit alicuius momenti. Arabes abhinc annis fere nongentis omnes omnino scientia magna cura excoluerunt. Et de singulis multa scripserunt, iis plerumque cum verbis quae vel mere Hebraica sunt vel cum mere Hebraicis magnam habent affinitatem. Itaque, si quis Arabum scrinia sedulo complilaret, plura ex iis eleceret ad solidam sacrae linguae cognitionem pertinentia, quam vel ex vasta illa Talmudicorum farragine vel ex magistrorum commentariis omnibus. Id expertus sum in hoc ipso libro quem de animalibus scripsi, quamvis enim Arabicos libros paucos habeam et pauciores legerim, tamen ex paucis illis mihi multum lucis adfulsi.” Then, Bochart specifies the Arabic books he owned. Today they are extant at the Municipal Library of Caen: MSS 7–8, *Kitāb al-mazāmir*, “The Psalms”; MS 51 *al-Qurʾān*; MS 80 *Ajāʾib al-makhlūqāt*, “The wonders of creatures and the marvels of creation”, of al-Qazwīnī; MS 90 *al-Jāmiʿ fī-ladwīyat al-mufradat*, “Book of simple medicaments”, etc., of ibn al-Baytār; MS 188 *Kitāb al-nasāʾih*, “Book of advice”, of al-Muhasībī; MS 188 *ḥayāt al-ḥayawān al-kubra*, “The great life of animals”, of al-Damīrī; MS 91 *Majmaʿ jāmiʿ al-ḥikam*, “Collection of all the remedies”, of Abdallah bin Muhammad; MSS 198–199 “Excerpts from al-Qamus” of al-Firūzābādī, and MS 191 *fī faḍāʾil al-quds al-mubārak*, “The merits of Jerusalem”, of al-Maqḍīsī. For a detailed description, see Pierre Ageron, “Les manuscrits arabes de la bibliothèque de Caen”, *Annales de Normandie* 58 (2008), pp. 90–123.

In *Smegma Orientale* (1658), Johann Heinrich Hottinger emphasized the importance of Arabic for restoring lost Hebrew roots and for explaining obsolete Hebrew words. In ch. 5, he recommends recourse to related Semitic languages in biblical interpretation, particularly Arabic:

For the rest, it is certain and proven by reliable evidence in our century that the more knowledge of related languages the Bible interpreter brings, the more he will make progress in this majestic book. From the Arabic language, we can ascertain that it contributes much to this aim. Primarily, the Arabs restore obsolete words and those that are almost unknown through the damage that results from the passage of time.¹⁶⁴

In the preface to his polyglot dictionary, Hottinger underlines the value of Arabic in the restoration of lost verbal roots (*restitutio radicum*) to Hebrew as the supposed primordial mother language, something that he designates as the second level of the critical, or philological, study of Hebrew:

In other treatises, I have sufficiently proved that the Hebrew mother language, during its exiles and in the passage of time, has been reduced to such narrow limits that it often has to be supported by its daughter-languages. Scholars have long observed that Arabic recommends itself in this regard. I have previously proved this with several examples, but in the present etymological dictionary, it is demonstrated more extensively and with a larger number of examples than I had previously believed possible. I have shown that not only are the Arabs indebted to their mother, but also, very frequently, the Aramaeans, the Syrians, and even the Ethiopians, though more rarely the Samaritans.¹⁶⁵

¹⁶⁴ Hottinger, *Smegma Orientale*, Heidelberg 1658, p. 69: “De caeteris hoc certum et nostri potissimum saeculi fide abunde probatum quod, quo maiorem interpres huc attulerit linguarum vicinarum peritiam, eo feliciori pede in augusto illo opere progressurus. Nam polliceri possumus [...] de lingua Arabica plurima eam huc conferre: 1. Voces absolutas et iniuria temporum Hebraeis pene ignotas Arabes restituant.” At the beginning of ch. 7, p. 107, Hottinger restates the same argument: [...] “id ipsum nunc plenius propinabimus demonstraturi vix intricatiorem occurrere vocabulum, cui Arabia non aliquid afferat lucis.” “I will proceed to demonstrate more carefully the fact that there is hardly any obscure word to which Arabia does not bring any light.”

¹⁶⁵ Hottinger, *Etymologicum Orientale sive Lexicon harmonicum*, Frankfurt am Main 1661, preface, b recto (p. 9): “Alibi satis evidenter a nobis probatum est ad eas per tot exilia, seculorum fata, matrem Hebraeam redactam angustias, ut subsidium saepe mutuet a filiabus. Arabica hoc se nomine commendare viri docti pridem viderunt. Et nos antehac pluribus id ipsum probavimus exemplis. Hoc tamen Etymologo nostro fusius, et eo numero, quem vix antehac ipsi sperare ausi fuissimus. Neque enim gratiam hanc Matri Arabes tantum rependere, sed et Chaldaeos, Syros, imo et Aethiopes frequentissime, Samaritanos rarius.”

3.2.2 Walton, Erpenius, and Kromayer

Similar positions are found among other 17th-century savants of Hebrew and Arabic. In the chapter on Arabic in the prolegomena to the London Polyglot Bible, Brian Walton states:

Although Hebrew once had a large vocabulary, it survives in the Old Testament only in a damaged and scanty form. Hence, it ought to be supplemented and explained through Arabic, which we possess as a complete language, because many Hebrew roots agree with Arabic. Among others, Ibn Ezra, in his commentary on the Song of Songs, stated that Hebrew words that occur only once or twice in the Old Testament should be explained according to their usage in Arabic. Thus, it is clear from the writings of the Jews (as Bochart truly observed) that the Rabbis, whenever at a loss, resort to this language as to a holy anchor.¹⁶⁶

One generation earlier, Erpenius had made the same point in his second speech on the value of Arabic, delivered in 1620:

I do not wish, dear auditors, that Hebrew words should be derived from Arabic, but that the meanings and origins of obscure words in the Hebrew language – of which only a damaged and scanty part remains in the books of the Old Testament – can be illustrated and explained by the same words that are extant in Arabic, which is still a complete language and has most of its roots and word structure in common with Hebrew.¹⁶⁷

The German Orientalist August Pfeiffer (1640–1698) argued that verbal and nominal roots and derivatives that have not survived in Hebrew may be restored through related languages (*cognatae linguae*), especially Arabic, which was still flourishing. In response to the objection that it is

¹⁶⁶ Walton, *In Biblia polyglotta prolegomena*, London 1657, chapter 14 “De lingua Arabica” p. 98, § 7: “Lingua vero Hebraea licet olim vocabulis magis numerosa, mutila tamen et exigua sua parte in Vet[ere] Test[amento] tantum hodie extat, unde ex Arabica, quam integram habemus, suppleri et explicari debet. Multae enim radices Hebraicae communes sunt cum Arabicis; et vocabula Hebraica quae semel vel bis occurrunt in Vet. test. ex consuetudine sermonis Arabici exponenda esse statuit inter alios Aben Ezra, Comment. in Cant. canticorum. Unde ex Hebraeorum scriptis constat (ut vere observavit Bochartus) quod Rabbini cum iis aqua haeret, ad hanc linguam ut ad sacram anchoram confugiant.”

¹⁶⁷ Erpenius, “Oratio II de lingua Arabica”, in *Orationes tres de lingua Arabica et Hebraea*, p. 69: “Non enim hoc volo, Auditores, ut voces Ebraeae ab Arabicis deriventur, sed ut vocum obscuriorum vires atque origines in lingua Ebraea, quae mutila et exigua tantum sui parte in veteris Testamenti libris reliqua est, ex iisdem extantibus in Arabum lingua, quae integra adhuc est et communes plerasque cum illa radices ac vocum rationes habet, illustrentur atque explicentur.” This passage is quoted by Loop, *Hottinger*, p. 75, and by Robert Jones (1986: 21).

inappropriate to derive Hebrew words from Arabic and Aramaic roots, he replies in his hermeneutical handbook (1698), chapter 6, §§ 7–8, that the Hebrew words are not derived “from foreign roots, but from genuine Hebrew roots preserved in other languages”. Hebrew does not seek anything foreign, but “finds that which belongs to it by its own right”. In a further remark in the seventh paragraph, he clarifies this assumption as follows:

That which the other (cognate) languages have received from Hebrew and thus owe to it as their mother language is rightly vindicated or restored to Hebrew through the law of postliminy.¹⁶⁸

At about the same time that Schultens submitted his treatise on the usefulness of Arabic for interpreting the Bible, Abraham Kromayer had already more clearly proposed a research programme for Arabic studies as an aid to biblical interpretation. In his commentary on the Book of Job (1707),¹⁶⁹ Kromayer synthesized the statements of Bochart, Pococke, Hottinger, Walton, and Pfeiffer. In the first introductory volume, he defends the value of Arabic (a) for reconstructing lost lexical roots of Ancient Hebrew, (b) for bringing nominal and verbal derivatives in semantic agreement with the sense of the abstract root, (c) for exploring the meaning of Biblical Hebrew words that occur only once or rarely, (d) for restoring lost meanings of common roots in Biblical Hebrew, and (e) for elucidating Biblical Hebrew phraseology.¹⁷⁰ He also recommends the phono-semantic approach to Hebrew proposed by Caspar Neumann and Jacques Gousset.¹⁷¹ He concludes by justifying the usefulness of Arabic for explaining obscure passages, terms, and syntax in the Greek New Testament.¹⁷²

Kromayer was able to apply these principles in two studies, namely the above-mentioned study on Job (1707) and a commentary on Hosea, Joel, and Amos (1730).¹⁷³ However, as a historiographer of Semitic language studies, the German Enlightenment theologian and Orientalist Johann

¹⁶⁸ Pfeiffer, *Thesaurus hermeneuticus sive de legitima Sacrae Scripturae interpretatione* 2nd ed., Leipzig and Hannover 1726 (1st ed. Leipzig 1698), p. 250: “Quod ex lingua Ebraea aliae linguae acceperunt adeoque illi tanquam matri debent, illud linguae Ebraicae merito postliminio vindicatur sive restituitur.”

¹⁶⁹ Kromayer, *Filia matri obstetricans, hoc est de usu linguae Arabicae in addiscenda Ebraea et explicanda Scriptura S. libelli duo*, Frankfurt am Main and Leipzig 1707. The first part (pp. 1–67) deals with the utility of Arabic and the second part (pp. 68–230) offers a linguistic commentary on Job.

¹⁷⁰ Kromayer, *ibidem*, chapters 1–5, pp. 12–58.

¹⁷¹ Kromayer, *ibidem*, chapter 6, pp. 58–63.

¹⁷² Kromayer, *ibidem*, chapter 7, pp. 63–67.

¹⁷³ Kromayer, *Specimen fontium Scripturae S[acrae] apertorum editum in illustrandis vaticiniis Hoseae, Ioelis et Amosi*, Amsterdam 1730. Schultens possessed this work. See the auction catalogue of his selected library, *Pars bibliothecae Scultensianae*, p. 44, no. 19 in octavo.

Gottfried Eichhorn (1752–1827) pointed out that Kromayer was impeded by a lack of access to pertinent Arabic source texts and thus could not implement his research programme to the extent he intended. In contrast, through his access to rich resources of Arabic manuscripts, which comprised early Arabic source texts, scholia on these texts, and Arabic lexicographers, Schultens was able to bring the same programme to greater maturity and a higher scientific level.¹⁷⁴

3.2.3 G. W. Leibniz and Silvestre de Sacy

In his treatise *Epistolary dissertation on etymological research in the past* (1712),¹⁷⁵ the polymath Gottfried Wilhelm Leibniz (1646–1716) commented on the utility of Arabic for elucidating the etymology of Hebrew:

It is certain that Arabic, both in its position among nations and in its structure, is so close to Hebrew that it seems to me no less reasonable to seek Hebrew roots in Arabic than to recover lost Saxon roots from the Germanic dialects, including Scandinavian and Icelandic, or from English. [...] He who does not resort to related languages, notably the most cultivated and widespread Arabic, when exploring Hebrew roots, seems to me like an astronomer who, when exploring the regular orbits of stars, relies only on observations from his own hemisphere of stars, while neglecting those from distant places.¹⁷⁶

¹⁷⁴ J. G. Eichhorn, *Geschichte der neuern Sprachenkunde* (Geschichte der litteratur von ihrem Anfang bis auf die neuesten Zeiten, vol. 5), Göttingen 1807, p 482: “Mit Schultens zu gleicher Zeit betrat Kromayer (1707) denselben Weg der hebräischen Spracherläuterung aus den morgenländischen Dialekten in Deutschland: aber als Gelehrter einer kleinen Landesstadt, bey dürftigeren Hülfsmitteln, konnte er es seinen niederländischen Zeitgenossen, einem Universitätslehrer in der Nähe der an Manuscripten reichen Leidner Bibliothek, weder in Tiefe der Sprachforschung, noch in ausgebreiteter Wirksamkeit gleich thun.”

¹⁷⁵ Leibniz wrote this treatise as a supplement to Johann Eckhard’s *Historia studii etymologici linguae Germanicae* (1712). Leibniz’s treatise was first published by Stephano Gensini, *Il naturale e il simbolico*, Rome 1991, pp. 201–271.

¹⁷⁶ Leibniz, *Epistolaris de historia etymologica dissertatio*, Hannover, Gottfried Wilhelm Leibniz-Bibliothek (Niedersächsische Landesbibliothek), MS IV 469, fol. 86r: “Nam Arabicam, et situ gentium et ipsa textura, admodum vicinam esse Hebraica constat, ut Hebraicas quasdam radices ex Arabico petere mihi non minus rationi consentaneum videatur, quam Saxonicas quasdam apud nos amissas ex Scandica vel Islandica Teutonismi dialecto vel ex Anglico renovare.” [...] fol. 86v: “Mihi enim videbatur eum, qui cognatas Hebraeae linguas et cultissimam omnium diffusissimamque Arabicam in radicibus Hebraeis investigandis non adhiberet, similem esse Astronomo, qui ad astrorum leges pervestigandas sui tantum coeli observationibus uteretur, eas autem negligeret quae in locis remotis factae essent.”

In a speech “On the utility of Arabic poetry”, the French Orientalist Antoine Isaac Silvestre de Sacy (1758–1838) gives voice to an idea that had enlivened earlier generations of Western Arabists to explore Arabic poetry, namely its application to the interpretation of biblical poetry. Towards the end of his speech, he comments on this topic in a remarkable passage:

If the study of ancient Arabic poetry can, as doubtless it can, help us to penetrate more deeply the sanctuary of the poetry of ancient Zion, and if, with its aid, we can dispel any of the obscurity that renders us less sensitive to the sublime poetry of Isaiah, the eloquent lamentations of Jeremiah, the bold and fearful pictures of Ezekiel, the bitter mourning and the vivid expression of conscious innocence in Job, and the notes of David’s lyre, so varied yet always so noble and pathetic, can we regret the labour we have devoted to acquiring knowledge from which we reap such results?¹⁷⁷

3.3 Schultens’ studies of Arabic

3.3.1 Schultens’ early studies of printed textbooks in Arabic

Between 1702 and 1709, Schultens studied printed Arabic texts. He consulted Arabic Bible translations, such as the one issued in 1671 by the papal institute for missionary work (*Sancta congregatio de propaganda fide*) and the one published in the London Polyglot Bible in 1657. Subsequently, he broadened his basis by studying other printed texts, primarily the Koran, which had recently been edited by Abraham Hinckelmann (1694, without translation)¹⁷⁸ and Ludovicus Marracci (1698, with a Latin translation).¹⁷⁹

¹⁷⁷ Silvestre de Sacy, *De l'utilité de l'étude de la poésie arabe*, Paris 1826, p. 21: “Si l’étude des anciennes poésies arabes peut nous aider, comme on ne saurait en douter, à pénétrer plus profondément dans le sanctuaire de la poésie de l’antique Sion; si, avec leur secours, nous dissipons quelques-unes des obscurités qui nous rendaient moins sensibles aux sublimes chants d’Isaïe, aux éloquentes douleurs de Jérémie, aux énergiques et effrayantes peintures d’Ezéchiel, aux amers gémissemens et à l’expression vive de l’innocence éprouvée de Job, aux accens si variés et toujours si nobles et si touchans de la lyre de David, dira-t-on encore qu’il faut regretter les efforts qu’on aura consacrés à acquérir une connaissance à laquelle on doit de semblables résultats?” An English translation of this passage was made by the American biblical scholar Joseph Packard (1812–1901), “Claims of the Arabic language and literature”, *The biblical repository and quarterly observer*, vol. 24, Andover and Boston 1836, p. 444.

¹⁷⁸ Hinckelman (ed.), *Al-Coranus sive Lex Islamitica Muhammedis, filii Abdallae, Pseudoprophetae*, Hamburg 1694.

¹⁷⁹ Marracci (ed.), *Alcorani textus universus ex correctioribus Arabum exemplaribus [...] ex Arabico idiomate in Latinum translatus [...]*, Padua 1698.

He also studied Arabic texts published by Thomas Erpenius, such as the fables of Luqmān the Wise (1615¹⁸⁰) and the history of the Muslims by Jiris ibn al-ʿAmīd al-Makīn, published as *Historia Saracenica* by Erpenius in 1625. Furthermore, he studied texts published by Golius, such as the poem *Lamīyat al-ʿAjam* by al-Ḥusayn ibn Ali al-Ṭughrāʾī, and Golius' edition of the life of the Turco-Mongol conqueror Timur (*Historia Tamerlanis*, 1636),¹⁸¹ as well as texts appended to Golius' re-edition of Erpenius' Arabic grammar in 1636, among others:

- *Maqāmah*, the first tale (session of Sanaʿā) by al-Ḥarīrī of Basra,
- *Saqt al-zand*, “The Spark of the fire stick”, by the Arabic poet Abū al-ʿAlā al-Maʿarrī,¹⁸² whom Schultens refers to as Abulola.

3.3.2 Schultens' studies of Arabic literature in manuscript

Soon after his doctoral promotion in July 1709, Schultens decided to pursue his planned study of Arabic manuscripts in the holdings of Leiden University Library. Having gradually become convinced that the original meanings of Hebrew lexical roots were to be found in Arabic and should be investigated in the earliest attested literature, he realized that the printed sources were insufficient for his new goal, namely to elucidate the etymological semantics of Ancient Hebrew.

Admitted to the Warner Collection in Leiden, Schultens focused on a selection of texts that he considered reliable testimonies of the earliest Arabic usage, from which it would be possible to reconstruct the lost lexical roots and original semantics of Ancient Hebrew. In the preface to his edition of the first three tales, so-called “sessions”, of al-Ḥarīrī, he gives an account of the textual corpus he selected. It comprised the following works:

- (1) the anthology of pre-Islamic Arabic poetry, *al-Muʿallaqāt* (from the 5th to the early 7th century), compiled by Hammad al-Rawiya in the 8th century and transmitted in various versions,

¹⁸⁰ *Locmani sapientis Fabulae et selecta quaedam Arabum adagia*, Leiden 1615. In the preface (pp. 6–9), Erpenius identifies Luqmān the fabulist with Luqmān the Sage mentioned in the Koran, Sura 31, thinking that Luqmān was a Persian Jew who lived in the reign of Cyaxares and wrote a book of fables in Persian at the same time as Aesop (6th century BC). It was reportedly translated into Arabic “many centuries ago”. According to *The Encyclopaedia of Islam*, vol. 5, new ed., Leiden 1986 (s.v. Luqmān), the fables of Luqmān did not appear in Arabic until the late Middle Ages among Christians in Egypt. The Parish manuscript published by Joseph Derenbourg in 1850 is dated 1299. The 37 fables in Erpenius' collection are all found in Aesop's Fables.

¹⁸¹ Golius, *Ahmedis Arabsiadæ vitæ et rerum gestarum Timuri, qui vulgo Tamerlanes dicitur, historia*, Leiden 1636.

¹⁸² These two texts had already been published by Golius' German student, Johann Fabricius, in *Specimen Arabicum*, Rostock, 1638. For this fact and the other appended texts, see Loop, “Arabic poetry as teaching material”, p. 246.

(2) the anthology of Arabic poems – most of which are pre-Islamic – known as *al-Ḥamāsa*, compiled in ten books by Ḥabīb ibn Aws al-Ṭāʿī Abū Tammām (d. AD 845), from which he later (in 1748) published a selection from books 1–3,¹⁸³

(3) the medieval collection of poems by the poets of the West-Arabian Hudhayl tribe, known as *Diwan Hudailitarum*,

(4) a collection of poems by the grammarian, lexicographer, and poet Ibn Durayd (AD 837–934),

(5) the collection of stories in rhymed and rhythmic prose, *al-Maqāmāt*, by Abū Muhammad al-Qāsim ibn ʿAlī al-Ḥarīrī of Basra (d. AD 1122).¹⁸⁴

Schultens correctly argued that the first two anthologies are the earliest records of old Arabic poetry. He thought that old Arabic poetry embodies the virtues of purity, impressiveness, dignity, and grandiloquence. However, he did not use the third comprehensive anthology of Classical Arabic poetry, viz. *Mufaḍḍaliyyāt*, compiled by Mufaḍḍal al-Dabbī.¹⁸⁵

The reason for his attention to al-Ḥarīrī may be that Hinckelmann, in the preface to his Arabic edition of the Koran, hailed al-Ḥarīrī as “the Cicero of the Arabs” (*Cicero Arabum*) and classified *al-Maqāmāt* as belonging to the ancient genre of oratory, the rhythmic prose of which lies between poetry and prose.¹⁸⁶ In his textual edition and translation of the first three stories, “sessions”, of al-Ḥarīrī’s *al-Maqāmāt*,¹⁸⁷ Schultens perceives its elegant, varied, rhymed and rhythmic style as a manifestation of an Oriental grand style (*grandiloquentia orientalis*), which he compares to the usage of the Book of Job, Proverbs, and the Psalms.¹⁸⁸

¹⁸³ Schultens’ excerpts from *Ḥamāsa* are listed in the auction catalogue of Jan Henric van der Palm’s library: *Catalogus librorum ac manuscriptorum Bibliothecae Schultensianae, qua, dum in vivis erat, usus est Joh. Henr. van der Palm*, Lugduni Batavorum 1841, see the heading of *Codices manuscripti Schultensiani*, p. 191, no. 41: “Excerpta quaedam ex al-Hamasa [...] descripta manu Alb. Schultensii.”

¹⁸⁴ Schultens describes his specialization in a corpus of primary Arabic source texts in the preface to his edition of the first three chapters of al-Ḥarīrī’s *Maqāmāt*. See Schultens, *Haririi [...] tres priores consessus*, Leiden 1732, preface, pp. 2–5.

¹⁸⁵ The poetry of *Muʿallaqāt* and *Mufaḍḍaliyyāt* is the Umayyad codification of the store of old Arabic *qaṣīda* poetry, while the *Ḥamāsa* of Abū Tammām represents a later stage in the work of collection and arrangement.

¹⁸⁶ Hinckelman (ed.), *Al-Coranus sive lex Islamitica Muhammedis filii Abdallae pseudoprophetae [...]*, Hamburg 1694, preface, page with the sign j [3].

¹⁸⁷ The title reads: *Haririi eloquentiae Arabicae principis tres priores consessus*, i.e. “the first three sessions of al-Ḥarīrī, the prince of Arabic eloquence”. It was published in Franeker in 1731. “Sessions” is the established English translation of *maqāmāt*, but the Arabic word properly means “standings”, referring to the posture of the orator when delivering a public speech.

¹⁸⁸ Schultens, *ibidem*, preface, p. ** r. Cf. Eskhult, *Albert Schultens as an innovator*, Vol. 2, Section 7.2.1, the remark on the Oriental style (*stylus Orientis*), p. 199.

3.3.3 Studies of Arabic commentators and lexicographers

For his interpretation of selected texts, Schultens consulted early Arabic commentators and scholiasts. To better understand the *Mu‘allaqāt* poems, he read the commentary by Ahmed ibn Muhammad al-Naḥḥās (AD c. 950), and to make sense of the tricky, rhetorical style of al-Ḥarīrī, he turned to the 16th-century commentator Abdallah ibn Muhammad al-Ṭaballabi.¹⁸⁹ For a more advanced understanding of the *Ḥamāsah* poetry, he consulted the famous commentator al-Tebrīzī (d. 1109).

Also, Schultens made efforts to reach beyond Arabic lexicography as represented by Antonio Giggei and Jacob Golius by reading the sources on which their dictionaries are based, the monolingual non-alphabetic dictionaries *Taj al-luġa wa Ṣaḥāḥ al-Arabiyya*, “Crown of the language and correctness of Arabic” by al-Jawharī (d. 1002), and *al-Qāmūs*, that is “the Ocean”, by al-Fīrūzābādī (d. 1414). He also studied and excerpted the Arabic dictionary *‘Asās al-balāġa*, “Foundation of eloquence,” by al-Zamakhsharī (d. 1144), the main purpose of which was to identify and elucidate metaphorical and metonymic meanings in Arabic vocabulary.

3.3.4 Copying of important Arabic manuscripts

Schultens copied al-Ḥarīrī’s *al-Maqāmāt* in its entirety, that is, in all its fifty “sessions” or conversations.¹⁹⁰ His copy is held by Leiden University Library.¹⁹¹ As he states in the preface to his edition and translation of this work,¹⁹² he also produced a Latin translation of it, most of which survives.¹⁹³ Moreover, he copied the collection of the seven poems of *al-Mu‘allaqāt*.¹⁹⁴

¹⁸⁹ Schultens refers to al-Ṭaballabi by the Latinized name “Teblebius.”

¹⁹⁰ Schultens, preface, p. ** r: “[...] a capite ad calcem describendo [...]].”

¹⁹¹ Leiden University Libraries, Special Collections, MS Or. 1502, fols. 1r–fol. 336r.

¹⁹² Schultens, *Consessus Hariri quartus, quintus et sextus*, Leiden 1740, see praefatio, p. *2v: “Omnium consessuum versionem iam a longo paravi,” that is, “Already long ago I prepared a translation of all the sessions.” The anonymous biographer (1750: 356) says: “Mr. Schultens a traduit les 50 dissertations de cet incomparable auteur, mais 6 seulement ont vu le jour, les trois dernières ont été imprimées en 1740.” In a letter to Sir William Jones, Henric Albert Schultens writes that he aimed to publish his grandfather’s Latin translation, but that he had been asked not to do so without also editing al-Tebrīzī’s comments on the *Maqāmāt*, a task that he never managed to accomplish.

¹⁹³ See Leiden UB, Special Collections, MS Or. 1491, which contains Schultens’ Latin translation of sessions 7–44 and 48–50 (fol. 1r–359r) and a collection of metaphorical phrases in the Arabic source text (*Ex Hariri locutiones metaphoricae*, fols. 361r–368r). Generally, each session is copied on quires of eight folios, one or two of which are usually blank, but occasionally more may be blank. All in all, 72 folios are blank.

¹⁹⁴ Leiden UB, Special Collections, MS Or. 1500 titled *Septem Moallekat*, which comprises 217 numbered pages. For the Arabic poems of Imru’ al-Qays (spelled “Amrolkiskus”), see pp. 2–28; for Ṭarafah and Ka’b ibn Zuhayr, see pp. 29–80; for

This copy was listed in the auction catalogue of the library of Jan Jacob Schultens¹⁹⁵ and the auction catalogue of the library of van der Eerde (1836; p. 337, no. 6900). Moreover, he copied the Diwan of the Hudhayls¹⁹⁶ and the poem of Ibn Durayd.¹⁹⁷ He most likely made extensive excerpts from abū Tammām's anthology *al-Ḥamāsa* of early Arabic poetry, which he used for his Hebrew etymology (e.g., in *Origines Hebraeae*, vol. I, 1724, and his commentary on the Book of Job, 1736) and partially edited as a textbook appendix to his republication of Erpenius' Arabic grammar (1748).

Among linguistic resources, Schultens copied the commentary on *al-Mu'allaqāt* by al-Naḥḥās¹⁹⁸ and the 16th-century commentary on al-Ḥārīrī by Abdallah ibn Muhammad al-Ṭaballabi.¹⁹⁹ He made excerpts from the Arabic dictionaries of al-Jawharī, al-Firūzābādī, and al-Zamakhsharī.²⁰⁰ In this way, he expanded his store of aids for Arabic philology.

Labīd, see pp. 81–117; for 'Antarah, see pp. 119–146; for Al-Ḥārith ibn Ḥilliza, see pp. 147–181; and for 'Amr ibn Kulthūm, see pp. 182–217. To the poems by Imru' al-Qays, Ṭarafah and Labīd, Schultens has added references to Barthélemy d'Herbelot's *Bibliothèque Orientale* (1697, p. 111, p. 1025 and p. 182 respectively).

¹⁹⁵ *Bibliotheca Schultensiana sive Catalogus librorum quos collegit vir clarissimus Jan Jacob Schultensius* (...), Leiden 1780, p. 604, no. 6990 "Septem Moallakāt. Arab. pulcherrime scriptus." In preparing his edition and English translation of *al-Mu'allaqāt*, Sir William Jones drew attention to this manuscript item in the auction catalogue. In a letter to H. A. Schultens in 1781, he implored him to inform him whether it had been sold and, if so, to whom.

¹⁹⁶ See Leiden UB, MS Or. 1501, which has Albert Schultens' Arabic handwriting. In turn, it is his copy of Leiden UB, MS Or. 549.

¹⁹⁷ The auction catalogue of van der Palm. *Catalogus librorum et manuscriptorum Bibliopthecae Schultensianae*, p. 190, no. 41: "Ibn Doreidi Carmen cum excerptis ex scholiis Arabicis [...] omnia [...] descripta manu Alb. Schultensii."

¹⁹⁸ Leiden UB, MS Or. 1500. This is Schultens' copy of Leiden UB, MS Or. 628,

¹⁹⁹ The copy of it is listed in the auction catalogue of van der Palm 1841: p. 190, ms. no. 40: "At-Teblebii scholia in al-Haririi Consessus XIV priores, descripta manu Alb. Schultensii. 154 pagg. 4to."

²⁰⁰ Schultens, *Haririi eloquentiae Arabicae principis tres priores consessus e codice manuscripto Bibliothecae Lugduno-Batavae pro specimine emissi ac notis illustrati*, Franeker 1731, preface, pp. 5–6, states that at this time he perused Arabic lexicographers. His excerpts from al-Jawharī, al-Zamakhsharī, and al-Firūzābādī are unfortunately not preserved, but the fact that he filled two volumes with lexicographical excerpts is clear from van der Palm's library catalogue, p. 190. The excerpts of Schultens are listed as no. 36: "Insignis collectio thematum et vocabulorum Arabicorum ex az-Zamacario, praecipue autem ex al-Gauhario et al-Firuzabadio, exceptorum ab Alberto Schultensio", and no. 37: "Excerpta ex lexicographis Arabicis al-Gauhario, al-Firuzabadio et az-Zamacario caet. scripta manu A. Schultensii". According to the catalogue, the former volume (no. 36) was supplied with a word index by Dithmar Hackmann.

PART 2.
LEXICOGRAPHIC BACKGROUND

4. Hebrew lexicography in the Middle Ages: The Jewish tradition

4.1 Periodization, sources and centres of study

Until the 16th century, knowledge of Hebrew was almost exclusively the domain of Jewish scholars. In the 9th century, Arabicized Jews composed bilingual Hebrew-Arabic glossaries. In the 10th century, Jews in the Near East, North Africa, and Muslim Spain began to revive their knowledge of Biblical Hebrew by describing it in grammars and dictionaries and by using it in biblicizing prose and poetry.²⁰¹ In the ensuing two centuries, more complete and more advanced grammars and lexicons were published.

The emergence and development of medieval Jewish grammar-writing and lexicography of Biblical Hebrew may be divided into four periods, viz., the initial period (the 10th century), the creative period (1000–1148), the period of adaptation and dissemination (1148–1200), and the period of assimilation and standstill (1200–1550).²⁰² The attempts at this linguistic restoration were caused by the interplay of linguistic, exegetical, theological, polemical, and literary reasons.²⁰³ The medieval writers of Biblical Hebrew grammars and dictionaries drew on the synagogue tradition, post-Biblical Hebrew usage, ancient Bible translations, and related languages such as Aramaic and Arabic to inform their knowledge of Hebrew.

The centres and methods for learning Biblical Hebrew differed between periods. In the first period, the centres were Mesopotamia and North Africa. In the second period, most linguistic works were produced in Muslim Andalusia under the Caliphate of Cordoba. Until the end of that period,

²⁰¹ The new prose style was based on Biblical Hebrew grammar and syntax and absorbed morpho-lexical elements from Mishnaic and Midrashic Hebrew and from the word formations of the Payṭanic poetry. See Chaim Rabin, *The development of the syntax of post-biblical Hebrew*, Leiden 2000, pp. 31–39. For Spanish Hebrew poetry (c. 1000–1200), see *ibidem*, pp. 39–50.

²⁰² David Tene, “Hebrew linguistic literature”, *Encyclopaedia Judaica*, vol. 16 (the supplements), Jerusalem 1971, p. 1355, proposes this periodization. It was revised by J.M. Delgado, “Lexicography: Middle Ages”, pp. 510–513, but he differs from Tene by limiting the first period to the middle of the tenth century, by dividing the second period into two periods, viz. the classical grammatical period (c. 950–1050) and the creative period (c. 1050–1200) and by classifying the fourth period into a period of assimilation (13th–14th centuries) and period of decline (15th century).

²⁰³ Tene, “Hebrew linguistic literature”, *Encyclopaedia Judaica*, vol. 16, p. 1361.

Jewish scholars used Arabic as the scholarly medium for their publications and drew on Arabic grammarians and lexicographers as their model. After the Jews were expelled from the Iberian Peninsula in 1148, the Spanish exiles settled in Provence and Italy. There, they abandoned Arabic as their scholarly medium and began writing in Hebrew.²⁰⁴

Schultens was acquainted with most of the Hebrew grammarians and lexicographers of the Middle Ages, both Rabbinic and Karaite.²⁰⁵ Stressing that Hebrew lexicography began in the multilingual context of Arabic and Aramaic as languages of comparison, he justified his own comparative method by referring to its medieval antecedents.²⁰⁶

4.2 Saadia Gaon, Ibn Quraysh, and others

The most prominent scholar of the first period was Saadia Gaon (882–942) from Faiyum in Upper Egypt, director (Gaon) of the Talmudic Academy of Sura. He is the author of a prototype of a Hebrew dictionary titled אֶגְרוֹן (*Egrōn*), ‘Collection’, completed in 902. It consists of two parts, the former of which is a list of Biblical Hebrew words in alphabetical order by their first two radicals, while the latter is a list of words in alphabetical order by their final radical. Saadia was the first to observe restrictions on the co-occurrence of root consonants, namely that certain consonants are incompatible, for instance, the combinations לר, סז, and גל.²⁰⁷

²⁰⁴ Tene, *ibidem*, pp. 1356–1358.

²⁰⁵ For the development of the Hebrew lexicography of Jewish scholars in the Middle Ages, see David Tene, “Hebrew linguistic literature”, *Encyclopaedia Judaica*, vol. 16 (the supplements), pp. 1355–1367, José Martínez Delgado, “Lexicography: Middle Ages”, in Geoffrey Khan (ed.), *Encyclopaedia of Hebrew language and linguistics*, vol. 2 (2013), pp. 510–514, and Goshen-Gottstein, “The lexicography of Hebrew”, *Lexicographica: international annual for lexicography*, vol. 7 (1992), pp. 72–75. For a general survey of medieval Hebrew language studies, see Zwiep, *Mother of reason and revelation: A short history of medieval Jewish linguistic thought*, Amsterdam 1997. There are also several articles on the establishment of Hebrew linguistics in *History of languages sciences*, ed. by S. Aurox, E.F.K. Koerner, H.-J. Niederehe and K. Versteegh, Berlin 2000, vol. 1. The articles in question are written by Aron Dotan, “The Origins of Hebrew linguistics and the exegetic tradition”, pp. 215–229, Irene Zwiep, “Die Entwicklung der hebräischen Sprachwissenschaft während des Mittelalters”, pp. 228–234, Carlos de Valle, “Hebrew linguistics in Arabic”, pp. 234–240 and Wout Jac. van Bekkum, “Hebrew linguistics and comparative Semitic grammar”, pp. 240–244.

²⁰⁶ See further Section 17.1.1. Goshen-Gottstein, “The lexicography of Hebrew”, p. 72, similarly underlines the fact that Hebrew lexicography originated in a time when “the current language of learned discourse changed from Aramaic to Arabic” and when “the Jewish savants had at their practical command three cognate languages, i.e. Hebrew, Aramaic and Arabic.” He draws attention to the comparative approach of ibn Quraysh, Saadia, and ibn Janah, in contrast to the language-internal approach of Menahem ben Saruq.

²⁰⁷ Tene, *ibidem*, p. 1364.

One of Rabbi Saadia's contemporaries was Yehuda ibn Quraysh from Tahart in North Africa. He is the author of the first comparative linguistic treatise on Biblical Hebrew, addressed to the Jewish community in Fes as a *Risāla*, the title of his work. The first two divisions are alphabetical lists of hapax legomena in the Hebrew Bible by initial letter, compared with Mishnaic Hebrew and Aramaic. The third offers comparisons between Hebrew and Arabic words, with remarks on phonological and semantic correspondences.²⁰⁸ Ibn Quraysh observed several sound correspondences.²⁰⁹ He stands out as a precursor of early modern comparative Semitic lexicography.

Around 930–950, the Karaite scholar David ben Abraham al-Fasi (from Fes in Western North Africa) composed the *Kitāb Jāmi' al-Alfāz* ("Book of collected meanings") in Judeo-Arabic, in which he compared Biblical Hebrew words with Aramaic and Arabic. He stood partly under the impact of Ibn Quraysh.²¹⁰ Some decades later, the philologist and poet Menaḥem ibn Saruq (born in Tortosa, active in Cordoba) compiled a comprehensive dictionary of Biblical Hebrew, drawing on both Saadia and al-Fasi. It is titled *מחברת* (*Maḥberet*), 'Composition', the first dictionary in Hebrew.²¹¹

4.3 Yehuda Ḥayyuj, Ibn Janah, and Ibn Barūn

Yehuda Ḥayyuj (c. 945–1010), usually referred to as Juda Hiug in early modern sources, paved the way for a new period through his grammatical writings, in which, on the model of Arabic linguistic theory, he proposed the principle of a triconsonantal Hebrew root,²¹² even for weak and geminate verbs, a principle unknown to Saadia Gaon and Ibn Quraysh. The triradicality theory was to underlie all subsequent Hebrew lexicography.

Ḥayyuj's root theory was developed by Abū al-Walīd Marwān ibn Janah, known in Hebrew as Rabbi Jonah (AD 990–1050). He was born in Cordoba and was active in Saragossa. In *Sefer ha-Diqduq* "Book of detailed investigations", he provided a Hebrew grammar, *Kitāb al-Lumā* "Book of variegated topics" (Hebrew *Sefer ha-Riqmā*) and a lexicon, *Kitāb al-Uṣūl* "Book of roots" (Hebrew *Sefer ha-Shorashim*), which was completed around

²⁰⁸ Tene, *ibidem*, p. 1356. Ibn Quraysh's works was to undergo the same fate in the Christian West as other Arabic-language grammars and dictionaries of Hebrew: after they had been translated into rabbinical Hebrew in the High Middle Ages, they were forgotten and usually lost, unless surviving remnants were rediscovered in the 19th and 20th centuries.

²⁰⁹ In the introduction to *Risāla*, Ibn Quraysh points out the correspondences z–ḏ, ḥ–ḥ, '–ḡ and ṣ–ḏ (Section 15.1.3, nos. 1–4). In the last chapter of *Risāla*, he observes the correspondences z–ḏ, ḥ–ḥ, '–ḡ and ṣ–ṭ (Section 15.1.3, nos. 1, 3, 4 and 8).

²¹⁰ van Bakkum, "Hebrew linguistics and comparative Semitic grammar", p. 242.

²¹¹ Tene, *ibidem*, p. 1356.

²¹² Tene, *ibidem*, p. 1358; Leslie McFall, *The enigma of the Hebrew verbal system: solutions from Ewald to the present*, Sheffield 1982, p. 5.

1050 and included 2,000 roots, most of which trilateral, in alphabetical order. He corrects the errors of his predecessors and frequently uses Arabic and Aramaic as comparative sources.²¹³ His dictionary was “the peak of lexical achievement in the Middle Ages”.²¹⁴ It circulated in manuscript in the West and the Near East in its Arabic original and in the Hebrew translation of Yehuda ibn Tibbon. During his stay in Aleppo in the 1630s, Pococke acquired a manuscript of Ibn Janah’s *Kitāb al-Uṣūl* (now in the Pococke collection at the Bodleian Library, Oxford, and edited by Adolf Neubauer in 1875), which he used in his Bible commentary on Hosea and Joel.²¹⁵ Schultens greatly appreciated Ibn Janah’s dictionary, citing it in works by later medieval lexicographers, but failed to obtain a copy.

At the end of the 11th century, the comparative method was further advanced by Iṣḥāq ibn Barūn of Saragossa.²¹⁶ His *Kitāb al-muwāzana bayn al-luġa al-ʿIbrāniyya wa-l-Arabiyya*, “Book of comparison between the Hebrew language and Arabic”, completed about 1100, consists of a grammar and a dictionary. The dictionary provides a list of all roots in which pronunciation and meaning coincide in Hebrew and Arabic.²¹⁷

4.4 David Kimchi, Ibn Kaspi, ben Kalonymus, and Elias Levita

Synthesizing medieval Hebrew language studies – especially those of Yeduda Ḥayyuj, Ibn Janah, his father Moses Kimchi, and his brother Moses Kimchi – the Provençal Jewish scholar David Kimchi (1160–1235) compiled a treatise on Biblical Hebrew entitled *Sefer Mikhlol*, “Book of completeness”, in two parts: a grammar – which was first published as *Helek ha-Diqduq* by Gershom Soncino in Constantinople in 1532 and which was known as *Mikhlol* itself or also as *Sefer ha-Diqduq* – and a dictionary, first published in 1480 as *Helek ha-Inyan*, “Section of matters”, but from the 16th century onwards called *Sefer ha-Shorashim*, “Book of roots”. It supplanted other Hebrew lexicons and was the authoritative dictionary of Biblical Hebrew in the High Middle Ages. In the early modern period, it became the principal source for Christian lexicographers of Hebrew, as it was the only

²¹³ In using the comparative approach, ibn Janah had to face the opposition of those who forbade interlingual comparison an account of their belief in Hebrew as a holy language. See Aharon Maman, *Comparative Semitic philology in the Middle Ages from Saʿadiah Gaon to Ibn Barūn*, Leiden 2004, p. 16, and in detail, pp. 330–352.

²¹⁴ D. R. Jones, “Aids to the study of the Bible a selective historical account”, *The Cambridge history of the Bible*, vol. 3, ed. by Greenslade, Cambridge 1963, p. 524.

²¹⁵ Wilhelm Gesenius, *Hebräisches und Chaldäisches Handwörterbuch über das Alte Testament*, 2nd ed, Leipzig 1823, preface, p. XVII, n. 29.

²¹⁶ Tene, “Hebrew linguistic literature”, *Encyclopaedia Judaica*, vol. 16, p. 1363.

²¹⁷ ibn Barūn observed some sound correspondences between Hebrew and Arabic, such as Hebrew *zāyin* and Arabic *ḏāl*, Hebrew *śin* and Arabic *šin*. He might have known ibn Quraysh’s *Risāla*, but his work was to meet the same fate as that of his predecessors, so that the pre-modern Christian Hebraists could not build further on his results. The fragments of *al-muwāzana* were edited by Paul Kokovtsov in 1895.

printed medieval Hebrew dictionary available to them. In his private library, Schultens had access to the second Bomberg edition of Kimchi's dictionary and grammar (Venice 1547) and to an undated edition of the dictionary.²¹⁸

The Provençal Jewish biblical commentator, philosopher, and grammarian Joseph ibn Kaspi (c. 1279–1340) authored a Biblical Hebrew dictionary titled שרשרת כסף (*Sharshææt kæsæf*), “Chain of silver”. Isaac Last, who published samples of the dictionary in 1907,²¹⁹ characterized it as “the greatest monument of the philosophy of the Hebrew language that has ever been attempted”.²²⁰ Ibn Kaspi excluded the possibility of homonymy and synonymy. Using a logical method, he endeavoured to deduce the different meanings of each root and its nominal derivatives from a general, abstract meaning that, as a common denominator, would include and reconcile all derived and contextual meanings.²²¹ A Latin translation of his dictionary is preserved in the Vatican Library.²²²

In the mid-15th century, Isaac Nathan ben Kalonymus compiled a dictionary of Biblical Hebrew. In his work *Sefer yā'ir nātīb*, “A book that enlightens the path” (about 1447), he compiled a combined concordance and dictionary of Biblical Hebrew. Each entry first lists the biblical passages in which the word occurs, then presents a semantic analysis distinguishing its various meanings (see Figure 3b). It was published in Hebrew in 1523 and, in a Latin translation by Anton Reuchlin, in 1556 as *Concordantiarum Hebraicarum capita* (see Figure 3a). Schultens possessed the Latin translation²²³ and occasionally consulted it.

²¹⁸ *Pars bibliotheca Schultensianae*, p. 5, catalogued as no. 146 in folio: “R.D. Kimchi מכלול et השרשים, Venet. 1547, but Kimchi's grammar was printed again in Venice in 1545. *Bibliotheca Schultensiana*, p. 514, catalogues a Bomberg edition of Kimchi's ספר השרשים no. 996 in folio, without stating the year of publication.

²¹⁹ Isaac Last, “*Sharshot* [sic!] *kesef*”. The Hebrew dictionary of roots by Joseph ibn Kaspi”, *The Jewish quarterly review*, 19:4 (July 1907), pp. 651–687. (However, the title should be transliterated as *Sharshrot* or *Sharsh'rot*). As editor, he used the manuscript in Paris (Bibliothèque nationale, MS no. 1244). Giulio Bartolucci, *Bibliotheca magna rabbinica*, vol. 3, Rome 1683, p. 811, states that the manuscript of שרשרת כסף was found in *Biblioteca Angelica* in Rome and that this manuscript was the copy made in 1519 by the Jewish-Spanish Hebraist Alfonso de Zamora.

²²⁰ Isaac Last, *ibidem*, p. 652.

²²¹ Hanna Kasher and Moshe Kahan, “Joseph Kaspi”, in *Stanford Encyclopedia of Philosophy* (<https://plato.stanford.edu>), first published in 2006, substantial revision in April 2023, see heading “Philosophical principles in lexicographic methodology”. See also Isaac Last, *ibidem*, pp. 652 f.

²²² Vatican Library, MS Vat. ebr. 412. In the heading of the first page, it is described as a Latin translation of Ibn Kaspi's *Vocabularium Hebraicum*. Cf. Bartolucci, *ibidem*, p. 811, where it is titled אוצר לשון הקודש, ‘Repository of the holy language’.

²²³ *Bibliotheca Schultensiana*, p. 514, cataloged as no. 991: “Ant. Reuchlini Concordantiarum Hebr. Capita, *ibid.* [Basileae/ Basel] 1556”.

The next major advance in Hebrew lexicography was made by Elias Levita (1469–1549).²²⁴ Born in a village near Neustadt, he was active as a scholar and teacher of Hebrew in Padua, Venice, Rome, and Isny. He composed three dictionaries, the first of which is on Biblical Hebrew, *Sefer ha-Harkāva* (“Book of composition”). It deals with words with irregular inflection and was translated into Latin the same year as it was published, in 1525. The second dictionary of Jewish Aramaic, *Meturgeman*, was devised for interpreting the Jewish Targums and was published by Paul Fagius in Isny in 1541.²²⁵ The third is a small dictionary of Mishnaic and Talmudic Hebrew titled *Tishbi*, also published by Fagius in Isny in 1541. These dictionaries were widely used by Christian Hebraists in the 16th and 17th centuries, before the Buxtorfs provided *Lexicon Chaldaicum, Talmudicum et Rabbinicum* (1639–1640).

Through his *Masoret ha-Masoret* (1538), Levita also sparked the intense early modern debate about the origin of the vowel points. On philological grounds, he argued that the Masoretic vocalization system had a post-Talmudic origin. In the age of European religious confessionalization, this claim was welcomed by the Roman Catholic Church, as it undermined the authority of the Hebrew Bible, while it ran counter to the idea of *Hebraica veritas* in Protestant denominations.

Among European Jewry, Hebrew lexicography declined after Levita. This decline was due to several factors: Judaism shifted its main intellectual focus to Talmudic studies; the Jews were expelled from Spain in 1492, which disrupted European Jewry’s contacts with Arabic-speaking regions; and the linguistic data from Aramaic and Arabic had already reached their limits, given the available linguistic references.²²⁶

Admittedly, David de Pomis compiled a dictionary of Jewish Aramaic, *צמח דוד* (*šæmach David*, “The sprout of David”), in Venice in 1587, using Latin and Italian as explanatory meta-languages (*Dittionario novo hebraico/Lexicon novum Haebraicum*). However, it is merely a compilation of two earlier Aramaic dictionaries, namely the *Methurgeman* by Elias Levita and the *Arukh* on Biblical Aramaic by Nathan ben Yehiel (1035–1106). In the next century, David Cohen de Lara compiled a lexicon of Rabbinic Hebrew (*Lexicon Thalmudico-Rabbinicum*), published in 1668.²²⁷

²²⁴ For an account of Levita’s Hebrew scholarship, see Sophie Kesler Mesguich, “Early Christian Hebraists”, *Hebrew Bible/ Old Testament. The history of its interpretation*, vol. 2, pp. 272–275.

²²⁵ Levita also compiled a dictionary of proper Hebrew names, *Shemōt d’bārīm*, “Names of words” (Isny 1542).

²²⁶ These factors are recognized by Barr, “Linguistic literature, Hebrew,” section 5: From the 16th century to the present, *Encyclopaedia Judaica*, vol. 16, p. 1392.

²²⁷ Schultens possessed these dictionaries; see *Pars bibliothecae Schultensianae*, p. 5, no. 147 in folio (de Pomis), and *Bibliotheca Schultensiana*, p. 514, no. 994–995 for two editions of ben Yehiel’s *Arukh*, and no. 997 in folio (de Lara’s lexicon).

5. Arabic lexicography

5.1 Indigenous tradition²²⁸

Centuries before lexicography was practised in Renaissance Europe, Arabic lexicography had already emerged. This activity was partly occasioned by the need of Arabicized nations to understand the Koran and by the necessity of assessing its readings and the legal and exegetical interpretations of it. The lexicographers employed various sources: the Koran, linguistic data collected from the Bedouins' usage, pre-Islamic and early Islamic poetry, reports of Muhammad's words and actions in oral transmission (*ḥadīth*), and proverbial sayings. The lexicographers were more interested in the rare and obsolete words of the Bedouins than in their common words.²²⁹

al-Khalīl ibn Aḥmed (d. 786) composed the first Arabic dictionary, *Kitāb al-ʿayn*, in which he records all the roots – but not all words – of the Arabic language in twenty-six chapters, one for each of the twenty-nine letters except the three “weak” letters *alif*, *wāw*, *yā* plus *hamza*, which are treated separately. Beginning with the letter *ʿayn*, he records how each letter forms a constituent of any root in its different positions (first, second, third, etc.), and he divides the roots according to the number of radicals, be it biliteral, trilateral, quadrilateral, or quinquiliteral. He arranges these roots according to his classification of Arabic phonemes by place of articulation, namely the throat (‘, ḥ, ḥ, ḥ, ġ), the uvula (q, k), the palate (g, š, ḍ), the apex (s, s, z), the alveolus (t, t, d), the gingiva (z, ḍ, ṭ), the laminae (r, l, n), and the lips (f, b, m), and a mixed class of “air-sounds” (namely w, ‘, y, and the glottal stop *hamza*).²³⁰ In his dictionary, he pays attention to the interchange of phonemes within each class.²³¹ Al-Khalīl's phonetic-permutative system was reduced to five classes in later Arabic and Hebrew linguistic traditions

²²⁸ The account below is primarily based on John A. Haywood, *Arabic lexicography: its history, and its place in the general history of lexicography*, 2nd ed., Leiden 1965. It is supplemented by Ramzi Baalbaki, *The Arabic lexicographical tradition from the 2nd/8th to the 12th/18th century*, Leiden 2014. For a condensed study, see idem, “Arabic to c. 1800” in *The Cambridge world history of lexicography*, edited by John Considine, Cambridge 2019, pp. 159–181.

²²⁹ Baalbaki, *The Arabic lexicographical tradition*, pp. 1–45, where methodological problems of each source are discussed; idem, “Arabic to c. 1800”, pp. 159–161.

²³⁰ Salomon I. Sara, “The formal approach of al-Khalīl to Arabic lexicography”, *Word* 51 (2000), pp. 25–26.

²³¹ Haywood, *Arabic lexicography*, pp. 35–38.

(Sections 10.1.2 and 10.1.1 below). These classes were in turn adopted by European Arabists and Hebraists in the early modern period.

al-Khalīl's lexicographical system was revised by ibn Durayd (837–933) in his dictionary, *Kitāb jamharat al-luġa*, where, in contrast to al-Khalīl, he arranged the roots alphabetically in *hijā'ī* order (rather than *abjadī*). He retained al-Khalīl's principles of division by root length (biradical, triradical, etc.) and by phonetic interchange within groups of consonants. Evidence is drawn primarily from poetry rather than from other sources.²³² Subsequent lexicographers, such as al-Qālī, Abū Maṣṣūr al-Azharī, al-Ṣāhib ibn 'Abbād, and Ibn Fāris in the 10th century, and Ibn Sīdah in the 11th century, continued al-Khalīl's phonetic-permutative system.²³³

The first to break with the al-Khalīl tradition was al-Jawharī (d. 1010), who introduced a principle based on rhyme, "according to which the roots are listed according to their final radicals" (Haywood, p. 68). His lexicon titled *Taj al-luġa wa Ṣaḥāḥ al-Arabiyya*, "The crown of language and the correct usage of Arabic", was widely known as *al-Ṣaḥāḥ* or *al-Ṣiḥāḥ*. As its title suggests, it focuses on the correctness of language in Arabic, *Arabiyya*, a concept drawn from its counterparts in Greek and Latin linguistic theory, where it is termed Hellenism (*Ἑλληνισμός*) and Latinity (*Latinitas* and *Latine loqui*).²³⁴ It contains about 40,000 entries, in which the meanings of words are explained through evidence from pre-Islamic Arabic poetry and from the author's collection of data from Bedouins, "the genuine Arabs in their desert abodes", who were considered to have retained the purest and most correct usage. The dictionary was intended for both religion and secular science and remained the standard work for almost three centuries.²³⁵

al-Zamakhsharī (d. 1144) was the first to consistently use alphabetical order without regard for permutative classes. In his dictionary, *ʿAsās al-balāġa*, "Foundation of eloquence", he systematically distinguished between literal sense and transferred meanings. He primarily elucidated the latter, i.e., the development of sense through simile, metaphor, and metonymy.²³⁶

The size of al-Jawharī's dictionary was surpassed by Ibn Manẓūr's *Lisān al-ʿArab*, "The tongue of the Arabs" (13th century) and al-Fīrūzābādī's *al-Qāmūs al-Muḥit*, "The surrounding ocean" (early 15th century). Both are arranged by the final radical in the rhyme system. The former is a storehouse of Arabic language, culture, science, and the arts. It is based on the Koran,

²³² Baalbaki, *The Arabic lexicographical tradition*, pp. 341–344.

²³³ Haywood, *Arabic lexicography*, pp. 44–67. Baalbaki, *The Arabic lexicographical tradition*, pp. 280–329; idem, "Arabic to c. 1800", pp. 174–177.

²³⁴ See Kees Versteegh, "Latinitas, Hellenismos, Arabiyya", *Historiographia Linguistica*, vol. 13:2–3 (1987), pp. 425–448.

²³⁵ Haywood, *Arabic lexicography*, pp. 68–73; Baalbaki, *The Arabic lexicographical tradition*, pp. 373–378.

²³⁶ Baalbaki, *The Arabic lexicographical tradition*, pp. 356–360.

the Sunna, and Arab poetry and proverbs as primary sources.²³⁷ The latter, completed in 1410 and usually referred to as *al-Qāmūs*, a loanword from Greek ὠκεανός (i.e. “ocean”), was compiled by the Persian polymath Muhammad ibn Ya‘qūb al-Fīrūzābādī. Combining copiousness with brevity and clarity, it comprises about 60,000 entries and covers the vocabulary of Classical Arabic and contemporary usage.²³⁸

5.2 Western approaches

The emergence of Arabic-Latin lexicography is a well-studied field, except for the work of Bernardino Baldi. The milestones are as follows:

- Franciscus Raphelengius’ Arabic-Latin dictionary, *Lexicon Arabicum* (Leiden 1613, comprising 560 pages and indices of Hebrew, Aramaic, Greek, and Latin words), published with Thomas Erpenius’ critical remarks (“Observationes”, 78 pages).
- the German Orientalist Valentin Schindler’s mainly Semitic Pentaglot dictionary, *Lexicon pentaglotton* (Frankfurt am Main and Hanau 1612), which *inter alia* collects and explains Arabic words.
- the Italian polymath Bernardino Baldi’s (1553–1617) unpublished Arabic-Latin dictionary, *Dictionarium Arabico-Latinum*, dated 1601 in Rome and extant in manuscript form (Bibliothèque Universitaire Historique de Médecine, Montpellier, shelfmark H. 287).
- the English Arabist and mathematician William Bedwell’s nine-volume Arabic-Latin dictionary, compiled between 1595 and 1632. It remains an unpublished manuscript, held in the University Library of Cambridge.
- Antonio Giggei’s Arabic-Latin dictionary, *Thesaurus linguae Arabicae* (Milan 1632), which used al-Fīrūzābādī as its primary source.
- Jacob Golius’ Arabic-Latin dictionary, *Lexicon Arabico-Latinum* (Leiden 1653). Golius used al-Jawharī as his primary source.
- Edmund Castell’s *Lexicon heptaglotton* (London 1669), which, among other Semitic languages, includes Arabic words.

To gain a more accurate understanding of the sources of the earliest stage of Arabic lexicography in the West at the turn of the 17th century, it is worthwhile to review the Arabic source texts cited in the preface to Raphelengius’ lexicon: Saadia Gaon’s Arabic translation of the Pentateuch, printed in Hebrew characters (Venice 1589);²³⁹ Arabic commentaries on the same; the Book of Psalms in Syriac and Arabic, published by the patriarch Sergius al-Rizzi (*Ktōbō d-mazmūræ d-Dawīd Malkō wa nbīyō*, 1610); the four Gospels in Arabic (Rome 1591);²⁴⁰ an Arabic translation of the other books of the New Testament in manuscript; a Latin-Arabic glossary with

²³⁷ Haywood, *Arabic lexicography*, pp. 77–82.

²³⁸ Haywood, *Arabic lexicography*, p. 88.

²³⁹ *Quinque libri Mosis, quinque Megilloth et prophetæ priores* [...], Venice 1589.

²⁴⁰ *Sacrosancta quatuor Iesu Christi D. N. Evangelia*, Rome 1591.

vowel points from c. 1533, in a parchment manuscript; an Arabic-Spanish dictionary (Granada 1505); Joseph Scaliger's manuscript Arabic-Latin dictionary (then, and still, extant in Leiden University Library); the Koran in various manuscript copies; an Islamic law code in manuscript; Avicenna's medical works (Canon of Medicine, Rome 1593);²⁴¹ al-Idrīsī's *Geography* in abridgment (Rome 1592);²⁴² a manuscript Arabic grammar written in Mecca, bestowed upon Raphelengius by Guillaume Postel; other manuscript grammars of Arabic; prayer books in manuscript form; letters and contracts for buying and selling; and Nathan ben Yehiel's Aramaic dictionary.²⁴³

At the end of his preface, Golius gives an account of his lexicographical and linguistic sources. In addition to the dictionaries of al-Jawharī and al-Fīrūzābādī, he refers to his other main sources, all of which were then extant in manuscript: the Arabic-Persian dictionary of the Ottoman polymath and scientist Taqī ibn Ma'rūph al-Dīn; the Koran; an onomasiological Arabic-Persian dictionary (*Onomasticon Arabico-Persicum*); a Arabic-Turkish dictionary titled *Mirqāt al-luḡa*, copied by an anonymous copyist in mid-16th century (in 1548);²⁴⁴ a smaller Arabic-Turkish dictionary of Arabic phraseology similarly titled *Mircat*; the alphabetic Arabic dictionary of an author named Muzjmel (from the 10th century); the Arabic dictionary of al-Zamakhsharī; the medical work (*Kitāb al-Jāmi' li-Mufradāt al-Adwiya wa-l-Aḡdhiya*, "Compendium on simple medicaments and foods") of Ibn al-Bayṭār; the 9th-century Arabic translation of Aristotle's *Historia animalium* (*Kitāb al-Hayawān*); and the geography of Yāqūt al-Ḥamawī (*Kitāb Mujaṃ al-Buldān*, "Dictionaries of countries") dating from 1224–1228.

Moreover, Golius enumerates his rare manuscript sources, including the geography of Gregory bar Hebraeus (Abū l-Faraj), Ishō' bar 'Alī's Syriac-Arabic dictionary, Abū al-Ṭayyib al-Mutanabbī's Arabic poetry, an Arabic-Persian-Turkish glossary, and al-Nuwayrī's collections of Arabic literature. Finally, Golius lists his printed sources: Arabic translations of the Table of Cebes, Euclid's mathematical works, al-Idrīsī's geography, Giggei's Arabic dictionary, al-Makin's history of the Muslims (published by Erpenius), Luqmān's fables, Scaliger's anthology of proverbial sayings, and Ibn Arabshā's biography of Timur (which was published by Golius himself).

²⁴¹ Ibn Sīnā, *Libri quinque Canonis Medicinae*, Rome 1593.

²⁴² al-Idrīsī, *De geographia universali Arabica*, Rome 1592.

²⁴³ Raphelengius, *Lexicon Arabicum*, Leiden 1613, see the preface written by the author's sons "Franciscus and Iustus Raphelengii", pp. *3v–*4v.

²⁴⁴ This dictionary is part of the Scaliger collection at Leiden University Libraries, extant under shelfmark Cod. Or. 237. For a detailed description, see Jan Schmidt, *Catalogue of Turkish manuscripts in the library of Leiden University and other collections in the Netherlands*, vol. 1, Leiden 2000, pp. 28 and 31–32. MS Or. 237 contains about 800 pages. Golius states that 31,000 words are explained. The preface of the dictionary states that 14,000 words were taken from the *Ṣaḥaḥ* of al-Jawharī and 16,000 from the *Qāmūs* of al-Fīrūzābādī.

6. Biblical Hebrew lexicography: The achievements of Christian scholars in early modern times (1500–1750)

6.1 State of research

6.1.1 *Historical surveys of Hebrew lexicography*

In the early modern period, about 100 dictionaries of Biblical Hebrew were compiled to aid students of Hebrew and theology.²⁴⁵ The first comprehensive survey of Hebrew lexicography is Johann Christoph Wolf's *Historia lexicorum Hebraicorum* (Wittenberg 1705), which remains unsurpassed for its wide scope. It examines fifty-seven Hebrew dictionaries from the perspectives of their methods, reprints, and reception.²⁴⁶ Schultens owned this study.²⁴⁷ Wolf also compiled a catalogue of Hebrew dictionaries in *Bibliotheca Hebraica*,²⁴⁸ where he frequently refers to Valentin Ernst Löscher's survey of the history of Hebrew lexicography in Löscher's handbook of biblical hermeneutics, *De causis linguae Ebraeae* (1706),²⁴⁹ a treatise that Schultens highly esteemed and read thoroughly.

²⁴⁵ I have added the number of dictionaries listed by Johann Christoph Wolf in *Historia lexicorum Hebraicorum* (1705), from Johannes Reuchlin to Johann Heeser, to the number of early modern authors of Hebrew dictionaries from Heeser to the time of Johann Christoph Friedrich Schulz, as catalogued by Richard Gottheil and Wilhelm Bacher in "Hebrew dictionaries" in the *Jewish Encyclopedia* (1901–1906).

²⁴⁶ In the first chapter (pp. 28–73), Wolf surveys medieval Hebrew lexicography from Menahem ben Saruq to David Cohen de Lara. The second chapter (pp. 73–208) examines published dictionaries from Reuchlin's *De rudimentis Hebraicis* (1506) to Paulus Martin Alberti's *Porta linguae sanctae* (1704). The third chapter (pp. 209–217) addresses planned or unpublished dictionaries, while the fourth chapter (pp. 218–228) focuses on scholars who developed new lexicographical methods (August Pfeiffer, Andreas Müller, Samuel Bohle, and Gottfried Wegner). An appendix (pp. 228–240) lists authors of Hebrew dictionaries of proper names (*Onomastica*) from the 4th century (Eusebius of Caesarea) to the early 18th century.

²⁴⁷ See *Bibliotheca Schultensiana*, p. 570, no. 6425.

²⁴⁸ See Wolf, *Bibliotheca Hebraea*, vol. 2, Hamburg 1721, pp. 548–561, where he summarized his own exploratory study: "Catalogus lexicographorum ex Christianis vel Ex-Iudaeis Hebraicorum alphabeticus", enumerating dictionaries of Biblical and post-Biblical Hebrew, as well as entire dictionaries and detached vocabularies.

²⁴⁹ In chapters 9, 10 and 12, Löscher delineates the history of the restoration of Hebrew (*historia restitutionis linguae Ebraeae*), reviews the lacunae (*defectus*) in Hebrew lexicography and the methods proposed by some theorists to remedy them, and provides a selective history of Hebrew dictionaries.

In *Geschichte der hebräischen Sprache und Literatur* (1776), Johann Wilhelm Friedrich Hezel (1754–1824) provided an account of the achievements of the most prominent Christian Hebraists from the 15th through the 18th century, organized by nationality (German, Italian, Spanish, French, Dutch, and English). The contemporary Orientalist Johann Gottfried Eichhorn included a selective section on the history of Hebrew dictionaries in his *Geschichte der neuern Sprachenkunde* (1807), a history of recent language studies.²⁵⁰ Wilhelm Gesenius (1786–1842), the founder of modern Hebrew lexicography, compiled a comprehensive survey of medieval and early modern Hebrew lexicography in his *Geschichte der hebräischen Sprache und Schrift* (1815). He examines the methodological development from the perspective of the extant primary sources, namely the Jewish tradition, cognate Semitic languages, and Biblical Hebrew usage (often specified by context and parallel passages).

Furthermore, there are observations in a couple of handbooks by Jewish authors, including the literary historian Ludwig Geiger, who devoted some pages to Johann Forster's preface to his Hebrew dictionary,²⁵¹ and, more importantly, Moritz Steinschneider, who compiled a comprehensive bibliography of treatises on the Hebrew language, particularly Hebrew lexica and grammars, by both Jewish scholars and Christian Hebraists.²⁵²

In recent years, surveys of the historical development of Hebrew lexicography have become less comprehensive and less common. The article on Hebrew dictionaries in the *Jewish Encyclopedia* by Richard Gottheil and Wilhelm Bacher can be seen as the first attempt: it presents a chronological list of Hebrew dictionaries by Christian Hebraists from Reuchlin to the end of the 18th century, but omits publication dates and re-editions. In 1991, Stanislav Segert (1921–2005) provided an overview of Hebrew and Aramaic lexicography from the Middle Ages to the 19th century as a background sketch for modern Hebrew and Aramaic lexicography.²⁵³ The following year, Moshe Goshen-Gottstein offered a selective yet much more detailed

²⁵⁰ Eichhorn, *Geschichte der neuern Sprachenkunde* (*Geschichte der litteratur von ihrem Anfang bis auf die neuesten Zeiten*, vol. 5), Göttingen 1807, pp. 475–486.

²⁵¹ Ludwig Geiger, *Das Studium der hebräischen Sprache in Deutschland vom Ende des 15. bis Mitte des 16. Jahrhunderts*, Breslau 1870, pp. 98–102.

²⁵² Steinschneider, *Bibliographisches Handbuch über die theoretische und practische Literatur für hebräische Sprachkunde*, Leipzig 1859. The subtitle is: *Ein selbständiger Anhang zu Gesenius' Geschichte der hebräischen Sprache und Le-Long-Masch's Bibliotheca Sacra*. This bibliographical handbook was corrected and supplemented by Steinschneider himself and Aron Freimann in 1896. The first edition was republished in Hildesheim in 1976 (Georg Olms Verlag) together with these supplements and corrections as appendices.

²⁵³ Segert, "Hebrew and Aramaic lexicography", *Dictionaries/ An international encyclopaedia of lexicography*, ed. by Franz Joseph Hausmann, Oskar Reichmann, Herbert Ernst Wiegand, and Ladislav Zgusta, Berlin 1991, pp. 2424–2438.

survey of the medieval and early modern stages of Hebrew lexicography.²⁵⁴ Finally, Marie Louise Craig has surveyed Hebrew lexicography from the 17th to the early 19th centuries, focusing on Hebrew-English contributions.²⁵⁵

Rijk Smitskamp provided an important handbook, *Bibliotheca Orientalis: A description of books illustrating the study and printing of Oriental languages in Europe*, published in three volumes (Leiden 1976, 1983, and 1991), offering a synthesis of earlier biographical research on individual scholars and of bibliographical handbooks. Another useful bibliographical handbook is Joseph Prijs' study of Hebrew prints in Basel from 1492 to 1866. His survey of the lexicographical publications of Sebastian Münster and Johannes Buxtorf the Elder pertains to the historiography of Hebrew lexicography. Prijs summarizes the contents of their Latin prefaces and provides a selection of these prefaces as appendices.²⁵⁶ Drawing partly on the lists, summaries, and prefaces made available by Prijs, Stephen Burnett accurately described the lexicographical enterprises of Johannes Buxtorf the Elder, even though he does not offer any detailed analysis of Buxtorf's lexicographical method.²⁵⁷

6.1.2 Periodization of Hebrew lexicography

Gesenius divides the history of Hebrew studies in the Christian West into two periods: the beginnings (1506–1650) and the flourishing age (from 1650 until his time). He divides the latter into four stages: (i) the beginnings of parallel-contrastive linguistic study, (ii) the rise of diverse schools of Hebrew linguistic thought, (iii) the Dutch school since Albert Schultens, and (iv) the recent development of Hebrew philology in Germany.²⁵⁸ In reviewing Schultens' methods, he focuses on the methodological pitfalls of Schultensian etymology. However, he acknowledges one significant merit,

²⁵⁴ Goshen-Gottstein, "The lexicography of Hebrew", *Lexicographica*, 7 (1992), pp. 72–79.

²⁵⁵ Craig, *The emergence of Hebrew-English lexicons: From Udall to Parkhurst* (PhD thesis, Charles Stuart University), Canberra 2008. Relevant articles by Craig are: "Pioneers and no through roads: the story of the early English lexicons", in *Foundations for Syriac lexicography V: colloquia of the international Syriac language Project*, edited by Michael Sokoloff, Piscataway, 2013, pp. 21–42, and "Take one Hebrew lexicon, add fresh theology, and mix well", in *Reflexions on lexicography. Explorations in Ancient Syriac, Hebrew, and Greek sources*, edited by R. A. Taylor and C. E. Morrisson, Piscataway 2014, pp. 147–210.

²⁵⁶ Joseph Prijs, *Die Basler hebräischen Drucken (1492–1866)*, Olten und Freiburg im Breisgau 1964.

²⁵⁷ Stephen G. Burnett, *From Christian Hebraism to Jewish Studies. Johannes Buxtorf (1564–1629) and Hebrew learning in the seventeenth century*, Leiden 1996, pp. 120–132.

²⁵⁸ Wilhelm Gesenius, *Geschichte der hebräischen Sprache und Schrift. Eine philologisch-historische Einleitung in die Sprachlehren und Wörterbücher der hebräischen Sprache*, Leipzig 1815, pp. 111–136.

namely that Schultens' lexicography was directed towards the inquiry into "a perceptible and specific basic meaning".²⁵⁹

In the preface to the second edition of his *Hebräisch-Deutsches Handwörterbuch*, Gesenius offers an investigation of the history of Hebrew lexicography. He arranges it according to the use of the main sources for lexicographic practice, namely the Hebrew of the Old Testament itself, traditional knowledge of Hebrew, divided into the ancient Bible versions and medieval Jewish dictionaries, grammars, and Bible commentaries, and the cognate languages.²⁶⁰ The two earlier sections follow a chronological order. The third is organized by the use of the various Semitic languages. In his survey of the Jewish tradition, Gesenius praises Ibn Janah as "the predecessor of Pococke, Bochart and Schultens" and acknowledges his own use of Ibn Janah's Hebrew dictionary.

In *De emendanda ratione lexicographiae Semiticae commentatio*, "Remarks on improving the method of Semitic lexicography"²⁶¹ (1827), Herman Hupfeld offers an accurate historical periodization of Hebrew lexicography. The reception of indigenous traditions marks the first period, while the etymological elaboration of morphology and semantics constitutes the second. Hupfeld places Schultens in this stage and regards him as an outstanding exponent of semantic etymology before the renewal brought about by Gesenius' Hebrew lexicography, which qualifies as the third period. In addition, he argues that a comparative etymological study of all Semitic languages is in prospect as an imminent fourth period.²⁶²

Under three headings – "Christian acquisition, Christian consolidation and the beginnings of modern Hebrew lexicography" – Marie-Louise Craig examines Hebrew lexicography from a twofold perspective, namely the relationship to the Jewish tradition, as in Löscher's periodization, and the anticipation of modernity, as in Gesenius' and Hupfeld's proposals for periodization. Craig regards Schultens and his German adherents, such as David Michaelis and Johann Simonis, as belonging to the beginning of the modern period.²⁶³

²⁵⁹ Gesenius, *Geschichte der hebräischen Sprache und Schrift*, p. 127.

²⁶⁰ Gesenius, *Hebräisches und Chaldäisches Handwörterbuch über das Alte Testament*, Leipzig 1823, preface, p. 1.

²⁶¹ It was published as part of a gratulatory essay for Albert Jacob Arnoldi (d. 1835): *Viro summe venerando Alberto Jacobo Arnoldio*, Marburg 1827.

²⁶² Hupfeld, "De emendanda ratione lexicographiae Semiticae", pp. 1–4. See further *Schultens as an innovator*, Vol. 2, Section 12.2.4.

²⁶³ Craig, "Lexicography: pre-modern period", in Geoffrey Khan (editor), *Encyclopedia of Hebrew language and linguistics*, pp. 515–518. She also describes the renewed Jewish pursuit of Hebrew lexicography during the late 18th and early 19th centuries.

6.2 Western acquisition of rabbinical learning

6.2.1 Johannes Reuchlin

Johannes Reuchlin (1455–1522) and Santes Pagninus (1470–1536) used Kimchi's *Sefer ha-Shorasim* as a model. They certainly consulted the Vulgate, but their method differed from that of the Hebrew dictionary published in the Complutensian Polyglot Bible in 1515 by Franciscus Ximenius. As a Hebrew lexicographer, Sebastian Münster (1488–1552) exemplifies this transition from reliance on the Vulgate to expertise in and confidence in the medieval Jewish linguistic and exegetical tradition.

Johannes Reuchlin was the pioneer of Hebrew lexicography in the Christian West²⁶⁴ and has retained this reputation since the 16th century. In his Hebrew studies, he was motivated by both exegetical and Kabbalistic reasons. He considered it important to know Hebrew not only because it is “essential for a correct understanding of the Old Testament” but also because it “provided access to God's secrets”, which he believed were hidden “in the form and numerical value of the Hebrew letters rather than in the most direct sense of the texts”.²⁶⁵ He began his Hebrew studies in 1486.²⁶⁶ Around 1500, he began compiling a Hebrew dictionary, which he published as the main part of his *De rudimentis Hebraicis* (Pforzheim 1506; see Figure 2a). It contains a Hebrew dictionary (parts 1–2) and grammar (part 3). He used Kimchi's *Sefer Mikhlol* as a model for imitation rather than as a source for translation, and confined himself to verbal roots, primitive nouns, and particles (see Figure 2b). He consistently rendered the Hebrew term for stem form, viz. *binyān*, as *coniugatio* (that is, “conjugation”), which for centuries remained the standard term. His dictionary was republished

²⁶⁴ In *De arte Cabalistica*, Hagenau 1517, in an afterword addressed to Pope Leo X (end of book 3), Reuchlin expresses self-awareness as a pioneer of Greek studies in Germany and Hebrew philology: [...] “ego primus omnium Graeca in Germaniam reduxi et primus omnium Ecclesiae universali artem et studia sermonis Hebraici condonavi et tradidi. Quare spero me non frustra sperare posteritatem ecclesiasticam meritis meis futuram non ingraturam.” “I was the first to bring back Greek studies to Germany and the first to endow and transmit the art and study of the Hebrew language to the universal Church. In hope that I do not trust in vain that the Church, in years to come, will not be ungrateful for my merits.” Wolf, *Historia lexicorum*, p. 7, quotes most of this passage. According to Judith Olszowy-Schlanger, “Medieval Hebrew lexicography”, in G. Khan (ed.), *Encyclopaedia of Hebrew language and linguistics*, Laurentius Holocke may have compiled a now lost Hebrew dictionary. Cf. Wolf, *Historia lexicorum*, p. 73.

²⁶⁵ See Sophie Kesler Mesguich, “Early Christian Hebraists”, in *Hebrew Bible/ Old Testament: The history of its interpretation*, vol. 2, p. 256 and p. 264.

²⁶⁶ Reuchlin first studied with a Jewish teacher of rudiments for children, named Calman, whom he paid to copy Menaḥem ben Saruq's Hebrew dictionary, *Maḥberet*. In 1492, he continued his Hebrew studies with the learned rabbi Jacob Jehiel Loans, physician to Emperor Frederick III. In Italy, from 1498 to 1500, he studied with the famous Jewish Bible commentator Obadiah Sforzo.

twice (in 1537 and 1554). Although Reuchlin's lexicon had some impact on the development of Hebrew lexicography in the 16th century, it was soon superseded. Schultens owned the second edition.²⁶⁷

6.2.2 Sebastian Münster

Sebastian Münster (1488–1552) continued the practice of Biblical Hebrew lexicography, initially relying mainly on the Vulgate and later on medieval Jewish commentaries on the Hebrew Bible. During his tenure as professor of Hebrew in Heidelberg (1521–1529), he compiled *Dictionarium Hebraicum* in two editions (1523 and 1525) and a trilingual Latin-Hebrew-Greek dictionary, *Dictionarium trilingue* (1530), as aids to students of theology. In the first edition of the former dictionary, he supplemented Reuchlin's omission of verbal derivatives and defined lexical meanings based on the Vulgate,²⁶⁸ because, as he explains in the second edition, he had not yet gained access to Jewish Bible commentators at that time.²⁶⁹ In the second edition, he defined word meanings "on the basis of the commentaries of the Rabbis", as the title page clarifies. He expanded and reworked the second edition of the dictionary into "a completely new one". A new feature is that homonyms are largely eliminated, and their meanings are subsumed under a single entry. In the semantic information for each entry, he arranged the meanings by ordinals, the first of which is undoubtedly the primary meaning, though this is not expressly stated.²⁷⁰ In the preface, Münster specifies his rabbinical sources. In addition to the principal medieval Jewish Bible commentators, viz. Rabbi Salomon ben Isaac (commonly known by the acrostic Rashi, d. 1105), David Kimchi (d. 1235), Moses ben Nachman (d. 1270), and Levi ben Gersom (d. 1344), he consulted the Jewish philosopher Abraham Farizzol (1451–1526)²⁷¹ as well as the author of a commentary on the Hagiographs titled קב ונקי (*Qab w^o-nāqī*, i.e. "small and pure") and finally Isaac Nathan ben Kalonymus' combined concordance and dictionary *Sefer yā'ir nātīb*, "Book enlightening the pathway" (c. 1447), which recently had been published. He also states that he used the Aramaic Bible translations (Targum Onkelos and Targum Jonathan) but does not

²⁶⁷ *Bibliotheca Schultensiana*, p. 513, no. 990 in folio: "Jo. Reuchlini Lexicon Hebr. et in Hebr. Grammaticam commentarii, Basil. 1537".

²⁶⁸ Münster, *Dictionarium Hebraicum*, 2nd ed., Basel 1525, preface, p. 2r (regarding the first edition): "sequuti vulgarem Latinam aeditionem." Cf. Wolf, *Historia lexicorum Hebraicorum*, pp. 87 f.: "Idem Vulgatam versionem in vertendis Hebraicis vocibus expressit adeoque nihil magis praestitit quam Fr. Ximenius."

²⁶⁹ Münster, *ibidem*, preface, p. 1v: "Destituebamur autem id temporis Hebraeorum Rabbīnorum commentariis."

²⁷⁰ In some entries, Münster refers to the order in which he provides the semantic information. In the entry יד (*yad*) he thus begins with "principale et primarium significatum", namely *manus*, "hand" and continues with the figurative senses.

²⁷¹ Münster used the alternative spelling Perizzol.

mention using Kimchi's *Sefer ha-Shorashim*, apparently because it was self-evident.²⁷²

In the first edition of his Hebrew dictionary, Münster collected Aramaic words, but in the second edition he omitted them except for Biblical Aramaic, reserving non-Biblical Aramaic for his Aramaic dictionary, *Dictionarium Chaldaicum* (1527), for which he relied on Nathan ben Yehiel's *Arukh* (d. 1106) and on Santes Pagninus' Aramaic dictionary (1523). In his trilingual Latin-Greek-Hebrew dictionary (1530), he listed Greek and Hebrew counterparts to Latin words in Latin alphabetical order. In 1534, he issued the second edition of Reuchlin's *De rudimentis Hebraicis*. Schultens possessed Münster's Hebrew dictionary, his trilingual lexicon, and his Hebrew-Latin Bible, but not his Aramaic dictionary.²⁷³

After Münster was appointed professor of Hebrew in Basel in 1529, he became part of the so-called Rhineland school of exegesis, a group of Reformed scholars who, under the leadership of Konrad Pellikan in Zürich (1478–1556),²⁷⁴ emphasized the philological study of the Old Testament. Here, he advanced biblical studies by developing additional aids, including a Latin Bible translation, *Biblia Hebraica Latina* (1534), and grammatical works on Hebrew (1535 and 1542). He was the first to publish Claudius Ptolemy's *Geography* in 1540, which for centuries shaped geographical conceptions of the Arabian Peninsula.

²⁷² In the prefaces to his Latin Bible translation (1534), Münster defends his lexicographical practice of relying on Jewish Bible commentaries as indispensable for understanding difficult biblical passages. He maintains that Jewish scholars have access to a store of linguistic knowledge dating back to antiquity. Jewish expositors should not be read as “oracles” but with discretion. They are “monitors of the truth” (*monitores veritatis*), though themselves in spiritual darkness.

²⁷³ *Bibliotheca Schultensiana*, p. 552, no. 6245 in 8:o: “Seb. Munsteri Dictionarium Hebraicum, Basil. 1552;” p. 514, no. 999 in folio: “Seb. Munsteri Dictionarium Trilingue” and p. 1, no. 8 in folio: “Biblia Hebraica et Latina ex versione et cum notis Seb. Munsteri”. It is reasonable to assume that these works were first acquired by Albert Schultens rather than by his son, Jan Jacob Schultens.

²⁷⁴ Konrad Pellikan published a Bible commentary, *Commentaria Bibliorum*, in seven volumes, together with a revised edition of the Vulgate (Zürich 1532–1538). He also compiled a Hebrew dictionary, *Dictionarium Hebraicum* (Strasbourg 1540, for which see Wolf, *Historia lexicorum*, pp. 94–96). and published the Latin Bible version prepared by Leo Jud and Bibliander (*Biblia sacrosancta Testamenti Veteris et Novi*, Zürich 1543). Wolf, *Historia lexicorum*, discusses the level of Pellikan's ability in Hebrew, noting that he was an autodidact, pp. 94 f. Münster tells the story of Pellikan's Hebrew studies (in his *Opus grammaticum consummatum*, Basel 1544, preface, p. 2) and refers to his own instruction by Pellikan (in the preface to his Latin Bible translation, *Biblia Hebraica Latina planeque nova [...] tralatione*, 3rd ed., Basel 1546, p. 2: “iam a viginti annos, a tempore quo sub Conrado Pellicano fidelissimo praeceptore nostro Hebraicari coepimus”).

6.2.3 *Santes Pagninus*

Like Reuchlin, the Italian Hebraist Santes Pagninus of Lucca (1470–1541) believed that the Hebrew text of the Bible was encoded with hidden symbolic senses, only accessible to those studying the Hebrew original.²⁷⁵ His Hebrew dictionary, *Thesaurus linguae sanctae* (“Treasury of the holy language”), was published in Lyon in 1529. In addition to the words chosen by Reuchlin, he included nominal and adjectival derivatives, derivative stems (*binyānīm*), and descriptions of the different meanings of polysemous verbs. He followed Kimchi’s *Sefer ha-Shorashim*, known as “Liber de radicibus”, more closely than Reuchlin did. In addition to Kimchi, he cited other medieval Jewish Bible commentators, such as Rashi and Abraham ibn Ezra, whose commentaries had recently been published in the rabbinical Bible printed by Daniel Bomberg (Venice, 1525). He also cited Saadia Gaon, Ibn Janah, and Levi ben Gershon, and consulted the Vulgate and the Targums.²⁷⁶ Gesenius described Pagninus’ Hebrew dictionary as “the essentials of the most important rabbinical commentators, with indication of authors, exact quotations, and explanation of difficult passages”.²⁷⁷

Robert Estienne published an abridged and emended version of Pagninus’ dictionary in 1548. Afterward, Jean Mercier – a professor of Hebrew in Paris – revised and expanded the dictionary with assistance from Antoine Rudophe Chevallier and Bonaventure Corneille Bertram. Their revised edition appeared in Paris in 1575 and was reprinted there in 1577 and in Geneva in 1614. Their additions are printed in italics. The editors’ initials reveal their identities. In his additions, Mercier largely drew on semantic observations from Johann Forster’s Hebrew dictionary without acknowledging his debt to Forster; moreover, he subtly engaged in polemics

²⁷⁵ Pagninus, *Thesaurus linguae sanctae*, Lugduni 1529, preface, p. 3: “Sed quorum haec? Nimirum, ut non modo veneremur excolamusque arcanas literas, quae sublimia coelestiaque et nunciant et pollicentur, verum etiam ut illarum rimemur perscrutemur arcana mysteria, quae singulis pene in verbis latent et occultantur, quod citra linguarum peritiam haudquaquam efficere valemus, quum vetus instrumentum Hebraice, novum Graece scriptum sit.” “What is this aimed at? Of course, not only do we revere and study the mystical Scriptures that both announce and promise sublime and heavenly things, but also that we explore and scrutinize their secret mysteries that lie hidden and are concealed in almost every word, which we cannot do without knowledge of languages, since the Old Testament is written in Hebrew and the New in Greek.” Cf. Arjo Vanderjagt, “Ad fontes! – the early humanist concern for the Hebraica veritas”, in *The Hebrew Bible/ Old Testament. The history of its interpretation*, vol. 2, p. 187.

²⁷⁶ Pagninus, *Thesaurus linguae sanctae*, preface, p. 4.

²⁷⁷ Gesenius, *Geschichte der hebräischen Sprache und Schrift*, p. 113: “Quintessenz der wichtigsten rabbinischen Ausleger mit Angabe der Auctoritäten, genauen Citaten, Erklärung schwieriger Stellen”. In the preface to the second edition of his *Hebräisches-Chaldäisches Wörterbuch*, he less accurately described Pagninus’ dictionary as merely a translation of Kimchi’s *Sefer shorashim*.

against Forster.²⁷⁸ As a Hebraist and collaborator on the Antwerp Polyglot Bible, Franciscus Raphelengius abridged Pagninus' dictionary (Antwerp 1572). Schultens possessed Pagninus' Hebrew dictionary in several editions, viz. Estienne's abridgement of 1548, the revised version of 1575, and Raphelengius' abridged version.²⁷⁹

6.3 Anti-rabbinical reaction

6.3.1 Johann Forster

In the age of the Reformation, Johann Forster was one of the early Lutheran Hebraists. In the early 1530s, he spent several years in Wittenberg, collaborating with Luther on the translation of the Old Testament into German. After his appointment to the chair of Hebrew at the University of Wittenberg in 1549, he completed his dictionary, *Dictionarium Hebraicum novum*, which was published in Basel in 1557 (after his death on 8 December 1556). In the title, Forster explains his purpose and approach:

A new Hebrew dictionary, not copied from the commentaries of the Rabbis, nor from the foolish imitation of those commentaries by our scholars, but drawing on the stores of the Holy Scriptures themselves and on an accurate collation of passages in the same [Scriptures].²⁸⁰

In the preface, he declares his opposition to excessive reliance on earlier Hebrew lexicography and on Bible commentaries by Jewish scholars and their followers among Christian Hebraists (for example, Münster and Pagninus). He argues that the Jewish lexicographers are entangled in a

²⁷⁸ This was demonstrated by the Lutheran theologian Johannes Maukisch (1617–1669), professor of theology at the Academic Gymnasium in Danzig, in his *Notae philologico-theologicae* (1661). As regards Mercier's plagiarism and consultation of Forster or agreement with him, see the second 1671 edition, p. 61, pp. 83–84, p. 88, pp. 101–102, pp. 104–106, pp. 115–117, p. 124, p. 129, pp. 135–136, p. 138, p. 154, pp. 162–167, p. 170, p. 172, pp. 174–175, p. 180, pp. 183–184, p. 204, p. 206, p. 209, p. 216, p. 222, pp. 225–226, p. 228, p. 257, pp. 263–264, p. 279, p. 282, p. 395, and p. 422. Concerning his refutation of Forster, see p. 42, p. 52, pp. 89–90, pp. 96–97, p. 185 f. and p. 391. In the general preface to *Biblia Testamenti Veteris illustrata* Frankfurt am Main 1672, p. 17, Abraham Calov refers to Maukisch's study as a contribution that proves that Mercier mainly drew his additions from Forster.

²⁷⁹ *Pars bibliothecae Schultensianae*, p. 6, no. 151 in folio; S. Pagnini Thesaurus linguae sanctae, Lugd. 1575. It is also listed in *Bibliotheca Schultensiana* (1780), p. 514, no. 1004 in folio. The next item, no. 1005, is Epitome Thesauri Pagniniani, Antwerpen 1572, while Estienne's edition is found on p. 525, no. 3435 in quarto.

²⁸⁰ *Dictionarium Hebraicum novum, non ex Rabinorum commentis nec nostratium doctorum stulta imitatione descriptum, sed ex ipsis thesauris sacrorum Bibliorum et eorundem accurata locorum collatione depromptum* [...], Basel 1557. A second edition appeared in Basel in 1664. For the title page, see Figure 4a.

labyrinth of semantic ambiguity because they ascribe two or three distinct meanings to the same lexeme.²⁸¹

In accordance with the Reformer Martin Luther's hermeneutical advice, he relied on an investigation of biblical context and parallel passages to explore the primary, literal meaning of Hebrew words and phrases. His purpose was to provide "the proper and certain meaning of every word" and to elucidate the phraseology.²⁸²

Forster sets out the programme for determining the single proper and primary meaning of every root from the Bible itself, arguing that the particular character of the Hebrew language (*proprietas sermonis Hebraici*) is the light and best interpreter of the Holy Scripture (*lux et optima interpret sacrae scripturae*).²⁸³ He maintains that the proper meaning can be clarified by our analysis of the biblical author's intention and the immediate context, together with what precedes and what follows.²⁸⁴ Forster also argues that quotations of Old Testament passages in the New Testament, especially in the epistles of St Paul, guide us to the proper sense of Hebrew key words and phrases.

Forster thoroughly discusses the principles underlying his dictionary. These take the form of phonetic, semantic, morphosemantic, morphological, morphosyntactic, and syntactic remarks on Biblical Hebrew.²⁸⁵ As the basis of his semantic research, he posits that there is only one primary meaning, except for a few roots that have contrary meanings in the same stem form. (*binyān*).²⁸⁶ He maintains that the primary meaning can be modified by semantic broadening from the specific to the abstract, as in Latin, by phraseology (*compositio*) – that is, the combination of the root or its derivatives with other parts of speech, as with prefixes added to simple verbs in Latin and Greek – and by changing to another stem form (*commutatione coniugationis*).²⁸⁷

Forster states in rule 4 that phonemes with the same place of articulation are interchangeable, while in rules 5 and 6, he establishes that the four speech sounds *ʾālef*, *hē*, *wāw*, and *yōd* form a separate group, and in rule 6

²⁸¹ Forster, in *Dictionarium Hebraicum novum*, mentions "the Babylonian confusion and variety of meanings" (see preface, p. 1), because the rabbis have attributed two or three meanings to the same root (p. 3) so that the student of Hebrew is left uncertain about the proper sense of any biblical passage (p. 3).

²⁸² Forster, *ibidem*, p. 10, lines 6–4 from the bottom: "Dictionarium tibi exhibemus, lector, in quo quantum fieri potuit propriam et certam habebis vocum omnium significationem ac insuper phrases scripturae diligenter annotatas."

²⁸³ Forster, *ibidem*, p. 2.

²⁸⁴ Forster, *ibidem*, p. 2.

²⁸⁵ Forster, *ibidem*, pp. 3–10, where 67 rules are established.

²⁸⁶ Forster, *ibidem*, p. 3: "singula themata unam tantum et eam propriam et principalem habeant significationem exceptis tantum illis, quae in coniugatione vel una vel pluribus contrarias habent significationes."

²⁸⁷ Forster, *ibidem*, p. 5, rules 20–21.

insists that consonantal phonemes can be regarded as similar even when they cross the groups.²⁸⁸ Through this principle of substitution (*transmutatio*) of related consonants, Forster established a series of interrelated roots with similar meanings, which he claims differ only in their “modes of signification” (*modi significandi*). These series comprise weak verbs, usually those with *wāw* or *yōd* as the middle consonant (*verba mediae wāw- yōd*), with *’ālef* as the first or third consonant (*verba primae* or *tertia* *’ālef*), with *hē* as the third consonant (*verba tertiae hē*), and with the middle consonant doubled (*verba mediae geminatae*).²⁸⁹

Moreover, Forster supposed that the copyists’ mistakes had corrupted the Hebrew text here and there because of the paleographic similarity of certain graphemes, such as *dālet* and *rēš*, *ṭēt*, *śīn* and *šīn*, *yōd* and *nūn*, and *bēt* and *nūn*. Accordingly, he adopted the principle that words with similar graphemic patterns may share the same primary meaning.²⁹⁰

Forster’s dictionary lists 1758 numbered main entries, which are verbal roots. For each entry, he proposed a proper meaning, usually a general meaning for his group of interrelated roots, though sometimes it approaches an etymological meaning. In doing so, he paid attention to similar morphemic patterns according to the phonemic or graphemic criteria outlined above. In many entries, he cautions against establishing a general meaning by emphasizing: “unless they differ in their modes of signifying, precisely as they do in their forms” (*nisi ut forma, ita modo significandi inter se differant/ dissentiant*). After that, he explains the forms and meanings of the *piel*, *hiphil*, and *hitpael* stems, which he calls the second, third, and fourth conjugations (see Figure 4b). Next, nominal derivatives of the various stem formations (*binyānīm*) are presented as separate sub-entries in lower-case letters (see Figure 4b). After the twenty-two-letter chapters (*’ālef* to *tāw*), he discusses quadriliteral and foreign words.

Although Forster rejected the Jewish tradition as an unreliable authority on Biblical Hebrew, he still quoted from it, but only to show that he had studied it and to make theological students more ready to accept his own views when they agree with those of the rabbis.

In early modern times, Forster’s approaches to Hebrew lexicography were underestimated and vilified by biblical scholars across all denominations.²⁹¹ The aforementioned Johann Maukisch sought to

²⁸⁸ Forster, *ibidem*, p. 3. For the division of Hebrew consonants into specific groups, see Section 10.1.1. For the views of related consonants, see Chapter 15.

²⁸⁹ Forster, *ibidem*, p. 4, rule 9.

²⁹⁰ Forster, *ibidem*, p. 4, rule 7.

²⁹¹ Wolf, *Historia lexicorum*, pp. 103–104, quotes the Catholic Bible critic Richard Simon’s verdict on Forster. Ludwig Geiger, *Das Studium der hebräischen Sprache in Deutschland*, p. 100 f., similarly criticizes Forster’s efforts: “Sein Lexikon, recht eigentlich eine Frucht dieser Rabbinenverachtung, ist daher entsetzlich einseitig. All das Gute, was er aus jüdischen Commentatoren, Grammatiken ziehen konnte, hat er

rehabilitate Forster's reputation as a lexicographer by demonstrating that Forster is an unacknowledged source of information in Hebrew lexicography as practised by Jean Mercier and Marco Marino, and in Bible commentaries.²⁹² Pfeiffer commended Forster's exploration of the general meaning (in Pfeiffer's terminology, the formal meaning): "Forster achieved much here. He would perhaps have won everyone's approval had he not been without help from Arabic."²⁹³ Johann Heinrich May, professor of Oriental languages at Giessen, approved of this statement.²⁹⁴ Georg Burckhard Rümelin (1680–1746) stands out as a more direct follower of the tradition from Forster.²⁹⁵ Schultens held a dual attitude toward Forster: on the one hand, he rejected phonemic similarities as an unreliable aid unless other Semitic languages supported them; on the other hand, he sometimes regarded Forster's suggestions as a clue for further exploration of etymological meaning in his own practice of Hebrew lexicography. He possessed a copy of the first edition of Forster's dictionary.²⁹⁶

6.3.2 Johann Habermann / Avenarius

Johann Habermann, a Lutheran theologian and Hebraist from Bohemia, was known in the early modern period by his Latin surname Avenarius²⁹⁷ and followed in the footsteps of Forster. To create a corrective to biblical interpretation, particularly for hapax legomena and obscure passages, and to facilitate the learning of Hebrew, he set about compiling a dictionary in which he explored the primary and proper meaning of roots in Biblical Hebrew and identified related roots with similar or opposite meanings. He began his work around 1558 and followed the same approach as Forster,

bei Seite geworfen, man kann sagen, er kennt nur die Bibel und seine eigene hermeneutische Fertigkeit" [...].

²⁹² Maukisch, *Notae philologico-theologicae* (1661, 2nd ed. 1672), see the pages referred to above (Section 6.2.3).

²⁹³ Pfeiffer, *Critica sacra*, 4th ed., Leipzig 1702, chap. 5 (De interpretatione Sacrae Scripturae), section 2, question 3, § IV, p. 175: "Multum hic prae aliis praestitit Forsterus, qui forsitan omne punctum tulisset, nisi a subsidio linguae Arabicae imparatus fuisset." This passage is also found in Pfeiffer's *Opera omnia quae extant philologica*, Utrecht, p. 737 (lines 44–46 in the left-hand column).

²⁹⁴ J.H. May (Majus), *Introductio ad studium philologicum criticum et exegeticum*, Giessen 1699, p. 33.

²⁹⁵ Rümelin published two Hebrew dictionaries: *Lexicon Biblicum*, Frankfurt am Main 1716, and *Lexicon critico-sacrum*, Tübingen 1730.

²⁹⁶ *Pars bibliothecae Schultensianae*, p. 6, no. 150 in folio: "J. Forsteri Dictionarium Ebraicum, Basil. 1557."

²⁹⁷ Born in Eger, today's Cheb, in the farthest Western part of the Czech Republic, Habermann studied theology in Wittenberg in the early 1540s. After a call to serve as preacher in different places of Electoral Saxonia, he held the chairs of Hebrew in Jena and Wittenberg for a couple of years (1573–1575), but soon accepted the call to assume the position of superintendent of Naumburg and Zeitz.

namely careful reading of the Hebrew Bible and attentive comparison with similar passages. He completed his dictionary in ten years and published it in Wittenberg in 1568.²⁹⁸ After twenty years, he published a revised second edition (1589). Schultens owned a copy of the first edition.²⁹⁹

In the preface, Habermann describes his lexicographic goals and his own contribution as follows:

- (1) to assign a definite and proper single meaning to each word, considering the fact that, if earlier dictionaries list multiple meanings, the surplus is largely figurative,
- (2) to render the Hebrew word by the closest possible etymological equivalents in Latin and Greek to determine the proper and true meaning,
- (3) to explain the kinship between the entry word and similar Hebrew roots and the semantic difference,
- (4) to give the Hebrew forms in the margin at the concordance-quotation of biblical passages,
- (5) to state the natural meaning of the derivative verbal stems (such as *piel*, *hiphil*, etc.) and to describe their phraseological combinations with different prepositions,
- (6) to integrate verbs with four radicals into the running alphabetical order,
- (7) to state the difference between *ketiv*-readings and *qere*-variants,
- (8) to refer to biblical passages more precisely than Forster by giving references to the verse, not only the chapter,
- (9) to demonstrate the method by which Greek, Latin, and German words can be deduced from Hebrew in its presupposed capacity as the primeval language of mankind.

While the first eight points form part of the microstructure of a main entry (for a sample, see Figure 5b), the ninth point is not integrated into the dictionary but appears in a separate introductory set of seven rules at the end of the preface. In many respects, Habermann's dictionary stands out as an innovation and a thorough revision of Forster's. The most conspicuous new feature is the comparison of Hebrew words with their phonetic counterparts in Greek and Latin. Georg Cruciger later developed this kind of multilingual comparison in his *Harmonia quatuor cardinalium*, Frankfurt am Main 1616.

²⁹⁸ Avenarius, ספר השרשים, *hoc est, Liber radicum seu Lexicon Ebraicum, in quo omnium vocabulorum Biblicorum propriae ac certae redduntur significationes cum vera et dilucida multorum locurum scripturae sacrae explicatione*, Wittenberg 1568. For the title page, see Figure 5a.

²⁹⁹ *Pars bibliothecae Schultensianae*, p. 5, no. 148 in folio, "J. Avenarii Lexicon Ebraicum, Witeb. 1568."

6.3.3 Marco Marini

In the 1580s, the Catholic biblical scholar Marco Marini from Brescia (1542–1594) compiled a Hebrew dictionary titled *Arca Noe* (“The Ark of Noah”, Venice 1593), aiming to impel everyone “to learn the holy language to escape from the deluge of false doctrines and from worldly tribulations.”³⁰⁰ While building this “ark” of nearly 800 folio-sized pages, he drew heavily on semantic information from the 1575 revision of Pagninus’ dictionary. More than Münster, Pagninus, and Mercier, he tried to distinguish the primary meaning on which the derived meanings depend.³⁰¹ Regarding uncertain and ambiguous meanings, he did not wish to explain them “from the opinions of the rabbis”, but preferred an inner-biblical comparison and his own suppositions, arguing that the rabbis had lost the knowledge of Hebrew.³⁰²

Marini did not venture to break with the semantic definitions in Pagninus’ dictionaries and those of his revisers, but still contributed some distinctive features. First of all, nominal and verbal derivatives are arranged in alphabetical order and thus are not subordinated under the root morpheme. For instance, הוֹדִיעַ (*hōḏāʿ*), the *hiphil* perfect of יָדַע (*yāḏaʿ*), appears under the letter ה (*hē*).³⁰³ Synonyms and antonyms of the entry word are usually listed.³⁰⁴ Grammatical information is abundant. Each entry word is defined according to its part of speech (noun, verb, preposition, adverb, etc.). As for the nouns, their gender and declension are stated. As for the verbs, the cardinal forms of the *qal*-stem are given (past tense, future tense, participle, imperative, and infinitive).³⁰⁵ Biblical proper names of persons and places are accompanied by antiquarian information on actions, lifetimes, and geographical contexts. Like the dictionaries of Forster and Avenarius, Marini’s lexicon also functions as a concordance to the Old Testament, with quotations from key passages in the Hebrew original and in Latin translation. Schultens possessed a copy of this thesaurus.³⁰⁶

Marini sought to reconcile his reliance on the Masoretic Hebrew text with the post-Tridentine primacy of the Vulgate, which he considered the

³⁰⁰ Marini, *Arca Noe: Thesaurus linguae sanctae novus*, Venice 1593, preface, p. 10 headed “De titulo operis et utilitate lectionis scripturae sacrae”.

³⁰¹ Wolf, *Historia lexicorum*, p. 114: “Radicibus ipsis unicam et germanam attribuit significationem, ex qua coeteras vel per metaphoram vel per alias causas pendere exostimavit” [...].

³⁰² Marini, *ibidem*, p. 8 under the heading “Quid in hoc Thesauro novo contineatur”. Cf. Wolf, *Historia lexicorum*, p. 114.

³⁰³ Wolf, *ibidem*, p. 114.

³⁰⁴ Wolf, *ibidem*, p. 115.

³⁰⁵ This characteristic owes to his public teaching of Hebrew grammar, which resulted in his *Gan Eden. Hortus Eden. Grammatica linguae sanctae* (Basel 1580).

³⁰⁶ *Pars Bibliothecae Schultensianae*, p. 6, no. 157 in folio: M. Marini Brixiani *Thesaurus linguae sanctae*, Venet. 1593, 2 vol.

most reliable translation for its fidelity to the original and its simplicity and purity in Latin. In discussing the differences between the Hebrew original and translations such as the Vulgate and the Septuagint, he identified three causes:

- (1) the presence of semantically ambiguous Hebrew words,
- (2) the possibility of different vocalizations of the Hebrew text,
- (3) the possibility of scribal errors in the Hebrew, Greek, and Latin textual transmission due to the inaccuracy or linguistic ignorance of the copyists.³⁰⁷

6.4 Returning to the authority of the rabbis

Johannes Buxtorf the Elder (1564–1629), the renowned professor of Hebrew in Basel, specialized in the rabbinic tradition of lexicography and textual criticism. In contrast to the scholarly folio-sized dictionaries of earlier lexicographers, he compiled more affordable Hebrew dictionaries in smaller formats for theology students, “who cannot carry around heavy dictionaries”, as he remarks.³⁰⁸ His revision of Kimchi’s and Pagninus’ dictionaries was published in 1600 under the title *Liber radicum Hebraicarum*, “Book of Hebrew roots”. It served as the prototype for his subsequent dictionaries. A new edition, including Biblical Aramaic words, appeared in Basel in 1602 under the title *Manuale Hebraicum et Chaldaicum* and was reprinted six times. His own dictionary of Biblical Hebrew was first published as *Epitome radicum* in 1607, but from the 1615 edition onward it was retitled *Lexicon Hebraicum et Chaldaicum*.³⁰⁹ It served as the standard lexicon for two centuries. For the title page of the 1645 edition, see Figure 6.³¹⁰ In the dedicatory letter of the 1615 edition, he reviews Hebrew studies from antiquity to the end of the 16th century. After mentioning prominent Hebraists of the 16th century, among other Pagninus, Mercier, Münster, Forster, and Avenarius, he arrives at his own contribution:

³⁰⁷ Marini, *ibidem*, p. 3, the section titled “De translationibus”, etc. Marini regarded the Aramaic Targums more as paraphrases than translations in a strict sense. He prepared the first edition of Targum Jonathan/ Yerushalmi of the Pentateuch (1590).

³⁰⁸ Buxtorf, *Lexicon Hebraicum et Chaldaicum*, Basel 1615, the prefatory dedicatory letter, p. 12: “Adornavi nunc secundo breve hoc Lexicon Hebraicum et Chaldaicum ad usum studiosorum, qui magnae molis libros circumferre nequeunt.”

³⁰⁹ The subtitle reads: “complectens omnes voces tam primas quam derivatas, quae in sacris Bibliis Hebraea et ex parte Chaldaea lingua scriptis extant”, “that comprises all words, primitive as well as derived ones, which occur in the Holy Bible written in the Hebrew and partly in the Chaldaic [i.e. Aramaic] language.”

³¹⁰ It was republished in 1615, 1631, 1645, 1646, 1654, 1655, 1663, 1667, 1676, 1689, 1698, 1710, and 1735, and several times more until the 1830s. Wolf, *Historia lexicorum*, p. 119, states that Buxtorf’s dictionary is found in the hands of everyone: “omnium teratur manibus”.

As aid, I have used the Chaldaic interpreters [the Aramaic Targums] and the Jewish commentators, both ancient and modern. [...] From their authority, light is often shed on biblical passages that have been interpreted differently by our commentators.³¹¹

In rendering the Biblical Hebrew into Latin, Buxtorf followed the Latin Bible translation by Immanuel Tremellius and Franciscus Junius (1st ed. 1575–1579), which he praises in his aforementioned dedicatory letter as a version useful to the whole Church and imitated in Bible translations into European vernaculars (see the 1615 dedicatory letter, p. 10). In the macro-structure, nominal derivatives (whether verbs, adverbs, nouns, pronouns, or conjunctions) are subordinated to their root, which is printed in larger upper-case letters. Each word entry includes references to occurrences in the Bible. In entries on polysemous Hebrew verbs, various Latin synonyms are heaped up without regard for semantic development. In explaining specific constructions, forms, and phrases, Buxtorf often refers to the medieval Jewish Bible commentators on whom he relied.

Buxtorf the Elder continued his Biblical Hebrew lexicography in his Hebrew concordance of the Old Testament (1632), in which the meaning of each base stem (conceived as root, *šoræš*), each derivative stem (*binyān*), and each inflected verbal form is given in Latin.³¹² The title page promises a complete Hebrew dictionary.³¹³ In the preface, Buxtorf the Younger, the editor and reviser, states that the work could also be called a dictionary.

Buxtorf the Elder's reputation as a lexicographer rests on his dictionary of Targumic and Talmudic Aramaic and Rabbinic Hebrew: *Lexicon Chaldaicum, Talmudicum et Rabbinicum*, which he largely compiled himself, but which his son, Johannes Buxtorf the Younger, revised, substantially supplemented, and published in Basel in 1639–1640.

Schultens possessed Buxtorf's dictionary of Biblical Hebrew and Biblical Aramaic,³¹⁴ his lexicographical concordance to the Hebrew Bible,³¹⁵ and his dictionary of Jewish Aramaic and post-Biblical Hebrew.³¹⁶

³¹¹ Buxtorf, *Lexicon Hebraicum et Chaldaicum* (1615), Epistola dedicatoria, p. 12: "In subsidium adhibui Chaldaeos et Hebraeos interpretes, priscos et recentiores, quotquot mihi illorum copia esse potuit. Ex illorum autoritate quam saepissime lux infertur locis ab interpretibus diversimode redditis."

³¹² Buxtorf, *Concordantiae Bibliorum Hebraicae, nova et artificiosa methodo dispositae [...] radicibus antea confusis distincte et significatione vocum omnium Latina illustratae*, Basel 1632.

³¹³ Buxtorf, *Concordantiae Bibliorum*, title page: "Secundo LEXICI Hebraici omnibus vocibus flexibilibus completi forma absoluta proponitur."

³¹⁴ *Bibliotheca Schultensiana*, p. 525, no. 3436 in quarto, Jo. Buxtorffii *Lexicon Hebr. et Chaldaicum*, Amst. 1654, 4. vols. *Pars Bibliothecae Schultensianae*, p. 72, no. 36 in duodecimo J. Buxtorffii *Manuale Hebraicum et Chaldaicum* [sine loco].

³¹⁵ *Bibliotheca Schultensiana*, p. 5, no. 55: J. Buxtorffii *concordantiae Bibliorum Hebraicae*, Basil 1632.

6.5 Comparative approaches

6.5.1 Valentin Schindler

Valentin Schindler (1543–1604), who served as professor of Oriental languages at the Universities of Wittenberg (1571–1592) and Helmstedt (1593–1604), inaugurated a new era of Hebrew lexicography, in which the forms and meanings of Biblical Hebrew words were analysed by comparing them with other Semitic languages and with post-biblical stages of Hebrew. Schindler's *Lexicon pentaglotton*, published in 1612, comprises Biblical Hebrew, Jewish Aramaic of the Targums, Syriac, Rabbinic Hebrew, and Arabic (Figure 7a).³¹⁷ His lexicographical method can be summarized as follows: (a) to list the lexical root as the main entry, (b) to distinguish the meanings of the verbal or nominal derivatives of the root as either entirely or partially homonymous, and as polysemous due to metonymy and metaphor, and (c) to describe nominal, adjectival, and adverbial derivatives as sub-entries under each separate meaning.

In exploring the forms and meanings of Biblical Hebrew words and in laying a foundation for comparative Semitic lexicography, Schindler used various comparative and parallel-contrastive methods, namely:

- (1) to differentiate word meanings in Biblical Hebrew from cognate words in Aramaic, Syriac, and Arabic, as well as from meanings found in post-biblical stages of Hebrew, namely Rabbinic Hebrew and Medieval Hebrew,
- (2) to record the homonyms of Biblical Hebrew,
- (3) to record words attested exclusively in Aramaic, Syriac, Arabic, and/or Rabbinic Hebrew, but not in Biblical Hebrew,
- (4) to record forms and meanings particular to Arabic, Aramaic, or Syriac in the then available texts of these languages.

Hottinger used these classificatory methods in his *Etymologicum Orientale sive Lexicon harmonicum heptaglotton* (1661).

In identifying etymological cognates of the Semitic languages, Schindler used the criterion of sound correspondence. He not only referred to words with identical phonograms but also to words whose one or two radicals did not match those of Hebrew. In the 16th and 17th centuries, the latter method was based on the classical concept of *permutatio litterarum*, which means

³¹⁶ *Pars Bibliothecae Schultensianae*, p. 6, no 152 in folio: J. Buxtorffii *Lexicon Chaldaicum, Talmudicum et Rabbinicum*.

³¹⁷ In English translation, the title page (first half) of the *Pentaglot* reads: "Five-language Hebrew, Chaldaic, Syriac, Talmudic-Rabbinic, and Arabic dictionary, in which all words of Hebrew, Chaldaic, Syriac, Talmudic-rabbinic and Arabic, with the occasional addition of Persian, Ethiopic and Turkish, are arranged in alphabetic order and each of them put under their roots and their meanings, and the usage and elegances are proposed and explained in a learned, ample and clear manner." [...]

“interchange of speech sounds”. In his account of the “interchanges” under the entries for the letters *záyin*, *hēt*, *šāde*, and *šin*, Schindler observed sound correspondences between Hebrew, Aramaic, and Arabic. Therefore, he anticipates the results achieved by Schultens in *Clavis dialectorum* (1733), but it is difficult to determine the extent to which Schindler had a direct impact on Schultens in this regard. Schindler’s accurate observations of the sound correspondences between Semitic languages were cited by Gottlob Wilhelm Meyer as one of the merits of his Pentaglot dictionary.³¹⁸

Schindler introduced an analysis of semantic developments by applying the Greco-Roman categories of semantic extension of the primary meaning. In the entries, he described semantic change in Hebrew and other Semitic languages through metonymy, metaphor, and synecdoche.

Exactly when Schindler decided to include Arabic in his dictionary remains uncertain. He had access to the polyglot Psalter of Augustino Gustiniano (1517) and to Saadia Gaon’s Arabic translation of the Pentateuch (Istanbul 1546). Because he refers to the New Testament in Arabic, which was then unpublished, he likely possessed a manuscript copy. In the 1590s, he gained access to new Arabic textual sources, namely al-Idrīsī’s Geography (1592), Avicenna’s works (1593), and Euclid’s works (1594), all published in Rome. As noted above, Raphelengius used these linguistic data.

It was the publication of the Antwerp Polyglot Bible (1569–1572) that prompted Schindler to produce a minor Polyglot Bible and to undertake the enterprise of a multilingual dictionary. In the preface to *Epitome Bibliorum* (1578), he declares that a polyglot dictionary is necessary for the correct understanding of his minor Polyglot Bible and reports that it implies a compilation of “everything that Jewish and Christian scholars have commented on the meanings of Hebrew, Aramaic, Syriac, Rabbinic and Talmudic words”.³¹⁹ Upon his death in 1604, Schindler had been working on his *Lexicon Polyglotton* for about thirty years.³²⁰ His widow managed to engage two scholars, Engelbert Engels and Walter Keuchen, to publish the

³¹⁸ Meyer, *Geschichte der Schrifterklärung seit der Wiederherstellung der Wissenschaften*, vol. 3, Göttingen 1804, p. 65: “daß die sonst schwierig zu erklärende Verschiedenheit der Wortbedeutung bey ganz ähnlich klingenden Wörtern, die aber allein durch genauere Beobachtung der Buchstabenverschiedenheit in Arabischen erklärbar wird, hier schon gar oft sehr richtig bemerkt ist”. Meyer, *ibidem*, pp. 72 f. and p. 77, contrasts Schindler’s etymological approach with Castel’s method to arrange words according to the formal phonetic counterpart.

³¹⁹ Schindler, *Epitome Bibliorum*, preface, p. A3v: “habens omnia, quaecunque de Hebraicorum, Chaldaicorum, Syriacorum, Rabbinicorum et Talmudicorum vocabulorum significationibus, docti quique inter Iudaeos et Christianos unquam commentati sunt et multis magnisque voluminibus prodiderunt”.

³²⁰ Cocceius’ former student Nicholas Albert Kamenek stated this in his *Oratio de Hebraeae linguae studio*, delivered in 1611, republished in Dresden in 1734, p. 122.

dictionary.³²¹ The *Lexicon pentaglotton* was published in Frankfurt am Main and Hanau in 1612. The Hanau edition (Figure 7b) is a second issue from the same year. It contains two items that the Frankfurt edition (Figure 7a) lacks – Engels’ preface and a one-page index of cited Hebrew, Arabic, Latin and Greek authors.³²² Because Schultens possessed the Frankfurt edition,³²³ which lacks Engels’ preface, his opportunity to become familiar with the work’s basic assumptions was limited. The lexicon was republished in Frankfurt am Main in 1653, in Geneva in 1646, and in Leiden in 1696. In the Geneva and Leiden editions, the value of the dictionary for the study of the Paris Polyglot Bible is emphasized on the title page.

The publisher’s preface states three principal aims, namely an alphabetical explanation of the proper and figurative meanings of appellative words, the illustration of rites, ceremonies, and festival days, and the interpretation of difficult biblical passages, together with the demonstration of errors in the Aramaic, Greek, Latin, and German Bible translations and the causes of these inaccuracies. These aims can be described as semantic, antiquarian, and exegetical.

Schindler’s choice of the comparative method in Hebrew lexicography aimed to present a middle way between reliance on rabbinical tradition and the anti-rabbinical reaction of Forster and Avenarius. As for his elucidation of Hebrew words, Schindler did not reject the Jewish tradition as a source for Hebrew lexicography, but held that it should be used with discretion.³²⁴

³²¹ Engelbert Engels, born in Düren likely c. 1570, matriculated at the University of Marburg in 1589 (on April 16) and studied at the University of Wittenberg in the middle of the 1590s. He dated his preface to the Pentaglot to 28 August 1611 in Schaafheim. Walther Keuchen, born c. 1580, studied theology and Hebrew in Basel, Herborn, Heidelberg, and Geneva between 1601 and 1608. He was appointed censor of Hebrew publications in Frankfurt am Main in 1609. The publisher Ruland states in his preface that Engels devoted two years to copying Schindler’s autograph, and Keuchen corrected the proofs. In his own preface, Engels describes Schindler’s autograph as in disorder: “confused and intricate in a lot of passages”.

³²² Cf. Rijk Smitskamp, *Philologia Orientalis II*, p. 114 (no. 106b and no. 106c).

³²³ See *Pars bibliothecae Schultensianae*, p. 6, no. 151 in folio.

³²⁴ In the dedicatory letter to his re-edition of Mercier’s Aramaic grammar, *Tabulae in grammaticen linguae Chaldaeae*, pp. A3v–A4r, Schindler states: “Tandem veteris Instrumenti libri maxime explicati et illustrati sunt doctissimorum Rabbiorum פרושים, *peruschim*, commentariis, quae magna ex parte Chaldaico et Syriaco sermone constant: et quamvis nonnulla doctrinae coelistis capita interdum aliter tractent, quam nos Christus et Apostoli edocuerunt, quatenus tamen vocabulorum significationem et naturam diligenter expendunt indeque simplicem ac genuinam textus Biblici sensum fideliter eruunt et certo monstrant, haud parum linguae ac scripturae sacrae studiosos adiuvant.” “The books of the Old Testament are above all explained and illustrated in the commentaries (*p’rūšim*) of the learned rabbis, which mainly are in Aramaic and Syriac. Although they sometimes treat some points of the divine doctrine differently than Christ and the Apostles taught us, they

This approach is evident in the printed title page, which lists the principal sources of the Pentaglot: “on the basis of the sacrosanct Hebrew Bible and its Chaldaic paraphrases, the Syriac New Testament, both the Babylonian and Jerusalem Talmuds, the Midrashim, the rabbinical commentators [of the Bible], theologians and philosophers, the Arabic translation of the Old and New Testaments, the Koran, Avicenna, etc., and the Septuagint translators and all Latin translations of the Bible.”³²⁵

6.5.2 Johann Heinrich Hottinger

Johann Heinrich Hottinger (1620–1667) summarized Schindler’s pentaglot dictionary and broadened its scope by adding Ethiopic and Samaritan, thus transforming it into a heptaglot dictionary. *Etymologicum Orientale sive Lexicon harmonicum ἐπτάγλωττον* (1661) focused on improving the method of presentation through a clearer arrangement. The emphasis on the innovation of the didactic method and system is linked to the post-Ramist educational programme, which spread to the Reformed universities through the impact of Johann Heinrich Alsted’s *Encyclopaedia* (1630). The fact that integral parts of *Etymologicum Orientale*, particularly the first two columns on each double-page spread, constitute a Hebrew dictionary, and the fact that it began as a project for a Hebrew lexicon, justify closer scrutiny.

Hottinger held the chair of Church history and Oriental languages at the *Collegium Carolinum* in Zürich for much of his career (1642–1655) and, for some years, the chair of Old Testament and Oriental languages at the University of Heidelberg (1655–1661). He was an encyclopaedic scholar who combined theology with ecclesiastical and Islamic history, Semitic philology, and Oriental literature. He stressed the necessity of studying Semitic languages for theologians, maintaining that no one is a good theologian without being a good philologist,³²⁶ because a theologian without knowledge of Semitic languages is like a soldier without weapons or a craftsman without tools.³²⁷

It was during his employment in Heidelberg that Hottinger completed his heptaglot dictionary, but this lexicographical enterprise originated in his

are of great help to the students of the Holy Scriptures, insofar as they diligently assess the meaning and nature of words and thus bring forth and establish the simple and genuine sense of the biblical text.”

³²⁵ Schindler, *Lexicon pentaglotton*, title page, the latter part. For the Latin text, see the Bibliography, s.v. Schindler.

³²⁶ Hottinger, *Etymologicum Orientale*, preface titled “Clavis etymologici harmonici sive dissertatio de scopo, usu et methodo huius lexici”, page b verso (that is, p. 10): “Si quis fuerit bonus Grammaticus Hebraeus [...], eo ipso eruditorum calculo bonus erit Theologus.” *Thesaurus philologicus seu clavis Scripturae*, Zürich 1649, dedicatory letter, p. 6: “Optimus grammaticus Hebraeus, optimus theologus. Scriptura non potest intelligi theologice, nisi prius intelligatur grammaticae.”

³²⁷ Hottinger, *Smegma Orientale*, Heidelberg 1658, chapter 1, p. 2, lines 9–10.

plans for a Biblical Hebrew dictionary. In the preface to his *Thesaurus philologicus* (Zürich 1649), an encyclopaedic dictionary of terms and key concepts in Biblical and Oriental studies, he announced plans for a Hebrew dictionary, in which the proper and primary meanings of words would be explored “through a diligent comparison and accurate study of the sense of the single passages” and illustrated with numerous examples from the entire Old Testament, while the figurative, “improper”, meanings would be examined only after the proper ones had been established. By this method, the origins of errors or confusion in Bible translations, the sources of exegetical misinterpretations, and the fuel for unsound theological dogmas would be exposed, Hottinger argues, envisaging a broader non-linguistic utility for his projected dictionary.³²⁸ The statement of the lexicographic approach is important for forming an accurate opinion of the Hebrew sections of Hottinger’s heptaglot dictionary.

Hottinger soon broadened the sources for his planned Hebrew dictionary. It would also include comparisons with Arabic cognates to provide clues to the proper, original signification of rarely attested and obscure Hebrew words and to restore lost verbal roots to Hebrew. To this end, he devoted one chapter of a treatise titled *Smegma Orientale* (Figure 8a).³²⁹ In chapter 7 (pp. 106–201), he discusses approximately 500 Arabic roots to restore or clarify the morphology or semantics of lost, obsolete, or obscure Hebrew words and phrases.³³⁰ For a sample page, see Figure 8b. He used Jacob Golius’ Arabic-Latin dictionary. The underlying idea is that Arabic, as a repository, has preserved a store of words that have fallen out of use in Hebrew.³³¹ At the

³²⁸ Hottinger, *Thesaurus philologicus seu clavis Scripturae*, preface “Προσφώνησις ad lectorem”, pages marked as)()(3 recto–verso.

³²⁹ *Smegma Orientale sordibus barbarismi oppositum, contemptui praesertim Orientalium linguarum oppositum*, “Oriental soap against the smudge of barbarism, especially against the contempt of Oriental languages” was written between 1655 and 1657 and published in Heidelberg in 1658. It addresses the following topics: the use of Hebrew, Arabic, Aramaic, Syriac, and Ethiopic in biblical interpretation; Bible translation from the original languages; critical-exegetical work on multilingual biblical text editions in the Paris and London Polyglot Bibles; and the history of the Old Testament church. The last topic was the focus of Hottinger’s courses on church history from 1645 to 1647; see Loop, *Johann Heinrich Hottinger*, pp. 43–46.

³³⁰ Hottinger, *Smegma Orientale*, p. 116: “Ordine autem percurramus alphabetum, expensuri, quid vel ad obsoletarum radicum restitutionem vel vocum rariorum confirmationem supellex conferat Arabica.” “I will go through the alphabet in order to assess what the Arabic storehouse contributes either to the reconstruction of no longer used roots or to the confirmation of infrequent words.”

³³¹ Cf. Loop, *Johann Heinrich Hottinger*, p. 81.

end of the chapter, Hottinger declares that his projected Hebrew dictionary “will include more examples of this kind”.³³²

When writing the preface to his comparative grammar of Hebrew, Aramaic, Syriac, and Arabic in mid-August 1658, Hottinger promised a “harmonic” – that is, both comparative and parallel-contrastive – dictionary as the lexicographical counterpart to his comparative grammar. He stated that both would provide “a double harmonic aid” (*subsidium geminum harmonicum*).³³³ He had originally planned these linguistic tools as parts of a tripartite work under the overarching title *Smegma Orientale*, with the treatise *De usu linguarum Orientalium per theologiam universam* (“the use of Oriental languages in the entire theology”) intended as the first volume, the comparative dictionary, *Lexicon harmonicum*, as the second, and the comparative grammar, *Grammatica harmonica*, as the third, each accompanied by bibliographies of Oriental literature. However, in the end, he decided to reserve the title *Smegma Orientale* for the first book only.

In his *Etymologicum Orientale sive Lexicon harmonicum* (166, Figure 9c), Hottinger extended his lexicographical project into a dictionary that included, in addition to Biblical Hebrew, Biblical Aramaic, Talmudic Aramaic, Syriac, Arabic, Samaritan, and Ethiopic. With this expansion, he wanted to provide a tool to explore the word stock of ancient Bible translations into Semitic languages, recently made available by the publication of the Paris and London Polyglot Bibles, 1629–1645 and 1653–1657, respectively.³³⁴ In the preface to *Etymologicum Orientale*, Hottinger acknowledges that he had always drawn a great and substantial use from Schindler’s Pentaglot dictionary, and states that no one so far had superseded Schindler in producing a Semitic multilingual dictionary.³³⁵ He also commented on the differences between his own enterprise and his predecessor’s. Schindler mainly collected Syriac words from the Peshitta New Testament, whereas Hottinger drew on a richer source, namely Ishō‘ bar ‘Alī’s 10th-century Arabic-Syriac dictionary.³³⁶ Moreover, he argues that

³³² Hottinger, *Smegma Orientale*, p. 201: “Speramus enim plura et certiora nos duros in Lexico nostro Biblico, ad quod σύν θεῷ paulatim nos accingemus.” “We hope that by the help of God we will provide more and clear examples in our biblical dictionary, to which I will eventually and gradually prepare myself.”

³³³ Hottinger, *Grammatica quatuor linguarum, Hebraica, Chaldaicae, Syriacae, Aranica, harmonica*, Heidelberg 1659, preface, p. *3 verso, and introduction, p. 2.

³³⁴ Hottinger, *Etymologicum Orientale sive Lexicon harmonicum heptaglotton*, dedicatory letter, p. with the mark)((recto (which corresponds to p. 7).

³³⁵ Hottinger, *Etymologicum Orientale*, preface titled “Clavis etymologici harmonici sive Dissertatio de scopo, usu et methodo huius lexicī”, page with the typographical sign “a” verso (that is, p. 2, as counted from the beginning of the preface): “Adiecit Schindlerus Arabiam. Ultram quod sciam, nihil a nostris tentatum.”

³³⁶ Hottinger, “Clavis etymologici harmonici”, p. 16 (b 3 verso): “Illud voces fere Syriacas, quae in N.T. tantum occurrunt. [...] In hoc vero Syriacarum vocum magna ex Lexico Msc. Isabar Ali [...] accessit seges.” Hottinger copied Išō‘ bar ‘Alī’s

his dictionary has a broader scope than Schindler's because he included Ethiopic and Samaritan.³³⁷ He emphasizes that this was partly made possible by his contact with the German Orientalist Hiob Ludolf (1624–1704), who, some years before the publication of his Ethiopic dictionary, provided him with collections of Ethiopic words from it.³³⁸ He also utilized Jean Morin's publications on the Samaritan language.³³⁹

Discussing the brevity of his *Etymologicum Orientale* (562 pages) compared with the prolixity of Schindler's Pentaglot (1992 pages), Hottinger claims that a dictionary can be both brief and complete, maintaining that he confined himself to "a bare skeleton of roots, without veins and flesh", that is, without regard for the context in which the words occur.³⁴⁰

In his *Etymologicum Orientale* (or *Lexicon harmonicum*), Hottinger employed comparative, contrastive, and language-specific perspectives to illustrate the morphology and semantics of Hebrew and other Semitic languages. To this end, he systematically arranged his dictionary in five parallel columns spanning two pages. In earlier research, the purpose of these columns was only briefly addressed by Jan Loop and was partly misunderstood by Rainer Voigt (see note 344 below). At the end of his preface, Hottinger outlines the contents of each column,³⁴¹ but presents the first and second columns in an order that is inverted relative to the dictionary's spread layout. The second column can be regarded as Hottinger's Biblical Hebrew dictionary, with the first and third columns providing comparative perspectives. The third and fourth columns constitute a comparative Semitic dictionary, while the fifth column contains separate dictionaries for the languages concerned. All of the features of the polyglot dictionary are all described on the title page. The ingenuity of this outline, which combines comprehensiveness with brevity and clarity, can be

dictionary during his fourteen-month stay at Leiden University in 1640–1641. See Loop, *Johann Heinrich Hottinger*, p. 82.

³³⁷ Hottinger, "Clavis etymologici harmonici", b 3 verso (p. 16): "Illud voces [...] Aethiopicas rariores, Samaritanas nullas explicat." [...] "Sed praeter hanc messem Syriacam Aethiopicam insuper et Samaritanam linguarum accessit specimen."

³³⁸ Hottinger, "Clavis etymologici harmonici", p. 16, referring to Hiob Ludolf: "qui integram nobiscum radicem Aethiopicarum syllogen communicavit." In 1658, Hiob Ludolf sent Ethiopic word-lists to Hottinger (still extant in Zentralbibliothek in Zürich under shelfmark F 79, fols. 314r–377; see Loop, *ibidem*, p. 83). He published his *Lexicon Aethiopico-Latinum* in London in 1661.

³³⁹ Hottinger, "Clavis etymologici harmonici", p. b4 verso (that is, p. 16), refers to Morin's *Lexicon Samaritanum*, published in his *Opuscula Hebraeo-Samaritica*, vol. 6, Paris 1657 and to Morin's notes on Syrian ordinations in *Commentarius de sacris ecclesiae ordinationibus*, Paris 1655.

³⁴⁰ Hottinger, "Clavis etymologici harmonici", p. b3 verso (that is, p. 14): "Nudum radicem σκελετόν est, nullae accedunt venae, nulla caro, nulla medulla. [...] Σκελετόν esse volui carnem et venas alii reservaturus operi."

³⁴¹ Hottinger, *ibidem*, pp. d4 verso–e recto (corresponding to pp. 32–33).

regarded as the outcome of a distinctive post-Ramist educational method. For the layout of these columns, see Figures 9a and 9b.

The first column lists the triconsonantal Hebrew root, whether attested in Biblical Hebrew or “restored” from other Semitic languages (in their presumed capacity as “daughter languages”) for any nominal stem or derivative verbal stem (*binyān*) attested in Biblical Hebrew. Hottinger himself gives the number of restored roots (that is, root morphemes) from each of the languages used: 83 from Biblical Aramaic, 347 from Arabic, 75 from Ethiopic, 70 from Syriac, 17 from Samaritan, and 83 from Talmudic Aramaic.³⁴² When listing the roots restored from Arabic, along with their relevant meanings (one or more), he often refers to *Smegma Orientale* for a more complete discussion. At the end of the preface, this column is designated by the Greek coinage *rhizothesia* and defined as “restoration of roots”. The headline of this column reads: “*radix inusitata ex aliis linguis vicinis restituenda*”, i.e. “a no longer used [= a lost] root, to be restored from other related languages”.

The second column lists attested Biblical Hebrew roots, together with the synchronic proper meaning and the figurative meanings in the base stem (*qal*), in derivative stems (such as *niphal*, *piel*, *hiphil*, and *hitpael*), and in related nominal stems. If more than one meaning is given, they are numbered. For didactic reasons, Hottinger presents the roots in groups of two consonants, which are to be combined with a third to form the triconsonantal Semitic root. In the preface, he explains that he has used this method to promote the learning of Hebrew and Semitic roots for both beginners and advanced students.³⁴³ The arrangement is not to be interpreted as a theory of an original biradical root. Hottinger did not advocate Semitic biradicalism as a principle.³⁴⁴ In his comparative grammar (1659), he declares that the Semitic root is, by nature, triconsonantal, whether regular or irregular.³⁴⁵ The second column has the headline: *Rhizologia, i.e. radix Hebraea cum diversis significationibus*, “Rhizologia, that is, the Hebrew root with its different meanings”. This column coincides with the goals of Hottinger’s planned Biblical Hebrew dictionary.

³⁴² Hottinger, “Clavis etymologici harmonici”, page “e” verso (p. 34).

³⁴³ Hottinger, *ibidem*, page “e” verso–“e2” recto (pp. 34–35).

³⁴⁴ However, Rainer Voigt, “Semitische Philologie und vergleichende Grammatik: Geschichte der vergleichende Semitistik”, in S. Auroux et alii (eds.), *History of the language sciences*, vol. 2 (HSK 18:2), Berlin 2001, pp. 1313–1314, understands the first and second columns in Hottinger’s heptaglot dictionary as referring to a theory of a two-consonantal root, interpreting *radix inusitata* in the first column as the reconstructed biradical proto-root, “die rekonstruierte zweiradikalige Urwurzel”.

³⁴⁵ Hottinger, *Grammatica quatuor linguarum [...] harmonica*, Heidelberg 1658, p. 42 (chapter 9 on the verb and the participle, the first paragraph): “Omne verbum seu radix tribus regulariter constat literis iisque vel expressis, si perfectum fuerit [...], vel subintellectis [...], si imperfectum.”

The third column aimed to show that Hebrew words (in their primary and proper meanings, as well as their transferred meanings) agree with verbs or nouns in other Semitic languages. The meanings to which they correspond are indicated by numerals that refer to those in the second column. In the preface, Hottinger describes this column as “a more complete and clearer agreement of languages in mutual kinship with the Hebrew mother language than what has appeared hitherto, as far as I know.”³⁴⁶ In the headline, Hottinger describes the contents of this column as “agreement of the Hebrew mother language with Chaldaic [i.e. Biblical Aramaic], Syriac, Talmudic-Rabbinic [i.e. Talmudic Aramaic], Samaritan, Arabic, and Ethiopic” (*harmonia matris Hebraeae cum filiabus Chaldaea, Syra, Talmud-Rabb[onica], Samarit[ana], Arab[ica], Aethiop[ica]*).

The fourth column describes the internal relationships among two or more Semitic “daughter-languages” but excludes “the Hebrew mother language” (*harmonia filiarum inter se vel omnium vel quorundam exclusa matre Hebraea*).

The fifth column records the idiomatic, language-specific forms and meanings of the individual Semitic languages. In the heading of this column, the Latin adjective *proprius* is not used in the sense of “the precise and natural meaning” (as above), but in the sense of “the meaning particular to a specific language”, which in turn is connected with the concept of *proprietas linguae*, that is, the particularity or idiosyncrasy of any language.

Hottinger was one of the scholars whom Schultens cited as authorities on the comparative method in his 1706 treatise on the utility of Arabic in interpreting the Holy Bible. He possessed Hottinger’s publications for the comparison of Semitic languages, viz. *Smegma Orientale* (1658) and *Etymologicum Orientale* (1661).³⁴⁷ Though he chiefly referred to *Smegma Orientale* and only infrequently to *Etymologicum Orientale*, he likely drew greater advantage from the latter than he acknowledged.

6.5.3 Edmund Castell

In 1651, Edmund Castell (1606–1686) was entrusted with the task of producing a heptaglot dictionary for the reading and interpretation of the London Polyglot Bible (*Biblia polyglotta*, London 1654–1657). As part of this commitment, he was appointed professor of Arabic at Cambridge. After seventeen years, *Lexicon heptaglotton*, spanning 4000 pages, was published in London in 1669 (Figure 10a). Castell drew on extensive lexicographical resources.³⁴⁸ He presented a joint lexicon of Hebrew, Aramaic, Syriac,

³⁴⁶ Hottinger, *ibidem*, p. e recto (p. 33): “Pleniorem et planiorem linguarum, quae affinitate se mutua attingunt cum matre Hebraea harmoniam, quae hactenus, quod sciam, prodiit.”

³⁴⁷ *Pars bibliothecae Schultensianae*, p. 24, nos. 282–283 in quarto.

³⁴⁸ See Castell, *Lexicon pentaglotton*, London 1669, preface, p. 2. Castell describes his use of earlier lexicography. For Aramaic (Biblical, Targumic and Talmudic) he

Samaritan, Ethiopic, and Arabic, as well as a separate lexicon for Persian. Regarding Hebrew, he states that he compiled the dictionaries of David Kimchi, Nathan ben Kalonymus, Avenarius, Forster, Pagninus, Buxtorf the Elder, and Schindler. Despite the extensive linguistic data and the use of Near Eastern scripts in the typography (see Figures 10b–10c), Castell's Heptaglot is a regression from a phonological perspective because the author lists only the formal phonetic counterpart to Hebrew words (whether cognate or not). Castell certainly knew the sound correspondences between the Semitic languages, but he did not apply them as a principle in his lexicon, so it is not comparative-etymological. His main purpose was to provide lexical keys for the different languages of the London Polyglot Bible. In modern research, Castell's multilingual dictionary has nonetheless been praised as the perfection of the comparative method in the 17th century. Because of the lack of a historical-comparative approach, it is unnecessary to delve further into the structure of this dictionary. Schultens certainly possessed it but hardly referred to it at all.³⁴⁹

At the time of its compilation and publication, Castell's Heptaglot lexicon had been surpassed by separate dictionaries of individual Semitic languages, with one exception – Syriac lexicography. Nearly a century after Castell's Heptaglot was published, its Syriac portion was republished as *Castelli lexicon Syriacum* by Johann David Michaelis (1788).

6.5.4 Digression: The use and reception of Schindler's Pentaglot

In the 17th century, Schindler was not only a principal source for the subsequent main authors of multilingual Semitic dictionaries, Johann Heinrich Hottinger and Edmund Castell, but he was also regarded as an authority by some 17th-century compilers of Hebrew dictionaries. The Pentaglot was abridged by William Alabaster (1633, reprinted 1635 and 1637)³⁵⁰ and plagiarized by Edward Leigh (1641), who used it as his chief

used the Buxtorfs' *Lexicon Chaldaicum, Talmudicum et Rabbinicum*, Schindler's *Lexicon pentaglotton*, Nathan ben Yehiel's *Arukh*, Cohen de Lara's *Lexicon Thalmudico-Rabbinicum*, and Münster's *Dictionarium Chaldaicum* (1527). For Syriac, he availed himself of the dictionary of Ḥasan bar Bahlul (mid-10th century) and the Syriac dictionaries of Andreas Masius (*Syrorum peculium*, 1571) and Martin Trostius (*Lexicon Syriacum*, 1623). For Arabic, he used Giggei's *Thesaurus linguae Arabicae*, Golius' *Lexicon Arabico-Latinum*, Bedwell's manuscript dictionary of Arabic, and the dictionaries of al-Jawharī and al-Fīrūzābādī. For Samaritan, he made use of Jean Morin's *Lexicon Samaritanum* in his *Opuscula Hebraeo-Samaritanica* (1657), and for Ethiopic, he used Ludolf's *Lexicon Aethiopico-Latinum* (1661). For Persian, he supplemented Golius' manuscript *Dictionarium Persico-Latinum*.

³⁴⁹ *Pars Bibliothecae Schultensianae*, p. 1, no. 2 in folio: Biblia polyglotta Waltoni et Castelli Lexicon, Lond. 1657, 7 vol.

³⁵⁰ Alabaster, *Spiraculum tubarum sive fons spiritualium expositionum ex aequivocis Pentaglotti significationibus*, London 1633. It was republished as *Pentaglotton in epitomen redactum* in 1635 and 1637.

model and, as a rule, only supplemented it with the observations of Pagninus, Forster, Avenarius, and Buxtorf the Elder, and sometimes with his own observations.³⁵¹ The Pentaglot was abbreviated by Johann Ernst Gerhard (1647). Finally, the dictionaries of Schindler, Hottinger, and Castell were synthesized by Johann Friedrich Nicolai (1670).

In the mid-17th century, the German Orientalist Christian Ravius (1613–1677) extolled Schindler as the greatest innovator in Oriental (i.e., Semitic) language studies of the period.³⁵² However, in the 18th century, practitioners of Semitic language studies apparently undervalued the quality of Schindler's lexicography. Wilhelm Friedrich Hezel and Johann Heinrich Jahn downplayed his achievements.³⁵³ In the early 19th century, his merits were re-established. In a biographical work commemorating Schindler, Paul Jacob Bruns attempted a re-evaluation.³⁵⁴ In his history of biblical interpretation (1805), Gottlob Wilhelm Meyer rehabilitated Schindler as an etymologist.³⁵⁵ Gesenius, in his history of Hebrew language studies (1815), readily admits that Schindler improved Hebrew lexicography through his consistent use of ancient Bible translations (the Aramaic Targums, the Septuagint, the Vulgate) and related languages, as well as through an improved arrangement of meanings and a superior analysis of the context.³⁵⁶

³⁵¹ Leigh, *Critica sacra. Observations on all the radices and primitive Hebrew words of the Old Testament in order alphabeticall*, London 1641, republished there in 1642 and 1652. Henric à Middoch translated this dictionary into Latin as *Critica sacra, cuius pars prior observationes philologicas et theologicas in omnes radices Veteris Testamenti* (Amsterdam 1678, 1688, and 1696). Schultens possessed Leigh's dictionary in the second edition of the Latin translation. See *Pars bibliothecae Schultensianae*, p. 2, no. 50 in folio.

³⁵² Ravius, *A discourse concerning the easterne tongues, to wit, Ebrew, Calde, Samaritane, Syriac, Arabic and Ethiopic* (written in 1648, published in 1650), p. 46: "Notwithstanding that Schindler, that worthy Schindler, my country-man, whom all men preferre in point of judgement before all learned men in Europe that ever medled with the Orientall tongue, did much on that behalfe, and so much, as never any man before him nor yet any after him till this day, in finding out many hundreds of roots to be the same in Ebrew, Calde, Syriac, Arabic or in the Rabbines. All which is excellently performed by him." The *Discourse* was published together with the 1650 re-edition of *A generall grammer for the ready attaining of the Ebrew, Samaritan, Calde, Syriac, Arabic and the Ethiopic languages*.

³⁵³ Hezel, *Geschichte der hebräischen Sprache und Litteratur*, Halle 1776, p. 173; Jahn, *De fatis studii linguarum orientalium inter Europaeos*, Jena 1769, p. 18.

³⁵⁴ Paul Jacob Bruns, "Das Andenken an Valentin Schindler", in *Göttingische Bibliothek der neuesten theologischen Litteratur*, 4, 1799, pp. 1–18;

³⁵⁵ G.W. Meyer, *Geschichte der Schrifterklärung seit der Wiederherstellung der Wissenschaften*, vol. 3. Göttingen 1804, pp. 61–65.

³⁵⁶ Gesenius, *Geschichte der hebräischen Sprache und Schrift*, Leipzig 1815, p. 114. Johann Gottlob Eichhorn acknowledged the pioneering nature of Schindler's Pentaglot in *Geschichte der neueren Sprachkunde*, vol. 5, Göttingen 1807, pp. 479 f. Schindler's merits as a Semitist lexicographer were also evaluated – partly on

6.6 Logical approaches

From 1630 to 1720, Hebrew lexicographers such as Bohle, Cocceius, Gousset and Stockius developed a logical semantic method.

6.6.1 Samuel Bohle

Dissatisfied with the multiplicity and diversity of meanings attributed to roots in contemporary Hebrew lexicography, Samuel Bohle (1611–1639), professor of theology in Rostock, initiated a logical approach to Hebrew semantics, which held that the basic meaning of the abstract root should be generalized to serve as the lowest common denominator. This method reflects the rationalist current in linguistic thought in the mid-17th century, most conspicuously expressed by the Port-Royal school.

In a series of twelve dissertations *Pro formali significationis eruendo in explicatione Sacrae Scripturae* (1637), “On establishing a formal meaning firstly in the exposition of the Holy Bible”, Bohle set out the principle that a general, formal meaning can be derived by comparing all occurrences of a particular root in the Hebrew Bible.³⁵⁷ This inquiry should not be drawn from extant dictionaries but from the Bible itself. By establishing formal meanings, Bohle argues, scholars no longer need the guidance of the Jewish tradition, which he designates as “the many distinctions of the Rabbis”. Bohle’s basic assumption is the Aristotelian distinction between form and matter; matter takes form, and form accordingly gives distinctive qualities to matter. The formal meaning that Bohle inquired into was a general one, which in itself would contain all specific meanings.

6.6.2 Johannes Cocceius

Johannes Cocceius pursued Hebrew lexicography in two distinct periods. In his early career, as professor of biblical exegesis in Bremen (1633–36), he elucidated a selection of words from *’āleḥ* to *yōḏ*. However, this work was not published until more than thirty years after his death, in *Opera anecdota* (vol. 2, 1706). He resumed his lexicographic enterprise on a broader scale during his tenure as professor of theology in Leiden, between 1657 and 1667, producing his well-known Hebrew and Aramaic dictionary, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti* (Amsterdam and Leiden, 1669; Figure 11a). His lexicography was closely tied to his work as a Bible commentator, in which he sought to explore and elaborate on the precise meanings of words and phrases, and to his role as a biblical hermeneutist, who focused on the relationship between the Old and

the basis of Gesenius – by Carl Siegfried in his entry “Schindler, Valentin”, in *Allgemeine Deutsche Biographie*, vol. 31, Leipzig 1890, pp. 291–292. Loop, *Johann Heinrich Hottinger*, p. 79, considers Schindler’s Pentaglot ground-breaking in the field of Arabic studies.

³⁵⁷ Bohle (Bohlius), *Disputatio prima pro formali significationis eruendo*, Rostock 1637, p. 1: “significationes formales seu generales”.

New Testaments. Cocceius commented on most of the Old Testament, as well as the Pauline epistles and the Letter to the Hebrews. He also authored two dogmatic works: *Summa doctrinae de foedere et Testamento Dei* (1648)³⁵⁸ and *Summa theologiae de Scripturis repetita* (1662).

In his biblical interpretation and dogmatic theology, Cocceius adhered to the hermeneutical principle that there is doctrinal agreement – an analogy – between the Old and New Testaments (*analogia fidei*) and that both should be regarded as a single body of doctrine. This principle was summarized in a statement drawn from Augustine: “The New Testament is concealed in the Old, the Old Testament is revealed in the New”.³⁵⁹ Cocceius stressed the same rule in his commentaries on biblical books, notably in the prefaces to his commentaries on the final chapters of Deuteronomy and the Psalms.³⁶⁰ As a Reformed theologian, he followed the principle that the Bible is its own interpreter (*sui ipsius interpret*). His basic assumption seems to be that the doctrinal unity and coherence of the Bible correspond to a regularity of language (*analogia sermonis*), which ensures the possibility of correctly interpreting individual words, phrases, and syntactic constructions

In his biblical interpretation, he argued that there are different kinds of clues – linguistic-philological, logical, and theological. The linguistic clue provides the literal sense of the text; the logical clue expands the perspective to the biblical author’s intention and the structure of the text at a level higher than that of the individual words, while the theological clue presupposes knowledge of the key doctrines of the Holy Scriptures. In the preface to his dictionary, he argues that knowledge of Hebrew is the key to understanding the biblical text, but that linguistic knowledge ought to be supported by extralinguistic clues.³⁶¹

³⁵⁸ This treatise has been translated into English by Casey Carmichael under the title *The Doctrine of the Covenant and Testament of God*, with a biographical and historical introduction by Willem J. Asset (pp. xv–xxxviii), Grand Rapids 2016.

³⁵⁹ The hermeneutical rule “Novum Testamentum in Vetere latet, Vetus in Novo patet” was derived from Augustine’s statement in *Quaestiones in Heptateuchum* 2, 73: “quamquam et in Vetere Novum lateat et in Novo Vetus pateat.”

³⁶⁰ Cocceius, *Ad ultima Mosis, hoc est ex extrema capita Deuteronomii considerationes*, Franeker 1650, preface, pp. **2r–***2v. Setting out from Col. 3: 16 (Let the word of Christ dwell in you richly in all wisdom), he states, p. ***3v: “Prophetia Novi Testamenti est brevis repetitio eius partis prophetiae veteris, quae de Christo et regno eius agit.” “The prophecy of the New Testament is a brief repetition of that part of the ancient prophecy that deals with Christ and his kingdom.” In the preface to *Centum quinquaginta Psalmi et extrema verba Davidis*, Leiden 1660, he declares, p. *3v: “Revera Evangelium nihil aliud est quam annunciatio eorum, quae promissa, predicta, sperata, expectata olim fuit.” “The Gospel is actually nothing else than an announcement of that which once was promised, predicted, hoped, and expected.”

³⁶¹ Cocceius, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti*, Amsterdam and Leiden 1669, pp. 4–5.

In addition to his expertise in Hebrew, Cocceius had a profound knowledge of the Jewish linguistic and exegetical tradition³⁶² and a sufficient knowledge of other Semitic languages: Aramaic, Syriac, and Arabic.³⁶³ The catalogue of his library shows that he possessed the main extant dictionaries of Biblical Hebrew as well as the principal dictionaries and grammars of Semitic languages.³⁶⁴ He also had the great polyglot dictionaries of Schindler, Hottinger, and Castell, even though the last did not contribute to his dictionary, since he had finished it two years before Castell's work was published. In his private library, he also had access to editions of Talmud Babli and Talmud Yerushalmi, Buxtorf's rabbinic Bible (1619) and Old Testament concordance (1631), and the separate Bible commentaries by Ibn Ezra, David Kimchi, and Abarbanel.

Despite his Semitic linguistic competence and knowledge of the Jewish exegetical tradition, Cocceius chose biblical usage as the primary source for his Hebrew lexicography. In determining the proper meaning of biblical usage, he sought the lowest common denominator among established meanings. He did not reject rabbinical aids for his linguistic interpretation – on the contrary, he approved of them – but he did not make them the foundation of his lexicography. He belongs to the same lexicographical school as Bohle and Gousset, but differs from them by emphasizing a philological-semantic method rather than a strictly logical one.

While holding the chair of biblical philology at the High School (*Gymnasium Illustre*) in Bremen, Cocceius stressed “the nature, dignity, utility, and necessity of sacred philology”³⁶⁵ (see his inaugural oration, delivered on 30 September 1630). In the ensuing lecture, he addressed “the method of interpretation or introduction to sacred philology” and made a case for a combined linguistic and logical analysis of the biblical text. He set out his views on the structure of language and classified the procedures of analysis in accordance with them.

Cocceius' selective and incomplete dictionary from the 1630s mentioned above is titled *Observationes de distinctiori significatione selectarum vocum linguae Hebraicae ex usu Scripturarum secundum ordinem alphabeti*, i.e.

³⁶² Se, further Adina M. Yoffie, “Cocceius and the Jewish commentators”, *Journal of the history of ideas*, vol. 65 (2004), pp. 383–398.

³⁶³ Cocceius describes the course of his education in Hebrew, Aramaic, Rabbinic Hebrew, and Arabic at the High School of Bremen in his autobiographical notes, which are quoted in the preface to his *Opera omnia*, 1701, see p. **2r.

³⁶⁴ *Catalogus bibliothecae instructissimae D[omini] Johannis Cocceii*, Leiden 1671. For instance, he possessed the Arabic-Latin dictionaries of Franciscus Raphelengius (*Raphelengii Lexicon Arabicum*, 1613) and Jacob Golius (*Lexicon Arabicum*, 1653), and the Ethiopic dictionary by Hiob Ludolf (1661).

³⁶⁵ Cocceius, *Protheoria de ratione interpretandi sive introductio in philologiam sacram*, published posthumously by his son Heinrich von Coccej in Johannes Cocceius' *Opera anecdota* (1706), vol. 1, pp. 62–75.

“Observations for a more precise meaning of selected words of the Hebrew language drawing on the usage of the Scriptures according to an alphabetical order”. This study begins with the noun *’ābīb*, “ear of corn, a green maturing ear”, and ends with the adverb *yāḥdaw*, “together”. It was published in his *Opera anecdota* (1706) and later integrated as an appendix to Johann Heinrich May’s revised edition of Cocceius’ Hebrew dictionary (1714), where it occupies 92 folio-sized pages. It had some impact on 18th-century Hebrew lexicography.³⁶⁶ Cocceius sought to improve the classification of polysemous meanings in Biblical Hebrew words. In the preface to his commentary on Ecclesiastes (1636), he describes his undertaking as “a particular treatise on the proper meaning of principal Hebrew words, demonstrated through comparison with the biblical diction”.³⁶⁷ In the same preface, he states that unnamed scholars exhorted him to undertake this lexicographical work. One of them may have been the philologist, theologian, and philosopher Matthias Martini, who was his Arabic teacher in Bremen and the author of a polyglot Latin dictionary.³⁶⁸ Another promoter was Sixtinus Amama, his Hebrew teacher in Franeker (1626–1629).

During his twenty years as chair of Hebrew at the University of Franeker, Cocceius continued lecturing on books of the Old Testament, among others Ecclesiastes, the Book of Job (published as *Commentarius in librum Ijobi*, 1644), Isaiah, Habakkuk, and Hosea. In commenting on the New Testament, he focused on the Pauline Epistles and the Letter to the Hebrews. He recommended consulting Pagninus’ Hebrew dictionary, Buxtorf the Elder’s Hebrew-Aramaic dictionary and Old Testament concordance, and Schindler’s Pentaglot lexicon.³⁶⁹ In the preface to his Hebrew dictionary, Cocceius says that, while working on Bible commentaries as part of his official duties, he was compelled to analyse the proper meaning – the synchronically common one, rather than the etymological one – of Biblical

³⁶⁶ Christian Stockius often refers to it in his Hebrew dictionary (1717), and Schultens shows acquaintance with it in his dictated Hebrew lexicon (1740–1749).

³⁶⁷ Cocceius, *Explicatio Cohelet sive Ecclesiastis Salomonis*, Bremen 1636, preface, p. 4 [with the typographical sign)((4 verso]: “Quod si tamen quispiam etiam a nobis subinde plura de verbis dicta optet, eum scire velim habere nos sub manibus peculiarem tractationem de praecipuarum vocum Hebraicarum proprietate ex collatione sacrae phraseos demonstranda.” (Republished in Cocceius’ *Opera omnia*, 1st ed., vol. 2, Amsterdam 1673, preface, p. 4v.)

³⁶⁸ Matthias Martini compiled a Latin dictionary (*Dictionarium philologicum*, Bremen 1623). In his autobiographical notes quoted by Johann Heinrich Cocceius in his preface to Cocceius’ *Opera omnia*, 3rd ed., vol. 1, Amsterdam 1701, p. **2r), Cocceius tells that he studied Arabic under the guidance of Matthias Martini at the High School of Bremen. He refers to Martini as his teacher in his above-mentioned opening lecture in the High School of Bremen, *De ratione interpretandi* (1630).

³⁶⁹ Cocceius, “Exercitatio de linguae Hebraeae analogia, utilitate et necessitate et discendi methodo” (to be dated to c. 1645–1650) in his *Opera anecdota*, Amsterdam 1706, vol. 2, p. 508.

Hebrew words and phrases, but that he still hesitated to compile a new Hebrew dictionary, because he considered the extant ones by “very learned and diligent scholars” to suffice.³⁷⁰

Cocceius resumed his lexicographical enterprise at the initiative of a German Countess, Maria Eleonora of Brandenburg (1607–1675).³⁷¹ Having learnt the rudiments of Hebrew from her court preacher and secretary, Johannes van Dalen, a former student of Cocceius, the Palatine Countess intended to deepen her knowledge of the language. She requested a new Hebrew dictionary with German translations for each entry.³⁷² Cocceius set out to compile his dictionary on the principle that Biblical Hebrew cannot be learnt solely from the Jews and ancient Bible translations, but also from the biblical text itself (*ex ipso Scripturae contextu*).³⁷³ Considering that the Old Testament is called “the prophetic word” (2 Petr. 1:19), he argues that “to heed the prophetic word as a light that shines in a dark place” is not necessarily the same as knowing or learning Hebrew, because ever since antiquity there have been translations – first into Greek and then into Aramaic – and translations cannot be perfect and often differ from each other. Thus, Cocceius does not want to rely on translators’ suppositions, nor does he wish to refer to Jewish scholars as authorities.³⁷⁴ To attain certainty about the sense of the biblical text, no other method remains than comparison of biblical passages (*comparatio locorum Scripturae*).³⁷⁵ Through this approach, he inquired into the genuine and proper meaning. Cocceius rendered each Hebrew word with a single Latin word and usually supplied the most common translation of the entry word in Greek, German, and Dutch, according to the Septuagint, Luther’s Bible, and the official Dutch Bible (States’ Translation, commissioned at the Synod of Dordrecht

³⁷⁰ Cocceius, *Lexicon et commentarius sermonis Hebraici et Chaldaici*, 3rd edition, (1714), preface, p. 4r: [...] multi anni mihi exacti sunt, ut quibus ratio ipsa officii mihi imperabat, ut fontes sacros auditoribus explanarem”. [...] In quo labore dum versor, saepe coactus sum vim proprietatemque Hebraeorum vocabulorum et phrasium scrutari et omnibus signis vestigare. [...] Tamen consilium Lexicon ad meum et aliorum usum conficiendi nondum erat animum certum. Cogitabam enim tum hanc operam esse a multis iisque doctissimis viris ac diligentissimis occupatam, tum satis esse me in iis locis, quos tractarem, quantum opus esse ἀκριβείαν sequi.”

³⁷¹ The ‘Pfalz-Gräfin’ Maria Eleonora of Brandenburg was married to Ludwig Philipp (1602–1655), Count Palatine of Simmern-Kaiserslautern.

³⁷² Cocceius, *Lexicon et commentarius sermonis Hebraici et Chaldaici*, 3rd edition, (1714), preface, p. 5: “Haec igitur quum cogitarem, evenit ut serenissima princeps Palatina vidua Maria Eleonora Brandenburgica, domina mea clementissima et per amicum meum veterem D. Johannem van Dalen, concionatorem suum aulicum et suis literis rogaret, ut Hebraicum Lexicon additis interpretamentis Germanicis, quanta possem optima fide conficerem in usum Germanorum” [...].

³⁷³ Cocceius, *ibidem*, p. 3.

³⁷⁴ Cocceius, *ibidem*, p. 5.

³⁷⁵ Cocceius, *ibidem*, p. 6.

in 1618 and completed in 1637). To clarify meaning, he quotes key biblical passages in Hebrew alongside his own Latin translation, not only to provide objective evidence but also to promote interactive learning of Hebrew words and phrases. Moreover, he assumes that the proper sense of individual words and phrases is modified by context, so that it takes on an implied meaning, which he terms the “emphatic” meaning (in Greek, ἐμφασίς). In exploring both the proper and implied contextual meaning, he asserts that one should generally rest on a typological interpretation of the Old Testament according to the analogy of Scripture and faith (*secundum analogiam Scripturae et fidei*).³⁷⁶

The 1669 edition comprises 1037 folio-sized pages, most of which cover Biblical Hebrew words (pages 1–984), with a minor separate portion devoted to Biblical Aramaic words (pages 985–1037). The dictionary includes several indices: an index of biblical passages and four indices of Greek, Latin, German, and Dutch words used to render the meaning of Hebrew and Aramaic words. The dictionary was republished in the eighth volume of Cocceius’ collected works (*Opera omnia*, 1675, vol. 8). In his 1689 republication (see Figure 11b), Johann Heinrich May provided *Animadversiones et supplementa*, “Critical notes and supplements”, in a separate section, thereby adding a comparative Semitic linguistic perspective that Cocceius, on the whole, had neglected.

Cocceius’ dictionary was revised by Johann Christoph Friedrich Schulz in 1777.³⁷⁷ In the preface, Schulz outlines the major changes in his revised edition. Firstly, he removed superfluous information, such as the German and Dutch renderings of entry words and typological interpretations of biblical passages. Secondly, he rejected all meanings not attested in the usage of other Oriental (that is, Semitic) languages. Thirdly, he restored 43 roots missing from Simonis’ and Stockius’ Hebrew dictionaries. Fourthly, he avoided conjectural and “Schultensian” inquiry into primary meanings, not accepting Schultens’ derivations, unless they are confirmed by other Oriental languages and clarify the biblical passages. Fifthly, he corrected Cocceius’ Latin translation of individual biblical passages, taking into account the context (*nexus orationis*), the nature of Hebrew usage (*genius linguae Hebraicae*), ancient translations (*auctoritas veterum interpretum*, the Targums, the Vulgate, the Septuagint, Peshitta, Arabic, Ethiopic and Samaritan versions) and related languages (*usus reliquarum linguarum*).³⁷⁸ Schulz gives the impression of having undertaken a meticulous revision, but in practice, the additions and improvements are quite limited.³⁷⁹ J.G.

³⁷⁶ Cocceius, *ibidem*, p. 6.

³⁷⁷ Cocceius / Schulz, *Lexicon et commentarius sermonis Hebraici et Chaldaici post Ioh. Cocceium et Ioh. Henr. Maium [...]*, Leipzig 1777.

³⁷⁸ Cocceius / Schulz, *ibidem*, preface, pp. iv–vi.

³⁷⁹ *Bio-bibliographisches Handbuch zur Sprachwissenschaft des 18. Jahrhunderts: Die Grammatiker, Lexicographen und Sprachtheoretiker des deutschsprachigen*

Eichhorn reissued Schulz's revised edition from 1793 to 1796 and included the results of Michaelis' *Supplementa ad lexica Hebraica*.

Cocceius' dictionary was crucial to the further development of Hebrew lexicography. Wolf held Cocceius' lexicographic undertaking in high regard.³⁸⁰ Schultens considered Cocceius the best lexicographer. Gesenius regarded him as a scholar who had achieved "the complete lexicographical description of the Old Testament usage".³⁸¹ Schultens possessed Cocceius' dictionary in the *Opera omnia* edition, vol. 8 (1675), in May's supplemented 1689 edition, and in the 1714 edition, which was likely the one he mainly used.³⁸²

6.6.3 Jacques Gousset's lexicography and methodology

In his Hebrew lexicography, Jacques Gousset (1635–1704) restricted himself to biblical usage as the sole source for establishing the unequivocal proper meaning of words and phrases. In this regard, and in terms of his logical method of semantics, he belonged to the same school as Bohle and Cocceius. Gousset was a French theologian, philologist, and Cartesian philosopher,³⁸³ educated at the Reformed University of Saumur.³⁸⁴ After the revocation of the Edict of Nantes (1685), he first fled to England and then immigrated to the Netherlands,³⁸⁵ where he became one of the Huguenot

Raums mit Beschreibung ihrer Werke, vol. 8 (Schu–Z), ed. by Herbert E. Brekle et alii, Tübingen 2005, pp. 12–13 (s.v. Schulz, Johann Christoph Friedrich).

³⁸⁰ Wolf, *Historia lexicorum*, pp. 160–164.

³⁸¹ Gesenius, *Geschichte* [...], 1815, p. 122: "Er hat sehr grosse Verdienste um die vollständige lexicalische Darstellung des alttestamentlichen Sprachgebrauchs."

³⁸² Cocceius' dictionary is not found in *Pars bibliothecae Schultensianae*, but the first edition of Cocceius' *Opera omnia* occurs on p. 3, no. 89 in folio. In *Bibliotheca Schultensiana*, the 1714 edition is catalogued on p. 514, no. 1009 in folio. Cocceius' *Opera omnia* of the third edition, 1701–1706, is listed on p. 99. In *Catalogus bibliothecae quam reliquit Henricus Albertus Schultens*, the 1669 and 1689 editions of Cocceius' dictionary are catalogued among grammarians and lexicographers of the Semitic languages, p. 77, nos. 221–223. One copy of the 1689 edition, no. 223, is reported to have notes of Albert Schultens: "cum notis nonnullis Mss. A. S".

³⁸³ Gousset defended the Cartesian school of philosophy in *Dissertatio philosophica de systemate physico Cartesii* and *Oratio, quae Deum esse ex mundi huius inferioris harmonia demonstratur*, both of which he attached to his theological treatise *De viva deque mortua fide* (Amsterdam 1696). See pp. 198–226 for the philosophical dissertation and pp. 227–264 for the oration. In 1702, he stated that he had studied the writings of Descartes and his followers for more than fifty years. *Commentarii linguae Ebraicae*, preface, p. **4r: "Sciens loquor: Cartesii et iuniorum scripta iam per annos ferme quinquaginta verso."

³⁸⁴ At the University of Saumur, Gousset was a pupil of Moses Amyraut, Louis Cappel, and Josué de la Place. In 1662, he was summoned to serve as a vicar in Poitiers.

³⁸⁵ After the revocation of the Edict of Nantes, he stayed as a refugee first in England (in 1685), and the following year (in 1686), he became vicar in Dordrecht.

intellectuals who were appointed as professors and who left a lasting mark on Dutch intellectual culture in the 18th century. As a professor of theology, philosophy, and Greek at the University of Groningen (from 1692 onwards), he completed his Hebrew dictionary, *Commentarii linguae Ebraicae*, and had it published in Amsterdam and Utrecht in 1702 (Figure 12a). It was the result of forty years' work, initially inspired by his reading of French classical philologists: Guillaume Budé's *Commentarii linguae Graecae* (1529) and Julius Caesar Scaliger's *De causis linguae Latinae* (1540).³⁸⁶

The dictionary takes the form of a lexicographical commentary on a selection of entries from Johannes Buxtorf the Elder's *Manuale Hebraicum et Chaldaicum* (1615). These comments amount to 954 pages, set in two columns in folio (Figure 12b). In the preface, Gousset outlines his purpose and method, which he further justifies in a separate introductory treatise. There, he briefly addresses the history of the Hebrew language (pp. 1–7) and discusses various scripts³⁸⁷ and the differences between Samaritan letters and Hebrew square letters (pp. 7–9). In the appendix, he critically examines Bohle's treatise on general meanings, discussing twenty-six of Bohle's 160 commented words (pp. 948–954).

The dictionary has five indices. The first covers Hebrew words and includes two appendices, one on Hebrew synonyms and another on words explained through post-biblical Hebrew or related languages. The second records Old Testament passages. The third details New Testament passages that correspond to Old Testament passages. The fourth presents notable subjects, and the fifth covers Greek "etymologies" and Latin words used to render the Hebrew words discussed.

On the title page, Gousset mentions four goals, as follows:

Commentaries on the Hebrew language, in which the main work is laid on defining the primary meaning and sense of words and phrases through an accurate investigation, eliminating homonyms and vague, ambiguous, and arbitrary interpretations, explaining key passages in the Holy Scriptures, and confirming and vindicating the parallels of the Old and New Testaments by particular discussion and mutual comparison.³⁸⁸

In the dedicatory letter of his dictionary addressed to the magistracy of Groningen, he describes himself as a French Huguenot in exile.

³⁸⁶ Gousset, *Commentarii linguae Ebraicae*, preface, p. **r: "Narrabo in antecessum talia in linguam Ebraicam commentari me coepisse olim ante annos plus quadraginta recentem a lectione Commentariorum Budaei in Graecam et Iulii Caes. Scaligeri de Latinae causa." p. **4v (in anticipating charges of plagiarism): "Primo quaedam heic tradita scripsi ante annos plus quadragenos".

³⁸⁷ Gousset more precisely discusses the picto- and ideographemic script of Chinese and Japanese in contrast to the phonetic script of Hebrew.

³⁸⁸ *Commentarii linguae Ebraicae, in quibus praecipua opera impenditur PRIMARIO SIGNIFICATUI et sensui dictionum phrasiumque accurata investigatione definiendo,*

In the preface, Gousset lays out his principles of semantic research, explains why he rejects sources of knowledge other than biblical usage, and takes a position in the contemporary hermeneutical debate on the nature of Hebrew, arguing against scholars who claim that Biblical Hebrew is ambiguous.

Gousset sought to identify the primary meanings of Hebrew words and phrases through a close study of biblical usage, which, in his view, reflected their proper and original senses. In doing so, he states that forty years ago he began pondering the proper meaning of words (*proprietas verborum*), the shift to a similar (transferred) meaning, the “emphatic” (that is, contextual) meaning of phrases, and the principles (*rationes*) underlying combinations of words with particles,³⁸⁹ thus professing himself an adherent of rationalist linguistic thought.

Gousset explains the unequivocal nature of Hebrew through a semantic-semiotic theory. His reasoning is as follows: “Language consists of signs. The function of a linguistic sign is to communicate a certain thought about a certain thing, but as long as this thought is left uncertain because of equivocation, it is not yet communicated and needs another sign to be indicated.”³⁹⁰ He cites J.C. Scaliger as an authority on the univocal nature of the original meaning: “There is one single proper and primary meaning of every single word; other meanings are either shared, additional, or false.”³⁹¹ Gousset adds: “Hence, he rightly maintains that other meanings should be reduced to a single.”³⁹² In his introductory treatise on Hebrew, he argues that the perfection of Hebrew, compared with other languages, is comparable to

HOMONYMIIS et interpretationis vagis, ancipitis, arbitrariis eliminandis, LOCIS INSIGNIBUS SS. Scripturae explandandis, PARALLELIS Veteris et Novi Testamenti tum peculiari discussione, tum collatione mutua firmandis et vindicandis.

³⁸⁹ Gousset, *Commentarii linguae Ebraicae*, preface, p. **r: “Hinc animus propensione quadam contracta sese applicuit ad meditanda in Ebraica, tunc oculis praecipue obversante, proprietatis verborum, affinis significationis servatae vel variatae, emphases locutionum ex diversis vocibus concurrentibus conflatarum, differentiarum iis modo a situ, modo ab adiacentibus particulis advenientium rationes.”

³⁹⁰ Gousset, *ibidem*, preface, p. **r: “Videlicet lingua signum est signis constans. Signi autem officium est suo interventu cogitationem defigere in conceptu certae rei, at donec conceptus per aequivocationem relinquitur incertus, nondum res tibi significata est aliudque desideras signum, quod ipsam indicet tibi.”

³⁹¹ Gousset, *ibidem*, preface, p. **r: “Unius namque vocis unica est, ut ipse ait, significatio propria ac princeps. Caeterae aut communes aut accessoriae aut etiam spuriae” Cf. Scaliger, *De causis linguae Latinae*, 1540, book 13, chapter 193, p. 351: “Unius namque vocis una tantum sit significatio propria ac princeps. Caeterae aut communes aut accessoriae aut etiam spuriae.”

³⁹² Gousset, *ibidem*, preface, p. **r: “Unde merito ad unum significatum caeterae reducendae tuetur.”

the superiority of grain to bread.³⁹³ In its capacity as the primeval language, Hebrew had perfection in its phonetic, communicative, and syntactic functions. It was the first language to have a system of articulated speech sounds, a relationship between the signifier (*signa*) and the signified (*res*), and a set of interrelated parts of speech. Other languages imitate these logical functions of Hebrew.³⁹⁴ Gousset also maintains that ambiguity arising from the multiplicity of meanings (*multiplicitas significationum*) is a serious linguistic fault in itself and should be removed from Hebrew lexicography, because Hebrew is the most perfect language.³⁹⁵

In the preface, Gousset also outlines the semantic principles he uses to determine the proper and primary meaning, which he equates with the formal meaning. He proceeds as follows: He collects the meanings usually attributed to any word and selects the most general meaning (*generalis*) as a common denominator from which specific meanings can be derived.³⁹⁶

In emphasizing the formal or basic meaning and choosing a logical method, Gousset places himself in the lexicographic tradition of Samuel Bohle, whose aim and method he believes are very similar to his own.³⁹⁷ In several cases, however, Gousset allows for a reversed direction of semantic development, viz. from the specific to the general (*a specie ad genus*) or from one specific to another specific. Accordingly, it is sometimes necessary to assume that the primary and formal meaning (*primaria formalisque notio*) is a specific (*specialis*) one.³⁹⁸ In the index of subjects, he acknowledges that concrete meanings (*corporalea significata*) can be primary. In such cases, one cannot but accept that there is a semantic development due to improper use of words, either by a trope or by a catachresis, through which another meaning is added to the genuine one, or grows out of the similarity or coherence of things, or from mimetic misuse.³⁹⁹ Gousset underscores that

³⁹³ Gousset, *ibidem*, p. 6: "Perfectio ei prae aliis linguis maxima attribuitur idque meritissime. Nimirum quo modo frumenti prae pane perfectio vere deprehenditur."

³⁹⁴ Gousset, *ibidem*, p. 6: "Ebraicam enim sequuntur eo quod est in iis vocis sonus et articulatio, item relatio signorum ad res, pariterque numerus partium orationis, quibus rebus substantia linguae consistit."

³⁹⁵ Gousset, *Commentarii linguae Ebraicae*, preface, p. **r: "Ante omnia aequivocationem, quae multiplicitate significationum pullulat, maximum linguae vitium esse semper arbitratus, illud a Ebraica abesse debere et summa cura removendum esse existimavi, ut praestantissimae linguarum personae sustineret."

³⁹⁶ Gousset, *ibidem*, preface, p. **2r (lines 8–4 from the bottom).

³⁹⁷ Gousset, *ibidem*, under the heading of "Additio de clariss. Samuelis Bohlii professoris Rostochiensis disputationibus *pro formali significationis eruendo primum in explicatione Scripturae Sacrae*", p. 948 (referring to Bohle): "Propositum autem illius meumque simillima sunt. Et nisi a Forstero nonnulla obiter tentata, hic Bohlius unus erst, mihi quidem notus, qui data opera istam sensus formalis inquisitionem ante me instituerit."

³⁹⁸ Gousset, *ibidem*, preface, p. **2r (lines 3–1 from the bottom).

³⁹⁹ Gousset, *ibidem*, preface, p. **2v (lines 1–2 from the top).

this assumption entails that he differs from his precursor, Bohle, whom he represents as follows:

Under the title of formal meaning, he introduced deduced meanings that are never attested in biblical usage, merely on account of a tacit and far-fetched logical consequence, remote from common sense and vague in their prolixity.⁴⁰⁰

Gousset argues that he avoided these pitfalls because he seldom adduces a meaning not found in the previous lexicographic tradition, nor does he conceal the reason for his choice. He declares that he investigated the primary and proper meaning of a great number of Hebrew words, reconciled their different meanings, sought to abolish or reduce polysemous meanings, and confirmed the established meanings or corrected them.⁴⁰¹ He considered that the primary, formal meaning he identified was the proper meaning, by which he intended the general synchronic meaning. It should be noted that Albert Schultens had another concept of proper meaning, which he equated with the original or etymological meaning. Johann David Michaelis ridiculed Gousset for assuming that all the words are used in their primary meanings in the Hebrew Bible.⁴⁰² However, it could be objected that the question of whether all the proper meanings are extant in the Hebrew Bible depends on how the concepts of proper and primary meanings are defined.

Gousset states that he devoted sufficient attention to discussing the alleged ambiguity of phrases, which is “no less perilous than in the single words”. He defines the term phrase as “several words joined together and related to each other”.⁴⁰³

Gousset rejects other sources for interpreting Biblical Hebrew – the Jewish linguistic tradition, ancient Bible translations, and related languages – and maintains that these aids are unreliable for determining the precise meanings of words and phrases.

⁴⁰⁰ Gousset, *ibidem*, preface, p. **2v (my paraphrase of lines 3–5 from the top). Cf. Johann David Michaelis, *Beurtheilung der Mittel* [...], Göttingen 1757, p. 54 (on Gousset’s methods): “Noch mehr, er gehet darin von Bohlen ab, daß er nicht leicht Stamm-wörter oder Grundbedeutungen annehmen will, die nicht in der Bibel selbst vorkommen und aus ihr entziffert werden können.”

⁴⁰¹ Gousset, *ibidem*, preface, p. **2v (lines 12–17 from the top). For an overview of investigated roots, Gousset refers to his index of subject matters under the entry *significatio* (“meaning”).

⁴⁰² Johann David Michaelis, *Beurtheilung der Mittel*, p. 55.

⁴⁰³ Gousset, *Commentarii linguae Ebraicae*, preface, p. **2v (lines 21–22 from the top). The definition of a phrase reads in the Latin original: “Phrasin voco plures dictiones simul structas et ad se invicem relatas.”

I have not improved the primary signification by using other Oriental languages, since they are themselves subject to homonymy and offer no hope of achieving the certainty they lack.⁴⁰⁴ [...] After all, Hebrew is their mother [...]. Hebrew remains their source, flowing with purer waters. This is the reason why I rarely deal with them. [...] In identifying the primary meaning, I have not allowed myself to be guided by the Rabbis. [...] May we turn to translations? We will be deceived here as well.⁴⁰⁵

Gousset contends that the Hebrew language, as its own interpreter (*sui ipsius interpretes*), contains keys to its own uncovering. Citing the presumed primordial and divine status of the Hebrew language, he maintains that it can be interpreted by its own light:

Hebrew is rightly regarded as the sun of languages. As the sun first shone forth among the stars, so Hebrew existed before all other languages. As the sun manifests itself by its inherent light and does not need anyone's help, so Hebrew, in a similar way, is mighty in itself.⁴⁰⁶

He proposes the method of internal comparison of all extant forms of a given Hebrew root, which is evident in his lexicographical practice for every main entry in his Hebrew dictionary. He states:

After comparing the instances of each root, their structure, and the passages in which they occur, one can establish and prove the meaning of the words and the exact sense of the phrases independently of the authority of translations and of similarities with other languages.⁴⁰⁷ [...]

In the introductory treatise on the Hebrew language, Gousset argues that the nature of Hebrew must be considered from an internal perspective – that is, from its intrinsic parts, its particular qualities, its store of words, and its syntactic constructions. This inquiry into the innermost parts of Hebrew

⁴⁰⁴ Gousset, *ibidem*, preface, p. **r: “Significationem principem non emendicavi ex aliis Orientalibus linguis, quia enim laborant et ipsae homonymiis nulla spes est certitudinis qua carent ab iis accipiendae.”

⁴⁰⁵ Gousset, *ibidem*, preface, p. **r: “Denique mater est istarum [...]. Fons est et purioribus proinde aquis fluit. Hinc evenit ut illas raro attingam [...] Nec vero significationem primariam delecturus, Rabbiorum me ductui permisi. [...] “Numquid convertemus nos ad Versiones? Heic quoque frustra erimus.”

⁴⁰⁶ Gousset, *ibidem*, preface, p. p. **2r: “Sol enim quidam linguarum Lingua Ebraica jure habenda est, quae ut sol siderum primum emicuit, ita exitit ante omnes alias, et ut sol insito fulgore se manifestat, nullius auxilio indigens: vi simili pollet ipsa per se.”

⁴⁰⁷ Gousset, *ibidem*, preface, p. **2r.

does not allow any aid from foreign languages. He admits that Oriental languages share a store of similar lexical roots, but their homonyms, fluctuating meanings, and the semantic presumptions of modern researchers render this aid fallacious.⁴⁰⁸

Gousset developed his purpose and methods for semantic research in response to clashing views on the nature of Hebrew as a language. Luther had ascribed the problem of Hebrew polysemy to medieval Jewish Bible scholars' interest in finding an implied meaning apart from a more immediate and proper one. The dissimilarity between Protestants and Catholics regarding the biblical source text versus the Vulgate, and the criticism by Richard Simon and Baruch Spinoza concerning the nature of Hebrew, formed the specific background against which Gousset elaborated his linguistic and semantic principles.⁴⁰⁹ In the words of Johann Christoph Wolf, Gousset compiled his dictionary "to explore the primary meaning and sense of words and to render them certain, and thus to disprove the assertion of Richard Simon and other critics of the alleged insuperable ambiguity of Hebrew".⁴¹⁰

In his views on the prehistory of the Hebrew language, Gousset combined ideas from the rationalist and orthodox schools. In his treatise on the Hebrew language, he argues that God, as the efficient cause (*causa efficiens*), is the creator of Hebrew,⁴¹¹ but that this language was not limited to the nation of the Hebrews. Contrary to the common opinion of the time, Gousset, as did Samuel Bochart (in his *Geographia sacra*), thought that the Canaanites, after the Confusion of Languages at the Tower of Babel, retained the primeval Hebrew language.⁴¹² From them, it was transmitted to Abraham and to the nation of the Hebrews. In designating Hebrew a Phoenician language, he agreed with Pierre Daniel Huet, whose ideas on the primeval language he otherwise refuted. Indirectly approving the opinions of Scaliger and Erpenius, he did not derive Hebrew, as an ethnic designation, from Heber, the eponymous ancestor, but from Abraham's crossing of the Euphrates. In doing so, Gousset agreed with the critical school. He saw no reason why other descendants of Heber would be excluded from the name

⁴⁰⁸ Gousset, *ibidem*, p. 6, page sections K. 3, M. 3, and N. 3

⁴⁰⁹ Gousset, *ibidem*, preface, p. **3r (lines 10–20).

⁴¹⁰ Wolf, *Historia lexicorum*, pp. 200–201: "Autor clarissimus in eo praecipue elaboravit, ut primarium vocum significatum et sensum indagaret et certum redderet atque hac ratione Simonii aliorumque criticorum assertiones de ambiguitate linguae Hebraicae nulla plane diligentia superabili falsitatis convinceret."

⁴¹¹ Gousset, *Commentarii linguae Ebraicae*, p. 6, page section G. 3.

⁴¹² Gousset, *ibidem*, p. 1: "Ebraica lingua hominibus creatis statim indita fuit. Sola ab illo tempore et usque ad Babelem superstes, ubi aliae linguae natae sunt, ipsa non desiit esse, sed inde ad Cananaeos devoluta, ab illis tradita fuit Abrahamo." On p. 7 (page section R. 3), he argues that "the language of Canaan", Isaiah 19:18, only refers to the language of the ancient Canaanites (*Cananaei illi antiquiores*).

“Hebrews”.⁴¹³ Schultens was to apply the same argument to the biblical genealogy of Semitic languages.

In his Hebrew lexicography, Gousset, in some important ways, followed axiomatic rationalism. He justified his concern for semantic unity by the principles that unity is identical with perfection, that entities should not be multiplied without need, and that something new should not be assumed without sufficient reason.⁴¹⁴ In determining meaning, he adopted a general logical approach, focusing on the formal meaning. He used a mathematical method in his attempt to decipher the complete biblical usage. In his views on language, Gousset, as a Cartesian linguist, emphasized the role of the mind in achieving orderliness in actions, speech, and memory. He states: “Being led by reason, man moves his hands, speaks, and remembers.”⁴¹⁵ Regarding the act of speaking, he affirms the assumption of a relationship between language and thought: “Our mind manifests itself when we adapt words that are conformable to our thoughts, so that we express the diversity of our thoughts according to the sense of our mind.”⁴¹⁶

Gousset’s dictionary was widely used at Dutch and German universities in the first half of the 18th century. J.D. Michaelis presents Gousset’s system as the most common in Germany in the mid-18th century,⁴¹⁷ but notes that it was never as appreciated there as in the Netherlands.⁴¹⁸ At the initiative of the Arabist Johann Christian Clodius, a revised second edition of Gousset’s dictionary appeared in quarto format under the title *Lexicon linguae Hebraicae* (Leipzig 1743). Clodius also supplied a companion dictionary, *Lexicon Hebraicum selectum*, in which he compared a selection of Hebrew words with Semitic cognates, especially Arabic ones.

Schultens possessed a copy of the first edition of Gousset’s dictionary.⁴¹⁹ He also owned a copy of Clodius’ “Select Hebrew lexicon”.⁴²⁰

⁴¹³ Gousset, *Commentarii linguae Ebraicae*, p. 7.

⁴¹⁴ Gousset, *ibidem*: index quartus, see the entry “unitas significationis”.

⁴¹⁵ Gousset, *Oratio, qua Deum esse ex mundi huius inferioris harmonia demonstratur* (attached to *De viva deque mortua fide*), p. 232: “Ratione duce homo movet manus, ratione duce loquitur, ratione duce reminiscitur.”

⁴¹⁶ Gousset, *Oratio*, p. 234: “Ibi sese mens nostra manifestat dum verba efformanda cogitationibus nostris ita aptamus, ut earum diversitatem ex animi sententia exprimamus. Id praestamus expedite.”

⁴¹⁷ Michaelis, *Beurtheilung*, p. 66: “Von diesem System habe ich am vollständigsten reden müssen, weil es jetzt in Deutschland das gewöhnlichste ist.”

⁴¹⁸ Michaelis, *Beurtheilung*, p. 261: “In Deutschland war Goussets Denckungs-Art nicht so Mode geworden, als in Holland.”

⁴¹⁹ *Pars bibliothecae Schultensianae*, p. 6, no. 155 in folio: J. Gussetii *Commentarii linguae Ebraicae*, Amst. 1602 [sic!].

⁴²⁰ *Pars bibliothecae Schultensianae*, p. 48, no. 147 in octavo: J. C. Clodii *Lexicon Hebraicum selectum*, Lips. 1744.

6.6.4 Christian Stockius

In the first decades of the 18th century, Christian Stockius (1672–1733) was active as a biblical scholar of Greek and Hebrew at the University of Jena. He concentrated on Greek and Semitic languages under the guidance of Johann Andreas Danz, who taught Hebrew and Oriental languages in Jena during four decades (1687–1727). Even though Stockius does not clarify the background to his Hebrew lexicography, it is clear that he stood in the tradition of J.A. Danz with a research emphasis on both Biblical and post-Biblical Hebrew. As a scholar, he stands out as a synthesizer. In his Hebrew and Greek lexicography, he applied a logical analysis and arrangement to the meanings of words in biblical usage, combining it with a philological approach. He published his Hebrew dictionary of the Old Testament under the title *Clavis linguae sanctae Veteris Testamenti*, “Key to the holy language of the Old Testament”, in 1711, the same year as he was promoted from his post as an assistant master to extraordinary professor of philosophy. By virtue of his qualifications as a Hebraist, Stockius was appointed professor of Oriental languages in 1733, but died before taking office.

In the title and preface to his dictionary, Stockius briefly describes his purpose as the restoration of lost Hebrew roots – as found in the base stem *qal* and derivative stems – from Aramaic, Syriac, Samaritan, Arabic, and Ethiopic,⁴²¹ and the exploration of general and specific meanings of words. He assumed that the proper and primary meaning of Biblical Hebrew words has a general and abstract nature and that specific meanings can be derived from the general meaning by a differentiation between the metaphorical, metonymic, and synecdochical uses of it. More exactly, he established the figurative meanings by means of an accurate study of the biblical usage and the context of biblical passages. In using these methods, he synthesized the results of earlier lexicographers with the same approach, namely Forster, Avenarius, Cocceius,⁴²² and Gousset, at the same time as he used a comparative Semitic approach with observations borrowed from the findings of Johann Heinrich May in his supplements to Cocceius’ dictionary.

In his preface, Stockius cites William Robertson’s *Thesaurus linguae sanctae sive concordantiale lexicon Hebraeo-Biblico-Latinum* (London 1680) as one of his precursors. This work synthesizes earlier Hebrew dictionaries (from the medieval Jewish and 16th-century Christian traditions, especially Wittenberg scholarship, and from the logical method, especially that of Cocceius) “in a methodical, concise and synoptic manner”, as

⁴²¹ Since Hebrew was supposed to be the parent language, it was taken for granted that roots just by existing in related “daughter languages” once existed in Ancient Hebrew, though not recorded in the limited textual corpus of Biblical Hebrew.

⁴²² He not only used Cocceius’ Hebrew dictionary but also consulted Cocceius’ first lexicographical endeavours (*Observationes de distinctiori significato selectarum vocum*; see Section 6.6.2, pp. 108 f.), which, as noted above (p. 109), were included in May’s revised edition of Cocceius’ dictionary from 1714.

Stockius himself says.⁴²³ Stockius' dependence on Robertson gave his Hebrew dictionary systematicity and completeness.

Stockius' alphabetical Hebrew dictionary was published in Jena in 1717 and reprinted there six times until the mid-18th century.⁴²⁴ For the title pages of the second and third editions, see Figures 13a–13b. Schultens owned the first edition.⁴²⁵ Apart from Cocceius, Stockius is the Hebrew lexicographer to whom Schultens most often referred.

6.7 Etymological approaches

6.7.1 Caspar Neumann

Caspar Neumann (1648–1715), a superintendent of the schools and churches of Lutheran Silesia and a professor at the two High Schools of Breslau, continued the theory and practice of Hebrew lexicography where Forster and Avenarius had left off. As shown above, Forster had established groups of cognate verbs but had not explained why these groups were related in form and meaning. Neumann set this as his goal. To explain the relationships among the forms under comparison, he proposed the theory of biradicalism. He was probably the first to systematically apply the idea of monosyllabicity as a criterion of linguistic originality to Hebrew morphology. To explain the relationship between the meanings of morphologically similar verbs, he also proposed a theory of phono-semantic origin based on the purported semantic value of each letter in the Hebrew alphabet.

He published his theoretical principles in two treatises, *Genesis linguae sanctae* ("Origins of the holy language", 1696)⁴²⁶ and *Clavis domus Heber* ("Key to the house of Heber", 1712).⁴²⁷ He practised Hebrew lexicography according to these guidelines in the incomplete dictionary titled *Exodus linguae sanctae*, which was published in several volumes, but ultimately reached only the letter *ḥēṭ* (ח).⁴²⁸

Neumann argues that triconsonantal roots have historically developed from biradical monosyllabic roots. He designates the biradical root as "a

⁴²³ Stockius, *Clavis linguae sanctae Veteris Testamenti*, Jena 1717, preface, p. 3: "in quo Lexica omnia Hebraica huc usque edita methodice, succincte et synoptice exhibentur."

⁴²⁴ A revised second edition appeared in 1727. A third edition was issued in 1735, while a fourth was published in 1739 and a fifth in 1744. The sixth edition was revised by Johann Fischer and published in 1753.

⁴²⁵ *Pars bibliothecae Schultensianae*, p. 48, no. 135 in octavo: Ch[ristiani] Stockii *Clavis linguae sanctae*, Jenae 1717.

⁴²⁶ Neumann, *Genesis linguae sanctae Veteris Testamenti, perspicue docens vulgo sic dictas radices non esse vera Hebraeorum primitiva, sed voces, ab alio quodam radicibus his priore et simpliciore principio deductas*, Nuremberg 1696.

⁴²⁷ Neumann, *Clavis domus Heber reserans ianuam ad significationem hieroglyphicam literaturae Hebraicae perspicendam*, Bratislava 1712–1715

⁴²⁸ Neumann, *Exodus linguae sanctae Veteris Testamenti ex captivitate babylonica, tentatus in lexico etymologico hebraeo biblico*, Nuremberg 1697–1700.

character of meaning” (*character significationis*) and, by a metaphor, as “seed/ germ of a word” (*semen vocis*), justifying this concept and term by observing that the seed/ germ precedes the root in vegetative growth. He chose this terminology i to preserve the term *radix*, “root”, for the triconsonantal root. The biconsonantal root may appear as a stem in nouns, conjunctions, and prepositions, and may be extended into a triconsonantal root by means of a fourfold expansion.⁴²⁹

Neumann classifies the Hebrew roots into two categories: (1) *simplices*, ‘simple biconsonantal roots’, and (2) *non-simplices*, ‘non-simple triconsonantal roots.’ The latter category is divided into four configuration groups, depending on how it is formed from the biradical root. He presents the following scheme:

- (i) *geminatae*, ‘geminated’:
 - *dimediate*, ‘half’,
 - *integre*, ‘entirely’,
- (ii) *auctae*, ‘increased’:
 - *ab initio*, ‘in the beginning’,
 - *in medio*, ‘in the middle’,
 - *in fine*, ‘at the end’,
- (iii) *compositae*, ‘compound’:
 - *imperfecte*, ‘incompletely’
 - *perfecte*, ‘completely’
- (iv) *mixtae*, ‘mixed’:
 - *geminato-auctae*, ‘double-increased’,
 - *geminato-compositae*, ‘double-compounds’,
 - *aucto compositae*, ‘increased compounds’.⁴³⁰

In a published letter to Wilhelm Gottfried Leibniz (1707) and in *Clavis domus Heber* (1712), Neumann developed his phono-semantic theory. Originally, he conceived it as a picto-semantic, “hieroglyphic” theory, but in the preface to his lexicon *Exodus linguae sanctae*, he shifted to a phono-semantic standpoint. In 1707, he communicated his combined picto- and phono-semantic views on the semantic origins of Hebrew in a letter to Leibniz, who, on the whole, accepted them because they converged with his own glottogonic ideas about the role of imitation and the meaning of speech sounds in the original formation of words (*onomatopoeia*).⁴³¹ In his epistolary treatise on the history of etymology (c. 1712), Leibniz summarizes Neumann’s ideas about sound-meanings as follows:

⁴²⁹ Neumann, *Genesis linguae sanctae*, Nuremberg 1696, pp. 1–9.

⁴³⁰ Neumann, *Genesis linguae sanctae*, p. 9.

⁴³¹ C. Neumann, “Specimen hypotheseos de significatione literarum Hebraicarum hieroglyphica, cuius hic praemittitur brevium ad illustrem Dn. de Leibnitz”, published in idem, *Biga difficultatum physico-sacrarum*, Leipzig 1709.

א signifies activity and movement,
 ב a threefold dimension, that is the cube,
 ג protrusion and promotion,
 ד curvature and obliquity,
 ה presence,
 ו copula and link,
 ז violent pushing out,
 ח consociation, composition, and combination,
 ט withdrawal and recession,
 י extension and longitude,
 כ hollowness, curvedness, and overturning,
 ל adversity, addition, access, impulse, and pressure,
 מ magnitude and amplitude,
 נ propagation from something to something,
 ס girdling, surrounding, and confinement,
 ע objectivity and obviation,
 פ bending, curving, and any angle,
 צ contiguity and close connection,
 ק circuitry and encompassing,
 ר departure (egress), exteriority, and extremity,
 ש the ternary number and the ternary degree,
 ת sequence, continuation, and succession.⁴³²

Leibniz agreed with Neumann on some points, especially regarding the letters *gīmel*, *dāleṭ*, *ṭēṭ*, *kāf*, *mēm*, and *qōf*, which he expressly states align with his own observations on the phono-semantic origins within the “Japhetic or Scythian-Celtic” language family. He expressed doubts about other letters. As a general rule, he held that phonetically cognate speech sounds, such as *dāleṭ* and *tāw*, ought to have cognate meanings.

Neumann justified his identification of these meanings by appealing to the tradition of sound symbolism, with Francis Mercury van Helmont as his closest precursor,⁴³³ who in turn was influenced by Kabbalistic speculation

⁴³² See Leibniz, *Epistolaris de historia etymologica dissertatio*, c. 1712, Gottfried Wilhelm Leibniz Bibliothek (Nieders. Landesbibl.), Hannover, ms. IV 469, 79v–80r. Stephano Gensini edited this treatise as an appendix to *Il naturale e il simbolico: Saggio su Leibniz*, Roma (Bulzoni) 1991. For the passage summarized above, see pp. 223–224. Leibniz states that he reviews Neumann’s *Dissertatio epistularis ad illustrissimum Dominum de Leibnitz*, Breslau 1707. Neumann proposed the same ideas in *Clavis domus Heber*, Bratislava 1712, pp. 153–154.

⁴³³ Francis Mercury van Helmont, *Alphabeti vere naturalis Hebraici brevissima delineatio*, Sulzbach 1667 (the title page incorrectly sets the year 1657), see the sixth chapter (*colloquium sextum*), pp. 53–83, where the pronunciation and the alleged phono-semantic nature of the Hebrew consonants are addressed.

on the mystical power of Hebrew letters. Accordingly, Neumann used the phono-semantic method to define the general, or formal, meaning of words more precisely. He argued that this put an end to the problem of polysemy and ambiguity in the Hebrew word-stock. He maintained that the formal meaning was originally sense-perceptible, in accordance with the empirical principle that everything in the human mind has been experienced through sense perception.⁴³⁴

6.7.2 *Schultens: An empiricist innovator of semantic etymology*

Schultens was the first to develop Hebrew etymological lexicography using an empiricist approach based on Locke's sensationalist linguistic empiricism. Schultens published several etymological works⁴³⁵ and, between 1740 and 1749, compiled an etymological Hebrew dictionary through classroom dictation. In one of his programmatic treatises, *Vetus et regia via Hebraizandi*, Schultens explained his theory of semantic change and development. He assumed that every word originally had a single primary, proper, and original meaning. This aligns with the semantic principle proposed by Julius Caesar Scaliger in *De causis linguae Latinae* (book XIII, chapter 193). To determine the original meaning, Schultens did not, however, adopt the rationalist-logical method used to elicit formal meaning, but instead employed a Lockean sensualistic approach to semantic origins. He argued that semantic development proceeds in the opposite direction to what had earlier been taken for granted: from a sense-perceptible, concrete, and specific meaning to an intelligible,⁴³⁶ abstract, and general meaning. Although Schultens did not propose a coherent theory of semantic origins, he still considered it important enough to include this etymological rule in a manuscript draft titled "De utilitate et necessitate originum", in which he revised and supplemented the eighteen principles of semantic research in *Vetus et regia via Hebraizandi*.⁴³⁷

In general, Schultens' theory and practice of Hebrew lexicography constitute a synthesis of his morphological and semantic linguistic thought,

⁴³⁴ Neumann, *Clavis domus Heber*, p. 145: "nihil sit intellectu humano, quod non prius fuerit in sensu". cf. ibidem, p. 144 f.: "haec tamen naturae humanae lex est, ut per sensibilibus species ad notitiam intelligibilium progrediamur".

⁴³⁵ *Origines Hebraeae*, vols. 1–2, 1724–1738; *De defectibus hodiernis linguae Hebraeae*, 1731; *Commentarius in Jobum*, 1737; and *Proverbia Salomonis*, 1748.

⁴³⁶ That is, capable of being apprehended only by the intellect and not by the senses.

⁴³⁷ Leiden UB, MS Or. 1460 q, fol. 5v: "XIX. Esse certam viam ac rationem, quibus origo investigari et rite constitui queat, nempe in eo quod proprium et primarium sit aliquid sensibile, cum sensu coniunctum, certe verum physicum, etc." "There is a certain way and method by which the original meanings may be explored and duly established, namely the fact that the proper and primary sense is something sensory, that is, something perceived by sensation, certainly something real and physical, etc." For further analysis, see Section 14.2 below. This text is included in Eskhult (fc.), *Schultens' unpublished manuscripts on comparative Hebrew philology*.

in which the former is motivated by his attempt to re-establish the structural regularity of Ancient Hebrew in its flourishing state as a living language, while the latter is characterized by a striving to restore the etymological semantics of Ancient Hebrew and to explain how the original meaning diversifies into secondary figurative meanings.

In this way, Schultens' Hebrew dictionary can be regarded as the outcome of an interaction between the rationalism, or structuralism, of form analysis and empiricism in the exploration of etymological meanings.

6.8 Hebrew lexicography after Schultens

6.8.1 Post-Schultensian period of lexicography

Post-Schultensian Hebrew lexicography spans the period from 1750 to 1810–1812, when Gesenius published his ground-breaking dictionary of Hebrew. Gesenius himself describes the developments in the latter half of the 18th century as a synthesis of the extant methods, namely those relying on Jewish tradition, biblical usage, and the cognate languages, which had been applied by Buxtorf the Elder, Gousset, and Schultens, respectively.⁴³⁸ Gesenius asserts that this fusion was evident in the Halle school of lexicography, among scholars such as Johann Simonis,⁴³⁹ Johann David Michaelis,⁴⁴⁰ Wilhelm Friedrich Hezel,⁴⁴¹ and Johann Gottfried Eichhorn.

However, Schultens' legacy of semantic etymology was carried forward by the Dutch school of Hebrew philology, without such a methodological blend, particularly in the Hebrew dictionary of Nicolaus Wilhelm Schroeder, and by other scholars across Europe.

The second half of the 18th century also saw a revival of Hebrew-English lexicography, thanks to the efforts of John Taylor⁴⁴² and John Parkhurst.⁴⁴³

⁴³⁸ Gesenius, *Geschichte der hebräischen Sprache*, p. 130, states that the Halle school used an eclectic method by synthesizing the sources of knowledge that characterize the different approaches of Buxtorf the Elder, Schultens, and Gousset.

⁴³⁹ Simonis, *Dictionarium Veteris Testamenti Hebraeo-Chaldaicum* (1752) and *Lexicon manuale Hebraicum et Chaldaicum* (1756, 2nd ed. 1771). In 1793, Eichhorn published a revised edition of *Lexicon manuale*, including excerpts from Michaelis' *Supplementa*. Cf. Gesenius, *Geschichte*, p. 134. Georg Benedict Winer reworked and increased Simonis' *Lexicon manuale* (Leipzig 1828).

⁴⁴⁰ J.D. Michaelis, *Supplementa ad Lexica Hebraica*, Göttingen 1785–1792.

⁴⁴¹ W.Fr. Hezel, *Kritisches Wörterbuch der hebräischen Sprache*, Halle 1793.

⁴⁴² John Taylor, *The Hebrew concordance adapted to the Hebrew Bible disposed after the manner of Buxtorf*, London 1754.

⁴⁴³ John Parkhurst, *A Hebrew and English lexicon without points*, London 1762, (republished in revised editions 1778, 1792, 1811, 1813, 1823 and 1829). He partly based himself on Schultens' published and unpublished Hebrew lexicography. See Section 20.2.5, p. 332, and *Schultens as an innovator*, Vol. 2, Section 10.4.1, p. 295. His Hebrew-English dictionary accordingly enjoyed popularity, but in the 1820s it was replaced by Gesenius' Hebrew-Aramaic dictionary, translated into English.

Finally, in the late 18th century, Hebrew lexicography was revived among Jewish scholars.⁴⁴⁴

6.8.2 John Taylor

In the preface to his dictionary-concordance, Taylor presents the same problem that Schultens attempted to solve, namely the lack of interconnection among the diverse meanings attributed to the same lexical root. He also proposes a method for solving it, namely identifying a unifying primary meaning. Like Forster, Bohle and Gousset, he apparently used the logical method of abstracting a general meaning “upon the collection of all the texts, where the words under the root occur”. His clear statement of the problem and the method of solution is worth quoting:

In the common lexicons, the various senses of the same word are laid down in a manner so confused and incoherent that they seem to have no manner of connection, but appear to be as different from one another as if they were the senses of different words. This gives the student the notion that the Hebrew language is unaccountably arbitrary, perplexed, and uncertain, requiring a blind submission to authority, without any satisfactory evidence to regulate the judgement. But if some primary notion of a root can be discovered, which will comprehend, connect, and reconcile all the various meanings, into which that root shooteth out, then the case will be reversed, and the Hebrew tongue will be found to enjoy an advantage which perhaps no modern language, at least, can boast of.⁴⁴⁵

6.8.3 Gesenius and post-Gesenian development

As the founder of modern Hebrew lexicography, Wilhelm Gesenius both owned and consulted the principal dictionaries of the Middle Ages and the early modern period. Accordingly, the auction catalogue of his library shows that he owned Kimchi's Hebrew dictionary in its 1547 Venice edition (no. 318) and its 1838 Berlin edition; he also possessed Reuchlin's *Rudimenta Hebraica* in the first edition from 1506 (no. 324), Pagninus' dictionary in its revised edition from 1575 (no. 326), Forster's Hebrew dictionary in its second edition from 1564 (no. 325), Avenarius' dictionary from 1568 (no. 325), Buxtorf's Hebrew and Aramaic dictionary in an edition from 1710 (no. 328), Cocceius' Hebrew dictionary in Schulz' revised edition from 1777 (no. 337), Neumann's lexicographical theory *Genesis linguae sanctae* (no. 159),

⁴⁴⁴ See further *Jewish encyclopedia* under the entry Hebrew lexicography. Cf. M.-L. Craig, “Lexicography: pre-modern period”, in Geoffrey Khan (ed.), *Encyclopaedia of Hebrew language and linguistics*, p. 518.

⁴⁴⁵ John Taylor, *The Hebrew concordance adapted to the English Bible*, vol. 1, London 1754, preface, p. 5. Portions of this passage is quoted by Craig, in “Lexicography: pre-modern period”, p. 517.

Gousset's Hebrew dictionary in the edition of Clodius in 1743 (no. 331), Christian Stockius' *Clavis linguae sanctae Veteris Testamenti* in the third edition of 1735 (no. 330), Clodius' selected Hebrew dictionary of 1744 (no. 332), Simonis' Hebrew and Aramaic manual dictionary in its original 1756 edition (no. 333) and in Winer's complete revision (Vienna 1828, no. 335a), and Dindorf's unfinished Hebrew and Aramaic dictionary (8 through 2, Leipzig 1801–1804, no. 342).⁴⁴⁶ Moreover, he possessed Schultens' *Origines Hebraeae*, including both volumes of the 1761 edition, as well as the supplements to a Hebrew dictionary by Johann David Michaelis and Johan Adam Tingstadius (*Supplementa lexici Hebraici*, nos. 338 and 344). Accordingly, Gesenius had access to the major dictionaries of the early modern period.⁴⁴⁷

In his Hebrew dictionaries (*Wörterbuch*, 1810–1812, with revised editions, and *Thesaurus* 1829–1857), Gesenius often cites early modern Hebrew lexicographers in the same way he cites early modern Hebrew grammarians in his Hebrew grammar (*Lehrgebäude*, 1817). As aids for his evaluation of the history of Hebrew lexicography, he had Wolf's *Historia lexicorum Hebraicorum*, "History of Hebrew dictionaries" (1705), and Löscher's *De causis linguae Ebraeae*, "On the principles of the Hebrew language" (1706), which according to the auction catalogue was annotated.⁴⁴⁸ For Gesenius' relationship to Schultens in the principles he followed in his lexicography, both in his first dictionary (1810–1812) and in the revisions he himself made, see my reception studies (Vol. 2, Section 12.2.2). Edward Miller thoroughly explores Gesenius' principles and those of his revisers in his doctoral thesis, *The influence of Gesenius on Hebrew lexicography*, New York 1927.

Hebrew lexicography from Gesenius to the present is beyond the scope of this study,⁴⁴⁹ but its classification may facilitate an assessment of Schultens' place in the entire history of Hebrew lexicography. Three stages can be distinguished:

⁴⁴⁶ In *Novum Lexicon linguae Hebraico-Chaldaicae*, Gottlieb Immanuel Dindorf compiled several dictionaries, particularly Eichhorn's revised edition of Simonis' *Lexicon*. See further Gesenius, *Geschichte der hebräischen Sprache*, p. 134.

⁴⁴⁷ *Bibliotheca Geseniana sive catalogus librorum et typis editorum et manuscriptorum* [...], Halle 1843. pp. 14–16.

⁴⁴⁸ Ibidem, p. 7, no. 159b (Löscher, *De causis*), and no. 162 (Wolf's *Historia*).

⁴⁴⁹ As to the background, primary sources, and nature of Gesenius' lexicography, a historiographical investigation was undertaken by Edward Miller, *The influence of Gesenius on Hebrew lexicography*, New York 1927. A more recent study of various aspects is the article collection *Biblische Exegese und hebräische Lexikographie: Das hebräisch-deutsche Handwörterbuch von Wilhelm Gesenius als Spiegel und Quelle alttestamentlicher und hebräischer Forschung, 200 Jahre nach seiner ersten Auflage*, edited by Stefan Schorch and Ernst-Joachim Waschke, Berlin 2013.

(i) Hebrew lexicography, as developed by Gesenius (1810–1842).⁴⁵⁰ Various attempts were made to challenge it, for instance, by Georg Benedict in a complete revision of Simonis' Hebrew dictionary: *Lexicon manuale Hebraicum et Chaldaicum in Veteris Testamenti libros*, Leipzig 1828, and by Samuel Lee: *A lexicon, Hebrew Chaldee and English, compiled from the most approved sources, Oriental and European, Jewish and Christian*, London 1840.

(ii) The post-Gesenian stage of revising, updating, and systematizing (1842–1921), carried out primarily by Franz Dietrich, Ferdinand Mühlaus, Frants Buhl, Christopher Leo, Edward Robinson, and S.P. Tregelles.⁴⁵¹

(iii) Achievements independent of the Gesenian tradition, involving new approaches and based on new linguistic data (1832–the present): prominently by E.F. Leopold, J. Fürst, C. Siegfried & B. Stade, E. König,⁴⁵² F. Brown, S.R. Driver, and Ch. Briggs (BDB),⁴⁵³ L. Koehler, W. Baumgartner, J.J. Stamm, and David Clines.⁴⁵⁴

⁴⁵⁰ W. Gesenius, *Hebräisch-Deutsches Handwörterbuch über die Schriften des Alten Testaments*, 1810–1812 (2nd ed. 1823, 3rd ed. 1828); *Neues Hebräisch-Deutsches Handwörterbuch*, 1815; *Lexicon manuale Hebraicum et Chaldaicum in Veteris Testamenti libros*, 1833 (= 4th ed. of *Handwörterbuch*), and *Thesaurus philologicus et criticus linguae Hebraeae et Chaldaee Veteris Testamenti*, 1835–1842.

⁴⁵¹ Revisions of Gesenius' Hebrew-German dictionary were undertaken by Franz Eduard Christoph Dietrich 1857–1868 (editions 5–7), Ferdinand Mühlaus and Wilhelm Volck 1878–1890 (editions 8–11), and Frants Buhl 1895–1921 (editions 12–17). English translations were done by several scholars: by Christopher Leo, *A Hebrew lexicon of the books of the Old Testament including the geographical names and Chaldaic words in Daniel, Ezra etc.*, Cambridge 1825–1828 (translated from the first edition of *Handwörterbuch*, 1810–1812); by Edward Robinson, *A Hebrew and English lexicon of the Old Testament, including the Biblical Chaldee*, Boston 1836 (translated from Gesenius' one-volume manual Hebrew-German dictionary, 1815), and by the same Robinson again, *A Hebrew and English lexicon*, Boston 1844, (translated and revised from Gesenius' autograph corrections and additions to his *Handwörterbuch* and his *Thesaurus*); and by Samuel Prideaux Tregelles, *Gesenius' Hebrew and Chaldee lexicon to the Old Testament Scriptures*, London 1846 and 1857, translated from the Latin dictionary *Lexicon manuale*, 1833.

⁴⁵² Ernst Friedrich Leopold, *Lexicon Hebraicum et Chaldaicum in libros Veteris Testamenti ordine etymologico*, Leipzig 1832, re-issued 1850 and 1891. Julius Fürst, *Hebräisches und Chaldäisches Schulwörterbuch über das Alte Testament*, Leipzig 1842. Carl Siegfried and Bernhard Stade, *Hebräisches Wörterbuch zum Alten Testamente*, Leipzig 1893, which excludes etymology. Eduard König, *Hebräisches und Aramäisches Wörterbuch zum Alten Testament*, Leipzig 1910, in which the author, in analysing sense development, retained the classical concepts of metaphor, metonymy and synecdoche, which were important in early modern Hebrew lexicography.

⁴⁵³ Francis Brown, S.R. Driver and Charles Briggs, *A Hebrew and English lexicon of the Old Testament*, Boston 1906, is a completely new Hebrew dictionary of the Old Testament. In the preface, the authors acknowledge that they made use of Gesenius'

In reviewing Christopher Leo's English translation of Gesenius' Hebrew lexicon, the English theologian Thomas Hartwell Horne (1780–1862) argued that Gesenius made “a sober and temperate use” of the various means for determining a word's meaning: “reasoning from grammatical analogy, from the usage of the Hebrew language, from the context, from the kindred dialects and from the ancient versions”.⁴⁵⁵ He also praises Gesenius for his success “in seizing hold of the primary physical acceptation of a word”, continuing: “This he has placed first and the other significations in the order in which they might be supposed to be derived from the primary.”⁴⁵⁶

The American biblical scholar Moses Stuart (1780–1852), professor of Hebrew and Greek at Andover Theological Seminary, introduced Gesenius' Hebrew lexicography to America. In his review of Gesenius' 1832 revision of his manual dictionary, he argued that only a few Hebrew lexicographers have made substantial contributions to the lexical knowledge of Hebrew. Most of those active before Gesenius “cannot be ranked above the class of compilers, and their merits as such are various”. To some extent, he granted the Hebrew dictionaries of Cocceius, Stockius, Simonis, and Schroeder a certain status as landmarks, but he also claimed that many of them wandered “until they forgot the goal at which they aimed to arrive”. Stuart regards Gesenius as the watershed in the history of Hebrew lexicography.⁴⁵⁷

Thesaurus philologicus, derived benefit from Buhl's revisions of Gesenius' dictionary and consulted Robinson's English translation of *Lexicon manuale*, but the dictionary (commonly called BDB) is based on a completely new investigation of the entire material and uses 19th-century dictionaries of Arabic, Aramaic and Syriac and new linguistic evidence from Akkadian. To a large extent, it is still unsurpassed, especially in the entries on prepositions and conjunctions.

⁴⁵⁴ More comparative material was included by Ludwig Koehler, *Lexicon in Veteris Testamenti libros: Wörterbuch zum hebräischen Alten Testament*, Leiden 1953 (2nd ed. 1957). Walter Baumgartner and Johann Jacob Stamm prepared a third revised edition (5 vols., Leiden 1967–1995), *Hebräisches und Aramäisches Lexikon zum Alten Testament* (HALAT). The English translation of the third edition is titled *The Hebrew and Aramaic Lexicon of the Old Testament* (HALOT), 4 vols. Leiden 1994–2000, which is the standard scholarly dictionary for Biblical Hebrew. David Clines increased the vocabulary of Ancient Hebrew from new data and re-analysed its semantics in his *The Dictionary of Classical Hebrew*, 8 vols. Sheffield 1991–2001.

⁴⁵⁵ Harwell Horne, *An introduction to the critical study and knowledge of the Holy Scriptures*, sixth corrected and enlarged edition, vol. 2, part 2, London 1838, p. 166.

⁴⁵⁶ Harwell Horne, *ibidem*, p. 166.

⁴⁵⁷ Moses Stuart, “Article VII: Hebrew lexicography. Review of the Manual Hebrew and Chaldee lexicon [...] by William Gesenius [...] 1832”, in *The Biblical repository and quarterly observer*, vol. 8, nos. XXII– XXIV, Andover 1836. For pre-Gesenian efforts, see pp. 452–453, and for Gesenius' merits, see pp. 454–471.

6.9 Summary and conclusions

6.9.1 Consecutive stages

The early modern theory and practice of Hebrew lexicography can be divided into a number of consecutive, partly overlapping, periods as follows:

(1) Hebrew lexicography from 1500 to 1529, based on medieval and Renaissance Jewish lexicographers and commentators of the Hebrew Bible, beginning with Johannes Reuchlin (1506), continuing with Sebastian Münster (1523–25), and culminating in Santes Pagninus (1529), developed through a process of acquisition, assimilation, and re-arrangement.

(2) Hebrew lexicography from 1530 to 1568, chiefly relying on the Biblical Hebrew usage, especially through the study of context and parallel passages. This period was marked by an anti-rabbinical reaction against the alleged ambiguity of Hebrew word meanings in rabbinical lexicography and Bible commentaries. Johann Forster was the first to articulate this hermeneutical reaction in a Hebrew dictionary (1557). Johann Avenarius (1568) followed, improving the precision of word meanings. For subsequent lexicographers, Forster served as the prototype of anti-rabbinical opposition to semantic ambiguity and as a model for independent exploration of the primary meaning from Biblical Hebrew usage.

(3) Hebrew lexicography from 1548 to 1615, presenting revised editions of Pagninus' dictionary with additional recourse to Jewish Bible commentators. Some lexical works represent an abridgement of Pagninus (Robert Estienne, 1548; Franciscus Raphelengius, *Thesauri Hebraicae linguae epitome*, Antwerp 1572); others are an improvement (Jean Mercier, Antoine Chevallier, and Corneille Bertram, 1575); while others mark innovation, viz. Marco Marini (1593), the summary by Johannes Buxtorf the Elder (1607), and the specialization on post-biblical stages of Hebrew (1639–1640) through the initiative of the two Buxtorfs.

(4) Hebrew lexicography from 1575 to 1669, developed through comparative and parallel-contrastive methods. It used related languages in various constellations, such as Targumic Aramaic, Syriac, and Arabic by Schindler (1612); Aramaic, Syriac, Arabic, Samaritan, and Ethiopic by Hottinger (1661); and Aramaic, Samaritan, Syriac, Arabic, and Ethiopic by Castell (1669).

(5) Hebrew lexicography from 1637 to 1717, focusing on an internal analysis of Biblical Hebrew usage in the footsteps of Forster, but innovating it through different approaches. One of the new methods was the strict philological approach, as practised by Johannes Cocceius (1633 and 1669). It also allowed the use of other sources of knowledge, such as the Septuagint, the Targums, and medieval Jewish linguistic authorities. The other emerging approach was the logical method, aimed at establishing a general meaning from which specific meanings could be derived. At the same time, the rabbinical authorities were dismissed. The logical semantic approach was first devised by Samuel Bohle (1637). It was brought to

maturity by Jacques Gousset (1702) and reached its pinnacle in Christian Stockius (1717), who also synthesized it with Cocceius and with Cocceius' German revisor, Johann Heinrich May (1689).

This logical and rationalist method was rivalled by an associative picto-semantic method, according to which each grapheme was supposed to convey abstract qualities. In the 18th century, it was designated as the hieroglyphic approach. It was related to Kabbalistic speculation on the cosmic principles as applied to the letters of the Hebrew alphabet. Preceded by the picto-semantic speculations of Francis Mercury van Helmont (1667), Caspar Neumann devised this method (1696 and 1697) and developed it (1707 and 1712). Paulus Martin Alberti used it in his dictionary of Biblical Hebrew (*Porta linguae sanctae*, 1704), which enjoyed a high reputation.

(6) Etymological Hebrew lexicography from 1715 to 1792,⁴⁵⁸ comprising the study of forms through internal reconstruction or comparison with other Semitic languages, and the study of meanings through comparison with Semitic languages. Schultens employed a comparative method, taking into account both morphological and semantic elements from other Semitic languages. In keeping with John Locke's sensualist epistemology, he sought to reconstruct the primary meaning from a concrete sensory referent. To that end, he drew on evidence from Arabic and, occasionally, from Aramaic and Syriac. Schultens developed his theory and practice of Hebrew etymology in his publications and in a Hebrew dictionary he dictated to his students, which survives in various records, though it remains unpublished.

6.9.2 Sources of knowledge and methodological development

Early modern dictionaries of Biblical Hebrew can be assessed in terms of the theoretical assumptions underpinning the lexicographer's priorities, and in relation to their use of different sources of knowledge, especially the method for obtaining semantic information. The Hebrew lexicographers relied on four sources of knowledge: (1) medieval rabbinic dictionaries and Bible commentaries, (2) ancient translations of the Old Testament, such as the Aramaic Targums, the Septuagint, the Peshitta, and the Vulgate, (3) analysis of Biblical Hebrew usage, and (4) study of related Semitic languages.

There was a progression in the use of these sources. In the first period of acquisition, the Jewish lexicographical tradition was the primary source of knowledge, alongside the Vulgate. In the Hebrew lexicography of Lutheran and Reformed lexicographers, a shift in focus to the third source was justified by the theological principle of sola Scriptura. From the mid-16th century onwards, Christian Hebraists broadened their linguistic horizons by studying other Semitic languages, first Targumic Aramaic and Syriac, then

⁴⁵⁸ Schultens' publication of his first disputation at the University of Franeker on the semantic origins of Hebrew, *Origines Hebraeae*, in 1715 can be counted as the beginning of this period, while the publication of the last volume of J.D. Michaelis' *Supplementa ad lexica Hebraica* in 1792 marks the end of this period.

Arabic and Ethiopic in ancient Bible translations, and finally secular literature, such as history and poetry. With the inclusion of these comparative materials, the second and fourth sources of knowledge became driving forces in the development of Hebrew lexicography. In their polyglot dictionaries, Schindler and Hottinger showed that lost verbal roots in Biblical Hebrew could be reconstructed from related languages and that the proper and figurative meanings of Biblical Hebrew could be elucidated by comparison with other Semitic languages.

6.9.3 *Schultens' use and access to Hebrew dictionaries*

In his historiographical survey of earlier Hebrew lexicography and in his own practice, Schultens discussed all the above-mentioned dictionaries. In his Hebrew dictionary, he frequently consulted the dictionaries of Forster, Avenarius, Cocceius, Gousset, and Stockius. In his private library, Schultens had access to almost all dictionaries of Hebrew and other Semitic languages from Reuchlin (1506) to his own time. The different editions are recorded in the auction catalogue of a part of his private library.⁴⁵⁹ The auction catalogue of Henric Albert Schultens' library contains information about annotations by Albert Schultens in a couple of items: J.H. May's (Majus') re-edition of Cocceius' Hebrew dictionary in 1689 (p. 77, no. 123 in folio) and the French translation of Leigh's *Critica sacra* by Ludwig von Wolfzogen (p. 82, no. 460 in quarto).⁴⁶⁰

⁴⁵⁹ *Pars bibliothecae Schultensianae*, Leiden 1750, see items under the heading "Philologi, Hebraeae alique Orientales in folio" pp. 5–6, under the same heading in quarto, pp. 21–27, and under an identical heading in octavo, pp. 46–49. There are also a couple of dictionaries under the heading "Biblia patres, Graeci et Latini, commentarores alique theologicici in folio", namely the polyglot dictionary of Edmund Castell, p. 1, no. 2, and the Hebrew dictionary of Edward Leigh, *Critica sacra* in Latin translation by Henric à Middoch, in its second Latin edition in 1688, p. 2, no. 50. Cf. the complete record of the library of the Schultens' family: *Bibliotheca Schultensiana*, Leiden 1780, see items under the heading "Grammaticici et lexicographi linguarum Orientalium" in folio pp. 513–515, in quarto pp. 522–532, and in octavo pp. 546–555.

⁴⁶⁰ *Catalogus bibliothecae, quam reliquit Henricus Albertus Schultens*, Leiden 1794. See "Grammaticici et lexicographi linguarum Orientalium", distributed into folio-, quarto- and octavo-sized books, pp. 76–93.

PART 3.
METHODOLOGICAL AND CONCEPTUAL
BACKGROUND

7. The primeval language and Hebrew

7.1 Discursive background

7.1.1 *The idea of Hebrew as the primeval language*

The idea of a Hebrew linguistic primordality is not attested in the Bible itself,⁴⁶¹ but emerged in Hellenistic Judaism in the second century BC as part of a new national Jewish identity under the Hasmonean reign. The same contention reappears among rabbinical expositors of the Book of Genesis in late antiquity, when the language of Creation was equated with the holy Hebrew language (e.g. *Targum Jonathan*, also called *Targum Yerushalmi*, to Gen 11:1, and *Bereshit Rabba* to Gen 2:23).⁴⁶²

In the Christian West, the view that Hebrew was the primeval language was endorsed by Church Fathers, first by Origen in the second century AD and then by John Chrysostom, Augustine, and Jerome in the 4th and 5th centuries. In adopting and adapting this idea, Augustine laid a new ecclesiological foundation, linking the preservation of the primordial language to his theory of world history, which he framed as an antithesis between the city of God and the earthly city of man. However, the idea was opposed by distinguished theologians in late antiquity, namely Gregory of Nyssa and Theodoret of Cyrrhus. In the 17th century, their dissent was cited by advocates of the critical school of biblical philology, such as Richard Simon and Pierre Daniel Huet.⁴⁶³

By the authority of Jerome and Augustine, the idea of Hebrew primordality endured throughout the Middle Ages in the Latin West. In the 16th century, it entered Hebrew lexicography through Christian Hebraists such as Münster and Pagninus, and into linguistic theory through the Classical and Hebrew philologist Theodore Bibliander (in the treatise *De communi ratione omnium linguarum et literarum*, “On the common rational principle of all languages and written characters”), the scientist and polyglot linguist Conrad Gesner, and the Orientalist Guillaume Postel. As part of an Augustinian exegetical legacy, the view was taken for granted by most

⁴⁶¹ Josef Eskhult, “The primeval language and Hebrew ethnicity in ancient Jewish and Christian thought until Augustine”, *Revue d'Études Augustiniennes et Patristiques*, vol. 60:2 (2014), p. 298. See also Rainer Albertz, “Die Frage des Ursprungs der Sprache im Alten Testament”, in *Theorien vom Ursprung der Sprache*, edited by J. Gessinger and W. von Rahden, vol. 2, Berlin 1989, pp. 1–3.

⁴⁶² Eskhult, “The primeval language”, pp. 298–309.

⁴⁶³ Eskhult, “The primeval language”, pp. 309–343.

Christian scholars across the three major denominations (Lutheran, Reformed, and Catholic).⁴⁶⁴

7.1.2 Interest in the Hebrew primordality hypothesis (1600–1750)

In the early to mid-17th century, the question of the identity of the primeval language of mankind became the focus of growing scholarly inquiry. Biblical prehistory served as the guideline for conceptualizing linguistic prehistory: at Creation, God endowed man with the ability to speak, and when humans built the Tower of Babel, he confused and divided the originally uniform language of humankind. In premodern Europe, the historical existence of a primordial language was taken for granted. In the early modern period, the identity of the first language became the subject of an intense debate.

Scholars developed their ideas about the primeval language in dialogue with key passages in the Bible, mainly Gen 2:19–20 and Gen 11:1–9, and exegetical traditions, as well as through the interpretation of empirical data on Semitic and other languages. They were accordingly engaged in a twofold process of reception and empirical innovation.

Until the mid-18th century, most scholars practising “normal science”⁴⁶⁵ equated Hebrew with the primordial language of humankind. As long as the discourse on the identity of the primeval language remained an essential part of the scholarly agenda, it served as the basis for the search for the origins and relationships of languages. This assumption justified lexicographic and grammatical comparisons between Hebrew and other languages – whether related, distantly related, or unrelated.⁴⁶⁶ This chapter explores the question: What reasons did premodern scholars of the critical and anti-critical schools of Hebrew philology put forward to disclaim, reclaim, and reinforce the idea of Hebrew primordality?

⁴⁶⁴ Josef Eskhult, “Augustine and the primeval language in early modern exegesis and philology”, *Language and History*, vol. 56:2, pp. 98–119.

⁴⁶⁵ The term was introduced by Thomas Kuhn, in *The structure of scientific revolutions* (Chicago 1962), in which he defines the nature of normal science as being based on previous research achievements that supply the basis for further scientific practice within some community (3rd ed. 1996, p. 10), as puzzle-solving (pp. 36–38), and as a cumulative enterprise within a certain paradigm. This activity is understood as directed towards “determination of significant facts, matching of facts with theory, and articulation of theory” (p. 34), but as missing the production of “novelties of fact or theory” (p. 52).

⁴⁶⁶ Raffaele Simone, “The early modern period”, in *History of linguistics, volume III: Renaissance and early modern linguistics*, ed. by G. Lepschy, London & New York 1998, pp. 163–165; Vivien Salmon, *Language and society in early modern England. Selected essays 1981–1994*, selected and edited by Konrad Koerner, Amsterdam 1996, p. 5; Toon van Hal and John Considine, “Classifying and comparing languages in post-Renaissance Europe (1600–1800)”, in *Language and history* 53:2, p. 64; Kaulen, *Die Sprachverwirrung zu Babel*, Mainz 1861, p. 71.

In the early 17th century, two scholars – Joseph Justus Scaliger and Thomas Erpenius – challenged the received idea that Hebrew is the primeval language. Scaliger’s views prompted a theological counter-argument in favour of the received opinion. Nicholas Fuller challenged them in his *Miscellanea theologica* (1616). After Fuller, Johannes Buxtorf the Younger defended the established opinion with a range of linguistic, philosophical, and theological arguments. The debate continued along traditional lines among Protestant scholars such as August Pfeiffer, Valentin Ernst Löscher, Etienne Morin, and Johann Gottlob Carpzov,⁴⁶⁷ as well as the Catholic polymath Athanasius Kircher. Simultaneously, the critical school did not refrain from rejecting the view that Hebrew is exclusively the world’s primordial language. The most influential critics were Hugo Grotius, Pierre Daniel Huet, Campegius Vitringa, Jean Le Clerc, and Richard Simon. Their adherents included the authors of pertinent chapters in the first edition of *British Universal History* (1736–1744) and of relevant entries in the French *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers* (1751–1772). Brian Walton can be placed midway between the critical and the anti-critical schools.⁴⁶⁸ Schultens was well acquainted with the positions of all the above-mentioned scholars.

The discourse declined rapidly after 1750, as it was succeeded by the topic of the origin of language in itself, or of how the faculty of human speech originated, one of the great philosophical evolutionary questions of the Enlightenment.⁴⁶⁹ In the second half of the 18th century, this issue preoccupied European intellectuals and philosophers. Étienne Bonnot de

⁴⁶⁷ Löscher, *De causis linguae Ebraeae libri III*, Frankfurt am Main and Leipzig 1706, pp. 9–11, Etienne Morin, *Exercitationes de lingua primaeva eiusque appendicibus*, Utrecht 1694, pp. 36–56, Athanasius Kircher, *Turris Babel sive archontologia*, Amsterdam 1679, book II, section 3, ch. 17, p. 122, book III, section 1, ch. 1–5, pp. 131 ff. Johann Gottlob Carpzov, *Critica sacra Veteris Testamenti*, Leipzig 1728, ch. 5, section I “De linguae Hebraeae appellationibus”, pp. 165–173, and section II “De lingua Hebraeae primaeva antiquitate”, pp. 174–186.

⁴⁶⁸ Walton, “De linguarum natura, origine, divisione, numero, mutationibus et usu”, in *Biblia sacra polyglotta*, vol. 6, London 1657, prolegomena, chapter 1.

⁴⁶⁹ Eichhorn, *Geschichte der neuern Sprachenkunde* (Geschichte der litteratur, vol. 5), Göttingen 1807, p. 1, distinguishes between the earlier discussion of the identity of the primordial language and the 18th-century discourse on the origin of language. For accounts of the latter, see Aarsleff, “The tradition of Condillac: The problem of the origin of language in the eighteenth century and the debate in the Berlin academy before Herder”, in Dell Hymes (ed.), *Studies in the history of linguistics: tradition and paradigms*, Bloomington & London 1974, pp. 93–156; James H. Stam, *Inquiries into the origin of language: the fate of a question*, New York 1976; Cordula Neis, “Origin of language debate”, in Keith Brown (ed.), *Concise encyclopaedia of philosophy of language and linguistics*, Oxford 2010, pp. 551–556; Robert Robins, *A short history of linguistics*, 4th ed., London and New York 1997, pp. 153–157; and Simone, “The early modern period”, pp. 205–210.

Condillac⁴⁷⁰ and Johann David Michaelis⁴⁷¹ are typical writers on this new topic, which was rather a renewal of the ancient Epicurean and Lucretian discussion of the origin of language, according to which “‘human language develops’ naturally and beyond active human or divine control ‘from unarticulated sounds, through articulation, into words assigned to things’”.⁴⁷²

7.1.3 Views on Hebrew as an ethno-linguistic and religious designation

In the early modern debate, views on the ethnic and religious identity of the ancient Hebrews were central. Since antiquity, the ethnic term Hebrew (עִבְרִי, *‘ibri*) has been etymologized as either a patronymic or an appellative noun. As a patronymic, it was derived from Heber, Abraham’s ancestor. As an appellative noun, it was derived from the Hebrew verb עָבַר (*‘ābar*), ‘to cross, pass over’, aiming at Abraham’s crossing of the Euphrates.⁴⁷³ The critical school generally favoured the latter etymology, whereas the anti-critical school defended the former derivation, which Schultens took for granted.⁴⁷⁴

According to the ancient rabbinical view, Abraham’s crossing of the Euphrates underlies the concept of being a Hebrew.⁴⁷⁵ Therefore, the medieval authorities Rashi and Nachmanides considered Abraham’s crossing (*‘ābar*) of the Euphrates to be the reason why he was called a Hebrew. However, in the Middle Ages, some Jewish authors began to assert that the ethnic designation עִבְרִי was derived as a patronymic from Heber. Apparently, the first to claim that “the holy tongue” remained in the house of Heber was Saadia Gaon, in the preface to his dictionary *Agrōn*. Another early proponent of this view was the Spanish Jewish philosopher Yehuda ha-Levi (d. 1141).⁴⁷⁶ His reasoning can be summarized as follows:

⁴⁷⁰ E.B. de Condillac, *Essai sur l’origine des connaissances humaines*, Paris 1746.

⁴⁷¹ J.D. Michaelis, *Beantwortung der Frage: von dem Einfluß der Meinungen in seine Sprache und der Sprache in die Meinungen*, Berlin 1760. Cf. idem, *Geschichte der morgenländischen Sprachen*, Göttingen University Library, MS Mich. 76, pp. 29–38, in which the origin and characteristics of the primordial language are treated.

⁴⁷² Tim Denecker, *Linguistic ideas in early Latin Christianity (c. 250–636)*, Leuven 2015, p. 37, mainly quoting Alexander Verlinsky, “Epicurus and his predecessors on the Origin of Language”, in *Language and Learning: Philosophy of language in the Hellenistic age*, edited D. Frede and B. Inwood, Cambridge 2005, pp. 60–63.

⁴⁷³ Following the discovery of the Amarna letters (in 1887) and other Near Eastern texts dating to the 2nd millennium BC, where *ḫabiru* (Akkadian) and *‘apiru* (Egyptian and Ugaritic) are used to refer to nomads and mercenaries, new light was shed on the origin and the meaning of עִבְרִי. Cf. Hans Bauer and Pontus Leander, *Historische Grammatik der hebräischen Sprache des Alten Testaments*, Halle 1922, p. 14 (§ 2 e); Oswald Loretz, *Habiru-Hebräer: eine sozio-linguistische Studie*, Berlin 1984.

⁴⁷⁴ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, Leiden 1737, pp. 5–6.

⁴⁷⁵ In the Septuagint, עִבְרִי in Gen 14:13 is translated as περᾶτης, “immigrant”.

⁴⁷⁶ Yehuda ha-Levi, *Sefer ha-Kuzari*, book 2, § 68. Buxtorf, *Liber Cosri*, Basel 1660, p. 132; Cassel’s Hebrew-German edition *Das Buch Kusari*, Berlin 1920, p.

Adam was created in a perfect state, with a perfect soul, a perfect intellect, and a divine ability to know things without prior learning. This divine matter (‘inyan hā-’ēlōqī) was handed down from Adam to chosen men in each generation until the emergence of the nation of Israel, when it was diffused among the common people.⁴⁷⁷

This way of thinking is linked to the idea of esoteric wisdom transmission (*translatio sapientiae*), which emerged in late antiquity. It was nurtured by medieval Jewish Kabbalists and adopted by Renaissance Judaism.⁴⁷⁸

Abraham ibn Ezra (1089–1164) combined the two common explanations in his account of the origin of the designation “Hebrew”. Abraham was called a Hebrew (‘ibrī) because he descended from Heber and, having faith in God, passed over (‘abar) the River Euphrates towards the holy land.

In *Praeparatio evangelica*, Eusebius of Caesarea (263–339) addressed the religious and ethnic identity of the ancient Hebrews, suggesting that the ethnic term Hebrews derives from Heber as the eponym, but allegorizing its meaning, so that Hebrews are passengers from this world to the divine, all-wise and pious life (*Praeparatio evangelica* VII, 8, 20–21). He represents the ancient Hebrews as righteous, pious, virtuous, and confessing one Almighty God (ibidem, VII. 8,20, XI. 6,39; *Historia Ecclesiastica*, I. 4). In *De Civitate Dei* XVI.11, Augustine adopted the Eusebian concept, arguing that the Hebrews, that is, their eponymous ancestor Heber and especially those of his family, were members of the city of God and keepers of the true religion. Escaping the Confusion of Languages that only befell the city of man, Heber retained the primeval language and transmitted it to his descendants in the line leading down to Abraham, who bequeathed it to Isaac and Jacob. In *De Civitate Dei* XVIII.39, Augustine, approving of the theory of *translatio sapientiae*, maintains that the Hebrews preserved the primordial language not only in spoken form but also in writing (with an alphabetic script) and that this formed an integral part of their divine wisdom and knowledge.

168, and Korobkin, *The Kuzari: in defence of the despised faith*, Northvale 1998, pp. 235–236: “This was the language of Heber, and because of him it was called Hebrew, and he retained it at the time of the division and Confusion of Languages.” In book 1, § 49 (Buxtorf, p. 24; Cassel, p. 42, Korobkin, p. 77), he states: “Abraham, our father, lived himself at the time of the Division; he and his relatives remained in the language of Heber his ancestor. Therefore he was called a Hebrew.”

⁴⁷⁷ Yehuda ha-Levi, ibidem, book 1, § 95 (Buxtorf, pp. 49–52; Cassel, pp. 62–66, and Korobkin 1998, pp. 106–111).

⁴⁷⁸ This is evident in the Bible commentaries of Renaissance Jewish scholars: Isaac Abarbanel’s commentary on Genesis, פרוש אברבנאל על התורה (*Perūsh ‘Abarbanel ‘al ha-Torā*), Venice 1523, Obadiah Sforno’s commentary on the Pentateuch, באור על התורה (*Be’ur ‘al ha-Tōrā*), Verona 1567, Gedaliah ibn Yahja’s chronology of biblical and Jewish history: שלשלת הקבלה (*Shalshet ha-Kabbala*), “The chain of oral tradition”, Venice 1587 and Azariah de Rossi’s criticism of narrative rabbinical exposition: מאור עינים (*Me’or ‘Enayim*), “Light of the eyes”, Mantua 1573–1575.

The Eusebian-Augustinian views on Hebrew ethnicity gained acceptance within the Western Church. In his lectures on the Book of Genesis, Martin Luther links Hebrew ethnicity to the doctrine and faith of Heber:

Heber was an excellent man who, being pure and brave, remained in the faith and in the promise transmitted by the earlier fathers, in a time when Nimrod confused the church of God. By the authority of the holy patriarch Shem, his virtue was such that the church was named after him, so that those who retained the doctrine and faith of the holy father Eber were called Hebrews. This appellation of the church remained until the time of Christ.⁴⁷⁹

7.2 The first critical stance towards Hebrew linguistic primacy

7.2.1 *Joseph Justus Scaliger*

In the decades around 1600, some scholars discovered the close kinship between Hebrew and Phoenician. However, because the Canaanites, and hence the Phoenicians, were defined as a cursed nation in consequence of Noah's curse on Canaan (Gen 9: 24–27), they were considered unworthy of any share in the holy Hebrew language, and Abraham could not possibly have learnt Hebrew from them. The new linguistic insights made this view problematic. When Hebrew and Phoenician were shown to be closely related, the exclusivity of Hebrew was relativized.

Joseph Justus Scaliger (1540–1609) and Thomas Erpenius (1584–1624) objected to equating the Hebrew language with the Hebrew religion. By ascribing the same linguistic heritage to other nations, they modified – if not rejected – the established hypothesis that Hebrew was the original language of humankind. They argued that the Canaanites were the primary possessors of the original language, while Abraham's Israelite descendants were only secondary inheritors of this linguistic legacy and of the appellation "Hebrews".

Scaliger's reputation rests on his achievements in classical philology and historical chronology, but he was also acquainted with Arabic. In one essay,

⁴⁷⁹ Luther, *In Genesin enarrationes* on Gen 11:26: "Itaque apparet hunc Eber fuisse summum virum, qui purus et fortis in fide et promissione patrum priorum permansit turbante Nimrod ecclesiam Dei. Haec eius virtus meruit, autoritate sancti Patriarchae Sem, ecclesia ab eo appellationem sumeret, et Ebraei dicerentur, qui doctrinam et fidem Eber sancti patris retinerent. Ac mansit haec appellatio ecclesiae usque ad Christi tempus." *Martin Luthers Werke*, WA 42, p. 427, lines 18–24. In commenting on the narrative of the Tower of Babel, he states the same: "Nam Eber [...] sine dubio primam et veram linguam retinuit (WA 42, p. 413). Luther opposes Jewish etymologies of the name Hebrew as derived from Abraham's crossing of the Euphrates (WA 42, p. 407, lines 9–10; 427, lines 25–26). In his Table Talks, Luther maintains that Heber retained the primeval language: "Nam Eber patriarcha [...] religionem et linguam Hebream retinuit" (WA Tischreden, vol. 5, p. 492).

he classified the European languages by genealogical kinship, and in another, the dialectal varieties of Aramaic by geographical criteria.⁴⁸⁰ In his correspondence with Richard Thomson (23 September 1607) and Stephen Hubert (12 March 1608), Scaliger outlined a new history of Near Eastern languages (Northwest Semitic), maintaining that Hebrew is the end rather than the beginning of a historical process.⁴⁸¹ Discussing the relationship between Hebrew and Phoenician in both letters, he argues that the term Hebrew is a misapplied designation if used to refer to the original language of the Old Testament. Only by accident was the Phoenician language Abraham learnt in Canaan later labelled Hebrew, mainly because we today know it from the biblical literature, originally in the possession of the Hebrews. Stephen Hubert, professor of Arabic at the Royal College in Paris, had raised the question of how much late Punic differs from Phoenician. In his reply, Scaliger discusses the relationship of Phoenician to Aramaic and Hebrew:

In the time of the prophet Elisha, when the Phoenician colony was founded in Africa, the entire regions of Phoenicia and Palestine used pure Hebrew and employed the letterforms that now survive only among the Samaritans; these letters are purely Phoenician. Behold the change of matters! The language we designate as Hebrew (*Hebraica*), in which the Holy Scriptures are written, is falsely called so today, since it is actually Phoenician (*Phoenicia*).

Right from the first human being, this language remained uncorrupted in Assyria until it deteriorated from its primordial purity in the wake of trade and business with foreign nations, degenerating into the language we call Syriac (*Syriaca*), which was already in use in the time of Abraham and the Patriarchs. This is evident from Gen 31:47. Here, Jacob calls the heap *Galed* in the Phoenician language, but Laban calls it *Jegar Sahadutha* in Syriac.⁴⁸² When Abraham came to Canaan, which is Phoenicia, he used Syriac, the language on the other side of the Euphrates (*transeuphratensis lingua*), so that, as a new immigrant, he had to learn Phoenician. Isaac and Jacob did not need to do so, since they were born in this region. After a long period of time, foreign peoples, and therefore

⁴⁸⁰ Scaliger presumed the existence of eleven unrelated language groups (*linguae matrices*), four major ones and seven smaller ones. This classification, contained in a minor essay, *Diatribae de Europaeis linguis* (1610), is well known in linguistic historiography. For the letter on the geographical diversification of Aramaic, see Heinsius' edition of Scaliger's Letters (1627), book IV, letter 449, pp. 820–823.

⁴⁸¹ Anthony Grafton, *Joseph Scaliger. A study in the history of classical scholarship. II Historical Chronology*, Oxford 1993, p. 737. Grafton sums up Scaliger's letters to Thomson and Hubert, also quoting parts of them in Latin in a footnote, pp. 737–738.

⁴⁸² Syriac (*Syriaca lingua*, *Assyria lingua*) was used as a general term for Aramaic and in a narrow sense for the regional dialect spoken in the area of Antioch.

the Israelites themselves, called this language Hebrew (*Hebraica*), as being derived from Abraham, who was called עִבְרִי (*‘ibrī*) “Hebrew” because he had come from the region on the other side of the Euphrates. In its proper sense, the word עִבְרִי refers to a man from the region on the other side of the Euphrates, that is, in Greek *περάτης* or *περαίτης*. This is what Abraham was first called, and what his descendants were after him. An old proof of this is Gen 39:14.

From Abraham, the Canaanite or Phoenician language (*Chananaea sive Phoenicia lingua*) was later called Hebrew (*Hebraica*) on account of the Hebrews, since to us books are known in this language only through the Hebrew. The vicissitude I pointed out above should be noted, namely that in the tracts of Assyria, where this language came into being, it could not retain its flourishing and innate splendour for any longer time because of trade with numerous peoples and the various changes of kingdoms, but it remained intact in Phoenicia, because foreign nations had rare contacts with those regions, which were not explored by foreigners until the Sidonians and Tyrians obtained dominion over the sea. However, for this reason, the language did not immediately change its essential characteristics, as is evident from the histories of the Phoenicians. Fragments of these histories are extant in Josephus and in Philo of Byblos, as preserved in quotations of Eusebius of Caesarea. Consequently, Dido brought the Phoenician language with its letters to Africa, but in the time of Plautus, this language had degenerated from Ancient Hebrew, as is clear from his *Poenulus*.⁴⁸³

In his unpublished treatise *Theses de lingua primaeva*, § 75, Schultens summarizes Scaliger’s views as expressed in his letter to Hubert. In the preface to the republication of Erpenius’ Arabic grammar (1748), he cited Scaliger’s position at the outset of that letter to refute what he perceived as Jewish Kabbalistic ideas, namely that the square script is the same as the old Hebrew writing and that Hebrew was exclusively preserved among a holy line of descendants from Heber and Abraham to the Israelite nation.⁴⁸⁴ In the preface to his commentary on the Proverbs, Schultens admitted that the Canaanites spoke the same language as the Hebrews, but Abraham did not

⁴⁸³ J.J. Scaliger, *Epistolae omnes*, Leiden 1627, book 4, letter 362 to Hubert, pp. 701–702. Plautus’ *Poenulus* contains passages in Punic in the mouth of the character Hanno the Carthaginian. The main passage is found in two versions, lines 940–949: (Plautus’ transliteration of Punic from the Greek comedy *Karkhedonios*) and lines 930–939 (a restoration of the same text according to Neo-Punic orthography). For a reconstruction and analysis, see Charles Krahmalkov, “Observations on the Punic monologues of Hanno in the *Poenulus*”, *Orientalia*, 57:1 (1988), pp. 55–66. In the ensuing dialogue, there are clauses and words in Punic: *Poenulus* 995, 998, 1002, 1006, 1010, 1016, 1017, 1023, 1027, and 1141–1142.

⁴⁸⁴ Schultens’ preface to *Thomae Erpenii Grammatica Arabica* (1748), p. LXXV.

learn it from them, not because it would have been beneath his dignity, but because “the genealogy of the dialects arising from the primeval tongue recommends and suggests another hypothesis”.⁴⁸⁵

As a pioneer of numismatics, Scaliger, in a letter to Richard Thomson, points out that old coins (*vetustissima numismata*) excavated from Tyre and Sidon support the view that the Phoenician letters (*Phoenices litterae*) were the same as those of the old Hebrew script.⁴⁸⁶

7.2.2 Thomas Erpenius

Thomas Erpenius, who held the chair of Arabic at the University of Leiden from 1612, essentially took the same stance as Scaliger. He expressed his views in his inaugural speech as professor of Hebrew at Leiden on 27 September 1620.⁴⁸⁷ He certainly accepted the idea that Hebrew was the mother of all languages, but he did not approve of the eponymous derivation of Hebrew from Heber. Instead, he argued that the ethnic designation “Hebrew” originated with the colonization of Canaan by people from Mesopotamia. The Babylonians designated the migrating Canaanites as “Hebrews” in the sense of passengers (*traiectores*). As proof, he cited “all rabbis, Origen and Augustine”. As for Augustine, Erpenius must have meant his early position in the *Quaestiones in Heptateuchum*. Moreover, from the history of Joseph in the Bible (Gen 39–45), it is evident that the Hebrews as an ethnic group were known in Egypt. If the Hebrews had been confined to the house of Jacob, they would hardly have been known to the Egyptians, he argued. We have to assume that the Canaanites were called Hebrews as an appellation and that they spoke what we call Hebrew today. Therefore, Erpenius infers that Isaiah (19:18) called “Hebrew” the language of Canaan. After subjugating the first inhabitants of Canaan, the Israelites adopted the designation “Hebrews” and applied it to themselves.⁴⁸⁸

Erpenius’ opinion was attractive to many philologists, but it ran counter to the generally accepted Protestant view, which held that Hebrew was the exclusive property of the holy Hebrew nation, while the Canaanites, as a cursed nation (*gens maledicta*), were disqualified from sharing the holy language with them. For these reasons, Nicholas Fuller rejected the new opinion in his *Miscellanea theologica* (1616).⁴⁸⁹ In his preface to Erpenius’ Arabic grammar, Schultens shows that Fuller’s counter-attacks depend on these preconceived historico-theological notions.⁴⁹⁰

⁴⁸⁵ Schultens, *Proverbia Salomonis*, Leiden 1748, preface, pp. cii–ciii.

⁴⁸⁶ J.J. Scaliger, *Epistolae omnes* (1627), book 3, letter 242 to Thomson, p. 518.

⁴⁸⁷ Erpenius, *Oratio de lingua Ebraea*, published in idem, *Orationes tres de linguarum Ebraeae atque Arabicae dignitate*, pp. 97–132.

⁴⁸⁸ Erpenius, ibidem, pp. 99–103. Parts of Erpenius’ speech on the Hebrew language are quoted by Buxtorf, *Dissertationes theologico-philologicae* (1662), pp. 117–118.

⁴⁸⁹ Eskhult, “Augustine and the primeval language”, p. 112.

⁴⁹⁰ Schultens, *Thomae Erpenii Grammatica Arabica*, preface, pp. LXXVII–LXXXI.

7.3 Defence of the Hebrew linguistic primacy

7.3.1 Buxtorf the Younger

In addressing the topic of the primeval language, early modern philologists were engaged in a process of reception and innovation. Hebrew continued to be regarded as the mother of all languages until the middle of the 18th century,⁴⁹¹ though – as stated above and further demonstrated below – the idea was not unchallenged in the Republic of Letters before that time. The criticism expressed by Scaliger and Erpenius was countered by Johannes Buxtorf the Younger, the principal exponent of the anti-critical school of Hebrew philology. A number of scholars followed in his footsteps, among them August Pfeiffer in Wittenberg.

To defend the common and received opinion (*communis et recepta sententia*), Buxtorf the Younger, in a treatise titled “On the origin and antiquity of the Hebrew language,” not only collected testimonies from ancient and modern Jewish and Christian writers but also presented an exhaustive set of arguments,⁴⁹² which are (1) philosophical, (2) geographic and cultural, (3) etymological, and (4) lexical.

(1) Hebrew is a perfect language in its designation of things according to their essential properties and qualities. At the imposition of names (Gen 2:19–20), Adam accordingly gave names in correspondence with the intrinsic nature of creatures.⁴⁹³

(2) Mesopotamia is the cradle of civilization. In this region, one language ought to be the primeval, and among the Oriental languages,

⁴⁹¹ *Encyclopaedia Britannica* (1910), s.v. Indo-European languages, p. 495: “Till the latter part of the 18th century, it was the practice to refer all languages ultimately to a Hebrew origin.”

⁴⁹² Buxtorf the Younger, “De linguae Hebraicae origine et antiquitate”, as the first treatise of a series of eight dissertations *Dissertationes philologico-theologicae*, Basel 1644, republished in 1662, which is the edition here used. For the discussion of this topic, see pp. 21–41 (§§ 28–44). Among Jewish writings, he quotes *Bereshit Rabba*, *Targum Jonathan/ Yerushalmi* on the Pentateuch, Yehuda ha-Levi’s *Kuzari*, the commentaries on Genesis of Rashi (11:1), ibn Ezra (11:1), and ben Gershon (ch. 2, likely verse 19). Among Christian writers, he refers to Origin, Jerome, Augustine, Ambrosiaster, Nicholas of Lyra, Jean Mercier, Franciscus Junius the Elder, Sanctes Pagninus, Benito Pereira, and Bonaventura Cornelius Bertramus. For the views of Mercier, Junius, Pagninus, and Pereira, see my article “Augustine and the primeval language in early modern exegesis and philology”, pp. 110–111.

⁴⁹³ Buxtorf the Younger, *ibidem*, pp. 25–28 (§§ 32–36). This argument occurs in Eusebius of Caesarea, *Praeparatio evangelica*, XI,6,1–9, who is the first to expressly connect Plato’s *Cratylus* with Adam’s naming of the animals, see DelCogliano 2010: 87–91. To confirm this argument with the support of authorities, Buxtorf does not, however, refer to Eusebius, but only to recent Jewish writers, such as Azariah de Rossi, *Me’or ‘Enayim* (1574), chapter 57, and Christian writers, for instance, Bibliander, Postel, and Nicholas Fuller.

Hebrew and Aramaic are older than the others. Of these, Hebrew must be considered the primordial language because its vocabulary and patterns of nominal inflection reflect a more archaic stage than those of Aramaic.⁴⁹⁴

(3) Only in Hebrew do the proper names recorded in the Bible before the Flood make sense,⁴⁹⁵ as does the etymological pun אָדָם ('āḏām) “man” and אִשָּׁה ('iššāh), “woman”, in Genesis 2:23.⁴⁹⁶ To corroborate this etymological argument, he cites Jewish authorities, including Rashi, Abraham de Balmes, Ibn Ezra, Yehuda ha-Levi, Azariah dei Rossi, and Isaac Abarbanel. He also cites Christian Hebraists, such as Jean Mercier, Benedict Pereira, and Cornelius Bertram.⁴⁹⁷

(4) All languages retain more or less obvious lexical traces of Hebrew words in proportion to their distance from the Near East, according to the principle that says: the closer to the Orient, the more Hebrew words are retained. To support this claim, Buxtorf cites Avenarius’ Hebrew dictionary,⁴⁹⁸ as well as the views of Azariah dei Rossi, Kimchi, and Agustino Steuco.⁴⁹⁹

In the treatise “On the preservation of the Hebrew language after the Confusion”, Buxtorf adds a fifth argument of historical-theological character, which traces back to the Augustinian model:

(5) At the Confusion at the Tower of Babel, the family of Shem and Heber “did not take part in the impious plan of the builders of the city of Babel” and thus escaped the punishment of the ungodly tower-builders. Moreover, God likely wished to preserve “the holy language in which he was to reveal his religion and law” within a holy and blessed family rather than “in the profane and cursed family” – the nation of the Canaanites (Gen 9: 25).⁵⁰⁰ The primeval language was preserved intact in

⁴⁹⁴ Buxtorf the Younger, *ibidem*, p. 29 (§ 37). It is unclear what Buxtorf means by *externa forma vocum*. Maybe he means morphology.

⁴⁹⁵ Buxtorf the Younger, *ibidem*, pp. 29–32 (§§ 38–39).

⁴⁹⁶ Buxtorf the Younger, *ibidem*, pp. 31–32 (the last part of § 39). Despite the phonetic similarity, אָדָם and אִשָּׁה are, in modern research, claimed to be unrelated, since אִשָּׁה is thought to derive from the proto-form 'intat , while אָדָם is original. See Nyberg, *Hebreisk grammatik*, Stockholm 1952, § 70 d, p. 186, and *Brown-Driver-Briggs Hebrew and English lexicon*, Boston 1906, s.v. אָדָם , p. 35.

⁴⁹⁷ Buxtorf the Younger, *ibidem*, pp. 32–40 (§ 41).

⁴⁹⁸ Buxtorf the Younger, *ibidem*, p. 40 (§ 42).

⁴⁹⁹ Buxtorf the Younger, *ibidem*, p. 41 (§ 43).

⁵⁰⁰ Buxtorf the Younger, “Dissertatio tertia de linguae Hebraeae post Confusionem conservatione et propagatione”, in *idem*, *Dissertationes philologico-theologicae*, see p. 120 (§ 10). To validate this Bible interpretation, Buxtorf referred to Jewish writers, such as Yehuda ha-Levi, Abarbanel, Abraham de Balmes and Elias Levita, and Christian writers, particularly Augustine, *De civitate Dei* XVI.11 and XVIII.39,

a sacred line of Heber's orthodox descendants, down to Abraham and the people of Israel. To support this argument, Buxtorf turned to Kabbalistic ideas: Hebrew was retained as an esoteric linguistic property (*ḥashōn s'gullā*) in the house of Heber because it was the holy property (*peculium sanctum*) of Shem and Noah. It was preserved only within a sacred lineage of Heber's descendants, leading down to the patriarch Abraham.⁵⁰¹ Buxtorf concludes as follows:

Through his piety and worship of God, Heber merited that the language, nation, and true religion were named after his own name, and the appellation Hebrews pertained only to those of his descendants who followed his faith and religion.⁵⁰²

In consequence, the term Hebrew is, according to Buxtorf, “not merely a family name and patronymic”, but “a name of confession, faith, doctrine, and dignity”.⁵⁰³

7.3.2 August Pfeiffer

The Lutheran German theologian and Orientalist August Pfeiffer (1640–1698) addressed the primeval language in various publications, contributing to a more discerning analysis of the debate. In a 1663 dissertation titled “On the language of the first formed men or the primeval tongue”,⁵⁰⁴ he posits

Chrysostom (Homily 30 on Genesis), Jean Mercier, Benito Pereira and Bibliander. For a survey of the Augustinian opinions of these Christian Hebraists, see Eskhult, “Augustine and the primeval language” (2013), pp. 110–111.

⁵⁰¹ Buxtorf the Younger, *ibidem*, p. 125 (§ 13). To support this reasoning, Buxtorf refers to Yehuda ha-Levi (*Sefer ha-Kuzari*) and Augustine, *City of God*, XVI.11, where the Church Father states: “And Heber himself did not hand down the same language to all of his descendants, but only in the lineage whose generations lead down to Abraham.” Jean Mercier, whom Buxtorf also cites, excluded the Ishmaelites and Esauites from participation in “the pure and unviolated Hebrew”.

⁵⁰² Buxtorf the Younger, *ibidem*, p. 148, § 35.

⁵⁰³ Buxtorf the Younger, *ibidem*, p. 148. In the last clause, he probably relies on Ambrosiaster, *Quaestiones Veteris et Novi Testamenti*, question no. 108, where the ethnic term “Hebrew” is derived from Abraham as a name of confession and faith. Moreover, Buxtorf produced a comprehensive list of Jewish and Christian writers to confirm this argument, viz. Yehuda ha-Levi, Rashi, Abarbanel, Rabbi Gedaliah Yahja (*Shalshet ha-Kabbala*), Obadjah Sforzo, Augustine, Luther, Calvin, Jean Mercier, Junius the Elder, and Agustino Steuco.

⁵⁰⁴ Pfeiffer, *Dissertatio philologica de lingua protoplastorum sive primaeva*, Wittenberg 1663 (reprinted in 1664 and republished in *Fasciculus dissertationum philologicarum*, Wittenberg 1665, pp. 121 ff., republished again as “Exercitatio tertia de lingua protoplastorum sive primaeva”, which is the third part of *Decas selecta exercitationum ad loca Biblica Veteris et Novi Testamenti*, in *Opera omnia quae extant philologica*, Utrecht 1704, pp. 543–552).

seven theses, the first of which is “Adam’s language is the primordial”. The second is “the primeval language was not lost at the Confusion at Babel”, and the third is “Hebrew is the primeval language”. The subsequent theses are: (4) Aramaic-Syriac is not primeval, (5) Ethiopic is not primeval, (6) Greek is not primeval, and (7) old German or Teutonic (*Cimbrica*) is not primeval. In his overview of previous discourse, Schultens closely follows Pfeiffer’s account.⁵⁰⁵

Three years later, Pfeiffer addressed a different set of questions in a treatise titled “On the number, origin, preservation and use of the holy original languages”. Among the eleven questions, the third concerns the identity of the primeval language, while the others touch on related topics.⁵⁰⁶

Some of the questions recur in a treatise titled “On the nature, use and aids of all the Oriental languages”, which forms part of *Critica sacra* (1680). This treatise consists of 14 questions and replies. The topic of the primeval language appears in the first question, which asks whether Hebrew is the primordial language, and in the second, which asks whether Hebrew is the mother language of all other languages. The following two questions concern Hebrew philology: whether Hebrew was preserved only among the descendants of Heber or also among the Canaanites, and when Hebrew ceased to be a vernacular (written and spoken).⁵⁰⁷ Schultens used this treatise in his account of the previous discourse in *Theses de lingua primaeva*.

Pfeiffer finally addressed the topic under consideration in a work of biblical interpretation titled “Harassed uncertainties of the Holy Scriptures or difficult passages of the Old Testament”.⁵⁰⁸ The thirty-second passage is Gen 11:1, which raises the question of whether Hebrew is the primeval and universal language. Schultens often cited this treatise in his discussion of the primeval language, for instance, in his *Theses de lingua primaeva*, §§ 48–49.

⁵⁰⁵ Schultens, Leiden UB, MS Or. 1469: envelope 12 *Theses de lingua primaeva*, §§ 47, 48, 54, 55, 62, 63, 71, and 78.

⁵⁰⁶ See Pfeiffer, *Dissertatio philologica de linguarum sacrarum originalium numero, origine, conservatione et usu*, Wittenberg 1666. The first question is: “From where does the linguistic term Hebrew derive? The second question asks: “Is Hebrew holy?” The third: “Is Hebrew the primordial language?” The fourth: “Is Hebrew the natural language of humankind?” The sixth: “Was Hebrew preserved in the house of Heber?” The ninth: “Is Aramaic a dialect of Hebrew?”

⁵⁰⁷ Pfeiffer’s “De natura, usu et subsidiis linguarum orientalium omnium” is a treatise that forms part of his *Critica sacra*. It was first published in complete form in 1680 (in *Dissertatio philologica de Masora sive Critica sacra Hebraeorum*, first published in 1665 and revised in 1670 and 1677, is an earlier stage). In the sixth edition of *Critica sacra* (1721), questions 1–4 are discussed on pp. 28–41.

⁵⁰⁸ Pfeiffer, *Dubia vexata Sacrae Scripturae sive loca difficiliora Veteris Testamenti*, Dresden 1685. This treatise was republished in Pfeiffer’s *Opera omnia quae extant philologica*, Utrecht 1704. For “passage XXXII”, see pp. 44–45.

7.4 Rationalist criticism of the 17th century

7.4.1 Preliminaries

Two currents contributed to undermining the established idea of a linguistic Hebrew primacy, namely the movement of pragmatic or axiomatic rationalism, which gradually spread into Bible exegesis, and the striving for national language identities in the emerging nation-states of Europe.

As Daniel Droixhe has observed, rationalism transformed rather than destroyed established ideas associated with the Babel narrative and its interpretation in Jewish and Christian linguistic thought.⁵⁰⁹ Within a biblical framework, rationalist scholars such as Hugo Grotius, Pierre Daniel Huet, Richard Simon, and Jean Le Clerc contributed to the desacralization of Biblical Hebrew.

7.4.2 Hugo Grotius

Hugo Grotius (1583–1645), known as a Dutch statesman, jurist, historian, and philologist, was an influential commentator on both the Old and New Testaments. His historicizing, pragmatic, rationalist method of interpretation initiated a process that led to an epoch-making shift. According to Ludwig Diestel, Grotius brought ferment into biblical research that gradually attained great dimensions.⁵¹⁰ His exposition on Gen 11:1 in his commentary on the Old Testament is typical:

This language is called Hebrew by the Hebrews and Syrian by the Syrians, but Hebrew is the language of עֲבָרִים, that is, of foreigners from Babylonia. This is the origin of the appellation “Hebrews”; it is not derived from Heber. See Josh 24:2–3. The language, thus called Hebrew, steadily came closer to Canaanite because Abraham and his descendants inhabited Canaan. Except for some dialectal features, it does not differ from Punic, as the most learned men have shown. Therefore, it is truer that the primeval language does not exist in a pure form anywhere, but there are remnants of it in all languages. On behalf of the Hebrews, Moses translated the proper names of Adam, Eve, and the others into Hebrew, preserving their meanings in the primeval language.⁵¹¹

⁵⁰⁹ Droixhe, “Interpréter Babel: Simon, Le Clerc, Basnage”, in *Beiträge zur Geschichte der Sprachwissenschaft*, vol. 2, 1992, p. 137.

⁵¹⁰ Diestel, *Geschichte der Alten Testaments in der christlichen Kirche*, Jena 1896, p. 430: “Hugo Grotius [...] hat [...] in der alttestamentlichen Exegese epochmachend gewirkt, nicht indem er einen mächtigen Umschwung herbeiführte, sondern dadurch dass er ein Ferment in die Bibelforschung hineintrug, dessen Wirkung nach und nach immer grössere Dimensionen annahm.”

⁵¹¹ Grotius, *Annotata ad Vetus Testamentum*, Paris 1644, p. 20: “*Erat autem terra labii unius. Eam linguam Hebraei suam dicunt, Syri suam. At Hebraea lingua, lingua est עֲבָרִים advenarum e Chaldaea. Haec enim origo nominis Hebraeorum, non ab Hebero. Vid. Jos. 24: 2–3. Lingua igitur illa Hebraea Abrahami et eius*

This statement had a significant impact on the early modern debate over the primeval language, as it overturned the etymological argument advanced in favour of Hebrew as the primeval language.

7.4.3 *Pierre Daniel Huet*

In his great apologetical treatise on the authenticity of the books of the Old and the New Testament and the truth of the Christian faith, *Demonstratio evangelica* (“Demonstration of the Gospel” Paris 1679), Pierre Daniel Huet (1630–1721) agreed with Grotius in criticizing the view that Hebrew is the primeval language (though he rejected Grotius’ exegetical principle of a twofold sense of Old Testament prophecies about Christ). Having described the various reasons in favour of Hebrew primacy,⁵¹² he then expressed his dissent as follows:

The former and primordial language that existed before the Confusion of Languages, when the earth had only one language and the same words, has either been entirely lost or has diffused into other languages. If it has remained intact, it still cannot be concluded without arbitrariness which language it was, whether Canaanite, Assyrian, or any other.⁵¹³

Huet cites Gregory of Nyssa and Theodoret of Cyrrhus as dissenters from the mainstream patristic opinion and argues that the similarities between Phoenician and Hebrew, the implicit identification of Hebrew with the language of Canaan (Isa 19:18), and the different names Laban and Jacob gave to the heap of witness (Gen 31:47) prove his hypothesis: “either the primeval language did not remain pure and intact in the family of Shem and Heber, or Hebrew is not identical to the holy and primeval language”.⁵¹⁴ In refuting the historical-theological reasons, he points out a lack of proof and inconsistency. Huet argues as follows:

posterorum incolatu in Chananaea ad Chananaeam propius semper propiusque accessit, nec differt a Punica, nisi dialecti quibusdam proprietatibus, ut a viris eruditissimis ostensum est. Quare verius primaevam linguam nullibi puram extare, sed reliquias eius esse in linguis omnibus. Nomina autem propria Adami, Evae et caetera Hebraico sermone a Mose expressa Hebraeorum causa eodem significatu, qui in primaeva lingua fuerat.”

⁵¹² Huet, *Demonstratio evangelica ad serenissimum Delphinum*, fifth edition, Leipzig 1703, proposition IV, ch. 13, § 1, p. 282.

⁵¹³ Huet, *ibidem*, p. 283: “pristinam vero illam et primigeniam, quae ante confusionem linguarum obtinebat, quum terra omnis erat *labii unius et sermonum eorundem* vel funditus interiisse vel in alias linguas esse disseminatam; vel si perseveravit integra, exquaenam illa fuerit Assyria an Chananaea an alia quaevis absque temeritate assignari non posse.”

⁵¹⁴ Huet, *ibidem*, p. 285: “Ex his efficitur vel linguam sanctam in familia Semi et Eberi puram et integram non perseverasse vel linguam Ebraicam sanctam illam et primigeniam non esse.”

Some claim, without reason or author, that Shem and Heber did not participate in the conspiracy at the Tower of Babel and were rewarded with the privilege of retaining the holy and primeval language. If this was a reward for piety, why did the Jews lose it after the Babylonian captivity? [...] Why did the Canaanites, who were detestable and cursed by Noah, receive the same reward as the descendants of Shem? If my opponents reply that this was providentially granted because the patriarchs would peregrinate in Canaan, why was the same language not extended to Egypt to facilitate the stay of Abraham, Jacob, and the people of Israel there, especially since it was to last for so many years?⁵¹⁵

7.4.4 Richard Simon and Jean Le Clerc

Richard Simon discusses the primordial language in two chapters of his *Histoire critique du Vieux Testament* (1685). Classifying Hebrew as a Phoenician language, he contends that the question of the primordial language's identity is difficult. Accounting for the different monogenetic views of the rabbis and of Bochart, Grotius, Gregory of Nyssa, Lucretius, and Flavius Josephus, as well as the polygenetic opinions of Diodore of Sicily, he tries to reconcile them. Using the criterion of morphological simplicity, which Huet had employed to reject the hypothesis of Hebrew primordially, he maintains that Hebrew, as the primeval language, was originally simpler in its grammatical inflection.⁵¹⁶

Jean Le Clerc wrote an influential treatise on the historical origin and nature of the Hebrew language, “Dissertatio de lingua Hebraica”, and published it as the first of three prolegomena to his commentary and Latin translation of Genesis (1693).⁵¹⁷ First, he presents the Jews as the originators of the hypothesis of Hebrew primordially:

The Jews, out of love for their own people, and most of the Christians, who perhaps put too much confidence in them, commonly boast that the

⁵¹⁵ Huet, *ibidem*, proposition IV, ch. 13, § 1, pp. 287: “Gratis quoque et sine auctore pronunciant alii Semum aut Eberum Babelicae conspiracy partis participem non fuisse atque hanc propterea a Deo mercedem tulisse sanctae ac primaevae linguae sibi posterisque retinendae praerogativam. [...] Egregiam vero mercedem, quam Chananaei, gens detestabilis et a Noacho execrationibus devota, perinde ut Semi posterius consecuti sunt. Respondent adversarii factum id non in Chananaeorum, sed in Abrahami posterorumque eius gratiam quo minori negotio inter Chananaeos conversari et peregrinari posse. Quorsum ergo nec in Aegyptum lingua illa transmissa est, ubi Abrahamus quoque ac deinde Jacob cum filiis et tota Israelitarum gens tot annos mansura erat?”

⁵¹⁶ R. Simon, *Histoire critique du Vieux Testament*, Rotterdam 1685, pp. 83–91.

⁵¹⁷ Le Clerc, *Genesis sive Mosis prophetae liber primus*, Amsterdam 1693, the first dissertation, which three years later was republished in Le Clerc's *Pentateuchus sive Mosis prophetae libri quinque*, Amsterdam 1696.

Hebrew language was the very language that Adam, the first human being, used.⁵¹⁸

He refutes the etymological proof by noting that not all proper names can be derived from Hebrew, since, as appellatives, they may be derived from other Oriental languages. Le Clerc concludes: "The Hebrew language is not the primeval one, but its offspring, just like Aramaic and Arabic. Traces of it are found in these three dialects."⁵¹⁹

He goes on to refute the historical-theological proof, taking for granted that it originated with the rabbis:

Since the rabbis cannot provide any proof from the Bible that the antediluvian language was handed down to Heber's posterity, they resort to far-fetched arguments. They assert that Heber and Peleg, from whom the Israelites were to originate, were not among those who built the Tower. This is mere fantasy, not based on any foundation. [...] Secondly, in harsh terms, they accuse the builders of Babel of impiety and assert that the pious patriarchs, including Heber, did not take part in this enterprise. [...] Who has taught the Jews that Heber was pious? His piety is certainly never proclaimed in the Bible; instead, the ancestors of Abraham, who lived on the other side of the river, are accused of idolatry (Josh 24:2), as noted in my commentary on Gen 14: 13. Thirdly, they say that the descendants of Heber were exempted from the punishment that followed this enterprise. [...] What the Rabbis boast of regarding the preservation of the Hebrew language in one family seems entirely to have grown out of their fable-loving imagination. Even the descendants of Heber were subjected to the fate of all other humankind and thus expressed their thoughts with different sounds in relation to the different regions into which they spread.⁵²⁰

⁵¹⁸ Le Clerc, "Dissertatio de lingua Hebraica" (1693), p. 1: "Iudaei, amore gentis suae, et Christiani plurimi, qui iis nimium forte tribuunt, linguam Hebraicam eam ipsam esse, qua utebatur primus hominum Adamus, vulgo iactare solent."

⁵¹⁹ Le Clerc, *ibidem*, 1693, p. 3: "Quid superest nisi ut dicamus Hebraicam Linguam non primaeavam, sed eius sobolem esse, ut Chaldaicam et Arabicam, cuius vestigia in tribus hisce superfuerint dialectis."

⁵²⁰ Le Clerc, *ibidem*, 1693, p. 4: "Quum nullum Rabbini testimonium Scripturae apertum proferre queant, quo constat ante-diluvianam linguam incorruptam ad Heberi posteros transiisse, longe petitis rationibus evincere id conantur. Aiunt inter eos, qui Babylonicam turrin condiderunt, non fuisse Heberum filiumque eius Phalegum, ex quo oriundi sunt Israelitae. Verum merum hoc est somnium, nullo nixum fundamento. [...] Secundo, in impietatem conditorum Babelis gravissimis verbis invehuntur, unde colligunt pios Patriarchas, inter quos Heber, consilii participes non fuisse. [...] Deinde quis docuit Iudaeos Heberum pium fuisse? Certe nusquam eius praedicatur pietas, imo vero contra Abrahami maiores, qui trans Euphratem vixerunt, haud obscure idololatriae accusantur Josuae XXIV, 2, ut

7.4.5 Refutation of Hebrew as a holy language

The idea of Hebrew as the primordial language was closely tied to its status as the holy language. The conception of the Hebrew language's intrinsic holiness began to be criticized in the 17th century by Isaac Vossius, Baruch Spinoza, and Jean Le Clerc. Well acquainted with these critics' arguments, Schultens, in the mid-18th century, dismissed the idea that Hebrew is inherently sacred.

In the treatise *De Septuaginta interpretibus* (1661), Isaac Vossius, in defending the chronology of the Septuagint, also countered those who thought he limited "the reverence of the Hebrew Bible by recommending the Septuagint". In the next treatise, *Appendix ad librum de LXX interpretibus* (1663), he rejected the idea of Hebrew as holy. Tracing the high esteem for the Hebrew source text (*Hebraica veritas*) to conceptions of Hebrew as divine, primeval, and holy, he discusses the concepts of *Dei lingua* and *lingua sancta*. Regarding God's language, he argues that the Jews think of it anthropomorphically, attributing to it human features such as speech sounds and syllables.⁵²¹ He assumes that speaking of God's language rather would be "to use a language of humbleness, tolerance and love towards God and one's neighbours".⁵²² No language, whether used by God or men, has more holiness than another. Those who think otherwise are mistaken.⁵²³ Vossius mocks the contention that Hebrew is the primeval language, if this is only based on the reason that it was used by God, Moses, and the prophets: "Is it not also true that the pseudo-prophets, the Serpent and the Devil spoke the same language?"⁵²⁴ He also argues that the similarity between Hebrew and Canaanite does not allow us to perceive the former as holy and the latter as profane: "I do not believe that anyone is as insane as to think that one and

observavimus ad cap. XIV,13. Tertio aiunt a poena coeptum hoc sequuta immunem fuisse posteritatem Heberi, cum linguam Hebraicam illibatam atque intemeratam servavit. [...] Quod de conservatione linguae Hebraicae in una familia jactatur a rabbinis, id totum ex eorum cerebro, fabularum feracissimo, prodiisse videtur; et posteri Heberi reliquorum mortalium fato obnoxii, prout in varias terras disseminati sunt, variis sonis animi sensa expresserunt."

⁵²¹ Isaac Vossius, *Appendix ad librum de LXX interpretibus*, The Hague 1663, preface, p. with the typographical mark (**) verso: "Nimis praeterea de Deo carnaliter sentiunt, qui eum humano more loqui et Hebraea vocabula ac syllabas sonare contendunt. Facile sic credunt hodierni Iudaei et anthropomorphae, utpote qui oculos, aures, nasum, brachia et pedes humano ritu formatos Deo adfingunt."

⁵²² Vossius, *Appendix*, preface, p. (**) 2v: "Si lingua humilitatis, tolerantiae, amoris erga Deum et proximum utamur, im quoque Dei lingua loquimur."

⁵²³ Vossius, *Appendix*, preface, pp. (**) 2v-(**) 3r: "Plurimum itaque falluntur qui vel apud Deum vel apud homines linguam lingua vel sonum sono plus sanctitatis habere arbitrantur."

⁵²⁴ Vossius, *Appendix*, preface, p. (**) 3r: "Verum an non etiam pseudo-prophetarum et Serpens et Diabolus eadem quoque dialecto fuere locuti?"

the same sound and syllables were holy in the speech of the prophets, but turned profane when being pronounced by the Canaanites.”⁵²⁵

In the treatise *De Sibyllinis oraculis* (finished in 1672, published in 1679), Vossius touches on the idea that Hebrew is a holy tongue by rejecting the common opinion that Christ and the Apostles spoke Hebrew rather than Greek simply because Hebrew is considered holier. He objects: If the holiness of a language lies in its sounds and sound waves, the Canaanites spoke Hebrew in a holier manner than the Evangelists and Paul the Apostle, because the ancient Hebrews merely adopted it from the Canaanites.⁵²⁶

In *Tractatus theologico-politicus*, Spinoza did not expressly question the holiness of Hebrew. Rather, he redefined its holiness and divinity, shifting them from an objective concept to a subjective one, from an absolute theory to a relative one, and from a static model to a functional one.⁵²⁷ He applied his new criteria to both the nature of the Scripture as the word of God and the nature of Hebrew. In this way, Spinoza maintains that, as far as the words of Scripture, through their intelligible meaning and arrangement, incite their readers or auditors to devotion, the words and books written with such an arrangement are sacred. Conversely, if the words are no longer understood because the linguistic usage has been forgotten and lost, “neither the words nor the book have any value or holiness”.⁵²⁸ From this follows that “nothing is holy or profane or impure in an absolute sense apart from the mind, but only in relation to the mind”.⁵²⁹ From a linguistic perspective, Spinoza argues that the Scripture is divine as far as the word meaning is intelligible, “even if the words by which the meaning originally was expressed are supposed to have often changed”. He concludes: “The Scripture would be equally divine, even if it had been written in different

⁵²⁵ Vossius, *Appendix*, preface, p. (**) 3r: “Non puto quemquam ita fore dementem ut putet eundem sonum et easdem syllabas in ore prophetæ alicuius sanctas, at vero a Cananaeo pronuntiatas demum fuisse prophanas.”

⁵²⁶ Vossius, *De Sibyllinis oraculis aliisque quæ Christi natalem præcessere oraculis*, Oxford 1679, p. 96.

⁵²⁷ Spinoza, *Tractatus theologico-politicus*, ch. 12: “Id sacrum et divinum vocatur, quod pietati et religioni exercendæ destinatum est, et tamdiu sacrum erit, quamdiu homines eo religiose utuntur”. Cf. the Latin-German edition by Gawlick and Niewöhner: Spinoza, *Opera/ Werke*, vol. 1: *Tractatus Theologico-politicus/ Theologisch-politischer Traktat*, Darmstadt 1979, p. 396. Cf. Samuel Shirley’s English translation, *Tractatus theologico-politicus*, Leiden 1989, p. 208: “A thing is called Holy and divine, when its purpose is to foster piety and religion, and it is sacred only for as long as men use it in a religious way.”

⁵²⁸ Spinoza, *Tractatus theologico-politicus*, ch. 12: “tum et verba et liber nullius usus neque sanctitatis erunt”. Cf. the edition of Gawlick and Niewöhner, p. 396.

⁵²⁹ Spinoza, *Tractatus theologico-politicus*, ch. 12: “Ex quo sequitur nihil extra mentem absolute, sed tandum respective ad ipsam sacrum aut profanum aut impurum esse.” Here, I follow Shirley’s English translation, p. 207.

words or in another language.”⁵³⁰ Spinoza does not elaborate further to reject the idea of the holy status of the external form. He did not expressly disclaim the idea of a holy language, but redefined the concept of its holiness, likely because he thought that the question of holiness is entirely subjective. In his Hebrew grammar, *Compendium grammatices linguae Hebraeae*, it is significant that he did not refer to Hebrew as the holy language.⁵³¹

In his *Dissertatio de lingua Hebraica* (Amsterdam 1693), Jean Le Clerc continued the discussion where Vossius had left off. Having argued in favour of a close relationship between Hebrew and Canaanite, he dismisses the idea that Hebrew has a claim to holiness. He says that this is how the Jews want to honour their language. Had they confined themselves to perceiving the laws and other revelations of God as holy, he would both admit and urge that. He goes on:

But for this reason, the sounds considered in themselves are not holier, nor have the idiomatic phrases of this language become more apt for the divine majesty, as we have shown sufficiently. If God wished, he could reveal his will in the language of the inhabitants of India. This would not add any holiness to the Indian sounds. [...].⁵³²

He justifies this position as follows:

Christ and the Apostles spread the most holy doctrine of the Gospel in the language of the Galileans, which the inhabitants of Jerusalem had to know but despised. The Apostles announced the Gospel to the pagans in whatever language. For this reason, the Gospel was no less holy than if they had used the language of Adam. Surely, the message does not depend on words but on subject matter and thoughts.⁵³³

⁵³⁰ Spinoza, *Tractatus theologico-politicus*, ch. 12: “Scriptura aequae divina esset, etsi aliis verbis aut alia lingua scripta fuisset.” Cf. the edition by Gawlick and Niewöhner, p. 208, and Shirley’s translation, p. 211.

⁵³¹ See further Jan Eike Dunkhase, “Lingua, non Scriptura. Spinozas hebräische Sekularisierung”, *Jahrbuch des Simon-Dubnow-Instituts, Simon-Dubnow Institute yearbook*, XII, 2013, pp. 333. Dunkhase mainly quotes the same passages as discussed above.

⁵³² Le Clerc, “Dissertatio de lingua Hebraica”. p. 7: “Sed propterea soni in se spectati sanctiores non sunt neque linguae idiomata divinae maiestati aptiora evaserunt, ut satis ostendimus. Posset Deus, si vellet, Indorum lingua voluntatem suam aperire. Quae neque Indicis sonis sanctitatem ullam adderet” [...].

⁵³³ Le Clerc, *ibidem*, p. 7: “Christus et Apostoli Galilaeorum sermone, Jerosolimitanis cognoscendo et spreto, sanctissima Evangelii dogmata propalarunt. Apostoli etiam qualibet lingua evangelium ethnicis nuntiarunt, non minus sanctum sane, quam si Adami lingua essent usi. Quippe quod non in vocibus, sed in rebus et cogitationibus situm est.”

7.5 Reinforced criticism of the 18th century

7.5.1 *The British Universal History of 1736*

The status of Hebrew as the primeval language was a target of refutation in the 18th-century English project on universal history: *An universal history from the earliest account of time to the present*,⁵³⁴ compiled by a team of anonymous scholars and published between 1736 and 1744⁵³⁵ in twenty-five volumes. In the first edition (vol. 1, ch. 2, sect. 5),⁵³⁶ the anonymous author, presumably the Orientalist Georg Sale,⁵³⁷ argues that the hypothesis of Hebrew primordality originated among the Jews and was uncritically adopted by Christian scholars:

The Jews are those who assert the antiquity of their tongue with the greatest warmth. They pretend that it was immediately framed by God; that he spake it himself, for which reason it is called the holy tongue; that it is the only language understood by the angels, and wherein we can pray and be heard with effect. And several Christian writers,⁵³⁸ abating these superstitious fancies of the Jews, have acknowledged and maintained that the Hebrew tongue is the most ancient in the world; the very same which was spoken by Adam and Noah, and preserved in the family of Eber, who was not concerned in the building of Babel, nor consequently shared the punishment inflicted on those that were.⁵³⁹

In refuting the etymological argument, the writer employs the same counter-proofs as Grotius, Huet and Le Clerc, to whom he refers, concluding that “the Hebrew language cannot make good its claim”, a verdict that also

⁵³⁴ Importantly, this British publication was translated into Dutch (Westerbanus), certainly before 1738. *An universal history* is cited by Taco Hajo van den Honert in Dutch in *Dissertationes historicae*, Leiden 1739, 2nd ed., p. 164, where a long passage on the ethnonym Hebrews is quoted in a section in which Van den Honert opposes Albert Schultens on the classification of Semitic languages.

⁵³⁵ An expanded second edition of *An universal history* was published 1747–1768 in 65 volumes. This edition was reworked into a German translation by the Göttingen historian Johann Christoph Gatterer in *Handbuch der Universalhistorie*, Göttingen 1764–1765, and probably inspired his *Weltgeschichte in ihrem ganzem Umfange*, 2 vols., Göttingen 1785–1787. August Ludwig Schlözer published *Vorstellung seiner Universal-Historie*, in Göttingen and Gotha in 1772–1773.

⁵³⁶ Ch. 2 has the heading “The general history from the Deluge to the birth of Abraham”. Sect. 5 has the heading “On the confusion of tongues” (pp. 149–156).

⁵³⁷ George Sale (1697–1736) is known for contributing articles on Oriental history to the English translation of Pierre Bayle’s historical and critical dictionary.

⁵³⁸ A footnote mentions John Chrysostom, *Homily 30 on Genesis*; Augustine, *City of God*, book 17 (viz. 16), ch. 11; Origen, *Homily 11 on the Book of Numbers*; and Jerome, *Commentary on the Book of Zephaniah*.

⁵³⁹ *An universal history from the earliest account of time to the present*, the second issue of the first volume, London 1740, p. 152.

applies to other pretenders, such as Syriac and Arabic, because “the primeval was entirely lost at Babel”, or at least “no one can now tell where it was preserved, which is much the same thing”.⁵⁴⁰ The author nonetheless proposes the possibility of a common origin for the Oriental languages: “They are manifestly sprung from one common original; though it be difficult, if not impossible, to distinguish the mother from the daughters”.⁵⁴¹

The theological-historical argument is rejected as “a groundless imagination”⁵⁴² because it rests solely on the exegetical tradition that “the children, or sons, of men” (Gen 11:5) refers only to “the unbelieving part of humankind”.⁵⁴³ On the contrary, it is urged that the phrase “the whole earth” (Gen 11:1) makes no exception for the Shemites, because this designation otherwise would be “taken in a restrained and improper sense”.⁵⁴⁴

7.5.2 The French *Encyclopédie*

Jewish views on the history of the Hebrew language were also criticized in the French *Encyclopédie*, published by Denis Diderot and Jean Le Rond d’Alembert. In the entry “Hebraïque, langue”,⁵⁴⁵ the author points to the insufficiency of Jewish knowledge of their language’s history. Discussing the origin and historical development of the Hebrew language, this encyclopaedist, in a ridiculing tone, holds the Jewish rabbis responsible for a distorted account of its history:

L’Histoire de la langue hébraïque n’est chez les Rabbins qu’un tissu de fables et qu’un ample sujet de questions ridicules et puérlles. Elle est, selon eux, la langue dont le Créateur s’est servi pour commander à la nature au commencement du monde; c’est de la bouche de Dieu même que les anges et le premier homme l’ont apprise. [...] Mais laissons là ces pieuses rêveries, dont la religion ni la raison de notre âge ne peuvent plus s’accommoder, et fuyons cet excès qui a toujours été si fatal aux Juifs, qui ont idolâtré leur langue et les mots de leur langue en négligeant les choses.⁵⁴⁶

⁵⁴⁰ *An universal history*, p. 153.

⁵⁴¹ *An universal history*, p. 154.

⁵⁴² *An universal history*, pp. 141–149 (vol. 1, chapter 2, section 4).

⁵⁴³ *An universal history*, p. 143, includes a footnote reference to Augustine, *De civitate Dei*, book 17 (a mistake for book 16), ch. 4–5. Several early modern exponents of Augustinian views are mentioned, e.g. Morin, *Exercitationes de lingua primaeva*, ch. 8, p. 147, and Bochart, *Geographia sacra, Phaleg*, book 1, ch. 10.

⁵⁴⁴ *An universal history*, p. 144.

⁵⁴⁵ *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers*, vol. 8, Neuchâtel 1765, pp. 76–92.

⁵⁴⁶ *Encyclopédie ou dictionnaire raisonne* (1765), p. 83.

7.6 Patriotic endeavours

7.6.1 Johannes Goropius Becanus

Claims of the superiority of European national languages relativized the conception of the linguistic primordality of Hebrew. Accordingly, the idea discussed above was counteracted by the current of patriotism, which stressed the antiquity, purity, and cultural primacy of certain European vernaculars, in contradistinction to claims in favour of both Hebrew and the classical languages. Since the Renaissance, the excellence and dignity of European vernaculars were vindicated in treatises and speeches.⁵⁴⁷

One of the most famous claimants to the ultimate antiquity of his own vernacular is the Dutch Johannes Goropius Becanus. In his *Origines Antwerpianae* (1569), he argued that Dutch, a dialect of Scythian, was the most ancient language.⁵⁴⁸ His treatise was written during a period of patriotic sentiment, when the northern Dutch states revolted against Spanish rule. The contentions of Goropius Becanus were derided by the scholars of his time.⁵⁴⁹ Still, his ideas about the antiquity of German over Latin were accepted by 17th- and 18th-century scholars.⁵⁵⁰

⁵⁴⁷ Peter Burke, *Languages and communities in early modern Europe*, Cambridge 2004, p. 65.

⁵⁴⁸ Goropius Becanus, *Origines Antwerpianae sive Cimmericorum Becceselana novem libros complexa*, Antwerp 1569. In book 5, titled “Indo-Scythica”, pp. 551–556, he argues that the Cimmericians (whom he conceived as the proto-Germans) escaped punishment at the Tower of Babel because they had migrated to take possession of their European inheritance. Accordingly, they preserved the primeval language, called *lingua Cimbrica* (i.e. Old Dutch or Old German).

⁵⁴⁹ Joseph Justus Scaliger, *Castigationes in Catullum, Tibullum, Propertium*, Paris 1577, p. XVI, states: “Nunquam legi majores nugaces, nunquam insigniorem temeritatem vidi neque audivi, ut qui omnes linguas a sua barbara deducere velit” [...]. “I have never read greater jokes, nowhere have I seen or heard a more striking rash judgement, since he wants to trace all languages from his own barbaric one.” See, further, Anthony Grafton, *Joseph Scaliger. [...] II Historical Chronology*, Oxford 1993, p. 88. Brian Walton, in his prolegomena to the London Polyglot Bible, *In Biblia polyglotta prolegomena* (1657), ch. 1, p. 15, states: “Goropii vero Becani paradoxon, qui linguam Cimbricam sive Flandricam primam fuisse contendit, cum a omnibus doctis cum risu excipitur, et ipse potius ad ingenii ostentationem, quam quod ita crederet hoc scripserit, nolo argumentis seriis confodere.” “I do not want to knock down the paradox of Goropius Becanus with serious reason. He contended that the language of the Cimmericians or Flemish was the primordial one, even though he was received with laughter by all scholars, and he himself wrote to put forward his ingenuity for show rather than because he believed what he wrote.”

⁵⁵⁰ Daniel Georg Morhof, *Polyhistor literarius, philosophicus et practicus*, fourth edition, Lübeck 1747 [1st ed. 1688], book 4, chapter 3 (De lingua universali et primaeva), p. 738, admits that Goropius’ claim and reasons for the antiquity of German are justifiable: “Fateor, aliquis huic viro fuit in illo argumento sensus: nam antiquitas istius linguae, ut omnis Germanicae, Graeca et Latina superior est [...] ac habentur apud illum argumenta pro antiquitate linguae Germanicae non

7.6.2 Georg Stiernhielm

The Swedish poet, philologist, mathematician, and philosopher Georg Stiernhielm (1598–1672) claimed that Old Swedish is the same as the most ancient language of humankind, or at least comes closest to it.⁵⁵¹ He equated Swedish with the most ancient dialect of the primeval language. This idea is related to the Scythian hypothesis, proposed by Marcus Zuerius Boxhorn in the wake of Goropius Becanus. Boxhorn held that most European languages

contemnenda. Sed ineptias viri non probo.” “I admit. This man had some sense of this topic: the antiquity of that language, as the entire Germanic language, is superior to Greek and Latin, and in his writings, there are not contemptible arguments in favour of the antiquity of the Germanic language. But I do not approve of the nonsense of this man.” The German polymath Gottfried Wilhelm Leibniz partially defends Goropius in his *Nouveaux essais sur l’entendement humaine* (c. 1703–1705, published in 1765), book III, ch. 2, where the character Philalethes (an admirer of Locke) asks: “To goropise? What does that mean?” Theophilus (Leibniz himself) then replies (in Alfred Langley’s translation, 1896): “It means that the strange and often ridiculous etymologies of Goropius Becanus, a learned physician of the sixteenth century, have passed into a proverb, although otherwise he may not have been excessively wrong in claiming that the German language, which he calls Cimbric, has as many, yes, more, marks of a primitive character than the Hebrew itself.” Moreover, the Swedish scholar, philologist, and lexicographer Johan Ihre (1707–1780) states in the introduction to his etymological Swedish dictionary, *Glossarium Suio Gothicum* (Uppsala 1769, “prooemium”, p. 34): “Interea tamen, etsi Teutonicae linguae id non tribuamus, quod in paradoxis suis Johannes Goropius Becanus, nihilominus verum est antiqui sui sermonis in multis servantiores fuisse Belgas, quam multos alios.” “Even though we do not attribute to German what Johannes Goropius Becanus did in his paradoxes, it is still true that the Dutchmen were, in many respects, more retentive of their old language than many others.

⁵⁵¹ In the preface to the 1671 edition of *Codex Argenteus*, “De linguarum origine praefatio”, Stiernhielm writes (p. 34): “De nostra Sveo-Gothica multa dicere supervacaneum est, cum a primordio suo eam nemo neget manere sinceram et incorruptam, ab externis puram et intaminatam nihilque, nisi aevo, a prima sua origine distantem.” “It is superfluous to speak at length about our Sveo-Gothic, since everyone agrees that it has remained genuine and uncorrupted since its primordial beginning, is still pure and free from foreign influences, and has in no respect distanced itself from its first origin except through the passage of time.” (See Eskhult, *Georg Stiernhielm. Linguistic works*, vol. 2, Uppsala 2023, p. 293.) This edition of *Codex Argenteus* appears in the library catalogue of Jan Jacob Schultens, *Bibliotheca Schultensiana*, Leiden 1780, p. 11 (no. 108 in quarto). Most likely, it originally belonged to Albert Schultens’ library, who, in his treatise on the primeval language (*Theses de lingua primaeva*, § 41, Leiden UB, MS Or. 1469, envelope 12, fol. 5r), refers to Stiernhielm’s assumption, in the preface to the Swedish edition of the Gothic Gospels, that dialectal diversification is the principal reason for linguistic diversity.

and Persian had emerged from dialects of ancient Scythian.⁵⁵² Stiernhielm argued that the Scythian language was best preserved in Scandinavia. Olof Rudbeck the Elder followed Stiernhielm in the first volume of *Atlantica* (1677), but adopted a narrower concept of Scythian, positing three mother languages of Europe: Greek, Scythian, and Celtic.

7.6.3 John Webb

At the same time as Stiernhielm extolled Old Swedish, the English architect and scholar John Webb advocated Chinese as the most ancient language.⁵⁵³ He developed his reasons in dialogue with Goropius Becanus and with 17th-century European geographers and ethnographers of China, namely Martino Martini, who wrote *Novus atlas Sinensis* (1655) and *Sinicae historiae* (1658), and with Athanasius Kircher, *China illustrata* (1667).

⁵⁵² See Eskhult, *Georg Stiernhielm. Linguistic works*, vol. 2, Uppsala 2023, pp. 47–49. In the 17th century, the concept of Scythian ethnicity differed from its modern definition. Scythians were defined as descendants of Japheth and, as such, proto-Europeans, because the Japhetites were considered to have colonized Europe in waves of migration from the region between the Caucasus and the steppes north of the Black Sea.

⁵⁵³ John Webb, *Historical essay endeavouring a probability that the language of the Empire of China is the primitive language*, London 1669.

8. Morphology: The concept and principle of regularity

8.1 Linguistic analogy as a polysemous concept

8.1.1 *Schultens' use of the concept*

Schultens employed the Greco-Roman concept of analogy (*analogia*) to conceptualize the morphophonological regularity in the formation of roots (*radices*),⁵⁵⁴ derivative verbal stems (*binyānīm*), and nominal derivatives from these stems. He applied the concept of analogy to diachronic and synchronic perspectives, using it both as a tool for historical reconstruction and as a pattern for analysing linguistic structure. The principle of morphological regularity (*analogia*) is pivotal to Schultens' ideas about the nature of Ancient Hebrew morphosyntax. The emergence of this concept in Greek thought in general (Section 8.2.1) and in Greco-Roman linguistics in particular (Sections 8.2.2–8.2.4) is shown below. After that, the idea behind Schultens' use of analogy as a morphological key concept is related to the conceptual development in Classical and Semitic philology in early modern times (Sections 8.3–8.4).

8.1.2 *Difference between premodern and modern definitions*

The ancient and premodern concept of linguistic analogy differs from the modern neo-grammarians' concept.⁵⁵⁵ In antiquity and the early modern period, analogy was used as a principle of regularity – “the conformity of words to a regular or consistent pattern”⁵⁵⁶ – rather than of irregularity. In modern linguistics, the term is a levelling principle, “the creation or remodelling of words, word forms, or constructions”.⁵⁵⁷ which is opposed to the otherwise exceptionless principle of phonetic law, particularly in the explanation of linguistic change.⁵⁵⁸ The discrepancy between the two concepts mainly lies in the difference between a synchronic and a diachronic perspective. In the former case, it is regular synchronically; in the latter, it becomes regular.

⁵⁵⁴ Schultens did not make any distinction between the root and the base stem *qal*. For the concept of root, he used the terms *radix* and *thema*, sometimes also *positio*.

⁵⁵⁵ See Elmar Siebenborn, *Die Lehre von der Sprachrichtigkeit und ihren Kriterien. Studien zu antiken normativen Grammatik*, Amsterdam 1976, pp. 56–57.

⁵⁵⁶ *Oxford English Dictionary* (OED), s.v. analogy II.6.a.

⁵⁵⁷ OED, s.v. analogy, II.6.b.

⁵⁵⁸ See Gerda Haßler, *Lexikon sprachtheoretischer Grundbegriffe des 17. und 18. Jahrhunderts*, vol. 1, Berlin 2009, s.v. Analogie, pp. 671–672 (under § IV).

8.2 Greco-Roman antiquity

8.2.1 *Analogy as a cross-disciplinary concept*

In Greek, the term analogy, ἀναλογία, derives from the expression ἀνὰ λόγον, “according to a relation”.⁵⁵⁹ In Latin, ἀναλογία was rendered by loan translation as *proportio*, which Varro used to refer to and assess nominal and verbal inflection.⁵⁶⁰ Quintilian and Gellius generally retained the loanword *analogia*, even though they were familiar with the calque *proportio*.⁵⁶¹

As a scientific term, analogy emerged in Greek mathematics, where three types were distinguished: arithmetic (ἀριθμητική), geometric (γεωμετρική), and harmonic (ἁρμονική).⁵⁶² The geometric sense became the common meaning. Geometrical analogy was defined as equality, or an equal relation, between two ratios,⁵⁶³ namely, a proportion. In this sense, it was the model when applied to other fields of knowledge, such as music, medicine, biology,⁵⁶⁴ cosmology, ontology, jurisprudence, and grammar.⁵⁶⁵ In these

⁵⁵⁹ Henry George Liddell & Robert Scott, *A Greek-English Lexicon*, s.v. ἀνάλογος, “according to a due λόγος [relation, proportion] or ratio, analogous, proportionate”, for which sense Plato, *Timaeus* 69B, is cited. This is how Varro, *De lingua Latina*, understands it (X, III, 37). It is possible that the expression was originally elliptical, either implying ἀνὰ τὸν αὐτὸν λόγον, “according to the same relation”, or ἀνὰ λόγον ἴσον, where the preposition was used in a distributive sense, so that the expression means “relation for relation equal; distributed in relations equal”. See Siebenborn, *Die Lehre von der Sprachrichtigkeit und ihren Kriterien*, p. 58.

⁵⁶⁰ Varro, *De lingua Latina*, book X, III, 37 (translation and definition of the term) and X, III, 42, 51, 65, 66 and 68 (use of the term in linguistic contexts).

⁵⁶¹ Quintilian, *Inst. orat.* I, VI, 3 refers to *proportio* as the Latin translation of the Greek term: “analogia [...], quam proxime ex Graeco transferentes in Latinum proportionem vocaverunt”. Cf. Aulus Gellius, *Noctes Atticae*, II, 25, 2.

⁵⁶² In arithmetic, analogy referred to the equality in the relation of differences in three numbers, where the highest differs from the middle as much as the middle from the lowest, as the sequence 9, 6, 3, but it could also refer to the equality of differences in subtraction. Cf. Maarten J.F.M. Hoenen, “Analogie”, in *Historisches Wörterbuch der Rhetorik*, vol. 1, ed. by Gert Ueding, Tübingen 1992, p. 500.

⁵⁶³ Aristotle, *Nichomachean Ethics* 1131a 31 “analogy is an equality of relations requiring at least four terms”. In this work, Aristotle also drew up a distinction between disjoined and conjoined geometric analogy (ibidem, 6 1131a29). The former one is a relation of four terms, such as: 1 is to 10 what 2 is to 20, while the conjoined analogy is a relation of four terms, such as 2 is to 4 what 4 is to 8, which may be continued in a sequence (2, 4, 8, 16, 32, 64, 128, and so on). Varro, *De lingua Latina* X, 45, repeated this distinction. See M.-D. Philippe, “Analogon and analogia in the philosophy of Aristotle”, in *The Thomist, a speculative quarterly review of theology and philosophy*, vol. 33 (1969), pp. 30 f.

⁵⁶⁴ In biology, analogy was useful in the identification of structural similarities. Aristotle used analogy to describe shared properties across different species and similar relations within each species in a four-term relationship (A is to B as C is to D). See Mary Hesse, “Aristotle’s logic of analogy”, in *The philosophical quarterly*, vol. 15, no. 61 (1965), p. 330.

disciplines, analogy served as a method of inference from the known to the unknown, but when applied to subjects other than geometry, it became a theoretical construct with shifting, not well-defined meanings. When it was transferred to non-exact disciplines, the sense of mathematical equality passed into the sense of a relation of likeness, correspondence, or agreement. It became a method for identifying unity in diversity. Because of its original sense of relation, analogy is “not reducible to identities and differences” but rather represents “a third way between univocity and equivocality”.⁵⁶⁶

8.2.2 *The emergence of analogy as a linguistic concept*

Aristotle was the first to apply the principle of analogy to linguistic theory. In *Poetics*, chapter 21, he proposes analogy as one of the methods that transform proper meaning into transferred meaning. He distinguishes analogy from other methods of creating transferred meanings, namely the changes from genus to species, from species to genus, or from species to species.⁵⁶⁷ As a relation of similarity, the analogue (τὸ ἀνάλογον), under certain circumstances, generates a new transferred meaning. However, Aristotle did not use analogy as a principle for conceptualizing the relation between primary and secondary meanings. Neither did the Stoics use analogy to designate this semantic relationship, even though they used it to refer to the relationship between the things signified and the words that signify them (according to their naturalistic views of this relationship).⁵⁶⁸

The Alexandrian grammarians used analogy as a tool in their textual criticism of ancient Greek epics, such as Homer’s *Iliad* and *Odyssey*, as well as classical Greek poetry. They resorted to inflectional regularity as a criterion for eliminating uncertain word endings and for identifying the most reliable readings and the correct word forms.⁵⁶⁹

8.2.3 *Quintilian’s views on analogy*

In the works of Greek and Roman grammarians, the criterion of analogy was opposed to the criterion of common usage (*usus*), either in previous time (*vetustas*), in excellent writers (*auctoritas*), or in the current time (*consuetudo*).⁵⁷⁰ In discussing linguistic correctness, Quintilian subsumed

⁵⁶⁵ M.-D. Philippe, “*Analogon and analogia*”, in *The Thomist*, vol. 33, p. 25.

⁵⁶⁶ Mary Hesse, “Aristotle’s logic of analogy” (see further above), p. 333.

⁵⁶⁷ Heinrich Lausberg, *Handbook of literary rhetoric*, Leiden 1998, p. 249.

⁵⁶⁸ Haßler, “Analogie”, in Haßler/ Neis, *Lexikon sprachtheoretischer Grundbegriffe des 17. und 18. Jahrhunderts*, vol. 1, Berlin 2009, p. 657.

⁵⁶⁹ Siebenborn, *Die Lehre von der Sprachrichtigkeit*, pp. 62–63 and 83–84. See also Peter Matthews, “Greek and Latin linguistics”, in *History of linguistics*, edited by Guilio Lepschy, vol. 2, London and New York 1994, pp. 56–57.

⁵⁷⁰ Quintilian, *Inst. orat.* I, vi, 1 on the four criteria, on *vetustas* see I, vi, 39–41, on *auctoritas*, see I, vi, 42 and on *consuetudo*, see I, vi, 43–45. See also the account of Matthews, “Greek and Latin linguistics” p. 58.

the normative use of linguistic analogy, together with etymology, under the criterion of *ratio*, that is, reason or system. Defining analogy as the method of *comparatio similitum*, “a comparison of similar forms”, he allowed it a certain value in determining the correct linguistic form, namely in doubtful cases of nominal and verbal inflections, “to prove uncertain by certain forms”.⁵⁷¹ In a well-known passage, he proposed that common usage underlies analogy and that analogy did not come down from heaven as a ready-made form of language (*forma loquendi*), but was later drawn out from usage, so that “analogy is not based on reason, but on examples and is not a rule of language, but an observation”.⁵⁷² In the concluding passage on the criterion of analogy, Quintilian states: “It is one thing to speak Latin correctly and another to speak grammatically.”⁵⁷³

8.2.4 Varro's views on analogy

The Roman polymath Marcus Terentius Varro continued to use the concept of linguistic analogy to denote the relation of similarity in inflectional morphology (*declinatio naturalis*), but also applied it to derivational morphology (*declinatio voluntaria*), that is, the process of word formation.⁵⁷⁴ Shifting the focus from textual criticism and the method of linguistic correctness to the systematization of inflectional and derivational patterns of language in their own right,⁵⁷⁵ Varro used analogy as a principle for conceptualizing patterns of similarity in declension, conjugation, and word formation. Thus, he considered similarity the foundation of analogy.⁵⁷⁶ He defined analogy as inflectional morphology: “the similar inflection of similar words” (*verborum similitum similis declinatio*). Regarding linguistic usage, he revised the definition as follows: “the similar inflection of similar words not in contradiction with common usage” (*verborum similitum similis declinatio non repugnante consuetudine communi*). He allowed some poetic

⁵⁷¹ Quintilian, *Inst. orat.* I, vi, 4: “Eius haec vis est, ut id quod dubium est, ad aliquid simile, de quo non quaeritur referat et incerta certis probet” [...].

⁵⁷² Quintilian, *Inst. orat.* I, vi, 16. For an analysis of Quintilian's views on analogy with his examples, see Matthews, “Greek and Latin linguistics” pp. 58–59.

⁵⁷³ Quintilian, *Inst. orat.* I, vi, 27: “quare mihi non invenuste dici videtur aliud esse Latine, aliud grammaticae loqui.”

⁵⁷⁴ Varro, *De lingua Latina*, VIII, 21: “Declinationum genera sunt duo, voluntarium et naturale.” “There are two kinds of inflection, the voluntary and the natural.” The terms *voluntaria declinatio* and *naturalis declinatio* are defined in VIII, 22, and the question of the conformity of voluntary and natural inflection to the predominant pattern of regularity or irregularity, similarity or dissimilarity is raised in VIII, 23.

⁵⁷⁵ Siebenborn, *Die Lehre von der Sprachrichtigkeit und ihre Kriterien*, p. 65: “Es geht Varro darin nicht um die dubia und um Analogie als Erschließungsprinzip für die dubia. Vielmehr will er darin die Grundlagen zur Systematisierung des gesamten flektierbaren Sprachmaterials schaffen.”

⁵⁷⁶ Varro, *De lingua latina* X, I, 1 “ratio quae ab similitudine oriretur vocaretur analogia;” X, iv, 72 “Omnis analogiae fundamentum similitudo quaedam.”

licence in inflection and word formation by adding “within a certain range” (*ex quadam parte*).⁵⁷⁷

Varro is well known for summarizing views on analogy and anomaly as a formal debate over antagonistic principles of language. These views are set out as a controversy with arguments against analogy (*De lingua Latina*, book VIII) and against anomaly (book IX). In the concluding part (book X), Varro clarifies his views on the nature, origin, and kinds of analogy, underlining the correspondences between linguistic likeness and the proportional orderliness of nature, for instance, as observed: “in the sky, sea, and earth”.⁵⁷⁸ This trilogy is an important source on the controversy over analogy versus anomaly in antiquity.⁵⁷⁹

8.3 Classical philology in early modern times

8.3.1 General lines of conceptual development

Boccaccio’s rediscovery of Varro’s *De lingua Latina* in 1355 led to the revival of analogy as a linguistic concept. In the 16th and 17th centuries, linguistic theorists of Latin, Greek, Hebrew, and European vernaculars not only restored analogy as a principle for assessing inflectional and derivational regularity but also extended it into an instrument for conceiving and describing patterns of regularity in morphophonology, semantics, and syntax. Through this expansion into other domains, the concept changed.

In phonology, analogy was occasionally used to denote the similarity relation between voiced and voiceless consonants with the same place of articulation. However, such a phonemic distinction was apparently not given a specific term (which would have been phonological analogy), because the classicizing concept “interchange, or substitution, of letters” (*permutatio litterarum*) was too well established to be displaced.⁵⁸⁰

⁵⁷⁷ Varro, *De lingua Latina* X, iv, 73.

⁵⁷⁸ Varro, *De lingua Latina* IX, xviii, 23–xxiii, 30.

⁵⁷⁹ Robins, *A short history of linguistics* (4th ed., 1997), pp. 25–28; Peter Matthews, “Greek and Latin linguistics”, in *History of linguistics*, vol. 2, edited by Giulio Lepschy, p. 62; Vivien Law, *The history of linguistics in Europe from Plato to 1600*, Cambridge 2003, p. 49; F.H. Colson, “The analogist–anomalist controversy”, *The classical quarterly*, 13:1 (1919), pp. 24–36.

⁵⁸⁰ Analogy was applied to phonetic distinctions in the French *Encyclopédie* of Denis Diderot and Jean Le Rond d’Alembert, vol. 1, pp. 399–400; see Haßler, *Lexikon sprachtheoretischer Grundbegriffe*, vol. 1, s.v. “Analogie”, p. 661. Moreover, in his remarks on van Lennep’s treatise on analogy (*Animadversiones ad analogiam linguae Graecae*), Everard Scheidius referred to the substitution of letters as “this analogical doctrine” (*analogicae huic doctrinae*), see Scheidius (ed.), *Ioh. Dan. a Lennep. Praelectiones academicae*, Utrecht 1790, p. 233. On the concept of analogy in modern research as a correspondence of similar and isolated phonemes, see Esa Itkonen, *Analogy as structure and process. Approaches to linguistics, cognitive psychology, and philosophy of science*, Amsterdam 2005.

In morphology, the Renaissance philologists retained Greco-Roman views on linguistic analogy by conceiving it (1) as a principle of regularity in inflection and word-formation, (2) as a concept of grammatical meaning, and (3) as a criterion for linguistic correctness in uncertain forms.⁵⁸¹ The analogy of nominal declension and verbal inflection was labelled *analogia declinationis* and *analogia coniugationis*, respectively.⁵⁸² The term *analogia grammatica* was employed comprehensively. As a tool for enriching vocabulary and standardizing the orthography of European vernaculars, analogy received more attention than it did in ancient theory.⁵⁸³

In semantics, the term *analogia significationis* was used to refer to the similarity between the original meaning and secondary meanings. The term was probably borrowed from medieval logic, but its application was innovative compared with ancient and medieval semantic theory.⁵⁸⁴ In the field of syntax, the principle of regularity in syntactic structures was conceptualized as *analogia constructionis*, or, less frequently, *analogia syntaxeos*.

8.3.2 Julius Caesar Scaliger and Gerard Vossius

The Italian humanist Julius Caesar Scaliger revived the ancient controversy between analogy and anomaly in a treatise on the underlying principles of Latin, *De causis linguae Latinae* (1540).⁵⁸⁵ He defined analogy as “a likeness, according to which we deduce” – that is, derive and decline – “similar from similars” (*aequalitas quaedam, secundum quam similia ducimus e similibus*). He reviews the arguments in favour of anomaly and

⁵⁸¹ These three functions of analogy in Renaissance language studies are observed by Hans Helmut Christmann, “Zum Begriff der Analogie in der Sprachbetrachtung des 16. und 19. Jahrhunderts”, in *Stimmen der Romania. Festschrift für W. Theodor Elwert zum 70. Geburtstag*, ed. by Gerhard Schmidt and Manfred Tietz, Fulda 1980, p. 520.

⁵⁸² Johann Heinrich Zedler, *Großes vollständiges Universal-lexikon aller Wissenschaften und Künste*, vol. 2, s.v. “Analogia”, p. 35: “In der Grammatica haben wir Analogiam conjugationis und declinationis, wenn sich ein Wort nach andern conjugiren und decliniren läßt.”

⁵⁸³ Haßler, “*Lexikon sprachtheoretischer Grundbegriffe*”, Band 1, s.v. “Analogie”, p. 667. The derivational principle of analogy was emphasized by Henri Estienne, who published Varro’s *De lingua Latina* in 1573, see Haßler, *ibidem*, p. 666.

⁵⁸⁴ Haßler, “Analogie”, in Haßler/ Neis, *Lexikon sprachtheoretischer Grundbegriffe*, vol. 1, Berlin 2009, p. 668.

⁵⁸⁵ This work was reprinted in Heidelberg in 1580, 1584, 1609, 1623 and in Geneva in 1597, and has been edited with introduction, French translation and explanatory notes by Bernard Colombat and Pierre Lardet, *Jules-César Scaliger, Des causes de la langue latine / De causis linguae Latinae*, 2 vols., Geneva 2018.

those in favour of analogy, which he equates with the nature of words (*natura quaedam vocum est*).⁵⁸⁶

The Dutch humanist Gerard Vossius reinforced the concept of analogy in his theory of inflectional and derivational morphology. In his Latin grammar, *De arte grammatica libri septem* (1635), he devoted four books to analogy, which he understood as the regular morphology in the inflection and derivation of nouns and verbs.⁵⁸⁷ In reviving Varro's concept of a twofold analogy – the inflectional and the derivational⁵⁸⁸ – he paid attention to the patterns of suffixation in Latin word formation. This conforms with a general shift in the use of the concept of analogy. He also adopted Varro's views on analogy as the predominant corrective force of language. Vossius did not apply the term analogy to semantics and syntax, though he agreed with the Renaissance distinction between ordinary-regular syntax and figurative syntax.⁵⁸⁹ However, he was innovative in proposing the term “analogy” for morphology. As a branch of grammar, *analogia* should replace *etymologia*,⁵⁹⁰ which in the Middle Ages was a comprehensive term for phonology, etymology, and morphology. In early modern linguistic treatises, this proposal met with approval, for instance, from Christian Ravius.

8.3.3 *Franciscus Sanctius and Jacob Perizonius*

The nature of analogy, as a concept situated between identity and difference and between univocity and equivocality, made it useful for grappling with the semantic extension of proper meanings into transferred senses. A concept of semantic analogy gradually developed as a method for harmonizing different or contradictory secondary meanings. Schultens did not use the term *analogia significationis*, but no doubt he drew on this conceptual development in his historical etymology of Hebrew.

The introduction of the term *analogia significationis* for the relation between primary and secondary meanings is unquestionably linked to the reception and development of Greco-Roman etymology in the 16th century and to the grammatical-historical hermeneutics of biblical interpretation during the Reformation.

The concepts of semantic and syntactic analogy can be traced to the application of rationalist principles in Renaissance Latin grammar,

⁵⁸⁶ Julius Caesar Scaliger, *De causis linguae Latinae libri tredecim*, Lyon 1540, pp. 342–345 (book XIII, chapters 186–188 on anomaly) and pp. 346–349 (book XIII, chapter 189 on analogy).

⁵⁸⁷ Vossius, *De arte grammatica libri septem*, Amsterdam 1635. In subsequent editions, it was retitled *Aristarchus sive de arte grammatica libri septem*. See books 3–6, separately titled “De vocum analogia et anomalia”.

⁵⁸⁸ Vossius, *ibidem*, book III, chapter 5, pp. 20–23.

⁵⁸⁹ Vossius, *ibidem*, book 7, chapter 1, p. 1.

⁵⁹⁰ Vossius, *ibidem*, chapter 1, p. 1.

particularly in the works of the Spanish humanist Franciscus Sanctius Brocensis (1523–1600), professor of eloquence and Greek at the University of Salamanca. In his handbook of Latin syntax, *Minerva seu de causis linguae Latinae commentarius*, he introduced the rationalist method to the study of Latin semantics and syntax. His two key terms were *analogia significationum*, “the analogy of meanings”, which he used to describe the relationship between the primary meaning and secondary meanings, and *ratio grammaticae*, by which he meant the syntactic system (see below).⁵⁹¹

Sanctius based his principle of semantic analogy on the assumption that every word originally had one single meaning.⁵⁹² To confirm his assertion of an original lexical monosemy and his denial of an original equivocality, he cited Aristotle’s definition of homonymy, which he interpreted as referring to analogy rather than polysemy.⁵⁹³

Having quoted Aristotle’s *Categories*: “Homonymous is said to be that of which only the word is common, but in this word the relation (*logos*) to nature is different”,⁵⁹⁴ he argues that “homonymous” should be translated “analogue”, and that Boethius was mistaken in translating it “equivocal”. He thinks that his interpretation is necessitated by the fact that, otherwise, one would be destitute of a rule on semantic analogy (*analogiae regula*) in Aristotle’s works,⁵⁹⁵ whose views in the *Poetics* on the function of analogy in creating transferred meanings apparently escaped Sanctius’ attention.

To anticipate how the concept of syntactic analogy developed, it should be emphasized that Sanctius in his theory of syntax developed the earlier concept of *ordinary* syntax (in contradistinction to *rhetorical* syntax) into a concept of a rational and regular syntactic structure, which he termed *ratio grammaticae*, “grammatical system”.⁵⁹⁶ Sanctius’ theory on sentence

⁵⁹¹ Franciscus Sanctius, *Minerva seu de causis linguae Latinae commentarius*, book 4, chapter 15. See pp. 763–817 in the Amsterdam edition of 1752.

⁵⁹² Sanctius, *ibidem*, book 4, chapter 14, § 1.

⁵⁹³ Sanctius, *ibidem*, book 4, chapter 14, p. 740 f.: “Si quis primo intuitu nos paradoxon, non veram sententiam, proponere arbitretur, audiat Aristotelem, quem sententiae nostrae praecipuum facimus adsertorem, qui res natura diversas uno nomine posse quid vocari docet, sed per analogiam, id est comparisonem et proportionem.” “If anyone at first glance thinks that I propose a paradox rather than a true statement, let him hear Aristotle, whom I make the principal advocate of my opinion. He teaches that things that differ by nature may certainly be called by a single word, but only by analogy, that is, by comparison or proportion.”

⁵⁹⁴ Aristotle, *Categories*, 1a1–2: ὁμώνυμα λέγεται ὃν ὄνομα μόνον κοινόν, ὃ δὲ κατὰ τὸ ὄνομα λόγος τῆς οὐσίας ἕτερος. In his comments on the passage, he, however, proposes the translation “Analogia dicuntur” to render ὁμώνυμα λέγεται.

⁵⁹⁵ Sanctius (original author)/ Perizonius (commentator), *Minerva*, 9th ed., Amsterdam 1752, book 4, ch. 14, § 3, pp. 743–744.

⁵⁹⁶ Sanctius, *ibidem*, book IV, chapter 2, from which Keith Percival quoted the most pertinent passages in an article titled “Deep and surface structure concepts in Renaissance and medieval syntactic theory”, in *History of Linguistic Thought and*

structure was an important precursor to the grammar and logic of the Port-Royal school.

After Sanctius had elaborated and published the final version of his *Minerva* in 1587, the Italian humanist Caspar Scioppius republished it with brief, concise notes in Padua in 1663, followed by an edition in Amsterdam in 1664. Twenty years later, there was a demand for a new edition, for which the Dutch publisher engaged the Dutch classical philologist Jacob Perizonius⁵⁹⁷ (1651–1715) as a commentator. This resulted in the Franeker edition of 1687, with Scioppius's notes embedded in the main text in square brackets and Perizonius's comprehensive annotations in the form of footnotes. Perizonius revised and expanded his annotations in a third edition (Franeker 1702) and a fourth (Amsterdam 1714).

In the fourth edition of his commentary on *Minerva*, Perizonius defined the term analogy of meaning as follows:

Since the analogy of meaning (*analogia significationis*) is nothing but the likeness between the secondary and primary meanings, from which the former has originated through a correct and appropriate transference, this analogy cannot be established unless the word's primary meaning is first elicited and demonstrated.⁵⁹⁸

In his commentary on Sanctius' handbook *Minerva*, Perizonius thus developed the author's rationalist linguistic theory. He held the ancient views on usage and reason as the antagonistic principles of language, but thought that Classical languages conform to reason to a greater extent than to arbitrary usage, in contrast to the changing European vernaculars, which, according to his opinion, conform to usage as their guiding force. In contrast to Sanctius, he argued that usage often deviates from reason.⁵⁹⁹ In agreement with Varro, he took for granted that usage sets the standard for speakers and writers of individual languages, although usage may decay into misuse.⁶⁰⁰ He advanced innovative views on the functions of analogy as a principle for

Contemporary Linguistics, edited by Herman Parret, Berlin 1976, see p. 242, note 19.

⁵⁹⁷ Perizonius held the chair of eloquence and history in Franeker (1681–1693) and the professorship of eloquence, Greek, and history in Leiden (1693–1715).

⁵⁹⁸ Sanctius, *Minerva seu de causis linguae Latinae*, 4th ed., Amsterdam 1714, with the remarks of Scioppius and Perizonius, book I, ch. 1, note 6, p. 6. The passage reads: "At vero quum Analogia significationis nihil sit aliud, quam similitudo quaedam inter significationem secundariam et primitivam, ex qua illa recta et commoda quadam translatione sit orta, sequitur analogiam hanc constitui non posse, nisi prius eruta et probata sit primitiva vocis significatio."

⁵⁹⁹ Sanctius/ Perizonius *ibidem*, p. 6 (book III, chapter 1, note 6).

⁶⁰⁰ Sanctius/ Perizonius, *ibidem*, p. 301 (book III, ch. 3).

discovering irregular syntactic features that deviate from ordinary usage and for semantic extensions that arise from the proper meaning.

In discussing the semantic change of the proper and primary meaning, Perizonius used the term *analogia significationis*, “analogy of meaning”,⁶⁰¹ which through his authorship became more current.⁶⁰² His central assumptions can be reduced to the hypotheses that semantic development occurs through the analogical extension of the primary or proper meaning of words and phrases, and that the original and proper meaning becomes obsolete when it is replaced by a more recent meaning.⁶⁰³ As a rationalist semanticist, he presumed that the general meaning is the original one and that specific meanings develop from it.⁶⁰⁴

In applying the principle of analogy to ordinary syntax, Perizonius introduced the term *analogia constructionis* or *syntaxeos*,⁶⁰⁵ which he employed as a tool for exploring elliptic expressions.⁶⁰⁶ He shared Sanctius’ position that ellipsis contributes to the refinement of language,⁶⁰⁷ but, in contrast to him, argued that one should explain elliptic expressions by trying

⁶⁰¹ Sanctius/ Perizonius, *ibidem*, for instance, p. 6 (*analogia significationis*) p. 302 (*secundum significationis primitivae analogiae*), book IV, ch. 7, n. 15 (*analogia suae significationis*), p. 755 (*analogia quaedam significationis*), p. 758 (*analogia porro significationis*), and p. 836 (*significationis analogia*).

⁶⁰² Zedler, *Großes vollständiges Universal-lexikon*, vol. 2, p. 35, s.v. Analogia, refers to Perizonius’ definition of analogy in the passage quoted above: “Insonderheit aber ist die Analogia significationis zu mercken, wenn man die abstammenden Redens-Arten mit dem ersten Ursprung zusammen hält. [...] Beziehe hiervon Perizonium ad Sancti Minervam, L. 1, n. 6.”

⁶⁰³ Sanctius/ Perizonius, *ibidem*, p. 280 (book III, ch. 2, n. 3): p. 789: “a qua analogica et primitiva istius phraseos significatione ortae sunt et profectae reliquae [...], “propria et prima significatio saepe prorsus sit per recentiore oblitterata;” Other instances of such asemanic reasoning are found on p. 351 (book III, ch. 3, n. 81) and p. 789 (book IV, ch. 15, n. 10).

⁶⁰⁴ Sanctius/ Perizonius, *ibidem*, p. 380 (book III, chapter 3, note 78): “ab hac laxa et lata significatione devenit ad magis peculiarem et usitatam.”

⁶⁰⁵ Sanctius/ Perizonius, *ibidem*, p. 310 (*constructionis analogia*), p. 359 (*constructionis analogia*), p. 417 (*analogia significationis et constructionis*), book III, ch. 14 on conjunctions (*ratio et analogia syntaxeos*), book IV, ch. 1, n. 1, (*analogiae linguae Latinae seu ratio grammatica constructionum et significationum*), p. 530 (*analogia syntaxeos grammaticae*). Sometimes, on p. 258 and p. 534, *analogia grammatica* is used as a synonym for *analogia constructionis*. Since Perizonius’ terminology has not previously been made clear, I have added the terms he used in brackets.

⁶⁰⁶ Sanctius/ Perizonius, *ibidem*, p. 704: “Quid haec pertinent ad indagandam primitivam voculae naturam et significationem et constructionis ellipticae rationem?”

⁶⁰⁷ Sanctius/ Perizonius, *Minerva*, fourth edition, 1714 book IV, ch. 1, n. 1: “Patet enim ex iis [exemplis], quanto brevius et simul venustius et concinnius loquamur per ellipsin, quam si plenius omnia absque ea efferre velimus.”

to reconstruct the ordinary complete phrases, while admitting that the analogy of syntax is not reconstructible in many elliptic expressions.⁶⁰⁸ In his account of ellipses, he often took a position different from both Sanctius and Scioppius.

Perizonius' use of analogy as a model for morphological, semantic, and syntactic reconstruction represented a conceptual advance. On account of this, Pieter Verburg concludes:

When Perizonius sets out to make reconstructions of earlier linguistic forms, using analogy as the guiding principle, he no longer regards analogy as the identification of a consistent regularity underlying the forms of words, but as a principle of linguistic structure. He clearly regards analogy as serving these purposes at the same time.⁶⁰⁹

Perizonius did not, however, use his principles of analogy to develop an integrated system of rationalist Latin grammar. Instead, he presented his new interpretations and views as annotations, arguing that it was preferable to provide a commented re-edition of an established work rather than burden the learned world with a new publication on the same topic. This approach reflects the evident popularity of Sanctius' *Minerva* in the latter half of the 17th century.

8.3.4 Tiberius Hemsterhuis

Perizonius' new conceptions of the use and function of analogy were adopted by Tiberius Hemsterhuis and Albert Schultens, and by their pupils, in their respective schools of etymological research into Greek and the Semitic languages. According to Pieter Verburg, the Hemsterhusian school followed the principles "not of axiomatic, but of pragmatic rationalism".⁶¹⁰

Hemsterhuis did not publish any work on his etymological research, but a number of records of his public and private lectures survive.⁶¹¹ One of them is the main source of his linguistic thought. Titled *Lectio publica de*

⁶⁰⁸ Sanctius/ Perizonius, *ibidem*, p. 531: "Immo vero recesserint aliquando ellipticae locutiones a primitiva constructione et significatione." p. 534: "Nihil itaque mirum reperiri certas plane ellipses, quas tamen nunc ex analogia grammatica expedire et supplere nescimus." Book IV, chapter 7, n. 15, p. 703: "sunt tamen nonnullae etiam locutiones, in quibus supplementum ex hac analogia reperire vix ullum possis" [...].

⁶⁰⁹ Pieter A. Verburg, *Language and its functions*, Amsterdam 1998, p. 445.

⁶¹⁰ Verburg, *Language and its functions*, p. 445.

⁶¹¹ For a list of these records, see the bibliography under the entry Hemsterhuis in Bouke Slofstra's edition and translation of Tiberius Hemsterhuis's *Lectio publica de originibus linguae Graecae*, Amsterdam and Münster 2017, pp. 164–166. The records, for the most part, comprise lectures on Greek antiquities and on Classical Greek authors, such as Homer, Aeschines, Callimachos and Aristophanes. Only a few dictates are about linguistic matters.

originibus linguae Graecae, it was first published in 1845⁶¹² from a student's record "like a plank saved from a shipwreck", to give an insight into what Hemsterhuis taught his students and to provide the very source from which his pupils deduced their ideas on analogy.⁶¹³ As a professor of Greek in Leiden, Hemsterhuis publicly lectured on the origins of the Greek language two days a week – on Mondays and Tuesdays – for at least twenty-two years, from the spring semester of 1742, if not earlier, until the spring semester of 1764.⁶¹⁴ Hemsterhuis probably delivered his *Lectio publica* as part of this series of courses on Greek etymology. He had most likely also lectured on analogy during his twenty years at the University of Franeker.⁶¹⁵

Hemsterhuis set out from pragmatic-rationalist bases, to which he, at variance with Perizonius, added empiricist assumptions about semantic development "from concrete sensible objects to general ideas, and not vice versa".⁶¹⁶ In his public lecture on the origins of Greek, he agreed with Varro and Vossius in attributing the principle of analogy to inflectional morphology, including verbal conjugation and nominal declension, and to word formation.⁶¹⁷ He agreed with Sanctius and Perizonius in applying it to

⁶¹² The edition was prepared by the Frisian philologist Joast Hiddes Halbertsma (1789–1869), who acquired the manuscript at the 1828 auction of the library of Everwinus Wassenbergh and published it in *Letterkundige naoogst*, vol. 2, Deventer 1845, pp. 324–370. Halbertsma belonged to the Hemsterhusian school; see Anthonia Feitsma, "Schoola Hemsterhusiana, J.H. Halbertsma and Jacob Grimm", the introductory article to the reprint of the 1845 edition: *Lectio publica Tiberii Hemsterhusii de originibus linguae Graecae*, Amsterdam and Münster 1997, pp. 31–38.

⁶¹³ J.H. Halbertsma, "*A plank I saved from a shipwreck*". *Habertma's commentary on T. Hemsterhuis's Lectio publica de originibus linguae Graecae. Introduction by Alpita de Jong. Text edition and translation by Bouke Slofstra*, Amsterdam and Münster 2017, p. 22 f. In the preface, Habertsma states: "Tabulam igitur, qua, ex naufragio servavi, et nihil praeter tabulam, tamquam specimen quaecunque navis instructissimae oculis doctorum expono." In Slofstra's translation: "So, it is a plank that I saved from a shipwreck, and nothing but a plank, that I am exposing to the scholars' eyes, like a remnant of some very well provided ship." He also declares his purpose to publish a document that testifies to the history of Greek studies and makes available the principles Hemsterhuis inculcated in his students, and explains how he did so. In the preface, he reminds readers that no one before him "has ever thought of publishing a specimen from Hemsterhuis, as the source from which others have derived their thoughts."

⁶¹⁴ Philipp Christian Molhuysen, *Bronnen*, vol. 5 (1725–1765), see the accounts of "Series lectionum" from p. 143 (February 1742) to p. 212 (February 1764). The recurring information about this academic course is as follows: "D. Tiberius Hemsterhusius diebus Lunae et Martis origines explanabit Graecae linguae".

⁶¹⁵ Halbertsma, "*A plank I saved from a shipwreck*" (2017), p. 16.

⁶¹⁶ Hemsterhuis, *Lectio publica de originibus linguae Graecae*, in Bouke Slofstra's edition and translation in 2017, see the editor's introduction, p. 17.

⁶¹⁷ Hemsterhuis, *Lectio publica*, 2.3.

the process of semantic development, but, most importantly, differed from them in his views on the direction of sense development from natural referents (*a rebus naturalibus*) to figurative meanings (*figurae orationis*), by which all languages are refined and cultivated. He went beyond Sanctius and Perizonius in conceiving analogy as a general generative principle for syntactic structures (*tota orationis structura*).⁶¹⁸

To continue, Hemsterhuis also transformed the concept of analogy by making it an internal principle (*principium internum*) of the human mind, which he argued manifests as an external formative principle of regularity in the conjugation of verbs, the inflection of nouns, derivatives, and syntactic structure.⁶¹⁹ In this manner, he claimed that analogy is the common foundation of all languages, in its capacity as a universal quality of language, both internally and externally.⁶²⁰ Analogy was imprinted by God as a language capacity in the human mind. As an internal principle, analogy guides all human thoughts and actions – “whatever is expressed by the mouth or done by the hands, body, and the mind”.⁶²¹ In treating analogy or proportionality as the guiding principle in conduct and reasoning, he may have been inspired by Aristotle,⁶²² but he differed from Aristotle by regarding analogy as the general regularity of language rather than merely a means of generating transferred meanings.

Hemsterhuis was able to integrate his universalist linguistic principles with a particularistic approach to Greek studies. He combined the two opposing methods by allowing different systems of analogy across the particular languages. Although analogy is a stable principle across all languages, he contends that “it does not exclude a different system (*ratio*)

⁶¹⁸ Hemsterhuis, *Lectio publica*, 2.3, 3.2, 11.3 and 70.1. He does not compare his conceptions of analogy with those of his predecessors, except to note that Gerard Vossius did not apply the principle of analogy to etymological semantics in his Latin etymological dictionary, *Etymologicon linguae Latinae* (published in 1662 by Isaac Vossius), see 34.1: “Id mirum videtur in tam docto homine, et res est mirabilis, Vossium ipsum illum, qui de analogia eruditissime scripsit analogiam neglexisse in expediendis linguae Latinae et Graecae etymologiis.” In Slofstra’s translation: “It looks strange in the case of such a learned man, and it is a remarkable fact indeed! that the very Vossius, who wrote on analogy very intelligently, neglected analogy in analysing Latin and Greek etymologies.”

⁶¹⁹ Hemsterhuis, *Lectio publica*, 2.2.

⁶²⁰ Hemsterhuis, *Lectio publica*, 2.1, 2.2, and 69.1.

⁶²¹ Hemsterhuis, *Lectio publica*, 2.1: “Infixum scilicet nobis hominibus a summo rerum auctore Deo principium aliquod tanquam norma analogica, ad quam expeditur et explorentur non tantum actiones humanae, sed et quidquid ore profert, quidquid manibus, quidquid corpore menteque agit. Hoc principium analogiae internum omnibus est infixum et additum.”

⁶²² Robins, *A short history of linguistics*, 4th ed. London & New York 1997, p. 28, with a reference to Aristotle, *Nicomachean Ethics* (1131a 29, 1131a 31, 1096b 28, and 1106a 36).

and origin (*origo*) of the different languages themselves.”⁶²³ If languages diverge in their inflectional and derivational morphology, they have different systems of analogy. In investigating the origins of languages, one should confine oneself to the varieties within each system, he says.⁶²⁴ The traces of historical relationships allow us to discover the origins and kinship of languages. By these criteria, he maintained that Hebrew should not be compared with Greek, as scholars had done since the Reformation, but that the Oriental languages are related to each other as dialects and thus comparable. In Greek etymology, one should confine oneself to the ancient varieties of Greek, namely Ionic, Attic, Aeolic, and Doric, and also to Latin, in its assumed capacity of being the daughter language of Aeolic.⁶²⁵ The four main dialects of Ancient Greek are the result of historical diversification from the earliest unitary form, which split into Ionic and Aeolic; from these, Attic and Aeolic emerged.⁶²⁶

8.3.5 Hemsterhuis’ pupils: Valckenaer and van Lennep

Two students of Hemsterhuis – Ludowijk Caspar Valckenaer (1715–1785) and Daniel Jan van Lennep (1724–1771) – used the concept of analogy in their study of Greek morphology. Valckenaer succeeded Hemsterhuis to the chair of Greek at Franeker in 1740 and at Leiden in 1766. Van Lennep was appointed professor of Greek in Groningen in 1752.⁶²⁷ Both of these scholars acknowledge the importance not only of Hemsterhuis as their teacher but also of Schultens as a proponent of the concept of analogy.

In his inaugural lecture on analogy (on 12 September 1752), van Lennep praises analogy as a tool for morphological research and as an effective pedagogical means for language learning.⁶²⁸ He views the relationship between the primitive word and its derivatives as “a wonderful agreement and an almost mathematical proportion”.⁶²⁹ He tries to reconcile the tension between the principles of usage and those of analogy so that the former yields great utility, while the latter yields the greatest utility. He continues

⁶²³ Hemsterhuis, *Lectio publica* 42.5: “haec tamen analogia in omnibus linguis constans non expellit diversam rationem et originem diversarum ipsarum linguarum.”

⁶²⁴ Hemsterhuis, *Lectio publica*, 43.4: “Hinc concludimus origines linguarum esse exquirendas in uniuscuiusque linguae sinu secundum rationem analogicam excusso.” “Therefore, we conclude that one has to search for linguistic origins in the heart of the language itself while following the system of analogy.”

⁶²⁵ Hemsterhuis, *Lectio publica*, 43.1–43.2. Dionysius of Halicarnassus is one of the Greco-Roman exponents of the position that Latin derived from Greek.

⁶²⁶ Hemsterhuis, *Lectio publica*, 63.1–63.4.

⁶²⁷ *Nieuw Nederlandsch Biografisch Woordenboek*, s.v. Lennep, pp. 1271–1272.

⁶²⁸ van Lennep, *Oratio inauguralis de linguarum analogia ex analogicis mentis actionibus probata*, Groningen 1752, p. 4 (lines 11–20) and p. 5.

⁶²⁹ van Lennep, *ibidem*, p. 4 (lines 17–18): “admirabilem convenientiam et propemodum mathematicam proportionem”.

his argument as follows: If analogy is underrated, we will go astray as in the labyrinths of anomaly, when we examine word forms and explore word meanings. If analogy is taken away, this would be comparable to removing sunlight from the earth, or to removing the nature of our minds and the qualities impressed by God in them.⁶³⁰

In his academic lectures, van Lennep was the first in the 18th century to classify the three principal meanings of analogy as a linguistic concept. In the treatise *De analogia linguae Graecae* (“On the analogy of the Greek language”), he defines linguistic analogy as “the mutually apt and stable similarity and agreement of all words being distributed into different kinds and making up a language, of the meanings attached to them, and finally of the phrases and all syntactic structure.”⁶³¹ He rejects the ancient definition of analogy as “the similarity of words (*similitudo vocum*) or the comparison of similar forms (*comparatio similium*)”. In his opinion, it does not do justice to the semantic and syntactic aspects of this concept, since it does not pay regard to the meanings – whether proper or metaphorical – that are associated with single word forms, nor to the entire system of composing speech.⁶³² After arguing that analogy is founded on the nature of the human mind and that meanings, as well as syntactic patterns, depend on “the internal actions of the human mind”, van Lennep proposes a tripartition of the term analogy:

Thus, analogy can appropriately be divided into three parts: the first concerns the rules of word formation; the second concerns the determination of meanings, or rather, it teaches the ways in which metaphorical meanings derive from proper and physical meanings, which underlie the primitive words, through various inflections or derivative forms; and the third refers to the rules of forming speech and clarifies the nature of phrases. Among these parts, the first describes the external form of language, the second the internal form, and the third pertains to both.⁶³³

⁶³⁰ van Lennep, *ibidem*, p. 6 (lines 8–12).

⁶³¹ van Lennep, *Praelectiones academicae de analogia Graecae linguae sive rationum analogicarum expositio*, 2nd ed., Utrecht 1790, p. 23: “Observo analogiam in linguis dici vocabulorum, quae linguam constituent, omnium, in certa genera distributorum, et significationum, iis adiunctorum ac denique phrasium totiusque constructionis aptam inter se et constantem similitudinem atque convenientiam.” In the first edition titled *In analogiam linguae Graecae* (Utrecht 1779), this passage is found on pp. 26–27.

⁶³² van Lennep, *Praelectiones academicae de analogia Graecae linguae*, p. 23.

⁶³³ van Lennep, *Praelectiones academicae de analogia Graecae linguae*, p. 24: “In tres itaque partes commode dividi analogia potest: quarum prima vocabulorum formandorum leges spectat; secunda in determinandis significationibus versatur sive docet, quibus modis a propriis et corporeis significationibus, quae verbis primitivis subjiciuntur, metaphoricae, per varios derivatorum flexus et formas profluxerint;

Verburg concludes that the concept of analogy underwent a development from antiquity to the Classical philology of the 18th-century Dutch Republic. With reference to van Lennep's aforementioned lectures on analogy, he states:

The term "analogy" in these lecture notes was no longer the ancient one of Alexandria, of Varro, and of Vossius, for something else had been added – or rather had become mingled with it – notions derived from the methodology of natural sciences as generally known at the time. As a result, the concept of analogy in linguistics was no longer restricted to mutual correspondences between individual words in inflection or composition, but embraced much more.⁶³⁴

After the decline of Cartesian science in the first quarter of the 18th century, mathematical principles could no longer maintain their methodological supremacy and yielded to empirical certainty as the new method. Analogy was proposed as "a new non-mathematical approach to the rationalists' common goal of certainty".⁶³⁵ Dutch natural scientists were at the forefront of this shift towards analogy as the new methodological principle. Analogy thus became a fashionable term in Dutch empiricism. It was used by Boerhaave in his programmatic speech in 1715 and was later frequently employed by Musschenbroek.⁶³⁶ Linguistic scholars of Greek and Semitic languages were receptive to the new trend. In turn, the French Enlightenment borrowed the concept of analogy from Dutch scholars and scientists.⁶³⁷

tertia denique pars construendae orationis leges phrasiumque naturam exponit. Harum partium prima externam linguarum formam describit; secundo internam; tertia vero ad utramque pertinet." Cf. Gerretzen, *Schola Hemsterhusiana*, (1940), p. 323, and Verburg, *Language and its function*, p. 447, where this passage is summed up as "(1) laws of word-formation, (2) how meanings have evolved and developed from primitive words, and (3) the rules or principles of constructing speech". Van Lennep comments in more detail on the first two aspects of analogy (*formatio verborum et significandi ratio*, word formation and semantics) in a set of general rules, *Observationes ad stirpes linguae Graecae*, which serves as the author's prolegomena to his etymological dictionary of Greek, *Etymologicum linguae Graecae*, published by Scheidius in 1790. In rule no. VII he uphold his semantic principle: "Notiones verborum propriae omnes sunt corporeae sive ad res pertinentes, quae sensus nostros externos feriunt. Quibus autem alia notio subiecta est, ea omnia translata sunt et figurate sumta." "The meanings of words are all material or pertain to things that strike our external senses. If other meanings are added to them, all of them become transferred and figurative."

⁶³⁴ Verburg, *Language and its function*, pp. 446–447.

⁶³⁵ Verburg, *ibidem*, p. 450.

⁶³⁶ Gerretzen, *Schola Hemsterhusiana*, pp. 11 and 256.

⁶³⁷ Verburg, *ibidem*, p. 383.

8.4 Hebrew grammar-writing in early modern times

8.4.1 Buxtorf the Elder and Christian Ravius

Before the development of semantic linguistic ideas about analogy, proposed by Hemsterhuis' pupils, Hebrew grammarians used analogy to refer to the regular morphophonological structure governing vowel changes of single words. In his Hebrew grammar, *Thesaurus grammaticus* (1609), Johannes Buxtorf the Elder made use of the concepts of *analogia grammatica* and *analogia flexionis*. In the preface, he underlines that he has attempted to bring irregularities ("exorbitantia") under the principle of analogy.⁶³⁸

Christian Ravius (1613–1677) likewise applied the concept of analogy to his Hebrew grammar, terming the principle of regularity *analogicum* and that of irregularity *anomalicum*.⁶³⁹ After stating that grammarians falsely make analogy out of anomaly, and vice versa,⁶⁴⁰ he defines analogy and anomaly: "In my opinion, the analogy is that which preserves the tenor across all idioms of the holy Oriental language. An anomaly is whatever is particular to the individual languages (as far as they ought to be called languages), so that nothing is common except the accidents."⁶⁴¹ As a rationalist linguistic theorist and a post-Ramist Comenian educationalist, he claims that the inflectional morphology of Hebrew conforms to an entirely regular pattern, when he declares: "Nouns and verbs are perfect; none is imperfect, and everyone is analogous, none anomalous. The analogy of nouns and verbs consists either in consonants, in accents, or in vowels. A fourth category does not exist."⁶⁴² Regarding the term *analogia*, Ravius used

⁶³⁸ Johannes Buxtorf the Elder, *Thesaurus grammaticus linguae sanctae Hebraeae*, Basel 1609, dedicatory letter, page marked as): (5 verso, where the innovation is described as follows: "Linguam Hebraeam perspicua et continenti praeceptorum nunc serie explico, exemplis illustro, ex usu varie confirmo et exorbitantia quaeque ad analogiam reduco." "I here explain the Hebrew language in a clear and continuous series of rules, illustrate it by examples, confirm it in various ways from usage, and reduce everything exorbitant to the principle of analogy." Schultens possessed Buxtorf's *Thesaurus grammaticus* in the octavo-sized 1663 edition. See *Pars bibliothecae Schultensianae*, p. 48, no. 137 in octavo.

⁶³⁹ Ravius, *Orthographiae et analogiae (vulgo etymologiae) Ebraicae delineatio*, Amsterdam 1646, pp. 84–96.

⁶⁴⁰ Ravius, *ibidem*, p. 90: "facientes ex analogico anomalicum et vicissim ex anomalico analogicum."

⁶⁴¹ Ravius, *ibidem*, p. 90: "Id autem mihi analogicum est, quod tenorem servat per omnia linguae sacrae Orientalis idiomata. Anomalicum est, quidquid in singulis linguis (dum linguae vocandae sint) ita proprium sit, ut cum nulla sit commune, nisi per accidens."

⁶⁴² Ravius, *ibidem*, p. 84: "Nomina et verba sunt perfecta, nulla imperfecta et omnia analogia, nulla anomala. Analogia nominum et verborum consistit vel in consonis aut accentis aut vocalibus; quartum non datur."

it only to refer to morphology.⁶⁴³ He presupposed a morphological regularity in the formation of roots in Hebrew and Arabic. On this basis, he sought in various ways to calculate the exact number of Semitic roots.⁶⁴⁴

8.4.2 Alting, Cocceius, and Spinoza

As a Hebrew grammarian, Jacob Alting had a great impact on Schultens. His *Fundamenta punctuationis* first appeared in 1654 and later in a third, expanded edition in 1675, which Schultens possessed⁶⁴⁵ and used as a starting point for teaching Hebrew grammar. Alting endeavoured to reduce the number of rules and to mitigate their complexity. Schultens considered Alting the foremost grammarian of the rationalist school: “Among those who have attempted to make this part of Hebrew grammar firm by certain rules and to fix the confused rules of the rabbis, our famous Alting deserves pre-eminence.”⁶⁴⁶ He defended Alting’s achievements as follows: “There are other grammars derived from his that exhibit greater abstraction and subtlety, but not greater enlightenment or a more appropriate method.”⁶⁴⁷

Schultens never refers to Johannes Cocceius’ outline of a Hebrew grammar, written as comments on Buxtorf’s Hebrew grammar,⁶⁴⁸ in which Cocceius argues that the Hebrew language conforms to the pattern of general regularity (*analogia sermonis*) and that the logical analysis of the contents (*analogia contextus*) aids interpretation.⁶⁴⁹ Cocceius attempted to bring Hebrew into closer alignment with a morphophonemic regular structure and used analogy to analyse the accent system, vowel changes, and the vowel patterns of weak verbs.⁶⁵⁰ Cocceius also drafted a short treatise on the usefulness and teaching method of Biblical Hebrew, in which he states that grammatical rules are more concise than those of other languages and

⁶⁴³ Ravius, *A generall grammer*, London 1650. He used analogy in the Varronian sense of derivational and inflectional morphology.

⁶⁴⁴ See further Eskhult, *Albert Schultens as an innovator*, Vol. 2, Section 6.3.5. Cf. my article “Ravius’ Turcic and Semitic studies”, pp. 58–59.

⁶⁴⁵ See *Pars bibliothecae Schultensianae*, Leiden 1750, p. 48, no. 136, in octavo.

⁶⁴⁶ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 128 (note 1): “Inter eos, qui hanc grammatices Hebraeae partem certis regulis stabilire et solutas Rabbiorum scopas vincere, conati sunt, palmam haud dubie meretur clarissimus noster Alting.”

⁶⁴⁷ Schultens, *ibidem*, p. 128 “Extant aliae grammaticae, ex ipso derivatae, in quibus maior adhuc abstractio et subtilitas, non maior lux nec concinnior methodus.”

⁶⁴⁸ Johannes Cocceius, “Observationes ad clarissimi Johannis Buxtorfi Epitomen grammaticae Hebraeae”, in *idem, Opera omnia*, 3rd ed., vol. 9, Amsterdam 1701, pp. 267–280.

⁶⁴⁹ Cocceius, “Observationes”, p. 267.

⁶⁵⁰ Cocceius, “Observationes”, pp. 268–269 and pp. 275–276.

that Hebrew has a regular structure that can be presented in a few rules, as briefly and clearly as possible.⁶⁵¹

In his unfinished Hebrew grammar, *Compendium grammatices linguae Hebraicae*, published posthumously in 1677, Baruch Spinoza set out from the principle that Ancient Hebrew, as a living language, conformed to morphological regularity and that grammar-writing should be brought into consistency with this principle. He certainly did not use the term "analogy" often, but his grammar is an exercise in the emerging rationalist tradition of Hebrew grammatical writing. Schultens possessed Spinoza's Hebrew grammar.⁶⁵²

8.4.3 Wasmuth, Pfeiffer, Löscher and Hiller

In his *Hebraismus restitutus* (1666), Matthias Wasmuth continued Alting's pedagogical enterprise of subsuming detailed rules under a limited number of general ones, as did also his followers Johann Andreas Danz in *Literator Ebraeo-Chadaeus* (1696) and Matthäus Hillerus in *Institutiones* (1711).⁶⁵³ Schultens no doubt aims at these grammars as those of a higher abstraction and refinement in the quotation above (Section 8.4.2).

In an academic dissertation on the analogy of the holy language in the form of questions and answers, August Pfeiffer used the term "analogy" as a designation for morphology and morphophonology. He divided it into general and particular aspects. The general sense comprises grammatical accidents (such as the inflection of gender and number in Hebrew), verbal conjugation, stem formation, and the grammatical rules governing changes in consonants and vowels. The particular sense is the discussion of the parts of speech.⁶⁵⁴ The treatise raises twenty-three questions. The second is: Are there any anomalies in Hebrew? In the fourth question, he asks: Is every Hebrew root a verbal one? In the fifth question, he enquires whether every Hebrew root is triconsonantal.

Within a rationalist approach to Hebrew grammar, Valentin Ernst Löscher developed the concept of *analogia* in a specific hermeneutical context, aiming to refute the criticism that Hebrew is characterized by

⁶⁵¹ Cocceius, "Exercitatio de lingua Hebraeae analogiae, utilitate et necessitate et discendi methodo" (written c. 1646), in Cocceius, *Opera anecdota theologica et philologica*, Amsterdam 1706, p. 508: "Est autem Hebraea lingua in hac parte longe compendiosior aliis linguis et paucis observationibus analogia constat. [...] Nos operam semper dedimus, ut analogia brevissime et maxime perspicue explicanda."

⁶⁵² *Bibliothecae Schultensiana*, p. 524, nr. 3418: *Compendium grammatices linguae Hebraeae* (sine loco annique indicio, auctore B. de Spinosa).

⁶⁵³ Matthaeus Hillerus, *Institutiones linguae sanctae, quibus analogia hebraismi ad breves easdemque generales et nullis impeditas exceptionibus regulas revocatur* [...], Tübingen 1711.

⁶⁵⁴ August Pfeiffer (pres.)/ Johannes Schreiber (resp.), *Dissertatio philologica de analogia linguae sanctae*, Wittenberg 1663, p. A verso (that is, p. 2), theorem no. 5.

morphological irregularity and semantic ambiguity, a criticism put forward by Louis Cappel, Richard Simon, Baruch Spinoza, Jean Le Clerc, and Marcus Meibom. According to Löscher, these critics argued that the transmitted text of the Hebrew Bible provided only a Masoretic understanding of the language (*lingua Masoretica*) and that it differed from Ancient Hebrew. In Löscher's opinion, the Masoretic text certainly mirrors the usage of the Masoretes yet preserves the true character of Hebrew (*verus Ebraismi genius*) for two reasons. The first point is that it is possible to transmit a correct text even in times of linguistic barbarity and ignorance, just as the works of Cicero and Livy were preserved in the Middle Ages.⁶⁵⁵ The second reason is drawn from the regularity (*analogia*) in Hebrew morphology and semantics. Löscher argues that the transmitted text allows us to conclude that Ancient Hebrew was a regular and precise language:

Analogy is definitely twofold. One is the grammatical analogy, in which everything can be reduced to rules and arranged safely, so that we may establish fair and firm underlying principles of idioms and inflections from the nature of the language. The other is the logical analogy, in which words and phrases are brought to such a state that, firstly, the objection of ambiguity is refuted, and, secondly, no statement appears unnecessary or vain. Both of these analogies should be asserted regarding Hebrew, so that its actual form and bright appearance are shown.⁶⁵⁶

With reference to *Tractatus theologico-politicus* (ch. 8), Löscher infers that Spinoza, “the enemy of revealed truth” (*hostis revelatae veritatis*),⁶⁵⁷ did not recognize the syntactic regularity and semantic clarity of Ancient Hebrew, implicitly because he failed to apply the principle of grammatical and semantic analogy to this language.

Summing up the contents of *De causis linguae Ebraeae*, Löscher asserts that each chapter – on vowel points, accentuation marks, the meanings of the derivative stems (*binyānīm*), as well as the tenses, genders, numbers, the construct state, and the prefixes and particles – aims to set Hebrew free from the charge of irregularity and semantic ambiguity. The reasons why Hebrew has been deemed irregular, Löscher continues, are as follows: we judge it by the principles of European languages; we have too thin and meagre an idea of it; we see most of it through the prism of irregularity; and we do not

⁶⁵⁵ Löscher, *De causis linguae Ebraeae* libris III, book 3, pp. 438–439.

⁶⁵⁶ Löscher, *De causis*, p. 447: “Analogia quidem duplex est, altera grammatica, quando ad regulas omnia reduci et in tuto collocari possunt, ut iustas constantesque locutionum et flexionum causas ex linguae natura dare possimus; altera logica, quando voces phrasesque ad eam conditionem perducuntur, ut ambiguitati primum occurratur, deinceps nihil inaniter inepteque dictum esse appareat. Utraque analogia asserenda Ebraismo est, ut vera eius forma ac serenior facies eniteat.”

⁶⁵⁷ Löscher, *De causis*, pp. 447–448.

endeavour to bring it back to regularity (*analogia*).⁶⁵⁸ Löscher directed his arguments against Spinoza and other critics. His aim was to disarm Spinoza.

Löscher's views on Hebrew analogy (that is, regularity) as a combined hermeneutical and linguistic concept undoubtedly influenced Schultens, who owned several of Löscher's linguistic writings and read *De causis linguae Ebraeae* attentively.⁶⁵⁹

The German theologian and philologist Matthäus Hillerus (1646–1725) continued the rationalist grammatical tradition, advancing it through his emphasis on linguistic regularity. Schultens possessed Hillerus' Hebrew grammar, *Institutiones linguae sanctae* (1711),⁶⁶⁰ and referred to it no fewer than 22 times in his own Hebrew grammar (1737).⁶⁶¹

⁶⁵⁸ Löscher, *De causis*, p. 448.

⁶⁵⁹ A. Schultens' private copy of *De causis linguae Ebraeae* was much annotated by him: "veel beschrapt door A. S." See *Bibliotheca Schultesiana*, p. 526, nr. 346.

⁶⁶⁰ *Bibliotheca Schultesiana*, p. 548, no. 6164: "Matt. Hilleri Institutiones linguae sanctae, ibid. [= Tubingae/ Tübingen] 1711."

⁶⁶¹ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, pp. 22, 24–25, 27–30, 40–41, 43, 51, 55, 57, 70–72, 77–80, 81, 89–90, 97 and 446.

9. Etymology: Ancient tradition and 17th-century renewal

9.1 Greco-Roman views on language

9.1.1 General theory about language

From Greco-Roman antiquity to the 18th century, Western scholars shared a common theory of language, based on the following assumptions:

- first of all, the distinction between the extra-linguistic referent (*res*) as the signified content and the words (*verba*) as the signifier;⁶⁶²
- secondly, the distinction between words as single elements (*verba singula*) and as components, that is, words joined together (*verba coniuncta*) into a statement;
- thirdly, the opinion that the single word is the basic meaningful unit of language (a guiding idea of the Alexandrian grammarians) and that it is more important than its morphological and phonetic constituents (i.e. the syllables and the speech sounds) and than the smallest syntactic unit (i.e. the clause);⁶⁶³
- fourthly, the distinction between grammatical and rhetorical qualities of language.

The grammatical and rhetorical qualities served different functions: the grammatical qualities aimed to make communication possible, while the rhetorical qualities were intended to make communication effective.⁶⁶⁴ This distinction reflects the distinct domains of grammar and rhetoric. Grammar was defined as “the art of speaking correctly” (*ars recte loquendi*), while rhetoric was held to be “the art of speaking well” (*ars bene dicendi*).

On the grammatical level, language had two qualities, the first of which was correctness, termed Ἑλληνισμός (*Hellenismós*) in the Greek speech community and *Latinitas* in the Latin speech community. The second grammatical quality was clarity or transparency (σαφήνεια, *perspicuitas*).

⁶⁶² In Stoic theory, the semantic terms were σημαίνόμενον, “the signified”, that is, “the meaning”, and σήμαινον, “the signifier”.

⁶⁶³ The theory of a progressive nature of language – from the smallest unity of speech sound over the meaningful word to the verifiable statement – was first developed by Stoic philosophers and was subsequently integrated into the grammatical tradition.

⁶⁶⁴ Frederick M. Renner, *Interpretatio. Language and translation from Cicero to Tytler*, 1989, p. 15.

On the rhetorical level, language has two other qualities, namely an embellished style (κόσμος, κατασκευή, *ornatus*) and an apt style (*aptum*). An embellished style gave rise to a variety of diction, the qualities of which were perceived as lexical richness (*copia*), dignity (*dignitas*), and impressiveness (*gravitas*). Schultens maintained that an etymological study revealed that Hebrew possessed these qualities.

9.1.2 Theory about linguistic expression in public speaking

In the ancient theory of linguistic expression (*elocutio*), the grammatical and rhetorical qualities of language were classified as virtues of public speaking (*virtutes elocutionis*). Drawing on Cicero's and Quintilian's rhetorical treatises,⁶⁶⁵ the qualities, or virtues, of correctness, clarity, and embellished style were divided according to the dichotomy between individual words and words joined together in a clause or sentence.

The linguistic correctness of individual words was divided into three morphophonemic levels:

- a correct morphophonology, *locutio Latina*,
- a correct vocabulary, *verba Latina*,
- a correct prosody, *emendata vocum explanatio* (that is, a distinct articulation and correct pronunciation of words), which consists of vowel quantity, intonation, and stress.

The linguistic correctness of words joined together was defined as correct inflection and correct syntax, both of which were termed *verba emendata* or *locutio emendata*.

Clarity of single words was classified into two qualities:

- a precise or natural word meaning, *proprietas*, *verbum proprium* or *verbum significans*, and
- a clear word meaning, *verbum perspicuum*.

Clarity of words joined together was defined as clear syntax and termed *verba perspicua* or *sermo dilucidus*.

The ornate style of single words was, in the main, equated with the use of tropes, that is, a semantic shift from the proper or natural meaning. The ornate style of syntax was defined as a departure from the common or natural syntax. It consisted of figures of speech (*figurae verborum*), figures of thought (*figurae sententiarum*), and an elaborate sentence structure with three subqualities, viz. symmetry (*concinnitas*), euphony (*suavitas*), and

⁶⁶⁵ Cicero, *De Oratore*, book 3: on *latinitas* §§ 38–47, on *perspicuitas* §§ 49–51, on *ornatus* §§ 96–208, and on *aptum* §§ 210–212; *Orator*, for the qualities of the plain style, see §§ 76–79; *Brutus*, occasional remarks on linguistic correctness, e.g., § 158, and linguistic *urbanitas*, i.e. refinement of city speech, particularly witticism, §§ 170–172. Quintilian, *Inst. orat.* on *latinitas*: 1, 4–8, 8 preface § 31, and 8,1, on *perspicuitas* 8,2, on *ornatus* 8,3–9,4, and on *aptum* 9,1, §§ 1–92. For a detailed discussion of the subdivisions of *elocutio*, see Heinrich Lausberg, *Handbook of literary rhetoric*, pp. 215–470.

rhythm (*oratio numerosa*). An appropriate style was considered to be achieved by adapting the speech situation to the topic, speaker, audience, time, and place.⁶⁶⁶

The opposite of correct morphophonology was defined as the use of an incorrect word form (*verbum vitiosum*); the opposite of approved words was the use of unnaturalized foreign words (*barbarolexis*). The opposite of correct pronunciation was either incorrect pronunciation (*barbarismus*) or the use of a rural accent (*rustica vox*). Correct inflection and syntax were opposed to incorrect inflection and syntax (*soloecismus*, solecism). The opposite of a proper lexical meaning was defined as the use of an improper word (*verbum improprium*), except in tropes. The opposite of a clear word meaning was identified as obscurity (*obscuritas*) or ambiguity (*ambiguitas*). Clear syntax was similarly distinguished from obscure or ambiguous syntax.

The absence of tropes and figures of speech resulted in a rude and rough style (*sermo incompertus, sermo horridus*), whereas an excessive use of figures of speech entailed artificiality (*affectation*). The opposites of a rhetorical sentence structure were perceived as asymmetry (*inconcinntitas*), roughness of sound (*asperitas soni*), harshness (*duritas*), and a gapping syntax (*oratio hiulca*). The lack of rhythm (*oratio dissolute*) was considered a vice in public speaking. At the same time, an excessive degree of conformity to poetry (*poematis similitudo*) was considered a vice of oratory.

9.1.3 The impact of classical rhetoric on Schultens and Schola Schultensiana

The Greco-Roman doctrine of *elocutio*, with its linguistic categories, was adopted in Renaissance handbooks of rhetoric, for instance, by Philipp Melanchthon (*Elementa rhetorices*) and Gerard Vossius (*Institutiones oratoriae*). In describing the shortcomings of Hebrew grammars in contrast to Antonius Driessen's claims of their perfection, Schultens invokes the classical distinction between grammatical and rhetorical qualities of language:

In the grammatical and rhetorical aspects of language, I may be allowed to measure myself against my insignificance and to sincerely admit that, in our knowledge, at least in my own, I still struggle with great inconveniences and lacunae (*defectus*).⁶⁶⁷

⁶⁶⁶ The use of archaic words (*verbum priscum, vetustum, inusitatum*) and the onomatopoeic coinage (*verbum factum et novum; verbum novatum*) are defined as separate categories of the ornate style by Cicero, but is subordinated under the concept of tropes by Quintilian (*Inst. orat.* VIII, 6, 31; IX, 1, 6).

⁶⁶⁷ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, preface, p. **4r]: "Nobis interim liceat nobis nostra tenuitate metiri atque ingenue fateri tam in grammaticis linguae partibus, quam in eiusdem rhetoricis adhuc nostram saltem cognitionem cum magnis incommodis et defectibus luctari."

Assuming a dichotomy between grammatical and rhetorical qualities, Schultens distinguishes between the original meaning and its transferred extensions. One of his key linguistic ideas is that earlier lexicographers have mistaken transferred meanings for the proper and original ones. In his commentary on the Proverbs of Solomon, he argues that these meanings are confused:

Shrewd and penetrating scholars of the highest judgement, when discussing the original meanings of Hebrew, suddenly grow dull and make inattentive, yea, rather absurd, judgements, since they no longer distinguish metaphors, metonymies, and other rhetorical tropes, always confusing them with the original and primordial meaning.⁶⁶⁸

In commenting on חררץ, i.e. “sharp, diligent, industrious”, Schultens proposes the etymological meaning “sharpness, or acumen prepared, prompt, vigorous, and exercising itself”, from which he derives the proper meaning “intense, perspicacious, or penetrating diligence”. He maintains:

From it grew, by metonymy, richness, abundance, excellence, and eminence in everything as well as in good luck. Most people refer the use of metonymy to the primary place of meaning, and thus all lights of rhetoric and all the natural embellishments of the Hebrew language are obscured and almost extinguished.⁶⁶⁹

In his 1722 lectures on homiletics at the University of Franeker, Schultens demonstrates familiarity with the distinction between the grammatical and rhetorical qualities of language. In these lectures, he freely comments on Salomon van Til's *Methodus concionandi*. Van Til distinguishes between linguistic exposition and the explanation of things and facts in the texts (*realia*). The linguistic exposition (*verbalis expositio*) concerns both grammatical and rhetorical meanings. Grammatical exposition should address obscure, controversial, or emphatic words or phrases, whereas rhetorical exposition should distinguish between transferred

⁶⁶⁸ Schultens, *Proverbia Salomonis*, p. 250: “Ubique acuti, perspicaces, summo pollentes iudicio ad origines Hebraicas hebescunt desubito, atque surdo, quin, absurdo fiunt palato, metonymias, metaphoras aliosque tropos rhetoricos non discernentes amplius atque perpetuo cum origine et primigenio potestate confundentes.”

⁶⁶⁹ Schultens, *Proverbia Salomonis*, p. 250 (remark on Prov 21:5): “Inde copia, abundantia, praecellentia, et eminentia rerum et fortunarum metonymice accrevit. Haec enim a plerisque in primariam sedem immittuntur; atque ita omnia lumina rhetorices, omnia nativa linguae Hebraeae ornamenta offuscantur ac tantumnon extinguuntur.”

meaning (*tropica significatio*) and proper meaning and clarify figures of speech.⁶⁷⁰ Schultens summarizes van Til's classifications, subdividing the verbal exposition into two paragraphs, (α) grammatical and (β) rhetorical, as follows:

Under grammatical exposition are comprised whatever the particularity (*genius linguae*) and the inner nature (*interior indoles*) of language, and whatever the customs and rites, whatever the rich store of antiquity may supply for the accurate understanding of words and sentences. Under rhetorical exposition are included whatever the inner linguistic artifice of tropes, figures, splendid words, and rhetorical ornamentations conceals in the bosom.⁶⁷¹

Cornelis van Waenen (1730–1797), an important member of *Schola Schultensiana*,⁶⁷² offers a striking example of how language is classified within the Greco-Roman grammatical and rhetorical tradition. To counter Jean Le Clerc's criticism that Hebrew is a poor, ambiguous, obscure, and uncultivated language, van Waenen declared that his theoretical basis rests on the nature of Hebrew. At the outset of his dissertation *De linguae Hebraeae pomoeiis ampliandis* (1759), he states:

First, I will in general terms present the principles of natural rhetoric, from which the Hebrew language should have grown, according to the rules and norms of a simple, reliable, and stable analogy, and have acquired all the richness necessary for accurate and clear usage, as well as for the adornment and embellishment of true eloquence.⁶⁷³

⁶⁷⁰ van Til, *Methodus concionandi iuxta praecepta artis hermeneuticae et oratoriae concinnata*, Dordrecht 1697, part 1, ch. 4, § 2 and § 6, p. 12. An obscure expression should be explained from the nature of the language (*linguae genius*), from the customs of the nation (*populi mores*) and from related Oriental languages (*linguae Orientales vicinae*). A controversial expression should be explained through the analogy of faith and the context, and an emphatic expression from the intention of the speaker.

⁶⁷¹ See the record of Schultens' dictation on van Til's *Methodus* preserved as MS NKS 28 in 4:o, second part, pp. 2–3 in the National Library of Denmark.

⁶⁷² On van Waenen's scholarly contributions, see further, Eskhult, *Schultens as an innovator*, vol. 2, Section 10.1.4, pp. 258–259.

⁶⁷³ Joannes Jacobus Schultens (pres.) / Cornelius van Waenen (resp.), *Specimen philologicum de linguae Hebraeae pomoeiis ampliandis*, Leiden 1759, p. 4: [...] “in genere primum exhibebo principia naturalis faecunditatis, e quibus ad simplicis et certae constantisque analogiae leges et normam excrescere debuerit in omnem illam copiam, quae cum ad accurati et dilucidi sermonis usum, tum ad verae eloquentiae decus et ornatum foret necessaria.”

9.2 Stoic etymology

9.2.1 Semantic principles

Apart from Varro, *De lingua Latina*,⁶⁷⁴ Augustine, *De dialectica*, chapter 6, is the only substantial source of Stoic etymology.⁶⁷⁵ In the debate on whether language is formed according to the nature of things (φύσει) or according to some agreement (by custom, νόμει, by arbitrary determination, θέσει, or by convention, κατὰ συνθήκην), Stoic philosophers and grammarians chose the naturalist approach. In the subsequent discussion of whether language conforms more to the principle of regularity (ἀναλογία, *analogia*) than to that of irregularity (ἀνομαλία, *anomalía*), the Stoics were anomalists. Stoic grammarians considered meaning (σημαινόμενον) a category more important than articulate sound (φωνή) and form (μορφή). In their theory and practice of etymology, the Stoics sought to restore the supposed natural correspondence between words and their meanings.⁶⁷⁶ Stoic etymologists reckoned with four semantic principles by which words could be formed anew, derived, or related to one another.⁶⁷⁷ These are:

- (1) phono-semantic similarity, that is, similarity between things and words, or similarity of sound to a thing.⁶⁷⁸ The Stoics defined the cradle of words (*cunabula verborum*) as the point at which perceptions of things agree with perceptions of sounds,⁶⁷⁹ and they illustrated this with onomatopoeic word formation. Varro argued that there is a small stock of primitive words (πρῶται φωναί) and that other words are derived through three kinds of relation to the primary words, as follows:
 - (2) relation of similarity between one meaning and another;
 - (3) relation of proximity or contiguity between one meaning and another;
 - (4) relation of contrariety between one meaning and another.

⁶⁷⁴ The chapters 2–4 on etymology are lost, but their general contents may be gathered from the preserved books (5–10).

⁶⁷⁵ Augustine, *De dialectica*, translated with introduction and notes by B. Darrell Jackson from the text newly edited by Jan Pinborg, Dordrecht and Boston 1975.

⁶⁷⁶ Ineke Sluiter, “The Greek tradition”, in W. J. van Bakkum, J. Houben, I. Sluiter, K. Versteegh (eds.), *Emergence of semantics in four linguistic traditions: Hebrew, Sanskrit, Greek, Arabic*, Amsterdam 1997, p. 209. Peter Matthew, “Greek and Latin linguistics”, in *History of linguistics*, vol. 2: *Classical and medieval linguistics*, London/ New York 1994, p. 24; Alessandro Garcea, “Etymology, ancient theories of”, in *Encyclopaedia of ancient Greek language and linguistics*, vol. 1, Leiden, p. 581.

⁶⁷⁷ See John Lyons, *Introduction to theoretical linguistics*, p. 5.

⁶⁷⁸ Augustine, *De dialectica*, chapter 6, 11: “similitudine rerum et sonorum;” and chapter 6, 10: “a te origo quaerendum esse, donec perveniatur eo, ut res cum sono verbi aliqua similitudine concinat”, “they assert that you must search until you arrive at some similarity of the sound of the word to the thing”.

⁶⁷⁹ Augustine, *De dialectica*, chapter 6, 10: “Haec quasi cunabula verborum esse crediderunt, ubi sensus rerum cum sonorum sensu concordarent.”

Based on the doctrine of tropes, Augustine applies the principle of proximity to various forms of semantic relationships. He says that the notion of semantic proximity “extends widely and can be divided into many parts.”⁶⁸⁰ He mentions the cause-and-effect relationship in both directions and the container-content relationship. These are two formative principles of metonymy. He also refers to catachresis (*abusio*) and the whole-part relationship in both directions. The latter example is one of the relationships that constitute the synecdoche trope.

Karl Barwick observed the parallels between the doctrine of tropes and the Stoic semantic methods: onomatopoeia (i.e. the formation of a word from a sound associated with the thing or action being named) reflects the Stoic views on the phono-semantic formation of primitive words, the trope of catachresis appears as a summary of the other tropes, metaphor and metalepsis exemplify the principle of similarity, synecdoche, metonymy and antonomasia stand for the principle of proximity, and antiphrasis stands for the principle of contrariety.⁶⁸¹

In the 16th and 17th centuries, the relationship between proper and derived meanings began to be understood as a semantic analogy, as we have seen in the Latin grammar of the Spanish classical philologist Franciscus Sanctius and in the commentary of his Dutch commentator, Jacob Perizonius (Section 8.3.3).

9.2.2 *Phonetic principles*

The Stoics assumed that the form of a word may change according to four principles:

- (1) addition: πρόσθεσις, *additio*;
- (2) subtraction (deletion): ἀφαίρεσις, *detractio*, *demptio*;
- (3) exchange (substitution): ἐναλλαγή, *immutatio*, *commutatio*, from the 16th century onwards, a category usually called *permutatio*;
- (4) transposition: μετάθεσις, *transpositio*, *traiectio*.

These principles, which represent four categories of change, were applied not only to etymology⁶⁸² but also to orthography (barbarism, that is, a

⁶⁸⁰ Augustine, *De dialectica* 6, 11: “Nam ista omnino vicinitas late patet et per multas partes sectatur.”

⁶⁸¹ Karl Barwick, *Probleme der stoischen Sprachlehre und Rhetorik*, Berlin 1957, pp. 89–92,

⁶⁸² Application to etymology occurs for instance, in Varro, *De lingua Latina*, book V, 1, 6, and in Quintilian, *Institutiones oratoriae*, book I, vi, 32, though Quintilian mainly applied the fourfold scheme (“quatripartita ratio”) to his analysis of morpho-phonological and syntactic faults, *Inst. orat.*, book I, v, 10–21, and v, 38–41.

spelling mistake), grammar (solecism, that is, a syntactic fault),⁶⁸³ rhetoric (covering figures of speech and thought), textual criticism, and dialectological pathology.

In the practice of etymology, the semantic and phonetic principles were arbitrarily applied, in the words of John Lyons:

It is only by a very free and uncontrolled use of the second set of principles, operating upon the form of a word, that the ‘naturalists’ could maintain their position, claiming to be able to derive all words from a primary set of words of ‘natural’ origin.⁶⁸⁴

This brought the art of etymology into disrepute. Criticism of the unreliability of etymology was commonplace even in antiquity. Augustine compares etymology to the interpretation of dreams because “the origin of words is assessed according to each man’s ingenuity”.⁶⁸⁵

Despite the failures of ancient etymology, one of its phonetic principles proved useful in early modern etymology: the principle of exchange (substitution) or interchange, which was ultimately developed into the concept of sound correspondences.⁶⁸⁶

9.3 Proper meaning as a concept

9.3.1 Ambiguity of ‘*proprietas verborum*’

In ancient Latin, the concept of proper meaning was expressed by the terms *verbum proprium*, *proprietas verborum*, or simply *proprietas*. Quintilian argues that the term has different meanings and is thus not univocal. In *Institutio oratoria* VIII, ii, 1–11, he identifies six uses, the first two and the

⁶⁸³ For the use of this scheme in Roman grammar on barbarism and solecism, see Heinrich Lausberg, *Handbook of literary rhetoric*, pp. 217–220. For the historical emergence of the four categories of change, see Françoise Desbordes, “Le schéma ‘addition, soustraction, mutation, métathèse’ dans les textes anciens”, in *Idées grecques et romaines sur le langage: travaux d’histoire et d’épistémologie*, Lyon: ENS, 2007, pp. 55–61.

⁶⁸⁴ Lyon, *Introduction to theoretical linguistics*, 1979, pp. 5–6.

⁶⁸⁵ Augustine, *De dialectica*, chapter 6, 10: “Huc accedit quod ut interpretatio somniorum ita verborum origo pro cuiusque ingenio iudicatur.”

⁶⁸⁶ This principle (in Latin *permutatio*) was applied to the etymological analysis of regular phonetic changes of consonantal stops between Germanic languages. The observations of Eric Benzeliuss the Elder (ms. Ihre 49, Uppsala University Library) and Johan Ihre (*Glossarium Suiogothicum*, vol. 1, Uppsala 1769, preface, pp. xli–xlvi) were improved by Rasmus Rask (*Undersøgelse om det gamle Nordiske eller Islandske Sprogs oprindelse*, Copenhagen 1818) and were no doubt useful to Jacob Grimm, who attained a basically valid systematization of the sound correspondences between Greek, proto-Germanic (then termed Gothic), and Old High German. See his *Deutsche Grammatik*, Göttingen 1822, p. 584.

last of which pertain to early modern lexicography of Hebrew and to views on proper meaning.

9.3.2 Denotative proper meaning

In Greco-Roman linguistic theory, the guiding principle was that each object (in Gr. πράγμα, which the Stoics called *τυχάνων*; in Latin *res*) has the right to a word (ὄνομα, *verbum*) that pertains to it as its own (κύριον, *proprium*).⁶⁸⁷ This relationship underlies the concept of propriety (Greek κυριολογία, κυριολεξία, κυριότης; Latin *proprietas*) as the original, precise meaning of a word in the relationship between referent and signifier.⁶⁸⁸ This was the predominant sense of the concept of proper meaning in Greco-Latin linguistic theory.

9.3.3 Non-denotative natural meaning

Catachresis (κατάχρησις, *abusio*), involving improper meaning, refers to the deliberate misapplication or adaptation of a word to a thing it does not properly denote. It may, however, constitute a subcategory of the naturalized precise meaning. Quintilian maintains that a metaphor here “adapts words to objects that do not belong to them”.⁶⁸⁹ He argues that the proper meaning is related “not to the naming, but to the force of signifying, which does not depend on the sound heard, but on the sense understood.”⁶⁹⁰ In this way, the proper meaning can be redefined as the natural and usual meaning, even if it was not originally the proper one. In fact, the catachrestic meaning plays an important role in the semantics of all languages.⁶⁹¹ In early modern rhetorical theory, however, the term catachresis acquired the pejorative sense of an ill-suited metaphor.

⁶⁸⁷ This principle is explained by Frederick M. Renner, *Interpretatio. Language and translation from Cicero to Tytler*, Amsterdam & Atlanta 1989, pp. 38–39: “The word *proprietas* is not native to linguistics but was borrowed from legal vocabulary, where it was used to express the fact that something is the exclusive property of a particular person. When used in linguistic contexts, this word designates the relationship between the *res* and its sign. Just as a human individual can claim the exclusive right to the possession of objects, so does a *res* claim the right to own a sign that is its exclusive property. Through this sign, the thing is able not only to make the transition from the mental state to the world of senses, but also to attain its own proper identity. The sign becomes then the ‘proper name’ of the thing, a label which sets it apart from all others.”

⁶⁸⁸ E. Siebenborn, *Die Lehre von der Sprachrichtigkeit und ihren Kriterien. Studien zur antiken normativen Grammatik*, Amsterdam 1979, p. 48. Quintilian, *Inst. orat.* VIII, ii, 1, defines the specific denomination of objects as the proper meaning.

⁶⁸⁹ *Inst. orat.* VIII, ii, 6: “translatio quoque [...] verba non suis rebus accommodat”.

⁶⁹⁰ Quintilian, *Inst. orat.* VIII, ii, 6: “quare proprietas non ad nomen sed ad vim significandi refertur nec auditu, sed intellectu perpendenda est”.

⁶⁹¹ Heinrich Lauberg, *Handbook of literary rhetoric*, p. 255.

9.3.4 The etymological meaning

Under the concept of proper meaning, Quintilian also included the original meaning, namely “that from which the other meanings are derived”,⁶⁹² which implies that the proper meaning is the one from which the designation traces its origin. This means that the proper meaning of words can be equated with the etymological meaning.

9.3.5 The implied or emphatic meaning

Quintilian identified the use of a word or phrase, “which means more than it expresses,” as the final aspect of proper meaning.⁶⁹³ This use is related to Quintilian’s concept of emphatic meaning (ἐμφασις, *emphasis*), namely: “that which gives the word a deeper meaning than the words themselves declare”.⁶⁹⁴ He classified it into two forms: “that which means more than it states” and “that which means also what it does not state”.⁶⁹⁵ However, G. Vossius followed another ancient definition (recorded in pseudo-Plutarch), according to which the implied meaning intensifies the proper meaning.⁶⁹⁶

9.4 Semantic change

9.4.1 The Stoic classification of the tropes

In Greco-Roman theory, a distinction was drawn between proper and transferred meaning. In Latin, the latter was termed *tropus*, a loanword from Greek τρόπος, and was rendered by Latin calques such as *immutatio* and *inversio*. In Stoic etymology, the tropes at first concerned only single words (*verba singula*), not words joined into phrases and sentences (λόγος, *sermo*). In the Stoic tradition, the tropes were associated with likeness (i.e., the quality of being alike, similarity), contiguity (i.e., nearness, proximity), and oppositeness (i.e., that which is contrary). The Stoics recognized eight tropes in the following sequence:

- ὀνοματοποιία, *onomatopoeia*, the formation of a word from a sound associated with the thing or action being named,⁶⁹⁷

⁶⁹² Quintilian, *Inst. orat.* VIII, ii, 7 “id unde cetera ducta sunt”

⁶⁹³ Quintilian, *Inst. orat.* VIII, ii, 11 “quae plus significant quam eloquuntur.”

⁶⁹⁴ Quintilian, *Inst. orat.* VIII, iii, 83 “altiore praebens intellectum quam quem verba per se ipsa declarant.

⁶⁹⁵ Quintilian, *Inst. orat.* VIII, iii, 83 “Eius duae sunt species; altera, quae plus significat quam dicit, altera, quae etiam id quod non dicit”. Cf. *Inst. orat.* IX, ii, 64 “latens aliquid eruitur”. Lausberg, *Handbook of literary rhetoric*, p. 263, defined emphatic meaning as follows: “Emphasis is the use of a word of lesser semantic content in customary use (with a broader semantic range) to designate a greater (more precise) semantic content (with a narrower semantic range)”.

⁶⁹⁶ Gerard Vossius, *Institutiones oratoriae*, book IV, ch. 12, sect. 10. See idem, *Opera in sex tomos divisa*, vol. 3, pp. 213 f.

⁶⁹⁷ See *Oxford English dictionary*, s.v. *onomatopoeia*.

- κατάχρησις, *catachresis*, originally referring to the necessary use of an existing word for a referent when no other word is available (which means that this term could be used as a collective term for all tropes except onomatopoeia),
- μεταφορά, *metaphor* (transference), and μετάληψις, *metalepsis* (participation: the use of a metaphor in a new manner or context): semantic change through likeness,
- συνεκδοχή, *synecdoche* (understanding one thing in terms of another, e.g., using a whole for a part or a part for a whole), μετωνυμία, *metonymy* (a change of name; the use of one word for another), and ἀντονομασία, *antonomasia* (the use of an epithet instead of a proper name): semantic change through contiguity,
- ἀντίφρασις, *antiphrasis* (the use of a word in a sense opposite to its proper meaning): semantic change through the opposite of the proper meaning.

In later developments of the Stoic tradition, the number of tropes was expanded, because the concept of a trope was also associated with connected speech. Quintilian thus recognized twelve kinds of tropes.⁶⁹⁸

9.4.2 Ramistic re-limitation

In the 16th century, the French humanist and educationalist Pierre de la Ramée (Petrus Ramus) introduced a new classification of tropes. He argued that there are only four kinds of tropes, namely metaphor, metonymy, synecdoche, and irony, because the others do not fulfil the restricted criterion of a trope, namely a change of meaning (*immutatio significationis*), except for hyperbole when applied to single words.⁶⁹⁹

Ramus' re-classification soon spread not only into the handbooks of rhetoric, such as Gerhard Vossius' *Institutiones oratoriae* (1606), but also into the handbooks of biblical hermeneutics and grammar, such as Salomon Glassius' *Philologia sacra* (1636).⁷⁰⁰ Vossius accepted some other tropes as

⁶⁹⁸ Quintilian, *Inst. orat.* VIII, chapter 6, §§ 4–76, accounting for the tropes in for following order: *metaphora*, *synecdoche*, *metonymia*, *antonomasia*, *onomatopoeia*, *catachresis*, *metalepsis*, *epitheton*, *allegoria* (symbolic representation by means of several metaphors), *periphrasis*, *hyperbaton* (inversion of the natural word order) and *hyperbole* (exaggerated statement).

⁶⁹⁹ Ramus, *Rhetoricae distinctiones in Quintilianum*, Paris 1550, pp. 79–86.

⁷⁰⁰ Vossius, *Institutiones oratoriae*, book IV, chapter 5, section 2: “Sunt autem tropi primarii quatuor: μεταφορά, μετωνυμία, συνεκδοχή et ειρωνεία. Quibus hoc commune est, quod in omnibus vox ab una significatione mutetur in aliam propeter mutuum rerum affectionem seu relationem.” Glassius in the fifth book of his *Philologia sacra*, subtitled *Rhetorica sacra*, part 1, chapter 1 (De tropis, that is “On tropes”) follows the Ramist classification as “the common division in the schools”: “Species troporum secundum vulgarem in scholis distinctionem sunt quatuor: Metonymia, ironia, metaphora, synecdoche”, see pp. 1425–1426 in the 1705 edition.

subcategories (*species*) of the four primary tropes, such as metalepsis, which he subsumed under metonymy, or he subordinated them as accidental changes (*affectiones*), either of the quality of the trope itself (*catechresis*) or of its quantity (*allegoria*, *hyperbole* and *emphasis*). The post-Ramist classification of tropes also appears in Johann Heinrich Alsted's *Encyclopaedia* (2nd ed. 1630). In the 17th century, the post-Ramist rhetorical tradition established four main tropes: metaphor, metonymy, synecdoche, and irony, and three sub-categories of mixed tropes: catachresis, metalepsis, and hyperbole.

9.5 Lockean cognitive semantics and etymology

9.5.1 John Locke's semantic theory

In *An Essay Concerning Human Understanding* (1689), Locke presented an empiricist epistemology that traces the origin of ideas to sensation or reflection (Book II). He also proposed a theory of language consistent with this epistemology, namely his analysis of the formation of simple, complex, and general ideas, since words are considered signs of ideas in the mind (Book III).⁷⁰¹ The English empiricist did not treat the origin of language separately but made a few remarks on the emergence and growth of languages within his cognitive semantics.⁷⁰² In these statements, he argued in favour of the sensory nature of the referents of the primary meaning of words, linking this theory of word meaning to his views on the relationship between the world and human ideas. He defined the term “idea” as “whatever is the object of the understanding when a man thinks” and as “whatever the mind can be employed about in thinking” (*Essay*, I, 1, 8). Locke's starting point was that words signify ideas (III, 1, 2; III, 2, 1), or, more precisely, that they “stand for the ideas in the mind of him who uses them” (III, 2, 2). However, he did not claim that *all* words signify ideas.⁷⁰³

Like Vossius, Glassius classifies catachresis, hyperbole and allegory as accidental changes of the primary tropes (book 5, part 2, ch. 18, p. 1932 in the 1705 edition).

⁷⁰¹ James H. Stam, *Inquiries into the origin of language. The fate of a question*, p. 33 (part of ch. 2: “The linguistic progress of the human mind”). Hannah Dawson, *Locke, language and early-modern philosophy*, Cambridge 2007, pp. 185–189. Lia Formigari, *A history of language philosophies*, translated by Gabriel Poole, Amsterdam 2004, p. 107: “the processes of linguistic production reproduce – they mimic, so to speak – the processes through which we construct experience.” Raffaele Simone, “Early modern period”, in Giulio Lepschy (ed.), *History of linguistics*, vol. 3: Renaissance and early modern linguistics, London 1998, p. 179: “Being so closely connected with ideas, words undergo a classification which reflects the classification of ideas themselves.”

⁷⁰² Hans Aarsleff (ed. and transl.), *Etienne Bonnot de Condillac. Essay on the origin of human knowledge*, Cambridge 2001, p. xvii, n. 6, with reference to *Essay* II, 22, 2; II, 28, 2; III, 1, 5; III, 6, 46; III, 6, 51.

⁷⁰³ This is pointed out by E. Jennifer Ashworth, “Locke on language”, *Canadian journal of philosophy*, vol. XIV:1 (1984), pp. 51–52. Locke thus contends that there

In his *Essay Concerning Human Understanding*, III, 1, 5, Locke maintains that words with an abstract meaning originally derive from referents that signify sensible ideas (that is, ideas originating in sense perception):

I doubt not, but if we could trace them to their sources, we should find, in all languages, the names, which stand for things that fall not under our senses, to have had their first rise from sensible ideas.

In his collection of excerpts from Locke's *Essay*, Schultens quotes this passage.⁷⁰⁴ He was not alone in doing so, as it is "one of the most frequently quoted passages from Book III in the 18th century".⁷⁰⁵ Most importantly, he treats it as a basic etymological principle. In fact, Locke's passage had bearing on the emergent science of etymology. Lia Formigari argues that this passage implies that words originate as marks of sensible ideas:

If we could only bring all words back to their origins, we would find out that all languages comply with the above principle: names designating objects that cannot be perceived through the senses are originally associated to sensible ideas. This metaphorical genesis provides an iconic foundation to words and reproduces the cognitive process, moving from sense data towards an increasing generalization.⁷⁰⁶

From Locke's *Essay* III, 1,5, Roy Harris and Talbot Taylor conclude:

For, taken literally, it seems to imply that the vast majority of words are metaphorical in origin (given that only a small minority of words could be taken as names for simple ideas of sensation). This in turn suggested to many that with the help of etymology we should in principle be able to work out the original meaning (for some, such as Horne Tooke, the 'true' meaning) of those words not standing for simple ideas of sensation. The structure of our vocabulary (and so of the ideas for which the vocabulary items stand) could thus be exposed in terms of a step-by-step metaphorical expansion from an original core vocabulary of names for simple ideas of sensation. The strong renewal of interest in metaphor and

are words that only express an absence, such as *nothing* and *ignorance* (*Essay* III, 1, 4), and that there are words that only connect other parts of speech (III, 7, 1).

⁷⁰⁴ Schultens translates this passage into Latin as follows: "Et non dubito, quin, si possemus deducere ad originem omnia vocabula, inveniremus in omnibus linguis verba, quae res sub sensus non cadentes exprimunt, ducta esse ab ideis sensibilibus etc." See Leiden UB, MS Or. 1460, textual unit "d", fol. 27r (of this unit).

⁷⁰⁵ R. Harris and T. J. Taylor, *Landmarks in linguistic thought I*, 2nd ed., London and New York 1997, p. 137.

⁷⁰⁶ Formigari, *A history of language philosophies*, Amsterdam 2004, p. 107.

other tropes in the 18th century is in part a reflection of this interpretation of the passage quoted, although in truth there is little evidence elsewhere in the *Essay* to suggest that this was how Locke intended his remarks to be interpreted.⁷⁰⁷

Locke argues that words usually do not express a sensible idea, but rather a general idea.⁷⁰⁸ He takes for granted that the meanings of words often shift from sensible (i.e. sense-perceptible) to abstract, but does not himself use the term “metaphor” to describe this cognitive process. In one passage, he mentions the fact that words expressing sensible ideas “are transferred to more abstruse significations, and made to stand for ideas that come not under the cognizance of our senses” (*Essay* III, 1, 5). As is well known, metaphor means transference. In another passage, Locke uses the term abstraction to circumscribe the concept of metaphorization when explaining how “words become general by being made the signs of general ideas” (*Essay* III, 3, 6). Locke’s reluctance to use the term “metaphor” stemmed from his association of it with rhetoric, which he considered liable to semantic instability and uncertainty.⁷⁰⁹ Nevertheless, in 18th-century semantic theory, the idea of the cognitive metaphor as a generator of meaning and a factor of change became commonplace, since it was a key aspect of Locke’s semantics.⁷¹⁰

⁷⁰⁷ Harris and Taylor, *Landmarks* (vol. 1), p. 137.

⁷⁰⁸ Locke, *Essay* III, 3, 1: “The far greatest part of words that make all languages are general terms: which has not been the effect of neglect or chance, but of reason and necessity.”

⁷⁰⁹ Paul de Man, “The epistemology of metaphor”, *Critical inquiry* 5:1 (1978), p. 15 discusses Locke’s attitude towards figurative speech in *Essay* III, 10, 34, where Locke states: “But yet, if we would speak of things as they are, we must allow that all the art of rhetoric, besides order and clearness, all the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgement and so indeed are perfect cheat. [...] It is evident how much men love to deceive and be deceived, since rhetoric, that powerful instrument of error and deceit, has its established professors, is publicly taught, and has always been held in great reputation.” De Man takes this as a denunciation of rhetoric. Still, Locke appears to have assumed that human cognition is shaped by metaphor. De Man observes the disagreement between Locke’s explicit declarations and his implicit reasoning about the role of tropes in linguistic categorization (ibidem, p. 16): “And indeed, when Locke then develops his own theory of words and language, what he constructs turns out to be in fact a theory of tropes. Of course, he would be the last man in the world to realize and to acknowledge this. One has to read him, to some extent, against or regardless of his own explicit statement.”

⁷¹⁰ For this assertion, see Formigari, *A History of language philosophies*, p. 113. She likely had Leibniz and Giambattista Vico in mind. Another example is Schultens.

9.5.2 Lockean etymology: Interpretation of Locke's semantic theory

In his public lecture on the lexical and semantic origins of Greek (c. 1750), Tiberius Hemsterhuis appears to set out from a Lockean theoretical background. He presumes a sensory referential basis for all transferred meanings, which he thinks “are derived from natural things and things exposed to everyone's eyes”. Using the Latin word *floreo*, “to flourish”, as an example, he argues that it derives its metaphorical meaning from what is visible in the form of flowers. Since this metaphor is found in almost all languages, he believes that figurative expressions are governed by the principle of regularity in human language and action.⁷¹¹

Schultens excerpted, paraphrased, and noted passages from Locke's *Essay Concerning Human Understanding*, book III, chapters 1–6 and chapters 9–10.⁷¹² He used Pierre Coste's French translation of the English original, from its 1729 printing. Schultens read Locke for several reasons. The principal ones are as follows:

- (1) to find additional support for rejecting the divine nature of the Hebrew language and for demonstrating the societal and communicative functions of human languages in general;
- (2) to lay a firm epistemological foundation for his etymological Hebrew semantics within Locke's sensualist philosophy of language;
- (3) to find empirical reasons to refute the exponents of the logical semantic school of Hebrew lexicography;
- (4) to discuss the intrinsic deficiencies of word signification across the categories corresponding to Locke's ideas of sensation and to simple or complex modes of reflection.

As a Hebrew etymologist, Schultens adopted the principles of Lockean etymology. It is possible to trace an impact of Locke on Schultens in his views on the direction of semantic change from concrete, sense-perceptible meaning to abstract, figurative, and intellectible meaning in his practice of Hebrew etymology. In one of his methodological works in this field of study (*Vetus et regia via hebraizandi*, 1738), he deals with the role of metaphor in creating catachrestic meaning. His attention to this fact may have been prompted by Locke's discussion and examples of this phenomenon in *Essay*, III, 1. In exemplifying the proper-meaning metaphors of the Latin vocabulary for mental concepts, Schultens apparently draws on the instances that Locke provided for verbs signifying sense perception.⁷¹³

⁷¹¹ Hemsterhuis, *Lectio publica de originibus linguae Graecae*, § 11.2–3, cf. §§ 69–70, edited and translated by Bouke Slofstra 2017, p. 36, cf. p. 112.

⁷¹² Leiden UB, MS Or. 1460 d, fols. 27r–29v. These Lockean excerpts are included in my forthcoming edition of Schultens' unpublished manuscripts (section 5.3).

⁷¹³ In *Vetus et regia via Hebraizandi*, pp. 41–43, Schultens draws up a list of the interlingual diversity of proper meanings that refer to non-physical entities. such as

Tzvetan Todorov argues that early modern reflection on the nature of semantic relations implied that the primeval language of mankind ought to have consisted of concrete nouns:

Since the object must be present in the sign, abstraction will always be considered a later development, being already an absence in itself. This opinion, the canonical opinion of which appears in Locke's *Essay*, serves as the cornerstone of a large portion of contemporary etymological research.⁷¹⁴

It has been suggested that Locke did not pay heed to the social function of language and that his semantic theory is a paradigm case of private-language philosophy, involving assumptions of semantic subjectivity.⁷¹⁵ Locke stressed the problem that individual speakers impose their own meanings on words, guided by their own ideas, and assume those meanings are shared by those with whom they communicate (*Essay* III, 2, 4). However, he also recognized the social nature of language as the common bond of human society:

God, having designed man for a social creature, made him not only with an inclination and under a necessity to have fellowship with those of his own kind, but furnished him also with language, which was to be the great instrument and common tie of society. Man therefore has by nature

'spirit' in Hebrew רוח (*rūah*), and continues with the actions of the mind, of which he mentions the following: "consider, understand, perceive, comprehend, perpend, weigh, judge, determine, decide", and ends with virtues, vices, affections, and relations such as 'justice' and 'truth.' In his *Essay*, Locke (book III, ch. 1, § 5) records words that originate in "common sensible ideas, but which are made to stand for action or notions quite removed from sense" (i.e. sensation), such as "imagine, apprehend, comprehend, conceive, instil, disgust, disturbance, tranquillity." He also adds 'spirit' and 'angel' as examples.

⁷¹⁴ Tzvetan Todorov, *Theories of the Symbol*, Oxford 1982, p. 237 (French original is: *Théories du symbole*, Paris 1977). In the accompanying footnote, "the canonical opinion" is explained to be found in *An essay*, book 3, ch. 1, 5 (i.e. the passage quoted above).

⁷¹⁵ Ashworth, "Locke on language", p. 49, n. 7 refers to the English philosophers Antony G.N. Flew and Daniel J. O'Connor, who interpret Locke as a proponent of the thesis that all languages are private. Hannah Dawson, "Locke on language in (civil) society", *History of political thought* 26:3 (2005), p. 417: "While he does in fact provide an internally coherent account of how meanings are ideas, and how these private entities can be communicated, he is deeply aware of – and concerned by – the obstacle that privacy places in the way of the generation as well as the communication of those ideas that are most important to social life." Dawson, *Locke, language and early-modern philosophy*, pp. 188–189, discusses Locke's "innovative highlighting of the speakers' rather than the words' meaning".

his organs so fashioned as to be fit to frame articulate sounds, which we call words.⁷¹⁶

When advising on how language should be used to avoid semantic misuse, Locke asserts that language is no one's private possession:

Men [...] must also take care to apply their words, as near as may be, to such ideas as common use has annexed them to. For words, especially of languages already framed, being no man's private possession, but the common measure of commerce and communication, it is not for anyone at pleasure to change the stamp they are current in, nor alter the ideas they are affixed to; or at least when there is a necessity to do so, he is bound to give notice of it.⁷¹⁷

Stephan Meier-Oeser argues that Locke's theory of meaning in the third book of his *Essay* is the most influential early modern text on language.⁷¹⁸ He intimates that Locke's theory of the origin of words from sensible ideas is part of his sensualist epistemology.

9.6 Leibnizian semantics and etymology

In several treatises, Wilhelm Gottfried Leibniz discussed the principles of phono-semantic origins and semantic change through metonymy and metaphor. In the prefatory treatise, "Dissertatio preliminaris", to his edition of Marius Nizolius' *De veris principiis et vera ratione philosophandi* (1670), Leibniz calls for the use of words in their original meaning, or in their common meaning as close to their origin as possible. If the common meaning is polysemous, he requires that a formal meaning be established, which he defines as "the word meaning which in itself contains all usual meanings". If the formal meaning cannot be determined, he demands a thorough exploration of the original meaning (*usus originarius*), from which the other meanings are derived, like from a source "through the canals of tropes (*per canales troporum*)".⁷¹⁹

⁷¹⁶ Locke, *Essay* III, I, 1. In his excerpts from Locke's *Essay*, Schultens here notes "lingua instrumentum societatis". Leiden UB, MS Or. 1460, d, fol. 27r.

⁷¹⁷ Locke, *Essay* III, xi, 11.

⁷¹⁸ Stephan Meier-Oeser, "Meaning in pre-19th-century thought", in C. Maienborn, K. von Heusinger and P. Portner (eds.) *Semantics. An international handbook of natural language meaning*, vol. 1, Berlin 2011, pp. 165–166.

⁷¹⁹ Leibniz, "Dissertatio preliminaris de instituto operis atque optima philosophica dictione", preface to his publication of Marius Nizolius' *De veris principiis et vera ratione philosophandi contra pseudophilosophos*, Frankfurt am Main 1670, page b 4 verso: "Si usus multiplex est, danda opera est, ut vel abstrahatur *formalis* aliqua *significatio*, quam vocant, id est, ut detur significatio vocis, quae omnes usitatas in se continet [...] vel, si illud non fieri potest, saltem constituatur *usus* aliquis, ut sic

Discussing Johan Brunsmand's views on the multiple concepts of proper meaning,⁷²⁰ Leibniz reflects on the nature of the original meaning and argues that every original meaning may be classified as a proper sense, but a meaning coined by a trope cannot be said to be a proper sense. He admits that the proper sense is sometimes not the original one and concludes that "every meaning that is not original was once a transferred one, until the point when the word, by means of tropes, was changed from its original meaning to others".⁷²¹ He argues that the transferred sense became the proper one "when it was so common that it was equally known, or more known, than the first natural one (*nativa*)" and when people used it not as a transferred sense but as a word for the proper meaning in itself.⁷²²

In his *Nouveaux essais sur l'entendement humain* (*New Essays On Human Understanding*, c. 1703–1705, published in 1765 by Rudolf Erich Raspe),⁷²³ Leibniz expounds on and criticizes Locke's philosophy in his Essay, presented as a fictitious dialogue between Philalethes (an admirer of Locke, who recounts the Essay in detail) and Theophilus (Leibniz himself). In general, Leibniz reinterprets Locke's cognitive semantics as historical semantics.⁷²⁴ In the passage on the origin of words from sense-perceptible referents, Leibniz (through Theophilus) concludes that languages reveal "the history of our discoveries". Contrary to Locke's claim of the arbitrariness of the linguistic sign,⁷²⁵ Leibniz argues that words arise from the principle of

loquar, *originarius*, id est, ex quo sic fluant usus caeteri, quemadmodum ex origine fluxit ipse, nempe per canales troporum."

⁷²⁰ The concept of *proprietas* was recently at that time analysed by the Norwegian philologist Johan Brunsmand in a treatise titled *De propria verborum acceptione* (Copenhagen 1668). He distinguishes three senses of *proprietas*: firstly, the original or etymological meaning: "the proper sense of the origin" (*proprietas originis*), secondly, the common meaning in the popular usage (*proprietas usus*) as well as in the technical terminology, and thirdly, the combined original and common meaning.

⁷²¹ Leibniz, "Dissertatio preliminaris", page **d** verso: "Quibus eius cogitatis tamen illud adiicio: Omnem significationem non originariam aliquando fuisse translata, eo nimirum tempore quo primum vox a primigenia significatione ad alias troporum adminiculo promota est."

⁷²² Leibniz, "Dissertatio preliminaris": page **d** verso: "factam vero tandem propriam, cum primum ita vulgaris facta est, ut aequae sit nota aut notior etiam nativa, et iam homines non propter flexiones a nativa factam, cuius saepe non recorduntur quidem, sed per se vocem sic utantur."

⁷²³ Leibniz, *Oeuvres philosophiques Latines et Françaises de feu Mr. de Leibnitz*, Amsterdam and Leipzig 1765, pp. 1–496. An English translation of *Nouveaux essais* was provided by Alfred Gideon Langley under the title *New Essays Concerning Human Understanding*, New York, 1896.

⁷²⁴ See Formigari, *A history of language philosophies*, p. 113.

⁷²⁵ Locke, *Essay* III, 2, 1: "Thus we may conceive how words [...] came to be made use of by men as the signs of their ideas; not by any natural connexion that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word

sound symbolism (that is, the analogy between emotions and sounds), which he identifies as an active force in the origin of languages. Considering the differences between phono-symbolic proper meanings and transferred senses, Leibniz infers: “this makes it plain at the same time how metaphor, synecdoche, and metonymy have caused words to pass from one signification to another without our being able always to trace them.”⁷²⁶

In his treatise on the history of etymological studies, more than forty years later (1712), Leibniz developed his idea and now took for granted that the original phono-semantics are often lost, since words change over time owing to the frequent use of metaphors, metonymies, and synecdoches.⁷²⁷ In this treatise, he adopted Locke’s sensualist etymology, declaring: “Designations of natural, sense-perceptible, and frequently occurring things preceded designations of rare, artificial, moral, and metaphysical things.”⁷²⁸ The Greek word πνεῦμα, which he likely drew from Locke’s *Essay* (III, 1, 5), exemplifies this psychological process. Leibniz maintains that it originally meant “breath” and was later transferred to invisible referents, such as mind and spirit.⁷²⁹

is made arbitrarily the mark of such an idea.” III, 9, 4: [...] “sounds have no natural connexion with our ideas, but have all their signification from the arbitrary imposition of men” [...].

⁷²⁶ Leibniz, *Nouveaux essais* III, 2, 1. See Alfred Langley’s translation (1896).

⁷²⁷ Leibniz, *Epistolaris de historia etymologica dissertatio*, Ms. IV 469, Wilhelm Gottfried Leibniz Bibliothek, Hannover, fol. 76r. Cf. Gensini’s textual edition in *Il naturale e il simbolico: Saggio su Leibniz*, Roma 1991, p. 217.

⁷²⁸ Leibniz, *ibidem*, fol. 82r (§ 23): “Rerum autem naturalium, sensibilibus, crebrius occurrentium appellationes priores fuere quam rariorum, artificialium, moralium et metaphysicarum.” Cf. Gensini, *ibidem*, p. 229.

⁷²⁹ Leibniz, *ibidem*, fol. 82r. Cf. Gensini, *ibidem*, p. 229.

10. Hebrew etymology in the 17th and 18th centuries

10.1 Phonetic principles: classification and regularity

The principle of sound correspondences was the phonological basis of Schultens' theory and practice of Hebrew etymology. To understand his bipartition of "interchanging speech sounds" and his distinction between phonetic changes within the same class of consonants and those that cross different classes, it is necessary to analyse his classification of the consonant graphemes of the Hebrew alphabet and the phonemes they represent.

To understand Schultens' bipartition of sound correspondences (into direct and indirect) between Hebrew and Arabic (see further Sections 15.1.1 and 15.1.2 below), it is also necessary to be familiar with the contrastive Hebrew-Arabic phonology as presented by prominent linguistic theorists of the 17th and 18th centuries.

10.1.1 Classification of Hebrew consonantal phonemes

In his analysis of sound correspondences between Semitic languages, Schultens relied on the tradition of Hebrew and Arabic phonology, which took its point of departure from the organs of speech: the throat, lips, palate, teeth, and tongue. The classification of Hebrew consonantal phonemes into specific sets of gutturals, labials, palatals, dentals, and linguals was well known when David Kimchi composed his Hebrew grammar, *Mikhlol*, in the 12th century. It traces back to the phonetic system established in the Jewish treatise on cosmogony, *Sepher Yetsira*, 'Book of Creation', probably dating to the 9th century.⁷³⁰ Saadia Gaon adopted this system in his Hebrew grammar, *Kutub al-luġa*, 'Books on the language'.⁷³¹ In the 11th century, it reappears in *Hidāyat al-Qāri*,⁷³² 'Guide for the reader', a Masoretic handbook by the Karaite scholar Abū al-Faraj Hārūn. Through Kimchi, this classification was transmitted to early Christian Hebraists, such as Reuchlin,

⁷³⁰ William Chomsky, in a remark on *David Kimchi's Hebrew grammar (Mikhlol)*, systematically presented and annotated, New York, p. 11, traces the classification back to Sefer Yetzira, Menahem ibn Saruq, Dunash ibn Labrat and Solomon ibn Gabirol.

⁷³¹ David Tene, "Hebrew linguistic literature", in *Encyclopaedia Judaica*, vol. 16 (among supplementary entries), p. 1367.

⁷³² In the longer version *Hidāyat al-Qāri*, the classification of consonants occurs in the first discourse, chapter 3. See Geoffrey Khan's critical edition in *The Tiberian pronunciation tradition of Biblical Hebrew*, Cambridge 2020, pp. 48–57.

Münster, Pagninus, and Buxtorf the Elder, and it became standard within the premodern Western grammatical tradition of Hebrew phonology.

Schultens accordingly divided the Hebrew consonants as follows:⁷³³

Gutturales: א ה ח ע

Labiales: ב פ מ ו

Palatinae: ק כ י ג

Linguales: ד ט ל ת

Dentales: ש ר צ ס ז

In this classification, the class of *gutturales* comprises glottal, laryngeal, and pharyngeal places of articulation, namely the voiceless glottal or glottolaryngeal stop ʾ (א), the voiceless laryngeal fricative *h* (ה), and the voiceless and voiced pharyngeal fricatives *ħ* (ח) and ʕ (ע). The class of *labiales* includes the voiced bilabial nasal *m* (מ), the voiceless and voiced bilabial stops *b* (ב) and *p* (פ), their voiceless and voiced labiodental fricative counterparts *v* (*b̥*) and *f*,⁷³⁴ and the voiced bilabial semi-consonant *w* (ו). The class of *palatales* includes two velar stops, the voiceless *k* (כ) and the voiced *g* (ג), and their uvular fricative counterparts (*k̤* and *g̤*), as well as the voiceless emphatic uvular stop *q* (ק) and the voiced palatal semi-consonant *y* (י). The class of *linguales* comprises the voiceless, voiced, and emphatic dental stops *d* (ד), *t* (ת), and *ṭ* (ט), the interdental fricative counterparts of the first two, *ḏ* (*th* in *these*) and *ṯ* (*th* in *thank*), the dental-alveolar nasal *n* (נ), and the voiced dental-alveolar lateral *l* (ל). The class of *dentales* consists of the voiceless, voiced, and emphatic dental-alveolar sibilant fricatives *s* (ס) and *ś* (ש, originally an unvoiced lateral fricative), *z* (צ) and *ṣ* (ס), the voiceless palatal fricative *š* (שׁ), and the voiced dental-alveolar liquid vibrant *r* (ר).⁷³⁵ Schultens also refers to the consonants *ṭ*, *ḏ*, *ṣ* and undotted *ṣ* as sibilants.⁷³⁶

⁷³³ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 39. For the letters *ṣ* and *š* the original ambiguous and indistinct *ṣ* is given by Schultens. In the Aramaic grammar, *Institutiones Aramaeae*, p. 12, the classification appears as a diagram in a different order: gutturals, linguals, palatals, dentals and labials.

⁷³⁴ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 7, represents the phonemic value of the letters *ב* and *פ* with *β*, *bh* and *φ*, *ph*, respectively.

⁷³⁵ In modern scholarship, there is no uniform classification and terminology of the consonantal phonemes of Classical Hebrew. The terminology proposed here mainly conforms to that of Joshua Blau, *Phonology and morphology of Biblical Hebrew*, Winona Lake, Indiana, 2010, p. 69, and partly to Gregorio del Olmo Lete, *Questions of Semitic linguistics*, Bethesda, p. 52, although he proposes another classification of the Semitic consonantal system, pp. 31–52. An analysis and terminology different to both of them is found in Hans Bauer and Pontus Leander, *Historische Grammatik der hebräischen Sprache des Alten Testaments*, pp. 163–165.

⁷³⁶ Schultens, *Institutiones ad fundamenta* [...], pp. 39 f., where this group is termed sibilants and is said to have a great kinship. Cf. idem, *Clavis dialectorum*, p. 262, where *s* in Hebrew is said to correspond to other sibilants in Arabic (ش ز ص and س).

In the classification above, the concept “manner of articulation” – such as nasal, stop (plosive), fricative, approximant, or trill – was not used as a criterion for classification, nor was a distinction made between voiceless and voiced phonemes. Though the fricative pronunciation of the consonants *b*, *g*, *d*, *k*, *p*, and *t* was observed in pre-modern Hebrew grammars,⁷³⁷ the aspirated sounds were generally not classified as distinct phonemes. However, this distinction was used as a conceptual tool for comparative Semitic phonetics by some early modern theorists of Semitic languages (see Section 10.1.6 below). In *Clavis dialectorum* (1733: 227), Schultens assumed that the speakers of Ancient Hebrew, like those of Classical Arabic, distinguished between voiceless pharyngeal and velar fricatives (between *ħ* and *h*) and between voiced pharyngeal and velar fricatives (between *ʕ* and *g*), but lacked graphemes to represent these phonemes. This correct assumption was not new, as Christian Ravius had already proposed it.⁷³⁸

Matthäus Hiller (1646–1725) proposed a partially new classification in his Hebrew grammar, *Institutiones linguae sanctae* (1711). Hiller removed the class of linguals and referred some of its consonants, viz. *ṭ*, *ṣ* and *ṣ* to the class of dentals, which he divided into sibilants (*ṣ*, *ṣ*, *ṣ*, *ṣ* and *ṣ*) and dentals without a sibilant sound (*ṭ*, *ṣ* and *ṣ*). The remaining “linguals” and “dentals” (*ḥ*, *ḥ* and *ḥ*) he classified as a sub-group of the palatals, “front palatals” as opposed to the former class of palatals, “back palatals” (*ḥ*, *ḥ* and *ḥ*).⁷³⁹ Partly adapting to this new system, Schultens used the classificatory concept of sibilants in his rules for sound correspondences.

10.1.2 Classification of Arabic speech sounds

In his Arabic grammar (1613) and Arabic primer (1620), Thomas Erpenius classified Arabic letters and speech sounds into five groups according to the place of articulation, as follows:⁷⁴⁰

Gutturales: ه غ ع خ ا

Labiales: ف م و ب

Palatinae: ق ك ي ج

Linguales: ظ ذ ث ن ل ط د ت

Dentales: ض ص ش س ر

⁷³⁷ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 7; and *Institutiones Aramaeae*, p. 3. Schultens marks the fricativization by adding *h*, as *bh*, *dh*, *gh*, *ch*, *ph* and *th*. This group of consonants was referred to as *begadkefat* and corresponds to voiceless and voiced labial, dental and velar stops and fricatives, respectively.

⁷³⁸ Ravius, *Orthographiae et analogiae ... Ebraicae delineatio*, p. 19, p. 25 and implicitly p. 81.

⁷³⁹ Hiller, *Institutiones linguae sanctae*, Tübingen 1711, pp. 13–17.

⁷⁴⁰ Erpenius, *Grammatica Arabica*, Leiden 1613, pp. 18–19; *Rudimenta linguae Arabicae*, Leiden 1620, p. 7. Erpenius gives the graphemes by the initial, medial or final Arabic forms. Cf. Schultens' editions of *Thomae Erpenii grammatica Arabica*, 1748, p. 17, and of *Rudimenta linguae Arabica auctore Thoma Erpenio*, 1733, p. 7.

In contrast to the Hebrew and Phoenician alphabets, Arabic has a number of graphemes for what in modern terminology are the voiceless and voiced velar fricatives (خ, *ḫā'* and غ, *ḡayn*), the voiceless and voiced interdental fricatives (ث, *tā'*, and ذ, *dāl*), the emphatic voiced dental stop (ض, *dād*), and the emphatic voiced interdental fricative (ظ, *zā'* or *dād*). However, in the above classification, Erpenius distributed these six graphemes into three different classes. He assigned two of them to the gutturals, one to the dentals, and three to the linguals. Considering the affinity of the speech sounds, Erpenius argues that almost all consonants of the same class interchange with each other (*invicem commutantur*), “as does also ض *dād* and ظ *dād*”, he adds, thus implicitly presuming that they are of different classes.

In his Heptaglot dictionary, Edmund Castell follows the same classification of Hebrew and Arabic speech sounds, except that the sound represented by the letter *rēš* is classified as a lingual. Schultens undoubtedly accepted the Erpenian division of Arabic consonantal graphemes.

10.1.3 Sound correspondences between Hebrew and Aramaic

From the Greco-Roman linguistic tradition and medieval Hebrew phonology, early modern etymologists inherited the rule that “homorganic consonants easily interchange”. Homorganic consonants were those within the same place of articulation according to the classes listed above, but it was acknowledged that specific speech sounds could cross classes. In his polyglot Semitic dictionary (*Lexicon pentaglotton*), Valentin Schindler improved this recognition. Setting out from the principle of interchange, or substitution, of specific speech sounds between classes, he was able to identify all principal sound correspondences between the Semitic languages. Similarly, Johann Heinrich Hottinger knew the principle of sound correspondences but did not refer to it often in his Semitic dictionary. (*Etymologicum Orientale sive Lexicon harmonicum heptaglotton*). This was not due to a lack of insight, but because his primary concern was morphological and lexical rather than phonological. He intended to establish the basic or natural meaning of Biblical Hebrew words and to restore a triconsonantal Semitic root, where it is missing or not apparent in the Biblical Hebrew vocabulary. These aims had a higher priority for Hottinger than observations on sound correspondences.⁷⁴¹

⁷⁴¹ In his polyglot Semitic dictionary (*Lexicon heptaglotton*, 1669), Edmund Castell certainly acknowledges that “linguals and patatals” sometimes interchange with the “dentals” (preface, p. 4), but did not put this principle into effect. Instead, he arranged the lexical entries according to superficial phonological correspondences and not the etymological. His dictionary – or compilation of separate dictionaries – therefore marks a regression in terms of comparative phonological methodology.

In his Aramaic grammar (1527), Münster describes six correspondences between Hebrew and Aramaic. Dealing with the interchanges or alterations (*permutatio*) of certain consonants, he states: “Through a special shift the Aramaeans transform some Hebrew consonants into others. They sometimes change צ into ע; sometimes צ into ט; ט into ד; and ש into ת”.⁷⁴² He adduces several examples of these correspondences.⁷⁴³ He also remarked on the “shift” from Hebrew *śin* to Aramaic *sāmek*, which was an incipient process in Biblical Aramaic times,⁷⁴⁴ but is more frequently attested in Targumic Aramaic. At last, he also noted the “shift” between Hebrew ס and Aramaic נ.

Moreover, in his Aramaic grammar (1554), the Italian Orientalist Angelo Canini provided a list of phonetic changes between Hebrew and Aramaic. He underlines that it is not a matter of “a haphazard, but of a natural change” dependent on different manners of pronunciation among speakers of the dialects.⁷⁴⁵ Canini reaffirmed the sound correspondences (which he conceptualized diachronically as “regular sound shifts”) between Hebrew and Aramaic to which Münster had referred, and extended his list of sporadic correspondences (“weak sound shifts”).⁷⁴⁶

⁷⁴² Münster, *Grammatica Chaldaica*, Basel 1527, pp. 34–35. Before the quoted passage, the author states: “Est aliud de quo hic monendus est, bone lector, nempe Chaldaeos quasdam Hebraicas literas peculiare permutatione in alias transferre. Nam *zade* aliquando mutant in *ain* et quandoque in *teth*: Sic *zain* in *daleth*, *schin* in *tau*.” After that, he represents the two other frequent shifts: “*sin* in *samekh* et *aleph* in *yod*. De quibus sigillatim aliqua ponemus exempla.”

⁷⁴³ Münster, *ibidem*, p. 35, where the “sound shift” צ–ע is exemplified by עמר–צמר (*šæmæṣ–amrā*), “wool”, עאן–צאן (*šōn–ān* [that is, *ānā*], “sheep” and ארעא–ארץ (*ʾæræṣ–ar ʾā*) “earth”. The “sound shift” צ–ט is proven by יעט–יעצ (*yā ʾaṣ–y ʾaṭ*) “to advise” קיט–קיצ (*qayīṣ–qayīṭ*, in the absolute state קיטא *qayīṭā / qēṭā*) “summer” and טיהרא–צהרים (*šāḥaraim–ṭihara*), “midday”. The “sound shift” ד–ט is demonstrated by דרע–זרע (*zæra–dʾra*) “seed”, דהב–זהב (*zāhāḇ–dahʾḇā* (emphatic for *dʾhab*), “gold”, and מדבּהא–מזבּח (*mizbēah–madbʾḥa*) “altar”. The “sound shift” ת–ש is elucidated by תבר–שבר (*šāḇar–tʾḇar*) “to break”, תלתא–שלושה (*šʾloša–tʾlāṭā*), “three” and תדין–שדים (*šadayim–taddīn*), “breast”. Most of these examples are still used. See Franz Rosenthal, *A grammar of Biblical Aramaic*, 6th rev. ed., Wiesbaden 1995, p. 19.

⁷⁴⁴ Franz Rosenthal, *A grammar of biblical Aramaic*, Wiesbaden 1995, p. 19.

⁷⁴⁵ Angelus Caninius, *Institutiones linguae Syriacae, Assyriacae atque Talmudicae una cum Aethiopicæ*, Paris 1554, argues that sound correspondences (“the natural changes of speech sounds”) between Hebrew, Aramaic, Arabic, and Ethiopic give a comparative method: “Ea igitur ratio fere tota in literarum quarundam non fortuita, sed naturali mutatione posita est.” “Therefore, almost all of this method lies in the unaccidental, natural shift of certain consonants.” He ascribes the diversity of the four “dialects” above to the different pronunciation of certain speech sounds.

⁷⁴⁶ Caninius, *ibidem*, p. 13, under the heading *Mutatio literarum* (“change of speech sounds”) exemplifies sound correspondences by דהב–זהב (*zāhāḇ–dʾhab*), “gold”, ארץ–ארע (*ʾæræṣ–ar ʾā*), “earth”, עמר–צמר (*šæmæṣ–amrā*), “wool”, קיט–קיצ (*qayīṣ–qayīṭ*), “summer” and תלתא–שלוש (*šʾloša–tʾlāṭā*), “three”. He notes the correlation between Hebrew *mēm* and Aramaic *nūn* at the end of words and mentions some sporadic

Furthermore, in his “Aramaic tables” (1560), the French Orientalist Jean Mercier described sound correspondence as “mutual exchange of letters”.⁷⁴⁷ He largely repeated Canini’s list of types of correspondence, but added two new ones: כ–ק as in *kāfal* (“to double”) – *qʾfal*) and ש–ס as in *kānas* (“to gather, collect”) – *kʾnaš*), and borrowed some examples from Münster.⁷⁴⁸

In early modern Hebrew and Aramaic language studies, the regular sound “alterations”, i.e. correspondences, between specific “linguals” and dentals were more thoroughly elucidated by the two Buxtorfs, the Elder and the Younger. In their Hebrew-Aramaic-Talmudic dictionary (1639), they record sound correspondences according to the four Greco-Roman categories of change: *commutatio*, *transpositio*, *adiectio*, and *detractio*, i.e. substitution, transposition, addition, and removal. Under the heading *Commutatio literarum*, they establish and confirm the general rule: “Homo-organic speech sounds, or those of the same organ of speech, interchange easily and often.” They illustrate this rule with both regular and irregular sound correspondences. In their view, there are fifteen “sound interchanges” within the same organ of speech and fifteen that cross classes.⁷⁴⁹ In describing the regularity of sound correspondences (termed “changes”), they sometimes use the Latin word *lex* in the sense of “rule”, e.g., “ב turns into פ by the rule of labials” (*ex lege litterarum labium*). They duly observed the sound correspondences between Hebrew and Aramaic: “ז passes into צ, ד into ע and into ט, and ש very frequently into ת”.⁷⁵⁰

At the end of the 17th century, these sound correspondences were noted by the German Orientalist Johann Andreas Danz in his grammar of Hebrew and Aramaic, *Literator Ebraeo-Chaldaeus*. He records them as regular sound shifts that cross their consonantal classes and exemplifies each with one single example from Biblical Aramaic.⁷⁵¹ August Pfeiffer, referring to the list of correspondences in the preface to Buxtorf’s Talmudic and

correspondences, such as פ–ב, for instance, in the Semitic loan-word for iron: ברזל–פרזל (*barzæl–parzæl*), as well as ט–ד, ל–ר, ס–ז, and ת–ח.

⁷⁴⁷ Johannes Mercerus, *Tabulae in grammaticen linguae Chaldaee, quae et Syriacae dicitur*, 2nd ed., Paris 1560 (1st ed. 1550), p. 6, where he refers to *litterarum inter se permutatio* and *litterarum commutatio*.

⁷⁴⁸ Mercerus, *ibidem*, p. 7.

⁷⁴⁹ Joh. Buxtorf the Younger, *Lexicon Chaldaicum, Thalmudicum et Rabbinicum*, Basel 1639, see the page that follows the dedicatory letter.

⁷⁵⁰ The Buxtorfs provide several still valid examples, many of which belonged to the scholarly tradition dating back to the 16th century. Most of them are found in Rosenthal, *A Grammar of Biblical Aramaic*, p. 19, § 17. As an instance of the correspondence between Hebrew ש and Aramaic ת, Buxtorf gives שָׁלַג, *šælæg*, and תַּלַּג, *laḡ* (in Syriac *talga*), “snow”.

⁷⁵¹ Danz, *Literator Ebraeo-Chaldaeus*, Jena 1696, p. 15, where the correspondence ז–ד is illustrated by זרוע (*zʾrōa*) – דרע (*dʾra*) “arm” (Dan 2:32), צ–ט by יעץ (*āʾas*) – יעט (*at*) “to advise, counsel” (Dan. 6:8), ע–צ by ארץ (*ʾæræs*) – ארע (*ʾar ʾā*) “earth” (Dan 2:38) and ש–ת by שוב (*šūb*) – תוב, *tūb*), “to return” (Dan 4:31).

Rabbinical dictionary, states that the Aramaic dentals (ט, ד, and ת) correspond to Hebrew sibilants (ז, ט, and ש) and compares this phenomenon with the shift *s-d* between High German *das, was, wasser*, and Low German *dat, wat, water*.⁷⁵² In the preface to his Hebrew dictionary, Gousset confines himself to four sound correspondences between Hebrew and Aramaic.⁷⁵³

10.1.4 Sound correspondences between Hebrew and Arabic

Sound correspondences between Hebrew and Arabic were recognized by Jewish linguists in the Middle Ages, such as the Algerian grammarian Yehuda ibn Quraysh (9th century).⁷⁵⁴ In *Lexicon pentaglotton* (1612), Schindler described all the sound correspondences between Hebrew, Arabic, and Aramaic that Schultens later exposed in his *Clavis dialectorum* (1733). As pointed out above, Schindler's lexicographical successors unfortunately failed to preserve his insight into comparative Semitic phonology. In Castell's case, this diminished the comparative value of his dictionary. Still, the Arabists Samuel Bochart and Edward Pococke observed specific sound correspondences between Hebrew and Arabic.

The German philologist Abraham Kromayer was more systematic and drew up a list of regular and sporadic sound "interchanges" between Hebrew and Arabic in a treatise entitled *Filia matri obstetricans, hoc est de usu linguae Arabicae in addiscenda Ebraea et explicanda Scriptura Sacra*, 'The daughter acting as midwife to her mother, that is, on the utility of the Arabic language in learning Hebrew and explaining the Holy Scriptures', published in Frankfurt am Main in 1707.⁷⁵⁵ In his principles of comparative Hebrew-

⁷⁵² Pfeiffer, *Critica sacra*, Leipzig 1702, p. 287, chapter 10, section 2 in a digression "De natura usu et subsidiis linguarum, quas vocant Orientalium", "On the nature, use and aids of the languages called Oriental", § 2: De lingua Chaldaica.

⁷⁵³ Gousset, *Commentarii linguae Ebraicae*, pp. 2–3. The change ט-ד is shown by several examples: בדר-פור (*pizzer-badder*), "to spread, disperse", אדין-אז (*'az-'ædayin*), "then", דרע-זרוע (*z^rrōa'-d^rra'*), "arm", דבה-זבה (*zāḥaḥ-d^ḥḥaḥ*), "to sacrifice", דהב-זהב (*zāḥāḥ-d^ḥḥaḥ*), "gold", דכר-זכר (*zāḥar-d^ḥḥar*), "to remember". The change ט-צ is shown by צור (*sur*), "rock" and טיר (*fīr*) "stronghold", קיט-קיץ (*qayis-q^yyaṭ*), "summer", and יעט-יעצ (*yā'aṣ-y^ṣ'at*) "to advise". The change ע-צ is illustrated by רעע-רצץ (*rāṣaṣ-r^ṣ'a'*) "to crush, smash". The change ש-ת is elucidated by תלתא-שלוש (*šaloš-ṭ^llātā*), "three" and תרע-שער (*ša'ar-ṭ^rra'*), "gate".

⁷⁵⁴ As stated above (Section 4.2), Ibn Quraysh emphasized the correspondences ז-ד, ḥ-ḥ, 'ḡ, ṣ-d, and š-t, which are those numbered 1, 2, 3, 4, and 8 in Section 15.1.3.

⁷⁵⁵ The Hebrew title is בת מילדת לאם (*Bat m^yyalæḏæṭ l^a'em*). The section on *permutatio literarum* is found on pp. 18–25. Kromayer says, on p. 19, that he read Buxtorf the Younger's study of Hebrew-Aramaic sound correspondences only after he had finished his own study. His frequent references substantiate that he also used Pococke's *Commentary on the prophecy of Joel* (Oxford 1691) in its Latin translation (Leipzig 1695), his *Porta Mosis* (1658), Golius' Arabic-Latin dictionary (1653), de Dieu's commentary on the Bible (1689), and Le Clerc's commentary on the Pentateuch. Surprisingly, he never refers to Schindler's *Lexicon pentaglotton*.

Arabic etymology, he refers to two categories: (1) Arabic words that are phonologically identical to Hebrew cognates, and (2) Arabic words that have a disguised phonological identity with Hebrew ones: words that we are able to discover through the four categories of change: substitution (*permutatio*), transposition (*transposition*), addition (*additio*) and removal and (*abiectio*).

Kromayer recognizes eight sound correspondences (which he terms “sound shifts”) between Hebrew and Arabic.⁷⁵⁶ In addressing the question of whether these sounds fall within the same class or cross classes, he argues that the sounds *ḥāʾ* and *ḥāʾ* (*ḥ–ḥ*), *ʿāyn* and *ḡāyn* (*ʿ–ḡ*), and *ṣād* and *ḏād* (*ṣ–ḏ*) interchange within the same organ of speech (*idem organon*) as their Hebrew counterparts, although *ḥā*, *ḡāyn*, and *ḏād* occur only as phonemes characteristic of Arabic. Using the same classification of Arabic letters as Erpenius, in agreement with the Arabic grammatical tradition, he declares that the interlingual Hebrew-Arabic correspondences *zāyin–ḏāl* (*z–ḏ*), *ṣād–ḏād* (*ṣ–ḏ* or *ṣ*), and *šin–ṭāʾ* (*š–ṭ*) traverse from the “dentals” to the “linguals”.

10.1.5 Typesetting of Arabic letters in Hebrew

In the 16th and 17th centuries, there was a general shortage of Arabic typefaces in most European countries, so scholars and printers were often compelled to represent Arabic graphemes in Hebrew script. In the Arabic alphabet, there are six graphemes – *ḏāl* ذ, *ḥāʾ* ح, *ẓaʾ* or *ḏāʾ* ظ, *ḡāyn* غ, *ḏād* ض, and *ṭāʾ* ط – that do not occur in the Hebrew alphabet. To overcome this problem, typographers marked the closest Hebrew letters – ט, נ, ו, פ, צ, and ת – with a diacritic dot above, as in Schindler’s *Lexicon pentaglotton*.⁷⁵⁷ This practice made it possible to transliterate Arabic words with sufficient phonemic accuracy, except that the dotted Hebrew *ṣādē*, צ, corresponds to both *ẓāʾ* ظ and *ḏād* ض.⁷⁵⁸

10.1.6 Contrastive Arabic and Hebrew phonology

This system of Hebrew typography for representing the phonemic inventory of Arabic was inappropriately theorized in the 17th century. The speculative theorist of Semitic languages Christian Ravius argued that the allophonic spirantization of the stop consonants ט, ל, ד, כ, פ, and ת, according to the rule of *begadkefat*, is the allophonic counterpart to the six Arabic graphemes that are lacking in the Phoenician alphabet, namely *ḏāl* ذ, *ẓaʾ* or *ḏāʾ* ظ, *ḥāʾ* ح, *ḡāyn* غ, *ḏād* ض, and *ṭāʾ* ط. With his structuralist and synchronic perspective

⁷⁵⁶ Kromayer, *Filia matri obstetricans*, pp. 21–24. For these “sound shifts”, see my account in Section 15.1.3 below, nos. 1–8.

⁷⁵⁷ This graphemic representation of Arabic was used by Schindler himself in the manuscript of his dictionary. It was not invented by the editor or the typographer.

⁷⁵⁸ In Schindler’s *Pentaglot*, the Hebrew grapheme *ṭet*, ט, with a dot above it, is used to represent both *ẓaʾ* or *ḏāʾ* ظ, and, quite unnecessarily, Arabic *ṭa*, ط, which is unproblematic. The grapheme *ṣade*, צ, with a dot above it, is used to represent both *ẓaʾ* or *ḏāʾ* ظ, and *ḏād*, ض, which thus are not distinguished from each other.

on Semitic phonology, he maintained that the number of phonemes is the same in the Semitic languages, either 22 or 28, since six speech sounds may be added to Hebrew or subtracted from Arabic. Both Hebrew and Arabic have 28 phonemes if the allophonic pronunciation of the *begadkefat* consonants is taken into account in Hebrew. Both Hebrew and Arabic have 22 phonemes if the six Arabic phonemes discussed above are treated as allophones of similar phonemes.⁷⁵⁹

J.H. Hottinger and J. Rhenferd further developed these observations. In *Smegma Orientale*, Hottinger argues that Hebrew and Arabic have the same number of speech sounds, viz. 22, since the six additional letters of the Arabic alphabet are typologically similar to the harder or weaker pronunciation of *begadkefat*, “something that does not increase the number of Hebrew alphabet”.⁷⁶⁰ In his comparative Semitic grammar, Rhenferd built on Hottinger in asserting that Arabic is incorrectly said to have 28 letters, and, perhaps drawing on Ravius, added that the pronunciation of the six additional Arabic phonemes in Ancient Hebrew (*vetus Hebraea*) did not differ from the pronunciation of the letters צ ע ט פ ד and ת, “if marked with a dot above them”, so that they could be pronounced, “partly lisping, partly harsher” (*partim blaese, partim asperius*).⁷⁶¹

⁷⁵⁹ Ravius, *De scribendo lexico Arabico-Latino dissertatio*, 1643, p. 12, estimates the number of Semitic phonograms at 28 if the *begadkefat* phonemes in Hebrew and Aramaic are added to the Arabic letters. In his Hebrew grammar, *Orthographiae et analogiae, vulgo etymologicae, Ebraeae delineatio*, Amsterdam 1646, p. 81, he considers the number of Semitic phonemes to be 22, provided that *sāmek* or *šin* is superfluous and that the softened fricative pronunciation of six Arabic speech sounds is reduced (viz. ذ, ظ, خ, غ, ض, and ث). Ravius states: “Hebrew [...] has 22 letters. Chaldaic Syriac, or Assyrian, and Samaritan have the same number of letters. [...] Also Arabic itself only has 22 letters, of which it doubles six speech sounds by a harder or a softer pronunciation, namely ד, פ, ט, ע, צ, and ת.” Then he argues that such a doubling once existed in Hebrew as well, though not retained (*licet non sit retentum*), and that through the use or non-use of dagesh, six new consonants were formed. Hebrew accordingly had 28 phonemes. Ravius, *Discourse concerning the easterne tongues*, 1649, p. 42, concludes: “thence it comes to pass if ye will reckon up 22 Ebrew letters and six of them with a point now and then added, you will make 28 letters, just as many as the Arabians have. And if from these 28 Arabic letters you will take off those six that are twice in the alphabet, because of one accidentall point more or less, then you will have 22 letters in Arabic also, no more nor lesse”. In *A generall grammer*, p. 159, Ravius maintains that the Semitic phonemes should be limited to twenty because *’ālef*, *wāw*, and *yōd* are to be viewed as interchangeable, and either *sāmek* or *šin* is superfluous in Hebrew.

⁷⁶⁰ J. H. Hottinger, *Smegma Orientale*, Heidelberg 1658, pp. 110–111.

⁷⁶¹ J. Rhenferdus (pres.) / J. L. Schlicher (resp), *Rudimenta grammaticae harmonicae linguarum Orientalium Hebraeae, Chaldaicae, Syriacae et Arabicae*, pars I, Franeker 1706, p. 1. Obviously, Rhenferdus thinks that a dotted Hebrew *ṭē* would correspond to Arabic *ṣa’* or *ḍā’*.

10.1.7 Impact on Schultens

In his comparative phonology, Schultens adopted the ancient concept of *permutatio elementorum*, or *commutatio litterarum*, in his analysis of regular and sporadic sound correspondences between Hebrew and Arabic, as well as between Hebrew and Aramaic.⁷⁶² In his *Clavis dialectorum* (1733), he followed the principle of “the interchange of consonants” (*De permutatione consonantium*) when describing the sound correspondences between Hebrew and Arabic. He plausibly scrutinized Kromayer’s classification of “sound interchanges”, that is, sound correspondences, between Hebrew and Arabic. He possessed Kromayer’s treatise,⁷⁶³ but he did not acknowledge his use of it in *Clavis dialectorum*.

10.2 Semantic approaches

10.2.1 The concept of a proper meaning

In early modern Hebrew lexicography, the concept of proper word meaning was used according to the shifting ideas of what it constitutes. Some viewed it as the precise and strict meaning (Forster), others as the usual and natural meaning (Cocceius), some again as the general and abstract superordinate meaning (Bohle, Gousset, and Stockius), others as the specific etymological meaning (Schultens). In his public lecture on the origins of the Greek language, Tiberius Hemsterhuis similarly defined the term *proprietas* as the original meaning. He notes that the term is used by the Roman grammarian Nonius Marcellus, who in the first chapter of *De proprietate verborum* investigates the etymologies of Latin words.⁷⁶⁴

In his treatise on Hebrew grammar, Theodore Bibliander defined his use of the term *proprietas* as “the particular single meaning that individual words have in their base stem.”⁷⁶⁵ He makes plain that in the base stem, or the root, words have one definite and stable meaning and that they can be extended to other meanings while the proper meaning remains,⁷⁶⁶ so that a relationship of similarity (*ratio similitudinis*) can be recognized in the

⁷⁶² In classical Greco-Roman etymology and orthography, the four categories of change are addition (*additio*; πρόσθεσις), subtraction (*detractio*, *demptio*; ἀφαίρεσις), substitution (*immutatio*, *commutatio*; ἐναλλαγή) and transposition (*transmutatio*, *traiectio*; μετάθεσις). Varro, *De lingua Latina*, v, 6, applies these categories to etymology. Quintilian, *Inst. orat.* 1, 5, 6 and 1, 5, 38–41 applies them to orthography. Cf. Lausberg, *Handbook of literary rhetoric*, pp. 217–220.

⁷⁶³ *Pars bibliothecae Schultensianae*, p. 25, no. 324 in quarto.

⁷⁶⁴ Hemsterhuis, *Lectio publica de originibus linguae Graecae*, with translation and commentary by Bouke Slofstra, Amsterdam and Münster 2017, p. 72 (§ 41.1).

⁷⁶⁵ Bibliander, *De optimo genere grammaticorum Hebraicorum commentarius*, Basel 1542, p. 115: “Proprietatem sic intelligo, qua singulae dictiones habent peculiare ac unum significatum prima positione.”

⁷⁶⁶ Bibliander, *De optimo genere grammaticorum*, p. 119: “Nam uoces quae prima positione unum certum et constans habent significatum, sic ad alia etiam notanda extenduntur, ut prima et propria significatio perstet” [...].

secondary meanings.⁷⁶⁷ Anticipating the 17th-century discussion of the nature of Hebrew, he states that there is “neither a heaping of synonyms nor a confusion of polysemous words”.⁷⁶⁸ In his opinion, Hebrew instead stands out as “frugal and moderate more than scanty and poor”.⁷⁶⁹

The lexicographers’ views on the concept of proper meaning were also shaped by Classical philology. In *De causis linguae Latinae* (“On the underlying principles of the Latin language”, 1540), Iulius Caesar Scaliger addressed the question whether the proper meaning is monosemous or polysemous. In his Latin grammar, he acknowledges the problem that many meanings are attributed to the same word and argues that one ought to explore the primary meaning, to which the other meanings “are to be reduced as to their distinctive mark and characteristics” (*tamquam ad tesseram signaque*). He contends that the ancient scholars were mistaken in assigning “a monstrous number of meanings to the same word”, since “one word only has one proper and primary meaning, while the others are either generally accepted, or additional, or even false”.⁷⁷⁰ The Spanish philologist Sanctius drew attention to this passage in his Latin grammar.⁷⁷¹ Scaliger’s statement also influenced semantic ideas in Hebrew lexicography. Gousset assumed it as a point of departure in his search for a general and primary meaning of Hebrew words.⁷⁷² In his programme for Hebrew etymology, *Vetus et regia via Hebraizandi* (“The old and royal method of studying Hebrew”), Schultens likewise quoted Scaliger’s postulation.⁷⁷³

10.2.2 The logical approach: The concept of a formal meaning

The distinction between formal and material meaning (*formalis et materialis significatio*; *formale et materiale significatum*) dates back to the logicians of the High Middle Ages.⁷⁷⁴ This distinction aimed to define the connotative

⁷⁶⁷ Bibliander, *De optimo genere grammaticorum*, pp. 115 and 119.

⁷⁶⁸ Bibliander, *De optimo genere grammaticorum*, p. 119: “Atque haec breviter delibasse, sat fuerit ad indicandum non esse neque synonymorum congeriem neque polysemorum confusionem, quae a nonnullis traditur, in sermone Hebraeo.”

⁷⁶⁹ Bibliander, *De optimo genere grammaticorum*, p. 116: “ut potius lingua frugalis et moderata sit, quam egena et pauper.”

⁷⁷⁰ Scaliger, *De causis linguae Latinae libri tredecim*, Paris 1540, book 13, ch. 192–193, pp. 350–351. On the ancient etymologists he states: “Fuerunt autem doctissimi multarumque literarum viri, qui [...] multa item significatorum monstra uni eidemque voci designarunt.” The core statement about the monosemy of the proper meaning reads in its Latin original: “Unius namque vocis una tantum sit significatio propria ac princeps. Caeterae aut communes aut accessoriae aut etiam spuriae.”

⁷⁷¹ Franciscus Sanctius, *Minerva seu de causis linguae Latinae*, chapter 14, p. 745 in the Amsterdam edition of 1752.

⁷⁷² Gousset, *Commentarii linguae Hebraicae*, preface, p. 3, lines 21–25.

⁷⁷³ Schultens, *Vetus et regia via Hebraizandi*, p. 56.

⁷⁷⁴ The Latin terms are attested in 14th-century university teachers of logic such as John Buridan, Francisco de Prato, Marsilius of Inghen, and Nicholas of Amsterdam.

term and was tied to the great philosophical question of universalism and nominalism. The formal meaning referred to the concept itself, while the material meaning was the thing signified. This dichotomy consequently applies to the distinction between abstract and concrete referents.

When taking up the term of “formal meaning” from medieval logic, Bohle gave it a different sense. To him, it was the *general* meaning, from which all specific meanings may be deduced as the maximal common denominator. He determined the formal meaning through logical abstraction and philological generalization. Owing to the predominance of neo-Aristotelian scholasticism in the 17th century, the assumption of a formal meaning was widely accepted in biblical hermeneutics and lexicography, especially among Lutheran philologists and authors of hermeneutic handbooks, such as August Pfeiffer, Matthias Wasmuth, Valentin Ernst Löschner, and Johann Jacob Rambach.⁷⁷⁵ They certainly criticized Bohle’s failures, but endorsed the concept of a formal meaning. Caspar Neumann frequently used the term “formal meaning” (*significatus formalis, significatio formalis*),⁷⁷⁶ sometimes equating the Bohlian concept of formal meaning with original meaning.⁷⁷⁷ Schultens used the term “formal meaning” but reinterpreted it to agree with his own concept of the original and etymological meaning, fully aware of the difference between his approach and that of logical semantics. The spread of this logical-semantic approach among Lutheran Hebraists was noted by Johann Simonis, who proposed a new sense of the concept of formal meaning, namely the formation of Hebrew nouns.⁷⁷⁸

The logical method of 17th-century Hebrew lexicographers may be seen as a precursor to modern structuralist semantics. The method of componential analysis is based on the assumption that the meaning of words, such as nouns, verbs, adjectives and adverbs, is composed of smaller elements, known as semantic components or semantic features.⁷⁷⁹ Originally, it was an answer to the demand for “semantic alphabets or

Cf. Stephan Meier-Oeser, *Die Spur des Zeichens: Das Zeichen und seine Funktion in der Philosophie des Mittelalters und der frühen Neuzeit*, Berlin 1997, pp. 133 ff.

⁷⁷⁵ August Pfeiffer, *Critica sacra*, Dresden 1680, chapter 5, § 4, pp. 176–177, Matthias Wasmuth, *Vindiciae S. Hebraeae Scripturae textu*, Rostock 1664, parts 3 (Pars III with the sub-title *Anti-Conringius apologeticus*, p. 414 (as quoted by V.E. Löschner, *De causis linguae Ebraeae*, Frankfurt a. M. & Leipzig 1706, p. 449) and J.J. Rambach, *Institutiones hermeneuticae sacrae*, Jena 1725, book 2, ch. 7. p. 266.

⁷⁷⁶ Neumann, *Genesis linguae sanctae V.T.*, Nuremberg 1696, pp. 16, 21, 57, 61 and 72; and once the term *conceptus formalis*, p. 66.

⁷⁷⁷ Neumann, *ibidem*, pp. 15 and 26 (*formalis et originaria significatio*) and p. 51 (*vocum significatus formalis et originarius*).

⁷⁷⁸ Simonis, *Arcanum formarum nominum Hebraeae linguae*, Halle 1735, pp. 1–5.

⁷⁷⁹ Pelio Fronzaroli, “Componential analysis”, *Zeitschrift für Althebraistik*, 6, (1993), p. 79.

universal mental dictionaries”.⁷⁸⁰ Structuralist semantics seeks to identify abstract or common semantic features from which the references of secondary meanings are supposed to derive. However, it can be objected that this method fails to analyse and explain the semantic change occasioned by metonymic and metaphorical usages.⁷⁸¹

10.2.3 The rhetorical approach: The co-existence of a proper meaning and transferred meanings

Christian Ravius adopted Bohle’s approach and applied it to Hebrew semantics. After finishing his studies with Trostius in Wittenberg in 1635, he continued his studies at other German universities, for a while at Rostock. Even if Ravius did not meet Bohle in Rostock, he acquainted himself with the new semantic method. In his programme for an Arabic dictionary, *De scribendo lexico Arabico-Latino* (1643), in his Hebrew grammar, *Orthographiae et analogiae (vulgo etymologiae) Ebraicae delineatio* (1646)⁷⁸² and in his *A discourse of the Orientall tongues* (1649), Ravius put forward a joint logical and rhetorical method of semantic analysis, arguing that every word has only one single primary, essential, abstract, general, unchangeable, and proper meaning,⁷⁸³ which may also adopt “a secondary, accidental, concrete, specific, changeable, and improper meaning according to the four rhetorical tropes”,⁷⁸⁴ while “its primary meaning remains”.⁷⁸⁵ The secondary meanings should, according to Ravius, be classified according to the four principal tropes of the Greco-Roman art of rhetoric, viz. metaphor, metonymy, synecdoche, and irony.⁷⁸⁶

⁷⁸⁰ Fronzaroli, “Componential analysis”, p. 83.

⁷⁸¹ Fronzaroli, “Componential analysis”, p. 83.

⁷⁸² In the title, the term *analogia* refers to morphology, which in the ancient and medieval Latin linguistic tradition was called *etymologia* (and should thus not be confused with the modern concept of etymology).

⁷⁸³ Ravius, *Orthographiae et analogiae ... Ebraicae delineatio*, p. 16: “In assignanda vera significatione radicis: 1. essentiali, ideali, propria, universali et generali”; p. 42 (§§ 10, 12–14): “Significatio vocis est vel prima, idealis seu abstracta, essentialis, propria, aeterna et immutabilis vel secunda, concreta, accidentalis communis temporaria, mutabilis.” Ravius, *A discourse of the orientall tongues* (London 1649), republished under the title *A discourse concerning the easterne tongues, to wit, Ebrew, Calde, Samaritane, Syriac, Arabic and Ethiopic*, London 1650, p. 41: “Every root of the Ebrew tongue hath only one radicall, essential, ideal, abstract and proper signification.”

⁷⁸⁴ Ravius, *Orthographiae et analogiae ... delineatio*, p. 16. “2. accidentalibus, secundis, mutabilibus, imps, oropriis, derivatisque juxta quatuor tropos rhetorices”.

⁷⁸⁵ Ravius, *Orthographiae et analogiae ... delineatio*, p. 42: “manente illa unica essentiali”. Cf. Bibliander’s analysis (Section 10.2.1).

⁷⁸⁶ Ravius, *ibidem*, p. 16: “omnes accidentales debent deduci et distingui in 1. Metaphoricas, 2. Metonymicas, 3. Synecdochicas 4. Ironicas”; p. 42: “Significatio prima in tres accidentales: metaphoricas, metonymicas et synecdochicas dividitur

10.2.4 Digression: The nature of semantic origins

In his thesis “On amplifying the limits of the Hebrew language”, Cornelis van Waenen defends the assumptions of the Schultensian school of Hebrew philology. Expounding on the simplicity of the Hebrew language, he makes a distinction between different kinds. Semantic simplicity concerns the relationship between the signifier (*signum*) and the signified (*significatum*). For simple ideas, meaning refers to corporeal or physical objects.⁷⁸⁷ This can be interpreted as a theory of the concrete origin of word meaning for simple ideas. Van Waenen also argues that polysemy arises whenever the relation between signifier and signified is applied to ideas that have more than one referent or are mixed or complex.⁷⁸⁸

10.2.5 The concept of emphatic or implied meaning

The concept of implied or emphatic word meaning was central to the Hebrew lexicography of Johannes Cocceius, who employed it in his Christological reading of the Old Testament. this concept can be traced back to Martin Luther. In his biblical expositions – from his second series of Psalm lectures (1519) through his Commentary on Genesis (1535–1545) – Luther devoted considerable attention to the emphatic, i.e., contextually implied, significance. He used the term emphasis to denote a special, deeper meaning, often juxtaposing it with the rhetorical term epitasis, “an intensified meaning”. He distinguished between emphatic and proper meaning, even though he sometimes called for an analysis of “the proper emphasis” (*propria emphasis*).⁷⁸⁹

However, in 18th-century hermeneutical thought, the emphatic meaning became almost tantamount to the concept of proper meaning. This conceptual development is discernible in the writings of hermeneutical handbooks of late Lutheran orthodoxy, such as those by Valentin Ernst Löscher and Johann Gottlob Carpzov. Löscher calls for the compilation of a

manente illa unica essentiali, licet ternis datis accidentalibus. Omnis significatio in contrarium per Ironiam converti potest, non modo propria, sed et accidentalis. Secundae significationes non multiplicant primam nec faciunt istam, sed ostendunt signumque ejus sunt. Quod omne ostendit ars rhetorica.”

⁷⁸⁷ C. van Waenen (resp.), *Specimen philologicum de linguae Hebraeae pomoeriis ampliandis* (submitted under the chairmanship of Jan Jacob Schultens), Leiden 1759, pp. 19–20: [...] “simplicitas interior diiudicanda secundum nexum et relationem, quae intercedit signum inter et significatum, id est vocabulum inter et conceptum mentis, qui eo exprimitur quaeque significationem vocabuli dicere solemus. [p. 20] Si relatio ista versatur in uno singulari quodam representamine rei corporeae, desumto ab hac vel illa parte corporis, quae sensus ac per eos animum quoque feriat, tunc significatio quoque vocabuli una, singularis et simplex est.”

⁷⁸⁸ van Waenen, *ibidem*, p. 20.

⁷⁸⁹ Luther, *In Genesin enarrationes*, WA 43, 324: “Iudaei [...] propriam emphasin obscurant et quasi hebetant et faciunt vocabula aequivoca.”

Lexicon emphaticum of Biblical Hebrew.⁷⁹⁰ The rapprochement between emphatic and proper meaning may be partly related to the rise of allegorical, edifying Bible interpretation in Germany in the late 17th and 18th centuries. The proper meaning was now being equated with the special, deeper, and hidden meaning that the Pietistic expositor was expected to uncover.

10.3 Digression: Modern approaches to semantic etymology

In modern times, the validity of the empiricist approach to the analysis of semantic development has been especially defended by the Semitic linguists James Barr (1924–2006) and Gregorio del Olmo Lete (b. 1935). In his study *Semantics of Biblical Hebrew* (1961), Barr repeatedly refers to the distinction between etymological or historical root meaning, on the one hand, and proper meaning or normal usage, on the other.⁷⁹¹ This implies that “it is quite wrong to suppose that the etymology of a word is necessarily a guide to its ‘proper’ meaning in a later period or to its actual meaning in that period”.⁷⁹² He cites the English word “nice” as an example. Derived from Latin *nescius*, which means “ignorant”, it developed the sense of “pleasant, agreeable”. Barr infers: “The meaning of the Latin word from which the derivation has taken place is no guide at all to the sense of this common word in modern usage.”⁷⁹³

In his next major work (1968), Barr examined the methods of comparative Semitic philology. Assessing the logical approach to semantic change in Biblical Hebrew, he states:

Semantic transfers will not generally flow smoothly from a basic general idea, but may arise from features which are quite minor, and which are thus logically accidental and unpredictable, in relation to a form taken as original, or in relation to a previous change of meaning.⁷⁹⁴

Regarding the failures of the logical method of semantics, he declares:

The older historical and comparative philology, lacking an adequate approach to questions of meaning [...] in its semantic notions very often fell prey to conceptions of a logical rather than of a linguistic nature. This can be plentifully illustrated from the traditional Semitic philology.⁷⁹⁵

⁷⁹⁰ Löscher, *De causis linguae Ebraeae*, p. 449.

⁷⁹¹ Barr, *Semantics of biblical language*, Oxford 1961, pp. 102, 109 and 146.

⁷⁹² Barr, *Semantics*, p. 109.

⁷⁹³ Barr, *Semantics*, p. 107.

⁷⁹⁴ Barr, *Comparative philology and the text of the Old Testament*, Oxford 1968, p. 291.

⁷⁹⁵ Barr, *Comparative philology*, p. 290.

He describes the logical-semantic method as founded on a practice of generalization:

The investigator, taking a series of forms which seem to be cognate and of which the senses are known, works by thinking out a common factor attaching to them all, so that a more or less direct relation from this common factor to the meaning of each form in each of several languages can be seen. The procedure is logical rather than linguistic in type, because it works by consideration of common features rather than working out a process of meaning transfer within stages of linguistic usage. The method is fundamentally one of association of actual features of groups of referents.⁷⁹⁶

Gregorio del Olmo Lete examines the semantic origin and change in his appraisal of Semitic etymological lexicography. Implicitly taking the semiotic triangle as his starting point, he claims that change to the semantic component of the linguistic sign is “much more derivative and reconstructive” than change to the “phonetic component”.⁷⁹⁷ He argues that this is due to “the very nature of the signifying process and its referent”.⁷⁹⁸ Referential differentiation, which entails semantic change and development, occurs because the referent itself is polymorphic by nature and because the referential content, that is, the meaning, is flexible on account of its shifting historical and socio-cultural contexts.⁷⁹⁹ He rejects the logical approach to etymological semantics, describing it as a method that supposes that the basic seme (i.e. the original meaning) refers beyond the multiple historical references and word meanings to a more complex and undefined common meaning, which can be defined as a “maximal common denominator”.⁸⁰⁰ His principal point of criticism is that semantic diversity is assumed to occur or be realized “by a process of specification” from an undefined reference to a more specific one.⁸⁰¹

⁷⁹⁶ Barr, *Comparative philology*, p. 290. On the next page, p. 291, Barr admits that his criticism of the logic approach to semantics “does not mean that logic is irrelevant, or that semantic work can be done without some foundation in general theory”. He criticizes the logic of “simple relations between things and names”, while granting that “a more sophisticated logic of linguistic usage may not necessarily have this damaging effect”.

⁷⁹⁷ Gregorio del Olmo Lete, *Questions of Semitic linguistics. Root and lexeme, the history of research*, tr. by Wilfred G.E. Watson, Bethesda, Maryland, 2008, p. 120.

⁷⁹⁸ Del Olmo Lete, *Questions*, p. 120.

⁷⁹⁹ Del Olmo Lete, *Questions*, pp. 120–121.

⁸⁰⁰ Del Olmo Lete, *Questions*, p. 121, where he also states: “I do not think that the “proto-language” originates from the accumulation of semantic “features” or “components of meaning” that formed the “common denominator”, which then allowed many semantic derivations.”

⁸⁰¹ Del Olmo Lete, *Questions*, p. 121.

Del Olmo Lete argues that the original seme (rather than the basic seme, in the sense of original meaning) was concrete, as it was “determined by the object referred to in a specific social and cultural context”.⁸⁰² He suggests that semantic change is not the result of a process of specification, but can be understood as “a process of parallel displacement of references within the same signifying and referential category”.⁸⁰³ The central problems of etymological lexicography are homonymy, whether there is one or several lexemes (viz. homographs), and semantic change, which is known to be created by metonymy and metaphor.⁸⁰⁴ Metonymy is here described as “the aspectual expansion of the referent” in terms of part and quality, and metaphor as “transposition in parallel of the referential reality”, which “produces polysemy of the lexeme or ‘root’ much more widely and deeply than in the case of metonymy”.⁸⁰⁵

Del Olmo Lete finally distinguishes between etymological semantics and historical semantics.⁸⁰⁶ The former moves backward:⁸⁰⁷ “It starts from the meanings the words have in each language and tries to retrace the transfer process without claiming to give them another meaning.”⁸⁰⁸ It concerns “the determination of the neutral and ‘supra-contextual’ meaning of the lexeme”.⁸⁰⁹ Historical semantics moves forward, pays attention to the historical context, and seeks to establish the interpretation of a specific text.⁸¹⁰

⁸⁰² Del Olmo Lete, *Questions*, p. 121. In n. 113 he cites the support of the French Hebrew and Greek scholar Louis Roussel (1881–1971), author of *La racine sémitique vue de l’hébreu* (1952) and James Barr (*Comparative philology*).

⁸⁰³ Del Olmo Lete, *Questions*, p. 121.

⁸⁰⁴ Del Olmo Lete, *Questions*, p. 122. In n. 117, the role of metonymy and metaphor in semantic change is supported by references to linguistic treatments of meaning by John Lyons, *Semantics*, vol. 2, Cambridge 1977, pp. 548 ff., Stephen Ullman, *Semantics*, Oxford 1986, pp. 193 ff. and Eliezer Rubinstein. Other works could be added, e.g., Gustaf Stern, *Meaning and changes of meaning with special reference to the English language*, 2nd ed. Bloomington 1964 (1st ed., Göteborg 1931), pp. 301–330, where metaphor is treated as an intentional transfer of referential relation. Cf. also Ronald A. Waldron, *Sense and sense development*, London 1967.

⁸⁰⁵ Del Olmo Lete, *Questions*, p. 122.

⁸⁰⁶ Del Olmo Lete, *Questions*, p. 122; cf. the account of Barr’s opinions on pp. 91–92.

⁸⁰⁷ Del Olmo Lete, *Questions*, p. 122.

⁸⁰⁸ Del Olmo Lete, *Questions*, p. 92.

⁸⁰⁹ Del Olmo Lete, *Questions*, p. 122.

⁸¹⁰ Del Olmo Lete, *Questions*, p. 122.

PART 4.
SCHULTENS' THEORY AND METHOD

11. Classificatory principles

11.1 Reclassification of Semitic languages

Throughout his academic career, Schultens developed his theory of the kinship of Semitic languages. In his 1706 master's thesis and in publications up to 1724, he accepted the Hebrew monogenesis hypothesis and thus regarded the other Semitic languages as daughter dialects of Hebrew. In the latter part of his career, from about 1729, he gradually revised this opinion, but to defend himself against criticism, he combined it with the old tradition, often safeguarding his view with the formula "either the Hebrew mother or the Hebrew sister". In his publications from the 1740s, he rejected the long-established opinion and consequently downgraded Hebrew from its rank as the mother of all languages to that of a sister dialect, alongside Arabic and Aramaic, which he now conceived as daughter dialects of the primeval language.

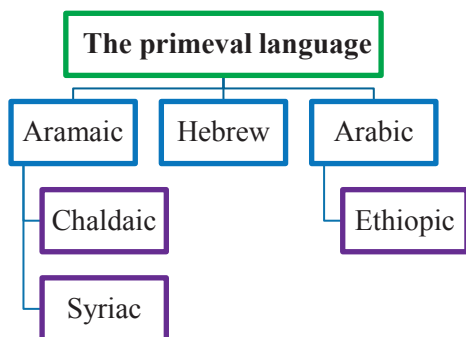
In *Origines Hebraeae*, vol. 2, ch. 1, Schultens described the relationship between "the ancient and true languages of the Orient" using the terms *cognatio* ("kinship") and *consanguinitas* ("blood-kinship"). Both terms signify a relationship by descent from a common ancestor, but neither was new. In his inaugural speech in Bremen in 1630 on sacred philology, Cocceius had already designated Hebrew, Aramaic, and Arabic as "cognate and related by birth" (*cognatae et consanguineae*).⁸¹¹ As a Cocceian scholar, Schultens may have borrowed this linguistic terminology from Cocceius. Using a vegetative metaphor, he also designated Hebrew, Chaldaic, Syriac, and Arabic as "offshoots and branches of the antediluvian tree trunk":

To make this clear to everyone, I propose that the four dialects that once occupied the Orient – Hebrew, Chaldaic, Syriac, and Arabic – be viewed as four major branches of a single maternal trunk, spreading widely like a

⁸¹¹ Johannes Cocceius, "Oratio auspicalis de philologia sacra" (delivered on 30 September 1630), published in idem, *Opera anecdota theologica et philologica*, Amsterdam, 1706, vol. 1, p. 56: "Hebraea vero et Chaldaea cum Syra et Arabica etiam consanguineae et cognatae sunt." Cocceius underlines that the relationship of these languages makes it easy to extend the knowledge of Hebrew to the other Semitic languages, at least to the degree that one is able to use dictionaries of them for the comparison of ancient Bible translations. See idem, "Protheoria de ratione interpretandi sive introductio in philologiam sacram", in *Opera anecdota*, vol. 1, p. 68 (§ 85).

tree with four branches throughout Babylonia, Syria, Palestine, and the deepest reaches of Arabia. The primeval language, as a maternal trunk, produced these four branches in these regions when the family-nations were separated, imbued them with the same sap, and infused them with the same meanings, together with an ample stock of words in their original and innate force.⁸¹²

Some pages ahead, this tree metaphor is equated with a genealogical table.⁸¹³ Since, in Schultens' view, Chaldaic and Syriac are subordinated to Aramaic and Ethiopic (*Ge'ez*) to Arabic, the following diagram emerges:



In his subsequent treatises, Schultens regards Biblical Hebrew as the product of dialectal diversification from the primeval language of mankind. This diversification was occasioned by the gradual change in Hebrew usage over time and by geographical separation into various regions, provinces, and cities. The same factors apply to Chaldaic, Syriac, and Arabic.⁸¹⁴

⁸¹² Schultens, *Origines Hebraeae*, vol. 2, p. 11 (§ 19): “Hoc ut in oculis omnium defigam, contemplandas offero quatuor dialectos, quae Orientis medietullum olim tenuerunt, Hebraeam, Chaldaicam, Syriacam et Arabicam, tamquam quatuor grandiores ramos unius matris stirpis, sese ad instar arboris τετραγώνου per Chaldaeam, Syriam, Palaestinam et Arabiae recessus interiores latissime explicantis. Lingua primaeva videlicet, veluti materna stirps, hos quatuor ramos, quum secessio fieret familiarum, per regiones istas propagavit iisdemque ex aequo infudit, una cum diffusa materie vocabulorum, eundem succum eandem significationum indolem, primigeniamque ac nativam potestatem.”

⁸¹³ Schultens, *ibidem*, p. 17 (§ 31).

⁸¹⁴ Schultens, *Proverbia Salomonis*, preface, p. lxxx, where it is asserted that Hebrew cannot be equated with the primeval language because doing so contradicts the principles of language development, and p. xcii, where it is maintained that the primeval language was retained not only by the Israelite descendants of Heber but also by other peoples, such as the Chaldaeans, the Syrians, and the Arabs (descended from the house of Heber and from Abraham and Ismael), and by still

11.2 Views on the previous discourse on the primeval language

In the unpublished treatise *Theses de lingua primaeva*,⁸¹⁵ Schultens takes a definite position in the Western debate on the primeval language of humankind. He discusses the following main topics:

- the nature of the original and primeval language of humankind (§§ 1–18), emphasizing its societal function (esp. § 3) and denouncing its status as supernatural (§ 2) and intrinsically holy (§§ 7–8),
- its historical development before the Flood of Noah (§§ 19–33),
- its identity according to the different opinions in Western early modern debate (§§ 34–78),
- its differentiation into daughter languages, the Hebrew, Arabic, Aramaic, and Syriac “dialects”, for which a reclassification is proposed, downgrading Hebrew to a sister dialect of Aramaic, Syriac, and Arabic (§§ 79–100) and criticizing its status as holy (§§ 82, 86),
- its non-identity with Biblical Hebrew, that is, the language stages and forms of Hebrew that are preserved in the Old Testament,
- lexical, morphological, and syntactic criteria for establishing the kinship of the Semitic languages (§§ 101–111),
- the necessity of a comparative study of Hebrew in the light of its related languages §§ 117–120).

In the preface to his commentary on the Proverbs of Solomon, Schultens, from a biographical perspective, describes how he accepted the Hebrew primordially hypothesis as a student but rejected it as a fully fledged linguistic comparativist. He states this in a quotable passage, which reads:

I admit that Buxtorf the Younger’s final opinion was accepted by the assent of almost all scholars, including those who hold the Oriental languages in great esteem. Under such authority, it appealed to me in my youth and took hold of me so mightily that only after many years was I able to dissociate myself from it. In doing so, I relied on the mighty force of truth, which gradually shed gleams of light and finally let the day dawn on me. This came about through a thorough investigation of the morphology of the Hebrew language, a scrutiny of the morphology of the Aramaic, Syriac, and Arabic dialects, an assiduous cultivation of Greek and Latin – said without boasting – and knowledge of other languages as well, a knowledge which is not superficial. Besides Ethiopic, Samaritan, and Talmudic-rabbinic, which are connected by kinship with the principal dialects Aramaic, Syriac, and Arabic, I allow myself to

more peoples, in particular the Canaanite. These peoples were later distinguished by these names. Cf. Schultens, *Excursus tertius* (Leiden 1739), p. 235.

⁸¹⁵ MS. Or. 1469, envelope 12, fols. 1r–10r. This treatise is edited and translated in my forthcoming edition of Schultens’ *unpublished manuscripts on comparative Hebrew philology* (sections 7.1.5 and 7.1.6).

modestly mention my knowledge of Egyptian, or rather Coptic, Armenian, Persian, and Turkish, each of which differs more than the earth from the sky in the character and constitution of their entire morphology, both mutually and in relation to the dialects mentioned above.⁸¹⁶

Referring to the advocates of the critical and anti-critical schools of Hebrew and Oriental philology, Schultens asserts that only a few self-confident critics dared to challenge the inherited idea:

There was no disagreement among them, let alone any controversy, except for a few rather violent critics⁸¹⁷ who contended that Hebrew was not even primeval and, without much care for proof, declared that it was

⁸¹⁶ Schultens, *Proverbia Salomonis*, preface, p. lxxxvii: “fatebor hanc novissimam sententiam Buxtorfianam calculo omnium ferme Eruditorum confirmatam, etiam eorum, qui dialectos Orientales comiter venerantur, et mihi im prima iuventute tantis sub auspiciis unice arrisisse tamque potenter sese insinuasse, ut non nisi post aliquot annos inde avelli potuerim, potentiore vi veritatis, usque et usque lucidiores ingerente radiolos, qui tandem diem mihi aperirent per analogiam ipsius linguae Hebraeae penitus introspectam, per analogiam item dialectorum Chaldaicae, Syrae et Arabicae, per cultum, praefiscini!, non indiligentem linguae Graecae et Latinae, per aliorum quoque linguarum cognitionem haud perfunctoriam, inter quas nunc, quia ad hanc rem faciunt, nominare verecunde liceat praeter Aethiopicam, Samaritanam et Thalmudico-Rabbinicam, affinitate cum principibus dialectis Hebr. Chald. Syr. et Arab. connexas, Aegyptiacam vel potius Copticam, Armenicam, Persicam, Turcicam, non tam toto solo, quam toto coelo, id est indole et constitutione analogiae universae, cum a se invicem, tum a dialectis, quas modo percensui, adeo discrepantes” [...].

Schultens possessed grammars and dictionaries of Ottoman Turkish, Armenian, Persian and Coptic. See *Pars bibliothecae Schultensianae*, p. 6, no. 168 in folio: Fr. Mesgnien Meninsky’s *Thesaurus linguarum Orientalium sive Lexicon Turcico-Persico-Arbicum*, Vienna 1680, p. 26 no. 339 in quarto: Th. Greaves’ *Elementa linguae Persicae*, London 1649, p. 26, no. 340 in quarto: de Dieu’s *Grammatica linguae Persicae*, Leiden 1639, p. 26, no. 347 in quarto: J.J. Schröder, *Thesaurus linguae Armenicae antiquae et hodiernae*, Amsterdam 1711. See also *Bibliotheca Schultensiana* (1780), s.v. “Grammatici et lexicographi Orientalium linguarum” in folio, p. 515, no. 1027: Meninsky’s *Thesaurus linguarum Orientalium*, Vienna 1680), and in quarto, p. 531, no. 3545: de Dieu’s *Rudimenta linguae Persicae* and du Ryer’s *Rudimenta linguae Turcicae*, and in octavo, p. 554, no. 6288 Hieronymus Megiser’s *Institutiones linguae Turcicae*, Leipzig 1612, du Ryer’s *Rudimenta linguae Turcicae*, Paris 1630, no. 6290 Joh. Chr. Clodius, *Lexicon Latino-Turcico-Germanicum and Grammatica Turcica*, Leipzig 1730 and 1729, no. 6291 G. Molino, *Dittionario della lingua Italiana e Turchesca*, Rome 1641, and no. 6292 Chr. G. Blumberg, *Fundamenta linguae Copticae*, Leipzig 1716.

⁸¹⁷ Schultens most certainly aims at Grotius, Huet, and Le Clerc, whose ideas on the primeval language he discusses in his Hebrew grammar (*Institutiones*, p. 4).

younger than Aramaic, since they looked upon their own authority as sufficient evidence and were confident because they were admired by others.⁸¹⁸

Schultens argues that his recognition of the relations of agreement, which he designates as *analogica constitutio*, between the Semitic languages paved the way for his disproof of the idea of a linguistic Hebrew primacy. With reference to the famous Orientalists Samuel Bochart, Johann Heinrich Hottinger, and Johannes Buxtorf the Younger, Schultens states:

In my youth I daily imbibed from their sources, and thus the primeval and maternal dignity of the Hebrew language was so deeply impressed in my mind that for a long time I used the terms mother language and daughter languages according to the public discourse of the learned, until I, after having almost grown old in teaching this and stating the same, took recourse to the regular nature of all dialects and discovered that the Hebrew dialect of the Holy Writ cannot be considered the mother of the Oriental dialects as little as Attic, with all its dignity and excellence, can be placed as a maternal authority of the other dialects of Greece.⁸¹⁹

Schultens reflects on the intellectual mechanism in perpetuating ideas of scholarly dogmatism. When scholars uncritically accept the views of authorities, a chain of unjustified opinions can easily be created:

We should not be surprised that this opinion about Hebrew as the mother of all languages enjoyed such a consensus. It was an old opinion that had struck very deep root in antiquity. The Holy Writ appeared to add dignity to this opinion. A series of authorities, mutually connected to one another, attracted even the unwilling.⁸²⁰

⁸¹⁸ Schultens, *Proverbia Salomonis*, preface, p. xcvi: “Nulla hic inter eos dissensus, nedum conflictus, nisi quod vehementiores critici nec primaevam esse Hebraeam contenderent et ipsa Aramaea recentiore eam pronunciarent, sine multa probationis cura, quum auctoritatem fere suam ut probationem sat idoneam spectarent, ab aliisque suspici cernerent.”

⁸¹⁹ Schultens, *ibidem*, p. xcvi: “Hinc et mihi, qui horum e fontibus adolescentulus bibebam, primaeva illa et materna dignitas linguae Hebraeae tam alte in medullas erat infixata, ut matrem et filias ad stylum publicum orbis literati per longum tempus frequentarim, donec ad analogicam constitutionem omnium dialectorum admissus, hoc est postquam docendo et incudem hancce tundendo ferme consenuerim, deprehendi Hebraeam dialectum Sacri Codicis tam parum censi posse aliarum dialectorum Orientalium matrem, quam Atticam cum omni sua dignitate et praecellentia in maternam quoque aliarum Graeciae dialectorum auctoritatem immitti.”

⁸²⁰ Schultens, *ibidem*, p. lxxviii: “Non est interim quod miremur, tanto consensu in hac opinione de Hebraea lingua omnium linguarum matre descensum fuisse. Vetusta

To conclude, Schultens reconceptualized the nature of Hebrew from a holy language to a human language. He argued against the idea that Hebrew has an intrinsic holiness and perfection (*interior sanctitas et perfectio*), though he admitted an external holiness to Hebrew in its capacity as a vessel of God's words.

11.3 Views on the Confusion of Languages at Babel

In his classification of Semitic languages and his justification of the etymological method, Schultens used the concept of dialect in the sense of a related language, either daughter or sister language, as his key concept. He set out from the early modern categorization of languages from a historical point of view: (1) the concept of a primeval language, (2) the concept of main languages (that is, those that were supposed to have arisen at the Tower of Babel), and (3) the concept of derived and mixed languages.

In rabbinical and patristic exegetical thought, seventy or seventy-two languages were created at the Tower of Babel. This opinion was gradually called into question, and the number of languages arising at the Tower of Babel was reduced to twelve or fewer main languages, from which scholars explained the emergence of derived languages through dialect diversification and language blending.

In the mid-17th century, scholars set about explaining the rise of the main languages after the Tower of Babel as a result of dialect splitting. The Confusion of Languages was explained as a transient act of small divergence in pronunciation. Therefore, no new languages were formed at the Tower of Babel. This view was held by Johannes Buxtorf the Younger (*Dissertationes philologicae-theologicae*, 1644), Campegius Vitringa (*Observationes sacrae*, book 1, 1660), and Jean Le Clerc (*De lingua Hebraica*, the first introductory treatise to his translation of Genesis, 1693). Le Clerc put emphasis on the disagreement among the tower-builders. In his preface *De linguarum origine praefatio* (c. 1651–1652, published 1671), Georg Stiernhielm is an exponent of the same position.

Schultens did not subscribe to this view but argued that the typological diversity of languages cannot be attributed to dialect diversification. This position is related to a new outlook on language diversity in the early 18th century. The English Orientalist and historian William Wotton (1666–1727) was an exponent of a typological classification of the world's languages. Wotton argued in favour of the formation of two structurally and typologically different languages at the Tower of Babel. The structurally distinct features of Semitic languages on the one hand and European

erat opinio, quae inde ab aevo altissimas egerat radices. Videbatur dignitatem addere ipsi Codici Sacro. Auctoritates auctoritatibus consertae catena quadam trahebant vel invitos.”

languages on the other are so great that they could not have emerged over c. 3,000 years (counted from the Tower of Babel around 2250 BC).⁸²¹

Though Schultens disapproved of the position that the main languages generally had developed from the primeval language, he presumed a dialect splitting of the primeval language exclusively in the Oriental – that is Semitic – group and type of languages. In this view, he had a precursor in Christian Ravius. They both considered the Semitic languages as dialects of essentially one and the same language. Using the Aristotelian dichotomy between substance and accident, they shared the criterion of distinguishing between language and dialect. They defined language as morphophonemic and lexical substance,⁸²² and thought that dialect is the phonemic, semantic, phraseological, and syntactic accidental change of this substance. However, they differed in their application of this distinction. Ravius applied a synchronic perspective to this distinction. His concept of dialect is structural. Schultens developed a historical dimension through his practice of historical etymology, and his concept of dialect is also based on genealogical and historical criteria.⁸²³

11.4 Hebrew as a dialect in a Semitic group of languages

11.4.1 *The particular character of a language*

In his historical classification of unrelated languages, Schultens used the concept of the particularity of language. The Roman encounter with foreign languages had led to the realization of the particularity of their own Latin language, and they conceptualized it as *proprietas linguae*, that is, “particular character of language”.⁸²⁴ In the 16th century, this concept was also expressed through the metaphor of the individuality of a language, in Latin as *genius linguae* (in French, *génie de la langue*).⁸²⁵ During the

⁸²¹ Wotton, *Dissertatio de confusione linguarum extructoribus turris Babylonicae a Deo inflictæ*, written in 1713, published in John Chamberlayne’s *Oratio dominica in diversas fere omnium gentium linguas versa*, Amsterdam 1715.⁸²¹ An English translation of this treatise was posthumously published from Wotton’s manuscript: *A discourse concerning the Confusion of Languages at Babel ... With an inquiry into the primaeval languages before that wonderful event by the late learned William Wotton, D. D., now first publish’d from his own manuscript*, London 1730.

⁸²² In *Origines Hebraeae*, vol. 2, p. 20 (§ 35), Schultens proposed the distinction between substance and accident as his criterion of the language-dialect distinction.

⁸²³ For Ravius’ views on the distinction between language and dialect, see my article “The concept of dialect in three seventeenth-century linguistic theorists”, in Raf van Rooy (ed.), *Essays in the history of dialect studies*, Münster 2020, pp. 88 and 103. Cf. my article “Christian Ravius’ Turcic and Semitic studies and his work as an Orientalist in the Swedish State service”, Leiden 2021, pp. 58–59 (section 8.1).

⁸²⁴ Renier, *Interpretatio*, p. 14. The term *proprietas* means distinctiveness in relation to something other or foreign, i.e. particular or individual character; characteristic.

⁸²⁵ Simone, “The early modern period”, pp. 197–203, says that the particularity of languages was conceptualized as *genius linguae*. See further Toon van Haal’s

European Renaissance, the concept spread through the theory and practice of translation. The quality of a particular language can refer to both the source and target languages.⁸²⁶ In his theory of Bible translation, Le Clerc noted that there is no one-to-one correspondence between languages.⁸²⁷ He applies this rule to the semantics of single words and phrases.⁸²⁸ Schultens used both the ancient term *proprietas linguae* and the new compound concept *genius linguae*.

11.4.2 Views on the Semitic language family

In his linguistic theory on the historical origin and diversification of the Oriental languages, Schultens developed the concept – though not the term – of a Semitic proto-language. In the second volume of his *Origines Hebraeae* (1738), he established the Oriental languages as a distinct group with certain characteristics, in contrast to other language groups, notably Turkic and Iranian. Accordingly, he limited his concept of the Oriental languages to those that are today classified as Semitic, thus explicitly excluding Ottoman Turkish and Persian. He did not introduce a new term for the Oriental (that is, Semitic) group of languages, though he could have done so by adopting the term *lingua Semaica* from his opponent, Taco Hajo van den Honert (see the next section, 11.4.3). In any case, the concept of Semitic languages was known to Schultens, who promoted it through his theory of comparative Hebrew language studies and his rejection of the hypothesis of a Hebrew linguistic primordality.

detailed investigation, “Génie de la langue: the genesis and early evolution of a key notion in Early Modern European learning”, *Language and history* 56:2, pp. 81–97.

⁸²⁶ The Italian Renaissance humanist Cencio de Rustici (c. 1387–1445) used the term *proprietas Graeca* to refer to Manuel Chrysolora’s recommendation to adopt a moderate sense-for-sense method of translation that retains the characteristics of Greek. Another Italian Renaissance humanist, Leonardo Bruni (1370–1444) often applied the concept to the problem of correctly translating the proper meanings of single words and phrases that are particular to the source language into the target language. In his *Sendbrief von Dolmetschen* Martin Luther applied the concept to the target language in contrast to the particular nature of Hebrew and Greek.

⁸²⁷ Clericus, “Dissertatio de optimo genere interpretum S. Scripturae”, the second introductory treatise to his translation and commentary on Genesis, *Genesis sive Mosis prophetae liber primus*, Amsterdam 1693, p. c3 recto (§ 1): “Sed cum linguae ita sibi invicem ἐκ παραλλήλου non respondeant, nulla ad verbum fieri potest Paulo longioris orationis translatio.”

⁸²⁸ Clericus, *ibidem*, § 1, argues that linguistic diversity makes it impossible to express the same sense exactly in the same way. Many words and phrases, whether proper or transferred, are particular to each language, so they cannot be translated without periphrasis. In the notes to his Latin translation of Genesis, he sometimes explains how he rendered the proper meaning (*proprietas*) of a word (*vocabuli*) or words (*verborum*), e.g., pp. 72, 162, 302, 304. He also refers to *linguae Hebraicae genius* (e.g., pp. 2, 5, 9) and to *linguae Latinae genius* (p. 51).

11.4.3 *Schultens' contemporary: Taco Hajo van den Honert*

The term Semitic was introduced as a linguistic and ethnic term in the late 18th century. However, it is recorded more than 40 years before its first putative attestation. In 1738, the Leiden theologian Taco Hajo van den Honert published a treatise on the primeval language and its propagation, titled *De lingua primaeva eiusque propagatione*, as part of his *Dissertationes historicae*. This third treatise forms a part of his controversy with no other than Albert Schultens. In the second chapter, van den Honert deals with the transmission of the primeval language after the Flood. Dividing it into “three main dialects (*tres principes dialecti*)” he designates these dialects as “Shemean, Chamean and Japhethaeen” (*Semaea, Chamaea* and *Japhethaea*), according to the names of the three sons of Noah.⁸²⁹ The second section of chapter 2 is devoted to *lingua Semaea* and treats the colonization of the descendants of Shem and the diversification of “the Shemean language” as a superordinate entity into regional varieties, according to van den Honert, first into Old Aramaic, whence secondly into Syriac and Arabic. At the beginning of § 25, he announces a discussion of “the dialects of the Shemean language” (*de Semaeae linguae dialectis*). In § 26, he maintains that Old Aramaic, *vetus Aramaea dialectus*, seems to have spread most far and widely “among all dialects of the Shemean language”.⁸³⁰

Schultens carefully perused his antagonist's treatise, and his annotated copy is preserved in Leiden University Library.⁸³¹ From his notes, it is clear that he read the second section of the second chapter (§§ 25–37) as a preparation for his final counter-attack on van den Honert in *Excursus tertius* (1739). Accordingly, he cannot have escaped the term *lingua Semaea*, but did not comment on it. The absence of any critical remark presumably shows that he had no objection to it.

11.4.4 *Schultens' epigones: Schlözer and Eichhorn*

Several decades after the controversy between van den Honert and Schultens, the term Semitic was introduced on a broader scale into the common theory and practice of Oriental philology and Bible interpretation. What gave the impetus to this change of terminology was the need to satisfy the demands of ethnographical universal history, as practiced by the foremost representatives of the Göttingen school of history, namely August

⁸²⁹ Taco Hajo van den Honert, *Dissertatio historica de lingua primaeva eiusque propagatione atque inde natis variis et multiplicibus dialectis*, 2nd revised ed., Leiden 1739 (1st ed. 1738), p. 152. Van den Honert's terminology is completely overlooked by van Baasten (2003: 57–71) in his survey of the historical emergence of the linguistic term Semitic.

⁸³⁰ van den Honert, *ibidem*, pp. 179–180.

⁸³¹ See Van den Honert, *Dissertationes historicae*, 2nd ed. 1739, Leiden University Libraries, Special Collections, shelfmark 1166F9.

Ludwig von Schlözer (1735–1809) and Johann Christoph Gatterer (1727–1799). The term is first attested in Schlözer in an article on the nation of the “Chaldaeans”, published in August 1781, where the author states:

Vom Mittelländischen Meer an bis zum Euftrat hinein und von Mesopotamien bis nach Arabien hinunter herrschte bekanntlich nur eine Sprache. Also Syrer, Babylonier, Hebräer und Araber waren ein Volk. Auch Phönicier (Hamiten) redeten diese Sprache, die ich Semitische nennen möchte.⁸³²

The founder of this journal, Johann Gottfried Eichhorn, soon adopted, introduced, and diffused the term into Old Testament scholarship:

Die Sprache, welche die Hebräer redeten, und in der das Alte Testament abgefasst ist, war ein Dialect der weit ausgebreiteten Semitischen Sprache. Sie war also nahe mit der Sprache aller der Völkerstämme verwandt, welche an der Küste des mittländischen Meers wohnten, und bey und unter welchen sich die Phönicier (ursprüngliche Hamiten) niederliessen; folglich auch verwandt mit der Sprache der grössten Handelsnation der alten Welt. [...]. Sie war mit den beyden Hauptmundarten von Asien, der Aramäischen, die in Syrien, Babylon, Assyrien u.s.w. geredet wurde, und der Arabischen so nahe verwandt, als der Jonische Dialect mit dem Dorischen und Aeolischen, dass es diesen Nationen wenig Mühe kostete sich ein andern ihren Sprache mitzutheilen.⁸³³

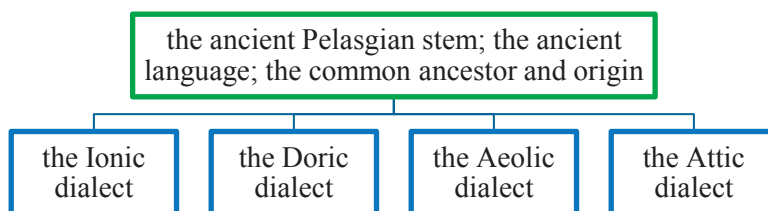
⁸³² A. L. von Schlözer, “Von den Chaldäern”, in *Repetorium für Biblische und Morgonländische Litteratur*, edited by J. G. Eichhorn, vol. 8, p. 161. In English translation: “From the Mediterranean Sea to the Euphrates, and from Mesopotamia down to Arabia, as is well known, there was only one language. So the Syrians, Babylonians, Hebrews and Arabs were one people. Phoenicians (Hamites) also spoke this language, which I would like to call Semitic.”

⁸³³ J. G. Eichhorn, *Einleitung ins Alte Testament*, vol. 1, 2nd ed., Leipzig 1787, pp. 45–46 (ch. 1, § 10). Eichhorn here reworded the beginning of § 10 in the first edition of 1780, which does not contain the term “Semitic language”. The quoted passage reads in English translation: “The language that the Hebrews spoke, and in which the Old Testament is written, was a dialect of the widely spread Semitic language. Consequently, it was also related to the language of the greatest trading nation of the old world. [...] It was accordingly closely related to the language of all the tribes who dwelt on the coast of the Mediterranean Sea, and among whom the Phoenicians (original Hamites) settled. [...]. It was so closely related to the two principal dialects of Asia, viz. Aramaic, spoken in Syria, Babylon, Assyria, etc., and Arabic, as the Ionian dialect was to Doric and Aeolian, that it costs these nations little trouble to communicate their language to another.”

Proposing a geographical classification, Eichhorn divided the Semitic-speaking area into three zones: Aramaic in the north, Canaanite in the middle, and Arabic in the south.⁸³⁴ Eichhorn boasted that he was the first to use the term Semitic languages.⁸³⁵ Though this claim is wrong, he was the first to use the term Semitic in a superordinate sense to designate the Semitic mother language (which implies a kind of Semitic proto-language).⁸³⁶

11.4.5 Schultens' classificatory parallel: The Greek dialects

In several publications,⁸³⁷ Schultens argues that Hebrew, Chaldaic, Syriac, and Arabic as sister dialects (*sorores dialecti*) are as closely related to each other as the four main dialects of Ancient Greek. He proposes the kinship of the principal ancient Greek dialects as a classificatory parallel. His views on their origin can be represented in a diagram as follows:⁸³⁸



⁸³⁴ Eichhorn, *Geschichte der neuern Sprachenkunde*, Göttingen 1807, p. 405: “Die Sprache der Semiten zerfiel in drey Haupt-dialecte, den Aramäischen in Norden, den Cananitischen in der Mitte, und den Arabischen in Süden.”

⁸³⁵ Eichhorn, “Semitische Sprachen”, in *Allgemeine Bibliothek der biblischen Litteratur*, vol. 6, Leipzig 1794, pp. 772–773: “Ich kann nicht in Abrede seyn, dass ich wie vie lich Weiss, der erste gewesen bin, de res gewagt hat diejenigen Sprachen semitische zu nennen, welche bissher orientalische Sprachen bey den Schriftstellern hiessen. Diese Benennung hat so vielen Beyfall bey meinen Seitgenossen gefunden, dass sie schnell in Deutschland in Umlauf genommen ist. [...] Es ist daher billig, dass ich die Ursachen des von mir eingeführten neuen Sprachgebrauchs angebe.”

⁸³⁶ Eichhorn, *Einleitung ins Alte Testament*, vol. 1, 2nd ed., Leipzig 1787, p. 47: “Wer je die Geschichte der allmählichen Bildung einer Sprache verfolgt hat, der erst wird sich durch die dabey gemachten Erfahrungen von dem ungemein hohen Alter der hebräischen Sprache, oder jener fruchbaren Mutter vieler Töchter, der semitischen, einen richtigen Begriff machen können.”

⁸³⁷ See *De utilitate linguae Arabicae*, p. 5, *Vetus et regia via Hebraizandi*, p. 109, *Institutiones ad fundamenta linguae Hebraeae*, p. 5, *Origines Hebraeae*, vol. 2, pp. 19 f. Schultens also emphasized the importance of a comparative study of Hebrew, Chaldaic, Syriac and Arabic, arguing that the dialects of ancient Greek offer mutual help in etymology; *Excursus tertius*, p. 191, *Proverbia Salomonis*, preface, p. XCVI.

⁸³⁸ Schultens, *Proverbia Salomonis*, preface, p. LXXVI: “quatuor dialecti Graeciae, Ionica, Dorica, Aeolica, Attica, ex una stirpe Pelasga vetustiore effloruerunt”; *Excursus tertius*, p. 234, (referring to *lingua vetus*): “ex qua lingua tanquam e communi matre ac stirpe quatuor filiae, quatuor propagines maiores succreverint, Attica, Ionica, Dorica, Aeolica.”

Schultens also draws parallels between the typological variation among the ancient Greek dialects and similar variation between the Semitic languages. He claims that Attic is marked by contracted and assimilated forms, while the lack of these forms in Ionic represents an older stage. He argues that Attic is comparable to Hebrew because of its frequent contractions⁸³⁹ and assimilations, while Ionic is similar to Arabic due to its lack of such forms. Chaldaic and Syriac are in the same way to be compared to Aeolic and Doric.⁸⁴⁰ The cross-linguistic comparison between Hebrew and Attic is also made by Albert Schultens in his *Theses de lingua primaeva*, §§ 97–98:

§ 97. It is well known that the Attic dialect is the most contracted one, and it has undergone great changes, or rather, I would say, alterations created for the sake of elegance and dignity. [...] § 98. Matters stand similarly concerning the Hebrew dialect. It is the most contracted, having forms of defective verbs in three classes, likewise of *verba quiescentia* (with א, י, and ך)⁸⁴¹ in nine classes, and by having forms geminated either by a silent or a defective letter. [...].⁸⁴²

⁸³⁹ In his Hebrew grammar, Schultens used the concept of contraction not only for the shortening of a word by the omission of a letter or syllable but also for vowel assimilation or any other change of vowels. See *Institutiones ad fundamenta linguae Hebraeae*, pp. 150 and 175 for contraction in the sense of the omission of a vowel or syllable, pp. 144–145 for contraction in the sense of vowel assimilation, and p. 151 for contraction in the sense of vowel change.

⁸⁴⁰ Schultens, *Proverbia Salomonis*, preface, pp. xcvi–xcvii: “Hebraea ob venustas contractiones aliasque polituras cum Attica dialecto hac in parte proxime conferri potest. Arabica formarum veterum retentior Ionicae meretur assimilari. Chaldaica et Syriaca eum ferme gradum obtinent hac in comparatione linguarum Orientalium, quem Aeolica et Dorica inter Graeciae dialectos sibi vindicant.” “Due to its beautiful contractions and other polished features Hebrew can most closely be compared to the Attic dialect in this regard. Arabic, which to a greater extent retains ancient forms, deserves to be compared to Ionic. In this comparison of Oriental languages, Chaldaic and Syriac obtain almost the same place as that which Aeolic and Doric claim among the dialects of Greece.”

⁸⁴¹ The term *verba quiescentia* refers to verbs containing the so-called silent letters *ʾālef*, *wāw* and *yōd*.

⁸⁴² Schultens, *Theses de lingua primaeva* (c. 1739), §§ 97–98, Leiden UB, MS Or. 1469, envelope 12, fol. 8v. The Latin text reads: “XCVII. Notum est Atticam dialectum omnium esse contractissimam quaeque maximas subierit immutationes, vel inflexiones potius dicam, elegantiae et gravitatis causa inventas. [...] XCVIII. Similis res et ratio Hebraeae dialecti. Est omnium contractissima per formas verborum defectivorum triplici classe itemque quiescentium novena classe, quin etiam geminatas vel quietis vel defectus unde iterum ad plures variationum classes potest perveniri.” Albert Schultens’ autograph draft, *De lingua primaeva per theses ad meam mentem*, Leiden UB, MS. Or. 1460 (also catalogued as MS Hebr. 128) has almost the same readings except for *invectas* for *inventas* (end of § 97) and *viginti classes* for *plures variationum classes* (end of § 98).

12. Hermeneutical challenges and semantic problems

12.1 Restoration of Biblical Hebrew

12.1.1 Epistemic lacunae of Hebrew lexicography

In his lexicographical theory and practice, Schultens set out from the assumption that Ancient Hebrew cannot be fully known from its limited remains in the Old Testament. Referring to the epistemic lacunae, Schultens used the double hermeneutical concept *defectus* (for the purport of which, see Vol. 2, Ch. 3). He approved of the idea of extrinsic shortcomings in the knowledge of Biblical Hebrew, but he disclaimed the idea of the intrinsic deficiencies in this language. In his Hebrew grammar, he rejected Spinoza's ideas about the ambiguous nature of Biblical Hebrew, but tacitly agreed with Spinoza's claim that the current knowledge of the Hebrew language is in a state of imperfection. Thus, Schultens took a twofold attitude to Spinoza's hermeneutical assertions concerning Hebrew.

In his inaugural lecture in the chair of Hebrew at the University of Franeker in 1714, Schultens rhetorically expressed his conviction that Biblical Hebrew has extrinsic epistemic lacunae. The following year, he classified them in *Origines Hebraeae*, vol. 1, ch. 1 (pp. 11–15, 23–24). In addressing this topic, he seems to hint at a scholarly attitude to Spinoza's theological-political treatise, as he discusses the neglect and decline of Hebrew language studies, which he considered a result of the then common opinion that there remained no challenges to Hebrew language philology:

At last, a vehement blow on the best case is inflicted – and the progress in remedying the Hebrew language is greatly delayed – by the fact that hardly anyone has been able, or wished, to treat its wounds and to show and reveal the defects [i.e. lacunae] of our knowledge of this language, and by the fact that almost everyone in some way has claimed that he has explored and completely penetrated the language.⁸⁴³

⁸⁴³ Schultens, *Origines Hebraeae*, vol. 1, Franeker 1724, p. 9 (§ 14): “Vehementem denique optimae causae infixit plagam reique Hebraicae sanandae cursum vel maxime tardavit, quod haud ferme quisquam eius velut vulnera tractare defectusque nostrae in ea linguae scientiae aperire et nudare vel potuerit vel voluerit quodque omnes fere nescio quo pacto explorata penitusque perspecta sibi ea professi fuerint” [...]. The study of Hebrew is here compared to judicial process (i.e. a case, a lawsuit, in Latin *causa*).

Schultens traces the idea of an already complete knowledge back to the rabbinical lexicographers. Next, he declares that he aims to invigorate Hebrew language studies, not, however, to inflict another wound, which implicitly is what critics like Isaac Vossius and Baruch Spinoza did, but to cure them by a remedial hand:

I do not undertake and enter upon this task to inflict a serious damage on Hebrew, which indeed is too much afflicted, but my attitude and endeavour aim to bring forward and reveal the scars and wounds of the Hebrew language, just as they are manifest to us by the rabbis, and just as they today are obvious in the dictionaries, but at the same time I will also stretch forth a remedial hand and through a happy remedy heal what too long has been affected, unless the confidence in myself is in vain.⁸⁴⁴

In his handbook of biblical criticism, *Critica sacra* (1680),⁸⁴⁵ August Pfeiffer applied the metaphor of a remedial hand, attested in Ancient Latin, to the cure of defects in Hebrew lexicography. Schultens likely studied this work before he wrote the first dissertation, or chapter, of *Origines Hebraeae*, vol. 1.

Later, he proposed a more refined classification of the causes behind the state of Hebrew lexicography. In *De defectibus hodiernis linguae Hebraeae* (first published as a series of dissertations in 1728, and republished in 1731), he recognized eight classes of defects.⁸⁴⁶ More precisely, he devoted one class to the reconstruction of lost and forgotten roots (class 1), five classes to semantic problems of the primary meaning and figurative meanings (classes 2–6), one to the rules of grammar, foremost in the formation of derivative stems of strong and weak verbs (class 7), and one to phraseology (class 8). He refers to the seventh class of defects as “Spinosiorem paulo illam”, that is “the rather subtler one”, or by witticism “the rather Spinozian one”, which

⁸⁴⁴ Schultens, *ibidem*, p. 11 (lines 1–10 f.): “Hanc autem operam non eo animo suscipio et ingredior, ut rei Hebraicae, nimium sane quantum afflictæ, graviores iniciam securim, sed ita me adhibebo, ita me hoc in negotio tractabo, ut non tantum cicatrices et vulnera Hebraeae linguae, quem ad modum a Rabbiniis nobis prodita est atque in lexicis hodie habet protraham et denudem, verum etiam simul medicam admovebo manum et quæ diu nimis affecta iacere felici, non vana est fiducia nostri, curatione sanabo.”

⁸⁴⁵ Pfeiffer, *Critica sacra*, p. 174 (chapter 5, section 2, question 3: Do the extant biblical dictionaries suffice for an understanding of the sacred word-stock?). On the lacunæ in the knowledge of hapax legomena and of Hebrew roots, whose derivatives survive, he states: “Huic vero ut et precedenti defectui medicam manum adhibere coepit clarissimus Hottingerus in Lexico Heptaglotto, ubi classis sive columnæ prima exhibet radicem inusitatam ex aliis linguis restituendam” [...]. In Pfeiffer’s *Opera omnia*, Utrecht 1704, this passage occurs on p. 737.

⁸⁴⁶ Schultens, *De defectibus hodiernis*, pp. 7–8.

“pertains to the rules and foundations of grammar”.⁸⁴⁷ In the introduction to this treatise, he states that he has recorded defects that are either obvious and known to all Hebrew lexicographers or hidden to and less understood by them. He had identified “eight serious imperfections which still hinder a profound and transparent knowledge of the biblical language and which do not allow us to explore all the majesty of the holy language”.⁸⁴⁸

12.2 Rejection of competing positions

12.2.1 *Opposing the threat of Vossianism*

In his views on the means for obtaining knowledge of the Hebrew language, Schultens explicitly rejected what he designated as Vossianism and Tridentinism.⁸⁴⁹ Thus, he took exception to several positions of the Dutch classical philologist and historian Isaac Vossius, who had declared that the Hebrew language had been extinct since antiquity and was impossible to restore unless one resorted to the Septuagint, which, for him, represented the only key to interpretation. In addition, Vossius thought, comes the unreliability of the Masoretic text, which suffers from an inaccurate and fraudulent transmission.

Schultens considered Isaac Vossius to be the main exponent of ideas that “raised a banner for those who proclaim everything as uncertain, vague, and fluctuating in the shipwrecked remnants of the Hebrew language that have been transmitted to us”.⁸⁵⁰ Schultens also attributed a similar set of critical ideas to Jean Morin, Richard Simon, Marcus Meibom, William Whiston, and other bold critics.⁸⁵¹

⁸⁴⁷ Schultens, *ibidem*, p. 224. The first letter of the adjective is capitalized, so that it is possible to interpret it as a hidden reference to Spinoza (in Latin spelled *Spinosa*). However, Schultens in his grammar and other treatises often referred to the rules of irregularity in Hebrew as subtleties (*spinae*) without hinting at Spinoza.

⁸⁴⁸ Schultens, *ibidem*, p. 6: “Eum in finem enotabo ... octo graviores imperfectiones, quae linguae Biblicae cognitionem penetissimam et limpidissimam etiamnum praepediunt omnemque maiestatem sermonis sacri exhaurire non permittunt.”

⁸⁴⁹ Vossianism refers to Isaac Vossius’ position that all knowledge of the Hebrew language was lost after the Babylonian Captivity (when Hebrew was presumed to have ceased to be the predominant vernacular of the Jews), and that the Septuagint should be followed as a reliable authority in Bible interpretation. Tridentinism refers to the decision of the Council of Trent regarding the status of the Vulgate, which implies that this Bible translation should be considered reliable in the interpretation of the Holy Scriptures in its capacity of being a doctrinal guideline and a textual corrective to the Hebrew Bible.

⁸⁵⁰ Schultens, *Origines Hebraeae*, vol. 2, p. 96: “Sic vexillum erectum omnia incerta, vaga fluxa, esse clamantibus in linguae Hebraeae naufragis illis reliquii, quae ad manus nostras pervenerunt.”

⁸⁵¹ Schultens, *Origines Hebraeae*, vol. 2, pp. 166–167.

According to Schultens, Vossius' hermeneutical approach posed a great threat to Hebrew philology, because it was based on seemingly weighty assumptions, which are as follows:

- the Hebrew Bible is in a corrupt and faulty state of transmission,
- the key to knowledge of Hebrew is completely lost,
- the meanings of Hebrew words that are transmitted by ancient and recent rabbis in commentaries and dictionaries are invented,
- the dictionaries and commentaries of the Christian Hebraists are accordingly mainly based on an invented knowledge,
- all the European Bible translations – the English, the French, the Swiss, the German, the Dutch, and those of other nations – are unreliable, because they are not based on the Septuagint.⁸⁵²

12.2.2 Denouncing the charge of Spinozism

After Baruch Spinoza brought the idea of imperfections in the Hebrew language to the fore, it became a burning issue in the Republic of Letters. This explains why Schultens' antagonists in the 1730s, Antonius Driessen and Taco Hajo van den Honert, reacted to his use of the concept of *defectus linguae Hebraeae* and accused him of pro-Catholic views. Schultens was forced to clarify his ideas in various treatises between 1737 and 1739,⁸⁵³ in which he denounced the acceptance of the notion of intrinsic defects in Hebrew, that is, imperfections in the morphosyntax and vocabulary of Biblical Hebrew. At the same time, his clarification was also an exculpation to his contemporaries.

In *Origines Hebraeae*, vol. 2, ch. 6, § 22, Schultens meets the charge that he would have yielded to the pro-Catholic and Spinozian ideas of the intrinsic imperfections of Biblical Hebrew. In his refutation of the 14th objection to his methodology, he argues that his treatise *De defectibus hodiernis* simply aims to reveal defects in the modern knowledge of Biblical Hebrew and thus not to diminish “the purity and perfection of Hebrew”. On the contrary, the treatise restores “the natural dignity and primeval splendour” that largely had been lost “in the course of time and through the neglect of the Jews”, especially regarding the original lexical meanings. After that, he draws up a distinction between the two concepts of defects:

It is one thing to charge the Hebrew language with imperfection, obscurity and instability. The bolder critics unhappily strike this anvil and impute to the language itself that which is awkwardly arranged and explained in dictionaries and translations. It is a completely other thing to

⁸⁵² Schultens, *Excursus tertius*, pp. 237–238.

⁸⁵³ Schultens, *Origines Hebraeae*, vol. 2, pp. 159–160, idem, *Vindiciae Originum*, Leiden 1737, p. 8; and idem, *Excursus tertius*, especially in the preface and p. 47.

prove our defects in the knowledge of this language and to point out the remedies for healing them.⁸⁵⁴

This passage most likely hints at Baruch Spinoza as one of the bolder critics, since the notions of the defects of Hebrew was integral to Spinoza's approach to Biblical Hebrew, both in the sense of epistemic lacunae in the knowledge of this language and in the sense of intrinsic deficiencies. Only once does Schultens expressly refer to Spinoza as defending the idea of ambiguity and obscurity in Biblical Hebrew. This passage is found in Schultens' Hebrew grammar.⁸⁵⁵ He refers to *Tractatus theologico-politicus*, p. 93, where Spinoza argues that there are intrinsic defects in Hebrew due to the interchange of consonants of the same class, and that such sound changes render lexical meaning ambiguous.⁸⁵⁶

In addition, Schultens implicitly refers to both Isaac Vossius and Spinoza in the preface to his Hebrew grammar, where we read:

I pass over other persons who went further [in their criticism] and are not at all to be counted among the adherents of the [moderate] school. They took an interest in blaming the language of Moses and the prophets for being obscure, ambiguous, and confused, for containing homonyms, and for being neither understandable in the present day nor sufficiently understood even in ancient times.⁸⁵⁷

In this passage, Schultens hints at some critics who went beyond the mainstream approach of the critical school and who took up a more extreme position. In his master's thesis *De utilitate dialectorum Orientalium ad tuendam integritatem Codicis Hebraei*, "On the utility of Oriental dialects in defending the integrity of the Hebrew source text" (submitted in 1742), his

⁸⁵⁴ Schultens, *Origines Hebraeae*, vol. 2, p. 160: "Aliud longe Hebraeum sermonem accusare imperfectionis, obscuritatis, inconstantiae. Quam incudem infeliciter tundunt audaciores illi critici, qui quae in lexicis vel versionibus inconcinnius exposita et digesta ipsi linguae imputant. Aliud redarguere nostros in linguae illius cognitione defectus eorundemque sanandorum remedia indicare." The metaphor of forging or hammering on an anvil (that is, an iron block) for repeating the same message is common in Schultens' treatises, where it is often applied to the restatements of rationalist semanticist assumptions of a general word meaning.

⁸⁵⁵ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, Leiden 1737, p. 27: "In *Tract. Theol. Polit.* p. 93, ad linguae Hebraeae ambiguitatem et obscuritatem arguendam insinuatur in gutturalibus ו פ ה ז sine ullo discrimine, nobis saltem noto, unam pro aliam usurpari."

⁸⁵⁶ Spinoza, *Tractatus theologico-politicus*, chapter 7, p. 93.

⁸⁵⁷ Schultens, *Institutiones ad fundamenta*, preface, p. *v: "Mitto longius evectos alios, huic tamen scholae nequitiam accensendos, quorum interfuit, ut lingua Mosis et Prophetarum pro obscura, ancipiti, confusa, homonymiis perpetuis laborante, nulli nunc satis intelligenda, quin ne olim quidem satis intellecta, traduceretur."

son Jan Jacob Schultens divided the advocates of the critical school into four factions, on a scale from extremity to moderation. He classified the followers of the critical school by their views on the transmitted Masoretic text and on Biblical Hebrew as a language. The first faction is equated with Isaac Vossius' position, the second with Baruch Spinoza's, the third with the views of Louis Cappel and Brian Walton, and the fourth with those of more moderate scholars, such as Samuel Werenfels.⁸⁵⁸ He finds the position of Spinoza to be less extreme than that of Vossius, but still bold, since Hebrew is by him and his adherents characterized as ambiguous, equivocal, incomplete, unstable, not conforming to analogy, without any certain and stable norms for expressing meaning and constructing sentences, in brief "a rough and stammering twisting of speech by a stupid and stolid people, by means of which hardly anyone was able to express the thoughts of his mind in a suitable way".⁸⁵⁹ It is impossible to determine whether this analysis was made by Albert Schultens or was developed by Jan Jacob Schultens.

12.3 Polysemy of Biblical Hebrew and its state of non-homonymy

12.3.1 Polysemy as an epistemic and a lexicographic problem

In his treatises *De defectibus* (1731) and *Vindiciae Originum Hebraearum* (1737) Schultens discusses polysemy as a problem of Hebrew lexicography. In doing so, he also touched upon the contemporary hermeneutical debate on the matter. In his classification of the different epistemic lacunae of Biblical Hebrew he defined the fourth class as that of polysemy. In contrast to his opponent Antonius Driessen's contention that polysemy is an exaggerated problem in Hebrew and that it does not constitute a notable defect (*defectus*), he counted polysemy as an epistemic lacuna in Hebrew.

In *Vindiciae originum*, "Defence of the treatise on the original meanings", Schultens points out the fact that polysemy was the original reason for biblical critics to accuse "the language of Moses and the prophets" of being "obscure, ambiguous, confused and continually torn and tearing into pieces through homonyms and contradictory meanings."⁸⁶⁰ Moreover, he admits the problem of polysemy, when stating that his students complain about it:

⁸⁵⁸ A. Schultens (pres.)/ J.J. Schultens (resp.), *De utilitate dialectorum Orientalium ad tuendam integritatem Codicis Hebraei*, vol. 1, Leiden 1742, pp. 6–13.

⁸⁵⁹ A. Schultens/ J.J. Schultens, *ibidem*, p. 8. The passage reads in its Latin original: "lingua Hebraea est rudis ac balba crassi et perhebetis populi stribligo, qua animi sensa ne commodè quidem declarare quis valeat." Jan Jacob goes on to describe Spinoza's and the Spinozists' views on textual transmission of the Old Testament, which they considered "subjected to a countless number of scribal mistakes in the passage of time", so that there is nothing intact and certain in the transmitted text.

⁸⁶⁰ Schultens, *Vindiciae*, p. 157: "Atqui hinc potissimum a criticis ansa arrepta linguam Mosis et Prophetarum pro obscura, ancipiti, confusa, homonymiis, quin et contrariis significationibus perpetuo distracta et distrahente traducendum."

I have still hardly found any talented student who, after two years in this field of learning, does not start complaining about the confusing diversity and multiplicity of meanings, by which most roots in the dictionaries are divided and which distract the student.⁸⁶¹

In the work *De defectibus* he states on occasion of the divergent semantic definition of the Hebrew root נגר (*nāgar*), “to pour, flow”:

There is no end of fluctuation, and as a result, the Hebrew language is exposed to a veritable and reckless slander of some critics, as if it should not show any certainty and stability in most of its roots.⁸⁶²

In his discussion of the extremely polysemous root הלל (*hālāl*) in his unpublished Hebrew dictionary, he states:

This is one of the roots whose divergent meanings scarcely may be solved and which have given the scorners a reason to blacken the beauty, dignity and stability of this language.⁸⁶³

The topic of the polysemy of the Hebrew language was discussed in the treatise *De utilitate dialectorum Orientalium ad tuendam integritatem Codicis Hebraei*, where Jan Jacob Schultens rejects the views of the Swiss theologian Samuel Werenfels (1657–1740), who in an essay on the faculty of speech, *Dissertatio de loquela*, argued that Hebrew cannot be the primordial language, because it suffers from lexical poverty and semantic confusion.⁸⁶⁴ Against this view, Jan Jacob Schultens maintains that the fault lies with the Hebrew lexicographers who in a confused manner have brought together the various meanings of words. The reason for this is that “they often ignored the proper and primary meaning”. Otherwise, they would have been able to do away with all the ambiguity and contradiction of the secondary meanings. He argues that it is a linguistic universal that words

⁸⁶¹ Schultens, *Vindiciae*, p. 162: “Certe nullum adhuc reperi studiosum paulo erectioris ingenii, qui post biennium in his literis positum, conqueri coeperit de illa perplexissima diversitate et multitudine significationum, quibus pleraeque radicis in lexicis distractae sunt vicissimque discentem distrahunt.”

⁸⁶² Schultens, *De defectibus hodiernis linguae Hebraeae*, p. 63: [...] “sic, ut finis nullus fluctuationis detur et lingua Hebraea criticorum quorundam temerariae sane calumniae propterea subiungere coeperit tanquam vix certi quicquam et constantis in plerisque suis thematibus exerens.”

⁸⁶³ Frankfurt UB, MS lat. qu. 131, fol. 224r: “est inter radices quarum dissidentes notiones vix possunt expediri quaeque causam praebuerunt cavillatoribus ad pulchritudinem, dignitatem et constantiam linguae obfuscandam.”

⁸⁶⁴ Samuel Werenfels, “Dissertatio de loquela”, in *Dissertationum varii argumenti pars altera*, Amsterdam 1716, pp. 162–163.

have originally only one meaning and that this meaning usually develops into several figurative meanings. This is a principle common to languages, such as those spoken by “the Greeks, the Romans and all peoples”.⁸⁶⁵

12.3.2 Homonymy as non-original and accidental

In the second volume of *Origines Hebraeae*, Chapter 4, Schultens engages in debate with Jacques Gousset’s method of Hebrew philology. Among other things, he challenges the objection that Biblical Hebrew suffers from a plethora of homonyms, which would render comparative etymology useless and unreliable. Gousset used the word *homonymia* in the plural here, and Schultens interprets this as “the different and conflicting meanings [that is, polysemes] of one and the same root”,⁸⁶⁶ which Gousset always deemed a linguistic fault.⁸⁶⁷ He argues that every word in every language has only one single, primary and proper meaning.⁸⁶⁸ Since this is a prerequisite of the communicative function of words as linguistic signs, it applies not only to Hebrew but also to Aramaic, Syriac and Arabic.⁸⁶⁹ Homonymy may certainly arise accidentally,⁸⁷⁰ but it is foreign to the original monosemy of language: “Otherwise, language would not be language, that is, a symbol and interpreter of thoughts, but an instrument of confusion”.⁸⁷¹ Homonymy, which manifests itself in a multitude of contrary meanings, is either the result of the lexicographer’s ignorance or the loss of the original and primary meaning, but even the most disparate meanings can easily be reconciled by reference to the original meaning.⁸⁷²

⁸⁶⁵ Albert Schultens (pres)/ Jan Jacob Schultens (resp. and author), *De utilitate dialectorum Orientalium ad tuendam integritatem Codicis Hebraei*, vol. 1, p. 13.

⁸⁶⁶ Schultens, *Origines Hebraeae*, vol. 2 (1738), p. 86: “Per homonymias intellige diversas dissonasque significationes sub una radice” [...].

⁸⁶⁷ Schultens, *ibidem*, p. 86: [...] “quas vitium linguae merito semper arbitratus est vir clarissimus” [...].

⁸⁶⁸ Schultens, *ibidem*, p. 86: “Habet omnis lingua, Latina, Graeca, quaecunque, ut unius vocis unica sit significatio, princeps nempe et propria.” Cf. Schultens, *Vetus et regia via*, p. 36, the third principle: “Omnes linguae sub uno vocabulo unam tantum significationem primariam et propriam possident.”

⁸⁶⁹ Schultens, *ibidem*, p. 86: “Habent ergo et Chaldaica, Syriaca, Arabica linguae, sine quo ne linguae quidem forent; quippe quae certis utuntur omnes signis sonisque ad certas ideas excitandas.”

⁸⁷⁰ Schultens, *ibidem*, p. 86: “Omnis homonymia per accidens tantum sese admiscuit” [...]. “All homonymy has only accidentally mingled with itself”.

⁸⁷¹ Schultens, *Vetus et regia via*, p. 54: “Ni foret, lingua non foret lingua, index atque interpres sensuum interiorum, sed instrumentum omnis confusionis” [...].

⁸⁷² Schultens, *Origines Hebraeae*, vol. 2, p. 86: “Omnis homonymia per accidens tantum sese admiscuit, atque praesertim turba illa dissonantium significationum in omnibus linguis invecta est vel per imperitiam eorum qui glossas varias collegerunt vel per ignorationem et amissionem primigeniae potestatis sive originis, per quam discrepantissima quaeque in concordiam quam facillime revocari sese patiuntur.”

13. The principle of linguistic regularity

13.1 Analogy as a principle of regularity

By means of a comparative method, Schultens endeavoured to restore lost root morphemes and words to Ancient Hebrew. In doing so, he resorted to linguistic reconstruction, both internally and externally by comparison with other Semitic languages. He referred to language-internal reconstruction as *analogia linguae*, sometimes as *analogia cuiusque dialecti*, and designated comparison to related languages as *collatio dialectorum*. He distinguished between analogy, i.e. the regularity of the Hebrew language, and comparison between Semitic languages. He applied both methods in his etymological research on the original forms and meanings of Biblical Hebrew words.

Even though not the first to employ the concept of analogy in Hebrew grammar, Schultens was one of the first to make consistent use of it. In recognizing analogy (regularity) rather than anomaly as the decisive force in the formation of language, he agreed with the rationalist tradition of Latin grammar, in which his predecessors are Marcus Terentius Varro, Joseph Justus Scaliger, Franciscus Sanctius, and Gerard Vossius. At the same time, he continued the rationalist tradition of Hebrew grammar. One of his more important predecessors is, in fact, Baruch Spinoza.⁸⁷³ Other precursors are Christian Ravius, Jacob Alting, and Valentin Ernst Löschner. In accordance with Löschner, who had designated analogy as the life-breath of grammar,⁸⁷⁴ Schultens conceived the principle of analogy as the vital principle of every language, and as a relation of agreement between all the parts of language.⁸⁷⁵

Schultens used the concept of analogy as a principle of regularity in assessing and reconstructing the morphophonological formation of the root morpheme,⁸⁷⁶ the base stem (*qal*), derivative stem forms (*conjugationes*),⁸⁷⁷

⁸⁷³ A.J. Klijnsmit, “Vossius, Spinoza, Schultens. The application of Analogia in Hebrew grammar”, in *Helmantica. Revista de filología clásica y hebrea*, vol. 51, issue 154, pp. 139–166. This article disregards Ravius, Alting and Löschner.

⁸⁷⁴ Löschner, *De causis linguae Ebraeae* (1706), p. 162: “Video analogiam, animam grammaticae, mire negligi atque ad certas leges not reduce.”

⁸⁷⁵ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, preface, p. **2r: “quum tamen analogia sit anima linguae”. [...] “Haec consistit in decente harmonia omnium partium linguae.” *Excursus tertius*, p. 188 “analogia, anima omnis linguae”. The expression *anima linguae* means “life-breath of language.”

⁸⁷⁶ The Hebrew root is usually defined as a sequence of consonantal phonemes, also called a consonantal skeleton (Blau, *Phonology and morphology*, p. 5; Olmo Lete,

and nominal derivatives (*derivationes*) from each derivative stem, in Hebrew and other Semitic languages.⁸⁷⁸ He argued that the root, which in practice he identified with the base stem,⁸⁷⁹ and the derivatives are formed according to a triconsonantal structure. He strictly adhered to the principle of an original triradicality of the Hebrew (and Semitic) root, from which he even derived all the one- and biconsonantal nouns, adverbs and conjunctions.

Schultens used analogy, that is, regularity, as the guiding principle of his analysis of Ancient Hebrew morphology. He associated analogy with the internal linguistic norm (i.e., a system of rules), thereby making it both an instrument and a criterion for judging linguistic correctness,⁸⁸⁰ as was the

Questions, p. 183), with which a meaning is associated. The base stem, *qal*, represents the root with a given vowel pattern, but without formative additions or doubling of consonants. As a meaning-bearing morphemic unit, the Semitic root was designated an “ideomorpheme” by Frithiof Rundgren, who proposed this term in *Integrated morphemics. A short outline of a theory of morphemics*, Stockholm 1976, p. 4. Using and defending the term in his article “Principia Linguistica Semitica”, *Orientalia Suecana*, vol. XXIX (1980), he argues, on p. 87, that the ideomorpheme does not have a specific basic meaning in itself, but is rather thought-as-meaning. Thus, he designates the Semitic root as a “thought-sign” (“Principia”, p. 57; cf. Olmo Lete, *Questions*, p. 8). He defines the ideomorpheme as a relational entity comprising two constituents: phonetic representation (“word”) and conceptual picture of radicals (“lex”, p. 43). These terms correspond to Ferdinand de Saussure’s distinction between “image acoustique” (sound image) and “concept” (meaning) as components of the linguistic sign (*Cours de linguistique générale*, 1987 edition, p. 99). Rundgren maintains that the ideomorpheme has precisely the same nature as the linguistic sign, which he conceptualizes as a configuration of structure, form, and semantic function (meaning) as referent (p. 63), which he also called a metareferent (pp. 43, 49). Rundgren states (pp. 87–88): “In the Semitic ideomorpheme, language manifests itself as thought, not as concept, which means that ‘thought’ is in fact the metareferent of the ideomorpheme.”

⁸⁷⁷ Schultens, in *Institutiones ad fundamenta*, pp. 256–259, called derivative stems *formae conjugandi* and *conjugationes*, but at the same time proposed *formationes derivativae* and *species verborum* and described their function as *modificationes primigeniae formae*, “modifications of the primary form”, pp. 260–261. The term “stem forms” for בְּנֵינִים is preferable to other terms such as “conjugations” (classes of verbal inflection) and “verbal themes” (from Greek θέμα, base stem for inflection and derivation). “Stammformen” is the term used in Bauer and Leander, *Historische Grammatik*, pp. 279, 288. “Verbal themes” is the term used in Blau, *ibidem*, p. 216.

⁸⁷⁸ Schultens, *Institutiones ad fundamenta*, p. 129 under 7 and p. 134 under 8.

⁸⁷⁹ Schultens did not make any clear distinction between the root – that is, the root morpheme – and the base stem, *qal*. In his Aramaic grammar, he certainly denounced the view that the root should be equated with the *qal* perfect in the third-person masculine singular, arguing that this form has an additional and accidental character. Rather, he thinks that it is the *qal* infinitive that underlies nouns, verbs, and particles. Schultens, *Institutiones Aramaeae*, Leiden 1745–1749, pp. 32 and 34.

⁸⁸⁰ Schultens, *Institutiones ad fundamenta*, equates “the internal form and norm of language” with analogy, p. 128: “secundum interiorem formam et normam linguae,

case mainly in the Greco-Roman linguistic tradition. Thus, he was able to include the concept of linguistic purity within the concept of analogy.

When adopting analogy as an analytical tool for conceptualizing linguistic structures, Schultens followed the empiricist current of the time. In the second quarter of the 18th century, the principle of analogy became fashionable in the natural sciences, where it was employed as a non-mathematical approach to attain certainty.⁸⁸¹ He also associated linguistic analogy with the proportionate structure in the anatomy of the human body and with the dimensions in the architecture of a building.⁸⁸² The latter comparison reflects the historical origin of analogy as a concept of geometrical proportion.

In the preface to his Hebrew grammar, Schultens declares that he adopted analogy as a method of solving the controversy over the nature of Ancient Hebrew that had arisen between the critical and anti-critical school of Hebrew philology.⁸⁸³ At the end of his grammar, he also announces his plans to write a book “On the analogy of the Hebrew language” (*Liber de analogia linguae Hebraeae*).⁸⁸⁴

13.2 Analogy in morphology

Schultens thus employed the term “analogy” to designate both the pattern and the principle of linguistic regularity, particularly in Hebrew morphology. When occasionally applying the principle and pattern of analogy to the analysis of syntactic structures, he used the term “analogy of syntax”.

Schultens attempted to restore, that is, reconstruct, the morphophonemic regular structure of both lost and weak base stems, derivative verbal stems, and nominal derivatives. Since he adopted a diachronic perspective, the concept of “restoration of the analogy” is closely related to historical

quae analogiam vocare solemus.” In the preface to his Hebrew grammar, p. **2r, he maintains that, without analogy, there can be no purity (*puritas*) or dignity (*dignitas*) of language. Moreover, *analogia* is juxtaposed with “interior forma”, *ibidem*, p. 134 and “derivandi forma”, *ibidem*, p. 188, while *analogica forma* is put alongside “declinandi vel coniugandi vel derivandi vel componendi norma”, *ibidem*, p. 41.

⁸⁸¹ Pieter A. Verburg, *Language and its functions*, Amsterdam and Philadelphia 1998, p. 450. Compare Section 8.3.5 above (p. 175).

⁸⁸² Schultens, *Institutiones ad fundamenta linguae Hebraeae*, preface, p. **2r: “Haec [i.e. analogia] consistit in decente harmonia omnium partium linguae unum aliquod corpus et velut aedificium pulcherrimum efficientium, in quo nihil non ordinatissima dimensione elibratum sit atque exactum.” “Analogy consists of the decent harmony of all parts of language that make up one body and, so to speak, a beautiful building, in which everything is balanced and measured in the most well-ordered dimension.”

⁸⁸³ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, preface, p. **3r.

⁸⁸⁴ Schultens, *ibidem*, pp. 447 (§ 150) and 501 (§ 182). This plan was not carried out.

linguistic reconstruction. On historical and structuralist bases, he proposed a new classification of the Hebrew stem forms, extending it beyond the seven most common forms. He supposed that analogy was anterior to anomaly in the historical formation of language, arguing that the Semitic root was originally triconsonantal with two syllables, but that the principle of euphony had later created some irregular patterns and forms.

13.3 Analogy in semantics and syntax

Schultens applied the concept of analogy to semantics and syntax, but used the corresponding terms (*analogia* followed by qualitative genitives) only infrequently. In one passage, he anticipates Lennep's tripartite definition of linguistic analogy. Applying analogy to morphology, syntax, and semantics, he refers to "the analogy of grammar, of syntax, and of the original meanings or the order of meanings".⁸⁸⁵ This is the only passage in which he comes close to the term *analogia significationis*, although the notion of semantic analogy always remained the basis of his theory and practice of etymological semantics. From his reading of Perizonius' commentary on Sanctius' *Minerva*, Schultens was acquainted with the application of analogy to semantics in ideas about the development of a word from its primitive meaning to figurative meanings. In the passage quoted above, Schultens used the term *analogia syntaxeos*, but did not otherwise pay attention to syntax. He rather defined syntax as "the unlimited variety" (*infinita varietas*) brought about by "the diversity of structure" (*diversitas structurae*) "by joining nouns with nouns, verbs with verbs, or with nouns, or particles, by the insertion or omission of prepositions, by the use of ellipsis, pleonasm or incorrect expressions and thus by all forms and appearances that this matter may obtain."⁸⁸⁶ In another passage, morphology and syntax are included in the concept of "the analogical foundations" of Hebrew.⁸⁸⁷

⁸⁸⁵ Schultens, *Theses de lingua primaeva*, § 117, Leiden UB, MS Or. 1469, envelope 12, fol. 10r: "Hinc certissimum nullam dialectum alicuius veteris linguae, quae mater sit plurimarum, sibi sufficere ad veterem indolem intime introspicendam, praesertim in analogia grammatices et syntaxeos et originum ordinisque significatum." "Therefore, it is most certain that no dialect of an ancient language that is the mother of several dialects is in itself sufficient to thoroughly penetrate into its own ancient nature, in particular into the analogy of grammar, of syntax, of the original meaning and order of the derived meanings."

⁸⁸⁶ Schultens, *De defectibus hodiernis linguae Hebraeae*, Franeker 1731, p. 229: "in nominibus inter se iungendis, verbis cum verbo, nomine, particula connectendis, praepositionibus vel inserendis vel omittendis, ellipsis, pleonismis, idiotismis omnibusque adeo formis ac faciebus, quas res haec recipere potest."

⁸⁸⁷ Schultens, Frankfurt UB, MS lat. qu. 131, *Structurae ad origines Hebraeas*, prolegomena, § 26, p. 9: [...] "tam pro fundamentis analogicis in grammatica et syntaxi interiore, quam pro originibus verborum", "in terms of a foundation of regularity in the internal grammar and syntax". A textual edition of these prolegomena is forthcoming in Eskhult, *Schultens' unpublished manuscripts*.

14. Views on semantic origin and change

14.1 Conceptual basis: Original and primary meaning

14.1.1 The concept and terminology of original meaning

Schultens distinguished between primary and secondary meaning, equating the former with original meaning and the latter with transferred meaning. To express the concept of lexical meaning, he used the terms *notio*, *significatio*, and *potestas*. He employed varied terminology for the primary and original meaning. His most frequent terms are: *origo*, *primaria vis*, *primaria virtus*, *primaria potentia*, *primigenia vis*, *primigenia virtus*, and *proprietas*.⁸⁸⁸ The terms *virtus*, *potentia*, and *vis* denote the precise meaning (that is, force) of a word. The term *origo* is an elliptical expression for *origo verbi* or *origo vocis*.⁸⁸⁹ The concept of *proprietas* was ambiguous. In antiquity, it was used in various senses (Section 9.3). Schultens used the term *proprietas* in its etymological sense.

Schultens defines his key term *origines* as follows: “the primeval, most ancient and proper meanings of roots that have not yet diverged into metaphors and other secondary meanings”.⁸⁹⁰ By this definition, he sides with Jacob Perizonius, who equated the term *origo* with “primary meaning” (*primitiva significatio*), and associated it with the analogy of meaning.⁸⁹¹

⁸⁸⁸ Schultens also used other terms: *originaria significatio*, *prima vis*, *primaeva et antiquissima potentia*, *princeps significatio* and *primigenia potestas*.

⁸⁸⁹ In Ancient Latin, *origo* occurs in the sense of “derivation” of a word. See Varro, *De lingua Latina* V, 1, 6: “facilius scrutari origines patietur verborum”; V, 1, 7: “Nunc singulorum verborum origines expediam.” Quintilian, *Inst. orat.* I, iv, 24: “origines nominum”; I, vi, 28 “Etymologia, quae verborum originem inquirat”. Gelius, *Noctes Atticae* I, xxv, 17 “originem verbi requirentes”; IV, ix, 4 “illa vocabula ab eadem origine profecta diversum significare videntur”.

⁸⁹⁰ Schultens, *Origines Hebraeae*, vol. 2, p. 4 (ch. 1, § 4): [...] “Hebraeas origines, id est primaevas, antiquissimas, proprias, necdum in metaphoras aliosque usus secundarios deflexas radicum significationes”. Cf. ibidem, p. 10 (ch. 1, § 18): “Hae iam primariae et antiquissimae potestates ipsas illas origines constituunt verborum”, i.e. “These primary and very ancient meanings are the original meanings of words”.

⁸⁹¹ Franciscus Sanctius, *Minerva seu de causis linguae Latinae commentarius*, 4th ed., Amsterdam 1714, with the notes of Caspar Sciopius and Jacob Perizonius, p. 301 (book III, chapter 3, note 8): “Sed catachresis haec est, quae saepe vocabula usurpat alio in sensu et constructione, quam postulabat analogia et origo seu primitiva eorum significatio.” Other juxtapositions of *origo* and *analogia* occur in book I, chapter 14, p. 151: “quia usu ipso paulatim longius a prima origine et

Tiberius Hemsterhuis likewise employed the word *origo* as an elliptical expression for both “primitive word form” and “original meaning”.⁸⁹²

In Schultens’ works, *origo* is used in contradistinction to the concept of transferred and secondary meanings, which are linked to the cognitive processes underlying semantic change through metaphor, metonymy, and synecdoche. He presumed that the original meanings were perceptible and denoted concrete referents. Thus, he stood under the impact of John Locke’s sensualist epistemology and Lockean etymology. Around 1740, just before he began lecturing on etymological Hebrew lexicography, he made excerpts from Locke’s *Essay Concerning Human Understanding*.⁸⁹³

14.2 Epistemological bases: the nature of original meaning

Schultens chose the original meaning as the main object of inquiry in his Hebrew etymology and set out from the following principles:

- (1) The original meaning is sense-perceptible and concrete, and, for this reason, meanings that refer to abstract concepts cannot be original.
- (2) The original meaning is less common in the vocabulary of languages than transferred or innovative meanings, and it survives only partially or disappears completely.

In the first principle, namely the presumption of a consistent shift from concrete word-meanings that reflect sensory referents to abstract and metaphorical ones, Schultens was influenced by Locke’s sensationalist epistemology and set out from a sensationalist conception of semantic origin. Accordingly, he assumed that the original meaning is concrete, determined by the sense-perceptible idea of the object referred to by the

analogia abiit vocis significatio” and in book III, chapter 11, note 1: “sed ut usus saepe alias per abusum ac errorem a vera origine et analogia deflexit, ita” [...].

⁸⁹² Hemsterhuis, *Lectio publica de originibus linguae Graecae*, § 30.1: “Vel linguae Graecae vel alias origines vocamus primo huius primordia et radices verborum per multiplices formas derivatorum.” “Firstly, what we call the origins of the Greek language and of other languages are the beginnings and the roots of words derived through multiple forms.” See also § 30.2: “Secundo origines vocamus primas in quibuscumque vocibus et proprias significatione.” “Secondly, what we call origins are the primary and proper meanings of whatsoever words.”

⁸⁹³ Leiden UB, MS. Or. 1460 d, pp. 53–58. For an edition of these Lockean excerpts, see Eskhult (fc.), *Schultens’ unpublished manuscripts* (section 5.3). In his Hebrew dictionary, Schultens reveals his reading of Locke’s *Essay* in his frequent use of the word *idea* for denoting the referent of word meaning. In other writings, he was likely inspired by Locke in using epistemic technical terms, such as *simplices denominationes*, “simple designations” (*Theses de lingua primaeva*, § 10, Leiden UB, MS 1469, envelope 12, fol. 1^r, and *De lingua primaeva per theses ad meam mentem*, § 12, Leiden UB, MS 1460, envelope D, fol. 3^r) and *notiones simplices*, “simple meanings” (*Epistola prima ad Menkenium*, p. 15).

word as the signifier. However, he was more focused on establishing the idea of an original monosemy and therefore paid primary attention to the cognitive processes underlying semantic change.

Moreover, the first principle involved Schultens' opposition to the logical approach to semantics and etymology that, until then, had guided the theory and practice of Hebrew lexicography. In his etymological treatises and his unpublished Hebrew dictionary, he argued that earlier lexicographers only provided the secondary meaning of words and often justified derived biblical key concepts with theological or philosophical definitions, for instance, when they explained the sense of the verb for "to create" (ברא, *bārā*) and the word for God (אלוה, ^{ae}*lōah*, in plural אלהים, ^{ae}*lōhīm*).

In his etymological principles in *Vetus et regia via Hebraizandi*, Schultens did not explicitly address his assumption that the original meaning is concrete and sense-perceptible. In a later draft, titled *De utilitate et necessitate originum*, he added the following principle:

There is a reliable way and method by which the original meanings can be explored and duly established. It lies in the fact that the proper and primary meaning is something sensory – something perceived through sensation – certainly something real and physical.⁸⁹⁴

In all probability, Schultens added the principle of the sensory origin of the primary meaning after he had read Locke's *Essay*, book III (1, 5) about 1740, but the same assumption is attested already in the corollary appendix of a dissertation on original meanings in Hebrew, defended in October 1734, where the first two theses on semantic origin read as follows:

(1) Words are corporeal.⁸⁹⁵ Thus, a corporeal idea is required to find the primordial meaning of roots.

(2) Whether this corporeal idea is primordial will, by its own ray of light, easily be assessed by a critical judgement.⁸⁹⁶

⁸⁹⁴ Schultens, *De utilitate et necessitate originum*, § 19, Leiden UB, MS Or. 1460 q, fol. 5v: "Esse certam viam ac rationem, quibus origo investigari et rite constitui queat, nempe in eo quod proprium et primum sit aliquid sensibile, cum sensu coniunctum, certe verum physicum etc." The end of the quotation "certe verum physicum" may also be translated "certainly a physical reality".

⁸⁹⁵ Corporeal here means physical.

⁸⁹⁶ Schultens (pres.)/ Simon Schager (resp.), *Disputatio undecima et duodecima ad origines Hebraeas*, Leiden 1734, see the unnumbered page after p. 17. This dissertation forms a part of Schultens' second series of dissertations on *Origines Hebraeae* (1738), chapter 5, pp. 118–131). The Latin original reads: "I. Vocabula sunt corporea, hinc ad primigeniam radicum notionem inveniendam requiritur idea corporalis. II. Quae idea corporalis, si sit primigenia, suo ipsa [sic! instead of ipso] lumine se iudicio critico facile probabit." These theses probably derive from Schultens, though they were proposed for the exercise of the defender.

Moreover, the idea of a concrete original meaning is found in the first thesis attached to Jan Jacob Schultens' master's dissertation: "(I) The primary meaning of words is always corporeal". From this, he concludes: "(II) Thus, there are strictly speaking no synonyms".⁸⁹⁷

Given that the original language of mankind only consisted of words with a single meaning and that each meaning was covered by a single word, the fact of synonymy apparently results from a subsequent confusion of words and meanings. This is implied in a treatise on synonyms written by George Huszti, defended under the chairmanship of Albert Schultens in June 1738.⁸⁹⁸ Schultens himself did not comment on synonymy, likely because he regarded it as closely related to the topic of semantic differentiation.

14.3 Semantic development

14.3.1 General semantic principles, including views on tropes

In his view of semantic change as brought about by metaphor, metonymy, synecdoche, and irony, Schultens unquestionably stood in the Ramist and Vossian tradition (Section 9.4.2). In his semantic theory, he distinguishes between primary and secondary meanings. From the primary, concrete meaning, multiple secondary meanings often emerge. He argues that this depends on certain cognitive processes of sense extension, which he designates by the classical term "tropes", among which he counts metaphor, synecdoche, metonymy, irony, antonomasy, onomatopoeia, and catachresis.⁸⁹⁹ When describing them in his methodological treatise *Vetus et regia via Hebraizandi*, he relied on Quintilian's definitions (*Institutio oratoria* VIII, 6, 4–39) rather than on those of Gerard Vossius.

Schultens likely thought that his views on semantic change were founded on the Greco-Roman rhetorical doctrines. He did not realize his dependence on the Ramist-Vossian reconceptualization of tropes, as reflected in his restriction to three of the four principal tropes in that tradition: metaphor, metonymy, and synecdoche. When discussing the sense development of Hebrew roots in his etymological dictionary, he mainly referred to metaphor and metonymy, and sometimes to synecdoche.

Schultens' principles on the semantic origins and change of single words can be summarized as follows:

- (a) Every language has a specific character, or particularity, in its store of both primary and secondary meanings.

⁸⁹⁷ A. Schultens (pres.)/ J.J. Schultens (resp. and author), *De utilitate dialectorum Orientalium*, vol. 1, see the unnumbered page after p. 87: "I. Significatio vocum primaria semper est corporea. II. Hinc et nulla dantur synonyma vere sic dicta."

⁸⁹⁸ A. Schultens (pres.)/ George Huszti (resp.), *Dissertatio philologica de linguae Hebraeae synonymis ex origine illustrandis* (i.e. "Philological dissertation on the synonyms of the Hebrew language as illustrated from its origin"), Leiden 1738.

⁸⁹⁹ Schultens, *Vetus et regia via Hebraizandi*, pp. 57–62. Schultens here quotes Quintilian's definitions of the different tropes.

- (b) Every word has only one original and primary meaning (and this implicitly excludes the possibility of homonymy; see Section 12.3.2).
- (c) Secondary meanings arise through a cognitive semantic process, guided by mechanisms in Greco-Roman rhetorical tradition known as metaphor, metonymy, and synecdoche.
- (d) Secondary meanings are arbitrary as well as abstract.
- (e) Secondary meanings are highly frequent, compared to the low frequency of original and primary meanings.
- (f) Primary or original meanings cannot possibly be explored through an *a priori* abstraction or reasoning.
- (g) Primary or original meanings cannot be established in such a limited corpus as the one extant in Biblical Hebrew, while secondary meanings can be explored through a contextualist method resorting to parallel passages and similarity of speech sounds.
- (h) Primary or original meanings consequently need to be explored through comparison with languages related to Hebrew.⁹⁰⁰

14.3.2 *The rise of secondary meanings*

Schultens defined the innovative meaning as a secondary meaning and consistently referred to it by the term *secundaria significatio*. He argued that semantic change is due to changes in the referential ideas of words through two cognitive processes, which in the Western tradition are labelled *metaphora* and *metonymia*. In Stoic semantics (Section 9.2.1), the former is aptly defined as a relationship of similarity, while the latter is explained as a relationship of contiguity or proximity in time and place.

Schultens' twofold sensualist and rhetorical approach to the origins and change of meaning was motivated by the criticism of his contemporaries' logical-semantic method. Thus, he disagreed with Gousset and his followers, who, by applying a rationalist linguistic philosophy, assumed a general common denominator of each lexeme, from which the various meanings were derived through a process of specification. Derived meanings were then claimed to be predictable *a priori* because of the logical nature of semantic change and sense development. In one of his etymological principles (no. 13), Schultens criticizes this logical method of semantics as follows:

Secondary meanings that emerge from metaphors, metonymies, synecdoches, ironies, and other figures of speech are arbitrary, free, and loose to the point that they cannot be derived *a priori* or demonstrated by any human acumen, critical study, logic, or abstract-metaphysical speculation, but they are identified only *a posteriori*.⁹⁰¹

⁹⁰⁰ Schultens, *Vetus et regia via Hebraizandi*, pp. 37–39. For an English translation of these principles, see Eskhult, *Schultens as an innovator*, Vol. 2, Section 6.7.2.

⁹⁰¹ Schultens, *Vetus et regia via Hebraizandi*, pp. 37–38.

He explains the purport of this principle as follows:

Those who have learnt letters and languages know very well that there is no word of whatever nature it may be – material or immaterial – that does not originate from the free will and mutual agreement between men. [...] Everyone who employs a metaphor, metonymy, synecdoche, or any other trope, most certainly expresses something freely. It does not emerge from a natural necessity in languages, but it flourishes against the nature of the root in an unlimited way through the agreeable inventions of the leading talents⁹⁰² and is confirmed by public agreement.⁹⁰³

Moreover, a distinctive characteristic of Schultens' etymological method is his discussion of cross-linguistic parallels and contrasts of semantic origin and change in unrelated languages, such as Greek and Latin. This interlingual semantic typology occupies a large space in his unpublished etymological Hebrew dictionary and serves the goal of distinguishing semantic universals across all languages from what is particular to a specific language.

14.4 The idea of “natural rhetoric”

Jean Le Clerc maintained that the ancient Israelites did not cultivate the art of rhetoric and, for this reason, were not able to develop a rich and variegated word-stock through the *rhetorical* devices of semantic change.⁹⁰⁴ In contrast to the extant literature of ancient Greek and Latin, biblical language was commonly considered to lack rhetorical ornamentations. Though refuted by the Church Fathers, this opinion reappeared and was reinforced by the Renaissance Humanism.

Schultens took exception to this disparagement of biblical language and literature and instead developed the conception of a natural rhetoric, *rhetorica naturalis*, as opposed to artificial rhetoric, which is the product of

⁹⁰² leading talents] that is, prominent public speakers or literary writers. This is also an argument in Tiberius Hemsterhuis, *Lectio publica de originibus linguae Graecae*, § 21.1: “Altera fons unde elegantiae Graecae linguae ratio est repetenda est ingens cultissimorum scriptorum numerus.” “Another source of the elegance of the Greek language is the huge number of its cultivated writers.”

⁹⁰³ Schultens, *Vetus et regia via Hebraizandi*, p. 94: “Qui tamen in literarum et linguarum adyta admissi, probe callent nullam omnino dari denominationem cuiuscunque tandem naturae fuerit, corporeae incorporeae, quae non ex liberrimo arbitrio consensuque simul hominum inter se originem ducat.” [...] “Qui metaphoram, metonymiam, synecdochen alium quemcumque tropum dicit, planissime aliquid liberum dicit; quod non naturali necessitate in linguis enascatur, sed natura radice invitante inde solutius efflorescat per praestantium ingeniorum iucundas et consensione publica confirmatas inventiones.”

⁹⁰⁴ In *Dissertatio de lingua Hebraica* (1693), Jean Le Clerc argues that the linguistic richness of languages depends on the cultivation of the arts of grammar and rhetoric.

rules of art, *rhetorica artificialis*.⁹⁰⁵ By “natural rhetoric” he meant both the communicative ability and the possibility of using transferred meanings of words, including the result, namely eloquent, elegant and ornate language (OED s.v. rhetoric 2.c), which can be equated with metaphorical and metonymic semantics.⁹⁰⁶ In Schultens’ terminology, *rhetorica* refers to semantics, which he considered an integral part of language together with morphology, syntax, and etymology.⁹⁰⁷

Being equipped with the faculty of a natural rhetoric, impressed in the mind by God, all men are enabled to express their thoughts in their vernacular without rhetorical training.⁹⁰⁸ The natural rhetorical ability enabled the Hebrews to extend the basic meanings of their primary lexical roots into transferred meanings, which enriched their lexico-semantics. Schultens regards the mechanisms of natural rhetoric as part and parcel of cognitive semantic processes. At the same time, he argues that it is a real rhetoric, though a natural one, clearly and distinctly occurring in the biblical writings.

Schultens explains his concept of natural rhetoric with an analogy to flowers in a garden, *hortus naturalis*. In a similar way, the garden of natural rhetoric is varied and distinct through the embellishments and ornamentations of speech.⁹⁰⁹ He also compares Hebrew etymology to botany as a branch of science. Both disciplines are occupied with seeds, roots, trunks, branches, and their external and internal qualities.⁹¹⁰ All secondary meanings grow from the simple and proper meanings as from their first seed (*tanquam e primo semine*) in accordance with “the beauty of the natural rhetoric being divinely planted in all humans” (*ad pulchritudinem rhetoricae nativae, omnibus hominibus divinitus insitae*).⁹¹¹

Schultens expounded his ideas on natural rhetoric in his reply to Johann Jacob Reiske’s criticism of his etymological notes on Abū Tammām’s *Ḥamāsa*, which he attached to the republication of Erpenius’ Arabic

⁹⁰⁵ Schultens, *Theses de lingua primaeva*, § 13, Leiden UB, MS 1469, envelope 12. Without using his concept of a natural rhetoric, Schultens simply denies the validity of Le Clerc’s argument in his draft *De paupertate linguae Hebraicae* (Leiden UB, MS Or. 1460 j; forthcoming in Eskhult, *Schultens’ unpublished manuscripts*, 8.2.2).

⁹⁰⁶ Schultens’ use of the term *rhetorica* in this sense is probably due to Salomon Glassius’ treatise *Rhetorica sacra* (1636), for which see Eskhult, *Schultens as an innovator*, vol. 2, Section 2.1.1 (p. 16, n. 3, and p. 17, n. 5).

⁹⁰⁷ Schultens, *Excursus tertius*, pp. 224, 225, 229 and 230, where the study of the Hebrew language is said to include *grammatica*, *syntaxis*, *rhetorica* and *etymologia*. Cf. p. 221, where language is defined as *grammatica*, *syntaxis* and *rhetorica*.

⁹⁰⁸ Schultens, *Theses de lingua primaeva*, § 10, Leiden UB, MS 1469, envelope 12.

⁹⁰⁹ Schultens, *Vetus et regia via Hebraizandi*, p. 45.

⁹¹⁰ Schultens *Institutiones ad fundamenta linguae Hebraeae*, Leiden 1737, dedicatory letter addressed to no less than Hermann Boerhaave, p. 2.

⁹¹¹ Schultens, *Epistola altera ad amplissimum et excellentissimum virum F. O. Menckenium perscripta*, Leiden 1749, p. 15.

grammar. He approved of Reiske's definition of his own concept of *origines*: "The notes explore the origins, that is, the primary meanings of words, or as Reiske corrects himself, the proto-meanings (*matrices significationes*) from which the other meanings, no matter how different and divergent they are, have originated."⁹¹² Reiske objected that the meticulous exploration of the primary meanings, which Schultens "urges with such a fervour", is actually "not as useful and necessary as Schultens believes them to be".⁹¹³ Schultens responded that the exploration of primary meanings is the core and centre of the discipline of etymology. He equated it with the restoration and revival of the innermost principle of languages (*anima linguarum*), especially for languages no longer spoken or flourishing. Such a revival also provides a key to rhetorical semantics, as it displays how the primary meaning through natural rhetoric is extended to secondary meanings in their capacity of being rhetorical ornaments:

What is more noble and excellent than drawing forth the primary meanings of words, or rather, as he [i.e. Reiske] corrects himself, the proto-meanings? No one, indeed, no one, learned or unlearned alike, would doubt it. Rather, this forms the very centre and middle of this discipline and the kernel and soul of languages, without which we possess only a cover, or even a body, but a dead one, especially if this language is no longer flourishing in living usage, but has completely withered away and become extinct. To clarify the original meanings of a dead language is therefore the same as to restore it to life and to recover its vigour and the semantic bases of its real splendid tropes and embellishments. Light is also shed on the natural beauty and weight of a living language through the same original meanings, to which few people direct their attention, and which even fewer discover.⁹¹⁴

⁹¹² Reiske, review of Schultens' chrestomathy of *Hamāsah*, in *Nova acta eruditorum* (December 1748), Leipzig 1748, p. 692.

⁹¹³ Reiske, *ibidem*, p. 693.

⁹¹⁴ Schultens, *Epistola prima ad amplissimum et excellentissimum virum F. O. Menkenium perscripta*, Leiden 1749, p. 9: "Ecquid nobilius excelsiusque, quam primas vocum significationes vel potius, ut semet corrigit, significationum matrices eruisse? Nemo, nemo, literatus vel illiteratus juxta, ambigat, quin hoc centrum constituat et meditullium scientiæ istius atque adeo medullam ipsam et animam linguarum, sine quo cortex tantum habetur vel et corpus, sed corpus mortuum, præsertim si quæ lingua non vivo amplius usu florescit, sed penitus defloruit, atque extincta est. Origines ergo lingue mortuæ enucleasse est ei vitam et vigorem et vera sua lumina atque ornamenta reddidisse. Etiam vivæ [linguæ] per easdem [origines] nativum decus et pondus, ad quod pauci attendunt, pauciores penetrant, refunditur." I have supplied the ellipses of *linguæ* and *origines* in square brackets.

15. Phonetic and morphological principles

15.1 Phonetic principles: Sound correspondences

15.1.1 Classification of Hebrew-Arabic sound correspondences

In *Clavis dialectorum*, “Key to the dialects” (1733), Schultens developed the theory and practice of sound correspondences between Hebrew and Arabic. He distributed his investigation across twenty-three entries, each corresponding to a letter of the Hebrew alphabet from *’ālef* to *tāw*. Each entry consists of two sections, the first of which addresses the identity of phonemes in Hebrew and Arabic in the first, second, and third radicals (i.e. root consonants) of verbal and nominal roots. In the treatment of the letters *zāyin*, *ḥēṭ*, *’ayin*, *ṣādē*, *sīn*, and *šīn*, the first section also deals with direct sound correspondences between Hebrew and Arabic. When sound correspondences are discussed, the first section also explores the lexical and semantic differences among Arabic roots involving the two phonemes. The second section explores sporadic sound correspondences, which are conceptualized as “indirect, weak, or rare (infrequent)”.⁹¹⁵

Schultens emphasized the regularity of sound correspondences between Semitic languages, conceptualizing them as interchanges of speech sounds. He defines regular “shifts” as correspondences that either occur within the class of *gutturales* (namely *ḥ–ḥ*, no. 2, and *‘–ğ*, no. 3) or within the class of *dentales* (*ṣ–ḏ*, no. 4, *s–š*, no. 6, and *š–s*, no. 7), or that cross classes, viz. from Hebrew *dentales* to Arabic *linguales*. The voiced and the emphatic alveolar Hebrew fricatives *z* and *ṣ* correspond to the interdental Arabic fricatives *ḏ* and *ṭ* (nos. 1 and 8), while the voiceless postalveolar Hebrew fricative *š* corresponds to the voiced emphatic alveolar Arabic fricative *ḏ* (no. 5).

Schultens classified the sound correspondences numbered 1, 2, 3, 4, 7, and 8 as phonemes that correspond directly to one another within the same class of consonants, while the remaining are considered only frequent sound correspondences (nos. 5–6). In illustrating them, he made extensive use of Golius’ *Lexicon Arabico-Latinum* (1653), from which he likely derived far more benefit than he acknowledged.

⁹¹⁵ Schultens defined direct sound correspondences as those occurring within the same consonantal class (according to the medieval and early modern classification of Hebrew and Arabic consonants), while indirect correspondences are those that cross classes. He approved of the old rule that “consonants of the same class easily interchange”, but added that even changes that cross class boundaries may be direct correspondences, which he applies to the correspondences *z–ḏ*, *ṣ–ṭ*, and *š–ṭ*.

15.1.2 Concept of sound correspondences as regular “sound changes”

To designate a sound correspondence, Schultens inaptly used Latin nouns for “change”, such as *mutatio*, *immutatio*, *permutatio*, and *commutatio*. The latter two can also mean “interchange and alteration”. To refer to the action “to correspond”, he sometimes used the verb *respondeo*,⁹¹⁶ but more often verbs meaning “to change”, e.g., *muto*, *permuto*, *alterno*, *converto*, *migro*, *inflecto*, *transformo*, and *commuto*. Thus, he applied diachronic terminology to a synchronic relationship between sister languages. When writing *Clavis dialectorum*, Schultens had not yet fully abandoned the view that Hebrew was the primordial language, but he refers to Hebrew as “the mother or rather the sister” of Arabic. Initially, he thought there was a shift from Hebrew as the ancestor language to Arabic as the daughter language, but after recognizing the sisterly kinship, he did not update his terminology.

In his analysis of sound correspondences between Hebrew and Arabic, Schultens did not attempt a historical reconstruction of the proto-Semitic phonemic origins and their development into Hebrew and Arabic. He probably understood that a sound in the ancestor language changed into Hebrew *z* and Arabic *ḏ*, but he did not try to reconstruct it.

15.1.3 Observations of Hebrew-Arabic sound correspondences

Schultens recognized the eight sound correspondences between Hebrew and Arabic and richly exemplified his observations. Below, an account is given from the published *Clavis dialectorum* (1733), which is compared with those provided in his preparatory draft of *Clavis dialectorum* (Leiden UB, MS Or. 1459 D, fols. 450r–493v). In the footnotes below, Schultens’ examples are compared to those of Schindler in his pentaglot dictionary.

(1) Hebrew זָיִין, *záyin*, *z* – Arabic ذَّال, *ḏāl*, *ḏ*. In determining the sound values of the Arabic letters *zāy* and *ḏāl*, Schultens describes the former sound as softer (*mollius*) and the latter sound as harder (*duriuscule*). Concerning the first radical (root consonant), he illustrates this correspondence with eight examples. These words are in Hebrew as follows: זָבַח, *z’ēḥ*, “wolf”, זָבַח, *z’būḥ*, “fly”, זָבַח, *zāḥaḥ*, “to sacrifice”, זָהָב, *zāḥāḥ*, “gold”, זָוַח, *zūḥ*, “to flow”, etymologically, according to Schultens, “to flow after having melted”, זָכַר, *zākār*, “to remember”, זָקָן, *zāqān*, “beard” and זָרוּעַ, *z’rōa’*, “arm”.⁹¹⁷ He gives two examples of the shift in the second radical, viz.

⁹¹⁶ Schultens, *Clavis dialectorum* (added to the re-edition of Erpenius’ *Rudimenta Arabica*, Leiden 1733, p. 300), states that Hebrew *šīn* “can directly correspond” to Arabic *šīn*, *sin*, and *tā’*; p. 219 Arabic *zāy* and *ḏāl* “directly correspond” to *záyin*.

⁹¹⁷ Schultens, *Clavis dialectorum*, p. 221. These examples also occur in the brief draft of *Clavis dialectorum*, Leiden UB, MS Or. 1459 D, fol. 450r. Schindler, *Lexicon pentaglotton* (1612), attributes the same Arabic cognates to these eight Hebrew words, often noting the “sound interchange” between Hebrew *záyin* and Arabic *ḏāl*, sometimes in a short formula such as “ז ḏ *permutatis*”. In *Etymologicum*

בזר, *bāzar*, “to scatter, spread”,⁹¹⁸ which also occurs in MS Or. 1459 D: 451r, and רזה, *rāzā*, “to be meagre, become meagre”, according to Schultens in Arabic *radaya* with the sense “to grow weak, be fatigued” out of emaciation. As to the third radical, there is only one example: עוז, *‘ūz*, “to seek refuge”, allegedly “to flee to an asylum, to retreat”.⁹¹⁹

(2) Hebrew ה *hēl*, *h* – Arabic ح *ḥā*, *ḥ*. Schultens gives eight instances of this correspondence in the first position, one in the second, and one in the third of verbal or nominal stems.⁹²⁰ For the first radical, the instances adduced are: חבא, *ḥābā*, “to hide, conceal”, חבט, *ḥābat*, “to shake”, חדר, *ḥædær*, “an inner room, chamber”, which is compared to Arabic *ḥadara* “to hide behind a veil”; חוט, *ḥūt*, “thread”, which is compared to Arabic *ḥayyāta*, “to sew, to sew together”, חטא, *ḥātā*, “to sin”, properly “to miss the goal” – a sense that according to Schultens occurs only once in the Bible, but is common in Arabic literature – חטף, *ḥātaf*, “to seize hastily, catch, snatch”, חלף, *ḥālaf*, “to succeed (someone), to replace” and חמל, *ḥāmal*, “to spare, to pardon”.⁹²¹ In the third radical, Schultens adduces one example: פרח, *pārah*, “to sprout, shoot”, Arabic *faraḥa*, “to incubate, to hatch (about birds); to put out new shoots (about trees)”.⁹²²

(3) Hebrew ע *‘ayin*, *‘* – Arabic غ *ḡayn*, *ḡ*. Schultens provides a few examples of this correspondence.⁹²³ Notable instances are עטא, *‘ātā*, “to wrap, cover, veil”,⁹²³ עמם, *‘āmam*, “to burden”, רעב, *rā‘eḥ*, “to be hungry”,⁹²⁴ and שעַר, *ša‘ar*, “gate”, allegedly “an opening, a fissure”.

Orientalis (1661), Hottinger presents the same cognates, though not always with reference to the sound correspondences. In the Latin edition of his Hebrew-Aramaic dictionary, *Lexicon manuale Hebraicum et Chaldaicum in Veteris Testamenti libros* (1833), Gesenius retains the same Arabic cognates, as does the Brown-Driver-Briggs Hebrew lexicon (1906).

⁹¹⁸ Schindler, *Lexicon Pentaglotton*, p. 187, gives the same Arabic cognates, with a note on the sound correspondence. In *Lexicon Chaldaicum, Talmudicum et Rabbinicum* (1639), the Buxtorfians present Hebrew בזר and פזר as the etymon of Aramaic בדר, *badder*, “to spread, disperse” and state the sound correspondences between Hebrew *zāyin* and Aramaic *dālat* (*per usitatam permutationem* ז in ד) and between Hebrew *beṭ* and Aramaic *pē*.

⁹¹⁹ The Arabic cognate *‘āda* is adduced in Gesenius, *Lexicon manuale*, p. 680, and in Koehler-Baumgartner, *Hebräisches und Aramäisches Lexikon*, 1990, p. 753.

⁹²⁰ Schultens, *Clavis dialectorum*, pp. 227–230. All examples that relate to the first radical also occur in Leiden UB, MS Or. 1459 D, fol. 461v.

⁹²¹ Schindler, *Lexicon pentaglotton*, gives the same Arabic cognates of חבא, חוט, חטא, חטף, and חלף. Concerning חדר, he gives another sense to the Arabic cognate *ḥadara*.

⁹²² Schultens, *Clavis dialectorum*, pp. 266–267. The same, and other, instances are also found in Leiden UB, MS Or. 1459 D, fols. 481r–481v.

⁹²³ Schindler, *ibidem*, p. 1288 s.v. עטא, gives the same Arabic cognate, *ḡātā*, with the same meaning (“textit, obtexit, operuit, velavit” etc.).

⁹²⁴ Schultens gives Arabic *raḡuba* the sense “to have an empty stomach”. Schindler, *ibidem*, p. 1747, compares רעב with the similar Arabic cognate *raḡiba*, “to desire,

(4) Hebrew צ *ṣādē*, *ṣ* – Arabic ض *ḍād*, *ḍ*. Several examples illustrate this correspondence (Schultens, *Clavis dialectorum*, pp. 278–279): צד, *ṣad*, “side”, צבר, *ṣābar*, “to heap, collect”, צחק, *ṣāḥaq*, “to laugh”,⁹²⁵ and צוק “to worry, harass”, Arabic *ḍāqa*, “to be narrow”. The first example concerns an etymological suggestion about the original meaning of the Hebrew noun צד, *ṣad*, and the Arabic noun *ḍidd*. In his Arabic dictionary, Golius gives *ḍidd* two meanings: “contrary” (*contrarius*) and “similar” (*similis*). Schultens argues that *ṣad* in Hebrew originally meant “opposite part”, from which two semantic relationships developed, viz. “something diverse, contrary” and “something twin, very similar”.⁹²⁶

(5) Hebrew צ *ṣade*, *ṣ* – Arabic ظ, *ẓā'*, *ẓ* or *ḍ*.⁹²⁷ Schultens elucidates this correspondence with many examples (*Clavis dialectorum*, pp. 286–289). Here belong, among others, צען, *ṣā'an*, “to move” as a nomad,⁹²⁸ צל, *ṣel*, “shadow”, and צלל *ṣālal*, meaning “to cover”, but not “to ring, sound”, where Arabic has ص. Another example is צמא, *ṣāmā'*, “to thirst”.⁹²⁹ Two other examples imply new ideas about semantic relationships. The first is צלם, *ṣælæm*, “a shady or sketched or carved image”, which Schultens connects with Arabic *ẓalama*, “to be obscure, to be shadowy”. The other is צהר, *ṣohar*, “light, midday”, which in Arabic (*ṣahr*) means “a back, ridge”. Schultens proposes the unifying idea that the sun at midday culminates its course on the firmament, as if on a ridge.⁹³⁰ As for the second radical, one example is עצם, *āṣam*, “to be strong, brave, mighty”.⁹³¹ Schultens also offers other examples involving etymological proposals.⁹³² As regards the third radical, he gives three

relish for food, wish for”. Gesenius, *Lexicon manuale*, accepts *raguba* as a cognate meaning “to be wide, spacious, especially about the stomach: an empty stomach”.

⁹²⁵ Most of these examples also appear in the draft of *Clavis dialectorum*, Leiden UB, MS Or. 1459 D, fol. 486r. As for צחק, *ṣāḥaq*, Schultens cites Arabic *ḍaḥika* as a cognate, noting that the Hebrew *qof* corresponds to the Arabic *kāf*. Schindler assigns it the same Arabic cognate (*ḍaḥika*) and adds a remark on the *qof*–*kāf* transition.

⁹²⁶ This etymology is also proposed by Schultens in the draft of *Clavis dialectorum*, Leiden UB, MS Or. 1459 D, fol. 486r.

⁹²⁷ Schultens (*Clavis dialectorum*, p. 286) observed that the shift *ṣ*–*ẓ* is frequent: *longe longeque frequentius, ut regnum videatur obtinere haec traiectione*, “far and far more frequent, so that this transition seems to have a realm”.

⁹²⁸ Schindler, *Lexicon pentaglotton*, p. 1558, gives the same Arabic cognate, though in the sense “to lay down, store” (*repono*).

⁹²⁹ Schindler, *Lexicon pentaglotton*, p. 1544 and p. 1550, gives the same Arabic cognates of צלל and צמא.

⁹³⁰ A few of these examples are also found in Leiden UB, MS Or. 1459 D, fol. 486v.

⁹³¹ Schindler, *Lexicon pentaglotton*, p. 1369 s.v. עצם, gives the same Arabic cognate, *ʿaṣuma* (عظم), though in the sense of “to become important, to excel, magnify”.

⁹³² Schultens (*Clavis dialectorum*, p. 288) argues that the common Hebrew root יצב, *yāṣab*, “to place”, in the *hipael* stem “to place oneself”, corresponds to two Arabic verbs, one with the regular sound correspondence, viz. *wāṣaba*, “to be assiduous,

examples: קַיִץ, *qayīṣ*, “summer”, in Arabic *qayṣ*,⁹³³ יָקַץ, *yāqaṣ* “to awake, wake up”, in Arabic *yaqīza*,⁹³⁴ and יַעַץ, *yā‘aṣ*, “to advise, counsel”, in Arabic *wa‘aṣa*, “to admonish, exhort”.⁹³⁵

(6) Hebrew שׁ, *šīn*, *ś* – Arabic ش *šīn*, *š*. This correspondence is considered very frequent and provided with fifteen examples,⁹³⁶ among which the following are found: שָׂבַע, *śāba‘*, “to be sated, be satisfied, saturated”,⁹³⁷ שֶׁה, *śæ*, “sheep, cattle”, שָׁהֵד, *śāhed*, “to witness”, נָשָׂא, *nāśā‘*, “to lift (up), carry, take” and בָּשָׂר, *bāśār*, “flesh” (Arabic *bašar*).

(7) Hebrew שׁ (*šīn*), *ś* – Arabic س *śīn*, *ś*.⁹³⁸ As for the first radical, Schultens gives ten examples of this correspondence, among others שְׁבִיל *ś̄bil*, “track”, שֶׁבַע, *śæba‘*, “seven” (Arabic *sab*), שָׁלַט, *śālaṭ*, “to have dominion, to rule, govern”, שָׁקַן, *śākan*, “to rest”, שָׁלוֹם, *śālōm*, “soundness, well-being, peace”, שָׁמַע, *śāma‘*, “to hear” (Arabic *sami‘a*), and שָׁמַיִם, *śāmayim*, “heavens” (Arabic *sama‘*, pl. *samawat*),⁹³⁹ As for the second radical, six examples are provided, e.g., יָשָׁע, *yāśa‘*, “to be spacious, wide; to rescue, to save”,⁹⁴⁰ מָשַׁח, *māśaḥ*, “to grease, to oil”,⁹⁴¹ חָשַׁב, *hāśab*, “to think”, and נָשַׁב, *nāśab*, “to blow”. For the third radical, he brings forward five examples, among others, חָמֵשׁ, *hāmēš*, “five”, יָבֵשׁ, *yābeš*, “to dry up; to get dry”, and שָׁמֶשׁ, *śæmæš*, “sun”.⁹⁴² Schultens also

constant, firm”, as applied to persons, and the other with a direct correspondence, *wašaba*, “to be firm”, mainly as applied to things. Moreover, he points out that the Hebrew noun חָשֵׁר, *hāšēr*, “court, enclosure”, corresponds to the Arabic verb *ḥašara*, “to prohibit, shut off; fence in, enclose”, whereas the similar word חָצִיר, *hāšir*, “green grass”, corresponds to the Arabic verb *ḥaḍara*, “to be green”. Another example is the Hebrew noun שַׁצַּף, *śæṣæf* (a *hapax legomenon* in Isaiah 54:8), which Schultens links to Arabic *šaṣafa*, “to be violent, hard”, and suggests that the Hebrew noun has the etymological meaning “rough hardness” (*durities aspera*).

⁹³³ Schindler, *Lexicon pentaglotton*, p. 1605, gives the same Arabic cognate, namely *qayṣ*: “cum ʔ punctato, קִיט”.

⁹³⁴ Schindler, *ibidem*, p. 799, renders צ with Arabic ط (here צ with a dot above, ʕ).

⁹³⁵ Schindler, *ibidem*, p. 781, s.v. יַעַץ, renders צ with ط (here ʕ with a dot above, ʕ).

⁹³⁶ Schultens, *Clavis dialectorum*, pp. 299. The same and other examples appear in the draft of *Clavis dialectorum*: MS Or. 1459 D, fol. 490r–490v.

⁹³⁷ Both Schultens and Schindler (*Lexicon pentaglotton*, p. 1794) cite Arabic *šaba‘a* as cognate, but the etymological counterpart is actually *šabaḡa*, “to be abundant”.

⁹³⁸ Schultens, *Clavis dialectorum*, pp. 302–303. The examples of the first radical are also found in the draft of *Clavis dialectorum*, Leiden UB, MS Or. 1459 D, fols. 491r–491v. Gesenius, *Lexicon*, gives the same Arabic cognates as Schultens.

⁹³⁹ Schindler, *Lexicon pentaglotton*, lists identical cognates of these words, found under their expected entries, except for שָׁמַיִם, which is listed under the main entry שָׁמַח (sub-entry שָׁמַח, p. 1888).

⁹⁴⁰ Schultens’ proposal for the Arabic *wasā‘a*, “to be wide, roomy”, was approved by Gesenius, *Lexicon*, p. 4, and Koehler-Baumgartner, *Lexikon* (1990), p. 427.

⁹⁴¹ Schindler, *Lexicon pentaglotton*, gives the same Arabic cognate: *masaḡa*.

⁹⁴² Schindler, *Lexicon pentaglotton*, gives the same Arabic cognates of *hāmēš*, *yābēš* and *śæmæš*, viz. *ḥams*, *yabisa* (vocalized *jabas*, p. 716) and *šams*.

adduces some words with a double counterpart in Arabic, e.g. *שֶׁלַח*, *šəlah*, “missile”, a cognate of Arabic *silāḥ* and *šilāḥ*.

(8) Hebrew *שֵׁן* (*šīn*) *š* – Arabic *ث* *tā*’, *t*.⁹⁴³ For the first radical, this is illustrated by ten examples: *שָׁאָה*, *šā’ā*, “to make a noise with a crash; to lay waste”, a cognate of *ta’aya*, “to be broken with a crash”,⁹⁴⁴ *שָׁד*, *šad*, “breast”,⁹⁴⁵ *שָׁקַל*, *šākal*, “to be spoiled; to be deprived”,⁹⁴⁶ *שֶׁלֶג*, *šəlēg*, “snow”,⁹⁴⁷ *שָׁלוֹשׁ*, *šālōš*, “three”,⁹⁴⁸ *שָׁם*, *šām*,⁹⁴⁹ “there”, *שְׁמוֹנָה*, *šmōnā*, “eight”,⁹⁵⁰ *שְׁנַיִם*, *šnāyim*, “two”,⁹⁵¹ *שַׁעַר*, *ša’ar*, “door, gate”, a cognate of *taḡr*, “transition through a mountain pass”,⁹⁵² *מִשְׁקָל*, *mišqal*, “weighing; pound”.⁹⁵³ For the second and third radicals, we find *שָׁמַע*, *’āšam*, “guilt” (Arabic *’atām*),⁹⁵⁴ *יָשָׁב*, *yāšab*, “to sit down”,⁹⁵⁵ and *יָרַשׁ*, *yāraš*, “to take possession; inherit”, as a cognate of Arabic *warīṭa*, “to be heir”.⁹⁵⁶

⁹⁴³ Schultens, *Clavis dialectorum*, pp. 303–306. All the examples below, and some others, occur in Leiden UB, MS Or. 1459 D, fols. 492r–493r.

⁹⁴⁴ This cognate is not approved by Schindler, Gesenius, or Koehler-Baumgartner.

⁹⁴⁵ Schindler, *ibidem*, p. 1809 s.v. *שָׁד*: “Chald. תַּד, Arab. cum ת supra punctato, תַּד”. In Arabic, the cognate is more accurately *tady*. Schindler notes the dual *שְׁדִים* with its Aramaic and Arabic cognates.

⁹⁴⁶ Schindler, *Lexicon pentaglotton*, p. 1851, gives the Aramaic cognate *תַּכַּל*.

⁹⁴⁷ Schindler, *Lexicon pentaglotton*, p. 1864, provides the Aramaic and Arabic cognates (*ʾlāg* and *talj*, respectively).

⁹⁴⁸ Schindler, *Lexicon pentaglotton*, p. 1880, gives the Aramaic cognate *תַּלַּת* (*ʾlāl*) and the Arabic cognate *talāt*: “Arab. cum ת supra punctato, תַּלַּת”.

⁹⁴⁹ Schindler, *ibidem*, p. 1886, gives in the sub-entry *שָׁם* (main entry *שָׁמָּה*) the Jewish Aramaic (*tām*) and Arabic (*tamma*) cognates.

⁹⁵⁰ Schindler, *Lexicon pentaglotton*, p. 1891, gives the Arabic cognate: “Arab. cum ת supra punctato, תַּמָּאנָה”.

⁹⁵¹ Schindler, *ibidem*, p. 1906 gives the Aramaic cognate *תַּרְיִן* (*ʾrēn*) and intends the Arabic cognate *ʾiṭnān*, fem. *ʾiṭnatāni*, though he vocalizes the consonants wrongly: “Arab. cum ת supra punctato אַתְנִי et אַתְנָן”. The words are vocalized *aṭni* and *aṭinan*.

⁹⁵² The citation of the Arabic word as a cognate depends on Schultens’ etymological speculation. Schindler, *Lexicon pentaglotton*, p. 1911, only gives the Aramaic cognate *תַּרְעָה*, *ʾra*’, meaning “gate of a city”.

⁹⁵³ Schindler, *Lexicon pentaglotton*, p. 1933, gives this Arabic cognate of the Hebrew verb *שָׁקַל*: “Arab. cum ת supra punctato, תַּקַּל”. In the sub-entry for *מִשְׁקָל*, he gives the Aramaic *מִתְקַל* (*mitqal*), “pondus, liberatio” (weight, weighing).

⁹⁵⁴ Schindler, *ibidem*, p. 131, gives this Arabic cognate, *ʾaṭām*, “debt, fine”. Koehler-Baumgartner, *Lexikon*, p. 92; HALOT, p. 96.

⁹⁵⁵ Schindler, *Lexicon pentaglotton*, p. 813, only lists the Aramaic and Syriac cognates. Gesenius, *Lexicon manuale*, p. 410, gives the Arabic cognate, *waṭaba*, remarking that it means “to jump up” in all Arabic dialects except Himyaritic, where it means “to sit (down)”. Schultens considers “to sit down” the primary sense and “to jump up” the secondary sense.

⁹⁵⁶ Schindler, *Lexicon pentaglotton*, p. 812, gives this Arabic cognate: “Arabice וַרַּת, warath, cum puncto super ת”. Gesenius, *Lexicon manuale*, p. 408, and Koehler-Baumgartner, *Lexikon*, 1990, p. 421, refer to the same Arabic cognate (*warīṭa*).

15.1.4 Regular sound correspondences between Hebrew and Aramaic

In *Clavis dialectorum* (1733) and *Institutiones Aramaeae* (1745–1749), Schultens observes sound correspondences between Hebrew and Aramaic, noting that Hebrew ז corresponds to Aramaic ז , Hebrew צ to both Aramaic ט and Aramaic ע , and Hebrew ש (š) to Aramaic ת . In his Aramaic grammar, he conceptualizes these correspondences as consonants that cross their classes, stating: “From the class of dentals, the letters צ , ז , and ש (š) tend to adopt substitutive speech sounds in other classes”.⁹⁵⁷ These correspondences are noted and exemplified on pages 15–16 in *Institutiones Aramaeae*, while they are specified in various places in *Clavis dialectorum*. Taken together, the evidence can be summarized as follows:

(1) Hebrew ז “usually glides into” Aramaic and Syriac ז .⁹⁵⁸ Schultens provides the following correspondences:

Hebrew זָהָב , *zāhāḇ*, “gold” – Aramaic דָּהָב , *dʰahḇ*, “gold”.

Hebrew זָכַר , *zākār*, “to remember” – Aramaic דָּכַר , *dʰkar*, “to remember”.

Hebrew זֶה , *zō*, “this” – Aramaic דִּי , *dī*, “this; which”.

In his Biblical Aramaic grammar, Schultens also refers to Hebrew זָבַח , *zābah*, as an etymological cognate of Aramaic דָּבַח , *dʰbah*, “to sacrifice”. In *Clavis dialectorum*, he proposes the Hebrew זִכְרוֹן , *zikkārōn*, “memorial”, as an etymological counterpart to Aramaic דָּכְרָן , *dākrān*.⁹⁵⁹

(2) Hebrew צ undergoes “a wonderful metamorphosis weakened between the teeth” and thus becomes Aramaic ע .⁹⁶⁰ In his Aramaic grammar, which also includes Syriac, he illustrates this sound shift with several examples, such as Hebrew אֶרֶץ , *ʾeræṣ*, “earth” and Aramaic אַרְעָ , *ʾraʾā*. This example also appears in *Clavis dialectorum* (1733: 269). Other examples are the transition of Hebrew צֶמֶר , *ṣəmaʾer*, “wool”, into Aramaic

⁹⁵⁷ Schultens, *Institutiones Aramaeae*, Leiden 1745–49, p. 15: “In dentalium classe proclivis ad vicarias alia e classe sibi adsciscendas ז , צ , ש .” The adjective *vicarius* means “that which supplied the place of a person or a thing, vicarious, substituted”. In modern theory, the development was the other way around: the proto-Semitic voiced dental/ lateral fricative d and the emphatic stop z developed into the emphatic alveolar fricative š and probably into the voiceless post-alveolar fricative š .

⁹⁵⁸ Schultens, *Institutiones Aramaeae*, p. 15; cf. *Clavis dialectorum*, p. 223.

⁹⁵⁹ In *Lexicon Hebraicum, Talmudicum et Rabbinicum* (Basel 1639), the Buxtorfs provide most of these examples. See the list of ordinary and sporadic “sound shifts”, “De permutatione litterarum”, p. (*) 5v, where the “change” of “ ז to ד ” is illustrated by זָהָב – דָּהָב , זָכַר – דָּכַר , and זֶה – דֶּה . In the lexicon itself, the Hebrew counterparts of the Aramaic words are given without an explicit statement of this “sound shift”, see *ibidem*, p. 492, s.v. דָּבַח ; p. 504, s.v. דָּהָב ; and p. 537, s.v. דָּכַר .

⁹⁶⁰ Schultens, *Institutiones Aramaeae*, p. 15.

עָמַר, *‘amar*, and of יָצָא, *yāšā’*, “to go out, come out”, into Syriac יַעַא (*i’ā*), “to spring forth; sprout forth, shoot forth” (Schultens gives the meanings *emicuit, exit in florem*).⁹⁶¹

(3) Hebrew צ “prefers to be softened into” Aramaic ט.⁹⁶² In his Aramaic grammar, Schultens presents the example צַלַל, *šālal*, “to seek shade, to be shadowy”, which corresponds to Aramaic טַלַל, *ṭlal*. In *Clavis dialectorum* (1733: 238), under the entry ט, *ṭēṭ*, he refers to the correspondence between Hebrew צַל, *šēl*, “shadow”, and Aramaic טַל, *ṭal*, “dew; hoarfrost, white frost, rime”, and adduces the Hebrew noun צֹהַר, *šohar*, “light, midday”, as an etymological cognate of Aramaic תִּיהָרָא, *ṭihārā’*, “midday, noon”, cf. Syriac *ṭahrā* or *ṭahrāyā*.⁹⁶³

(4) Hebrew ש “migrates into” Aramaic ת.⁹⁶⁴ In *Clavis dialectorum* (1733, p. 310), Schultens gives several examples of this sound shift:

שָׁבַר, *šāḇar*, “to break” – תָּבַר, *ṭḇar*.
 שׁוּב, *šūḇ*, “to return” – תּוּב, *tūḇ*.
 שֶׁלֶג, *šælæg*, “snow” – תֵּלֶג, *ṭlaḡ*.
 שָׁלוֹשׁ, *šālōš*, “three” – תֵּלַת, *ṭlāt*.
 שָׁנָא, *šānā*, “to continue” – תָּנָא, *ṭnā*, “repeat”.
 שָׁקַל, *šāqal*, “to weigh, ponder” – תָּקַל, *ṭqal*.⁹⁶⁵

Schultens contends that “most of these examples” apply to Arabic in the regular Hebrew-Arabic sound “change” between *šin* and *ṭā’* (the shift *š–ṭ*). In his Aramaic grammar, he proposes this Hebrew-Aramaic sound correspondence and provides some examples (but not all of those extant in *Clavis dialectorum*).

15.1.5 Sporadic sound correspondences between Hebrew and Arabic

Schultens argued that isolated “sound interchanges” occurred within the same class of consonants. In *Clavis dialectorum*, he stated the general rule that sounds of the same class easily interchange because of the vicinity

⁹⁶¹ The Buxtorfs, *Lexicon* (1639) provide the Hebrew cognates of these Aramaic words, but consider the Hebrew words as etymons and the Aramaic as derivatives, with observation of this regular “sound shift”.

⁹⁶² Schultens, *Institutiones Aramaeae*, p. 15.

⁹⁶³ Schultens, *Clavis dialectorum*, 1733, p. 287. The Buxtorfs observe these etymological counterparts in their Talmudic-rabbinical dictionary (1639) under the main entry of טָהַר, sub-entry טִיהָרָא, p. 856: “commutatis ט et צ, ut fieri solet”, and under the main entry of טַלַל, *ṭallel*, “to cover, conceal, shade”, the sub-entries, טַל, *ṭāl*, and טוּל, *tūl*, “shade, shadow”, p. 875: “per commutationem צ et ט”.

⁹⁶⁴ Schultens, *Institutiones Aramaeae*, p. 16.

⁹⁶⁵ These cognates occur in the Talmudic-Rabbinic dictionary of the Buxtorfs (pp. 2557, 2569, 2594, 2600, 1609, and 2623). Among these examples, the sound change is expressly stated only once, p. 2557, s.v. תָּבַר “שׁ in ת commutato”.

(*vicinitas*) or historical kinship (*cognatio*) of guttural, labial, or palatal consonants. In the class of dentals, he only referred to the interchange of sibilants, but not the interchange of “*linguales*”, that is, interdental fricatives, as a separate class. Defining “weak sound alterations” as coincidental and rare, Schultens argued that sporadic sound interchanges that cross the classes of consonants are infrequent. In contrast, ordinary sound correspondences may cross classes and still be very frequent.

(a) The mixed class of א ה ו י

Adhering to a long-established linguistic tradition, Schultens claimed a “mutual interchange” (*vicissitudo*) of *’ālef*, *hē*, *wāw*, and *yōd*. In Arabic and Hebrew lexicography, this elusive and mixed class, which includes glides and glottal stops, had been recognized for centuries.⁹⁶⁶ Ravius argued that it consists of etymologically cognate phonemes.⁹⁶⁷ Schultens gives the following sketch using his own terminology for sound correspondences:

א can “by phonetic transitions” correspond to و • and ي and to all phonemes of the class of gutturals.

י “very frequently alternates” with ה, rarely with ב, sometimes with • and very often with ي.

• can sometimes “convert into”¹ (*Clavis dialectorum*, pp. 243–245), into • (ibidem, pp. 245–246) and commonly into و (pp. 246–248).

(b) The class of gutturals

א “sometimes transforms into” •, خ, or ع.

ה can pass into ה, ح, and ع (*Clavis dialectorum*, 1st ed. 1733, p. 208).

ה can sometimes interchange with ك and ق (ibidem, pp. 235–236).

و can change into various speech sounds, viz. ا, خ, ن, ط, و, and ق (ibidem, pp. 269–270).

(c) The class of labials

ב “is inclined to change into” م (*Clavis dialectorum*, pp. 194 f.), or و (ibidem, p. 196)

פ can sometimes, “by occasional phonetic changes, correspond to” the labials و, ب, and م. It can also correspond to ث (ibid., pp. 270–275).

(d) The class of palatals

כ “quite frequently turns into” غ (*Clavis dialectorum*, pp. 199–200) and sometimes into ي, ك, or ق.

ך “very rarely changes into” ج and ق (*Clavis dialectorum*, p. 250).

⁹⁶⁶ Erpenius, *Grammatica Arabica*, Leiden 1613, p. 19, refers to the interchange of so-called weak (“debiles”) consonants (viz. *’alif*, *wāw* and *yā*).

⁹⁶⁷ Ravius, *Orthographiae et analogiae ... delineatio*, p. 81, argues that א, י and • belong to the same class and often interchange.

מ may sometimes change into ב or נ.

פ may sometimes correspond to כ, ח, ע, or ע (ibidem, pp. 295–296).

(e) The two classes of dentals and linguals

ט “can easily be transformed into” ז (*Clavis dialectorum*, p. 204), (ibidem, p. 205), or ט (ibidem, p. 206).

צ “rarely changes into” ד, more often into ו.

כ “directly corresponds” to both ט and צ and “may also turn into” ו, ו, and ו (*Clavis dialectorum*, pp. 238–239) and ט (ibidem, p. 241).

ס “may alternate with other sibilants”, very rarely with Arabic ז, more frequently with ו (*Clavis dialectorum*, pp. 262–263)

ל may sometimes change into מ and more often into נ (*Clavis dialectorum*, pp. 253–254)

ר may sometimes change into ל, מ, or ו.

ז may pass into ז or ט.

ך very occasionally changes into ל.

ש (š) does not change into any other speech sound than ש.

ש (š) sometimes changes into ז, very rarely into ט, ז, or ט (*Clavis dialectorum*, pp. 308–311).

נ may sometimes correspond to ט (*Clavis dialectorum*, pp. 313–314), ד (ibidem, pp. 314–315) or ט (ibidem, p. 316).

15.2 Morphophonological principles of root formation

15.2.1 General principles

In the macrostructure of his dictionary, Schultens follows a method based on structuralist and reconstructive principles – on the one hand, the principle of structural morphological regularity (*analogia*) that governs the formation of Hebrew root morphemes, and on the other, the assumption that most lost, or allegedly lost, verbal roots may be restored either internally from nominal roots in Biblical Hebrew, or through comparison with other Semitic languages, particularly Arabic. More precisely, the structuralist basis comprises the twofold assumption that all verbal roots of Ancient Hebrew were once triconsonantal and that they were formed through various combinations of the phono-graphemes of the Hebrew alphabet.

Although the Hebrew alphabet has twenty-three graphemes, Schultens treats *šin* and *šin* as a single letter, viz. ש. Based on this principle, the Ancient Hebrew word-stock would amount to 10,648 roots, the product of 22 x 22 x 22.

In his Hebrew dictionary, Schultens discusses the vocabulary of the fifteen letters from א to ו in alphabetical order. He assumes that each initial letter once had a series of twenty-two biconsonantal units in Ancient Hebrew, even if they are not attested in the allegedly scarce remains of this language. The underlying assumption is the concept of structural regularity in the Ancient Hebrew language (*analogia veteris linguae*).

15.2.2 Theory of morphological patterning

Schultens did not reckon with what is now known as the principle of co-occurrence restrictions on identical or homorganic consonants,⁹⁶⁸ which was demonstrated only in 1950 by American linguist Joseph Greenberg,⁹⁶⁹ whose results were corroborated by the American Semitist William Sanford LaSor for Old (Epigraphic) South Arabian.⁹⁷⁰ However, observations on sequences of consonantal phonemes that are precluded had been discussed by Saadia Gaon.⁹⁷¹ According to Greenberg, Abraham de Balme addressed this topic in his Hebrew grammar (1523), published in Hebrew-Latin parallel text and titled *Miqheh Abram, Peculium Abrae*. In his Arabic grammar, Erpenius recorded nineteen classes of incompatible co-occurrences in Arabic.⁹⁷² In his Hebrew dictionary, Schultens discussed this issue but overlooked the role of homorganicity in precluding co-occurrences, a point earlier scholars had recognized.

As early as 1667, August Pfeiffer had objected to the adequacy and usefulness of calculating the number of Hebrew roots. He did so as an explicit response to the well-known claims of Elias Hutter, Christian Ravius, and Francis Mercury van Helmont.⁹⁷³ On the question of whether every root in Ancient Hebrew was triconsonantal, Pfeiffer comments:

⁹⁶⁸ See Lutz Edzard, “Biblical Hebrew”, in *The Semitic Languages: An International Handbook*, edited by Stephan Weninger, Berlin 2011, p. 488.

⁹⁶⁹ Joseph Greenberg, “The patterning of root morphemes in Semitic”, *Word* 6: 162–181.

⁹⁷⁰ William Sanford LaSor, “The sequence of phonemes in Semitic roots”, *Hebrew studies* 26 (1985), pp. 71–80.

⁹⁷¹ David Tene, “Hebrew linguistic literature”, in *Encyclopedia Judaica*, vol. 16 (among supplementary entries), p. 1364 and p. 1367.

⁹⁷² Erpenius, *Grammatica Arabica* (1613), p. 20: (1) the “gutturals”) 2, (ه غ خ ح , (ط ق ك , and (خ and س ص ض ط ظ) 3, (ث and ب , (ت and ف م , 4, (ث and ح) 5, (ح and ط) 6, (خ and س ص ض ط ظ) 7, (د and ذ) 8, (و and ذ) 9, (ز and ص ض ط ظ) 10, (ل and س) 11, (ص and ض ط) 12, (غ and ط ك) 13, (ض and ض) 14, (ط and ض ط ظ) 15, (ط and ط ظ) 16, (غ and ط ك) 17, (ق and ق) 18, (ل and ق ك) 19, (ن and ك), even though with one exception.

⁹⁷³ In *Cubus alphabeticus sanctae Ebraeae linguae*, Hamburg 1588 (Figure 14a), Hutter estimated the number of possible verbal roots in Ancient Hebrew as 13,824, the cube of twenty-four phonemes (24 x 24 x 24). He arranged them in a diagram of the entire alphabet, showing the meanings of the attested roots. Schultens had access to this book in his private library. See *Pars bibliothecae Schultensianae*, p. 6, no. 158 in folio. Christian Ravius made various calculations. In *A generall grammer*, London 1650 (1st ed. 1648), p. 64, he arrives at a total of 8,000 verbal roots. See Eskhult, *Schultens as an innovator*, vol. 2, Section 6.3.5. In *Alphabethi vere naturalis Hebraici brevissima delineatio*, Sulzbach 1667, F.M. van Helmont computes 13,248 verbal roots as the cube of 23 (viz. 23 x 23 x 23), p. 95, but he limits those in actual use to 2,117, with reference to Hutter’s limitation.

I concede that there are so many possible combinations of three letters, but from this it does not follow that there were as many available roots in the Hebrew language, nor that these were ever or later in actual use. Certain speech sounds, such as *wāw* and *yōd*, never serve as the last radical, just as *wāw* does not serve as the first radical. Similarly, a radical repeated or used thrice never forms a root, and the first radical can hardly be similar to the second. It is incontestable that many possible roots were never used. For this reason, there are many lacunae in Hutter's cube that cannot be filled [see Figures 14b and 14c for the spread layout]. Consequently, the number of roots once used cannot be determined, and the enumeration of possible roots is useless.⁹⁷⁴

A younger contemporary of Pfeiffer, Matthäus Hiller (1646–1725), a Lutheran and professor of Greek and Oriental languages at the University of Tübingen, continued the discussion in his Hebrew grammar (1711). Building on his new classification of Hebrew consonants and his distinction between homogeneous and heterogeneous consonants, he explained the co-occurrence limitations in a set of twenty-one rules.⁹⁷⁵ Although he did not distinguish between identical and homorganic consonantal phonemes, but instead subsumed them under his concept of cognate speech sounds (*congeneres*), he actually managed to express this difference through paraphrases. The order of the rules is somewhat unclear, but generally, he divided the non-co-occurrence of radicals into four categories as follows:

⁹⁷⁴ August Pfeiffer (pres.)/ Johann Schreiber (resp.), *Disputatio philologica de analogia linguae sanctae*, Wittenberg 1667, p. 7: “Verum licet totidem possibiles literarum trium compositiones concedamus, non totidem oriuntur dabiles linguae Ebraeae radices, ut de usitatis vel iam vel olim non dicamus. Nam certae literae dantur, ut ם et ך quae ultimam radicalem nunquam constituunt, ut nec ך primam. Sic eadem litera ter repitita vel posita nunquam facit radicalem; aegerrime prima radicalis secundae similis esse potest. Et ἐξάγωνιον est multas possibiles radices nunquam usitatas fuisse. Hinc tot in *Cubo Hutteriano* lacunae, magnam partem inexplebiles. Ergo numerus radicum olim usitatarum hodie definiri nequit; possibilitium enumeratio inutilis est.” The Greek word ἐξάγωνιον, ov, is used in the sense “incontestable, indisputable, unquestionable”. In Classical Greek, it means “beside the mark, irrelevant; excluded from competition”, but Pfeiffer evidently understood this compound (ἐξ and ἄγων) as “beyond contest, beyond question”.

⁹⁷⁵ Hiller, *Institutiones linguae sanctae*, pp. 21–25, under the heading “De literarum cogmentatione”, rules 36–56 of chapter 1. The beginning of § 36 reads, p. 21: “Radicales dividuntur in sociabiles ac dissociabiles. Superbissimum quippe metuentes arium iudicium Hebraei etiam atque etiam cavent, ne literarum incongrua iunctura vasti vel peregrini soni verbum oriatur.” “The root consonants are divided into compatible and incompatible. Fearing the excellent judgement of euphony, the Hebrews again and again took heed that a word did not arise with an incompatible combination of speech sounds into a strange and monstrous syllable.”

Firstly, no root consists of three radicals from different classes of gutturals, labials, and “front palatals” (the liquids ֵ and ֶ, and the voiced dental nasal ִ), “back palatals” (א, י, כ and ק), dentals (ד, ט and נ) or sibilants (ס, צ, ש and שׁ).⁹⁷⁶ This rule (no. 36, former part) implies that identical and cognate radicals are not compatible in all three positions of the root.

Secondly, “no root begins with cognate consonants”.⁹⁷⁷ This rule (no. 36, latter part) applies to both identical and homorganic consonants. It is applied to the pharyngeal fricatives א and ע (rule 37), the labials (rule 38), and the front palatals (rule 42). All this agrees with Greenberg’s assertion: “In the first two positions, not only identical, but also homorganic consonants are excluded”.⁹⁷⁸ Sanford LaSor posits: “There is a tendency to avoid a sequence of phonetically homogeneous phonemes in the first and second radicals of Semitic roots.”⁹⁷⁹

Thirdly, the first and third radicals are generally not phonetically homogeneous with some reservations: “No root consisting of three radicals begins with the letter it ends with, unless the initial radical is a *nūn* or a sibilant” (rule 39),⁹⁸⁰ and, as further restricted in rule 40: “unless a compound sound” (implying צ and the liquids ֵ and ֶ) “is interposed between labials”.⁹⁸¹ The rule above is further modified by rules 43, 44, 49, and 51. This is in agreement with Greenberg’s observation: “In positions one and three, there is a marked but less rigorous exclusion of homorganic, including identical consonants, than in the other combinations of positions”.⁹⁸² Hiller’s rules 39–40 agree with Sanford LaSor’s statement: “To a lesser extent, there is also a tendency to avoid the same type of sequence in the first and third radicals.”⁹⁸³ Sanford LaSor explains: “The most obvious exception to the tendency to avoid a sequence of phonetically homogeneous phonemes is found in the liquids /l, n, r/. With the exception of *l-l*, *l-r*, *r-r* (one each) and *n-n* (two instances), there seems to be no tendency to avoid such a sequence.”⁹⁸⁴

⁹⁷⁶ Hiller, *Institutiones*, p. 21: “Itaque nulla radix tribus constat gutturalis, nulla tribus labialibus, nulla tribus posterioris palati palatinis, nulla prioris, nulla denique tribus dentalibus, quae vel sibilum sonant vel cum sibilo non memorantur.”

⁹⁷⁷ Hiller, *Institutiones*, p. 21: “Nulla trium mobilium literarum radix inchoatur a duabus congeneris.”

⁹⁷⁸ Greenberg, “The patterning of root morphemes in Semitic”, *Word* 6: p. 162.

⁹⁷⁹ Sanford LaSor, “The sequence of phonemes in Semitic roots”, p. 71. This proposition is demonstrated in a chart, where the consonants of Old (Epigraphic) South Arabic are divided into phonetically homogeneous groups and studied in the combinations of the first and second radicals, pp. 74–76.

⁹⁸⁰ Hiller, *Institutiones*, p. 22: “Nulla radix, quae tribus constat mobilibus literis, inchoatur ab ea litera, qua finitur, nisi quae inchoat fuerit nun vel sibilans.”

⁹⁸¹ Hiller, *Institutiones*, p. 22: “nisi inter has labiales intercesserit composita” [...].

⁹⁸² Greenberg, *ibidem*, p. 162.

⁹⁸³ Sanford LaSor, “The sequence of phonemes in Semitic roots”, p. 71.

⁹⁸⁴ Sanford LaSor, “The sequence of phonemes in Semitic roots”, p. 77.

Fourthly, no root ends with two labials that are different to each other (such as *בּוּ בֵּם בִּי מוּ* and *וּב פֶּם מֵב* or with two palatals that are different to each other (Hiller's rules 53 and 54).⁹⁸⁵ A similar rule (no 41) says: "A simple sibilant is not preceded by a non-sibilant dental. Thus, no root begins with the syllables *דָּז (dāza)*, *דָּס (dāsa)*, *טָז (tāza)* or *טָס (tāsa)* nor does any root end with the syllables *טָז (taz)*, *טָס (tas)*, *דָּז (daz)* or *דָּס (das)*."⁹⁸⁶ This rule implies that no root begins or ends with the sequence of a dental followed by a sibilant in the first and second positions or in the second and third positions. Hiller also provided a few special rules for the semi-consonants *wāw* (rule 45) and *yōd* (rules 46–48).

Distancing himself from the tradition of Hutter's *Cubus* (1588), Hiller underlined that the Hebrew lexicographers had arbitrarily reconstructed roots with impossible combinations that would not have appealed to the acoustic taste of the Hebrews.⁹⁸⁷

In his Hebrew grammar, Schultens quotes some of Hiller's rules (nos. 38, 39, 43–45, 47, 48, and 53), but generally rejects the rules governing co-occurrence limitations, which he regards as "fetters of the language and of the minds as well".⁹⁸⁸ He states that he does not know on what basis Hiller established his rules for combining certain radicals and why he made some compatible and others incompatible.⁹⁸⁹ In reply to Hiller's assessment that lexicographers have arbitrarily devised unreasonable and impossible roots, Schultens dismisses Hiller's own rules as arbitrary, "which are not found nor

⁹⁸⁵ Hiller, *Institutiones*, p. 24: "Nulla radix in diversae specie labiales desinit" [...], p. 25: "Nulla radix desinit in diversae specie palatinas" [...]. Greenberg, *ibidem*, p. 162, writes: "Homorganic consonants are likewise excluded in positions two or three", and in the next sentence he clarifies that identical radicals are exempted from this rule: "homorganic but not identical consonants".

⁹⁸⁶ Hiller, *Institutiones*, pp. 22 f. (rule 41): "Neque sibilantem simplicem dentalis non sibilans praecurrit. Nulla igitur radix inchoatur a *דָּז דָּס טָז טָס* neque finitur a syllabis *טָז טָס דָּז דָּס*." The syllables are vocalized in the Latin original.

⁹⁸⁷ Hiller, *Institutiones*, pp. 25–28 with the heading: "Usus regularum de literis insociabilibus", where the first sentence reads: "Regulae insociabilium literarum errores arguunt lexicographorum pro arbitrio suo fingentium radices, quae effici nulla ratione queunt et ad Hebraeorum aures nunquam permanarunt." "The rules concerning speech sounds that cannot be joined together prove the mistakes of lexicographers who have arbitrarily invented roots that cannot be formed and that never reached the ears of the Hebrews."

⁹⁸⁸ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 41, note ב: "Compedes linguae simul et ingeniorum has leges appellare ausim."

⁹⁸⁹ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 40, note ב: "Non video quo fundamento nitantur, quae cl. Hillerus, *Gramm.*, p. 21, tradit de literarum coagmentatione, quae alias radicales sociabiles, alias insociabiles constituat, ne ex incongrua iunctura vastus et peregrinus sonus verborum oriretur."

can be found”.⁹⁹⁰ Schultens, however, admits that a few sequences of consonantal phonemes are to be excluded when forming root morphemes: “Only the combinations that were conceived to be too rough and too inappropriate were avoided or afterwards rejected.”⁹⁹¹

In his dictionary, Schultens argues that the consonants *bēṭ* and *pē* (in the unit כפ) are not frequently combined in Hebrew or in cognate languages, but he claims that they are not to be considered incompatible (*incompatibiles*) or dissociable (*insociabiles*), arguing that examples prove that this combination was allowed.⁹⁹² Regarding the sequences of כה (*h–h*) and כח (*h–ṭ*) as the first and second radicals he refutes the opinion that the nature of Hebrew would have prohibited the combination of these sequences and declares that such a claim is absurd, because other gutturals than כ (*h*) can be combined with the consonantal phonemes in question (ח and ע respectively) in both Hebrew and related languages.⁹⁹³ He argues that the opposing reasoning is based on a narrow-minded approach to assessing Ancient Hebrew morphology, relying solely on the limited literary remains of Biblical Hebrew.⁹⁹⁴

⁹⁹⁰ Schultens, *Institutiones*, p. 41, note ב: [...] “nimis profecto confidenter ad eas lexicographos castigat cl. Hillerus, p. 25, quod pro arbitrio suuo finxerint radices, quae nulla ratione effici potuerint atque at Hebraeorum aures nunquam permanarint. Atqui ipse pro arbitrio regulas fingit; quae nec sunt nec esse potuerunt.”

⁹⁹¹ Schultens, *Institutiones*, p. 2 in note ג: [...] “iis tantum coniunctionibus vel vitatis statim vel postea intermissis, quae asperae nimis et incommodae visae.”

⁹⁹² MS Bodl. Or. 257, p. 212, Munich BSB, Cod. Hebr. 378: I, p. 336, Bonn ULB, MS So 50, p. 354; and Frankfurt UB, MS lat. qu. 131, p. 122. See Section 19.3.1 for quotation of the Latin original. Dictionaries of Ancient Hebrew, Northwest Semitic inscriptions, and Akkadian do not provide any support for this claim. Except for the loanword *pbywn*, “pavilion” (through Greek from Latin *papilio*), there is no instance of the combination *b–p* as the first and second radicals.

⁹⁹³ MS Bodl. Or. 258, p. 74; Munich BS; Cod. Hebr. 378: II, p. 195; Bonn ULB; MS So 51, p. 577. See Section 19.3.1 below for a quotation of the Latin original. In Old South Arabian, there is evidence supporting Schultens’ contention that the “guttural” consonantal phonemes ‘, ‘, *h* and *h*, as the first radical, can be combined with *ṭ* as the second radical. See Sanford LaSor, “The sequence of phonemes in Semitic roots”, p. 75. In Sanford LaSor’s corpus, there are six instances each of the sequences *h–ṭ* and *h–ṭ*, ten instances of the sequence ‘–*ṭ* and four instances of the sequence ‘–*ṭ*. There are no instances of the sequences *h–h*, *h–h*, and ‘–*h*, but there are three instances of the sequence ‘–*h* as the first and second radicals. Note also that there are five instances of the sequence ‘–*h* and four instances of the sequence ‘–*h*.

⁹⁹⁴ MS Bodl. Or. 258, p. 74: “Omnis haec angustior ratio et ratiocinatio ex eo orta quod viri docti sibi omnem linguae Hebraeae ambitum metiendum sumserunt ex reliquiis, quae vix centesimam eius partem constituere possunt.” The same text appears in Munich BSB, Cod. Hebr. 378: II, p. 195 and Bonn ULB MS So 51, p. 577.

PART 5.
SCHULTENS' ETYMOLOGICAL LEXICOGRAPHY

16. Lexicographical goals and contexts

16.1 Goals and results of Hebrew lexicography

In his theory of Hebrew lexicography, Schultens shared Gousset's goal of establishing the primary meaning of most lexemes, but they differed in method. In one passage in his *Vetus et regia via Hebraizandi*, "The old and royal way of studying Hebrew", he explains the outcomes of his theory and practice of comparative Hebrew studies. Firstly, he "wrestles the arms from Vossians and kills them with their own weapons".⁹⁹⁵ Secondly, he keeps the Vulgate within its limits as a good translation that aptly renders the secondary meanings of words, as other ancient Bible versions do, but shows that the primary meanings cannot be attained that way. Thirdly, he argues that the medieval rabbis, despite their learned efforts in dictionaries and biblical commentaries, cannot contribute to the original meanings. Fourthly, a search for primary meanings sheds new light on Bible translations in vernacular languages, even though they can only reproduce the secondary meanings of Hebrew roots. Fifthly, he argues that Bohle and Gousset were on the wrong track in their rationalist approach to the semantic origins of words and their formal meanings, since "as philosophers they always search in the abstract what can only be found in the concrete".⁹⁹⁶ Sixthly, he declares that his etymological enquiries have confirmed the relationship of agreement among the "Oriental dialects" (i.e. Semitic languages, *harmonia dialectorum Orientalium*).

In this way, the final result (the seventh in order) is reached, namely, to obtain the goals that Gousset's method vainly promised:

- (a) to define the primary meaning and sense of words and phrases through a very accurate investigation,
- (b) to eliminate homonyms and polysemes, as well as vague, ambiguous, and arbitrary interpretations, including the precipitate and imaginary ones,

⁹⁹⁵ Schultens, *Vetus et regia via Hebraizandi*, p. 28: "Vossianis arma e manibus extorqueo eoque suomet gladio iugulo."

⁹⁹⁶ Schultens, *ibidem*, p. 28: "semper in abstracto, ut philosophi quaeritantes, quod non nisi in concreto potest inveniri".

(c) to remove all chaff of opinions and imaginations from the Holy Writ, thus to do away with disagreements and factions that impede the progress of the Gospel, and to propagate the true worship of God in the world⁹⁹⁷

16.2 Predecessors and self-understanding as a renewer

Schultens considered himself a renewer – rather than an innovator – of comparative Hebrew grammar and lexicography, the beginnings of which he traced to the medieval Jewish scholars, expressly mentioning Saadia Gaon, Yehuda ben David Ḥayyuj, Ibn Janah, Ibn Ezra, Moses Kimchi, and David Kimchi.⁹⁹⁸ He underlined the re-emergence and consolidation of the comparative method in the 17th century through Christian Orientalists, such as Louis de Dieu, Thomas Erpenius, Jacob Golius, Johann Heinrich Hottinger, Samuel Bochart, John Selden, and Edward Pococke, all of whom he refers to as his predecessors. He also cites V. Schindler, Brian Walton, Jean Mercier, and the two Buxtorfs.⁹⁹⁹

Discussing his efforts for the renewal of the comparative method, he both disclaims and underlines his own merits as a restorer of it:

I simply do not understand why this hypothesis is called my own or new, unless it is because many people are ignorant of the history of research. In any case, it is not a new method but an ancient and royal way that the nature and kinship of the dialects pointed out from days of old to all interpreters, and there is no doubt that the Rabbis themselves followed it. This way is even less to be called mine, since so many great and leading

⁹⁹⁷ Schultens, *ibidem*, p. 29: “a. Ut primarius significatus et sensus dictionum phrasiumque accuratissima investigatione definatur. b. Ut homonymiae et interpretationes vagae, ancipites, arbitrariae, addo temerariae et ex cuiusque cerebro haustae eliminantur. c. Ut paleis omnibus opinionum et hallucinationum depulsis a S. Scriptura, discordia et factiones, quae cursum regni evangelici praepediunt, sopiantur, atque nomen et verbum Dei sint in universo orbe terrarum.” The term *homonymia* in the nominative plural signifies both homonyms and polysemes.

⁹⁹⁸ Schultens, *Origines Hebraeae*, vol. 2, p. 164; *Institutiones*, pp. 127 f.

⁹⁹⁹ In his master’s thesis *De utilitate linguae Arabicae* (1706), p. 5, Schultens refers to Selden, Greaves, Pococke, Bochart, Hottinger, de Dieu, Cappel, and Castell as his comparativist precursors. In *Excursus primus*, Leiden 1739, p. 19, he refers to Scaliger, Salmasius, Erpenius, Golius, de Dieu, Hottinger, Bochart, Selden, Walton, Cappel, Mercier, the two Buxtorfs, Cocceius, and Alting. In *Excursus secundus* Leiden 1739, p. 83, he mentions Bochart, Hottinger, Golius, Pococke, and de Dieu, and then, p. 146, supplies a more comprehensive list of the philologists of Semitic language studies in the 17th century: Erpenius, Golius, de Dieu, Bochart, Hottinger, Selden, Walton, Castell, Pococke, Mercier, the Buxtorfs, Cocceius, Alting, Schindler, Hiob Ludolf, August Pfeiffer, Christian Nolde, Johann Andreas Danz and Adrian Reland. In the preface to *Proverbia Salomonis*, p. xcvi, Schultens refers to those who have combined Oriental and theological learning: the Buxtorfs, Hottinger and Heidegger in Switzerland, and Cocceius and Alting in the Netherlands.

scholars of Oriental philology in the Netherlands, in Germany, in England, in France, in Switzerland, and in other parts of Europe have trodden it with excellent success and have recommended it to posterity. I do not appropriate the honour of discovery to myself, but am content with the glory of following [them] and endeavouring to obtain a part of the public palm of victory. However, if someone wishes to call this way my own, because I try to awaken it from a too long sleep and to **renew** it to greater vitality and fruitfulness, I truly do not deem myself worthy of such an honour, but I do not greatly shun nor fear the petty envy which people of no noble mind and of no excellent learning nourish towards me because of that. For I am certain that, provided that the history of the cultivation of the Hebrew language by Jews and Christians is put in due light, every lover of truth will adhere to me.¹⁰⁰⁰

16.3 Rejection of the opponents as metaphysical

Schultens conceived his own theory and method of Hebrew philology as a safe approach, with precedent in medieval Jewish scholarship and 17th-century comparativism. For this reason, he titled one of his methodological treatises *Vetus et regia via Hebraizandi* (the old and royal way of studying Hebrew). On the contrary, he represents his opponents, Antonius Driessen and Taco Hajo van den Honert, together with their predecessors, Jacques Gousset and Samuel Bohle, as advocates of a modern speculative method, viz. *via metaphysica hodierna*, describing their approach as metaphysical in a double sense. Firstly, it is based on abstract, general reasoning and logical

¹⁰⁰⁰ Schultens, *Origines Hebraeae*, vol. 2, pp. 194–195: “Cur haec iam hypothesis dicatur vel mea vel nova, plane non exputo, nisi quod multi historiam rei literariae non satis promptam habere videantur. Non nova utique est, sed vetus, sed fere antiqua et regia via, quam ipsa natura et cognatio dialectorum omnibus ab aevo interpretibus praemonstravit quamque Rabbinos ipsos tenuisse indubitatum. Minus adhuc mea dicenda, quam tot summi viri et literaturae Orientalis principes in Belgio, in Germania, in Anglia, in Gallia, in Helvetia, in reliquis Europae regionibus et calcarunt ipsi egregio cum successu et posteris calcandam commendarunt. Non arrogo mihi inventionis honorem, contentus gloria sequendi atque ad partem palmae in medio positae adspirandi. Si quis tamen meam appellare velit, quia eandem e longo nimis somno excitare atque ad maiorem vigorem et fructum **renovare** conor, non equidem tali me dignor honore, sed nec invidiolam, quae inde a quibusdam non generosissimi animi studiive hominibus in me captare videtur, magnopere refugiam, multo minus reformidabo. Certissimus enim sum, si modo historia linguae Hebraicae a Iudaeis et Christianis cultae ab oculis et conspectu ponatur, omnes veritatis amantes mihi accessuros.” The expression “this hypothesis” refers to the theory and practice of the comparative method: there is an internal kinship of the “dialects” that have the same origin as Hebrew, and by means of these dialects it is possible to evaluate the ancient versions and the linguistic rabbinical tradition and to explore the original meanings of Hebrew words. The extra bold typing of the verb *renovare* is introduced by me.

analysis when exploring the meanings of words.¹⁰⁰¹ For this reason, Schultens usually juxtaposed *metaphysica* and *logica*.¹⁰⁰² Secondly, it is based on the assumption that Biblical Hebrew possesses intrinsic supernatural qualities, so that this language is divine and perfect in itself and does not conform to the ordinary laws governing human languages and linguistic change.¹⁰⁰³

Moreover, Schultens accuses his opponents of subjecting the study of Hebrew to the sway of metaphysics (*metaphysices imperium*) after it, figuratively speaking, had been released from its Babylonian captivity,¹⁰⁰⁴ by which Schultens probably meant the strong reliance of Christian Hebraists on the rabbinical tradition in the 16th and early 17th centuries.

The Dutch historian Johannes van der Berg has addressed the question of whether Schultens' method takes precedence over that of his opponents. He states:

Schultens saw his opponents as people who had exchanged the well-trying road of open-minded philological research for the road of an approach, not based upon linguistic arguments, but on the weak foundations of metaphysical speculations. [...] At the same time, however, it is clear that the motives behind this "innovation" were of a conservative nature: Schultens' opponents wanted to maintain at any cost the sanctity of the Hebrew language as a safeguard for the acknowledgement of the divine character of the Old Testament. Over against them, Schultens tried to

¹⁰⁰¹ Schultens, *Vetus et regia via Hebraizandi*, p. 28, referring to Bohle and Gousset: "semper in abstracto, ut philosophi quaeritantes, quod non nisi in concreto potest inveniri". *Origines Hebraeae*, vol. 2, p. 183, where Bohle's semantic method is described as metaphysical and expounded to involve the thesis that the formal meaning is general and abstract and includes all specific meanings.

¹⁰⁰² For the phrase *logica et* (or *ac*, *atque*, *aut* or *vel*) *metaphysica*, see Schultens, *Vetus et regia via Hebraizandi*, pp. 30, 38, 66, 80, 82, 87, 94, 95, 97, 98, and 104. This phrase is also found in other treatises of Schultens, for instance, *Vindiciae Originum Hebraearum*, p. 15, where logical semantics is accused of replacing a comparative study of Semitic languages, and p. 100 (referring to a logical semantic argument). Moreover, the phrase occurs in *Excursus primus*, p. 52, where Taco Hajo van den Honert is charged with accepting logical semantics.

¹⁰⁰³ See Schultens, *Excursus secundus*, p. 79, where "metaphysical sublimities" are equated with the method of seeking help "in interiori et naturali quadam sanctitate, perfectione, claritate ac luce", "in some interior and natural holiness, perfection, clarity and light", viz. of the Hebrew language; *Excursus tertius*, pp. 174–176; *Origines Hebraeae*, vol. 2, p. 205, where the metaphysical semantic method of studying Hebrew is designated as *hyperphysica*, referring to a logical analysis, based on grounds determined a priori. See also *Excursus tertius*, p. 58.

¹⁰⁰⁴ Schultens, *Excursus primus*, p. 3: "Captivitatem istam metaphysicam, Babylonicam, unde emerserat, multo graviolem, ut a linguae Hebraea depellerem" [...].

show that his method did by no means detract from the majesty, authority and dignity of the divine Scripture.¹⁰⁰⁵

Schultens certainly introduced a new method and took more up-to-date positions than his opponents, but for apologetic and polemical reasons, he chose to present himself as a renewer of “the old and royal method”, rather than as a profound and radical innovator. Instead, he accused his opponents of introducing a new system. However, there are weighty reasons for representing Schultens as more than a renewer. First of all, the persistent recourse to Arabic for reconstructing *all* the original forms and meanings of Biblical Hebrew has no precedent before Schultens, although Jewish and Christian scholars had resorted to Arabic to explain rare, uncommon, and obscure words and phrases. Furthermore, Schultens reclassified Hebrew as a mere dialect in a sisterly relationship with Arabic and Aramaic, implying that it could no longer claim precedence over them as the primordial language. He also reconceptualized Hebrew as a merely human language, which entailed a new view of its nature: it was not intrinsically holy but human.¹⁰⁰⁶

¹⁰⁰⁵ van der Berg, *Religious currents and cross-currents* (1999), pp. 232–233.

¹⁰⁰⁶ van der Berg, *ibidem*, p. 233, argues that this approach “reflected something of the free and open attitude of the age of Enlightenment”. On Schultens’ rejection of the sacred status of Hebrew, see further Eskhult, *Schultens as an innovator*, Vol. 2, Section 8.2.2, pp. 219 ff. and Section 9.1, pp. 240 ff.

17. Schultens' views on his lexicographic predecessors

17.1 Views on Rabbinical grammarians and lexicographers

17.1.1 On the medieval Jewish legacy in general

Schultens regarded himself as a continuer of the comparative school of Hebrew language studies of the Middle Ages and of the 17th century. He had access to bibliographical resources to inform himself concerning the medieval Jewish writers of Hebrew grammars and dictionaries. He possessed the landmark bibliographies of Bartolucci, Imbonati, and Wolf.¹⁰⁰⁷ For his knowledge of medieval Jewish grammarians and lexicographers, he however depended on Richard Simon's *Histoire critique du vieux Testament* and Wolf's *Historia lexicorum Hebraicorum*. The latter not only explores Christian lexicographers of Hebrew but also Jewish authors of Hebrew dictionaries,¹⁰⁰⁸ discussing some twenty medieval Hebrew dictionaries, e.g., those of Ibn Saruq, Ibn Janah, Kimchi, and Elias Levita.¹⁰⁰⁹

Schultens never refers to the linguistic treatises of Ibn Quraysh and Ibn Barūn, although these comparativist lexicographers would have been useful to him in his account of the comparative method in the Middle Ages.¹⁰¹⁰

In his published etymological treatises, Schultens accordingly paid attention to the contributions of rabbinical lexicographers and commentators of Hebrew in the Middle Ages. He sometimes referred to the medieval rabbinical advocates of Hebrew-Arabic language comparison as his antecedents, to whom he reckons Saadia Gaon, Yehuda Ḥayyuj and Ibn

¹⁰⁰⁷ Iulio Bartolucci published the first bibliographical survey of Jewish writings *Bibliotheca Rabbinica* in the 1690s. Johann Christoph Wolf published an even more extensive survey of Jewish authors and writings, namely *Bibliotheca Hebraea* in four vols. (1715–1733), all of which were in Schultens' possession. See *Bibliotheca Schultensiana*, p. 563 (no. 3623 in quarto): "Jo. Chr. Wolfii Bibliotheca Hebraea, Hamb. 1715, 1733. 4 vol."

¹⁰⁰⁸ Schultens' knowledge and reading of these treatises are evident from references in his Hebrew grammar (*Institutiones ad fundamenta linguae Hebraeae*, p. 127). Wolf's history of Hebrew dictionaries is found in *Bibliotheca Schultensiana*, p. 570 (no. 6425 in octavo): "Jo. Christ. Wolfii Historia lexicorum Hebraicorum, Witteb. 1705".

¹⁰⁰⁹ Wolf, *Historia lexicorum Hebraicorum*, see pp. 30–34, 37–46 and 57–62.

¹⁰¹⁰ Schultens could have known about Ibn Quraysh, since his *Risāla* is listed in Wolf's *Bibliotheca Hebraea*, vol. 3, Hamburg and Leipzig, p. 311, whereas Ibn Barūn remained unknown even to Wolf.

Janah.¹⁰¹¹ He even argues that he is able to explain innumerable Hebrew roots known to the rabbis only through the Arabs, “among whom they lived together in Iraq, Egypt, northern Africa and Spain”.¹⁰¹²

In his commentary on Proverbs, Schultens confirms the results of medieval rabbinical lexicography: “Whatever proves to be very firm and solid in Hebrew dictionaries was adopted by the first restorers of this dead language, namely the rabbis of the 10th and 11th centuries, who were informed by Aramaic and the even richer Arabic, which then was their vernacular.”¹⁰¹³

17.1.2 On Hebrew grammatical and lexicographic tradition

In his remarks on vowel changes in Hebrew in his Hebrew grammar (1737), Schultens reviews the emergence and development of grammar writing for Biblical Hebrew by the rabbis in the Middle Ages. In doing so, he seems to follow Richard Simon’s survey of this topic in *Histoire critique du Vieux Testament* (book 1, ch. 30), to which he refers, but obviously adds his own reflections. He restates his guiding assumption that the rabbis set out from a too narrow conception of Ancient Hebrew. “The arduous project” to remedy the state of knowledge was begun by Saadia Gaon, whose research was refined by Yehuda ben David Hayyuj, “usually called the father of Hebrew grammarians”. This was the starting point for an ardent interest in the writing of Hebrew grammars and dictionaries. In this field, Ibn Janah of Cordoba stands out. He used “the help and light of the Arabic language”. In the 12th century, David Kimchi emulated Ibn Janah in his *Mikhlol*, a title that Schultens explains as referring to “the perfection of the art”, and describes it as “the almost single source from which both Jews and Christians have drawn the meanings of the roots and the foundation of the vowel points”.¹⁰¹⁴

He argues that Kimchi deserves this praise, but does not consider him a perfect lexicographer and grammarian, because in the former field he only achieved “what was possible in his time”: accuracy “in secondary meanings, beyond which he was hardly able to penetrate because of the absence of light (*defectu lucis*)”.¹⁰¹⁵ In his defence of the system of vowel points, he was

¹⁰¹¹ Schultens, in *Origines Hebraeae*, vol. 2, p. 164, states that Ibn Janah illustrated most of the roots from Arabic: [...] “R. Jona Cordubensis refertur absolutissimum lexicon conscripsisse, in quo radices plerasque ex Arabum fontibus illustrarit”.

¹⁰¹² Schultens, *ibidem*, p. 164.

¹⁰¹³ Schultens, *Proverbia Salomonis*, p. 250 (remark on Prov 21:5).

¹⁰¹⁴ Schultens, *Institutiones ad fundamenta linguae Hebraeae*, p. 127: “Hic unicus ferme fons, unde tum Iudaei, tum nostri hausere, sive significationes spectemus radicum sive fundamenta punctuationis.”

¹⁰¹⁵ Schultens, *Origines Hebraeae*, vol. 2, pp. 127–128: “sed perfectum eum vel lexicographum vel grammaticum iudicare nimium profecto. Praestitit ille, quod pro ratione temporum suorum potuit; in Lexico satis accuratus, si secundariam verborum notionem, ultra quam penetrare vix potuit defectu lucis, spectes.”

“too subtle and minute”, because he did not know the principle of linguistic regularity (*analogia linguae*), which after all remains “the only teacher of a good grammar” (*bonae grammaticae unica magistra*).¹⁰¹⁶

Schultens adds that “the principle of regularity is still not known in its entirety, although incredible progress has been made by great talents, who, being supported by Latin and Greek literature, strive to present in a more refined and perfect manner what the rabbis began”.¹⁰¹⁷

In his evaluation of the restoration of Hebrew, Schultens concedes that “the rabbis have the right to expound their language and to put forward the genuine meanings (of words)”.¹⁰¹⁸ In his review of the rabbinical school of Hebrew philology, he argues that 10th-century commentaries on the Hebrew Bible led to the writing of Hebrew grammars, which in turn brought about the development of dictionaries. Schultens generally confines himself to discussing Ibn Janah’s dictionary. The rabbis who lived in the Mediterranean world studied lexicography, using Arabic as their vernacular. Accordingly, “from the source of the Arabs,” Ibn Janah compiled his “most elaborate dictionary”, to which Schultens regrettably had no access. He says: “It is said to survive, and there is hope that it will emerge in due time”.¹⁰¹⁹ From quotations in Ibn Ezra and David Kimchi, it is concluded that Ibn Janah was “sufficiently prudent and successful” and that later rabbinical lexicographers of Hebrew have added “little or nothing to the external meanings of the words that they have transmitted to us”.¹⁰²⁰ The rabbis were not concerned with “the internal meanings” (*internae significationes*), which are equated with “the original meanings” (*origines*), and they did not inquire into why the wise is called חכם (*hākām*), the great גדול (*gādōl*), and the righteous צדיק (*ṣaddīq*).¹⁰²¹ Nor did they make an effort to unify the different meanings under one original, since this requires “acquaintance with learned languages and a critical judgement”.¹⁰²²

¹⁰¹⁶ Schultens, *ibidem*, p. 128: “in Grammatica vero, et praesertim punctorum ratione, fundanda nimis subtilis et argutus. Nil mirum: analogia linguae, quae bonae grammaticae unica magistra, maximam adhuc partem tunc temporis ignorabatur.”

¹⁰¹⁷ Schultens, *ibidem*, p. 128: “ne nunc quidem ea in omni suo ambitu cognita, quantumvis incredibiles progressus facti magnis ingeniis Graeca et Latina literature succinctis huc omni ope connitentibus, ut, quod Rabbini inceperant, elimatum et perfectum darent.”

¹⁰¹⁸ Schultens, *Origines Hebraeae*, vol. 2, p. 172.

¹⁰¹⁹ Schultens, *ibidem*, p. 172.

¹⁰²⁰ Schultens, *ibidem*, vol. 2, p. 172.

¹⁰²¹ Schultens, *ibidem*, vol. 2, p. 173: “De internis, i.e. de originibus, et formis primigeniis sive cur *sapiens* חכם, cur *magnus, validus, potens* גדול, cur *iustus* צדיק, etc., nulla eos cura inaccessit vel cogitatio.”

¹⁰²² Schultens, *Origines Hebraeae*, vol. 2, p. 173: “Idem intellectum velim de concordia et contentu, ad quem diversissimae saepe unius radices potestates revocari debent. Hoc, ut quisvis sentit, magnum requirit usum doctarum linguarum cum iudicio critico” [...].

17.2 Views on Christian lexicographers of Hebrew

Schultens evaluated the semantic methods of earlier Hebrew lexicography. He thus reviewed the theory and practice of his principal predecessors in this field: Reuchlin, Münster, Pagninus, Forster, Avenarius, Schindler, Bohle, Gousset, and Neumann.¹⁰²³

17.3.1 Reuchlin, Münster and Pagninus

In assessing the early stages of Hebrew lexicography in Europe, Schultens could draw on several historiographical surveys, above all those by Johann Christoph Wolf (1705) and Valentin Ernst Löschner (1706). In his retrospective on Reuchlin and Münster, Schultens likely followed Wolf's and Löschner's accounts, though he does not cite either. He asserts that Reuchlin was the first to scatter "the smoke of dense ignorance",¹⁰²⁴ but notes, like Wolf and Löschner,¹⁰²⁵ who were informed by Carlo Guiseppe Imbonati,¹⁰²⁶ that Reuchlin may have been one among the earliest authors of a Hebrew dictionary, given the possibility that he was preceded by the Benedictine monk Laurence Holocke (d. 1410, also called Holbeck and Holbeach¹⁰²⁷) and the Cistercian monk Honorius (fl. 1451). Schultens states that Reuchlin drew most of his Hebrew dictionary from Kimchi's *Sepher ha-Shorashim* and combined the information there with word meanings from the Vulgate and other translations.¹⁰²⁸

Münster proceeded in the same way as Reuchlin in the first edition of his Hebrew-Aramaic dictionary (1523), but in the second edition (1525) tried to correct the faults by referring to "the commentaries of the rabbis". Schultens regards both of Münster's attempts as praiseworthy.¹⁰²⁹

In the footsteps of Münster, Pagninus surpassed him by far in his copious storehouse of the holy language, *Thesaurus linguae sanctae* (1529). Schultens characterized its synthetic status: "It collected and fused rabbinical dictionaries and commentaries and was also helped by the

¹⁰²³ Schultens, *Origines Hebraeae*, vol. 2, pp. 77–78 (ch. 4, §§ 3–6), pp. 96–99 (§§ 32–35), pp. 166–193 (ch. 7, §§ 1–17). Cf. *Excursus primus*, pp. 54–58.

¹⁰²⁴ Schultens, *Origines Hebraeae*, vol. 2, p. 96: "fumum crassae ignorantiae primus, vel inter primos, fugavit".

¹⁰²⁵ Wolf, *Historia lexicorum Hebraicorum*, p. 73; Löschner, *De causis linguae Ebraeae*, p. 107.

¹⁰²⁶ Imbonati, *Bibliotheca Latino-Hebraea*, Rome 1694, pp. 150 and 76.

¹⁰²⁷ Judith Olszowy-Schlanger, "Christian Hebraists: Medieval period", in Geoffrey Khan (ed.), *Encyclopedia of Hebrew language and linguistics*, Leiden 2012.

¹⁰²⁸ Schultens, *Origines Hebraeae*, vol. 2, p. 97: "Reuchlinus ex Kimchii *Libro Radicum* pleraque hausit, admistis etiam significationibus quibusdam e Versione Vulgata aliisque."

¹⁰²⁹ Schultens, *Origines Hebraeae*, vol. 2, p. 97.

Aramaic Targums and the Vulgate”.¹⁰³⁰ It was considered “the most complete work” of the time and deemed worthy of “being celebrated as the only norm of Hebrew philology”,¹⁰³¹ but the decree of the Tridentine Council elevated the Vulgate to the status of “a transparent source of knowledge of Hebrew” and quenched Hebrew studies among the Papists.¹⁰³²

17.3.2 Forster and Avenarius

Schultens describes Forster’s dictionary as a rightful reaction against the rabbinical school of Hebrew lexicography. He argues that Forster set as his goal what the rabbis and Pagninus had not even considered, namely, to explore the proper and primary meanings of verbal stems,¹⁰³³ and, in doing so, implicitly to bring order to the confusion of polysemy. However, he underlines that Forster failed to achieve this objective, as he confined himself to exploring biblical usage and comparing parallel passages,¹⁰³⁴ while rejecting other sources of knowledge¹⁰³⁵ (viz., related languages and ancient translations). He failed because he abandoned the comparison of related languages (*deserta regia via dialectorum*) and, by a too hasty judgement, held the observations of the rabbis in low esteem.¹⁰³⁶ Schultens considers Forster the originator of the sole dependence on biblical usage, more specifically of those who tried to decipher the meaning of Hebrew words,¹⁰³⁷ and implicitly the precursor of Jacques Gousset.

¹⁰³⁰ Schultens, *ibidem*, p. 97: “Huc congestum et constipatum, quidquid Rabbiorum lexica aut commentarii subministrabant, assumpta etiam luce Paraphrasium Chaldaicarum et Versionis Hieronymianae” [...].

¹⁰³¹ Schultens, *ibidem*, p. 97: “ut adeo hoc opus et tunc tempestatis habitum fuisse absolutissimum et deinceps quoque ut unica norma Hebraizandi a plerisque meruerit concelebrari.”

¹⁰³² Schultens, *Origines Hebraeae*, vol. 2, p. 170 (ch. 7, § 4).

¹⁰³³ Schultens, *Origines Hebraeae*, vol. 2, p. 97: [...] “quum animadvertisset Pagninum reliquosque in Rabbiorum fere verba iurasse atque de primariis ac propriis verborum significationibus vestigandis vix aut ne vix quidem cogitasse edidit Dictionarium Hebraicum”; p. 177: “Promiserat veras, proprias et principales radicum omnium significationes.” In the former quotation, I interpret the term *verba* as verbal stems, both the basic stem (*qal*) and the derivative stem forms (*binyānīm*).

¹⁰³⁴ Schultens, *Excursus primus*, p. 56: “ex solo textu Hebraeo locorumque accurate collatione” [...].

¹⁰³⁵ Schultens, *Origines Hebraeae*, vol. 2, p. 176 (ch. 7, § 7): “Primus ille auctor extitit linguae Hebraeae notitiam abiectis reliquis auxiliis ex ipsis eius visceribus eruendi.” *Excursus primus*, p. 56: “Rabbiorum et Hebraizantium conatus omnes explodens”.

¹⁰³⁶ Schultens, *Origines Hebraeae*, p. 178.

¹⁰³⁷ Schultens, *ibidem*, p. 176: “Adstupes coepto, et rogas, quidnam sit, linguae incognitae notitiam ex ipsis eius visceribus eruere? Dicam uno verbo. Est idem quod mathematici appellant sifras resolvere sive notas, figuras et positiones literarum ignotas collatione accuratissima ad certum aliquod principium reducere” [...]. “You marvel at the enterprise and may ask what it is to elicit the knowledge of an

Schultens directs his principal criticism at Forster's method of determining proper meanings, namely, his reliance on the similarity of speech sounds, according to the rule that roots with consonant sounds produced by the same speech organ often have the same basic meaning.¹⁰³⁸ In another rule, this applies to consonants that agree in pronunciation, even though they are not articulated by the same organ of speech. This is a fallacious method, Schultens says. Likewise, it is misleading to apply this method to written characters, as Forster does. Equally wrong – Schultens goes on – is the assumption that roots with one, two, or three similar radicals, such as the series *נעל*, *יעל*, *עלה*, *עלל*, and *עול*, share the same basic meaning, in this case, that of ascending or going up, though with different shades of meaning.¹⁰³⁹ Schultens views these approaches as a search for “alliterations”,¹⁰⁴⁰ and thinks they run the risk of arbitrariness. A lexicographer who adds and removes items at his own will is acting like the insane man in Horace: “He pulls down, builds up, and turns a square into a circle.”¹⁰⁴¹ Forster created a fragile glass system (*vitreum systema*) without a foundation, as it was built on sand.¹⁰⁴² Schultens, however, admits that Forster made some felicitous observations,¹⁰⁴³ to which Schultens refers in his unpublished Hebrew dictionary. He also quotes August Pfeiffer's assessment: “Forster would have won the approval of everyone, had he not been destitute of help from the Arabic language.”¹⁰⁴⁴

Schultens rightly states that Avenarius trod in Forster's footsteps, though he also grants some value to the rabbinical school of Reuchlin, Münster, and Pagninus. As a lexicographer, Avenarius stands out for his learned ingenuity in investigating the proper and true meaning. In addition to Forster's

unknown language from its inner parts? I will tell you briefly: It is the same as that which the mathematicians call solving ciphers or reducing unknown notes, figures, and positions of letters to a certain principle by a very accurate comparison.”

¹⁰³⁸ Schultens, *ibidem*, p. 177: “E.g. pro regula generali assumit: Radices quae unius organi literas habent eandem plerumque habere significationem.”

¹⁰³⁹ Schultens, *ibidem*, p. 177. Forster often compares verbs with *nūn* as the first radical, with *yōd* as the first radical, with *hē* as the third radical, with the second and third radicals geminated, and with *wāw* or *yōd* as the second radical.

¹⁰⁴⁰ Schultens, *ibidem*, p. 176 “mirabile aucupium alliterationum” (a wonderful catching at alliterations); *Excursus tertius*, p. 56: “in mirifico quodam alliterationum artificio” (in a wonderful system of alliterations). Alliteration is here confused with the concept of assonance, “the resemblance of sound between words or syllables”.

¹⁰⁴¹ Schultens, *Origines Hebraeae*, vol. 2, p. 178 and *Excursus primus*, p. 56, quotes Horace, *Epistulae* 1, 1, 100 “Destruit, aedificat, mutat quadrata rotundis”.

¹⁰⁴² Schultens, *Origines Hebraeae*, vol. 2, p. 98 and p. 178.

¹⁰⁴³ Schultens, *ibidem*, p. 98: “Nonnulla tamen feliciter et dextre enucleavit.”

¹⁰⁴⁴ Schultens, *ibidem*, p. 98 and p. 178. In the hermeneutical handbook *Critica sacra* (ch. 5, sect. 3, question 3), August Pfeiffer states: “Multum hic prae aliis praestitit Forsterus, qui forsitan omne punctum tulisset, nisi a subsidio linguae Arabicae imparatus fuisset.” See Pfeiffer's *Opera omnia* (1704), p. 737.

criterion of the similarity of speech sounds, he used comparison with Greek and Latin to confirm the meanings he identified. Even though his interlingual comparison was rendered entirely arbitrary by his use of the classical notions of addition, removal, substitution, and transposition, Schultens thought it showed a subtlety of conjecture. The fault is that Avenarius brought the meanings into confusion.¹⁰⁴⁵

17.3.3 Valentin Schindler

In his published etymological treatises, Schultens seldom refers to Schindler,¹⁰⁴⁶ and the same applies to his dictated Hebrew dictionary. However, in two passages in *Origines Hebraeae* (vol. 2, ch. 4, § 35, § 44), he touches on Schindler's efforts as a lexicographer and as a comparative phonologist. Schultens underlines that Schindler, in his *Lexicon Pentaglotton*, compared the Hebrew language with Aramaic, Syriac, Arabic, and Talmudic-Rabbinic, and occasionally with Ethiopic, Persian, and Turkish. The latter two were consulted for cultural and antiquarian purposes. Still, he remarks that they do not belong to the narrow circle of "Oriental languages".¹⁰⁴⁷ Schultens also passes criticism on the failures in Schindler's lexical description of Arabic, which he attributes to the fact that Arabic studies were still in their beginnings before Erpenius and Golius brought them to maturity. He promises a further discussion of Schindler's work, "which has bestowed immortality on its author", but does not fulfil this plan. He ends his evaluation with an assessment of "the advantage of this most useful work" (*hocce utilissimi laboris praemium*), maintaining that Schindler's Pentaglot, like a morning star (*tamquam phosphorus*), both announced and sped the rather happy dawn (*auroram laetiolem*) of a more accurate and richer cultivation of Oriental studies.¹⁰⁴⁸

¹⁰⁴⁵ Schultens, *ibidem*, p. 98 (ch. 4, § 33) and pp. 178–180 (ch. 7, § 7.)

¹⁰⁴⁶ In *De defectibus hodiernis linguae Hebraeae*, pp. 62–63, Schultens assesses Schindler's semantic definition of the verb נָגַר (*nāḡar*). The rare references may be explained by the possibility that Schultens used abridgments of Schindler, such as that of Alabaster 1633, or plagiarized editions, such as that of Edward Leigh 1641, which was also translated into Latin and supplemented by Henric à Middoch (1678, 1688, 1696) and translated into French by Ludwig von Wolzogen (published 1703). Schultens possessed Alabaster's *Spiraculum tubarum* (*Bibliotheca Schultensiana*, p. 514, no. 1002 in folio) and the second edition of the Latin translation of Leigh's Hebrew dictionary, *Critica sacra* (1688). See *Pars bibliothecae Schultensianae*, p. 2, no. 50 in folio. He owned the French translation of Leigh's supplemented Latin translation, *Dictionnaire de la langue sainte [...]. Traduit en François et augmenté de diverses remarques par feu Mr. Louis de Wolzogue*, Amsterdam 1703. Schultens did use this French edition, since *Catalogus bibliothecae quam reliquit Henricus Albertus Schultens*, p. 82, no. 460 in quarto, states "cum notis Mss. A. S", which means that this copy was annotated by Albert Schultens.

¹⁰⁴⁷ Schultens, *Origines Hebraeae*, vol. 2, ch. 1, §§ 25–29.

¹⁰⁴⁸ Schultens, *ibidem*, vol. 2, pp. 98–99 (ch. 4, § 35).

17.3.5 Samuel Bohle

Schultens comments on Bohle's Hebrew lexicography in two chapters of *Origines Hebraeae*. In chapter 4, he assesses Bohle's conception of formal and general meanings from a diachronic perspective, pointing out that he himself identifies the concept of formal meaning with that of original meaning and defines it as the meaning to which all other meanings may be reduced.¹⁰⁴⁹ Accordingly, Bohle attributes the formal meaning "to produce something new in a wonderful transcendent manner" to the verb בָּרָא (*bārā'*, "to create").¹⁰⁵⁰ Schultens argues that many examples are unnecessary, since Bohle's disputations on the formal sense had recently been republished.¹⁰⁵¹

In chapter 7, Schultens surveys Bohle's theory of semantic research from the perspective of metaphysical ontology and states that Bohle is "the first to begin to subdue the Hebrew language under the empire of metaphysics".¹⁰⁵² He was not the first to compare Bohle's theory with metaphysics. Löscher had argued that Bohle arbitrarily chose metaphysical concepts and attributed them to Hebrew roots as formal meanings.¹⁰⁵³ The term metaphysics refers to the Aristotelian ontology, with its distinction between matter and form, and, more precisely, to the scholastic and neo-Aristotelian doctrine of hylomorphism, which places greater emphasis on the principle of form.

Schultens reduces Bohle's theory to three principles. He interprets the first principle as follows: "All meanings that belong to a certain root and its derivatives ought to be reduced to a primary form on which all depend."¹⁰⁵⁴ On this point, he agrees, but he disapproves of the second principle, which he expounds: "This form ought to be a general one, which contains all specific meanings in itself and envelops them in the abstract."¹⁰⁵⁵ Objecting to it, Schultens says: "This is surely not correct, but so distorted that nothing more alien to the nature and origin of languages ever can be stated."¹⁰⁵⁶

¹⁰⁴⁹ Schultens, *ibidem*, vol. 2, p. 78 (ch. 4, § 5): "circa significationes formales, id est origines, ad quas omnes notiones diversae reduci possunt".

¹⁰⁵⁰ Schultens, *ibidem*, p. 78.

¹⁰⁵¹ Godefridus Menthen included Bohle's dissertations in *Thesaurus theologicophilologicus*, Amsterdam 1701, vol. 1, pp. 1–37.

¹⁰⁵² Schultens, *Origines Hebraeae*, vol. 2, ch. 7, § 12, p. 183. Thomas Bang, *Coelum Orientis*, 1657, p. 156, argues that the concept of form in Bohle's writings should be understood in the neo-Aristotelian sense of Bartolomäus Keckermann as "prima et communis forma".

¹⁰⁵³ Löscher, *De causis linguae Ebraeae*, p. 133: "Familiare illi est μεταφυσικώτατον, quantum potuit, conceptum conficere et radicibus etiam facillimis tribuere."

¹⁰⁵⁴ Schultens, *Origines Hebraeae*, vol. 2, p. 183 (ch. 7, § 12): "Omnes significationes, quae radici alicui et derivatis eius competunt, reduci debent ad primam aliquam formam, unde omnia pendeant."

¹⁰⁵⁵ Schultens, *ibidem*, p. 183: "Haec forma debet esse generalis, quae omnes speciales significationes in se contineat et involvat in abstracto."

¹⁰⁵⁶ Schultens, *ibidem*, p. 183: "Id iam non rectum sane, sed ita tortum, ut nihil a linguarum natura et origine alienius dici queat."

Schultens understands Bohle's third exegetical and semantic principle as follows: "This universal and abstract meaning should be elicited from the inmost of the Holy Scripture without any external aid, but solely through talent and acumen."¹⁰⁵⁷ To demonstrate that this is a correct interpretation, he quotes from Bohle's first treatise on the derivation of the formal meaning, in which he recommends that his students derive the formal meaning not from dictionaries but directly from the biblical text as the primary interpretative step.¹⁰⁵⁸ In fact, Bohle argues that "the application of the general meaning is so extensive that the related languages Aramaic, Syriac and Arabic seem to subordinate themselves to its rules"¹⁰⁵⁹ and justifies this claim by referring to the Hebrew mother tongue as sufficient in itself.¹⁰⁶⁰

Schultens infers that the third principle implies that semantic logic is the overriding principle of Oriental languages and that an intimate knowledge of these languages is superfluous. Put differently, this amounts to seeking to demonstrate the meanings of words by a priori reasoning and attempting to restore the original meanings of the primeval language from one's own ideas.¹⁰⁶¹

17.3.6 Johannes Cocceius

Schultens expresses his views on Cocceius' Hebrew lexicography in vol. 2 of *Origines Hebraeae* and in the preface to his commentary on the Book of Job. He regards Cocceius' objective as a search for the formal meaning of Hebrew words, which, for Schultens, is the original meaning. He thinks that Cocceius surpasses the other Hebrew lexicographers in scope and quality by using context and parallel passages to explore the proper and primary meaning and by bringing divergent meanings back into concord and harmony. Schultens praised Cocceius for a sober, judicious, and prudent inquiry into the unifying meaning of polysemous Hebrew words. This sound approach surpasses the ill-considered attempts of Forster, Avenarius, and Bohle, all of whom are regarded as Cocceius' predecessors.¹⁰⁶² In the preface to his studies on Job, he expresses a favourable opinion of Cocceius:

¹⁰⁵⁷ Schultens, *ibidem*, p. 183: "Hanc universalem et abstractam significationem ex sacrae Scripturae visceribus eruere est sine ulla ope externa, sola vi ingenii et acuminis."

¹⁰⁵⁸ Bohlius, *Disputatio prima pro formali significationis eruendo primum in explicatione Scripturae sacrae*, Rostock 1637, p. A2 recto: [...] "ut significationes eruantur non ex lexicis, sed ex Scriptura Sacra".

¹⁰⁵⁹ Bohlius, *ibidem*, p. A2 v: "Adeo quidem valet usus significationis generalis, ut et linguae vicinae Chaldaica, Syriaca et Arabica se eius legibus iniicere videantur."

¹⁰⁶⁰ Bohlius, *ibidem*, p. A2 v: "cum sibi soli sufficiat mater".

¹⁰⁶¹ Schultens, *Origines Hebraeae*, vol. 2, ch. 7, p. 183: "Hoc iam est metaphysicam suam constituere dominam et arbitram linguarum Orientalium absque ut easdem didiceris. Hoc est verborum significationes demonstrare velle per argumentum a priori, ut sic ludam, atque linguae primaevae origines ex suis ideis restitutum ire."

¹⁰⁶² Schultens, *Origines Hebraeae*, vol. 2, , p. 78 (ch. 4, §§ 3–4).

Through his investigation of the proper and original meanings of Hebrew words, Cocceius surpasses all commentators before him. He is a light and a pillar of the Hebrew language, not only in his own time but also in ours. I venture to declare that he holds the first place among lexicographers, even though I disagree with him to some extent on the method of treating and exploring the original Hebrew meanings. Cocceius appeals to his ingenuity and genius, while I consider it advisable to consult the “dialects” with which he was generally well acquainted.¹⁰⁶³

In other passages, Schultens designates Cocceius as the leading Hebrew lexicographer.¹⁰⁶⁴ In published and unpublished treatises, he refers to the lexicographical observations of Cocceius, not always approvingly, but generally with a conviction of their relevance as background for his own etymological suggestions. Accordingly, Cocceius is the most cited and most discussed lexicographer in Schultens’ etymological Hebrew dictionary. He is referred to in every second or third entry.

17.3.7 Jacques Gousset

Schultens attacked the Goussetian method of Hebrew lexicography, which he considered a sequel to Bohle’s method.¹⁰⁶⁵ Extensively quoting from the preface to *Commentarii linguae Ebraeae*, he describes the characteristics of Gousset’s method, namely the sole reliance on Biblical Hebrew usage itself as the only source of knowledge, the assumption that the primary meaning of words and phrases can be exposed through a scrutiny of each root and its place in a sentence, as if it were a decipherment,¹⁰⁶⁶ and the rejection of all the other sources of knowledge, viz. “the Oriental dialects” (i.e. the Semitic languages), the rabbinical tradition, and the ancient Bible translations.¹⁰⁶⁷

In *Excursus primus* (1739), Schultens states that he was opposed to Gousset’s metaphysical method already in his inaugural lecture in 1713.¹⁰⁶⁸ In *Vetus et regia via Hebraizandi*, he reports that “perverse hypotheses,

¹⁰⁶³ Schultens, *Liber Jobi cum nova versione ad Hebraeum fontem et commentario perpetuo*, Leiden 1736, preface, pp. **4v–*** (pp. 15–16).

¹⁰⁶⁴ In *Origines Hebraeae*, vol. I (1724), ch. 9, § 1, p. 259, Schultens refers to Cocceius as “lexicographorum princeps”, and in *Vindiciae Originum Hebraearum*, 1737, p. 111, he quotes this passage, adding the name: “Lexicographorum princeps, Cocceius”. See also idem, *De defectibus hodiernis linguae Hebraeae*, § 49, p. 49: “Denique lexicographorum facile princeps Cocceius noster”; *Proverbia Salomonis*, 1748, p. 366 (on Prov 26:19): “princeps lexicographorum, Cocceius noster”.

¹⁰⁶⁵ Schultens, *Excursus primus*, preface, p. 6, *Origines Hebraeae*, vol. 2, p. 184.

¹⁰⁶⁶ Schultens, *Origines Hebraeae*, vol. 2, pp. 80–85, 111–114, 187; *Vetus et regia via*, p. 12.

¹⁰⁶⁷ Schultens, *Vetus et regia via Hebraizandi*, pp. 8–10 (on Gousset’s rejection of the dialects, the rabbis, and the versions); cf. *Origines Hebraeae*, vol. 2, p. 185.

¹⁰⁶⁸ Schultens, *Excursus primus*, p. 6.

especially the Goussetian” not only exhorted but also forced him to embark on a series of academic disputations, collected in *Origines Hebraeae*,¹⁰⁶⁹ at a time when he had not yet entered into an open conflict with Gousset. In *Excursus primus*, he explains why he did so: Gousset’s authority had demolished the related languages as a source of knowledge, and this necessitated a public controversy with this great Groningian scholar.¹⁰⁷⁰ In ch. 4 of *Origines Hebraeae* (originally submitted as a dissertation on 21 Nov. 1733), Schultens rejects Gousset’s claims that Hebrew can be fully understood from its own usage, that it is the sun of languages and thus enlightens itself by its own radiance, that it is the mother and source of the Oriental dialects, that it has not borrowed any words and phrases from them, and that there is a frequency of homonyms and loan words in related languages. Schultens perceived all this as a threat to the necessity and utility of “the dialects”,¹⁰⁷¹ and later characterized such claims as “Goussetian rhetorications” (*Gussetianae rhetoricationes*).¹⁰⁷² When continuing his refutation in the historical survey of earlier hypotheses on Hebrew lexicography,¹⁰⁷³ Gousset’s claims were designated as an exercise in declamations rather than based on empirical proof.¹⁰⁷⁴

Schultens argues that Gousset’s method had won such approval in the Netherlands and Germany that it was now considered the only justifiable one, no matter how much it was built upon weak principles that did not stand the test of an objective examination.¹⁰⁷⁵ He contends that, after he himself had been “transferred to Leiden” and appointed to the chair of Oriental languages,¹⁰⁷⁶ he began to realize that “this ill-omened hypothesis” had spread even to Leiden, “the eye-ball of the Netherlands and the sacred abode of the Muses”, and quenched the interest in Oriental languages.

Despite all the rhetorical exaggerations of Schultens’ dispute with Gousset, it should be kept in mind that the two scholars agreed on the goal of finding the primary meaning of words and, as far as possible, finding out

¹⁰⁶⁹ Schultens, *Vetus et regia via Hebraizandi*, pp. 23–24

¹⁰⁷⁰ Schultens, *Excursus primus*, p. 6.

¹⁰⁷¹ Schultens, *Origines Hebraeae*, vol. 2, pp. 80–85 (ch. 4, §§ 9–15 on the self-sufficiency of Biblical Hebrew), pp. 111–114 (ch. 4, §§ 50–53 on Hebrew as the mother and source of other languages), pp. 86–87 (ch. 4, §§ 18–19 on homonymy), 87–94 (ch. 4, §§ 20–28 on the spread and frequency of loan words). Cf. *Vetus et regia via Hebraizandi*, p. 11 (that Hebrew does not need any external support).

¹⁰⁷² Schultens, *Excursus primus*, pp. 14 and 69.

¹⁰⁷³ Schultens, *Origines Hebraeae*, vol. 2, pp. 184–191 (ch. 7, §§ 13–16).

¹⁰⁷⁴ Schultens, *Origines Hebraeae*, p. 188: “Haec declamationis plus habere, quam demonstrationis, semper existimavi” [...].

¹⁰⁷⁵ Schultens, *Origines Hebraeae*, vol. 2, p. 186: “Methodus Gussetiana sensim ac pedetentim ita invaluit in Belgio ac Germania, ut ferme sola nunc legitima censeatur, quantumvis superstructa sit principiis infirmissimis, quae nemo integro iudicio causam examinans approbabit.” Cf. *Excursus primus*, p. 57 (§ 67).

¹⁰⁷⁶ Schultens, *Proverbia Salomonis*, preface, p. vii.

the reasons for polysemy.¹⁰⁷⁷ The difference is that, while Gousset thought that the original meanings were preserved and could be elicited by a scrutiny of biblical usage, Schultens argued that they were lost and recoverable only through related languages, especially Arabic. Still, Schultens did not desist from analysing the biblical usage itself, even if it merely served the purpose of testing and proving the validity of the etymological meaning that he had extracted from Arabic by means of his semantic speculations.

17.3.8 Caspar Neumann

Schultens argues that Caspar Neumann developed and propagated a pictographic method of discovering formal meanings. Ultimately, it originated in the kabbalistic ideas of Francis Mercury van Helmont in his *Alphabetum naturale*. This method implies that original and primary meanings are deduced from the forms of the Hebrew letters, so that, for instance, *’ālef* becomes the symbol of movement and activity, and *bēṭ* becomes the sign of a triple dimension, etc. According to this picto-semantic principle, the formal original meanings of Hebrew roots, as well as their derived meanings, are brought out by a fanciful art of combination.¹⁰⁷⁸ The derived meanings were also explained through metaphor, metonymy, and synecdoche, which Schultens designates as “all the rhetoric of the Hebrew language”.¹⁰⁷⁹

17.3.9 Christian Stockius

In his account of earlier hypotheses of Hebrew philology (*Origines Hebraeae*, ch. 7), Schultens omits Stockius but mentions him in a concise review of non-comparative approaches to Hebrew in *Vetus et regia via Hebraizandi*, p. 108. He regards this predecessor as partly belonging to the logical-abstract method of Hebrew semantics, as it had been initiated by Bohle and continued by Gousset. However, Schultens argues that Stockius joins this “metaphysical” method with “rhetoric and dialects”.¹⁰⁸⁰ The term “rhetoric” refers to the analysis of transferred meanings through metaphor, metonymy, and synecdoche, because these concepts were then associated with the art of rhetoric (cf. Section 14.4). The term “dialects” aims at the study of related languages. Schultens accordingly characterizes Stockius as a synthesist, adding that he thus mixed darkness with light and chaos with order.¹⁰⁸¹

¹⁰⁷⁷ Schultens, *Vetus et regia via Hebraizandi*, p. 29.

¹⁰⁷⁸ Schultens, *Origines Hebraeae*, vol. 2, pp. 191–192; *Vetus et regia via Hebraizandi*, pp. 105 f. *Institutiones ad fundamenta linguae Hebraeae*, pp. 13–14.

¹⁰⁷⁹ Schultens, *Excursus tertius*, p. 58.

¹⁰⁸⁰ Schultens, *Vetus et regia via Hebraizandi*, p. 106: “Cl[arissimus] Stockius metaphysicam methodum rhetorica et dialectis [...] sociare conatus fuit.”

¹⁰⁸¹ Schultens, *ibidem*, p. 106: “i.e. tenebras cum luce, et chaos cum ordine” [...].

18. The preparation of a Hebrew dictionary

18.1 The autograph draft: *Stricturae ad origines*

18.1.1 *The manuscript and its dating*

Schultens probably started compiling a Hebrew dictionary during his activity as a full professor at the University of Franeker, but the four-volume autograph manuscript entitled *Stricturae ad origines ordine alphabetico*, “Brief remarks on semantic origins in alphabetical order”, MS Or. 1459 in Leiden University Libraries, apparently dates from the mid-1730s.¹⁰⁸² He sometimes refers to his own publications, e.g., *Origines Hebraeae*, vol. 1 (1724),¹⁰⁸³ and *Institutiones* (1737).¹⁰⁸⁴ He also mentions a dissertation on the right of asylum (1724).¹⁰⁸⁵ Schultens’ autograph *Stricturae* has the character of preliminary notes and was likely drafted as memoranda for a comprehensive dictation. For samples of entries, see Figures 15a–15d.

18.1.2 *Contents, extent and physical features*

The dictionary comprises the entire alphabet from *’āleḥ* (א) through *tāw* (ת) in four volumes in quarto, which make up a total of 1959 folios, that is, 3918 pages. The contents and extent of each volume are as follows:¹⁰⁸⁶

¹⁰⁸² Leiden UB, MS Or. 1459 (also catalogued as MS Hebr. 127). Albert van der Heide, *Hebrew manuscripts of Leiden University Library*, Leiden 1977, p. 69, rightly states that these volumes are “the lexicographical counterpart of the author’s *Origines Hebraeae* (I 1724, II 1738)”.

¹⁰⁸³ Schultens, *Stricturae*, MS Or. 1459 C, fol. 356v, refers to *Origines Hebraeae*, vol. 1, ch. 13, when deriving the etymological meaning of סָפָה (*sāfā*), “to sweep away, destroy”, from “to scrape or sweep by scarping (*radere, radendo verrere*)”.

¹⁰⁸⁴ Schultens, *Stricturae*, MS Or. 1459 A, fol. 466r, where Schultens refers to his Hebrew grammar, *Inst. gram.* (i.e. *Institutiones ad fundamenta linguae Hebraeae*, Leiden 1737), pp. 321 and 348, claiming that Ancient Hebrew had words beginning with *wāw* instead of *yōd*.

¹⁰⁸⁵ Schultens, *Stricturae*, MS Or. 1459 A, fol. 264r, refers to a disputation on asylum by a Hungarian student, likely *Dissertatio philologico-theologica de lege asylorum Mosaicorum*, defended on 1 April 1724 by Samuel Rima Szombati.

¹⁰⁸⁶ In his catalogue of Oriental manuscripts, de Goeje (*Catalogus codicum orientalium Bibliothecae Academiae Lugduno Batavae*, vol. 5, Leiden 1873, pp. 123–124) refers to these volumes under no. 2474 in Roman numerals (Cod. 1459): “Adversaria autographa Alb. Schultensii sive stricturae ad origines Hebraeas ordine alphabetico. Sunt 4 voll., quorum 1^o tractantur litterae א–י, 2^o litterae ק–ך, 3^o litterae ל–ע, 4^o litterae פ–ת, accedentibus in fine huius voluminis nonnullis addendis”.

- Or. 1459 A: א (אבב) through ז (זרר): 528 fols.¹⁰⁸⁷
 Or. 1459 B: ח (חבא) through כ (כתת): 468 fols.¹⁰⁸⁸
 Or. 1459 C: ל (לא) through ע (ערש): 514 fols.¹⁰⁸⁹
 Or. 1559 D: פ (פחד) through ת (תתה) 449 fols.¹⁰⁹⁰

In these lexicographic notes, Schultens often cites the dictionaries of Avenarius (1568), Cocceius (1669), Gousset (1702), and Stockius (1717), the Arabic dictionaries of Giggei (1632) and Golius (1653), and Bochart's *Hierozaicon* (1663). In the main entries, he usually proposes the original or primary meaning (*origo, primaria notio, primaria virtus, prima notio*) and sometimes enumerates occurrences of the entry word in the Old Testament.

At the end of the fourth volume (Or. 1459 D, fols. 450r–493v), there is a study of sound correspondences between Hebrew and Arabic.¹⁰⁹¹ This appears to be a preparatory study for *Clavis dialectorum* (1733) and likely traces its origins to Schultens' etymological research while he was at the University of Franeker. In these phonological-lexical drafts, Schultens seems to be on the verge of abandoning his view that Hebrew is the mother language of Arabic. He calls it “either mother or daughter of Arabic”, a term that agrees with his new terminology in his first speech on the antiquity of Arabic (in 1729) and that persisted into the 1730s.

All volumes contain paper sheets measuring 165 x 210 mm. All sheets bear typical Amsterdam watermarks. One motif depicts two lions flanking a royal crown. Another motif shows a commander holding a standard, with a lion below drawing a sword, and the words “pro patria” above. Other

¹⁰⁸⁷ א comprises אתה–אבב (fols. 7r–146v), בתר–באר ב (fols. 150r–262v), גת–גאה ג (fols. 262r–324v), דת–דאב ד (fols. 325r–412r), תת–האה ה (fols. 413r–465r), ורו–והה ו (fols. 466r–470r), and זרר–זאת ז (fols. 473r–527r).

¹⁰⁸⁸ ח comprises חשר–חבא with the derivatives חשרת and חשורמ (fols. 1r–197r), טטאט ט (fols. 199r–240r), יתר–יאב י (fols. 243r–382r), and כתת–כאב כ (fols. 384r–468r).

¹⁰⁸⁹ ל comprises לשר–לוא /לא (fols. 1r–70v), מתק–מאד מ (fols. 71r–172v), נשע–נא נ (fols. 193r–302), סרף–ססוה ס (fols. 309r–373r), and ערש–עבב ע (fols. 375r–511r).

¹⁰⁹⁰ פ comprises פחד (*pāḥad*) ‘pavere, expavescere, formidare’ – פרוש, ‘pulex’ (fols. 1r–61r), צרר–צאל צ (fols. 65r–129v), קשש–קבב ק (132r–195v), and רתם–ראה ר (fols. 196r–405r). The entry on the letters *šin* and *šin* begins with שאב and ends with שתק as the last entry commented (fols. 222r–405v), since under the final verbal root שתר there is only a reference to the entry סתר. ת comprises entries from תא to תתה (fols. 406r–449r).

¹⁰⁹¹ This topic is discussed in alphabetical order; however, with some disorder of the alphabetical sequence. א, fols. 453v–455v; ב, 456r–457v; ג, fols. 458r–459v; ה, fol. 450–451v; ו, fol. 476v; ז, fol. 451r and 477r–477v; ח, fols. 460r–466r; ט, fols. 467r–468r; י, fols. 469r–470v; כ, fol. 471r and 471v; ל, fols. 472r–373r; מ, fol. 474r; נ, fols. 475r–476v; ס, fols. 478r–480v; ע, fols. 481r–483r; פ, fols. 484r–495r; צ, fols. 485v–487v; ק, fol. 488r and 488v; ר, fol. 489r and 489v; ש, fol. 490r and 490v; ש, fols. 491r–493r; and ת, 493v.

watermarks are so-called countermarks, consisting of the initials of the mill owner, papermaker, or merchant (in this case, BD, VT, DGL, or IW).

18.2 The printed sample: *Lexicon Hebraeum*

18.2.1 Dating of the sample

In 1738, Schultens published a sample of his ongoing work on his Hebrew dictionary. Only one copy seems to have survived. It is preserved at Württembergische Landesbibliothek, Stuttgart, under call number Phil. qt. K. 83: *Lexicon Hebraeum cum originibus quae inveniri potuerunt*, “Hebrew lexicon with the original meanings that were capable of being found”. In his treatise on *Vetus et regia via Hebraizandi*, Schultens states that he had committed his Hebrew dictionary to the press,¹⁰⁹² but apparently he soon changed his plans, and the printing proved a vain prospect. See Figures 16a and 16b for samples of this print.

Schultens’ cross-references to his own works allow us to date the printed sample to sometime after 1737. Several references to works published in the 1730s serve as a *terminus post quem*. These include *Clavis dialectorum* (1733), *Institutiones ad fundamenta linguae Hebraeae* (1737) and *Liber Jobi cum nova versione et commentario* (1737).¹⁰⁹³ Other references provide a *terminus ad quem*. Thus, in some entries, he refers to *Origines* as a forthcoming work, to which he reserves an exhaustive discussion of the etymological meanings of certain words.¹⁰⁹⁴ Most likely, he refers to a planned third volume of *Origines Hebraeae*, given a discussion of the etymological meanings of the words אֵיב (‘*āḇīḥ*), אֵבָה (‘*āḇāḥ*), אֵבָק (‘*āḇāq*), אֵבָר (‘*āḇār*) and אֵגָף (‘*āḡāf*), for which he refers to *Origines Hebraeae*. No further elucidation appears in the published second volume.

¹⁰⁹² Schultens, *Vetus et regia via Hebraizandi*, p. 90: “Lexicon nostrum Hebraicum iam praelo commissum” [...].

¹⁰⁹³ For a reference to Schultens’ *Institutiones*, see *Lexicon Hebraeum*, col. 6. For a reference to *Clavis dialectorum*, see col. 23. For a reference to Schultens’ commentary on Job, see *Lexicon Hebraeum*, col. 5, col. 10 and col. 12.

¹⁰⁹⁴ Schultens states that he would discuss some etymologies further in his *Origines*. Under the main entry אֵבב and the sub-entry אֵיב, “ear of corn”, he says that the demonstration of the meaning “germinating and maturing ear of corn” is reserved to the treatise *Origines*: “Demonstratio *Originibus* reservanda” (col. 2). Under the verbal root אֵבָה, he gives the meaning “reproach, blame, punish” referring to the forthcoming *Origines*: “Hanc *Origines* nostrae adstructum dabunt” (col. 13). Under the entry אֵבָק, he reserves a further discussion for this work, col. 23: “In *Originibus* res, hactenus anceps, ulterius discutienda et, si pote, ad liquidum perducenda”. Under the entry אֵבָר, he refers to it again, col. 25: “Sed haec et alia aliis e fontibus ad coniecturam Cocceii ulterius confirmandam *Originibus* deputantur”. Under the entry אֵגָף, he promises an exploration in *Origines*, col. 30: “Disquisitio *Originibus* relinquenda”.

The contents of the printed sample are closer to the dictated records of the Hebrew dictionary than to his own draft. More precisely, it represents an intermediate stage and does not coincide with either of them.

18.2.2 Contents of the sample

The printed sample comprises sixteen pages in two columns, numbered 1–32, with 42 lines per page. Each line contains five or six words. The sample comprises ten main entries, each with several sub-entries. The main entry words and sub-entry words differ in the sizes of the Hebrew letters. The sample begins with the verbal root אִבֵּב (*ʾāḇab*), which Schultens refers to as a lost root and, in his dictated Hebrew dictionary, gives the primary meaning “to be green, turn green”. The sample ends with the entry אָדָם (*ʾāḏam*), “to be red”, under which the final sub-entry is the reduplicate verb (in the *pealal* stem) אָדַמְדָם (*ʾaḏamdām*), “to become intensely red”.

In the sample, Schultens cites his sources: Hebrew lexicographers and philologists. In addition to frequent references to Avenarius, Forster, Cocceius, Gousset, and Stockius, there are occasional references to Braunius, Bochart, Castell, Le Clerc, Hiob Ludolf, Hottinger, May (Majus), Nolde, Pagninus, and Vitringa. Similarly, there are occasional references to Jewish biblical commentators, for instance, Rashi (“Jarchius”) and Rabbi David Kimchi, and to the Jewish lexicographer Isaac Nathan ben Kalonymus (“Rabbi Nathan”), author of a combined Bible concordance and dictionary (*Sefer yāʾir nāṭīḇ*, ‘A book that enlightens the path’, c. 1447). Schultens possessed this work in Latin translation (by Antonius Reuchlin)¹⁰⁹⁵ and at times referred to it in his treatises.

The French Orientalist Antoine Isaac Sylvestre de Sacy (1758–1838) had access to the sample in question in his private library. It is listed in the auction catalogue of his library and forms part of a collective volume.¹⁰⁹⁶

¹⁰⁹⁵ *Bibliotheca Schultensiana*, p. 514, no. 991, under the heading of “Grammatici et lexicographi Orientalium linguarum”: “Ant. Reuchlin [...] *Concordantiarum Hebraicarum capita*.” The subtitle reads: *Quae sunt de vocum expositionibus a doctissimo Hebraeo rabbi Mardochai Nathan ante CIX annos conscripta, nunc uero in gratiam theologiae candidatorum ac linguae sanctae studiosorum ad uerbum translata* (“which are on the exposition of words, written 109 years ago by the learned rabbi Mardochai Nathan, but now translated literally for the benefit of the candidates of theology and students of the holy language”), Basel 1556.

¹⁰⁹⁶ *Bibliothèque de M. le Baron Silvestre de Sacy*, vol. 1, Paris 1842, p. 96, no. 472: “*Lexicon Hebraeum cum originibus quae inveniri potuerunt* (א à אדם)”. The rest of this volume consisted of publications by the Dutch scholar Everard Scheidius, who may have possessed the sample and bound it together with his own works.

19. The dictation of an etymological Hebrew dictionary

19.1 Inventory of the manuscript records

During the 1740s, Schultens developed his Hebrew etymology through a series of public lectures, during which he dictated an alphabetical dictionary to his students. The outcome was not published but survives in students' records – original autographs and subsequent copies – in varying degrees of completeness. I have identified no fewer than twelve of them.¹⁰⁹⁷ Despite the title *Stricturae*, which according to Neo-Latin usage means “Brief and critical remarks”,¹⁰⁹⁸ Schultens did not refrain from verbosity – many entries run to several pages. According to my estimate, the Bodleian Library record, one of the most complete (together with the Utrecht records), contains about 440,000 words. The extant records are described below, including information on the place, the holding library, the shelfmark, the title, the number of volumes, the extent, and the physical characteristics.¹⁰⁹⁹

(1) Munich, Bavarian State Library (Bayerische Staatsbibliothek), Cod. Hebr. 378, *Stricturae ad origines Hebraeas*, five volumes (I–V) running from 'āleḥ to nūn, amounting to 1923 pages,¹¹⁰⁰ each measuring 162 x 208 mm. The volumes appear to be an original record. The main entries are distinguished from the sub-entries by the use of larger and smaller Hebrew letters. All Hebrew words are vocalized. For a sample, see Figure 19.

(2) Oxford, Bodleian Library, MS Bodl. Or. 257–260, *Cursus radicū Hebrae linguae*. For the title page, see Figure 18. These volumes

¹⁰⁹⁷ Though each manuscript record is listed in different printed library catalogues, an inventory of the surviving manuscripts has so far not been achieved.

¹⁰⁹⁸ See J. Ph. Krebs and J. H. Schmalz, *Antibarbarus der lateinischen Sprache*, 7th revised ed., Basel 1905, p. 607 s.v. *strictura*, “kurze Anmerkerung, Verbesserung”.

¹⁰⁹⁹ For nos. 1–2 and 6–10, the survey is based on my own observations of the entire manuscript records. For nos. 3–5 and 11, I rely only on a selection of digital copies. Two entire records, nos. 7 and 12, have been digitized by the holding libraries.

¹¹⁰⁰ The contents of Cod[ex] Hebr[aeus] 378 are as follows. Vol. 1 comprises prolegomena, pp. 1–7, and the letters א, pp. 8–238, and ב, pp. 239–382. Vol. 2 comprises the letters ג, pp. 383–450, ד, pp. 451–544 ה, pp. 545–644, ו, pp. 645–655, and ז, pp. 656–724. Vol. 3 only consists of the letter ח, pp. 733–1100. Vol. 4 covers the letters ט, pp. 1101–1160, י, pp. 1161–1353, and כ, pp. 1354–1493. Vol. 5 comprises the letters ל, pp. 1494–1571, מ, pp. 1572–1746, and נ, pp. 1747–1923.

comprise words from the letter *ʾālef*, א, which begins with the verbal root אבב, until the letter *sāmek*, ס, which runs through the verbal root ספח.¹¹⁰¹ They have a total of 3587 pages, some of which are blank. Each page contains only about 125 words, despite the quarto size, viz. 190 x 250 mm. The text is written in brown-red ink. The main entries are written in larger characters, and the sub-entries in smaller letters. With the Blois MS and the Utrecht MSS, this record is one of the most complete. It is a copy made by Willem Kals, not always entirely accurate. Due to too high a speed in copying, there are sometimes faulty readings. The National Library of Israel holds a microfilm of MS Bodl. Or. 257–260.

(3) Blois, Bibliothèque Abbé-Grégoire, MS 149–153, *Lexicon Hebraicum a litera א usque ad litteram ס*. These five volumes in quarto total 1914 pages and measure 170 x 224 mm. The first volume (MS 149) comprises the prolegomena (pp. 1–12) and letter א (pp. 12–428). The second volume (MS 150) covers the letters ב (pp. 429–690) and ג (pp. 693–804). The third volume (MS 151) comprises the letters ד (pp. 805–920), ה, ו, ז (42 pages with a new pagination), and finally ח (pp. 43–255). The fourth volume (MS 151) comprises words beginning with the letters ט (pp. 1–50), י (pp. 51–204), כ (pp. 205–381), and ל (428–381). The last volume (MS 152) includes the letters מ (pp. 1–95), נ (pp. 96–234), and ס (pp. 1–67).¹¹⁰² The Leiden publisher Johannes Le Mair acquired these volumes in 1755 (MS 149, title page, Figure 20a), when he began issuing second editions of Albert Schultens' works. These manuscripts found their way into the *Bibliothèque du grand Séminaire de Blois* (MS 149; see the inside of the back cover). In 1905, they were integrated into the holdings of the municipal *Abbé-Grégoire* library of Blois. For samples, see Figures 20b and 20c.

(4) Utrecht University Library, MS 537, *Stricturae ad origines Hebraeas [...] ad calamum dictatae*, five volumes with the old shelfmark 7. N. 10–14. For the title page, see Figure 21a. This accurate record totals pages, written in different hands. A page measures 163 x 205 mm. The paper is watermarked with the common Amsterdam motif of two lions flanking a crown. After the prolegomena (pp. 1–6), the first volume (7. N. 10) comprises on pp. 6–438 the letters א, ב, ג, and ד. The second

¹¹⁰¹ In all the volumes, there is a separate pagination of each letter (except for ו and י). MS Bodl. Or. 257 (*Cursus radicum* vol. I) comprises the letters א, pp. 1–444, ב, pp. 1–304, ג, pp. 1–126. MS Bodl. Or. 258 (*Cursus radicum* vol. 2) mistakenly begins with the letter ה, pp. 1–543, and continues in due order with the letters ו, pp. 1–151, ז, pp. 1–147, ח, pp. 1–14, and ט, pp. 15–120. MS Bodl. Or. 259 (*Cursus radicum* vol. 3) comprises the letters י, pp. 1–122, כ, pp. 1–394, and ל, pp. 1–243. MS Bodl. Or. 260 (*Cursus radicum* vol. IV) comprises the letters מ, pp. 1–107, נ, pp. 1–273, ס, pp. 1–444, and ע, pp. 1–169.

¹¹⁰² Pascale Lhomme, in charge of the heritage collection at this library, provided me with digital copies of a selection of pages, which made this survey possible.

volume (7 N. 11) covers the letters ה (pp. 439–495), ו (pp. 496–501), ז (pp. 502–546), ט (pp. 547–761), and כ (pp. 762–810). The third volume comprises י (pp. 811–925), ל (pp. 926–), and מ and נ (–1204), presented in two separate parts (7. N. 12: י with the former parts of כ; and 7. N. 13: the latter parts of ל with מ and נ). The fourth volume (7. N. 14) contains words beginning with נ (pp. 1205–1438) and ס (pp. 1439–1529). The colophon reads (p. 1529): “Huc usque vir summus pervenerat, cum eum post aliquot hebdomadam morbum mors oppressit d. 26 Januarii A. 1726.” “This great scholar had reached this point when death ended his life on 26 January 1750, after an illness lasting some weeks.”

(5) Utrecht University Library, MS 538 *Stricturae ad origines Hebraeas ordine alphabetico*, three volumes with the old shelfmark 7. G. 24–26. This record comprises 1723 pages.¹¹⁰³ A page measures 160 x 207 mm. The first volume (7. G. 24) comprises the letters א (p. 9–272), ב (pp. 273–444), ג (pp. 1–61), and ד (pp. 62–101). The second volume (7. G. 25) comprises the letters ה (57 pages), ו, ז, and ח (243 pages), ט (53 pages), and י (178 pages). The third volume (7. G. 26) comprises words beginning with the letters כ (116 pages), ל (36 pages), מ (71 pages), and נ and ס (350 pages).¹¹⁰⁴ For samples of these manuscript volumes, see Figures 22a, 22b, and 22c.

(6) Bonn University- and State Library (Universitäts- und Landesbibliothek Bonn), MSS So 50–51, *Stricturae ad origines Hebraeas*, from the letter 'ālef, to the letter zāyin, with an extent of 634 pages.¹¹⁰⁵ The pages measure 162 x 210 mm (i.e., quarto). The volumes are written in brown ink with uniform handwriting.

(7) Frankfurt am Main, University Library (Universitätsbibliothek Johann Christian Senckenberg), MS lat. qu. 131, *Stricturae ad origines Hebraeas*, from 'ālef until hēṭ, and MS lat. qu. 132, from yōḏ until lāmed, with a total of 1196 pages.¹¹⁰⁶ The volumes have different handwriting. Lat. qu. 131 has a distinctive hand on fols. 1r–52v that differs from the rest of the volume, while Lat. qu. 132 is written in a hand distinct from

¹¹⁰³ See P.A. Thiele, *Catalogus codicum manu scriptorum bibliothecae Universitatis Rheno-Trajectinae*, Utrecht and The Hague 1887, p. 157.

¹¹⁰⁴ I am indebted to Frans Sellies, Special Collections, Utrecht University Library, for providing me with a selection of digital copies from MSS 537 and 538.

¹¹⁰⁵ MS So 50 comprises prolegomena, pp. 1–12, and the letters א, pp. 13–201, and ב, pp. 209–392. Ms. So 51 comprises the letters ג, pp. 397–460, ד, pp. 461–548, ה, pp. 549–596, ו, pp. 597–600, and ז, pp. 601–634. The main entries are written in the margin in larger Hebrew characters, while the subentries are written in the margin in smaller Hebrew letters.

¹¹⁰⁶ MS lat. qu. 131 comprises prolegomena, pp. 1–10, and the letters א, fols. 1–95v, ב, fols. 96r–134v, ג, fols. 134v–150r, ד, fols. 150r–168v, ה, fols. 168v–188r, ו, fols. 188v–189v, ז, fols. 190r–205r, ח, fols. 206–266v, and ט, fols. 266v–281v. MS lat. qu. 132 comprises the letters י, pp. 2025–2354, כ, pp. 2355–2559, and ל, pp. 2561–2656.

both hands in Lat. qu. 131. The first volume is a copy of an original record. In relation to the original record MS fr. 3375 (no. 11 below), there are several omissions, both smaller and larger, of passages that deal with Schultens' views on other etymologists' opinions. These lacunae are marked with an en dash (–) between the sentences.

(8) Cluj-Napoca, Biblioteca Academiei Române – Filiala Cluj-Napoca (The Cluj-Napoca Branch of the Academy Library of Romania), MS 1075:I-II, *Lexicon Hebraicum*. The first volume, which has an extent of 577 pages, comprises words from א (אבב) to ד (דה). The second volume, which has an extent of 688 pages, comprises words from ה until ס, but probably only a selection of entries compared with the complete records. In the first volume, a page measures 162 x 200 mm; in the second, 165 x 200 mm.¹¹⁰⁷ Both volumes are copies made by the Hungarian Orientalist György Verestói, a student of Schultens.

(9) London, British Library, MS Egerton 718, *Linguae Hebraicae radices*, running from the letter 'āleḥ to the letter ḥēṭ, with an extent of 336 pages.¹¹⁰⁸ This manuscript is not the original record, but an abridged copy. It has the same selection of entries as the other records but does not contain all the lexicographical information found in the complete records (nos. 1–5 above). The volume is written in brown ink on sheets of paper that are 165 x 210 mm. The main entries are written in broad, large characters, while the sub-entries occur in broad, minor letterforms. Most watermarks feature motifs typical of Amsterdam paper: a standard-bearer beneath a lion and the motto pro patria.

(10) The Hague, the National Library of the Netherlands (Koninklijke Bibliotheek), MS KW KA 308, *Dictata in origines Hebraeas*, which comprises two parts. The first (111 pages) includes portions of the letters א, ב, and ה. The second part (188 pages) comprises the letter ס, as far as Schultens reached, namely until the root ספח (sāḥah).¹¹⁰⁹ Both parts are

¹¹⁰⁷ I am indebted to Claudia Ursutiu at the Cluj-Napoca Branch of the Academy Library of Romania for informing me about the local catalogue of manuscripts and to Bogdan Craciun for providing me with digital copies of the dictionary records.

¹¹⁰⁸ The volume is paginated in brown ink (pp. 1–335), including all blank pages, and has a pencil foliation (fols. 1r–165r) excluding all the blank pages. The prolegomena are found on pp. 1–16. Words beginning with the letter א are found on pp. 17–121/ fols. 9r–61r, ב, pp. 129–154/ fols. 62r–74v, ג, pp. 155–168/ fols. 75r–81v, ד, pp. 169–187/ fols. 82–91r, ה, pp. 188–2000/ fols. 91v–97v, ו, pp. 200–206/ fols. 197v–100v, ז, pp. 207–221/ fols. 101r–108r, ח, pp. 222–336, fols. 109–336. Larger letters are used for main entry words and smaller letters for sub-entry words. All Hebrew entry words are also transliterated into the Latin script.

¹¹⁰⁹ The first part has the title *Stricturae ad Origines Hebraeas ordine alphabetico*. The prolegomena are found on pp. 1–7. For the letter א, it comprises the entries אבב through אגג (pp. 8–35) and the entries from אשׁ to אתן (pp. 39–85). On the letter ב it runs from באר through בהל (pp. 86–100). For the letter ה, it gives one single verbal root, הטר (pp. 105–106). The pages 36–38 are blank except for the entry words at

written in brown-black ink, but in two distinct hands. The papers measure 165 x 205 mm in the first part, and 167 x 208 mm in the second part. Both parts were likely copied from an original record in the mid-18th century. The watermarks often feature the same military motif as in MS Or. 1459 and MS Egerton 718, while some depict a garland with a royal crown and others only the letter RB.

(11) Bibliothèque de Genève, MS fr. 3375, *Dictamina in lexicon Hebraicum*, comprising pages 1–269. This is an original record of a small part of the dictionary by Paul Gyöngyössi de Pettyens.¹¹¹⁰ This record includes words from the root אבב (*ʾāḇāḇ*) – etymologized as “to sprout up, shoot forth while ripening” and given the secondary meaning “to be green” – through the verb ארג (*ʾārag*), “to weave”, as the last main entry, and ארגמן (*ʾargaman*, “purple colour”) as the last sub-entry.¹¹¹¹ The volume consists of collections of unbound quires. Each page measures 170 x 250 mm. For samples of this record, see Figures 23a and 23b.

(12) New York, Library of Jewish Theological Seminary of America, MS 2918 and MS 2919, catalogued as מלון עברי אטלקי (“A Hebrew-Italian dictionary”), but in MS 2918 titled *Praelectiones in quibusdam Hebraicis radicibus*. The first volume contains the prolegomena and the letter *ʾāleḥ* in 578 pages. The second, 137 fols., consists of words beginning with the letters *hē*, *wāw*, *zāyin*, and *hēt*. Each page measures 165 x 205 mm.

All these records begin with prolegomena, a set of 28 theses, for which I have prepared a critical edition. See my forthcoming edition of Schultens’ *Unpublished manuscripts on comparative Hebrew philology* (section 6.2.2).

the top of these pages. The pages 101–104 and 107–108 are blank. The second part begins on a separate page titled “Dictata clarissimi viri Alberti Schultens in origine Hebraeas. Littera ט.” The biconsonantal units are written at the top of each page. These are טא (2r–4r), טב (4r–10r), טג (10r–17v), טד (18r–22r), טה (22r–24r), טו (24r–35v), טז (35v–40r), טז (40r–51v), טז (51v–63r), טז (63r–67v), טז (68r–71r), טז (71v–77r), and טז (77r–88v). The root טפה is found on fols. 81v–83v, and the root טפה is found on fols. 87r–88v with the meaning “to cause to add, join, associate (*addere, adiungere, aggregare, associare fecit*)”.

¹¹¹⁰ Paul Gyöngyössi studied oriental and classical languages at Leiden in the 1730s and 1740s, following Schultens’ course on Hebrew etymology. In the preface to his work on Proverbs (1748, p. CVIII), Schultens acknowledges Gyöngyössi’s efforts in drawing up the indices of Hebrew, Arabic, and Aramaic words, including their original meanings, calling him “literarum Orientalium eximius cultor”. Cf. Eskhult, *Schultens as an innovator*, Vol. 2, Section 10.1.2, p. 252.

¹¹¹¹ The rest of the volume (pages 270–685) consists of two textual units. The first contains records of Schultens’ lectures on Hebrew antiquities at the University of Leiden during the 1730s (pp. 270–389, seven quires). The other unit contains an analysis of Hebrew words in Psalms (60–145) and in Isaiah and Jeremiah (pp. 390–585, 22 quires in all) and a couple of word lists on words beginning with א and ב.

19.2 Outline, dating, purpose, and cross-references

19.2.1 *The extent of the dictionary*

While dictating his Hebrew dictionary, Schultens reached the letter *sāmek*, specifically the root ספס (*sāfah*). The dictionary thus covers two-thirds of the alphabet. He generally retains the same main entries as in the draft discussed above. He reconstructs verbal roots through internal analysis of Hebrew and by comparing them with cognates in Semitic languages. The dictionary contains about 1070 verbal roots, which make up 90% of the main entries. The remaining 10% consists of nominal roots. The number of sub-entries is approximately three times the number of main entries. The information in all entries of the most complete records totals about 440,000 words.

19.2.2 *The precedence of the infinitive over the noun and the verb*

In contrast to his draft, Schultens reduced most nouns to sub-entries under verbal roots in the dictation. In his Hebrew grammar (1737), he treated the noun before the verb, following the order of presentation in Jacob Alting's grammar.¹¹¹² Nonetheless, he assumed that the noun generally has a verbal origin.¹¹¹³ In his Aramaic and Syriac grammar (1745–1749), he reversed the order of presentation,¹¹¹⁴ arguing that the root should not be derived from the *qal* 3rd-person singular perfect form¹¹¹⁵ and that its historical origin is the infinitive. If the infinitive thus constitutes the root, the question arises as to whether it belongs to the verb, “as is usually assumed”, or to the noun, “as scholars have already shown”, a noun that he considers to be the undetermined noun, “still not fixed nor bound to any circumstance or person”.¹¹¹⁶ Schultens suggests the solution that “the infinitive action”

¹¹¹² Schultens, *Institutiones ad fundamenta* [...], p. 157: “Nos interim eam nunc methodum sequi maluimus, quae per nomina et particulas ad verba tanquam ad fontem adscendit, ne optimae, meo iudicio, grammaticae Altingianae quicquam per nos decederet.” “However, I now prefer to follow the method that leads through the nouns and the particles to the verbs as if it were their source in order not to depart in any regard from the grammar of Alting, which in my opinion is excellent.”

¹¹¹³ Schultens, *ibidem*, p. 157: “Verba nempe tanquam radices sunt unde nomina propagantur, variis formis et terminationibus, itemque particulae, sub quibus pronomina, adverbia, prepositiones, coniunctiones et interiectiones continentur.” “Verbs are like roots from which nouns are propagated with various forms and endings, and similarly from which the particles are generated, under which pronouns, adverbs, prepositions, conjunctions, and interjections are included.”

¹¹¹⁴ Schultens, *Institutiones Aramaeae*, § 13, p. 35, justifies the new order.

¹¹¹⁵ Schultens, *ibidem*, § 12, note 8, point 1, p. 32: “Non satis iustum esse calculum, quo tertia masculina praeteritorum *kal* statuitur radicalem tenere sedem ac qualitatem. Est enim positio illa accessoria et accidentalis.”

¹¹¹⁶ Schultens, *ibidem*, p. 34, § 12, note 8, point 4: “Nempe virtus radicalis absque ullo dubio residet in forma infinitiva verborum, ut in *Inst. Hebr.* saepe insinuat.” Page 34, § 12, note 8, point 5: “Omnisque ergo quaestio huc tandem revolvitur, quo loco graduque quis *infinitiva* sic dicta colloquet. Vulgo quidem verbis accenseri

precedes both the noun and the finite verb, providing the root and the original meaning for each.¹¹¹⁷ Because the finite verb was originally derived from the infinitive, verbal denominatives, in his opinion, do not represent a primary derivation from nouns but rather a secondary one (*Institutiones Aramaeae*, p. 34, note א, point 3; *Institutiones ad fundamenta linguae Hebraeae*, p. 158, § 66, note ב). In his Hebrew grammar, he argues that the infinitive, together with the participle, “follows the nature of a noun”. At the same time, the infinitive “comprises in the abstract the action or state of the root”.¹¹¹⁸ Thus, Schultens recognized the infinitive as a verbal noun.

In the Latin grammatical tradition, the nominal origin of verbs had been presupposed rather than stated (as Priscianus suggested).¹¹¹⁹ In the mid-18th century, earlier views on the precedence of the noun over the verb were about to be reversed.¹¹²⁰ The Jewish Hebrew grammarians of the Middle Ages and the Renaissance – except Elias Levita – generally assumed a nominal origin of the Hebrew root.¹¹²¹ This view was accepted by prominent Christian Hebraists in the 16th and 17th centuries, such as Pagninus, Buxtorf the Elder, Ravius, Alting, and Hottinger. In contrast, others, such as Erpenius, Hutter, Schindler, and Trostius, maintained that the Hebrew root

solent, sed a viris doctissimis iam evictum esse *nomina* et quidem *substantiva*, necdum tamen fixa et certae rei personaeve alligata.”

¹¹¹⁷ Schultens, *ibidem*, p. 35, § 12, note א, point 5: “Hoc pacto universa illa quaestio in logomachiam tandem exhibit. Qua qui se uno ictu nobiscum evolvere cupiunt, dicant actionem infinitivam tum verbo tum nomine finito priorem esse eidemque absque ulla dubitatione radicem atque originem praestare.” Hans Bauer & Pontus Leander, in *Historische Grammatik der hebräischen Sprache* (1922), p. 316, § 43a, argue that the infinitive represents the original form, “Urform”, of the proto-Semitic verb (just as the imperative does, see p. 304, § 41a). They also maintain (p. 269, § 35) that the same form originally served as an infinitive, imperative and finite verb, but that this does not imply that the infinitive developed from an imperative.

¹¹¹⁸ Schultens, *Institutiones ad fundamenta* [...], § 117, p. 285: “Ergo infinitivos et participia naturam magis nominum sequi non est quod miremur. Nam revera infinitivus continet in abstracto actionem passionemve thematis” [...].

¹¹¹⁹ Edward Stankiewicz, “The dithyramb to the verb in eighteenth and nineteenth century linguistics”, in Dell Hymes (ed.), *Studies in the history of linguistics*, Bloomington & London 1974, p. 160.

¹¹²⁰ Stankiewicz, *ibidem*, p. 163: “The middle of the eighteenth century could be viewed as a turning point [...] in respect of the conceptions of the relative primacy of noun and verb”; cf. p. 166. It is also shown, p. 170, that the historical precedence of the verb over the noun was maintained in the Hemsterhusian school of Greek etymology: “*Nomina a verbis, non verba a nominibus esse formata*”, “Nouns are formed from verbs, and not verbs from nouns”, J.D. van Lennep states in *Etymologicum linguae Graecae*, Leiden 1808, p. 4. According to Everard Scheidius, Hemsterhuis adopted this view from Albert Schultens. Cf. Stankiewicz, p. 71.

¹¹²¹ August Pfeiffer, *Disputatio philologica de analogia linguae sanctae*, Wittenberg 1667, p. 9, under the question in Latin “An nomen praemittendum sit verbo?”

had a verbal origin.¹¹²² Schultens was attempting to resolve a controversial question in early-modern grammatical discourse.

19.2.3 Dating

Schultens began his course on Hebrew etymology in the autumn semester of 1740. It was announced in the schedule for the autumn semester of 1740.¹¹²³ More precisely, he began on 29 October, when he dictated the prolegomena to his Hebrew dictionary.¹¹²⁴ According to the lecture catalogues of Leiden University, he continued his course uninterrupted for nine years until the autumn semester of 1749.¹¹²⁵

Other evidence bears witness to how far he had progressed at different points in time. According to a dating in MS So 50, Schultens started reading the letter *wāw* on 2 April 1743. He had reached the letter *záyin* on 26 April 1743.¹¹²⁶ On 16 June 1744, he expounded the verbal root *חסד* (*ḥāsād*), “to be kind, benevolent, merciful”, according to the Swedish polymath Carolus

¹¹²² Pfeiffer, *ibidem*, p. 9.

¹¹²³ “Ordo lectionum autumnalium et hyemalium in Academia Batava Leydensi. Anni 1740” reads as follows: “D. A. Schultens, S. S. Th. D. et L. L. O. ut et Antiq. Hebraicarum professor, et Coll. Theol. Ill. et praepot. Ord. Regens: Diebus Lunae, Martis et Iovis origines tradet Radicum Hebraearum etc. Die Veneris selectas ex Antiq. Hebr. Materias tractabit.” Molhuysen, *Bronnen*, vol. 5, pp. 77–79), omits the year 1740 when accounting for the *series lectionum* 1739–1741.

¹¹²⁴ The auditor Paul Gyöngyössi de Pettyens in his record provides this date. See Bibliothèque de Genève, MS fr. 3375, p. 1: “Prooemium ad Lexicum Hebraicum a clarissimo Alberto Schultens in publicis praelectionibus dictatum, Anno 1740, Oct. 29, a Paulo Gyöngyössi a Peteny calamo excerptum.”

¹¹²⁵ The lecture catalogues of Leiden University for the semesters 1740–49, except for the spring semester of 1746, are preserved. Albert Schultens’ public lectures provide the same information as the autumn semester of 1740. Molhuysen, *Bronnen*, vol. 5, pp. 78*–79*, 134*, 143*, 158*, 159*, 161*, 165*, provides the lecture catalogues for the years 1741, 1742, 1744, 1745, 1747, and 1749. Molhuysen, *Bronnen*, vol. 5, p. 165*, incorrectly states that Schultens is absent from series lectionum after the spring semester of 1749. In fact, Albert Schultens appears in the lecture catalogue for the autumn semester of 1749 with the same information as in the autumn semester of 1740. The printed series lectionum (call number 21229 A 1) covers the years 1740, 1741, 1744, 1748, and 1749, as well as the fall semester of 1745 and the spring semester of 1746. The academic proceedings in the Archives of the Senate and Faculties (ASF 303, ASF 304) include ordo lectionum for the spring semester of 1741 (ASF 303, fol. 225), the years 1742 (ASF 303, fol. 244–245) and 1743 (ASF 303, fol. 258–259), the autumn semester of 1745 (ASF 304, fol. 36), and the entire year 1749 (ASF 304, fol. 90–91).

¹¹²⁶ Bonn ULB, MS So 51, p. 597: the first page of letter *ו* is dated 2 April 1743. Bonn ULB, MS So 51, p. 601: the first page of letter *ז* is dated 26 April 1743. J. Gildemeister, in *Catalogus librorum manu scriptorum orientalium in Bibliotheca Academica Bonnensi servatorum*, Bonn 1864–1876, refers to the former dating, but gives an incorrect page reference: p. 593 instead of p. 597.

Aurivillius, who at this time visited Leiden on his return from his educational journey in Germany and France.¹¹²⁷

On 26 February 1745, Schultens completed the letter *hēṭ*.¹¹²⁸ In the same year (1745), he reached the root טפח (*tāfah*), “to extend, spread”. In exploring its primary meaning, he refers to Nicolaus Wilhelm Schroeder’s treatise on the clothing of Hebrew women in Isaiah ch. 3.¹¹²⁹ This treatise was published in Leiden in 1745 (the dedicatory letter is dated 29 October 1744). In his dictionary, Schultens referred to the work as recent.¹¹³⁰

Moreover, the French Orientalist Claude Sallier, in a letter to Schultens on 31 December 1745, approved of the new theoretical basis in Schultens’ works: “vous avez fait voir par votre ouvrages que l’esprit philosophique est le moyen le plus sûr pour l’intelligence des langues savantes”. He had not read anything that shed greater light “sur la langue de l’écriture et sur l’écriture sainte”. Therefore, he hopes that Schultens will fulfil his promise and announcement to publish “une dictionnaire de la langue hebraïque”, which he awaits as being the best and most useful (“le meilleur et le plus utile commentaire que l’on ait jamais fait des livres saints”).¹¹³¹

In the colophon of Bodl. Or. 260, Willem Kals attests that Schultens dictated his Hebrew dictionary until he fell ill shortly before his death. At the end of the entry for the root טפח, he writes:

Here, I have nothing further to add, because the divine and sacred mouth, which so strenuously defended the cause of God, was closed to us here and transferred to the heavenly inheritance. In this way, his work came to an end, and shortly afterwards, so did this earthly life.¹¹³²

¹¹²⁷ Uppsala University Library, MS X 251a (the family Aurivillius), travel journal of Carolus Aurivillius (1717–1786) for 16 May 1744.

¹¹²⁸ Utrecht UB, MS 537 (with former shelfmark 7 N 11), *Stricturae ad origines Hebraeas [...] ad calamum dictatae*, vol. 2, p. 761, where the colophon after the end of ת reads: “Finis radicum a litera ת incipientium A[nn]o 1745. 26 Februarii.”

¹¹²⁹ N.W. Schroeder, *Commentarius philologicus-criticus de vestitu mulierum Hebraearum ad Jesai. III, vs. 16–24*, Leiden 1745. In chapter 16, § 6, p. 263, Schroeder argues that טפח means “to make broad or ample”, and that the derivative מטפחת, “a long and wide garment”, in Latin *pallium*, “cloak, coat, mantle”, is the garment or external wrapping of the underwear (*tunica*).

¹¹³⁰ Frankfurt am Main UB, MS lat. qu. 131, fol. 278r: “Quod attinet ad מטפחת illud nuper docte illustratum a cl. Schroedero de Vest. mul., c. 16.” Schultens states that מטפחת means *vestis latissima et amplissima*, “a very broad and wide garment”, by which other clothes were covered. He maintains (MS lat. qu. 131, 277v) that the verbal root טפח etymologically means “to make even, plain, to level” (*complano*).

¹¹³¹ Leiden UB, MS BPL 245 XII, letter from Claude Sallier to Albert Schultens.

¹¹³² MS Bodl. Or. 260, *Cursus radicum*, p. 169: “Plura hic addere non habeo, quia divinum illud et sacrum os, quod tam strenue causam Dei defendebat, nobis hic clausum fuit et ad coelestem hereditatem translatus; sic huic operi et paulo post vitae huic terrestri imponebatur finis.”

A note in a dictionary record used by John Parkhurst (1728–1797) provides the same information:

The second volume contains from the beginning of מ to root ספה under ס; and to this volume is prefixed the following note: *Origines cl. viri Alberti Schultens, a litera מ ad ספה usque, ubi ante morbum et mortem dein secutam substiterat.*¹¹³³

As Schultens was struck by illness about seven weeks before his death on 26 January 1750,¹¹³⁴ it can be concluded that he continued lecturing until the beginning of December 1749.

19.2.4 Purpose of the dictionary

The etymological goal of Schultens' lexicography is self-evident, but it is related to superordinate linguistic, hermeneutical and exegetical goals. In the prolegomena to his dictionary, Schultens announces that he aims to achieve a better understanding of Ancient Hebrew as a linguistic system through an in-depth investigation of the origins and changes in the meanings of Hebrew words. He advocates a comparative approach to Hebrew linguistics, arguing that a criterion of certainty is needed in biblical interpretation, unless every religious denomination were to support its own doctrinal position through its own exegetical method. This certainty, he maintains, is found only in the evidence provided by Semitic language comparison.

The linguistic and exegetical goals relate to the early modern hermeneutical debate over the nature of Biblical Hebrew. This is evident in Schultens' statements in various entries in the records of his dictation. His main argument is that the original meaning functions as a link (*copula*) that unifies the many, sometimes opposing, meanings of single words.¹¹³⁵ Schultens argues that the system of metaphorical and metonymic semantics demonstrates that Ancient Hebrew was a well-functioning linguistic system with the qualities of concord, stability, dignity, impressiveness, majesty, and beauty (*concordia, constantia, dignitas, gravitas, maiestas, pulchritudo*).¹¹³⁶

¹¹³³ John Parkhurst, *A Hebrew and English lexicon without points*, 2nd enlarged and improved edition, London 1778, preface, p. III. The Latin passage means: "Original meanings of the famous Albert Schultens from the letter מ until ספה, where he ceased before his disease and ensuing death." The root ספה is here a mistake for ספה.

¹¹³⁴ "Essay historique sur les ouvrages de Feu Mr. Albert Schultens", in *Bibliothèque raisonnée*, vol. 44:2, pp. 344 f: "Ce Grand-Homme termina sa glorieuse carrière le 26 janvier de cette année, après 7 semaines d'une maladie."

¹¹³⁵ Schultens, *Liber Jobi cum [...] commentario*, vol. 1, Leiden 1737, preface, p. ****3 recto: "significationes radicum, in Lexicis [...] saepe dissonantes, naturali inter se copula, quam originem appellare soleo, in concentum revocari debent" [...].

¹¹³⁶ Schultens' unpublished dictionary makes extensive use of these and similar terms. For theoretical statements, see, for instance, Schultens, *Excursus tertius*, p.

This is a remarkable counterclaim to the criticism raised by Baruch Spinoza and Jean Le Clerc, both of whom considered Hebrew a lexically poor and semantically ambiguous language.

Schultens also argued that the original meanings provided the key to recognizing semantic change and to discovering the implied meanings (*emphases*) of words and expressions in biblical passages.

At the end of the preface to his commentary on Proverbs, Schultens remarks on the flow of words in dictating his Hebrew dictionary, in contrast to the brevity with which he explains words and phrases in his published commentary on Proverbs. If he intentionally refrained from long-windedness in his biblical interpretation, why did he not adopt the same principle when dictating his Hebrew dictionary? He replies:

I may perhaps be held to have gone outside the scope in my lengthy series of lectures, in which I have elucidated the origins of words. What shall I say? Pleasure attracts everyone, but regard for the work undertaken also drew me, as did the scrupulous duty to it. Thus, it ought to be made clear to the learned world on what bases and supports my etymological derivations are underpinned. Truth loves light. Consequently, it was truth itself that drew me and that wished to be put into a clearer daylight.¹¹³⁷

19.2.5 Cross-references

In dictating his Hebrew dictionary, Schultens often referred to his published writings, such as his commentary on Job (*Commentarius in Jobum*, 1737), his Hebrew grammar (*Institutiones ad fundamenta linguae Hebraeae*, 1737), and his etymological publications: *Origines Hebraeae*, vol. 1 (1724), *De defectibus hodiernis linguae Hebraeae* (1731), and *Vindiciae Originum Hebraearum et Opusculi de defectibus hodiernis linguae Hebraeae* (1737). Sometimes he referred to his Aramaic and Syriac grammar (*Institutiones Aramaeae*, 1745–49) and to his unpublished academic series of lectures – *Dictata* or *Praelectiones* – on biblical books, such as Proverbs, Psalms, and Hosea. For instance, his course on Proverbs was titled *Praelectiones in Proverbia* even before it was published.

217, where metaphorical, metonymic and synecdochical uses and senses of words are said to bring with them the linguistic qualities of beauty, dignity, impressiveness, splendour and majesty (*pulchritudo*, *dignitas*, *gravitas*, *splendor*, and *maiestas*).

¹¹³⁷ Schultens, *Proverbia Salomonis*, preface, p. cvii: “Vel sic tamen modum excessisse forte iudicabor in longioribus illis cursibus, quibus Origines verborum elucidavi. Quid dicam? Trahit sua quemque voluptas. Trahebat tamen et operis suscepti ratio; trahebat eiusdem religiosa obligatio, qua orbi erudito exponendum fuit, quibus fundamentis et firmamentis origines nostrae suffulciantur. Veritas lucem amat. Trahebat ergo ipsa veritas et clariorem in diem educi gestiebat.”

19.3 Morphological macrostructure

19.3.1 Theoretical assumptions

Schultens defended the triliterality principle of the Hebrew root structure, even applying it to conjunctions and adverbs. However, he still used biconsonantal units to organize the macrostructure of his Hebrew dictionary. These units are termed *series*, *columna*, and *ordo*. From a morphemic perspective, Schultens' dictated lexicon can be described as a sustained inquiry into the realization of biconsonantal structural units with a third radical that does not function as a semantic determinant of that unit. This is merely a pedagogical device, similar to Hottinger's first column in his polyglot dictionary. The biradical units did not exist as separate morphemes but served only as a device for Schultens to show the great loss that Ancient Hebrew has suffered. At the outset, he claims that the unit $\aleph\aleph$ has been lost:

Having indicated this elsewhere, I only touch on this topic in passing so that everyone in this entrance hall, as it were, may directly observe how much damage the Hebrew language – or rather dialect – has suffered, since the entire series, which may be carried out through the first two *'ālephs* with a third radical subjoined through the entire alphabet, has been completely lost.¹¹³⁸

Similarly, on the lost sequence $\aleph\aleph$, Schultens declares:

The subsequent unit $\aleph\aleph$ does not occur at all, but we should not think that the language lacked any roots here. Rather, we should conclude the contrary, both from the proper names and from comparison with cognate languages. Thence, an assessment of the lost portions can be formed.¹¹³⁹

Concerning the unit $\aleph\aleph$, he argues that it is lacking in Hebrew and infrequently attested in related languages, but that there was no co-occurrence restriction prohibiting this combination:

¹¹³⁸ Concerning the unit $\aleph\aleph$, MS lat. qu. 131, pp. 11 f., reads: “Hoc alibi insinuat nunc obiter attingimus, ut in ipso hocce aditu et vestibulo statim animadvertatur quantum damni passa fuerit lingua vel potius dialectus Hebraea, quandoquidem universa illa series, quae per $\aleph\aleph$ primas tertia per totum alphabetum subnexa detexi potest, plane interiit.” With variant readings, this text can be found in other records, such as MS Bodl. 257, pp. 15–16, Munich BSB, Cod. Hebr. 378: vol. I, p. 8, Bonn ULB, MS So 50, pp. 13–14; MS Egerton 718, pp. 17–18; Library of Geneva, MS Fr. 3375, pp. 11–12, Utrecht UB, MS 537, p. 6, and Blois, MS. 149, p. 12.

¹¹³⁹ In MS Bodl. Or. 257, p. 349, the text reads: “Ordo subsequens per $\aleph\aleph$ totus vacat nec tamen autumandum linguam nullas hic radices possedissee. Nam contrarium et ex nominibus quibusdam propriis colligere est et ex collatione dialectorum. Hinc iudicium fieri poterit de partibus amissis.” Cod. Hebr. 378, vol. I, p. 192 and So 50, p. 163 have the same wording except for “per $\aleph$ et $\aleph$ ”. In MS lat. qu. 131, 83v, the passage from “nec tamen” to “ex collatione dialectorum” is omitted and replaced by “etc.” Despite that, the sentence from “Hinc” to “partibus amissis” is given.

The unit that could have been construed by כ and פ is absent, and it seems that the co-occurrence of these speech sounds was not so pleasing, and therefore almost nothing is found under this sequence in the other dialects. However, I would not say that they are entirely incompatible or dissociable, because there are examples proving that this combination was allowed.¹¹⁴⁰

When dealing with the supposedly lost units הֵט and הֶה, Schultens maintains that there were actually no co-occurrence restrictions that made the combination of these speech sounds impossible:

Sequences of the speech sounds הֵט and הֶה are entirely absent, demonstrating the serious collapse of the ancient language. What some people conclude, namely that it was foreign to the nature of Hebrew to join these speech sounds together, is ridiculous. The fact is that the opposite is evident, partly from the combination of other gutturals with these speech sounds, and partly from such combinations in the cognate languages. All of these overly narrow reasons and conclusions stem from scholars' choice to measure the extent of the Hebrew language by its biblical remains, which can hardly make up one percent of it.¹¹⁴¹

Otherwise, he declares that only a few verbal roots are extant, as in the final observation on the unit בֵּא:

It appears that the first order, which begins with כ and א, suffers from a significant deficiency, since we retain only two of the 22 verbal roots that the regularity of the ancient language admits here.¹¹⁴²

¹¹⁴⁰The Latin original reads in Bodl. Or. 257, p. 212 under the unit בֵּא: "Columna quae per כּ potuisset construi tota abest videturque ille concursus literarum non adeo placuisse ac propterea etiam in reliquis dialectis vix quicquam sub hoc ordine reperitur. Nec tamen dixerim plane incompatibiles esse vel insociabiles hasce literas. Extant enim exempla quae hanc societatem admissam arguant." This text is also found in Cod. Hebr. 378: I, p. 336; So 50, p. 354; and lat. qu. 131, p. 122.

¹¹⁴¹ The Latin original reads: "Ordines literarum הֵט et הֶה plane desiderantur atque ostendunt nobis graviolem quandam hac in parte cladem veteris linguae. Quod autem nonnulli colligunt alienius fuisse a natura linguae Hebraeae, ut hae literae conjungerentur, perquam absurdum est, quum contrarium pateat partim ex coniunctione ista gutturalium aliarum cum hisce literis, partim ex dialectis. Omnis haec angustior ratio et ratiocinatio ex eo principio orta, quod viri docti sibi omnem linguae Hebraeae ambitum metiendum sumserunt ex reliquis, quae vix centesimam eius partem constituere possunt." See Bodl. 258, the letter *he* (ה), p. 74. The same text is to be found in Cod. Hebr. 378, vol. 2, p. 195 and in So 51, p. 577.

¹¹⁴² MS Bodl. Or. 257, p. 6: "Apparet primum ordinem inchoatum a כ et א multo defectu iam laborare, quum pro XXII radicibus, quas analogia veteris linguae hic admittabat, duo tantum retinuiamus." The same text can be found in MS lat. qu. 131,

In another series, viz. אה, of which only a few roots are attested, the contention of a great loss of possible roots is encountered:

We reach another series of root consonants composed of אה, to which a third must be supplied throughout the entire alphabet. In the first place comes אהא, in the second אהב, and so on until אהת. It will be evident to anyone who looks into his dictionary that most of this series has been lost, and after that, he will discern the disasters to which the Hebrew dialect is subjected. In the Bible, the first root [of this unit] now presenting itself is אהב.¹¹⁴³

The unit אק is considered lost except in the noun 'aqqō, “wild goat”:

Next, the entire unit that begins with אק is missing. The Aramaic and Arabic dialects have preserved some remnants of the ancient richness for us. In Hebrew, nothing remains except the single word אקו, “forest goat”, attested once in Deut 14:5.¹¹⁴⁴

19.3.2 Biconsonantal morphological structure

The dictionary comprises the biradical structural units that are listed below. Those referred to as lost (but still mentioned) are put within brackets and are not counted.

Under 'ālef 20 units: (אא), בא, אג, אד, אה, או, אפ, אק, אר, אט, אצ, אכ, אל, אמ, אנ, אס, אש, אפ, אצ, אק, אר, אט, אצ, אכ, אל, אמ, אנ, אס, אש and את.

fol. 96v, Cod. Hebr. 378, vol. 1, p. 241, and MS So 50, p. 211 or 212. The surviving verbal roots are באר and באש, of which the verbs are attributed the original meanings to “to cleave” and “to stink”. Cf. Kals, *Directorium et clavis*, p. 78.

¹¹⁴³ Munich BSB, Cod. Hebr. 378, vol. 1, p. 57: “Descendimus in aliam series radicalem quam constituunt אה cum tertia per totum alphabetum ipsis addenda, ut primo loco אהא, secundo אהב, atque ita porro ad ultimum [thema] אהת. Lexicon suum inspicienti apparebit pleraque ex hac serie intercidisse, indeque iterum quantis cladibus subiacet dialectus Hebraea dignoscet. Primum [thema] in Bibliis nunc se offerens est אהב.” In this quotation I have supplied *thema*, i.e. root, in square brackets. MS lat. qu. 131, fols. 33v–34r, has the same text except that it has *excidisse* instead of *intercidisse*.

¹¹⁴⁴ MS Bodl. Or. 257, on words beginning with 'ālef, p. 402: “Vacat deinde totus ordo ab אק incipiens. Dialectus Aramaea et Arabica hic aliquas veteris opulentiae reliquias nobis reservarunt. In Hebraeo fundo nihil omnino residuum quam solitarium vocabulum אקו, hircus silvestris, semel Deut XIV:5”. This text is also found in MS lat. qu. 131, fol. 90v, and MS So 50, p. 186, both of which have some variant readings: *dein* and *deincep*, respectively, instead of *deinde*, and *hic aliquas nobis reliquias veteris opulentiae conservarunt*.

Under *bēṭ* 21 units: בא, בב,¹¹⁴⁵ בג, בד, בה, בו, בז, בח, בט, בי, בכ, בל, במ, בנ, בס, בע, בפת, בק, בצ, (בפ), בץ.

Under *gīmel* 17 units: גא, גב, גג,¹¹⁴⁶ גד, גה, גו, גז, גח, גי, גל, גמ, גנ, גע, גפ, גר, גש and גת.¹¹⁴⁷

Under *dāleṭ* 17 units: דא, דב, דג, דד,¹¹⁴⁸ דה, דו, (דז), דח, דכ, דל, דמ, דנ, (דס), דע, דפ, דץ, דק, דר, דש and דת.¹¹⁴⁹

Under *hē* 17 units: הא, הב, הג, הד, הו, הז, (הח), (הט), הי, הכ, הל, המ, הנ, הס, הפ, הז, הך, הו, (הש) and הת.¹¹⁵⁰

Under *wāw* 8 units: וּב, וּו, וּז, וּל, וּס, וּק, וּר, וּש.¹¹⁵¹

Schultens argues that earlier Hebrew lexicography is mistaken, since it does not let any verbal roots begin with *wāw* and since it classifies such words as incorrect forms or distorts them into an incorrect meaning. Arguing that *wāw* and *yōḏ* are sister radicals, he establishes the rule: “As I have also shown in my Hebrew grammar and in *Clavis dialectorum*, all roots that have *yōḏ* as the first root consonant vary dialectally with *wāw*, and the other way around: those that have *wāw* as the first radical can be replaced by *yōḏ*.”¹¹⁵² The extant records differ in the number of roots of an initial *wāw*.¹¹⁵³

¹¹⁴⁵ Schultens states that only one root is preserved out of this unit, viz. בבה.

¹¹⁴⁶ Under this unit, Schultens refers to the noun גַּג “roof”, from which he deduces the verb גָּגַג, to which he attributes the meaning “to expand, to draw” (*expandit, traxit*) with reference to Arabic *jāj*.

¹¹⁴⁷ Schultens silently leaves out five units (גט, גכ, גס, גצ, and גק).

¹¹⁴⁸ Schultens comments that this unit is “valde deserta”. See MS Bodl. Or. 258, the letter *dāleṭ*, p. 37. Cod. Hebr. 378, vol. 2, p. 472. He only deals with two verbal roots of this unit, namely דַּד and דַּה.

¹¹⁴⁹ Schultens silently omits two units (דט and די). As for the units within brackets, he refers to them as “lacking units”. In MS Bodl. Or. 258, letter *dāleṭ*, p. 82, the unit דז is marked as “deficiens columna”. However, this unit is not referred to in Munich BSB, Cod. Hebr. 378, vol. 2, neither in MS lat. qu. 131. On דס Cod. Hebr. 378, vol. 2, reads “penitus deperdita”. On דץ MS Bodl. Or. 258, letter *dāleṭ*, p. 82, and Munich BSB, Cod. Hebr. 378, vol. 2, p. 528, read: “deficit series”.

¹¹⁵⁰ Two units (הה and הע) are passed over silently. The units הו and הו are expressly referred to as lacking (“absunt”).

¹¹⁵¹ The records vary in the number of units under the letter *wāw*. Cod. Hebr. 378, vol. 2, pp. 645–655, provides seven units. New York, Library of Jewish Theological Seminary of America, MS 2919 gives eight units. Frankfurt UB, MS lat. qu. 131 has four units.

¹¹⁵² MS lat. qu. 131, fol. 188v and MS So 51, p. 597: “Nam quemadmodum et in *Inst. gram* et in *Clavi dialectorum* ostendi, omnia quae primam habent ׀ ex dialecto quoque recipiunt ׀, et vicissim, quae primam possident ׀ pro ea ׀ substituere possunt.” See also MS Bodl. Or. 258, under *wāw*, and Munich BSB, Cod. Hebr. 378, vol. 2, p. 645. In *Institutiones ad fundamenta*, § 129, p. 348, Schultens states: “Nemini dubium relictum putem, quin Hebraei aequae ac Arabes habuerint verba inchoata a *waw*, quae inchoatis a *jod* vices praestare potuerint, ad commodiorem

Under *sāmek* 13 units until the letter pe: סא, סב, סג, סד, סה, סו, סח, סכ, סל, סמ, סנ, סע and ספ.¹¹⁶¹

A structuralist point of departure would mathematically allow for 325 units across the fourteen series from *ʾālef* to *nūn* (14 x 22, that is, 308) plus the fifteenth series on *sāmeḳ*, as far as it extends (1 x 17 units). However, by excluding the units listed in brackets above and silently omitting many units that mostly represent impossible combinations, Schultens confined himself to 247 units. As a pre-structuralist, he adopted a synchronic lexicographical perspective on the morphemic sequence of the first two radicals. In doing so, he did not suggest a biradical origin of the triconsonantal roots and thus avoided applying a diachronic perspective to the selected units above.

¹¹⁶¹ Four units (סז, סט, סי, סס) are silently omitted.

19.3.3 Jan Willem Kals' *Directorium et clavis* (1757)

One of Schultens' Dutch students, Jan Willem Kals (1700–1781), who learnt Hebrew and Arabic in Leiden between 1745 and 1749,¹¹⁶² possessed a complete copy of Schultens' Hebrew dictionary, now extant in Oxford, Bodleian Library, MS. Bodl. Or. 257–260, *Cursus radicum Hebrae linguae*. He must have copied it from extant records and taken down Schultens' own dictation for the last months. He compiled a comprehensive lexicographical index titled *Directorium et clavis*, published in Amsterdam in 1757. Based on Schultens' own publications and his Hebrew dictionary, it records words in two categories, arranged alphabetically (see pp. 39–342): (1) triconsonantal verbal roots, and (2) compounds with more than three radicals. In listing words in the former category, he consistently used Schultens' morphological macrostructure. Drawing on his record of Schultens' dictionary, he deals with approximately 1100 verbal roots from the letter 'ālef to the letter *sāmek*, divided into 254 biconsonantal units from אב to ספ. For the rest of the alphabet (from טק to תת), Kals used Schultens' printed etymological works, from which he extracted 799 verbal roots, divided into 128 units. He supplied nominal derivatives under each verbal root and often assigned meanings to each verbal and nominal stem in line with Schultens' etymology; however, not consistently. Regarding the nouns, he indicates gender. Kals states on the title page that this index serves as “an index of all the books of this famous scholar”.

19.4 Lexicographical microstructure

19.4.1 Structure of a lexical main entry

Each main entry word provides a Hebrew verb in the *qal* base stem, third-person singular perfect. In some dictionary records, such as MS Bodl. Or. 257–260, the main entries are written in upper-case letters, while the subentries are written in lower-case letters. Other records, such as MS Lat. qu. 131–132, do not make this distinction. Each main entry often includes information in the following order:

- I. The frequency of the entry word; whether it is common, rare, a hapax legomenon, or obsolete and reconstructed from derivatives.
- II. Variant spellings or pronunciations (very infrequent).
- III. Semantic information:
 - (a) The basic meaning of the entry word, according to earlier lexicographers, with or without explicit references. Schultens frequently refers to the meanings given by Johannes Cocceius and to those suggested by Christian Stockius, Johann Avenarius

¹¹⁶² “Johannes Guiljelmus Kals Julacensis” matriculated at Leiden University on 25 August 1745. See *Album studiosorum Academiae Lugduno-Batavae*, p. 1007.

(Habermann), and Jacques Gousset. Less frequently, he refers to the meanings found in Pagninus, Forster, and Buxtorf the Elder. Occasionally, he also cites to May the Elder (in his supplements to Cocceius' dictionary), Jean Le Clerc, David Kimchi, and Rabbi Nathan ben Kalonymus.

(b) If the entry word has different meanings, these are divided into classes but are not recorded as subentries and therefore are not considered homonyms.

(c) Semantic parallels and contrasts in view of Greek and Latin.

IV. Information about passages in the Bible where the entry word appears (with reference to book, chapter, and verse).

V. Phraseological information. Although he was aware of the phrase as a distinct unit of meaning, Schultens rarely addressed this issue.

V. Etymological information:

(a) Semitic cognates and their meanings, mostly in Arabic, less frequently in Aramaic and Syriac. The Arabic evidence is drawn from dictionaries, either from the Western tradition, such as everywhere Golius' *Lexicon Arabico-Latinum* (1653) and sometimes Giggei's *Thesaurus linguae Arabicae* (1632), or from the indigenous tradition, al-Jawharī's *al-Ṣaḥāḥ* (AD c. 1000) and al-Fīrūzābādī's *al-Qāmūs* (AD c. 1410).

(b) A discussion of the original meaning, often with reference to Arabic, and an account of the development from the proper (denotative) meaning to transferred meanings.

VI. Linguistic and biblical exegetical application of the proposed original meaning to different passages to confirm the reliability of the suggested meaning and to contribute to a more nuanced and accurate understanding of the biblical passages.

VII. Lexical information about verbal or nominal derivatives, which are usually, however, presented as subordinate subentries, which in turn contain semantic information and records of passages where they occur in the Old Testament.

19.4.2 Schultens' model in practice

In his dictated etymological Hebrew dictionary, Schultens followed the lexical selection of Cocceius' dictionary (1669) but re-arranged it and added lost roots through reconstruction. The entry words are mainly recorded as verbal roots (that is, verbal root morphemes), though a few are understood as primary nouns (that is, nominal root morphemes). Accordingly, the Biblical Hebrew vocabulary, including conjunctions and adverbs, is, on the whole, reduced to verbal roots.

If the entry word has low frequency, that is, occurring fewer than four times, Schultens lists all occurrences. He usually describes the meanings given by earlier lexicographers as secondary, even though, from a

synchronic perspective, these meanings represent the proper sense. In accordance with his own concept of proper word meaning (*proprietas*), he thus establishes the original and primary meaning from a diachronic point of view. His criterion for dismissing meanings in earlier Hebrew lexicography as secondary is that, in his view, they presuppose abstract referents. In most entries on verbal roots, Schultens follows the basic Lockean thought that the original meaning must have a sensory referent. His frequent use of the term *idea* in its Lockean sense (for which see Section 9.5.1), which he varied with the term *notio* when discussing meanings, shows that he took his lead from Locke. Schultens supposed that the concrete etymological meaning provided the key to unlocking the polysemy of secondary meanings and served as the unifying link, the *copula* (a term which is to be found passim)¹¹⁶³ of various secondary meanings. Schultens endeavoured to elucidate the underlying mechanisms of metaphor and metonymy that have given rise to semantic change.

After reviewing earlier efforts, Schultens proposed his own etymology and his views on semantic development. To find Arabic cognates of Hebrew verbal roots, he drew on his knowledge of sound correspondences between Hebrew and Arabic. In addition to lexicographical resources, such as Golius' Arabic dictionary and works by indigenous lexicographers, he consulted Bochart's Arabic etymologies of Hebrew words (*Hierozaicon*) and Hottinger's list of Hebrew-Arabic etymological correspondences (*Smegma Orientale*). Schultens also took advantage of his reading of pre-classical and classical Arabic poetic texts. Among the manifold meanings of each Arabic root, he tried to find a hint for singling out an original meaning with a sensory referent in Arabic. His guiding principle was that the Arabic word-stock among the Bedouins had survived in old Arabic poetry and could serve as a historical repository for uncovering the original meanings of Biblical Hebrew words. Schultens probably thought that the primary word meanings of the Bedouins were closer to their sensory origins.

Schultens attempted to confirm his etymology of Hebrew roots by comparing them with the meanings of nominal derivatives in Biblical Hebrew. In some entries, he refers to linguistic evidence in the form of cognate roots in Syriac¹¹⁶⁴ and Biblical Aramaic, and otherwise mostly cites

¹¹⁶³ For an instance of the term "copula", see Frankfurt UB, MS lat. qu. 131, fol. 162 recto, s.v. דָּמָה (*dāmā*), that is "to be like, to resemble": [thema] "satis frequens et in usu Biblico multisque ac magnis usibus insignitum, inter quos tamen concordia nulla hactenus praestari potuit non sine detrimento sensus et linguae simul, quippe cuius pulchritudo et constantia simul et relucere nequeat quamdiu **copula** illa, qua omnes notiones inter se connexae [sunt], latet."

¹¹⁶⁴ Though possessing the collections of the Syriac Fathers published by the Syrian Maronite Assemani (in 1719–1726), Schultens did not take them into account in his Hebrew etymology. The probable reason is that these Syriac sources do not provide the vocabulary Schultens was looking for, since the concrete meanings had

these languages to stress their importance for “the comparison of cognate languages”.

Schultens frequently compares the semantic origins and changes in Hebrew and Arabic with those in Greek and Latin to highlight the concrete nature of the original meanings and to showcase similarities and differences between Greek and Latin and the Semitic languages. He often quotes from ancient Greek and Latin prose and poetry and sometimes refers to Gerard Vossius’ etymological Latin dictionary (*Etymologicum linguae Latinae*). Schultens’ etymology is truly an empiricist inquiry.

In discussing both lexical and phraseological semantics, Schultens was aware of the cultural specificity of the Semitic languages (*genius Orientis*) in contrast to the Western cultural mentality. He thought that pre- and post-Islamic Arabic literature must be consulted to grasp the linguistic particularity of the Oriental mind. Löscher also emphasized the differences between Western and Oriental languages and cultures in his hermeneutical treatise *De causis linguae Ebraeae*, which Schultens had read.

19.5 Practice of Hebrew etymology: Examples

19.5.1 Polysemous roots with very different or conflicting meanings

In his unpublished Hebrew dictionary, Schultens usually explains the etymology of polysemous Hebrew words or roots. He sought original meaning that would serve as the intermediate or connecting link (*copula*) – a kind of common denominator – between disparate meanings. Denying the possibility of homonymy, he argued that the various meanings had arisen through semantic development from a single original meaning, either through similarity – that is, metaphor – or through proximity in time and place – that is, metonymy.

Schultens’ practice of Hebrew semantic etymology is illustrated below with several examples.¹¹⁶⁵

אָבַל (*’āḇal*) is used about things and persons in various meanings: “to grow weak, languish; to become flaccid, relax” (*languesco, flaccesco*), “to fade away” (*marcesco*), “to wither” (*aresco*); “to mourn” (*lugeo*), and “to be grieved, be distressed” (*maereo*). Schultens argues that the basic meaning is “to fade” and that it appears in several biblical passages, such as Isa 24:4, 33:9, Jer 12:11, 23:10, Hos 4:3, and Joel 1:10, without becoming metaphorical. In the next step, the basic meaning was used alongside a metaphorical sense, for instance, in Isa 3:26 and Lam 2:8. Schultens notes that the Latin verbs *flaccesco*, *marcesco*, and *aresco* can be used both literally and figuratively. The third kind, which is the final stage of semantic change, is the merely metaphorical meaning “to be grieved, be distressed”,

become obsolete, and accordingly, the sources did not serve Schultens’ semantic objectives.

¹¹⁶⁵ The following account is based on Frankfurt UB, MS lat. qu. 131–132.

which, as Schultens points out, is the common meaning in Biblical Hebrew. See Figure 17a.

The verbal root כרך means, according to Schultens, “to kneel” in the stem form *qal* (*bārak*) and “to bless” in the *piel* (*bērēk*). Schultens claims that the original meaning is “to fold, fold up” (*plico, complico*), supposing that the corresponding noun *bārak* “knee” originally referred to something that is possible to fold or is flexible (*plicabile*). From kneeling, the sense of a granted request and blessing (*fausta precatio et benedictio*) developed, not only with reference to human beings but also to God, anthropomorphically. In Schultens’ view, the nominal derivative כרֶכֶּה (*bʾrēkā*) “pool, pond” can similarly be explained by the act of kneeling, on the basis that cattle usually kneel to drink from a springlet.

Schultens sought a semantic relationship between כֶּתֶם (*bægēd*) “garment, covering” (*vestis*) and כֶּזֶב (*bægēd*) “unfaithfulness, treachery, deceit” (*perfidium*). After describing the ingenious etymologies of Cocceius, Forster, and Buxtorf the Elder, he sets out to establish a logical link between garment and deceit through Latin semantic parallels, viz. *velare*, “to cover”, *velamentum* “covering, bed-covering”, and *involucrum* “cover, envelope”, the last of which can be used both literally, referring to the body, and figuratively, referring to the mind, to express the notion of deceit and unfaithfulness.¹¹⁶⁶ After that, he discusses the meanings of the cognate Arabic verb *bajada*. According to Golius’ Arabic dictionary, this verb means “to stop (at a place); to sit down; to dwell”, while the nominal derivative means “cloak, coat, garment” (*amiculum, vestimentum*). Schultens argues that the Arabic verb implies the idea of “keeping warm”, which in turn underlies the idea of clothing (viz. “that which covers the body to warm it”). The Latin verb *foveo*, “to warm”, offers a clue to the sense development into “deceit, treachery”, as it involves the notion “to keep something hidden and evil in one’s bosom”, and in a transferred sense “to bring it out to the detriment or deceit of others, when a mature occasion is given”. However, he was not convinced himself and ends: “For a full conviction I wish for a richer light.”¹¹⁶⁷ This illustrates how speculative Schultens can be in his derivations: he takes his point of departure from a meaning attested or claimed to be attested in Classical Arabic, re-interprets it, and, without much empirical evidence, arrives at an etymological meaning that may serve as a semantic link among secondary meanings.

Schultens compares the Hebrew verbal root זכר (*zākar*), “to remember” (*meminisse*), with the Arabic *ḍakara*, “to keep in memory”, and mostly “to mention”. He argues that the original meaning was “to be vigorous, particularly with reference to a strong sense of smell” (*vigeo, praesertim*

¹¹⁶⁶ For the connection between “concealment” and “treason”, cf. Juda Lion Palache, *Semantic notes on the Hebrew lexicon*, Leiden 1969, pp. 10–12.

¹¹⁶⁷ Frankfurt UB, MS lat. qu. 131, fol. 98v: “Desidero tamen pro plenaria convictione pleniorē adhuc lucem.”

acri odore), a meaning he thinks is attested in a couple of biblical passages (Isa 66:3 and Hos 14:8). He contends that the meaning of the Hebrew noun זָכָר (*zākār*), “male, man”, derives from the verbal root ז-כ-ר in its original sense of keen vigour (*acris vigor*), in the same way as the Hebrew word for women, נָשִׁים (*nāšim*), originates from the verbal root נָשָׂא (*nāšā*), “to forget”, which Schultens supposed to have initially meant “to leave hold of memory or to give up from memory” (*remitto et relaxo ex memoria*). Schultens rejects the otherwise common derivation of the noun *zākār*, which assumes that memory is connected to the male name of the family at the propagation of generations.

The verbal root חבל (*h-b-l*, in the *qal* stem *ḥāḇal*) means (1) “to bind, to hold in pledge”, (2) “to act perniciously or corruptly, injure”, and (3) “to be pregnant, give birth to”. The nominal derivative חֶבֶל (*ḥæḇæl*) properly means (1) “cord, rope, line” and, figuratively, (2) “land or territory assigned by lot, inherited portion”, while the other derivative חֹבֵל (*ḥōḇēl*) means “sailor, shipmaster”. Schultens argues that the original meaning of the verb and the nouns is “to twist, twine, intertwine, tie together”, which is what the verb *ḥabala* means in Arabic.¹¹⁶⁸ In this derivation, he begins with *ḥæḇæl* (Arabic *ḥabl*), which primarily means something twisted together, that is, a twisted rope (*funes tortus*). Since land in antiquity was measured, distributed, and allotted by means of ropes, inherited portions were called *ḥæḇæl* by metonymy. The different meanings of the verb *ḥāḇal* are therefore interconnected. The word for twisted ropes was used metaphorically to signify pain and torment. In the same way, Latin *tormentum*, in its proper sense, means “an instrument by which something is twisted” and “a twisted rope or cord”, and, figuratively, “torture, anguish, pain”, experienced by a woman giving birth to a child. The meaning “to pledge” (*pignero*) of *ḥāḇal* developed from the idea of a debt as an intertwining (*nexus intortus*). The Latin words for a pledge, *obligatio* and *obstrictio*, serve as semantic parallels to Schultens, since they etymologically signify an intertwining. Moreover, the meaning “to act perniciously, to do damage” arose from the connotation “to twist apart” (*distorqueo*), from which the meanings “to injure, mutilate, corrupt” (*laedo, mutilo, corrumpo*) developed. Schultens cites the Arabic *ḥabala* in the sense of “to corrupt by mutilation”. To support this derivation, he also cites a passage in the Book of Job (Job 17:1), חֲבַלָּה רוּחִי (*rūḥi ḥubbālā*), “my spirit is broken”, which he translates as “my spirit is mutilated (*trunctatus*) in its powers”. He also refers to a passage in the Book of Daniel: “God has sent his angel and shut the lions’ mouth, so that they have not hurt me” (Dan 6:22). Finally, Schultens explains the derivative *ḥōḇēl* as a designation for a sailor, derived from the act of twisting

¹¹⁶⁸ Schultens does not consider the possibility of homonymy through the merging of *h* and *ḥ*, which were distinguished in pre-Classical Hebrew and are distinguished in Arabic: *ḥabl*, “rope, cord”, and *ḥabala*, “to confound”.

or turning, whether with reference to the ropes that hold the mast or to the rudder that must always be turned.

Schultens endeavours to find a link between the meanings of the verbal root גור (*gūr*): (1) “to dwell as a foreigner, to sojourn”, (2) “to fear”, and (3) “to meet, gather together”. He sets out from Arabic *jāra*, “to bend, turn, depart from the way” (*flexit, divertit a via*), and contends that the three meanings in Hebrew arose from “to lodge as a guest or as a foreigner”, which was used figuratively in the sense of “to fear”, because the one seized by fear turns aside and departs. Finally, the meaning “to gather together” appears in Ps 56:7 and 59:1 in the specific sense of “to plot”, which agrees with the Arabic “to depart from the way”, namely, to lay an ambush or stir up strife and deceit.

The verbal root חסד (*hāsād*) means “to be good, kind, benevolent, affectionate, pious, holy,” and the noun חֶסֶד means “goodness, kindness, benevolence, piety, grace, mercy”. However, in a couple of passages, the verb and the noun have opposing meanings, viz. “to reproach and insult” and “reproach and insulting”. Forster tried to resolve this semantic contradiction by arguing that the essential meaning concerns the parents’ affection for their children. Cocceius regarded the eager or zealous love (*studiosa dilectio*), whether directed to the good or to the evil, as the original and primary unifying meaning. Stockius maintained that the highest degree of something is the basic meaning of the root, and cited Edward Pococke, who (in the notes to his edition of *Porta Mosi*) states that *hæsæd* denotes intense striving, eagerness, and inclination towards both the good and the evil.¹¹⁶⁹

¹¹⁶⁹ In modern times, the original meaning of חֶסֶד (*hæsæd*) is “covenantal fidelity” when applied to God’s relationship with his people and the individual. See Koehler-Baumgartner, *The Hebrew and Aramaic lexicon of the Old Testament* [HALOT], Leiden 1994, p. 337, s.v. II. 2 חֶסֶד. The meaning is “loyalty” on the part of man towards God and among relatives, friends, host and guest, master and servant. See HALOT, p. 336, s.v. II. 1 חֶסֶד. This concept developed the meanings of “goodness, kindness, grace, mercy, and piety”. In Ancient Latin, the original meaning and semantic development of *pietas* offer a remarkable parallel that Hebrew scholars have not yet called attention to. The original sense of *pietas* is “faithful character or faithful disposition”, and is defined as the state of mind and the conduct by which someone is free – that is, pure or clean – from the corruption of crime or sin (*Thesaurus Linguae Latinae*, vol. 10, part 1, p. 2087, lines 50–52: “habitus pius, sc. vi originaria significatur animus vel modus agendi, quo aliquis iniquatione sceleris peccative caret”). From this grew the sense of “dutiful conduct”, i.e. the dutifulness by which someone kindly honours any person to whom he is obliged” (*Thesaurus Linguae Latinae*, 10,1: 2087: 55–56). When applied to the relationship with one’s gods or God, one’s home country, parents, children, relatives, and benefactors, *pietas* developed the senses “piousness, love, duty, loyalty, patriotism, and gratitude”. Evolving further, it also came to mean “gentleness, pity, tenderness, compassion”. Considering God’s relation towards man, *pietas* developed the senses of “kindness, benevolence, mildness, mercy, compassion”, just as in Hebrew.

Schultens approaches the problem from another perspective and claims that the related Arabic verbal root *ḥašada* means “to flow together, to flow from all directions” rather than “to come together, to collect”, a claim he supports with the Arabic phrase *‘ayn ḥāšada*, “a spring flowing forward”. Moreover, Schultens tries to elicit the original meaning of *ḥašad* from the notions of “a thick flowing; luxuriance; swelling, or turgid, sappiness”, defining the key idea as “when a sap swells so that it flows forward and overflows”. From this proper meaning arose the transferred meanings of grace, goodness, piety, benevolence, and liberality. Schultens thinks that some passages in Isaiah and Hosea allude to the original meaning of a sappy abundance (*ubertas succulenta*), for instance, Isa 40:6: “All flesh is grass” and all its luxuriant abundance¹¹⁷⁰ (*kol ḥasdō*) is like the flower of the field”. Schultens comments on the metaphor: “for the grass swells luxuriantly and the flower shines beautifully by its swelling sap, but they do not have the permanence by which they can give themselves a continuous glory.”¹¹⁷¹ Similarly, he thinks that this original meaning can be applied to Hos 6:4: “Your luxuriant and swelling abundance (*w^ṣ-ḥasd^ṣkæm*)¹¹⁷² is like a morning haze [i.e. thin mist] and like the dew which disappears early.” The metaphor suggests that the morning haze and the dew falsely resemble luxuriant abundance.

In the entry on the verbal root יָשַׁב (*yāšab*), “to sit down”, Schultens first discusses its Aramaic and Arabic cognates and then addresses the range of meanings of the Hebrew verb in comparison with its Semitic cognates. In doing so, he recounts the well-known story of a Himyarite king who commanded a visiting Arab from another province to sit down, saying *tib* (تِب, the imperative of *waṭaba*). The visitor misinterpreted the command as meaning “to jump down” and hurled himself off the palace roof. This story, recounted by Pococke,¹¹⁷³ dates back to 10th-century Arabic lexicographers such as Ibn Fāris, *Ṣāḥibi*, and al-Jawharī, *al-Ṣaḥāḥ*. Pococke concludes that the visiting Arab “miserably broke his limbs into pieces and was punished for his stupidity”.¹¹⁷⁴ He thinks that this story provides evidence of a closer kinship between the Himyaritic dialect and Hebrew and Syriac than with standard Arabic, because the meanings of the Hebrew verb יָשַׁב (*yāšab*) and the Syriac verb יִתֵּב (*īteb*) correspond to the meaning of *waṭaba* in the Himyaritic dialect, that is, “to sit down”, as opposed to the sense “to jump

¹¹⁷⁰ In the Septuagint, *kol ḥasdō* is translated πᾶσα δόξα ἀνθρώπου, “all the glory of man”.

¹¹⁷¹ Frankfurt UB, MS lat. qu. 131, fol. 239v: “Quippe viride gramen succose turgescit itemque flos eodem succo turgente pulcherrime nitescit, sed non habent illud durable, quod perpetuum honorem iis addere queat.”

¹¹⁷² In the Septuagint, *ḥasd^ṣkæm* is translated τό δέ ἔλεος ὑμῶν, “your mercy”.

¹¹⁷³ Pococke, *Specimen historiae Arabum*, London 1650, “Notae”, pp. 151–152.

¹¹⁷⁴ Frankfurt UB, MS lat. qu. 132, p. 2309 s.v. יָשַׁב: “dialecto sua misere deceptus [...] ignoratae dialecti Homeriticae poenas luit”. In Pococke, *Specimen historiae Arabum*, p. 151, we read: “membris misere confractis stolidatis suae poenas luisse”.

up” in standard Arabic (*communis Arabica dialectus*). Schultens even infers that the Himyarite king pronounced the imperative שֶׁב, *šeb*, because of the correspondence between Hebrew *š* and Arabic *ṡ*.¹¹⁷⁵ He argues that the meaning “to sit down” is not only found in the Himyaritic dialect but also “in the dialects of the other provinces of Arabia”, as evidenced by nominal derivatives, such as Arabic *šibatū*, “assembly”. According to Schultens, the secondary meaning “to jump in, up, or down” (*insilire*) was used only in standard Arabic. The notion of “to send or throw oneself into” (*semet mittere*, *semet immittere*) provides a unifying link between the primary and secondary meanings.¹¹⁷⁶ See Figures 17c–17d.

Schultens asserts that the verbal root זָחַל (*zāḥal*) originally meant “to hide oneself” (*dilitesco*, *latitare*), as reflected in its Arabic cognate, and that, through metaphor, it gave rise to the meanings “to fear” (*timere*, *pavere*) and “to crawl” (*repere*, *reptare*).¹¹⁷⁷

19.5.2 Polysemous words with fewer different meanings

Schultens also explains the original meaning of words that do not encompass such different and opposite meanings as those above. Among these are the following:

The verbal root בָּאֵר means “to make distinct and clear, explain” in the *piel* stem (*be’er*), while the nominal derivative בְּאֵר (*b’er*) means “well”. (For this entry in MS lat. Qu. 131, see Figure 17b). Hottinger, *Smegma Orientale*, rejected the idea that *b’er* derives from the clarity of spring water and instead derives it from the Arabic verb *ba’ara* “to dig a well”. Schultens maintains that it is rather related to the Arabic root *būr*, allegedly “to slit, cleave, incise, engrave”, which gave rise to the meaning of *b’er*, originally referring to “the engraving and excavating of the ground” (*incisio terrae et effossio*). Schultens concludes that “to engrave, incise” also underlies the meaning of the verb *be’er*, which in some biblical passages (Deut 1:5, 27:9; Hab 2:2) properly refers to the engraving of letters on stone tablets.¹¹⁷⁸

In the *qal* stem, the verbal roots בִּין (*bīn*) and בּוֹן (*būn*) mean “to notice and understand”, in the *niphal* “to be wise”, in the *hiphil* “to make someone

¹¹⁷⁵ In *Clavis dialectorum*, p. 305, Schultens takes Hebrew *yašab* (יָשַׁב) and Arabic *waṭaba* as an instance of the regular Hebrew–Arabic sound correspondence *š–ṡ*, but the conclusion that the Himyaritic king spoke Hebrew instead of Arabic seems to be a misinterpretation of the student who recorded Schultens’ lecture. Here I only rely on MS lat. qu. 132. One should be aware of the fact that there are several possible sources of faults in the text of the records of the dictionary: (1) Schultens’ pronunciation at his lecture, (2) the understanding of the recording auditor, and (3) the transmission of the copyist.

¹¹⁷⁶ MS lat. qu. 132, pp. 2310 f., s.v. יָשַׁב.

¹¹⁷⁷ MS lat. qu. 131, fols. 196v–197r.

¹¹⁷⁸ MS lat. qu. 131, fols. 96r. See Figure 17b. Utrecht University Library, MS 537, pp. 181 f. See Figure 21b.

understand, explain clearly”, and in the *piel* “to teach, clearly watch, give heed to.” According to Schultens, all these meanings are secondary. He suggests that the original notion is “to distinguish and to separate”, found in the Arabic verb *bāna* and mirrored in the Hebrew preposition בֵּין (*bēn*) “between (in the interval of)”, and the noun בֵּינָן (*bayīn*) “interval, space between”, which, according to Schultens, rather means “a separating space, any space that distinguishes and separates two things”. From the notion of “to separate”, he derives the meaning “to cleave”, which, in turn, he thinks gave rise to the meaning “to divide”.¹¹⁷⁹

The verbal root יָשַׁע (y-š-ʿ) means “to deliver, save, rescue” in the *hiphil* (יְהוֹשִׁיעַ, *hōšīaʿ*) and “to be saved, liberated” in the *niphal*. Referring to his *Origines Hebraeae*, vol. 1, Schultens argues that the secondary meanings “power, richness, resources, happiness, abundance, and everything good” derive from the primordial idea of a wide and spacious extent (*ex primigenia idea laxitatis sive amplitudinis laxae et spatiosae*).¹¹⁸⁰ It is contended that the original meaning appears in various biblical passages, for instance, in Deut 33:29, “You are a people saved by the Lord”, where the form נוֹשָׁע (*nōšaʿ*) should be understood as “endowed with much amplitude or spaciousness”. The other example is drawn from Ps 34:7, which reads: “The Lord heard him and saved him out of all his troubles.” Schultens asserts that the etymological meaning of the verbal form in this passage implies “brought him to the widest spaciousness”.¹¹⁸¹ See Figure 17e.

19.5.3 Inner etymology: verbal roots and their derivatives

Schultens sometimes explains the inner etymology of Hebrew words by showing how the basic meaning of the verbal root, in its various stem forms (the *qal* base form and its derivatives), connects to the nominal derivatives recorded in the Bible. In one entry, Schultens attempts to bring the *piel* of בָּקַר (viz. בִּקְרָה, *biqqa*), “to examine accurately, explore, inquire, seek”, into agreement with the derivatives בֹּקֶר (*boqaer*), “morning”, בָּקָר (*bāqār*), “cattle”, and בִּקְרָה (*biqqōraʿt*), “punishment, whipping”. He proposes that the Arabic verb *baqara* “to cleave, divide up” provides the original meaning (*primitiva potestas*) and serves as the basis for the metaphorical sense of *boqaer*, which refers to the cleaving or breaking of light from darkness (thus properly to the dawn). Implicitly, he rejects earlier lexicographers’ views on the concept of *boqaer*: (a) that the morning is suitable for the exploration of things, (b) that humans then resume their interrupted work, and (c) that shapes can be discerned after having been obscured by darkness.

¹¹⁷⁹ Frankfurt UB, MS lat. qu. 131, fols. 104r.

¹¹⁸⁰ Frankfurt UB, MS lat. qu. 132, p. 2326. In *Origines Hebraeae*, vol. 1, pp. 8–9, Schultens derives the proposed original meaning from the Arabic root *wasāʿa*, “to be or make broad (*amplus*), spacious (*spatiosus*), wide (*late patens*)”. Cf. Schultens, *Vindiciae*, pp. 26–29, and Kals, *Directorium et clavis*, p. 202.

¹¹⁸¹ Frankfurt UB, MS lat. qu. 132, p. 2327.

Regarding the other two derivatives, Schultens thinks cattle are called *bāqār* in Hebrew because ploughing divides the soil into furrows, while *biqqoræt* can be explained as a reference to punishment by whipping, since whipping leaves furrows on the back.

19.5.4 Semantic typology: Evidence from Greek and Latin

In his Hebrew dictionary, Schultens makes many digressions on semantic typology in Greek and Latin to shed light on the differences and similarities between classical languages and Hebrew. In the entry on אמר (*āmar*) “to say”, Schultens brings up six Greek verbs with this meaning to clarify the concept of speaking and talking. For the root אכל (*ākal*) “to eat”, Schultens surveys five Greek verbs that, in different ways, express the idea of eating and drinking.

19.6 Epilogue: Schultens’ horizon and the pitfalls of etymology

19.6.1 Schultens’ linguistic horizon in contrast to later discoveries

Schultens’ linguistic horizon of the ancient Semitic-speaking Orient was limited to standardized languages with a literary tradition. In addition to Biblical Hebrew, these were the standard forms of Aramaic (viz. Biblical, Targumic, and Talmudic), Classical Syriac, Classical Arabic, and Classical Ethiopic (*Ge‘ez*). While Schultens had access to unpublished manuscripts of Classical Arabic literature at the University Library of Leiden, Classical Syriac literature largely remained unpublished, even though it began to be made available through Giuseppe Simone Assemani from 1719 onward. Schultens chose Arabic as the most appropriate point of comparison for his empirical approach to etymology.

In reassessing Schultens’ achievements as a comparativist, it should be kept in mind that he lived before the linguistic context of Biblical Hebrew was expanded by the discovery of epigraphic sources for Aramaic, Arabic, and Canaanite.¹¹⁸² Access to Phoenician was limited to single words and phrases in ancient Greek and Latin literature until the Phoenician script was deciphered in 1758.¹¹⁸³ The Palmyrene Aramaic script was not deciphered until 1754.¹¹⁸⁴ Moreover, the South Arabian inscriptions, usually referred to as “the Himyaritic inscriptions” until the 19th century, were at best only vaguely familiar to Schultens, as they had not yet been copied, let alone

¹¹⁸² See further Holger Gzella, “Expansion of the linguistic context of the Hebrew Bible/ Old Testament” [...], in *The Hebrew Bible / Old Testament. The history of its interpretation*, vol. 3, edited by Magne Sæbø, Göttingen 2013, p. 136.

¹¹⁸³ Jean-Jacques Barthélemy, *Réflexions sur quelques monumens phéniciens, et sur les alphabets qui en résultent*, Paris 1764. Gesenius later improved the accuracy of the transcription of Phoenician and Punic inscriptions in *Paläographische Studien über phönizische und punische Schrift*, Leipzig 1835. Cf. Gzella, *ibidem*, p. 155.

¹¹⁸⁴ Barthélemy, *Réflexions sur l’alphabet et sur la langue dont on se servoit autrefois à Palmyre*, Paris 1754; Cf. Gzella, *ibidem*, p. 139.

deciphered. He was also unaware of the main language of Mesopotamia between 2500 and 500 BC, namely Akkadian, the cuneiform script of which was deciphered in 1857.¹¹⁸⁵ If he had lived after the discovery of Akkadian, he would almost certainly have given equal attention to this language (in its Assyrian and Babylonian varieties), in which word meanings are closer to Hebrew than Arabic is. He had, of course, no grasp of Ugaritic, the alphabetic cuneiform signs of which were deciphered in 1929.

19.6.2 Homonymy vs. polysemy as a semantic method

Hebrew etymologists face many potential pitfalls, such as attributing to a word in the language under comparison a meaning attested only in related languages, failing to distinguish between basic and secondary meanings, neglecting cultural contexts, speculating without empirical data, and failing to account for homonymy.¹¹⁸⁶ Schultens excluded, rather than overlooked, the possibility of homonymy (Section 12.3.2), a principle that is inconsistent with the results of comparative etymology, because strict adherence to the regularity of sound correspondences and sound shifts enables a scholar to discover homonymy.¹¹⁸⁷ On the other hand, given the tendency of recent Hebrew lexicography to presuppose homonymy, whenever two or more meanings are considered unrelated, the question arises “whether such an excessive number of homonyms is likely to have existed in Biblical Hebrew”. Since the biblical corpus reflects a surprisingly homogeneous text, “the supposed plethora of homonyms is surprising”.¹¹⁸⁸

19.6.3 Impact of preconceived notions

Etymology is a field of study open to various approaches, yet it also abounds in fallacies and hidden dangers for the incautious.¹¹⁸⁹ In the early modern period, as Johan Ihre notes in the preface to *Glossarium Suiogothicum*,¹¹⁹⁰ etymologists tended to favour the language in which they were most proficient. Applying Ovid’s story about King Midas (*Metamorphoses* XI: 100–126)¹¹⁹¹ to earlier practices of etymological derivation, Ihre states that everything Johannes Goropius Becanus touched turned Dutch.¹¹⁹² When Andreas Helwig and Mericus Casaubon discovered the relationship between

¹¹⁸⁵ Gzella, *ibidem*, p. 137.

¹¹⁸⁶ Blau, *Phonology and morphology of Biblical Hebrew*, pp. 29–34.

¹¹⁸⁷ Blau, *ibidem*, p. 36.

¹¹⁸⁸ Blau, *ibidem*, p. 37.

¹¹⁸⁹ See Ludwig Koehler, *Hebrew and Aramaic lexicon*, preface to the 1953 edition.

¹¹⁹⁰ Ihre, *Glossarium Suiogothicum*, Uppsala 1769, preface, p. 2.

¹¹⁹¹ King Midas prayed that everything that he touched would become gold.

¹¹⁹² Goropius Becanus, *Origines Antwerpianae*, Antwerp 1569. See further Eskhult, *Georg Stiernhielm. Linguistic works*, vol. 2, Uppsala 2023, p. 43.

German and Greek, they likewise interpreted everything as Greek.¹¹⁹³ Bochart construed everything in the Mediterranean world as traces of the Phoenician language,¹¹⁹⁴ whereas Paul-Yves Pezron perceived them as testimonies to the Celtic language.¹¹⁹⁵ Whatever Louis Thomassin touched turned into vestiges of Hebrew.¹¹⁹⁶

As a pioneering Hebrew etymologist who used comparison with Arabic as his principal aid, Schultens is no exception to this pattern. He often adopted an Arabic meaning as a point of departure for mere speculation. The same phenomenon recurred in 19th- and 20th-century Hebrew lexicography as new Semitic languages were discovered. Friedrich Delitzsch was the first to apply knowledge of Akkadian to the interpretation of Biblical Hebrew semantics. His findings were collected in the book *The Hebrew language viewed in the light of Assyrian research* (London 1884). In his *Prolegomena to a new Hebrew-Aramaic dictionary* (Leipzig 1886), he restated his views, proposing arguments similar to those Schultens had raised regarding Arabic. On the one hand, the meanings of common and uncommon words in Biblical Hebrew can be verified by Akkadian in a simple and unforced manner, and on the other hand, there are many meanings of Hebrew words that cannot be proven by Akkadian, so they should not be considered self-evident, as was previously assumed. He concluded that Akkadian would free Hebrew lexicography from the riddles and confusion of hypotheses surrounding it, by making it possible to determine the basic meaning (“Grundbedeutung”) of Hebrew roots and to explore their semantic development (“Bedeutungsentwicklung der Wortstämme”). In addition, Akkadian provides a means to test the reliability of the Masoretic textual transmission. Given the close relationship between Hebrew and Akkadian, Delitzsch anticipated that the importance of Akkadian for Hebrew lexicography would be epoch-making.¹¹⁹⁷

Mitchell Dahood was the first to employ Ugaritic comparative material to shed light on Biblical Hebrew. His findings were published in a series of articles under the heading “Hebrew-Ugaritic lexicography” in the journal *Biblica* during the 1960s and 1970s. However, in retrospect, fewer than 10% of his etymologies are considered valid today. In the first article, he announced his intentions:

¹¹⁹³ Johannes Helwig, *Etymologiae sive origines dictionum Germanicarum ex tribus illis nobilibus antiquitatis eruditae linguis, Latina, Graeca, Hebraea, derivatarum*, Frankfurt am Main 1611; M. Casaubon, *De quatuor linguis commentationis pars prior, quae de lingua Hebraica et de lingua Saxonica*, London 1650.

¹¹⁹⁴ Bochart, *Geographia Sacra*, volume 2, subtitled “Canaan”, Caen 1646.

¹¹⁹⁵ Pezron, *Antiquité de la nation et la langue des Celtes*, Paris 1703.

¹¹⁹⁶ Thomassin, *Glossarium universale Hebraicum, quo ad Hebraicae linguae fontes linguae et dialecti pene omnes revocantur*, Paris 1697.

¹¹⁹⁷ Fr. Delitzsch, *Prolegomena eines neuen Hebräisch-Aramäischen Wörterbuchs zum Alten Testament*, Leipzig 1886, preface, p. 3, and treatise, p. 53.

In the following series of articles, the writer will list new meanings and nuances which he has found Hebrew words acquire as the result of being compared with their Ugaritic or Phoenician counterparts. Occasionally, an obscure Ugaritic word is clarified by Hebrew usage, but in the vast majority of cases, Hebrew lexicography is the beneficiary. [...] In the past, obscure words and hapax legomena were often emended in the light of clear expressions or on the basis of ancient versions.¹¹⁹⁸

To support this position, Dahood cited reasons proposed by W. F. Albright, who expected that the semantics of Biblical Hebrew would be revolutionized due to the close kinship between Ugaritic and Hebrew, given the scant literary preservation of Northwest Semitic languages and the inadequate knowledge of Hebrew in the Septuagint.:

Since the Ugaritic dialect of Canaanite differed less from contemporary South Canaanite and the most archaic biblical Hebrew than Low German from High German, or Provençal from French, it is not surprising that biblical studies are being revolutionized by it. [...] In virtually every case, the LXX translators were just as ignorant of the true meaning as were the Massoretes who vocalized the Bible in the 8th–9th centuries.¹¹⁹⁹

Mutatis mutandis, these reasons can be compared to the arguments by which Schultens advocated the significance of Arabic to Hebrew philology.

Dahood urged the indispensability of Ugaritic for interpreting Biblical Hebrew in response to the criticism from G. R. Driver.¹²⁰⁰ In treating lexical and semantic problems in the Old Testament, Driver considered it safer to resort to Arabic and Akkadian, as languages of a long duration, than to rely on the short-lived dialect of Ugarit, “which is as likely to be illuminated by Hebrew as Hebrew by it”.¹²⁰¹ This assertion resembles Gousset’s rhetoric in defending the unique quality of Hebrew, which, like the sun among languages, can illuminate other languages but not be illuminated by them.

¹¹⁹⁸ Dahood, “Hebrew-Ugaritic lexicography I”, *Biblica* 44:3 (1963), p. 290.

¹¹⁹⁹ *Peake’s commentary on the Bible*, ed. by Matthew Black and H.H. Rowley, London 1962, pp. 62 f. Dahood, *ibidem*, pp. 290–291.

¹²⁰⁰ Dahood, “Hebrew-Ugaritic lexicography IV”, *Biblica* 47:3 (1963), p. 403.

¹²⁰¹ G. R. Driver’s review of Dahood’s *Proverbs and Northwest Semitic philology* (1963), *Journal of Semitic studies* 10:1, pp. 116 f. Cf. Dahood, *ibidem*, p. 403.

20. Excursus: Owner history and historical use of dictionary records

The records of Schultens' etymological Hebrew dictionary (both primary and secondary) have a reception history – “habent sua fata libelli”. This chapter traces the history of the owners of the extant records (Section 20.1), examines scholarly references to Schultens' dictionary in the 18th century (Section 20.2), and identifies owners of dictionary manuscripts in the sale catalogues of private libraries in the 18th and 19th centuries (Section 20.3).

20.1 Owner history of the extant manuscripts of the dictionary

20.1.1 *Cod. Hebr. 378, Bavarian State Library, Munich*

Cod. Hebr. 378, in the Bavarian State Library (Bayerische Staatsbibliothek), is titled *Stricturae ad ORIGINES HEBRAEAS a viro clarissimo Alberto Schultens ordine alpha-bethico ad calamum dictatae Lugduni Batavorum anno 1740 et sequentibus*, “Critical remarks on the origins of the Hebrew language, dictated by the famous Albert Schultens in Leiden in the year 1740 and in the subsequent years, in alphabetical order.” On the front pages (1* verso and 2* verso), there are two longer notes. The latter contains a quotation from John Parkhurst's preface to his Hebrew dictionary (2nd ed. 1778), in which the author explains the extent of his record of Schultens' dictated Hebrew dictionary. A comparison of this record (*Cod. Hebr. 378*) with Parkhurst's copy follows.¹²⁰²

The former note explains why one of Schultens' students, Willem Kals, brought this record to England. At the end of the note, the writer states that “Dr. Ford, professor of Arabic in Oxford” is his informant, undoubtedly the Oxford Arabist Henry Ford (1753–1813), who apparently was interviewed in 1811.¹²⁰³ Ford likely transmitted a hearsay account dating back to Thomas Hunt and possibly handed down to him by his older contemporary, Joseph White (1745–1814), who held the Laudian chair of Arabic from 1774 to 1814. The writer of the note begins his report:

¹²⁰² The missing sections of the latter are duly indicated by the corresponding page intervals in *Cod. Hebr. 378* (pp. 978–1100 and pp. 1225–1572).

¹²⁰³ *Cod. Hebr. 378*, vol. 1, p. 1*, the end of the note reads: “From the information of Dr. Ford, professor of Arabic Oxonii 1811”.

A man of the name Kals, who was an assistant of Schultens, wrote from his dictation the Lexicon as far as ספה, at which period Schultens died, and Kals came to England to treat Hebrew – building great hopes upon his M.S.S.

The claim that Kals wrote down the dictionary at Schultens' dictation is not entirely accurate. He began following Schultens' lexicographical course in September 1745, when Schultens probably had reached the letter yōd. Kals supplied the earlier parts by copying student records. He certainly brought a record of the entire dictated dictionary to England, but MS Hebr. 378 is not in his own Latin handwriting, as it differs from the copy attributed to Kals, namely MS Bodl. Or. 257–260. Rather, he was the second owner of this record, having acquired it from one of Schultens' recording students. The author of the note continues as follows:

He was kindly received at Oxford about the year 1750, and Hunt, the vice chancellor, gave him a testimonial specifying his ability to teach Hebrew and the advantages resulting from the manuscript of Schultens.

Thomas Hunt (1696–1774) was the foremost English Orientalist of his time. He was professor of Arabic at Oxford (holding the Laudian chair, 1738–1774, and the Lord Almoner's, 1740–1747) and of Hebrew (Regius professor, 1742–1774). In his grammar of Hebrew, Arabic, and Aramaic, Kals quotes Hunt's letter of recommendation, dated "Christ Church, 17 Jan. 1750".¹²⁰⁴ The note seems to imply that the letter of recommendation was written after Kals arrived in England. If so, it is difficult to explain why Kals remained in Leiden in February 1750.¹²⁰⁵ The writer of the note goes on to explain why Kals failed to publish Schultens' comparative dictionary:

This lexicon together with a Grammar by Kals would have been printed at Oxford, but the university could not muster the Arabic and Syriac type. The grammar was afterwards published Amst. 1758 being a Harmonic Grammar of the Hebrew, Arabic and Aramean (Syriac) languages, in which the English testimonial of Hunt, vice chancellor, is inserted.

Kals' failure to publish Schultens' lexicon is attributed to the absence of Arabic and Syriac typefaces at the University of Oxford at the time. It is similarly the reason Kals himself states in his apology to the dictionary's

¹²⁰⁴ Kals, *Grammatica Hebraeo-harmonica*, Amsterdam 1758, preface, pp. V–VI.

¹²⁰⁵ In his Dutch summary of Schultens' Hebrew grammar entitled *Korte schets*, Leiden 1750, Kals dates his dedicatory letter to Jan Jacob Schultens 10 February 1750 in Leiden: "Leiden den 10. van Sprockelmaend 1750".

subscribers.¹²⁰⁶ However, the main reason was undoubtedly the lack of funds for printing.

Moreover, the note makes clear why Kals was greeted with such approval in Oxford. This is attributed to the need for a counterweight to Hutchinson's doctrines on Biblical Hebrew philology:¹²⁰⁷ "The patronage he met with at Oxford arose chiefly from the prevailing errors of Hutchinsonianism". According to Professor Ford's account, the writer notes that Kals still succeeded in publishing "a specimen" of Schultens' Hebrew dictionary up to the letter *sāmek*, including the root ספס: "There is also another 12^{mo} by Kals "cum specimine Lexici ex Alberti Schultens manuscripto ad 8 rad. ספס". This specimen – actually an index to Schultens' manuscript and printed works on Hebrew lexicography – is identical to Kals' treatise *Directorium et clavis*, which lacks a place and date of publication. According to a colophon by Kals himself (on page 384), the work was begun on 31 May 1755 and finished on 16 May 1757. Kals dates the preface of this work to 1 August 1755 (in Amsterdam). See the bibliography for the full title.

The note finally adds: "While in England, he also sold some m.s.s. copies". One of the manuscripts Kals sold during his stay in England was the record in question (Cod. Hebr. 378). Another record he sold was definitely the one Woide, a chaplain of the Dutch church at St. James, made available to John Parkhurst. The first purchaser of the manuscript known as Cod. Hebr. 378, cannot be identified, but we know that E. N. Thornton, Esquire of Kennington (London), possessed it in 1823.¹²⁰⁸

After that, the record came into the possession of the Duke of Sussex, August Frederick (1773–1843), from whose library the French Orientalist Marc Antoine Quatremère acquired it in 1844. In the same year he acquired it, Quatremère writes that he possesses a record of Schultens' Hebrew manuscript dictionary. In his review of the second edition of the French Hebraist Jean-Baptiste Glaire's Hebrew dictionary (1843),¹²⁰⁹ he surveys the history of Hebrew lexicography and asserts:

¹²⁰⁶ Kals, *Disquisitio philologica de linguae Hebraeae natalibus punctisque vocalibus*, Bremen 1753, preface; *Grammatica Hebraeo-harmonica*, Amsterdam 1758, pp. I–XXV.

¹²⁰⁷ The theologian and natural philosopher John Hutchinson (1674–1737) insisted on the primacy of Hebrew, rejected Arabic as a means to better understand Biblical Hebrew, and maintained that Hebrew, if read without vowel points, would support his doctrines on cosmogony and geology, which he founded on a symbolic reading of the Hebrew Bible.

¹²⁰⁸ Thomas Pell Platt, *A Catalogue of the Ethiopic Biblical Manuscripts in the Royal Library of Paris*, London 1823, p. 2, states that he has been permitted to use the record of *Stricturae ad origines Hebraeas* held by "E.N. Thornton, Esq. of Kennington".

¹²⁰⁹ Jean-Baptiste Glaire (1798–1879), *Lexicon manuale Hebraicum et Chaldaicum*, 2nd ed. Paris 1843 (1st ed Paris 1830). For Quatremère's views on Schultens, see further Eskhult, *Schultens as an innovator*, Section 12.1.4, pp. 343–345.

Schultens developed his ideas in a number of works, all of which are rich in knowledge and erudition. He also composed a Hebrew dictionary according to the same plan and on the same principles. Some leaves of it were sent to the press, but death prevented him from completing it. Vriemoet speaks of this work as follows:¹²¹⁰

A sample of his Hebrew dictionary was seen by me already many years ago. A large part of it he [Schultens] had finished by transmitting it to his auditors in academic lessons.¹²¹¹

I possess a manuscript copy, which I acquired very recently at the auction of the books of S. A. R., Duke of Sussex, and which, under the title *Stricturae ad origines hebraeas*, actually presents Schultens's dictionary. This manuscript, which consists of five quarto-sized volumes and comprises 1923 pages, ends with the letter *nūn*. But another copy, which belonged to (reverend) Woide, went further, until the word ספּה.¹²¹²

When Quatremère's private library was sold in 1858–1859, the record came to the Bavarian State Library in Munich as one of 1500 manuscripts (1250 Oriental and 250 Occidental). It was catalogued as Cod. Hebr. 378.¹²¹³ On the inside of the front covers of this manuscript, all five volumes bear an ex-libris mark with the name E. N. Thornton, stamped below a coat of arms, with the biblical passage (Ps. 46:1) added: “Deus noster refugium” (God is

¹²¹⁰ In a footnote, Quatremère refers to Everard Scheidius, *Lexicon Hebraicum et Chaldaicum manuale in codicem sacrum Veteris Testamenti*, Leiden 1805, preface, p. VI: “E. Scheidii, Praefatio in Lexicon Hebraicum, p. VI”.

¹²¹¹ In a footnote, Quatremère cites E. L. Vriemoet's notes on Albert Schultens' life in *Athenae Frisiacae*, 1758, p. 771. The sample Vriemoet had seen may have been a copy of the printed sample.

¹²¹² Quatremère, review of Glaire's “Lexicon manuale Hebraicum et Chaldaicum”, *Journal des savants*, Paris 1844, p. 610. The French original reads: “Schultens développa ses idées dans une foule d'ouvrages, tous pleins de savoir et d'érudition. Il avait, en outre, rédigé sur le même plan, d'après les mêmes idées, un Lexique hébraïque, dont quelques feuilles furent livrées par lui à l'impression et que la mort l'empêcha de finir. Vriemoet parle de cet ouvrage en ces termes:

Lexici hebraici iam multis abhinc annis aliquod nobis visum specimen. Cuius operis magnam partem scholis academicis auditoribus suis traditam absolverat.

Je possède un exemplaire manuscrit que j'ai acquis tout récemment à la vente des livres de S. A. R. le duc de Sussex, et qui, sous le titre de *Stricturae ad origines hebraeas*, présente en effet le lexique de Schultens. Ce manuscrit, qui se compose de cinq volumes in 4° et renferme 1923 pages, se termine avec la lettre *noun*. Mais une autre copie, qui appartenait à Woide, allait plus loin, jusqu'au mot ספּה.”

¹²¹³ The Sussex provenance of Cod. Hebr. 378 was observed by Moritz Steinscheider (1875: 377–378; and 1895: 210–211). The library director, Karl Felix Halm (1809–1882), compiled an auction catalogue of the acquired books in four volumes,¹²¹³ in which the manuscript in question does not appear to be listed.

our refuge). On the inside of the back cover, all five volumes of Cod. Hebr. 378 display a coat of arms showing two lions flanking a royal crown, with the inscription: “Honni soit qui mal y pense”. Below this image, there is a biblical passage (Rom. 8:31): “Si Deus pro nobis, quis contra nos” (If God is for us, who can be against us?).

20.1.2 MS Bodl. Or. 257–260

MS Bodl. Or. 257 has a title page prepared by Willem Kals for a planned publication of Schultens’ dictionary. In English translation, it reads:

Course of the roots of the Hebrew language, in alphabetical order, transmitted at the dictation of the exceedingly learned Albert Schultens, praised and famous for his erudition and piety, a celebrated advocate and restorer of Oriental languages, and during his lifetime an experienced and worthy professor of these languages at the University of Leiden, carefully copied by Jan Willem Kals, once vicar in Suriname and later in Stevensweert.¹²¹⁴

Kals studied Hebrew and Arabic philology in Leiden from 1745 to 1749. After that, he went to England to teach Oriental languages in London and Oxford. He may have returned to Leiden in early 1750 to complete his private copy of Schultens’ etymological dictionary. In his letter of recommendation, Thomas Hunt notes that Kals “brought with him a copy of the Hebrew lexicon, which his master Mr. Schultens was compiling at the time of his death”.¹²¹⁵ In all probability, Bodl. Or. 257–260 are Kals’ autograph copy of his private copy. In his *Disquisitio philologica* (1752: p. 62; 1753, p. 99), Kals quotes the first and second theses of the prolegomena according to several unique readings in Bodl. Or. 257, but he differs from Bodl. Or. 257 in some other passages.¹²¹⁶ From this, it may be concluded that *Cursus radicum* (Bodl. Or. 257–260) was copied from Kals’ own copy.

¹²¹⁴ MS Bodl. Or. 257, fol. 1r. *CURSUS RADICUM HEBRAE LINGUAЕ ordine alphabetico ad calamum traditus a doctissimo longe lateque cum eruditionis tum pietatis pariter laude famaue inclyto viro, celeberrimo linguarum Orientalium statore et restaratore [sic!] ALBERTO SCHULTENS, dum viveret in Academia Lugd. Bat., harum linguarum professori expertissimo, dignissimo etc. etc. etc., sedulo descriptus a JOANNE GUILIELMO KALS, pastore olim in Suriname, ultimo in insula Stephani.*

¹²¹⁵ Kals, *Grammatica Hebraeo-harmonica*, Amsterdam 1758, the introductory apology to the subscribers, p. 5, where Hunt’s letter is fully quoted.

¹²¹⁶ Kals’ *Disquisitio philologica* shares several distinctive readings with Bodl. Or. 257, but deviates from it in some passages. In the first thesis of the prolegomena in Bodl. Or. 257, the following readings differ from his: “ad nos” instead of “ad nostras manus”; “principes” instead of “principales”; “Aethiopica autem” instead of “Aethiopica vero”, and “concedant” instead of “cedant”. In the second thesis of the prolegomena, MS Bodl. Or. 257 reads “ab Aramo demum denominationem accepit”. Kals has “Ab Aramo denominationem demum post diluvium invenit”. The

20.1.3 *Lexicon Hebraicum in Blois, Bibliothèque Abbé-Grégoire (BAG)*

The title page of MS 149 *Lexicon Hebraicum* (Blois) has at the bottom the owner's name, the Leiden printer and bookseller Johannes Le Mair (1712–1798), who published second editions of Albert Schultens' works from the mid-1750s to the early 1770s.¹²¹⁷

20.1.4 *Stricturae ad origines Hebraeas: the Utrecht records*

Louis Gerlach Pareau was the owner of *Stricturae ad origines Hebraeas* [...] *ad calamum dictatae* before this record was donated to Utrecht UL, where it is catalogued as MS 537. Undoubtedly, he inherited it from his father, Jean Henri Pareau (1761–1833), who studied Oriental languages under Henric Albert Schultens in his native city, Amsterdam, and continued his studies with Schultens in Leiden after Schultens was appointed professor there. J.H. Pareau succeeded Joannes Willmet as professor of Oriental languages in Harderwijk in 1804 and Sebald Rau in Utrecht in 1810. In his inaugural lecture for an appointment in Deventer in 1799, *Oratio de literis orientalibus minime iniucundis* (1799), Pareau refers (p. 29) to Albert Schultens as the felicitous and immortal instaurator of Oriental studies. In his hermeneutical handbook of Old Testament studies, *Institutio interpretis Veteris Testamenti* (1822), he underscores Schultens' achievements.

Jacobus Cornelis Swijghuijsen Groenewoud was the owner of *Stricturae ad origines Hebraeas ordine alphabetico*, Utrecht UL, MS 538, before his widow bequeathed the manuscripts to the university library. Swijghuijsen Groenewoud was a professor of Oriental languages in Franeker and, in 1830, succeeded Jean Henri Pareau as chair of Oriental languages in Utrecht.

inflection of the proper name Aram here differs from the other records except for MS Bodl. Or. 257.

¹²¹⁷ In 1755, Johannes Le Mair republished Schultens' 1732 edition of Ibn Shaddād's biography of Saladin (*Vita et res gestae ... Saladini*). In 1761, he republished, in co-operation with Luchtmans, the two volumes of *Origines Hebraeae* (from 1724 and 1738) along with *De defectibus hodiernis linguae Hebraeae* (from 1731), *Vindiciae Originum Hebraearum* (from 1737), *Vindiciae Opusculi de defectibus* (from 1737), *Brevis stricturae* (from 1737), *Oratio de fontibus, etc.* (from 1714), etc., and *De linguae Arabicae antiquissima origine*, the first oration (from 1729) and the second oration (from 1732). In 1769, *Opera minora* (early works such as *De utilitate linguae Arabicae*, *Animadversiones philologicae in Jobum*, *Animadversiones philologicae et criticae in varia loca V.T.*, a couple of dissertations in Franeker, the inaugural lecture in the chair of Hebrew antiquities *De tabernaculo Mosis*, the oration on the study of humanities, and the oration on the Queen of Saba, *De regina Sabaeorum*) were published, and the following year (1770) *Clavis dialectorum* was appended to Erpenius' *Rudimenta linguae Arabicae*. In 1772, he published with Luchtmans *Sylloge dissertationum philologico-exegeticarum*, vol. 1 (academic dissertations submitted under the chairmanship of Albert Schultens).

20.1.5 Lat. qu. 131–132 and So 50–51

The manuscripts Lat. qu. 131–132, titled *Stricturae ad Origines Hebraeas ordine alphabetico*, at the Frankfurt am Main UB, were a gift from the Jewish historian Isaac Marc Jost (1793–1860) to the library on 6 April 1861. The volumes contain internal evidence of their reception history.¹²¹⁸ In MS Lat. qu. 131, fol. 13r and 14v, there is a fragment of a letter addressed to an unknown recipient. The sender of this letter, most likely a student of Albert Schultens, quotes from the dictionary entry אָבוי (ʾāḇōy, “woe”, Prov 23:29; see MS Lat. qu. 131, fols. 12v and 14r). The sender greets the recipient from Professor Schultens, who ought to be identified as Albert Schultens (not J.J. Schultens or H. A. Schultens) and who promises to write in a couple of days. Finally, the sender also greets a common friend by name, Schneider, as “amicum Schneiderum” (MS Lat. qu. 131, fol. 13v).

In MS Lat. qu. 132, fol. 2r, there is a printed title page for the planned fifth volume of the dictionary. After the title (*Stricturae ad origines Hebraeas ordine alphabetico*),¹²¹⁹ the appointments held by Schultens are listed. Finally, the intended print is attributed to the seller Philippus Bonk, University printer and bookseller in Leiden from 1738 to 1756.

The manuscripts So 50 (pp. 1–396) and So 51 (pp. 397–632), titled *Stricturae ad Origines Hebraeas*, in the UL collection in Bonn, were acquired on 8 December 1818 from the collections of the German Orientalist and theologian Johann Peter Berg (1737–1800).¹²²⁰ Berg studied Hebrew and theology under Jan Jacob Schultens at Leiden University from 1758 to 1761.¹²²¹ MS So 51 (pp. 597, 601) provides dates for the dictation of words beginning with the letters wāw and záyin (Section 19.2.3 above).

¹²¹⁸ Gerhardt Powitz and Jutta Hager, *Die Handschriften der Stadt- und Universitätsbibliothek Frankfurt am Main* (in the series: Kataloge der Stadt- und Universitätsbibliothek Frankfurt am Main, Band 6), Frankfurt am Main 1988, p. 27.

¹²¹⁹ The title page, which is framed in a vignette, reads as follows: *Stricturae ad Orig[ines] Hebr[aeas], ord[in]e alphab[etico] dispos[itae] a viro celeb[errimo] Alb[erto] Schultens, s[acro]s[an]ctae theol[ogiae] doct[ore] et linguar[um] Orient[alium] Proffessore, Collegii Theolog[ici] illustr[um] ac praepot[entium] Ord[inum] Holl[andiae] et Westfries[iae] Regente, M.S.S. Orientalium Legati Warneriani interprete. Tom. V.* Below the vignette, the bookseller’s name is printed: *Vendidit Philippus Bonk.*

¹²²⁰ Franz-Joseph Huschens, *Die orientalischen Handschriften der Universitäts- und Landesbibliothek Bonn: ein Verzeichnis unter besonderer Berücksichtigung der Provenienzen der Bestandgeschichte*, Bonn 2000, p. 11.

¹²²¹ “Joannes Petrus Berg Bremensis” matriculated in Leiden on 26 September 1758. See *Album studiosorum Academiae Lugduno-Batavae*, vol. 1 (1575–1875), p. 1061. As a Leiden student, he submitted a thesis in 1761 titled *Specimen animadversionum philologicarum ad selecta loca Veteris Testamenti*.

20.1.6 Egerton 718, KA 308, and Fr. 3375

MS Egerton 718, *Linguae Hebraicae radices* (extant in London, British Library), was acquired by the British Museum on 19 July 1838 at Sotheby's auction house.¹²²² This record once belonged to the British book collector Egerton. On page 1*, it bears an attribution to Albert Schultens that reads: "*Celeberrimi summisque laudibus evehendi viri Alberti Schultensii SS. Th. D. nec non L.L. O.O. professor ordinarii*".

In the National Library of the Netherlands, The Hague, MS KA 308, *Dictata in Origines Hebraeas*, has an ownership history that remains unknown to me, except that this record must have been held by the Dutch Royal Institute (*Koninklijk instituut van wetenschappen, letterkunde en schoone Kunsten*) before it entered the holdings of the Royal Library.

MS Fr. 3375, *Dictata in lexicon Hebraicum*, in Bibliothèque de Genève, is a record taken down by the student Paul Gyöngyössi de Pettyen. It was somehow acquired by the Swiss Reformed theologian David Claparède (1727–1801).¹²²³ In all probability, he bought it in Leiden in the 1750s, when he studied there, either directly from Gyöngyössi himself before Gyöngyössi left for Russia in 1753 to serve as a physician in St. Petersburg, or indirectly at a book auction.

20.2 Scholarly use and references in the 18th century

20.2.1 Thomas Hunt

In February 1748, Thomas Hunt delivered his inaugural lecture as professor of Hebrew, "On the utility of the Oriental dialects, above all Arabic, in interpreting the Holy Scriptures". After a long list of Western Arabists, he remarks that Albert Schultens deserves first place among those who have drawn on Arabic for biblical interpretation. He adds that the Leiden professor "at present is occupied in preparing a dictionary of Hebrew words, particularly those whose roots and meanings long ago have fallen into oblivion, but which may be restored and brought to light by means of their Arabic counterparts".¹²²⁴ In his inaugural lecture as Laudian Professor of

¹²²² This is stated on the front page, MS Egerton 718: "Purchased at Sotheby's 19 July 1838". Other records of Schultens' dictation, namely those on Hebrew cultural history (Hebrew antiquities, Egerton 715, 716 and 718) were acquired on the same occasion according to the notes on the front pages of these manuscripts.

¹²²³ *Album studiosorum Academiae Lugduno Batavae 1575–1875*, The Hague 1875, p. 1039. David Claparède (1727–1801) studied philosophy and theology in Geneva in the 1740s. He matriculated at Leiden University on 19 October 1752. After his return, he became vicar in Geneva (1761–1790) and subsequently reader in exegesis and ethics at the University of Geneva (1763–1801).

¹²²⁴ Hunt, *De usu dialectorum orientalium, ac praecipue Arabicae, in Hebraico Codice interpretando oratio*, Oxford 1748, p. 24: "nunc quoque, ut audio, occupatur in condendo lexico vocum Hebraicarum, earum praesertim, quarum radices ac significationes oblivione iam diu obrutae eiusdem Arabismi ope recuperari et in lucem reduci possunt". Cf. van der Berg, *Religious current and cross-currents*, 334.

Arabic in July 1739, Hunt singled out Albert Schultens as a learned and meticulous observer of the linguistic kinship – or, rather, he corrects himself, the unity – of the Oriental languages.¹²²⁵

20.2.2 *The anonymous author of “Essay historique”*

In the Dutch journal *Bibliothèque raisonnée* 1750 (vol. 44, issue 2), the unnamed author of a biographical acclamation of Schultens – probably the publisher, philosopher, and journalist Elie Luzac (1721–1796)¹²²⁶ – refers to Schultens’ Hebrew dictionary as unpublished. It would be useful, he argues, if someone published it, because this dictionary confirms Schultens’ theory of Hebrew etymology. He maintains that it reconstructs the proper meanings of Hebrew words from related Semitic languages and elucidates roots whose proper meanings remain unknown:

But his dictionary was the work he had most at heart to see published, and it would have had great utility. Through dialects, especially Arabic, he restored the proper meaning of every Hebrew word, mainly those whose roots and meanings have long been unknown. This work supported his system and served as confirmation of it.¹²²⁷

20.2.3 *Jan Willem Kals*

Jan Willem Kals made frequent use of Schultens’ lexicographical and grammatical writings in his own handbooks on Hebrew philology and grammar. Born in Düren, he studied theology in Utrecht (1722–1729), graduating in February 1729 with a thesis under the presidency of Hieronymus van der Alphen. After serving as a vicar in the Dutch colony in South America, Suriname (at the plantation Cottica-Perica, 1731–1733), and in Stevensweert in Dutch Limburg (1733–1740), he enrolled as a student in Leiden on 25th August 1745, at the age of 45.¹²²⁸ It is unclear exactly when he began to follow Schultens’ teaching. He states that he completed the latter’s course in Hebrew lexicography within seven months:

¹²²⁵ Hunt, *De antiquitate, elegantia et utilitate linguae Arabicae*, Oxford 1739, p. 52.

¹²²⁶ See Eskhult, *Schultens’ unpublished manuscripts* (forthcoming), section 1.3, for an attribution of the anonymous essay to Elie Luzac the Younger.

¹²²⁷ “Essay historique sur les ouvrages de Feu Mr. Albert Schultens professeur en langues Orientales dans l’Université de Leide”, *Bibliothèque raisonnée des ouvrages des savans de l’Europe*, vol. 44, issue 2, p. 362. The French original reads: “mais son *Dictionnaire* étoit l’Ouvrage qu’il avoit le plus à cœur de voir paroître, et qui auroit en effet été du plus grand usage. Au moyen des *Dialectes* et surtout de l’*Arabe* il rétablissoit le sens propre de chaque mot *Hébreu*, principalement de ceux dont les racines et les significations sont depuis longtems inconnues. Cet Ouvrage venoit à l’appui de son système et lui servoit de confirmation.”

¹²²⁸ *Album studiosorum Academiae Lugduno Batavae*, The Hague 1875, p. 1007.

Within seven months, I completed the biblical course, which was dictated by Schultens in his public lectures over ten years, up to the letter ם and until the root ספח, when a premature death tore this excellent scholar away, something that hurt me and was to the loss of the university, and the entire world of learning.¹²²⁹

If Kals here is referring to the period when he attended the public lectures at which Schultens dictated his dictionary, this was likely the spring (March–June) and the autumn (September–early December) of 1749. Since he possessed a copy of the entire dictated dictionary to the last entry, he had evidently copied an extant record and supplemented it with his own recording of Schultens’ dictation for the last seven months of 1749. According to his own statement, he wished to go to England because he had read Hunt’s inaugural oration for the chair of Arabic at Oxford in 1748. Kals then brought a manuscript of the Hebrew dictionary with him.

During his three years in Oxford and London – from about March 1750 to early 1753 – he endeavoured to publish Schultens’ dictated Hebrew dictionary. In a philological inquiry into the historical origins of the Hebrew language (*Disquisitio philologica*, part 1, 1753), he refers to the dictionary several times. He states that he compiled a complete Hebrew dictionary, drawing on Schultens’ unfinished magnum opus and other printed treatises, as well as observations from other scholars he had access to in England. In one passage, he states:

How much light the primary meaning brings, I hope to show one day in my dictionary, compiled from *Cursus radicum* in manuscript and from other printed works of Schultens, and illustrated by the observations of other scholars whom I had the opportunity to meet here in England and to consult about my publication.¹²³⁰

In another passage, he refers to his enterprise when commenting on Schultens’ lexicographical renewal of Hebrew semantics:

¹²²⁹ Kals, *Directorium and clavis*, p. V: “Quum primum enim septem mensium spatio cursum — a clarissimo Schultens decem annorum ad calamum suis in lectionibus publicis discipulis ad literam ם ibidemque ad radicem ספח usque, quando mors praematura mihi, Academiae, immo toti literarum orbe, admodum noxia, virum egregium eripiebat, dictatum — Biblicum absolveram” [...].

¹²³⁰ Kals, *Disquisitio philologica de linguae Hebraeae natalibus*, first edition, Oxford 1752, p. 37 (here referring to *significatio primaria*, “primary meaning”): “Quantum illa lumin[i]s adferat, spero me aliquando ostensurum lexico nostro ex Cursu radicum in manuscripto et ex aliis operibus typis impressis Clarissimi Schultens fabricato et aliorum virorum doctorum, quos licuit mihi hic in Anglia videre et de hac editione audire, observationibus illustrato.”

It would lead too far to describe how the famous Schultens attempted to remedy this evil shortcoming. [...] ¹²³¹ Thus, through all his efforts, our fellow strove to provide a dictionary in which every root is assigned a primary meaning, from which secondary meanings are rightly traced and illustrated by examples. This dictionary is titled *Cursus radicum*. After ten years, he had reached only the root ספח before his death. Having been supplemented by me from his published books, from the observations of scholars who possess manuscripts, and from my own observations, it is now complete. It wants nothing but the generous hands of patrons, so that it can be brought into the light. ¹²³²

Moreover, Kals quotes the first and second theses in the prolegomena of the dictionary. ¹²³³ However, he disagrees with Schultens' relegation of Hebrew to the status of a sister language to Arabic and Aramaic. Instead, he continues to assert the supremacy of Hebrew. He quotes two passages from the dictionary, one from the entry אַחַז ('āḥaz) on the diversification of the primeval language into Semitic dialects, ¹²³⁴ and another from the entry לֵא (lā'ak) on the classification of Ethiopic as a subgroup under Arabic. ¹²³⁵

As demonstrated, Kals planned to publish his teacher's dictionary. He failed to do so, but succeeded in publishing an index to the dictionary, comparing it with other lexicographical works of Schultens. This index appears in *Directorium et clavis*, "A guide and a key" (1757), which he compiled in the Netherlands over two years, from May 1755 to May 1757. This work is not to be confused with the small specimens on the letter *sāmek*, which were published under the heading *Specimen explorationis memoriae* as an appendix to the first and second editions of *Disquisitio philologica*.

¹²³¹ In the omitted passage, Kals refers to Schultens' main treatises: "Vide inter alia de *Defectibus hodiernis linguae Hebraeae opusculum*, p. 140, *Duos originum tomos, Viam Veterem et regiam Hebraizandi, Praefationem in Proverbia*, p. CVII in fine, et fateberis mecum illam esse viam admodum longam et inaccessam."

¹²³² Kals, *Disquisitio philologica*, first edition, Oxford 1752, pp. 65–66: "Quomodo clarissimus Schultens huic mederi malo, longum fore exscribere. [...] Hinc vir noster omnibus incubuit viribus, ut aliquod adornaret lexicon, in quo primariae cuiusque radicis significationes adstruuntur indeque secundariae legitime deducuntur et exemplis illustrantur. Hocce lexicon sub nomine *Cursus radicum*, decem annorum spatio non nisi ad radicem ספח ante viri mortem perductum, a me ex ipsius typis extantibus libris, observationibus, cum virorum doctorum, qui possident manuscripta, tum meis locupletatum, iacet absolutum, nil nisi Mecenatum largas expectans manus, ut in dias luminis exeat auras."

¹²³³ Kals, *Disquisitio philologica*, first edition, p. 62; *Disquisitio philologica de linguae Hebraeae natalibus*, second edition, Bremen 1753, pp. 99–100

¹²³⁴ Kals, *Disquisitio philologica*, second edition of 1753, p. 102.

¹²³⁵ Kals, *Disquisitio philologica*, p. 73; *Disquisitio philologica*, second edition of 1753, p. 117.

Before his departure for England in spring 1750, Kals published a summary of Schultens' Hebrew grammar, *Korte schets* (1750). Eight years later, in 1758, he published his own eclectic grammar of Hebrew, Arabic, and Aramaic, drawing on the most important grammatical works of the 17th and 18th centuries, including those by Dutch scholars such as Alting, Schultens, and Vriemoet, and by German scholars such as Danz, Simonis, and Michaelis. It was his last academic work. During the 1750s, Kals hoped to return to Suriname as a missionary among the indigenous Indian nations, whose rights he had advocated in a publication. When this turned out to be impossible, he immigrated to America in 1758, where he became a preacher to German immigrants in Pennsylvania (Amwell, Reading, and Germantown) and in New York. He hoped to pursue missionary work, but, as this was impeded, he returned to the Netherlands in 1774.¹²³⁶

20.2.4 Johann David Michaelis

Johann David Michaelis (1717–1791) was well aware that Schultens prepared a Hebrew dictionary as part of an academic course,¹²³⁷ where he would have improved Hebrew lexicography by employing Arabic to explain the original meanings of Hebrew words, because earlier lexicographers had confined themselves to using Arabic only as an aid for rare and difficult words.¹²³⁸ Michaelis' students required that he give a similar course on Hebrew vocabulary, "Collegium über das hebräische Lexicon".¹²³⁹ In his assessment of the sources of knowledge about Biblical Hebrew (*Beurtheilung*, 1757), he states that one of his students, who had heard Schultens lecture in Leiden, once showed him Schultens' dictionary. After turning a few pages, Michaelis concluded that it would have the same faults as Schultens' other writings, especially *Origines Hebraeae*, and, to a greater extent, that it mainly relied on Arabic for Hebrew etymology and excluded other Semitic languages.¹²⁴⁰

¹²³⁶ Kals' homiletical and theological achievements and missionary strivings are treated in J. M. van der Linde's biography *Jan Willem Kals 1700–1781: Leraar der Hervormden; advocaat van Indian en Neger*, Kampen 1987. Likewise, Karl Ventzke comments on Kals' career in an article titled "Jan Willem Kals, ein denkwürdiger Theologe des 18. Jahrhunderts", *Dürener Geschichtsblätter* 1988, nr. 77, pp. 63–65.

¹²³⁷ Michaelis, *Beurtheilung der Mittel, welche man anwendet, die ausgestorbene Hebräische Sprache zu verstehen*, Göttingen 1757, p. 295: "denn er hatte in einem ordentlichem Collegio über die hebräische Wörter nach Ordnung des Alphabets ein Lexicon auszuarbeiten angefangen, und war bis auf die Hälfte gekommen, als der Tod ihn störete."

¹²³⁸ Michaelis, *Beurtheilung*, pp. 294–295.

¹²³⁹ Michaelis, *Critisches Collegium über die drey wichtigsten Psalmen von Christo*, Frankfurt und Göttingen 1759, preface, p. 1.

¹²⁴⁰ Michaelis, *Beurtheilung*, pp. 295 f.

20.2.5 John Parkhurst

In 1762, John Parkhurst, an English lexicographer of Hebrew, attests to using Schultens' Hebrew dictionary, which he obtained through a Dutch chaplain, Mr. Woide, who, in all likelihood, had bought it from Kals. Parkhurst designates his copy as *Origines Hebraicae in collegio publico dictatae*. He used it while compiling his own Hebrew dictionary. In the preface, he refers to Schultens' Hebrew lexicography as follows:

I have been much assisted not only by the printed works of the celebrated Albert Schultens, but by a manuscript Hebrew dictionary of the same author, kindly communicated to me by the Reverend and learned Mr Woide, chaplain of his Majesty's Dutch chapel at St James's.¹²⁴¹

In a footnote to his reference to the manuscript Hebrew dictionary, he gives its title and comments on its extent as follows:

Entitled ALBERTI SCHULTENS *Origines Hebraicae in Collegio publico dictatae*, it is contained in two moderate volumes in quarto. The copy I was favoured with is imperfect, containing from the beginning of the letter א to root חפח, under ח, inclusive. The roots under the letter ט are all wanting, but those under י are explained from the beginning of that letter to root יעה, from which to the end of the letter ל, the copy is again deficient. The second volume contains from the beginning of מ to root ספה under ס; and to this volume is prefixed the following note: *Origines Cl. viri Alberti Schultens, a litera מ ad ספה usque, ubi ante morbum et mortem dein secutam substiterat*.¹²⁴²

Parkhurst admitted that Schultens "happily and satisfactorily illustrated some obscure and difficult words in the Hebrew text" using Arabic, but maintains that "this great man" overused Arabic and was misled by the "florid and highly figurative, not to say bombastic, style of the Arabian writers".¹²⁴³ Still, he commended Schultens' practice of giving "a clear leading or primary idea or sense to each Hebrew root", which he considered "the fundamental principle of explaining the sacred language."¹²⁴⁴ In his practice of Hebrew lexicography, Parkhurst used Schultens' Hebrew dictionary as a means to identify and classify lexical meanings. He refers to it as MS *Origines Hebraicae* in a number of entries, e.g., under the entry for חלק, of which he states the original meaning "to be smooth", from which he derives "to divide in an even, exact and regular manner" in the stem forms

¹²⁴¹ Parkhurst, *A Hebrew and English lexicon without points*, 2nd ed., London 1778, preface, p. III. This passage is quoted in Cod. Hebr. 378, vol. 1, p. 2*.

¹²⁴² Parkhurst, *ibidem*, p. III. This passage is quoted in Cod. Hebr. 378, vol. 1, p. 2*.

¹²⁴³ Parkhurst, *ibidem*, p. III.

¹²⁴⁴ Parkhurst, *ibidem*, p. III.

qal and *piel*, and “to be regularly divided” in *niphal*.¹²⁴⁵ He acknowledges that Schultens is his source of information:

In the explanation of this root, I am much indebted to Schultens’s *M.S. Origines Hebraicae*, and with him observe that this sense of *dividing exactly* and *by rule* affords a noble image and heightens the dignity and beauty of this verb with all its applications under this head.¹²⁴⁶

Under another entry, מִשַׁח, he informs us that it does not occur in Hebrew dictionaries, but was restored by Schultens to the Hebrew word-stock with the meaning “to stroke in wiping, to wipe with a gentle hand”.¹²⁴⁷

20.2.6 A review of Julius Bate’s Hebrew dictionary (1767)

The Hutchinsonian scholar and Hebraist Julius Bate (1703–1775) published his *Critica Hebraea, or A Hebrew-English dictionary without points*, in London in 1767. The same year, it was reviewed in the journal *The Critical Review*, which stated that Bate had followed Parkhurst’s example in making a dictionary without vowel points and that the author is “a professed admirer of the late Mr. Hutchinson”, a fact mirrored in the many interspersed quotations from Hutchinson. Considering that the dictionary is based solely on Biblical Hebrew usage, the reviewer objects to the lack of consideration of Oriental languages in derivations and in the biblical interpretation:

We cannot, however, agree with this writer in what he says concerning the use of the Oriental dialects in the interpretation of the Hebrew Scriptures. He tells us that he has not amused himself with Syriac or Arabic etymologies of Hebrew words.¹²⁴⁸

Having quoted from Thomas Hunt’s inaugural lecture on the utility of Arabic (1739) – where the value of Hebrew-Arabic comparativism is justified on account of the close kinship of the Semitic languages and with a view to the unchangeability of Arabic – the reviewer goes on to refer to other Hebrew comparativists of the 17th and 18th centuries, among others Albert Schultens, whose Hebrew dictionary he is familiar with and regards as a model of Hebrew etymology founded on the Arabic language:

Schindler, Ludovicus de Dieu, Ravius, Hottinger, Bochart, Pococke, Walton, Castellus, Erpenius, Schultens and many others have made observations to the same purpose. But those who have the *Lexicon*

¹²⁴⁵ Parkhurst, *ibidem*, p. 177.

¹²⁴⁶ Parkhurst, *ibidem*, p. 177.

¹²⁴⁷ Parkhurst, *ibidem*, p. 365.

¹²⁴⁸ Review of Bate’s “*Critica Hebraea* or a Hebrew-English dictionary without points”, in *The critical review, or annals of literature*, 24 (October 1767), p. 262.

Hebraicum selectum of Johannes Clodius or manuscript copies of Schultens' Hebrew Lexicon have such instances of the utility of the Arabic in the interpretation of Scripture as must evince the unreasonableness of objecting to the use of that language in the compilation of a Hebrew dictionary.¹²⁴⁹

20.2.7 Johan Jacob Björnståhl

The Swedish Orientalist Johan Jacob Björnståhl (1731–1779), who was well acquainted with Schultens' philology and publications,¹²⁵⁰ met Jan Jacob Schultens, Albert Schultens' son, on 2 November 1774 during his second visit to Leiden. In his travel journal, he describes his encounter. Jan Jacob told him, according to rumour, the manner in which Albert Schultens proceeded in dictating his Hebrew dictionary and in writing his books. According to the German translation, Björnståhl states:

Darnach verfügten wir uns zu Herrn Professor Schultens, der mir sagte, daß von seines Vaters Vorlesungen über sein Wörterbuch oder Origines Hebraicae kein von ihm selbst herrührendes Manuscript vorhanden sey, indem er, ohne vorher etwas aufzuschreiben, gelesen habe: seine Zuhörer aber haben seinen Vortrag aufgeschrieben, und die sie besitzen also seine Vorlesungen in der Handschrift.

So hat man mir auch gesagt, dieser Albert Schultens habe so viel Feuer und Gegenwart des Geistes gehabt, daß er seine Schriften zum öftern während der Zeit, daß sie im Drucke gewesen, aufgesetzt; er habe nicht einmahl die Geduld besessen, sich an einen Tisch niederzusetzen um zu schreiben, sondern das Papier dem Setzer auf den Rücken gelegt, und so geschrieben, indem der andre gesetzt.¹²⁵¹

Björnståhl also recounts his encounter with Henric Albert Schultens, the grandson of Albert Schultens. When he met him in Amsterdam on 30

¹²⁴⁹ *The critical review, or annals of literature*, 24 (October 1767), p. 263.

¹²⁵⁰ See Eskhult, *Schultens as an innovator*, vol. 2, Section 11.5.2, pp. 324–325.

¹²⁵¹ Björnståhl, *Briefe auf seinen ausländischen Reisen an den königlichen Bibliothekar C. C. Gjörwell in Stockholm*, vol. 5, Leipzig und Rostock 1782, p. 426. The Swedish original is titled: *Resa til Frankrike, Italien, Sweitz, Tyskland, Holland, Ängland, Turkiet, och Grekeland*, edited by Carl Christopher Gjörwell, Stockholm 1782, vol. 4, p. 278, and the quoted passage reads: “Sedan vore vi hos Hr. Prof. Schultens, som sade mig, at ej något MS finnes efter hans fars föreläsningar över des Origines Hebraicae eller Lexicon, utan han läste ex tempore, och hans åhörare anteknade hans ord: desse äga således hans praelectioner i MS. Man har äfven sagt mig, at Alb. Schultens hade så mycket eld, så stor presence d’espirit at han esomoftast sammanskref sina arbeten under det man hölt på at trycka dem: han gaf sig ej en gång tålmod, at sätta sig ned vid et bord at skriva, utan lade pappret på sättarens rygg och anteknade sålunda medan den andre satte.”

November 1774, Björnsthål was told roughly the same about Schultens' Hebrew dictionary. He describes the meeting as follows:

Den 30. November legten wir bey Herrn Professor Schultens einen Besuch ab. [...] Er zeigte mir seines Großvaters hebräisches Wörterbuch oder *Origines Hebraicae* in alphabetischer Ordnung im Manuscripte von einem seiner Zuhörer abgeschrieben. Es macht sechs Quartanten aus, geht aber nicht weiter als bis zum Buchstaben ם (Samech), mit welchem es aufhört. Es ist eine der Vorlesungen, welche Schultens seinen Schülern über die hebräische Sprache gehalten hat. In diesem Collegium folgte er der alphabetischen Ordnung, starb aber, ehe er mit der Arbeit zu Ende kam. Selbst hatte er nichts davon aufgeschrieben, sondern er dictirte aus dem Kopfe, und die Zuhörer schrieben nach.¹²⁵²

20.3 Owners according to the sale catalogues of private libraries

20.3.1 Introductory remarks

In the 19th century, various copies of Schultens' Hebrew dictionary were in private hands, mainly held by Dutch scholars and ministers. Sale catalogues of private libraries provide clues. This chapter begins by exploring the owners of records now held by public libraries (Sections 20.3.2–20.3.4). It then examines owners who held chairs in the Netherlands (Sections 20.3.5–20.3.6): the chair of Oriental languages (Scheidius, van der Palm, Verburg, Willmet, Weyers, and Millies), the chair of history (van der Eerde), and the chair of theology (J. van Voorst). Other owners were Reformed ministers in the Netherlands (J. A. van Waenen, Donker Curtius, D. C. van Voorst). Finally, a Belgian savant (van Alstein) is identified as having collected a copy of Schultens' Hebrew dictionary.

20.3.2 Johann Peter Berg

In the auction catalogue of Johann Peter Berg (1737–1800), two entries for Schultens' Hebrew dictionary are listed. One of these is now held by the Bonn University and State Library and comprises the letters א–ס. The other record consists of three volumes comprising the letters ס–ז.¹²⁵³ Berg must

¹²⁵² Björnsthål, *ibidem*, 1782, p. 454. In the Swedish original, Björnsthål, *Resa*, vol. 4, p. 296, this passage reads: "Den 30 Nov. påhälsades Hr. Prof. Schultens. [...] Hans visade mig sin farfars Hebreiska Lexicon, eller Origines Hebraicae, i alphabetisk ordning i MS copieradt af en af des Auditores. Det utgör 6 Voll. i 4:o, men går ej längre än till bokstaven ם (*samek*), hvarest det slutar. Det är af de föreläsningar som Schultens hölt för sine disciplar i hebreiskan, hvarvid han följde alphabetiska ordningen, men dog innan han hant fullborda arbetet. Han har ingenting därpå skrifvit sjelf, utan dicterade ur hufvudet, och Auditores anteknade."

¹²⁵³ *Catalogus librorum [...] Joanne Petro Berg collectorum*, Duisburg 1801, p. 25, no. 524–525: So 50–51, Landes- und Universitätsbibliothek Bonn; and p. 25, no. 526–528 (letters ס–ז). I rely on Gildemeister, *Catalogus librorum*, p. 116.

have acquired these during his studies in Leiden. After three years at the High School of Bremen, he matriculated at Leiden University on 26 September 1758 and remained there until the second half of the following year. His biographer, Anton Wilhelm Möller, states that he joined Jan Jacob Schultens as his principal teacher of Oriental languages and formed a cordial friendship with him, “enjoying the instructional company with Schultens, at whose home he came and went, using the large, select, and well-equipped Schultensian library with its rarities”.¹²⁵⁴ While studying Hebrew with J.D. Michaelis in Göttingen, he was astonished to find the same Schultensian philological and critical principles and the same approach to the biblical text.¹²⁵⁵ During his stay in the Netherlands, Berg began acquiring large book collections¹²⁵⁶ and pursuing Arabic lexicography, as evidenced by his additions to his personal copy of Golius’ *Lexicon Arabico-Latinum* (1653).¹²⁵⁷ After one year as chair professor of Greek and Oriental languages in Bremen, he held the professorship in theology, church history, and Oriental languages in Duisburg (1763–1800).

20.3.3 Putnam, Ford, Platt, and the Duke of Sussex

In 1798, the bookseller John White (who flourished 1798–1811) published a sale catalogue of the private libraries of Harvey Spragg (1723–1796), an English botanist, horticulturalist, and biologist, and of Henry Putman (1725–1797), a minister of the Dutch Reformed Church in London. The catalogue does not specify which library the books for sale belonged to, but the Reverend Putman was likely the owner of the record of Schultens’ etymological Hebrew dictionary in five volumes. This record was either sold to him or given by Willem Kals. Listed among dictionaries, grammars, and philological works, it is noted with the selling price (12 shillings and 6 pennies) and the presumed date of composition (1740) as follows:

¹²⁵⁴ Anton Wilhelm Peter Möller, *Denkschrift zur Ehre des Namens und der Verdienste des Herrn Johann Peter Berg*, Duisburg 1801, p. 16. Möller adds, p. 17, that Berg bought many books at the auction of the Schultensian library (in 1780) and that he possessed the auction catalogue of *Bibliotheca Schultensiana* with annotated sale prices.

¹²⁵⁵ Möller, *Denkschrift*, p. 22.

¹²⁵⁶ Möller, *Denkschrift*, pp. 18–19.

¹²⁵⁷ Gildemeister, *Catalogus librorum*, pp. 117 f., describes the abundant array of printed and manuscript Arabic sources that Berg used in his frequent annotations to Golius. Among printed sources were all the editions of Arabic sources by Golius, Albert Schultens, Reiske, Henric Albert Schultens, Nicholas Wilhelm Schroeder, Scheidius, Pococke and Sir William Jones. Gildemeister does not admit any high scientific value to Berg’s annotations, but he cautiously proposes that Georg Wilhelm Freytag in his *Lexicon Arabico-Latinum* (Halle 1830–1837) may have used Berg’s annotated copy of Golius (Gildemeister, *ibidem*, p. 120).

Schultens, *Stricturae ad Origines Hebraeas ad calamus dictatae*, 5 vols. MS. semic. 12s 6d. L[ugduni]. Bat[avorum]. 1740.¹²⁵⁸

The bookseller William Ford (1771–1832) probably purchased this record. In any case, a five-volume record is itemized in his private library, which was sold at auction in 1810. In the sale catalogue, it is described as follows:

Stricturae ad Origines Hebraeas, ordine alphabetico ad calamus dictatae. A manuscript in 5 vols. by the famous Alb. Schultens, apparently complete, finely written, and in good condition.¹²⁵⁹

In the introduction to a catalogue of Ethiopic manuscripts at the Royal Library of Paris, the British Orientalist Thomas Pell Platt (1798–1852) addresses the relationship between Ethiopic and other Semitic languages. In doing so, he refers to Schultens' classification in *Stricturae ad Origines Hebraeas*. He quotes the entire first thesis of the prolegomena, following the reading of Munich BSB, Cod. Hebr. 378, vol. 1, p. 1, though his punctuation differs slightly. In a footnote, he explains how the record came to England and from whom he obtained access to this manuscript:

From the Prolegomena to an unedited work of Schultens, entitled “*Stricturae ad Origines Hebraeas*”, some MS. copies of which were brought to this country, and sold by one of his scholars, after his death. It is mentioned in the Preface to Parkhurst's Hebrew Lexicon. The copy of which I have been permitted to make use is in the possession of E. N. Thornton, Esq. of Kennington.¹²⁶⁰

¹²⁵⁸ *Catalogue of rare, splendid and valuable books in every branch of polite literature including the entire libraries of the Rev. Harvey Spragg [...], also of the Rev. Henry Putman [...]*, London 1798, p. 138, no. 3921. On the same page (nos. 3922–3929), Schultens' philological key publications are listed: *Haririi Consensus sex et Monumenta vetustiora Arabiae*, *Epistola ad Menkenium*, *Excursus de Via hebraizandi* in three books, *Vetus et regia via hebraizandi*, *De defectibus hodiernis linguae Hebraeae*, *Origines Hebraeae ex Arabia penetralibus revocatae*, *Rudimenta linguae Arabicae Erpenii*, and *Institutiones ad fundamenta linguae Hebraeae*. Putnam was likely the owner of these publications.

¹²⁵⁹ *A catalogue of a curious and valuable collection of books in various languages and classes of literature [...]* by W. Ford, bookseller, Manchester 1810, p. 18, no. 241.

¹²⁶⁰ *A catalogue of the Ethiopic Biblical manuscripts in the Royal library of Paris, and in the library of the British and foreign Bible society*, London 1823, p. 2. (E.N. Thornton was likely a member of the merchant family Thornton in London.)

This record passed into the possession of the Duke of Sussex, August Frederick (1773–1843). In the auction catalogue of his library, *Bibliotheca Sussexiana*, it is listed as follows:

Schultens, *Stricturae ad Origines Hebraeas*, 5 vol. MS. Very fairly written, by Kals, from Schultens' dictation, dated *L. Bat.* 1740, &c.

** A ms. note at the beginning says, this MS. contains considerably more than that used by Parkhurst.¹²⁶¹

The French Orientalist Quatremère purchased the Duke's copy at the auction of the Duke's library in 1844 (Section 20.1.1 above).

20.3.4 *Royal Academy of Sciences*

In an 1841 catalogue of the library of the Royal Academy of Sciences in the Netherlands, the title of one item reads: "A. Schultens [...] *Pars Lexici originum Hebraicarum*. MSS. 4to".¹²⁶² In the 1868 catalogue of this library, this part is described as consisting of fragments:

[Schultens]. A. Dictata in origines Hebraeas literas ס (rad. ספה–סאה).

Ej[usdem], *Stricturae ad origines Hebraeas* (rad. בהל–אבב, חסר, חסך, et חסך).

MS. in losse bladen, tellende te samen 294, deels beschrevene, deels onbeschrevene bladzijden in 4°, waarvan de meesten genummerd zijn.¹²⁶³

The contents of MS KA 308 at the National Library of the Netherlands (see Section 19.1 above, p. 293) are evidently identical to those of this record.

20.3.5 *Scheidius, van der Eerde, J. van Voorst, van der Palm*

In the auction catalogue of Everard Scheidius (1742–1794), professor of Oriental languages at Leiden University, a copy of *Stricturae ad Origines Hebraeas* appears in the list of books in quarto, no. 215, with the note: "MSS. 3 voll. s. l. a".¹²⁶⁴ This record may be the same as the one preserved in Utrecht University Library as MS 537 (former shelfmark 7 G 24–26), which Jacobus Cornelis Swijghuijsen Groenewoud owned before it entered the holdings of Utrecht UL. According to the front cover of the third volume (Hs. 7 G 26), it was a gift to the library from the widow of J.C. Swijghuijsen

¹²⁶¹ *Bibliotheca Sussexiana. Catalogue of the extensive and valuable library of his Royal Highness, the late Duke of Sussex*, vol. 2, London 1844, p. 37, no. 414.

¹²⁶² *Catalogus bibliothecae Instituti Regii Nederlandici*, Amsterdam 1841, p. 206.

¹²⁶³ *Catalogus van de boekerij der Koninklijke Akademie van Wetenschappen, gevestigd te Amsterdam*, vol. 2, Amsterdam 1868, p. 537, no. 2234.

¹²⁶⁴ *Bibliotheca Scheidiana sive catalogus librorum exquisitiorum in variis scientiarum generibus, praesertim litteras Orientales nec non Graecas et Romanas spectantibus, quibus usus est vir clarissimus Everardus Scheidius [...]*, Leiden 1806, p. 24.

Groenewoud. He may have inherited it from his father, the Reformed minister Johannes Jacobus Groenewoud, who published Everard Scheidius' *Lexicon Hebraicum et Chaldaicum manuale in codicem sacrum Veteris Testamenti* (Leiden 1810).

Jan Rudolf van Eerde (1774–1836), professor of history and librarian at the University of Groningen, owned two copies of Schultens' Hebrew dictionary. In the auction catalogue of his library, they are listed under no. 6943: "A. Schultens, *Stricturae ad origines Hebraeas*. scripsit M. A. Mees. s. c. r" and under no. 6944: "*Ejusdem Stricturae ad Origg. Hebr. ord. alphab. M. S. caractere admodum perspicuo*, 4 voll. s. c. r".¹²⁶⁵

Johannes van Voorst (1757–1833), for more than three decades (1799 to 1833) a professor of theology at the University of Leiden and head of Leiden University Library, possessed a five-volume record of *Stricturae ad origines Hebraeae*, "accurately copied from the author's autograph and beautifully written".¹²⁶⁶ Van Voorst enrolled at Leiden University on 10 September 1772 to study theology and Oriental languages under Jan Jacob Schultens. Since Jan Jacob complained to Johann Jacob Björnsthål that he had no record of his father's Hebrew dictionary, it must be inferred that van Voorst did not possess a copy from "the author's autograph" but rather from a record of Albert Schultens' dictation as taken down by an auditor.

The Dutch Orientalist Johannes Henric van der Palm (1763–1840) was the foremost advocate of the Schultensian school in the third generation.¹²⁶⁷ As a professor of sacred literature, he taught Oriental languages at Leiden University for more than three decades. He owned a copy of Schultens' Hebrew dictionary. In the auction catalogue of his library, it is listed as no. 73: "A. Schultens *stricturae ad origines Hebraeas*. 841 pp.".¹²⁶⁸

20.3.6 Willmet, Verburg, Weyers, and Millies

In his outline of the state of Semitic learning in the Netherlands in the 18th century, the Dutch Orientalist Joannes Willmet (1750–1835), a pupil of Henric Albert Schultens and professor of Oriental languages in Amsterdam (see further the reception study, *Schultens as an innovator*, Vol. 2, Section

¹²⁶⁵ *Bibliotheca Eerdiana sive catalogus librorum qui studiis inservierunt viri clarissimi Jani Rudolphi van Eerde*, Groningen 1836, p. 328.

¹²⁶⁶ *Bibliothecae Voorstianae pars, sive catalogus librorum tam inpressorum, quam manuscriptorum [...] quos possedit atque in suos usus adhibuit vir clarissimus Johannes van Voorst*, Leiden 1834, p. 92, no. 37 under the heading of manuscripts (*Codices manuscripti*): "A. Schultens *Origines Hebraeae*, accur. ex auctoris autographo nitid. descriptae, 5. voll".

¹²⁶⁷ See Eskhult, *Albert Schultens as an innovator*, Vol. 2, Section 10.1.11.

¹²⁶⁸ *Catalogus librorum ac manuscriptorum Bibliothecae Schultensianae, qua, dum in vivis erat, usus est Joh. Henr. van der Palm [...]. Accedit eiusdem viri clarissimi appendix librorum ac manuscriptorum similis argumenti [...]*, Leiden 1841, p. 311 (under the heading *Codices manuscripti Palmiani*).

10.1.9), refers to Schultens' *Stricturae ad Origines Hebraeas* as the *Lexicon Originum*.¹²⁶⁹ In the sale catalogue of his private library, Schultens' Hebrew dictionary is listed among the manuscripts, no. 92: "Schultensii, A. Lexicon orig. Hebraic. 7 tom. s. l. a. nitid".¹²⁷⁰ A portion of the dictionary is listed as an item attached to no. 5, namely the Dutch Jewish Hebraist Petrus Werner Neuman's Hebrew grammar *Seder chadash*.¹²⁷¹ "waarachter A. Schultens, Stricturae ad Origines Hebraeas 36 pag". Finally, a third record of the dictionary is listed under Schultens' name among printed books in quarto: "Lex[icon] Hebraic[um], pars operis inedit[i]".¹²⁷²

Jacob Verburg, who was appointed professor of Oriental languages and Jewish antiquities at the Illustrious School of Deventer in 1805, mentions Schultens' manuscript dictionary in a speech delivered on 26 October 1819, when he laid down the rectorship. Discussing the fruits of cultivating Oriental languages, Verburg reviews the foremost achievements in Semitic philology, including grammar, lexicography, and textual editing, in topics such as history, geography, medicine, mathematics, astronomy, poetry, Bible interpretation, and Old Testament textual criticism. He refers to Schultens in many passages. In one, he considers him superior to other practitioners of Oriental learning. Verburg shows a thorough acquaintance with Schultens' writings and, in his review of Hebrew lexicography, takes notice of the Hebrew dictionary in manuscript that he knows under the title "*Stricturae ad origines Hebraeae*", but regrets that it was only half complete.¹²⁷³

The Dutch Orientalist Henric Engelinus Weyers (1805–1844), keeper of the Warner Collection and successor to Hamaker as professor of Oriental languages, possessed a record of the Hebrew dictionary in question. It is listed in his library auction catalogue, with a note identifying the copyist. Among the manuscripts, we encounter the item "A. Schultens. Prooemium ad lexicon Hebraeum et Stricturae ad origines Hebraeas ordine alphabetico dictata anno 1740". The text continues: "et scripta manu v[iri] cl[arissim]i von Zaun, rectoris Clevenensis et designati professoris L.L. O.O. in Academia

¹²⁶⁹ Joannes Willmet, *Schets van den staat der oostersche litteratuur in Holland in de 18de eeuw, sine loco* [Amsterdam] 1812, p. 156.

¹²⁷⁰ *Bibliotheca Willmetiana. Catalogus bibliothecae instructissimae, quam in suos usus comparavit vir clarissimus Joannes Willmet*, Amsterdam 1837, p. 240.

¹²⁷¹ P.W. Neumann, alias Hartog Leuwy, was a Christianized rabbi in Leuwarden who taught Oriental languages in Utrecht in the mid-18th century. His *Hebreeuwse grammatica*, of which one copy is extant in Leeuwarden, Stedelijk Archief, MS A 121, is based on the Jewish grammatical tradition. See K. Jongeling, "Petrus Werner Neuman, 18e-eeuws Hebraïst", *Studia Rosenthaliana*, 17:1 (1983), pp. 32–40.

¹²⁷² *Bibliotheca Willmetiana*, p. 90, no. 661.

¹²⁷³ J. Verburg, "Oratio de fructibus quos huc usque protulit literarum Orientalium cultura", in *Acta saecularia Academiae Groninganae MDCCCXVIII–MDCCCXIX*, Groningen 1819, p. 12: "Est et ipsius A. Schultensii liber manuscriptus, cui titulus: *Stricturae ad origines Hebraeas*. Hic liber, tanto nomine dignus, lexic[i] vice fungitur. Sed dolendum est, nonnisi dimidiam partem esse absolutam."

Tigurina, in quarto”.¹²⁷⁴ Accordingly, the copyist von Zaun served as headmaster in Kleve (North-Rhine Westphalia) and was appointed to the chair of Oriental languages at the High School of Zürich (Collegium Carolinum). He likely copied an existing record, since no student with the surname von Zaun appears in the matriculation register of Leiden University in the 1740s.

In the library auction catalogue of the Dutch Orientalist Henric Christian Millies (1810–1868), professor of Oriental languages at the University of Utrecht, the dictionary is listed as no. 100 under the heading “Langues Semitiques” and the subheading “Langue Hébraïque.” This is almost certainly the same record as that owned by Joannes Willmet.

Schultens, A., *Lexicon originum Hebraicarum*. Ms. 7 vol. 4to. d. veau.

Le dernier mot qu’il explique est סִפָּה; plus bas: “Hoc lexicon hucusque tantum perductum est a cl. Schultensio cum ei absolvendo immortuus sit d. 26 Jan. 1750”.¹²⁷⁵

In the same catalogue, another record of a small portion of the *Stricturae* is listed as no. 113 (joined to Petrus Werner Neuman’s Hebrew grammar): “*Stricturae ad origines Hebraeas ad calamum dictatae*, L[ugduni] B. 1740–42. Ms. 46. 1 vol. 4to. de veau”,¹²⁷⁶ which likely corresponds to the portion listed in the sale catalogue of Joannes Willmet’s private library.

20.3.7 van Waenen, Donker Curtius, and D. C. van Voorst

Dutch Reformed ministers held various primary or secondary records of Schultens’ Hebrew dictionary. Albertus Jacobus van Waenen (d. 1843), who served as a vicar in Wilsveen (1791) and in Woerden (1795 and onwards), had two records in his private library, which he sold in 1827. He likely inherited them from his father, Cornelis van Waenen, a member of *Schola Schultensiana*.¹²⁷⁷ In the auction catalogue of his private library, we find two records: item no. 21, “*Dictata ad Origines Hebraeas*,” and item no. 28, “A. Schultens *Lexicon Hebraeum a litera א usque ad lit. ו ineditum*. 5 vol. 1. a”.¹²⁷⁸

Henric Herman Donker Curtius (1778–1839), a distinguished vicar in Arnhem and, for many years, president of the General Synod of the Dutch Reformed Church, owned a record of Schultens’ Hebrew dictionary in seven

¹²⁷⁴ *Bibliothecae Weyersianae pars sive catalogus librorum ad res ac literas Orientales aliasque disciplinas spectantium* [...], Leiden 1846, p. 53.

¹²⁷⁵ *Catalogue de la bibliothèque délaissée par H. C. Millies*, Utrecht 1870, p. 7.

¹²⁷⁶ *Ibidem*, p. 7.

¹²⁷⁷ See further Eskhult, *Schultens as an innovator*, Vol. 1, Section 10.1.4.

¹²⁷⁸ *Bibliothecae Waenenianae pars sive catalogus librorum praestantissimorum et exquisitissimorum Jacobi Alberti van Waenen, Cor[neli]i filii, Wilhelmi nep[otis], V[erbi] D[ivini] M[inistri] Woerdensis*, Leiden 1827, p. 96, items no. 21 and 26.

volumes, which must have comprised the entire work as far as Schultens had progressed.¹²⁷⁹ This record is listed as item 63, titled “A. Schultensi Strictura ad origines Hebraeas ordine alphabetica. 7. vol. s. l”.

Dirk Cornelis van Voorst (1752–1833) and his son Jan Jacob Voorst (1791–1859) served as Dutch Reformed ministers in various Dutch counties (Gelderland, Zeeland, and Holland) and concluded their ministries in Amsterdam. Both studied theology at Leiden University, with Dirk Cornelis matriculating in 1773 and Jan Jacob in 1814. In the joint catalogue of the manuscripts in their collection, there is one complete record of Schultens’ Hebrew dictionary and one partial record. These records are listed under the heading “Course academiques de théologiens Hollandais”. The former record is listed under A. Schultens as “Positiones quaedam Originum Hebraicarum investigat[ioni] praemissae. In 4o. 950 pag. In 5 partes”.¹²⁸⁰ The catalogue adds that this record is a copy of the six-volume record held by Henric Albert Schultens: “Copie d’après un exemplaire que possédait le Prof. H. A. Schultens”. Jan Jacob Voorst had probably inherited this five-volume record from his uncle, Johannes van Voorst. He also owned another record comprising the first three letters of the alphabet, listed as “Originum Hebraicarum litt(erae) priores א ב ג et ד. In 4o. 160. pag”.¹²⁸¹

20.3.8 van Alstein

A record of Schultens’ Hebrew dictionary appears in the auction catalogue of the private library of Pierre Leopold van Alstein (1792–1862): Schultens’ *Stricturae ad Origines Hebraeas* in two quarto volumes, beautifully written (“Ms. sur papier d’une belle écriture”).¹²⁸²

¹²⁷⁹ See the auction catalogue of the libraries of Henric Herman Donker Curtius and Gerhard Waardenburg: *Catalogus van eene uitgebreide en belangrijke verzameling goed geconditioneerde boeken [...] nagelaten door wijle den Wel-Eerwaarden zeer geleerden Heer Hendrik Herman Donker Curtius [...] en [...] Gerhard Waardenburg [...]*, Amsterdam 1840, p. 13, no. 62 among quarto-sized books.

¹²⁸⁰ *Catalogue raisonné de la précieuse collection de manuscrits et d'autographes des MM. D.C van Voorst et J.J. van Voorst, pasteurs évangéliques de Amsterdam*, Amsterdam 1859, p. 61, no. 333.

¹²⁸¹ *Ibidem*, p. 60, no. 334.

¹²⁸² *Catalogue des livres et manuscrits formant la bibliothèque de feu Mr. P. Léopold van Alstein*, vol. 2, Ghent 1863, p. 221, no. 5748.

Summary

This study explores Hebrew language studies in the early modern period, focusing on the Dutch Orientalist Albert Schultens. The first chapter surveys the key features of Schultens' innovations in Hebrew studies and examines how some of them have been assessed in modern research. After mapping the political, educational, ecclesiastical, and intellectual background of the Dutch Republic (Chapter 2) and explaining the motives for conducting Arabic philology in the West, especially as applied to Arabic's principal function in Schultens' research, namely biblical interpretation (Chapter 3), the study briefly describes the main contributions to Hebrew lexicography in the Middle Ages (Chapter 4) and outlines the history of Arabic lexicography in the Near East and in Europe (Chapter 5). New approaches to Biblical Hebrew lexicography in early modern Europe are then thoroughly explored through an analysis of the sources and ideas that underpinned and guided the making of Hebrew dictionaries (Chapter 6), notably those of Reuchlin (1506), Münster (1523–1525), Pagninus (1529), Forster (1557), Avenarius (1569), Marini (1593), Buxtorf (1607), Cocceius (1669), Gousset (1702), and Stockius (1717). It also examines two polyglot dictionaries of Semitic languages: those by Schindler (1612) and Hottinger (1661). The successive stages of these major contributions to Hebrew lexicography are summarized in a final overview (Section 6.9.1).

The methodological and conceptual background of Schultens' theory and practice of Hebrew etymology (Part 3) is investigated from the perspective of tradition and innovation in the following areas:

- (a) the question of the status of Hebrew as the primeval language of humankind, and, more specifically, the various ancient views and the early modern claims and counterclaims (Chapter 7);
- (b) the emergence of the concept of linguistic analogy in antiquity and its development during the Renaissance and the early modern period (Chapter 8);
- (c) the Greco-Latin linguistic tradition, which established a concept of language marked by the bifurcation of grammatical and rhetorical qualities (Section 9.1), and which
- (d) provided conceptual tools for dealing with phonetic changes as well as semantic origins and semantic changes – especially the doctrine that

phonetic changes consist of addition, removal, substitution, and transposition (Section 9.2), the concept of the proper meaning of words (*propria significatio, proprietas verborum*, Section 9.3), the concept of transferred meaning (*tropus*), and the role of metaphor (metaphora) and metonymy (*metonymia*) in creating transferred meanings (Section 9.4); (e) the principle of a concrete and perceptible nature of the referent in the meaning of words according to Lockean cognitive semantics (Section 9.5); (f) the principles of Leibnizian semantic etymology (Section 9.6); (g) the development of Hebrew etymology in the 17th century (Chapter 10) the classification of consonantal phonemes in Hebrew and Arabic, the regularity of sound correspondences, and semantic approaches.

The study explores Schultens' theory and method of Hebrew etymology in relation to the following topics:

- (a) his classification of Oriental, that is, Semitic, languages, which downgraded Hebrew from its earlier status as the parent language of humankind to a dialect on a par with Aramaic and Arabic (Chapter 11);
- (b) the hermeneutical challenges and semantic problems in Biblical Hebrew language studies: the long-established idea of restoring knowledge of Biblical Hebrew and the lack of knowledge encapsulated in the concept of epistemic lacunae (*defectus*); Vossianism and Spinozism as competing schools of thought; the task of accounting for polysemy in Hebrew; and the denial of original homonymy (Chapter 12);
- (c) the principle of morphological regularity (*analogia*), which is applied to the morphophonological structure and reconstruction of a Semitic root, to the formation of Hebrew stems and nominal derivatives from the root, and to derivative stem forms (Chapter 13);
- (d) the concept of a proper and original meaning of words, referred to in Latin as *proprietas* and *origo*; Lockean sensualist epistemology as a foundation for Schultens' semantics; and the principles of semantic change, particularly the concept of "natural rhetoric" (Chapter 14);
- (e) the regularity of sound correspondences between Hebrew and Arabic and between Hebrew and Aramaic (Section 15.1), the principle of triconsonantal root formation in Semitic languages, and the arrangement of the Hebrew dictionary into biconsonantal units to which a third radical is always supposed to be joinable, even though each combination is not attested in Biblical Hebrew. Concerning the unit of the first two radicals, Schultens generally denied co-occurrence restrictions, even though they had been noted in earlier discourse (Section 15.2).

Furthermore, the study examines Schultens' Hebrew lexicography. It outlines his general goals as an etymological lexicographer and explains his

criticism of logical semantics and his self-understanding as an innovator (Chapter 16). It also outlines his views on the merits and faults of his main predecessors among Jewish and Christian scholars (Chapter 17). It surveys his autograph draft of a Hebrew dictionary and the printed sample (Chapter 18), and then provides an inventory of the extant records of his dictation of an etymological Hebrew dictionary that runs from א to ם but remains unpublished (Section 19.1). The chronology of the dictation's development in the 1740s is established (Section 19.2.3), and Schultens' overarching goals are outlined, namely to provide a criterion for exegetical certainty and to rehabilitate the reputation of Ancient Hebrew as a stable, worthy, and impressive linguistic system (Section 19.2.4). Next, the morphological macrostructure is presented in theory and in practice (Section 19.3), and the microstructure of an average entry is described and analysed (Section 19.4). Finally, Schultens' practice of etymological lexicography is illustrated through a number of examples (Section 19.5). In an afterword, Schultens' linguistic horizon is compared with the broader horizons of more recent times. The pitfalls to which both Schultens and later Hebrew etymologists succumbed are also discussed (Section 19.6).

In an excursus, the manuscripts of Schultens' dictated Hebrew dictionary are surveyed with regard to their successive owners, their use in scholarly references, and their occurrences in sale catalogues (Chapter 20).

To conclude, Schultens advanced Hebrew etymology at the phonological, morphological, and semantic levels. He laid a firm empirical foundation by comparing Hebrew with related languages, particularly Arabic. He developed a theory of Hebrew etymological semantics, assuming that the primary meanings of Hebrew words are concrete and specific, and that they later developed into abstract and general meanings through the cognitive processes of metaphorization and metonymization.

Tables of transliteration

1. The Hebrew alphabet

Form of letters	Names	Transliteration with allophonic distinction of <i>begadkefat</i>	Approximate conventional pronunciation
א	'ālef	ʾ	[ʔ] The glottal stop, as in <i>honour</i>
ב	bēṭ, bēt	ב b ב ḅ	[b] as in <i>boy</i> [v] as in <i>cave</i>
ג	gīmel	ג g ג ġ	[g] as in <i>go</i> [dʒ] as in <i>George</i>
ד	dāleṭ	ד d ד ḍ	[d] as in <i>door</i> [ð] as <i>th</i> is <i>this</i>
ה	hē	h	[h] as in <i>house</i> , silent at the end of words
ו	wāw	w	[w] as in <i>wine</i>
ז	zāyin	z	[z] as in <i>size</i>
ח	hēṭ	ḥ	[χ] <i>h</i> as in German <i>nach</i> , Scottish <i>loch</i>
ט	ṭēṭ	ṭ	[tʰ] an emphatic <i>t</i> as in <i>table</i>
י	yōḏ	y	[y] as in <i>you</i>
כ, final form ך	kāf, k̄af	כ k כ ḳ	[k] as in <i>king</i> [χ] as in Scottish <i>loch</i>
ל	lāmed	l	[l] as in <i>light</i>
מ, final form ם	mēm	m	[m] m as in <i>milk</i>
נ, final form ן	nūn	n	[n] n as in <i>name</i>
ס	sāmek	s	[s] s as in <i>sweet</i>
ע	'āyin	ʿ	[ʕ] a guttural sound: a slight guttural stop
פ, final form ף	pē, fē	פ p פ f	[p] p as in <i>plain</i> [f] f as in <i>find</i>
צ, final form ץ	ṣāḏē	ṣ	[sʰ] ṣ, an emphatic <i>s</i> as in <i>tsunami</i> , Germ. <i>zu</i>
ק	qōf	q	[q] q, an emphatic <i>k</i>
ר	rēš	r	[r] r as in <i>room</i> , Scottish <i>Murray</i>
ש, sometimes שׁ	šīn	š	[ʃ] š as in <i>show</i>
שׂ	śīn	ś	[ʃ̣] ś as in <i>sour</i>
ת	tāw, ṭāw	ת t ת ṭ	[t] as in <i>tea</i> [θ] as in <i>thin</i>

2. The Arabic alphabet

Form of isolated letters	Names	Transliteration	Approximate pronunciation
ا	'alif	ʾ	[ʔ] the glottal stop
ب	bā'	b	[b] as in <i>bed</i>
ت	tā'	t	[t] as in <i>tent</i>
ث	ṭā'	ṭ	[θ] as <i>th</i> in <i>thing</i>
ج	jīm	j	[dʒ] as in <i>jam</i>
ح	ḥā'	ḥ	[ħ] a sharp <i>h</i>
خ	ḫā'	ḫ	[x or χ] as in Germ. <i>nach</i>
د	dāl	d	[d] as in <i>dear</i>
ذ	ḏāl	ḏ	[ð] as <i>th</i> in <i>this</i>
ر	rā'	r	[r] as in <i>run</i>
ز	zāy	z	[z] as in <i>zone</i>
س	sīn	s	[s] as in <i>sun</i>
ش	šīn	š	[ʃ] as in <i>shine</i>
ص	ṣād	ṣ	[sʰ] as in <i>tsunami</i>
ض	ḏād	ḏ	[dʰ] an emphatic <i>d</i> like <i>dawn</i>
ط	ṭā'	ṭ	[tʰ] an emphatic <i>t</i> as in <i>table</i>
ظ	ẓā'	conventionally z, in most dialects ḏ	[ðʰ] a voiced pharyngeal fricative of ḏ
ع	'ayn	ʿ	[ʕ] a guttural sound
غ	ġayn	ġ	[ɣ or ʁ] a gurgling sound in the back of the throat
ف	fā'	f	[f] as in <i>father</i>
ق	qāf	q	[q] a backed <i>k</i>
ك	kāf	k	[k] as in <i>king</i>
ل	lām	l	[l] as in <i>light</i>
م	mīm	m	[m] as in <i>moon</i>
ن	nūn	n	[n] as in <i>now</i>
ه	hā'	h	[h] as in <i>house</i>
و	wāw	w	[w] as in <i>wonder</i>
ي	yā'	y	[y] as in <i>you</i>

3. The Aramaic alphabet

Form of the letters	Names	Transliteration with allophonic distinction of <i>begadkefat</i>	Approximate conventional pronunciation
א	'ālaf	ʾ	[ʔ] The glottal stop, as in <i>honour</i>
ב	bēt, bēt	ב b ב b̄	[b] as in <i>boy</i> [v] as in <i>cave</i>
ג	gāmal	ג g ג ḡ	[g] as in <i>go</i> [dʒ] as in <i>George</i>
ד	dālat	ד d ד d̄	[d] as in <i>door</i> [ð] as <i>th</i> is <i>this</i>
ה	hē	ה	[h] as in <i>house</i> , silent at the end of words
ו	wāw	ו	[w] as in <i>wine</i>
ז	zāyn	ז	[z] as in <i>size</i>
ח	hēt	ח	[χ] <i>h</i> as in German <i>nach</i> , Scottish <i>loch</i>
ט	tēt	ט	[tʰ] an emphatic <i>t</i> as in <i>table</i>
י	yōd	י	[y] as in <i>you</i>
כ, final form ך	kāf, kāf	כ k כ k̄	[k] as in <i>king</i> [χ] as in Scottish <i>loch</i>
ל	lāmad	ל	[l] as in <i>light</i>
מ, final form ם	mim	מ	[m] m as in <i>milk</i>
נ, final form ן	nun	נ	[n] n as in <i>name</i>
ס	semkat	ס	[s] s as in <i>sweet</i>
ע	'āyn	ע	[ʕ] a guttural sound: a slight guttural stop
פ, final form ף	pē, fē	פ p פ f	[p] p as in <i>plain</i> [f] f as in <i>find</i>
צ, final form ץ	ṣādē	צ	[sʰ] ṣ, an emphatic <i>s</i> as in <i>tsunami</i> , Germ. <i>zu</i>
ק	qōf	ק	[q] q, an emphatic <i>k</i> [r] r as in <i>room</i> ,
ר	rēš	ר	Scottish <i>Murray</i>
ש	šin	ש	[ʃ] š as in <i>show</i>
ת	tāw, tāw	ת t ת t̄	[t] as in <i>tea</i> [θ] as in <i>thin</i>

4. Hebrew vowels

Whole vowels	Conventional pronunciation
ֿ pataḥ ֿ qāmæṣ ֿ seḡōl	<i>a</i> (short, <i>ă</i>) generally <i>ā</i> (long), sometimes <i>â</i> (short); in the latter case called <i>qāmæṣ ḥāṭîṭ</i> <i>æ</i>, often short, but my transliteration does not distinguish between short <i>æ</i> and long <i>ǣ</i>
ֿ sērē ֿ hīræq ֿ ḥōlæm ֿ qibbūṣ ֿ šūræq	usually <i>ē</i> (long), sometimes <i>e</i> (short, = <i>ě</i>) usually <i>ī</i> (long), sometimes <i>i</i> (short) usually <i>ō</i> (long), sometimes <i>o</i> (short) usually <i>u</i> (short, <i>ũ</i>), rarely <i>ū</i> (long) usually <i>ū</i>, rarely <i>u</i> (short, = <i>ũ</i>)
Reduced vowels	
ֿ šwa mobile	<i>ə</i>
ֿ ḥāṭef pataḥ	<i>a</i>
ֿ ḥāṭef qāmæṣ	<i>ā</i>
ֿ ḥāṭef sḡōl	<i>æ</i>

Bibliography

Manuscript sources

Blois, Bibliothèque Abbé-Grégoire

MS 149–153: Albert Schultens, *A. Schultensii Lexicon Hebraicum a litera x usque ad litteram 𐤠*.

Bonn University- and State Library (Universitäts- und Landesbibliothek Bonn)

MS So 50 and So 51: Albert Schultens, *Stricturae ad origines Hebraeas*.

Cluj-Napoca Branch of the Academy Library of Romania (Romania Biblioteca Academiei Române – Filiala Cluj-Napoca)

MS 1075: I-II, Albert Schultens, *Lexicon Hebraicum*.

MS R. 1386: I-II: Albert Schultens, *Commentarii in Catechesin Heidelbergensem*.

Documentary Library of Bethlen Gabor College (Bethlen Gábor Dokumentációs Könyvtár)

MS 114, Albert Schultens, *Explicationes Catecheticae*.

Frankfurt am Main, Universitätsbibliothek Johann Christian Senckenberg,

MS lat. qu. 131–132: Albert Schultens, *Stricturae ad origines Hebraeas*.

Geneva, Library of Geneva (Bibliothèque de Genève)

MS fr. 3375: Albert Würtem, *Dictata in Lexicon Hebraicum*.

The Hague, Royal Library of the Netherlands (Koninklijke Bibliotheek),

MS KA 308, Albert Schultens, *Dictata in origines Hebraeas*.

Hannover, Gottfried Wilhelm Leibniz-Bibliothek

MS IV 469: Leibniz, Gottfried Wilhelm. *Epistolaris de historia etymologica dissertatio* (c. 1712).

Leiden University Libraries, (Leiden Universiteitsbibliotheek)

MS BPL [= Bibliotheca Publica Latina] 245 XII, Letter from Claude Sallier to Albert Schultens, dated 31 December 1745.

*The Schultens family archives*¹²⁸³

MS Or. 1459, four volumes catalogued as A, B, C, and D: Albert Schultens, *Stricturae ad origines ordine alphabetico* [a preliminary draft].

MS Or. 1459 D, fols. 450r–493v: Schultens’ study of phonetic changes between Hebrew and Arabic, anticipating *Clavis dialectorum* (1733)

MS Or. 1460: Albert Schultens’ notebook on topics related to Hebrew philology and etymology.

– textual entity d: fols. 1r–26v: *De lingua primaeva per theses ad meam mentem*.

– textual entity d, fols. 27r–29r, of which 12v, 13r, 13v, and 14v are blank: *Locque*: Latin excerpts of Locke’s *Essay* in Pierre Coste’s French translation: *Essai philosophique concernant l’entendement humain* (2nd ed. 1729).

– textual entity j, 1r–4v (4r blank): *De paupertate linguae Hebraicae*.

– textual entity q, fols. 1r–5v: *De utilitate et necessitate originum*.

MS Or. 1469, envelope 12: Albert Schultens, *Theses de lingua primaeva*, probably a record of his dictation by Jan Jacob Schultens.

MS Or. 1491: Albert Schultens’ Latin translation of al-Ḥarīrī’s *al-Maqāmāt*, nos. 7–44 and 48–50.

MS Or. 1500: Albert Schultens’ copy of the seven poems of *al-Mu‘allaqāt*

MS Or. 1501: Albert Schultens’ copy of the commentary on *al-Mu‘allaqāt* by al-Nahḥās.

MS Or. 1502: Albert Schultens’ copy of al-Ḥarīrī’s *al-Maqāmāt* (all fifty stories).

London, British Library

MS Egerton 718: Albert Schultens, *Linguae Hebraicae radices*.

Montpellier, Bibliothèque Universitaire Historique de Médecine

H. 287 Bernardino Baldi, *Dictionarium Arabico-Latinum*.

¹²⁸³ The archives of unpublished papers and scholarly notes by Albert Schultens, Jan Jacob Schultens, and Henric Albert Schultens are catalogued as MSS Or. 1455–1502. They came into the possession of the Leiden University Library in 1837, having been donated by King William III, who had purchased them at the 1836 auction of the library of Jan Rudolf van Eerde (1774–1835), professor of history and librarian at Groningen University. According to the sale catalogue of Van Eerde’s library, these manuscripts came from the library of Henric Albert Schultens. After her husband’s death, Catharina Elisabeth de Sitter likely returned to her relatives in Groningen and sold this collection of papers to Van Eerde. See further Arnoud Vrolijk, “‘A Sublime Treasure of Pretious Manuscripts’: the Schultens’s legacy in Leiden University Library and the elusive purchase of 1806”, *Journal of the Royal Asiatic Society*, third series, vol. 19, part 3 (July 2009), pp. 285–286.

Munich, Bavarian State Library (Bayerische Staatsbibliothek München)
Cod. Hebr. 378, five volumes: Albert Schultens, *Stricturae ad origines Hebraeas*.

New York, Library of Jewish Theological Seminary of America
MS 2918 and MS 2919: Albert Schultens, *Praelectiones in quibusdam Hebraicis radicibus*.

Oxford, Bodleian Library, University of Oxford
MS Bodl. Or. 257–260: Albert Schultens, *Cursus radicum Hebrae linguae*.

Utrecht University Library (Universiteitsbibliotheek Utrecht).
MS 537: Albert Schultens, *Stricturae ad origines Hebraeas a clarissimo A[lbert]o Schultens ad calamum dictatae*, Lugduni in Batavis annis 1740, 1741§, 1742, 1743–1747, 1748–1750.
MS 538: Albert Schultens, *Stricturae ad origines Hebraeas ordine alphabetico*.

Uppsala University Library (Uppsala universitetsbibliotek), Uppsala
MS Ihre 49: A catalogue of phonetic changes of consonantal stops between Germanic languages by Eric Benzeliuſ the Elder.

Printed sources

- Abarbanel, Isaac, פרוש אברבנאל על התורה, Venice, Bomberg 1523.
- Alabaster, William, *Spiraculum tubarum sive fons spiritualium expositionum ex aequivocis Pentaglotti significationibus*, Londini/ London: Jones, 1633.
- Alabaster, William, *Lexicon Pentaglotton Hebraicum, Chaldaicum, Syriacum, Talmudico-Rabbinicum et Arabicum in epitomen redactum*, London, Jones 1635 and 1637.
- Alberti, Paulus Martin, *Shaar leshon ha-kodesh sive, Porta linguae sanctae, h.e. Lexicon novum Hebraeo-Latino-biblicum*, Budissae/ Bautzen: Friedrich Arnst, 1704.
- Album studiosorum Academiae Lugduno-Batavae MDLXXV–MDCCCLXXV. Accedunt nomina curatorum et professorum per eadem secula*, edited by Willem du Rieu, Hagae Comitum/ The Hague: Nijhoff. 1875.
- Amama, Sixtinus, *Anti-barbarus biblicus in 6 libros distributos*, Amstelrodami/ Amsterdam: Laurentius, 1628.
- Ambrosiaster, *Quaestiones veteris et novi testamenti CXXVII* (Corpus Scriptorum Ecclesiasticorum Latinorum, 50) edited by Alexander Souter, Wien & Leipzig, 1908.
- Anonymous (probably Elie Luzac), “Essay historique sur les ouvrages de Feu Mr. Albert Schultens, professeur en langues Orientales dans l’Université de Leide”, in: *Bibliothèque raisonnée des ouvrages des*

- savans de l'Europe*, vol. 44, 2nd issue, “pour les mois d’Avril, Mai et Juin”, Amsterdam: J. Wetstein, 1750, pp. 344–364 (art. no. 5).
- Augustinus, Aurelius, *De civitate Dei*, libri XI–XXII (Corpus Christianorum, Series Latina, 48), Turnholt: Brepols, 1955.
- Augustinus, Aurelius, *De dialectica*, translated with introduction and notes by B. Darrell Jackson from the text newly edited by Jan Pinborg, Dordrecht and Boston: Reidel, 1975.
- Avenarius (Habermann), Johann, ספר השרשים, *hoc est, Liber radicum seu Lexicon Ebraicum, in quo omnium vocabulorum Biblicorum propriae ac certae redduntur significationes cum vera et dilucida multorum locorum scripturae sacrae explicatione*, Wittebergae/ Wittenberg: Crato, 1568.
- Bacon, Francis of Verulam, *Instauratio magna*, Londini: Billius, 1620, the second part of which is subtitled *Novum Organum sive indicia vera de interpretatione naturae*.
- Bang, Thomas, *Coelum orientis et prisci mundi triade exercitationum literarum repraesentatum*, Hauniae/ Copenhagen: Morsing, 1657.
- de Balmes, מקנה אברהם, *Peculium Abrae. Grammatica Hebraea unacum Latina* [Hebrew-Latin edition], Venice: Bomberg, 1523.
- Barthélemy, Jean-Jacques, *Réflexions sur l’alphabet et sur la langue dont on se servoit autrefois à Palmyre*, Paris: Guérin & Delatour, 1754, and also published in *Histoire de l’Académie royale des inscriptions et belles-lettres* 26, pp. 577–597.
- Barthélemy, Jean-Jacques, “Réflexions sur quelques monumens phéniciens, et sur les alphabets qui en résultent”, *Histoire de l’Académie royale des inscriptions et belles-lettres* 30, pp. 405–427, Paris 1764.
- Berg, Johann Peter, *Specimen animadversionum philologicarum ad selecta loca Veteris Testamenti*, Lugduni Batavorum/ Leiden: le Mair.
- Bibliander, Theodore, *De optimo genere grammaticorum commentarius*. Basileae/ Basel: Curio, 1542.
- Bibliander, Theodor, *De communi ratione omnium linguarum et literarum commentarius*, Tiguri/ Zürich: Froschauer, 1548.
- Bibliotheca Eerdiana sive catalogus librorum qui studiis inservierunt viri clarissimi Jani Rudophi van Eerde*, Groningae/ Groningen: Oomkens 1836.
- Bibliotheca Geseniana sive catalogus librorum et typis editorum et manuscriptorum* [...], Halle: Lippert, 1843.
- Bibliotheca Scheidiana sive catalogus librorum exquisitiorum in variis scientiarum generibus, praesertim litteras Orientales nec non Graecas et Romanas spectantibus, quibus usus est vir clarissimus Everardus Scheidius* [...], Lugduni Batavorum/ Leiden: Honkoop 1806.
- Bibliotheca Schultensiana sive catalogus librorum, quos collegit vir clarissimus Johannes Jacobus Schultens* [...], Lugduni Batavorum/ Leiden: Mostert, 1780

- Bibliotheca Sussexiana. Catalogue of the extensive and valuable library of his Royal Highness, the late Duke of Sussex*, vol. 2, London 1844.
- Bibliothecae Voorstianae pars, sive catalogus librorum tam inpressorum, quam manuscriptorum [...] quos possedit atque in suos usus adhibuit vir clarissimus Johannes van Voorst*, Lugduni Batavorum/ Leiden 1734: Luchtmans, p. 92,
- Bibliothecae Waenenianae pars sive catalogus librorum praestantissimorum et exquisitissimorum Jacobi Alberti van Waenen, Corn(elii) filii, Wilhelmi nep(otis), V[erbi] D[ivini] M[inistri] Woerdensis*, Lugduni Batavorum/ Leiden 1827.
- Bibliothecae Weyersianae pars sive catalogus librorum ad res ac literas Orientales aliasque disciplinas spectantium, quibus dum in vivis erat usus est vir clarissimus H.E. Weyers [...]*, Lugduni Batavorum: Hazenberg, 1846.
- Bochart, Samuel, *Geographia sacra*, vol. 1, subtitled *Phaleg*, Cadomi/ Caen: Cardonellus, 2nd ed. 1651 (1st ed. Caen 1651; 3rd ed. Frankfurt am Main: Zunner 1674).
- Bochart, Samuel, *Geographia sacra*, vol. 2, subtitled *Canaan*: Cadomi/ Caen: Cardonellus, 1646.
- Bochart, Samuel, *Hierozoicon sive bipartitum opus de animalibus Sacrae Scripturae* Lugduni Batavorum/ Leiden: Boutesteyn & Luchtmans, 1712 (1st ed., London: Roycroft, 1663).
- Boerhaave, Herman, *Sermo academicus de comparando certo in physicis* Lugduni Batavorum/ Leiden: Petrus van der Aa, 1715.
- Bohle (Bohlius), Samuel, *Disputatio prima pro formali significationis eruendo, primum in explicatione Scripturae Sacrae*, Rostochi/ Rostock: Kilius, 1637.
- Bruns, Paul Jacob, “Das Andenken an Valentin Schindler”, *Göttingische Bibliothek der neuesten theologischen Litteratur*, 4, 1799, pp. 1–18.
- Buxtorf the Elder, Johannes, *Thesaurus grammaticus linguae sanctae Hebraeae*, Basileae/ Basel: König, 1609.
- Buxtorf the Elder, Johannes, *Lexicon Hebraicum et Chaldaicum*, Basileae/ Basel: König, 1615.
- Buxtorf the Elder, Johannes, *Concordantiae Biblicorum Hebraicae, nova et artificiosa [...] methodo dispositae [...] radicibus antea confusis distincte et significatione vocum omnium Latina illustratae*, Basileae/ Basel: König, 1632.
- Buxtorf the Elder, Johannes, *Lexicon Chaldaicum, Talmudicum et Rabbinicum*, revised and published by Johannes Buxtorf the Younger, Basileae/ Basel: König, 1639.
- Buxtorf the Younger, Johannes, *Liber Cosri continens colloquium seu disputationem de religione [...]*. Basileae/ Basel: Decker, 1660.
- Buxtorf, Johannes the Younger, *Dissertationes philologico-theologicae*: “Dissertatio prima de linguae Hebraeae origine et antiquitate”, pp. 1–50,

- “Dissertatio secunda de linguae Hebraeae confusione et plurium linguarum origine”, pp. 51–111, “Dissertatio tertia de linguae Hebraeae post confusionem conservatione et propagatione”, pp. 112–167, and “Dissertatio quarta de literarum Hebraicarum genuina antiquitate”, pp. 167–246. Basel: Johann Jacob Decker. 1662. 2nd ed. [1sted. 1644].
- Calovius, Abraham, *Biblia Testamenti Veteris illustrata*, Francofurti ad Moenum/ Frankfurt am Main: Wustius, 1672.
- Canini, Aegidio, *Institutiones linguae Syriacae, Assyriacae atque Thalmudicae una cum Aethiopicae atque Arabicae collatione*, Pariiis/ Paris: Charles Estienne (Carolus Stephanus), 1554.
- Carpzov, Johann Gottlob, *Critica sacra Veteris Testamenti*, Lipsiae/ Leipzig: Johann Christian Martin, 1728.
- Casaubon, Meric, *De quatuor linguis commentationis pars prior, quae de lingua Hebraica et de lingua Saxonica*, London 1650.
- Castell(us), Edmund, *Lexicon heptaglotton Hebraicum, Chaldaicum, Syriacum, Samaritanum, Aethiopicum, Arabicum coniunctim, et Persicum separatim. Opus non tantum ad Biblia polyglotta Londinensia, Biblia regia Parisiensia, Biblia Regia Antwerpiana Bibliaque Card. Ximenii Complutensia, sed ad omnes omnino tam MSS, quam impressos libros in universis hisce linguis extantes, apprime utile et necessarium. In quo, omnes vocum significationes, omnium praesertim in SS. Hebraeis Bibliis semel tantum occurrentium, [...] ample et dilucide eruuntur, proponuntur et explicantur*, Londini/ London. Roycroft, 1669.
- A catalogue of a curious and valuable collection of books in various languages and classes of literature [...] by W. Ford, bookseller, Manchester 1810.*
- A catalogue of the Ethiopic Biblical manuscripts in the Royal library of Paris, and in the library of the British and foreign Bible society, London: R. Watts, 1823.*
- Catalogue de la bibliothèque délaissée par feu M. le Dr. H. C. Millies, Utrecht: Beijers, 1870, p. 7.*
- Catalogue of rare, splendid and valuable books in every branch of polite literature including the entire libraries of the Rev. Harvey Spragg [...], also of the Rev. Henry Putman [...]: comprehending a large assortment of learned theological books, London 1798*
- Catalogue raisonné de la précieuse collection de manuscrits et d'autographes des MM. D.C van Voorst et J.J. van Voorst, pasteurs évangéliques de Amsterdam, Amsterdam: Frederik Muller, 1859*
- Catalogue des livres et manuscrits formant la bibliothèque de feu Mr. P. Léopold van Alstein, tome II, Ghent: Annout-Braeckman, 1863.*
- Catalogus bibliothecae instructissimae D[omini] Johannis Cocceii, Lugduni Batavorum/ Leiden: Lopez de Haro, 1671.*
- Catalogus bibliothecae quam reliquit Henricus Albertus Schultens, Lugduni Batavorum: Abraham Honcoop and Jan Hooncoop, 1794.*

- Catalogus librorum tam manuscriptorum [...] viro Joanne Petro Berg collectorum*, Duisburgi ad Rhenum/ Duisburg: Benthon & Krämer, 1801.
- Catalogus librorum ac manuscriptorum Bibliothecae Schultensianae, qua, dum in vivis erat, usus est Joh[annes] Henr[icus] van der Palm [...]. Accedit eiusdem viri clarissimi appendix librorum ac manuscriptorum similis argumenti [...]*, Lugduni Batavorum/ Leiden: Luchtmanns, 1841.
- Catalogus van eene uitgebreide en belangrijke verzameling goed geconditioneerde boeken in onderscheidene talen, bevattende grootendeels de beste en hoogzeldzame werken over godgeleerdheid en rechtgeleerdheid, voorts zeer gezochte uitgaven van klassieke auteurs, desgelijks schriften in het vak van natuurlijke historie, wetenschappen en kunsten [...], nagelaten door wijle den Wel-Eerwaarden zeer geleerden Heer Hendrik Herman Donker Curtius, theol. Doct. Predikant bij de Hervormde Gemeente te Arnhem enz. enz. en den Wel-Edel zeer geleerden Gerhard Waardenburg [...]*, Amsterdam: J. Radink & D. Groebe, 1840.
- Catalogus bibliothecae Instituti Regii Nederlandici*, Amsterdami 1841.
- Catalogus van de boekerij der Koninklijke Akademie van Wetenschappen, gevestigd te Amsterdam*, vol. 2, Amsterdam, 1868.
- de Chauffepié, Jacques Georges, *Nouveau dictionnaire historique et critique pour servir de supplément ou de continuation au Dictionnaire historique et critique de Mr. Pierre Bayle*, vol. 4 [tome quatrième] Q–Z, Amsterdam: Chatelain et fils, H. Uttwerf, J. Wetstein et alii; The Hague: de Hondt; and Leiden: Luzac, 1756.
- Chrysostom, Johannes, *In Genesim sermons*, published by Jean-Paul Migne in *Patrologia Graeca*, 54: cols. 581–630.
- Crinesius, Christoph, בבל [Babæl] *sive discursus de confusione linguarum, tum Orientalium: Hebraicae, Chaldaicae, Syriacae, Scripturae Samariticae, Arabicae, Persicae, Aethiopicae, tum Occidentalium, nempe Graecae, Latinae, Italicae, Gallicae, Hispanicae statuens Hebraicam omnium esse primam et ipsissimam matricem*, Noribergae: Nürnberg: Halbmater, 1629.
- Cocceius, Johannes, “Protheoria de ratione interpretandi sive introductio in philologiam sacram”, inaugural lecture in 1630, published in Cocceius, *Opera anecdota theologica et philologica*, vol. 1, Amsterdam 1706, pp. 62–75.
- Cocceius, Johannes, *Explicatio Cohelet sive Ecclesiastis Salomonis*, Bremae/ Bremen: Colerus, 1636.
- Cocceius, Johannes, “Observationes de distinctiori significatione selectarum vocum linguae Hebraicae ex usu Scripturarum secundum ordinem alphabeti” (written c. 1636), published in Cocceius’ *Opera anecdota theologica et philologica*, vol. 2, Amsterdam 1706, treatise no. 25.
- Cocceius, Johannes, “Exercitatio de linguae Hebraeae analogia, utilitate et necessitate et discendi methodo”, published in *Opera anecdota*, vol. 2.

- Cocceius, Johannes, *Ad ultima Mosis, hoc est sex extrema capita Deuteronomii considerationes, in quibus fundamentales veritates religionis Christianae ac canon propetiae perspicue proponuntur, illustrantur, demonstrantur*, Franekerae/ Franeker: Idzardus Balck, 1650.
- Cocceius, Johannes, *Centum quinquaginta Psalmi et extrema verba Davidis cum commentario*, Lugduni Batavorum/ Leiden: Elzevir, 1660.
- Cocceius, Johannes, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti*, Amstelodami/ Amsterdam: a Someren, 1669 (Republished in *Opera omnia*, vol. 8, 1673, 1689 and 1702.)
- Cocceius, Johannes, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti, editio altera Lugdunensi longe correctior atque auctior, utpote in qua I. infinita menda sublata, II. significationes numeris distinctae, III. Animadversiones breves ac subitariae et supplementa adiecta sunt*, 2nd revised ed. by Johann Heinrich May, Francofurti ad Moenum/ Frankfurt am Main: Wustius, 1689.
- Cocceius, Johannes, *Lexicon et commentarius sermonis Hebraici et Chaldaici, editio novissima, prioribus longecorrectior atque auctior, utpote in qua I. Infinita menda sublata, II. Significationes numeris distinctae, III. Voces omissae restitutae, IV. Auctoris notae Lexicae subiunctae, V. Animadversiones et supplementa adiecta sunt*, 3rd revised edition by J.H. May, Francofurti et Lipsiae 1714.
- Cocceius, Johannes, *Lexicon et commentarius sermonis Hebraici et Chaldaici post Ioh. Cocceium et Ioh. Henr. Maium longe quam antehac correctius et emendatius edidit Io. Chr. Fried. Schulz*, 4th revised edition by Johann Christian Friedrich Schulz, Lipsiae/ Leipzig 1777.
- Cocceius, Johannes, *Opera omnia theologica, exegetica, didactica, polemica, philologica, divisa in octo volumina*, published by Heinrich von Cocceius, 8 volumes, 1st ed. Amstelodami/ Amsterdam: a Someren, 1673–1675; 2nd revised ed., Francofurti ad Moenum: Wustius, 1689; 3rd revised and increased edition, 10 volumes, Amsterdam: Blaeu, 1701.
- Cocceius, Johannes, *Opera anecdota theologica et philologica*, 2 vols., published by Heinrich von Coccej, Amsterdam: Waesberg, 1706.
- Cocceius, Johannes, *Aanleydinge tot het rechte verstant van den tempel, die de propheet Ezechiel gesien et beschreven heeft*, Franeker: Hans Gyselaar, 1687.
- Cocceius, Johannes, *Epistolae*, in idem, *Opera omnia*, vol. 6, Amsterdam, a Someren: 1673 (republished in 1689 and 1702).
- Cocceius, Johannes, *Epistolae*, letters addressed to Cocceius, in idem, *Opera anecdota theologica et philologica*, vol. 2. Amsterdam: Waesberg, 1706.
- Cocceius, Johannes Heinrich. “Christiano lectori S[alutem] P[lurimam] D[icit]”: 44-page biography on the life and work of Johannes Cocceius written in June 1675, including quotation of Johannes Cocceius’ autobiographical notes until 1643 (on pp. 2–6), preface to Cocceius’ *Opera omnia*, 3rd ed., Amsterdam 1701.

- de Condillac, Etienne Bonnon. *Essai sur l'origine des connaissances humaines*, Paris 1746. (Translated into English by Hans Aarsleff, *Essay on the origin of human knowledge*, Cambridge 2001.)
- Danz, Johann Andreas, *Literator Ebraeo-Chaldaeus*, Jena: Bielckius. 1696.
- Delitzsch, Friedrich, *Prolegomena eines neuen Hebräisch-Aramäischen Wörterbuchs zum Alten Testament*, Leipzig 1886: Hinrichs'sche Buchhandlung.
- Diestel, Ludwig, *Geschichte des Alten Testaments in der christlichen Kirche*, Jena: Mauke, 1869.
- de Dieu, Louis, *Grammatica linguarum orientalium Hebraeorum, Chaldaeorum et Syrorum inter se collatarum*, Leiden: Elzevir, 1628.
- Dujardin-Beaumetz, Georges, and Ed. Égasse, *Les plantes médicinales indigènes et exotiques, leurs usages thérapeutiques, pharmaceutiques et industriels*, Paris: Octave Doin, 1889.
- Eichhorn, Johann Gottfried, *Einleitung in das alte Testament*, vol. 1, 2nd ed., Leipzig 1787.
- Eichhorn, Johann Gottfried, *Geschichte der Litteratur von ihrem Anfang bis auf die neuesten Zeiten*, vol. 5 (Geschichte der neuern Sprachenkunde), Göttingen: Van den Hoek und Ruprecht, 1807.
- Eichhorn, Johann Gottfried. "Semitische Sprachen", in *Allgemeine Bibliothek der biblischen Litteratur*, vol. 6, Leipzig 1794.
- Erpenius, Thomas, *Grammatica Arabica quinque libris methodice explicata*, Leidae/ Leiden: Raphelengius, 1613.
- Erpenius, Thomas (ed. and translator), *Locmani sapientis Fabulae et selecta quaedam Arabum adagia cum interpretatione Latina et notis*, Leiden: Erpenius 1615.
- Erpenius, Thomas, *Rudimenta linguae Arabicae. Accedunt eiusdem Praxis grammatica et Consilius de studio Arabico feliciter instituendo*, Leidae/ Leiden: Erpenius, 1620.
- Erpenius, Thomas. *Orationes tres de linguarum Ebraeae atque Arabicae dignitate*, Leidae/ Leiden: Erpenius, 1621, more precisely "Oratio I de lingua Arabica", pp. 1–38, "Oratio II de lingua Arabica", pp. 39–96., "Oratio III de lingua Ebraea", pp. 97–132.
- Eusebius of Caesarea, *Preparatio Evangelica*, edited by Karl Mras (Eusebius Werke, vol. 8: Erster Teil: die Bücher i bis x; zweiter Teil: die Bücher xi bis xv), Berlin: De Gruyter, 1954–1956.
- Forster, Johnnes, *Dictionarium Hebraicum novum, non ex Rabinorum commentis nec nostratum doctorum stulta imitatione descriptum, sed ex ipsis thesauris sacrorum Biblitorum et eorundem accurata locorum collatione depromptum*, Basileae/ Basel: Froben, 1557.
- Gatterer, Johann Christoph, *Einleitung in die synchronistische Universalhistorie zur Erklärung seiner synchronistischen Tabellen*, Göttingen: Van den Hoek, 1771.

- Geiger, Ludwig, *Das Studium der hebräischen Sprache in Deutschland vom Ende des 15. bis Mitte des 16. Jahrhunderts*, Breslau: Skutsch, 1870.
- Gesenius, Wilhelm, *Hebräisch-Deutsches Handwörterbuch über die Schriften des Alten Testaments mit Einschluss der geographischen Namen und der chaldäischen Wörter beym Daniel und Esra*, 2 vols., Leipzig: Vogel, 1810–1812.
- Gesenius, Wilhelm, “Über die Quellen der hebräischen Wortforschung nebst einigen Regeln und Beobachtungen über den Gebrauch derselben”, prefatory treatise (dated June 1823) to the 2nd edition of the *Handwörterbuch* in Leipzig 1823, pp. vii–li.
- Gesenius, Wilhelm, *Geschichte der hebräischen Sprache und Schrift. Eine philologisch-historische Einleitung in die Sprachlehren und Wörterbücher der hebräischen Sprache*, Leipzig: Vogel, 1815.
- Gesenius, Wilhelm, *Neues Hebräisch-Deutsches Handwörterbuch über das Alte Testament mit Einschluss des biblischen Chaldaismus*, Leipzig: Vogel, 1815.
- Gesenius, Wilhelm, *Lexicon manuale Hebraicum et Chaldaicum* (4th Latin-language edition of *Handwörterbuch*), Leipzig: Vogel, 1833.
- Gesenius, Wilhelm, *Paläographische Studien über phönizische und punische Schrift*, Leipzig 1835.
- Gesenius, Wilhelm, *Thesaurus philologicus criticus linguae Hebraeae et Chaldaeae Veteris Testamenti*, Leipzig: Vogel, 1835–1842.
- Giggei (Giggeius), Antonio (Antonius), *Thesaurus linguae Arabicae, Mediolani/ Milan: Typographia Ambrosiana*, 1632.
- Gildemeister, Johann, *Catalogus librorum manu scriptorum orientalium in Bibliotheca Academica Bonnensi servatorum*, Bonnae/ Bonn: Weber, 1864–1876.
- Glassius, Salomon, *Philologia sacra, qua totius SS. Veteris et Novi Testamenti Scripturae tum stylus et literatura, tum sensus et genuinae interpretationis ratio et doctrina libris quinque expenditur et traditur* [...], Lipsiae/ Leipzig: Gleditsch, 1705 (1st ed. 1623).
- Golius, Jacob, *Ahmedis Arabsiadae vitae et rerum gestarum Timuri, qui vulgo Tamerlanes dicitur, historia*, Lugduni Batavorum/ Leiden: Elzevir, 1636.
- Golius, Jacob, *Lexicon Arabico-Latinum, contextum ex probatoribus Orientis lexicographis. Accedit index Latinus copiosissimus, qui Lexici Latino-Arabici vicem explere possit*, Lugduni Batavorum/ Leiden: Bonaventura and Abraham Elzevir, 1653.
- Gousset, Jacques, “Dissertatio philosophica de systemate physico Cartesii”, in idem, *De viva deque mortua fide doctrina Jacobi Apostoli evoluta praelectionibus theologicis ad Epistolae eius caput II habitis a Jacobo Gussetio*, Amsterdam: Henric Boom, 1696, pp. 198–226.
- Gousset, Jacques, “Oratio, quae Deum esse ex mundi huius inferioris harmonia demonstratur”, in idem, *De viva deque mortua fide* (1686), pp.

- Gousset, Jacques, *Commentarii linguae Ebraicae, in quibus praecipua opera impenditur PRIMARIO SIGNIFICATUI et sensui dictionum phrasiumque accurata investigatione definiendo, HOMONYMIIS et interpretationis vagis, ancipitis, arbitrariis eliminandis, LOCIS INSIGNIBUS SS. Scripturae explandandis, PARALLELIS Veteris et Novi Testamenti tum peculiari discussione, tum collatione mutua firmandis et vindicandis*, Amstelaedami/ Amsterdam: Boom; Jansson van Waesberg, Borstius & Walter, and Ultrajecti/ Utrecht: de Water and Broedelet, 1702.
- Gregory of Nyssa/ Gregorius Nyssenus, *Contra Eunomium*, edited by Werner Jaeger (Gregorii Nysseni opera, 1: Contra Eunomium) Leiden: Brill, 1960.
- Grimm, Jacob, *Deutsche Grammatik*, Göttingen: Dieterichsche Buchhandlung, 1822.
- Grotius, Hugo, *Annotata ad Vetus Testamentum*, Paris: Sébastien Cramois & Gabriel Cramois, 1644.
- Habermann, Johann, see Avenarius, Johann.
- Halbertsma, Joast Hiddes (editor), “Lectio publica Tiberii Hemsterhusii de originibus linguae Graecae”, *Letterkundige naoogst*, vol. 2, Deventer: J. de Lange, 1845, pp. 324–370.
- Halbertsma, Joast Hiddes (author)/ Bouke Slofstra (editor), “*A plank I saved from a shipwreck*”. *Habertma’s commentary on T. Hemsterhuis’s Lectio publica de originibus linguae Graecae. Introduction by Alpita de Jong. Text edition and translation by Bouke Slofstra*, Amsterdam: Stichting Nederlandistiek VU Amsterdam, and Münster: Nodus Publikationen, 2017
- Hartwell Horne, Thomas, *An introduction to the critical study and knowledge of the Holy Scriptures*, sixth edition corrected and enlarged, vol. 2, part 2, London: Cadell, 1838.
- van Helmont, Francis Mercury, *Alphabeti vere naturalis Hebraici brevissima delineatio*, Sulzbaci/ Sulzbach: Lichtenthaler, 1667.
- Helwig, Johannes, *Etymologiae sive origines dictionum Germanicarum ex tribus illis nobilibus antiquitatis eruditae linguis, Latina, Graeca, Hebraea, derivatarum*, Frankfurt am Main 1611.
- Hemsterhuis, Tiberius (author)/ Bouke Slofstra (editor), *Lectio publica de originibus linguae Graecae* (c. 1750), Latin edition, introduction and translation, Amsterdam and Münster, 2017 (see Slofstra below).
- Hezel, Wilhelm Friedrich, *Geschichte der hebräischen Sprache und Litteratur. Nebst einem Anhang, welcher eine kurze Einleitung in die mit der hebräischen Sprache verwandten orientalischen Dialekte enthält*. Halle: Hemmerde, 1776.
- Hezel, Wilhelm Friedrich, *Kritisches Wörterbuch der hebräischen Sprache*, Halle: Gebauer, 1793.

- Hiller, Matthäus. *Onomasticon sacrum*, Tubingae/ Tübingen: Georgius 1706.
- Hiller, Matthäus, *Institutiones linguae sanctae, quibus analogia Hebraismi ad breves easdemque generales et nullis impeditas exceptionibus regulas revocatur [...]*, Tubingae/ Tübingen: Cotta, 1711.
- Hottinger, Johannes Henricus, *Thesaurus philologicus seu clavis Scripturae, qua quicquid fere Orietalium, Hebraeorum maxime et Arabum habent monumenta [...] breviter et aphoristice ita reseratur et aperiter, ut multiplex inde ad philologiae et theologiae studiosos fructus redundare possit*, Tiguri/ Zürich: Bodmer, 1649.
- Hottinger, Johannes Henricus, *Smegma orientale, sordibus barbarismi, contemptui praesertim linguarum Orientalium oppositum*, Heidelbergae/ Heidelberg: Adrian Wyngaerden: 1658.
- Hottinger, Johannes Henricus, *Grammatica quatuor linguarum Hebraicae, Chaldaicae, Syriacae et Arabicae harmonica*, Heidelbergae/ Heidelberg: Adrian Wijngaerden, 1659.
- Hottinger, Johannes Henricus, *Etymologicum Orientale sive Lexicon harmonicum ἐπτάγλωπτον, quo non matris tantum Hebraicae linguae radices Biblicae omnes vel constituuntur vel, ubi inter Iudaeos temporis iniuria usitatae esse desierunt ex Chaldaea, Syria, Arabia, Aethiopia, etc., restituuntur diversisque significationibus suis explicantur, sed et Chaldaicae, Syriacae, Arabicae, Samaritanae, Aethiopicae, Talmudo-Rabbinicae dialectorum ceu filiarum voces iuxta seriem radicum Hebraicarum magno numero ex libris tam canonicis, quam ecclesiasticis exhibentur, harmonia simul vel matris cum filiabus vel filiarum inter se luculenter ostenditur, propriae denique cuiusvis radices significationes adiiciuntur, in usum verae antiquitatis et philologiae sacrae studiosorum conscriptum et contextum* Francofurti/ Frankfurt am Main: Amonius & Serlinus, 1661.
- Hottinger, Johannes Henricus, “Clavis etymologici harmonici sive Dissertatio de scopo, usu et methodo huius lexicī”, introductory preface to his *Etymologicum Orientale*, etc.
- Huet, Petrus Daniel, *Demonstratio evangelica ad serenissimum Delphinum*. 5th ed., Lipsiae/ Leipzig: Fritsch, 1703 [1st ed. 1679].
- Hunt, Thomas, *De antiquitate, elegantia et utilitate linguae Arabicae oratio*, Oxonii/ Oxford: Sheldonian theatre, 1739.
- Hunt, Thomas, *De usu dialectorum orientalium, ac praecipue Arabicae, in Hebraico Codice interpretando oratio*, Oxonii/ Oxford: Sheldonian theatre, 1748.
- Hupfeld, Hermann, “De emendanda lexicographiae Semiticae ratione commentatiuncula”, in *Viro summe venerando Alberto Jacobo Arnoldio [...] congratulantur Ioannes Guilielmus Bickell et Hermann Hupfeld*, Marburgi/ Marburg: Bayrhoffer, 1827, the second article, pp. 1–17.
- Hutter, Elias, *Cubus alphabeticus sanctae Ebraeae linguae vel lexicī Ebraici*

- novum compendium τερτάγωνον*, Hamburgi/ Hamburg: Wolfius, 1588. (1st ed. *Cubus alphabetus sanctae linguae Ebraeae*, Hamburg 1586, written in German)
- al-Idrīsī, *De geographia universali. Hortulus cultissimus mere orbis regiones, provincias, insulas, urbes describens*, Romae/ Rome: Medici, 1592.
- Ihre, Johan, *Glossarium Suiogothicum*, Upsaliae/ Uppsala: Edmann, 1769.
- Jerome, *Commentarii in Sophoniam* (Corpus Christianorum, series Latina 76), Turnhout: Brepols, 1970.
- ben Kalonymus, Yishaq Nathan (author, composed c. 1446)/ Rechlin, Anton (translator), סֵפֶר יְאִיר נָתָן [Sefer yā'ir nātīb], *Concordantiarum Hebraicarum capita, quae sunt de vocum expositionibus a doctissimo Hebraeo rabbi Mardochai Nathan, ante CLX annos conscripta, nunc uero in gratiam theologiae candidatorum, ac linguae sanctae studiosorum, ad uerbum translata, per M. Antonium Reuchlinum*, Basileae/ Basel: Henricus Petri, 1556.
- Kals, Jan Willem, *Korte schets van de onderwyzinge der gronden in de Hebreesche letter-kunst, waerdoor de weg gebaent word om derzelve regelmatigheit te herstellen en te verweren [...]*, Leiden: Willem Boot and Johannes Delbeek, 1750.
- Kals, Jan Willem, *Disquisitio philologica de linguae Hebraeae natalibus punctisque vocalibus ad eam docendam discendamque summe necessariis*, pars I, Oxonii/ Oxford: e theatro Sheldoniano, 1752.
- Kals, Jan Willem, *Disquisitio philologica de linguae Hebraeae natalibus punctisque vocalibus ad eam docendam discendamque summe necessariis*, pars I, editio altera auctior, Bremen: G. W. Rump, 1753.
- Kals, Jan Willem, *Directorium and clavis lusus chartacei reserans grammaticam Hebraeo-harmonicam cum specimine lexici ex Alberti Schultens manuscripto ad ס radicem ספח usque X annorum spatio dictato reliquisque eius impressis libris magno labore excerpto, ita ut index omnium ipsius clarissimi viri librorum esse poterit*,¹²⁸⁴ sine loco [Amstelaedami/ Amsterdam], 1757.
- Kals, Jan Willem, *Grammatica Hebraeo-harmonica cum Arabica et Aramaea methodo logico-mathematica*, Amstelaedami/ Amsterdam: Houttuyn, 1758.
- Kamenek, Nicholas Albert. *Oratio de Hebraeae linguae studio ob raritatem eius data occasione recudi fecit [...]* Gotofredus Balthas. Scharffius, Dresden: Hilscher, 1734.

¹²⁸⁴ In English translation: "A guide and a key of a paper-play that opens the the comparative Hebrew grammar with a sample of a dictionary drawn from Albert Schultens manuscript dictated until the letter ס and the root ספח in the course of ten years and otherwise excerpted with great toil from his printed books, so that is could be an index of all the books of this famous scholar."

- Kaulen, Franz, *Die Sprachverwirrung zu Babel: literarisch-theologische Untersuchungen über Gen. 11:1–9*, Mainz: Kirchheim, 1861.
- Kimchi, David, *Hebrew grammar (Mikhlol), systematically presented and annotated by William Chomsky*, Philadelphia: Dropsie College for Hebrew and Cognate Learning, 1952.
- Kircher, Athanasius. *Turris Babel sive archontologia* [...], Amsterdam. 1679.
- Kromayer, Abraham, *בת מילדת לאם [Bat m^oyalædæt l^oem]*, *Filia matri obstetricans, hoc est: de usu linguae Arabicae in addiscenda Ebraea et explicanda Scriptura S[acra]*, Francofurti et Lipsiae/ Frankfurt am Main and Leipzig: Grossius, 1707.
- Kromayer, Abraham, *Specimen fontium Scripturae S. apertorum, editum in illustrandis vaticiniis Hoseae, Joelis et Amosi, quorum voces et locutiones difficiliores omnes ope linguarum affinium exponuntur et antiquitates investigantur adeoque loca difficillima expediuntur* [...]. Amstelodami/ Amsterdam: Adrian Wor and Onder de Linden, 1730.
- Le Clerc (Clericus), Jean, “Dissertatio de lingua Hebraica”, the first treatise of the prolegomena to *Genesis sive Mosis prophetae liber primus ex translatione Johannis Clerico cum eiusdem paraphrasi perpetua, commentario philologico, dissertationibus criticis quinque et tabulis chronologicis*, Amstelodami/ Amsterdam: Wolfgang and Janssonius-Waesberg, 1693.
- Le Clerc (Clericus), Jean, *Ars critica, in qua ad studia linguarum Latinae, Graecae et Hebraicae via munitur veterumque emendandorum et spuriorum scriptorum a genuinis dignoscendorum ratio traditur*, volumen primum, Amstelaedami/ Amsterdam: Gallet, 1697.
- Leibniz, Gottfried Wilhelm, “Dissertatio preliminaris de instituto operis atque optima philosophica dictione”, preface to Leibniz’s republication of Marius Nizolius’ *De veris principiis et vera ratione philosophandi contra pseudophilosophos libri IV*, Francofurti/ Frankfurt am Main: Hermannus a Sande 1670 (1st ed. 1553), 36 pages, numbered with typographical marks from a 3 to f.
- Leibniz, Gottfried Wilhelm, *Nouveaux essais sur l’entendement humain* (written c. 1704), in *Oeuvres philosophiques latines et françoises de feu Mr. de Leibnitz*, edited by Rudolf Erich Raspe, Amsterdam & Leipzig: Schreuder, 1765, pp. 1–496.
- Leibniz, Gottfried Wilhelm, *New Essays Concerning Human Understanding*, translated by Alfred Gideon Langley, New York: Macmillan, 1896.
- Leibniz, Gottfried Wilhelm, *New Essays On Human Understanding*, translated and ed. by Peter Remnant and Jonathan Bennett, Cambridge: Cambridge University Press, 1981.
- Leibniz, Gottfried Wilhelm, “Brevis designatio meditationum de originibus gentium ductis potissimum ex indicio linguarum”, in *Miscellanea*

- Berolinensia*, Berolini/ Berlin: Societas Regia Scientiarum and Johan Christ. Papienius, 1710, pp. 1–16
- Leigh, Edward (plagiarist of Valentin Schindler's Pentaglot), *Critica sacra. Observations on all the radices and primitive Hebrew words of the Old Testament in order alphabetical, wherein both they (and many derivatives also issuing from them) are fully opened out of the best lexicographers and scholiasts*, London: Thomas Underhill, 1641 (republished in London 1642, 1646 and 1652).
- Leigh, Edward, *Critica sacra, cuius pars prior observationes philologicas et theologicas in omnes radices Veteris Testamenti*, translated by Henric[us] à Middoch, Amsterdam: van Someren, 1688.
- Leigh, Edward, and Ludwig von Wolzogen (translator), *Dictionnaire de la langue sainte, contenant toutes ses origines, ou les mots Hébreux tant primitifs que dérivés, du Vieux Testament. Avec des observations philologiques et theologiques*. [...] Écrit en anglois par Le Chevalier Leigh. Traduit en François & augmenté de diverses Remarques par feu Mr. Louis de Wolzogue, Amsterdam: Mortier, 1703.
- van Lennep, Johann Daniel, *Oratio inauguralis de linguarum analogia ex analogicis mentis actionibus probata [...]*, Groningae/ Groningen: Crans, 1752.
- van Lennep, Johann Daniel, *Praelectiones academicae de analogia Graecae linguae sive rationum analogicarum expositio*, in E. Scheidius (editor), *L. C. Valckenaerii Observationes academicae [...]* et Ioh. Dan. a Lennep, *Praelectiones academicae*, Ultraiecti ad Rhenum/ Utrecht: van Paddenburg, 1790.
- Leopold, Ernst Friedrich, *Lexicon Hebraicum et Chaldaicum in libros Veteris Testamenti ordine etymologico*, Leipzig: Tauchnitz, 1832.
- Leusden, Johannes, *Philologus Hebraeus continens quaestiones Hebraicas quae circa Vetus testamentum Hebraeum fere moveri solent*, 3rd ed, Ultraiecti/ Utrecht, 1694.
- Levita, Elias, מתורגמן [Meturgeman] – *Lexicon Chaldaicum* (with a preface and dedicatory letter in Latin by the editor Paul Fagius and with a preface in Hebrew by the author), Isnae/ Isny, 1541.
- Locke, John, *An Essay Concerning Human Understanding*, published by Roger Woolhouse, London: Penguin Books 2004 (1st ed. 1689).
- Loescherus (Löschner), Valentin Ernst, *De causis linguae Ebraeae libri III, in quibus magna pars Ebraismi posterioribus curis restituitur, incerta et ambigua ad regulas reducuntur, historiae linguae, genius, fines et singularia eiusdem enarrantur, denique ad interiora linguae sanctae aditus panditur*, Francofurti et Lipsiae/ Frankfurt am Main and Leipzig: Grossius, 1706.
- Ludolf, Hiob, *Lexicon Aethiopico-Latinum*, London: Roycroft, 1661.
- Luther, Martin, *Enarrationes in Genesin*, in *Martin Luthers Werke: kritische Gesamtausgabe*, Weimarer Ausgabe (WA), vols. 42 and 43, Weimar:

- Böhlhaus 1911.
- Luther, Martin, *Tischreden*, vol. 5, in *Martin Luthers Werke: kritische Gesamtausgabe*, Weimarer Ausgabe, Weimar: Böhlhaus, 1919.
- de Man, Paul. "The epistemology of metaphor", *Critical inquiry* 5:1, Special issue on metaphor (Autumn 1978), pp. 13–30.
- Mangold, Matthias, *Towards a Reformed Enlightenment: Salomon van Til (1643–1713) and the Cartesio-Cocceian debates in the early modern Dutch Republic*, Leiden: Brill, 2024.
- Marinus (Marini), Marcus (Marco), *Arca Noe: Thesaurus linguae sanctae novus*, Venetiis/ Venice: Giovanni de Gara, 1593.
- Marsh, Herbert, *Lectures on the criticism and interpretation of the Bible* [...], Cambridge: Rivington, 1828.
- Maukisch, Johannes, *Notae philologico-theologicae*, Lipsiae/ Leipzig: Wittigau, 1672 (1st ed. with the title *Classis primae pars prior notarum philologico-theologicarum*, Leipzig: Wittigau 1661).
- May (Majus), Joh. Henricus, *Introductio ad studium philologicum criticum et exegeticum brevis ac perspicua*, Giessae/ Giessen: Müller, 1699.
- Menthen, Godefridus (editor), *Thesaurus theologico-philologicus sive sylloge dissertationum elegantiorum ad selectiora et illustriora Veteris et Novi Testamenti loca*, Amstelædami/ Amsterdam: Boom, Jonsson, a Waesberge, Bortius, and Volters, and Ultrajecti/ Utrecht: de Water and Broedelet, 1701.
- Mercier (Mercerus), Jean (Johannes), *Tabulae in grammaticen linguae Chaldaee, quae et Syriacae dicitur*, Parisiis/ Paris: Morelius, 1560.
- Meyer, Gottlob Wilhelm, *Geschichte der Schrifterklärung seit der Wiederherstellung der Wissenschaften*, vol. 4 (Geschichte der Künste und Wissenschaften, elfte Abtheilung, Theologie, IV: Geschichte der Exegese), Göttingen: Röwer, 1804.
- Michaelis, Johann David, *Beurtheilung der Mittel, welche man anwendet die ausgestorbene hebräische Sprache zu verstehen*, Göttingen: Van den Hoek, 1757.
- Michaelis, Johann David, *Supplementa ad lexica Hebraica*, Göttingen: Rosenbusch, 1785–1792.
- Michaelis, Johann David, *Critisches Collegium über die drey wichtigsten Psalmen von Christo, den 17ten, 40sten und 11ten*, Frankfurt [am Main] und Göttingen: Garben, 1759.
- Michaelis, Johann David, *Beantwortung der Frage: von dem Einfluß der Meinungen in seine Sprache und der Sprache in die Meinungen*, Berlin 1760 (In French translation: *De l'influence des opinions sur la langue, et du langage sur les opinions*, Bremen 1762.)
- Möller, Anton Wilhelm Peter, *Denkschrift zur Ehre des Namens und der Verdienste des Herrn Johann Peter Berg*, Duisburg 1801.

- Möller, Grete, "Föederalismus und Geschichtsbetrachtung im XVII. und XVIII. Jahrhundert", *Zeitschrift für Kirchengeschichte* 50 (1931), pp. 393–440.
- Morhof, Daniel Georg, *Polyhistor literarius, philosophicus et practicus*, 4th ed (1st ed. 1688), Lubeckae/ Lübeck: Boeckmann, 1747.
- Morin, Jean, *Commentarius de sacris ecclesiae ordinationibus secundum antiquos et recentiores Latinos, Graecos, Syros et Babylonios*, Paris: Meturas, 1655.
- Morin, Jean, "Lexicon Samaritanum omnes dictiones diffiles explicans", in *Opuscula Hebraeo-Samaritica*, vol 6, Paris: Meturas, 1657.
- Morin, Etienne (Stephanus), *Exercitationes de lingua primaeva eiusque appendicibus*, Ultraieci/ Utrecht: Broedelet, 1694.
- Mühlau, Ferdinand, "Albert Schultens und seine Bedeutung für die hebräische Sprachwissenschaft", *Zeitschrift für die gesamte lutherische Theologie und Kirche*, vol. 31, 1870, pp. 1–21.
- Münster, Sebastian, *Dictionarium Hebraicum*, Basileae/ Basel: Froben, 1525.
- Münster, Sebastian, *Grammatica Chaldaica*, Basel: Froben, 1527.
- Münster, Sebastian, *Hebraica Biblia Latina planeque nova Sebast. Munsteri tralatione [...]*, 3rd ed., Basileae/ Basel: Isingrinus & Petrus, 1546 (1st ed. 1534–35).
- Münster, Sebastian. *Opus grammaticum consummatum ex variis Elianis libris concinnatum*, Basileae/ Basel: Henricus Petrus, 1544.
- Neumann, Caspar, *Genesis linguae sanctae V[eteris] T[estamenti], perspicue docens vulgo sic dictas radices non esse vera Hebraeorum primitiva, sed voces, ab alio quodam radicibus his priore et simpliciore principio deductas*, Norimbergae/ Nürnberg: Otto, 1696.
- Neumann, Caspar, *Exodus linguae sanctae Veteris Testamenti ex captivitate babylonica, tentatus in lexico etymologico hebraeo biblico*, three volumes, Norimbergae/ Nürnberg: Otto, 1697–1700.
- Neumann, Caspar, "Specimen hypotheseos de significatione literarum Hebraicarum hieroglyphica, cuius hic praemittitur breviarium ad illustrem Dn. de Leibnitz", published in idem, *Biga difficultatum physico-sacrarum*, Lipsiae/ Leipzig: Klosius, 1709.
- Neumann, Caspar, *Clavis domus Heber reserans ianuam ad significationem hieroglyphicam literaturae Hebraicae perspicendam*, Wratislaviae/ Breslau: Fellgiebelius, 1712–1715.
- Packard, Joseph, "Claims of the Arabic language and literature", in *The biblical repository and quarterly observer*, vol. 24, Andover: Gould and Newman, and Boston: Perkins and Marvin, 1836.
- Pagninus, Santes, אוצר לשון הקדש, *Thesaurus linguae sanctae. Sic enim inscribere placuit hoc lexicon Hebraicum*, Lugduni/ Lyon: Gryphius, 1529.
- Parkhurst, John, *A Hebrew and English lexicon without points: in which*

Hebrew and Chaldee words of the Old Testament are explained in their leading and derived senses, the derivative words are ranged under their respective primitives and the meanings assigned to each, “the second edition greatly enlarged and improved”, London: Faden, 1778 (1st ed. 1762).

Pars bibliothecae Schultensianae continens libros nitidissime compactos, in quibus excellunt Biblia, patres Latini et graeci, commentatores, theologi, philologi, Hebraei, Orientales, auctores Graeci et Latini, antiquarii, numismatici, historici, litteratores aliique miscellanei, livres françois en nederduitsche boeken, quos collegit vir clarissimus Albertus Schultens [...], Lugduni Batavorum/ Leiden: Samuel Luchtmans, 1750.

Pezron, Paul-Yves, *Antiquité de la nation et la langue des Celtes*, Paris: Boudot, 1703.

Pfeiffer, August, *Dissertatio philologica de lingua protoplastorum sive primaeva*, Wittebergae/ Wittenberg: Wendt, 1663.

Pfeiffer, August, *Dissertatio philologica de linguarum sacrarum originalium numero, origine, conservatione et usu*, Witebergae/ Wittenberg: Wendt, 1666.

Pfeiffer, August, *Dubia vexata Sacrae Scripturae sive loca difficiliora Veteris Testamenti*, Lipsiae/ Leipzig: Hübner, 1685.

Pfeiffer, August, *Critica sacra. De Sacri Codicis partitione, editionibus variis, linguis originalibus, illibata puritate fontium, interpretatione Scripturae legitima, nec non de eiusdem translatione in linguas totius universi, de Masora et Kabbala, Talmude denique et Alcorano*, 1st ed. Dresdae 1680¹²⁸⁵ and 4th ed., Lipsiae/ Leipzig: Hübner, 1702.

Pfeiffer, August, *Opera omnia*, Ultrajecti/ Utrecht: Broedelet, 1704.

Pfeiffer, August. *Critica sacra* etc. 6th ed. Dresdae et Lipsiae/ Dresden and Leipzig: Leschius, 1721. (1st ed. 1680).

Pfeiffer, August (pres.)/ Johannes Schreiber (resp.), *Disputatio philologica de analogia linguae sanctae*, Wittebergae/ Wittenberg: Wendt, 1667.

Pell Platt, Thomas, *A Catalogue of the Ethiopic Biblical Manuscripts in the Royal Library of Paris*, London: Richard Watts, 1823.

Pococke, Edward. 1648. “Notae in quibus aliquam-multa, quae ad historiam Orientalium apprime illustrandum faciunt, e melioris apud ipsos notae authoribus in medium proferuntur e meliortis apud eos notae authoribus inmedium proferuntur”, separately printed Oxonii/ Oxford: Hall (printer), 1648, in idem, *Specimen historiae Arabum*, Oxford: Robertson, 1650.

Pococke, Edward. 1650. *Specimen historiae Arabum sive Gregorii Abulfarajii Malatiensis de origine et moribus Arabum siccincta narratio in linguam Latinam conversa notisque e probatissimis apud ipsos authoribus fusius illustrata*, Oxonii/ Oxford: Robinson.

¹²⁸⁵ Pfeiffer’s *Dissertatio philologica de Masora sive Critica sacra Hebraeorum*, first published 1665, revised 1670 and 1677, is an earlier stage of *Critica sacra* 1680.

- Pococke, Edward, *Porta Mosis sive dissertationes aliquot a R. Mose Maimonide [...], nunc primum Arabice prout ab ipso auctore conscriptae sunt et Latine editae una cum appendice Notarum Miscellanea*, Oxonii/Oxford: Davis, 1655.
- Postel, Guillaume, *Linguarum duodecim characteribus differentium alphabetum introductio*, Paris: Pierre Vidoue (Vidovaeus), 1538.
- Rambach, Johann Jacob, *Institutiones hermeneuticae sacrae*, 2nd ed., Ienae/Jena: Hartung, 1725 (1st ed. 1723).
- Ramée (Ramus), Pierre (Petrus), *Rhetoricae distinctiones in Quintilianum*, Parisiis/Paris: Grandinus, 1550.
- Rask, Rasmus, *Undersøgelse om det gamle Nordiske eller Islandske Sprogs oprindelse*, Kjöbenhavn/Copenhagen: Gyldendalske bokhandling, 1818.
- Ravius, Christianus, *De scribendo lexico Arabico-Latino dissertatio*, Ultraiecti/Utrecht: Strick, 1643.
- Ravius, Christianus, *Orthographiae et analogiae (vulgo etymologiae) Ebraicae delineatio*, Amstelodami/Amsterdam: Janssonius, 1646.
- Ravius, Christianus, *A generall grammer for the Ebrew, Samaritan, Calde, Syriac, Arabian and Ethiopic tongue*, London: Wilson, 1648.
- Ravius, Christianus, *A discourse of the Orientall tongues, viz. Ebrew, Samaritane, Calde, Syriac, Arabic and Ethiopic*. Together with A generall Grammar for the said languages, London: Wilson, 1649.
- Ravius, Christianus, *A generall grammer for the ready attaining of the Ebrew, Samaritan, Calde, Syriac, Arabic and the Ethiopic languages with a pertinent discourse of the Orientall tongues*, London: Wilson, 1650.
- Reiske, Johann Jacob, Review of Schultens' anthology of *Ḥamāsah*, published in *Nova acta eruditorum*, Lipsiae/Leipzig, 1748.
- Reiske, Johann Jacob, Review of Schultens' *Proverbia Salomonis*, published in *Nova acta eruditorum*, Lipsiae/Leipzig, 1749.
- Reuchlin, Johannes, *De rudimentis Hebraicis*, Pforzheim: Anshelm, 1506.
- Reuchlin, Johannes, *De arte Cabalistica*, Hagenau: Anshelm, 1517.
- Review of Julius Bate's "Critica Hebraea or a Hebrew-English dictionary without points", in *The critical review, or annals of literature*, 24 (October 1767), pp. 262–265.
- Rhenferdius, Jacobus (pres.)/ J. L. Schlicher (resp.), *Rudimenta grammaticae harmonicae linguarum Orientalium Hebraeae, Chaldaicae, Syriacae et Arabicae*, Franeker: Halma, 1706.
- de Rossi, Azariah, מאור עינים, Mantua 1573-1575.
- Rudolphi, E. (probably a pseudonym), *Rudimenta quaestionum quae inter philologos de lingua Hebraea, Chaldaea, Syra ac Arabica agitantur quibus via sternitur ad systema Hebraizandi viri celeb. A. Schultensii placido examini submittendum etc.* Amsterdam: A. Olofsen, 1746.
- Rümelin, Georg Burckhard, *Lexicon Biblicum, in quo omnes quae in Vetere Testamento leguntur voces, verba scilicet et nomina tam appellativa*

- quam propria ita recensentur, ut I. verborum seu radicum affinitas et primaria significatio in aprico ponantur et notionum secundarium [...] ratio explicatur, II. nominum verborumque derivatorum vera et genuina origo [...] ostendatur, III vocum in lexicis et concordantiis hactenus editis fere omissarum [...] non exiguus numerus restituatur*, Francofurti ad Moenum/ Frankfurt am Main: Sande, 1716.
- Rümelin, Georg Burckhard, *Lexicon critico-sacrum in duas partes distinctum*, sine loco [Tübingen]: Ebertus, 1730.
- de Sacy, Antoine Sylvestre, *De l'utilité de l'étude de la poésie arabe*, Paris: Dondey-Dupré, 1826.
- Sanctius (Sanchéz), Franciscus, and Jacob Perizonius. *Minerva seu de causis linguae Latinae, cui insertae sunt uncis inclusa quae addidit Gasp. Scioppius et subiectae suis paginis notae Jac Perizonii*, fourth edition, Amsterdam: Jansson-Waesberg, 1714.
- Sanctius, Franciscus, *Minerva seu de causis linguae Latinae commentarius*, ninth edition, Amstelaedami/ Amsterdam: fratres de Tournes, 1752.
- Scaliger, Iulius Caesar, *De causis linguae Latinae libri tredecim*, Lugduni/ Lyon: Gryphius, 1540.
- Scaliger, Jules-César, *Des causes de la language latine/ De causis linguae Latinae*, edited and translated by Bernard Colombat, Pierre Lardet and Geneviève Clerico (Travaux d'Humanisme et Renaissance, 594), 2 vols. [vol. 1: Introduction, texte latin, notes critiques, index, bibliographie; vol. 2: Traduction annotée], Geneva: Droz, 2018.
- Scaliger, Joseph Justus, *Castigationes in Catullum, Tibullum, Propertium, Lutetiae/ Paris: Patissonius*, 1577.
- Scaliger, Joseph Justus, "Diatriba de Europaeorum linguis", in idem, *Opuscula varia antehac non edita*, ed. by Daniel Hensius, Parisiis/ Paris: Hadrian Beys, 1610, pp. 119–122.
- Scaliger, Joseph Justus, *Josephi Scaligeri (...) epistolae omnes quae reperiri potuerunt, nunc primum collectae ac editae*, edited by Daniel Heinsius, Lugduni Batavorum/ Leiden: Elzevir, 1627.
- Schindler, Valentin, קצר המקרא [Qōṣaer ha-miqrā], *Epitome Biblitorum continens insigniora Veteris et Novi Testamenti dicta*, [without place of publication, probably Wittenberg]: Crato, 1578.
- Schindler, Valentin. Preface to a re-edition of Jean Mercier's *Tabulae in grammaticen linguae Chaldaee*, published in Wittenberg: Crato, 1579.
- Schindler, Valentin, *Lexicon pentaglotton Hebraicum, Chaldaicum, Syriacum, Talmudico-Rabbinicum et Arabicum, in quo omnes voces Hebraeae, Chaldaee, Syrae, Rabbinicae et Arabicae adiectis hincinde Persicis, Aethiopicis et Turcicis ordine alphabetico sub suis singulae radicibus digeste continentur earumque significationes, usus et elegantiae ex sacrosanctis Hebraeis Bibliis, horum Chaldaicis paraphrasibus, Testamento Novo Syriaco, utroque Babylonico et Hierosolymitano Talmudo, Midraschim, Rabbinorum commentatoribus,*

- theologis, philosophis, Arabica Veteris et Novi Instrumenti translatione, Alcorano, Avicenna etc. et Graeca LXX. Interpretum et omnibus Latinis Bibliorum versionibus, docte, ample et dilucide proponuntur. Variorum item interpretum difficiles ac discrepantes sententiae conferuntur et examinuntur. [...] Cum indice gemino, Francofurti ad Moenum/ Frankfurt am Main: Ruland, 1612.*
- Schindler, Valentin, *Lexicon pentaglotton Hebraicum, Chaldaicum, Syriacum, Talmudico-Rabbinicum et Arabicum [...]. Cum indice triplici, Hanoviae/ Hanau: Ruland, 1612.*
- Schroeder, Nicolaus Wilhelm, *Commentarius philologicus-criticus de vestitu mulierum Hebraearum ad Jesai. III, vs. 16–24, quo vocabulorum abstrusissimorum tenebras ad facem dialectorum discutere conatus est auctor [...]. Praemissa est praefatio celeberrimi viri Alberti Schultens, Lugduni Batavorum/ Leiden: Kallewier, 1745.*
- Schultens, Albertus, *Disputatio theologico philologica de utilitate linguae Arabicae in interpretanda S[acra] Scriptura, Groningae/ Groningen: Cornelius Barlinck-hof, 1706.*
- Schultens, Albertus, *Oratio inauguralis de fontibus ex quibus omnis linguae Hebraeae notitia manavit horumque vitiis et defectibus dicta publice in templo academico, quinto Idibus Novembris MDCCXIII, quum ordinariam linguae Hebraeae professionem in illustri Frisiorum academia solenni ritu auspicaretur, Franequerae/ Franeker: Franciscus Halma, 1714.*
- Schultens, Albertus, *Laudatio funebris in memoriam admodum venerandi et celeberrimi viri Campegi Vitringa, Franequerae: Henricus Halma, 1722.*
- Schultens, Albertus, *Origines Hebraeae sive Hebraeae linguae antiquissima natura et indoles ex Arabiae penetralibus revocata, vol. 1, Franeker: Henricus Halma, 1724.*
- Schultens, Albertus, *Oratio prima de linguae Arabicae antiquissima origine, intima ac sororia cum linguae Hebraeae cognatione nullisque seculis prae florata puritate habita quum fascis academicos iterum deponeret Kalendis Juniis MDCCXXIX, Franequerae/ Franeker: Gulielmus Coulon, 1729.*
- Schultens, Albertus, *De defectibus hodiernis linguae Hebraeae eorundemque resarciendorum tutissima via ac ratione. Originibus Hebraicis subserviens opus, Franequerae/ Franeker: Bleck, 1731.*
- Schultens, Albertus, *Maqāmāt li-'al-Ḥarīrī. Haririi eloquentiae Arabicae principis tres priores consessus e codice manuscripto Bibliothecae Lugduno-Batavae pro specimine emissi ac notis illustrati, Franequerae/ Franeker: Bleck, 1731.*
- Schultens, Albertus, *Vita et res gestae Sultani Almalichi Alnasiri Saladini Ali Modaffiri Josephi f. Jobi f. Sjadsī Auctore Bohadino filio Sjeddadi. [...] Ex MSS. Arabicis Academiae Lugduno-Batavae edidit et Latine*

- vertit *Albertus Schultens* [...], Lugduni Batavorum/ Leiden: Samuel Luchtmans, 1732.
- Schultens, Albertus, *Oratio altera de linguae Arabicae antiquissima origine, intima ac sororia cum linguae Hebraeae cognatione nullisque seculis prae florata puritate habita ad diem 20 Junii anno MDCCXXXII, quum ordinariam linguarum Orientalium professionem in illustri Batavorum Academia, quae Lugduni est, solenni ritu auspicaretur*, Lugduni Batavorum/ Leiden: Luchtmans, 1732.
- Schultens, Albertus, “Clavis dialectorum. Clavis mutationis elementorum qua dialecti linguae Hebraeae, ac praesertim Arabica dialectus, aliquando ab Hebraea deflectunt”, in *Rudimenta linguae Arabicae auctore Thoma Erpenio: Florilegium sententiarum ut et Clavim dialectorum ac praesertim Arabicae adjecit Albert Schultens*, Lugduni Batavorum/ Leiden: Luchtmans, 1733; 2nd ed. increased with indices (especially of Arabic words), Leiden: Luchtmans and le Mair, 1770, pp. 185–374.
- Schultens, Albertus, *Institutiones ad fundamenta linguae Hebraeae, quibus via panditur ad eiusdem analogiam restituendam et vindicandam. In usum collegii domestici edidit Albertus Schultens*, Lugduni Batavorum/ Leiden: Johannes Luzac, 1737.
- Schultens, Albertus, *Vindiciae Originum Hebraearum et Opusculi de defectibus hodiernis linguae Hebraeae adversus dissertationem cl[arissimi] Driessenii De veris causis et auxiliis interpretandi linguam Hebraeam Biblicam. Accedunt Stricturae in eiusdem v[iri] cl[arissimi] Considerationes ad novam versionem Libri Jobi*, Lugduni Batavorum/ Leiden: Samuel Luchtmans, 1737.
- Schultens, Albertus, *Liber Jobi cum nova versione ad Hebraeum fontem et commentario perpetuo, in quo veterum et recentiorum interpretum cogitata praecipua expenduntur, genuinus sensus ad priscum linguae genium indagatur atque ex filo et nexu universo argumenti nodus intricatissimus evolvitur. Curavit et edited Albertus Schultens*, 2 vols., Lugduni Batavorum/ Leiden: Luzac, 1737.
- Schultens, Albertus, *Originum Hebraeorum tomus secundus. Cum Vindiciis tomi primi nec non Libri de defectibus hodiernis linguae Hebraeae adversus clarissimum dissertatorem. Accedit gemina oratio de linguae Arabicae antiquitate et sororia cognatione cum Hebraea, etc.*, Lugduni Batavorum/ Leiden: Luzac, 1738.
- Schultens, Albertus, *Vetus et regia via Hebraizandi asserta contra novam et metaphysicam hodiernam*, Lugduni Batavorum/ Leiden: Luzac, 1738.
- Schultens, Albertus, *Oratio academica in memoriam Hermanni Boerhaavii, viri summi, ex decreto Rectoris Magnifici et Senatus Academici habita die iv Novembris, Anno MDCCXXVIII*, Lugduni Batavorum/ Leiden: Luzac, 1738.
- Schultens, Albertus, *Excursus primus ad caput primum Viae veteris et regiae Hebraizandi continens stricturas ad Dissertationem historicam de*

- lingua primaeva*, Lugduni Batavorum/ Leiden: Luzac, 1739.
- Schultens, Albertus, *Excursus secundus ad editionem primam et secundam dissertationis historicae de lingua primaeva*, Lugduni Batavorum/ Leiden: Luzac, 1739.
- Schultens, Albertus, *Excursus tertius ad editionem primam et secundam dissertationis de lingua primaeva eiusque additamentum apologeticum*, Lugduni Batavorum/ Leiden: Luzac, 1739.
- Schultens, Albertus. *Institutiones Aramaeae*, Lugduni Batavorum/ Leiden: Luzac, 1745–1749.
- Schultens, Albertus, *Proverbia Salomonis. Versionem integram ad Hebraeum fontem expressit atque commentarium adjecit Albertus Schultens*, Leiden: Luzac, 1748.
- Schultens, Albertus, *Thomae Erpenii Grammatica Arabica cum fabulis Lokmanni etc. Accedunt excerpta anthologiae veterum Arabiae poetarum, quae inscribitur Hamasa abi Temmam ex mss. Bibliothecae Academiae Batavae edita, conversa et notis illustrata ab Alberto Schultens. Praefatio imaginariam linguam, scriptionem et lineam sanctam Iudaeorum confutat*, Lugduni Batavorum/ Leiden: Luchtmans, 1748.
- Schultens, Albertus, *Epistola prima ad amplissimum et excellentissimum virum F. O. Menckenium perscripta, in qua nupera recensio Grammaticae Erpenii cum Praefatione et Accessionibus ex Hamasa sub examen devocatur*, Lugduni Batavorum/ Leiden: Luzac, 1749.
- Schultens, Albertus, *Epistola altera ad amplissimum et excellentissimum virum F. O. Menckenium perscripta, in qua nupera recensio Commentarii in Proverbia Salomonis sub examen devocatur*, Lugduni Batavorum/ Leiden: Luzac, 1749.
- Schultens, Albertus (pres.)/ Simon Schager (resp), *Disputatio undecima et duodecima ad origines Hebraeas*, Lugduni Batavorum/ Leiden, Luzac, 1734.
- Schultens, Albertus (pres.)/ George Huszti (resp.), *Dissertatio philologica de linguae Hebraeae synonymis ex origine illustrandis*, Lugduni Batavorum/ Leiden: Luchtmans, 1738.
- Schultens, Albertus (pres.)/ Jan Jacob Schultens (resp), *De utilitate dialectorum Orientalium in tuenda integritatem Codicis Hebraei*, part one, Lugduni Batavorum/ Leiden: Luzac, 1742.
- Sforno, Obadiah, באור על התורה, Verona 1567.
- Siegfried, Carl, “Schindler, Valentin”, *Allgemeine Deutsche Biographie*, vol. 31, Leipzig, 1890, pp. 291–292.
- Siegfried, Carl, and Bernhard Stade, *Hebräisches Wörterbuch zum Alten Testamente*, Leipzig: Veit et Comp., 1893.
- Ibn Sīnā (Avicenna), *Libri quinque Canonis Medicinae, quibus additi sunt un fine libri logicae, physicae et metaphysicae Arabice nunc primum impressi*, Romae/ Rome: Medici, 1593.

- Simon, Richard, *Histoire critique du Vieux Testament*, Amsterdam: Compagnie des libraires, 1685.
- Simonis, Johannes, *Arcanum formarum nominum Hebraeae linguae sive de significationeformali tractatus philologicus, quo nominum Hebraeae linguae significationes ex ipsorum formis eruuntur et illustrantur*, Halae Magdeburgicae/ Halle: Orphanotrophaeus, 1735.
- Simonis, Johannes, “Dictionarium Veteris Testamenti Hebraico-Chaldaicum”, in idem, *Biblia Hebraica manualia*: Halae Magdeburgicae/ Halle: Joh. Gottl. Bierwirthius, 1752.
- Simonis, Johannes, *Lexicon manuale Hebraicum et Chaldaicum*, Halae Magdeburgicae/ Halle: Curtius, 1756.
- Spinoza, Baruch (Benedictus), *Tractatus theologico-politicus* [...], Hamburgi/ Hamburg: Künrath, 1670.
- Spinoza, Baruch (Benedictus), “Compendium grammatices”, in *Opera posthuma quorum series post praefationem exhibetur*, s.l. [Amsterdam], 1677.
- Spinoza, Baruch (Benedictus), *Hebrew grammar*, edited and translated with an introduction by Maurice L. Bloom, London: Vision, 1962.
- Spinoza, Baruch (Benedictus), *Opera/ Werke Lateinisch und Deutsch*, vol. 1: *Tractatus theologico-politicus/ Theologisch-politischer Traktat*, hrsg. von Günter Gawlick und Friedrich Niewöhner, Darmstadt: Wissenschaftliche Buchgesellschaft, 1979.
- Spinoza, Baruch (Benedictus), *Tractatus theologico-politicus translated by Samuel Shirley with an introduction of Brad S. Gregory*, Leiden, New York, København, Köln: Brill, 1989.
- Steinschneider, Moritz, *Bibliographisches Handbuch über die theoretische und practische Literatur für hebräische Sprachkunde. Ein selbständiger Anhang zu Gesenius' Geschichte der hebräische Sprache und Le-Long-Masch's Bibliotheca Sacra*, Leipzig: Vogel, 1859.
- Steinschneider, Moritz, *Die hebräischen Handschriften der königlichen Hof- und Staatsbibliothek in München* (Catalogus Codicum manu scriptorum Bibliothecae Regiae Monacensis vol. 1), München: Palm'sche Hofbuchhandlung, 1875 (1st ed.) and 1895 (2nd ed.).
- Stiernhielm, Georg, “De origine linguarum praefatio”, *Domini Jesu Christi ss. Evangelia ab Ulfila Gothorum in Moesia Episcopo circa annum a nato Christo CCLX ex Graeco Gothice translata nunc cum parallelis versionibus Sueo-Gothica, Norraena sive Islandica et Vulgata Latina edita*, Stockholm: Nicholas Wankijf, 1671.
- Stuart, Moses, “Article VII: Hebrew lexicography. Review of the *Manual Hebrew and Chaldee lexicon* of the books of the Old Testament by William Gesenius [...] 1832”, *The Biblical repository and quarterly observer*, conducted by B.B. Edwards, vol. 8, nos. XXIII–XXIV, Andover: Perkins and Marvin, 1836, pp. 448–494.
- Taylor, John, *The Hebrew concordance adapted to the Hebrew Bible*

- disposed after the manner of Buxtorf*, London: Waugh and Fenner, 1754–1757.
- Theodoret of Cyrrhus, *Theodoreti Cyrensis Quaestiones in Octateuchum*, edited by Natalio Fernández Marcos and Angelo Sáenz-Badillos, Madrid 1979.
- Thomassin, *Glossarium universale Hebraicum, quo ad Hebraicae linguae fontes linguae et dialecti pene omnes revocantur*, Paris 1697.
- van Til, Salomon, *Methodus concionandi iuxta praecepta artis hermeneuticae et oratoriae concinnata*, Dordraci/ Dordrecht, Goris. 1697.
- An [sic!] *universal history from the earliest account of time to the present: compiled from original authors and illustrated with maps, cuts, notes, chronological and other tables*. vol. 1, 2nd ed., London: printed for E. Symon in Cornhill; T. Osborne in Gray’s-Inn; J. Wood in Pater-noster Row; and J. Crockatt, 1740.
- Jacob Verburg, “Oratio de fructibus quos huc usque protulit literarum Orientalium cultura”, *Acta saecularia Academiae Groninganae MDCCCXVIII–MDCCCXIX*, Groningae/ Groningen: Oomkens, 1819.
- Vossius, Gerard, *Oratoriarum institutionum libri sex*, 2nd ed., Dordrecht/ Dordrecht: Bot. 1609.¹²⁸⁶
- Vossius, Gerard, *De arte grammatica libri septem*, Amsterdam: Blaeu, 1635.
- Vossius, Isaac, *Appendix ad librum de LXX interpretibus continens responsiones ad obiecta aliquot theologorum*, Hagae-Comitis/ The Hague: Vlacq, 1664.
- Vossius, Isaac, *De Sibyllinis aliisque quae Christi natalem praecessere oraculis*, Oxoniae/ Oxford: the Sheldonian Theatre, 1679.
- van Waenen, Cornelis (resp. and author), *Specimen philologicum de linguae Hebraeae pomoeiis ampliandis* (submitted under the chairmanship of Jan Jacob Schultens), Lugduni Batavorum/ Leiden: le Mair, 1759.
- Walton, Brian, “Prolegomena in Biblia Polyglotta”, in idem, *Biblia sacra polyglotta*, vol 1, London: Thomas Roycroft, 1657.
- Wasmuth, Mattias, *Vindiciarum S. Hebraeae Scripturae* (in three parts, the last titled *Anti-conringius apologeticus*, Rostochii/ Rostock: Kilius, 1664.
- Werenfels, Samuel, “Dissertatio de loquela”, in *Dissertationum volumina duo*, vol. 2, subtitled *Dissertationes varii argumenti*, Amstelaedami/ Amsterdam: Wetstein. 1716.
- Wolf, Johann Christoph, *Historia lexicorum Hebraicorum, quae tam a Iudaeis quam Christianis ad nostra usque tempora in lucem edita vel promissa sunt vel in Bibliothecis adhuc latentiaprehenduntur*, Vitembergae/ Wittenberg: Ludovicus, 1705.
- Wolf, Johann Christoph, *Bibliotheca Hebraea sive notitia tum auctorum*

¹²⁸⁶ 1st ed. Lugduni Batavorum/ Leiden 1606; 3rd ed. Frankfurt an der Oder: Hartmann 1616; 4th edition titled *Commentariorum rhetoricorum sive oratoriarum institutionum libri sex*, Lugduni Batavorum/ Leiden: Maire, 1643.

- Hebraeorum cuiuscunque aetatis, tum scriptorum, quae vel Hebraice primum exarata sunt vel ab aliis conversa, ad nostram aetatem deducta*, vol. 1, Hamburgi/ & Lipsiae Hamburg and Leipzig: Liebezeit, 1715;
- Wolf, Johann Christoph, *Bibliothecae Hebraeae pars II, quae praeter Historiam Scripturae sacrae Veteris Testamenti codicumque eius tum editorum tum mss. tradit notitiam Masorae eorumque quae ad lexica et grammaticas pertinent, Talmudis item utriusque tum vero Bibliothecam Iudaicam et antiludaicam aperit et post enarratas paraphrases Chaldaicas et Cabbalam scripta Iudaeorum anonyma recenset*, Hamburgi / Hamburg, Felginer 1721.
- Wolf, Johann Christoph, *Bibliothecae Hebraeae volumen III complectens accessiones et emendationes ad volumen primum totum et partem secundi, quod de scriptis anonymis exponit pertinentes*, Hamburgi & Lipsiae / Hamburg and Leipzig, Felginer, 1727.
- Wotton, William, “Dissertatio de confusione linguarum extructoribus turris Babylonicae a Deo inflicta”, in John Chamberlayne (editor), *Oratio dominica in diversas fere omnium gentium linguas versa et propriis cuiusque linguae characteribus expressa, una cum dissertationibus nonnullis de linguarum origine variisque ipsarum permutationibus*, Amstelaedami/ Amsterdam: Goereus, 1715, pp. 37–75.
- Wotton, William, *A discourse concerning the confusion of languages at Babel, proving it to have been miraculous from the essential difference between them, contrary to the opinion of Mons. Le Clerc and others. With an inquiry into the primaeval language before that wonderful event. By the late learned William Wotton, D. D, now first publish'd from his own manuscript*, London: Austen and Bowyer, 1730.
- Zedler, Johann Heinrich, *Großes vollständiges Universallexikon aller Wissenschaften und Künste*, Halle & Leipzig: Zedler, 1732–1754.
- Yehuda ha-Levi, *Das Buch Kusari des Jehuda ha-Levi nach dem hebräischen Texte des Jehuda Ibn-Tibbon herausgegeben, übersetzt und mit einer Commenta, so wie mit einer allgemeinen Einleitung versehen*, Berlin: Lamm, 1920.
- Yehuda ha-Levi, *The Kuzari: in defense of the despised faith, translated and annotated by Daniel Korobkin*, Northvale: Aronson, 1998.
- Ibn Yahja, Gedaliah, שלשלת הקבלה, Venice 1587.
- Ypey, Annaeus *Geschiedenis van de Kristlijke Kerk in de achttiende eeuw*, vol. 8, Utrecht: Paddenburg, 1797.

Modern literature (after 1900)

- Aarsleff, Hans, “The tradition of Condillac: The problem of the origin of language in the eighteenth century and the debate in the Berlin academy before Herder”, in *Studies in the history of linguistics: tradition and paradigms*, edited by Dell Hymes, Bloomington & London: Indiana University Press, 1974, pp. 93–156.

- Ageron, Pierre, "Les manuscrits arabes de la bibliothèque de Caen", *Annales de Normandie* 58 (2008), pp. 77–133.
- Albertz, Rainer. "Die Frage des Ursprungs der Sprache im Alten Testament", in *Theorien vom Ursprung der Sprache*, vol. 2, edited by Johann Gessinger and Wohlfert von Rahden, Berlin: De Gruyter, 1989, pp. 1–18.
- Ashworth, Earline Jennifer, "Locke on language", *Canadian journal of philosophy*, XIV:1 (1984), pp. 45–73.
- van Asselt, Willem Jan. *The Federal theology of Johannes Cocceius*, Leiden/ Köln/ New York: Brill, 2001.
- van Asselt, Willem and Paul Abels, 'The seventeenth century, in *Handbook of Dutch Church history*, edited by Herman J. van Selderhuis, Göttingen: van den Hoeck & Ruprecht, 2015, pp. 341–345.
- Auroux, Sylvain, E.F.K. Koerner, Hans-Josef Niederehe and Kees Versteegh (eds.), *History of the language sciences. An international handbook on the evolution of the study of languages from the beginnings to the present*, volume 1 (Handbücher zur Sprach- und Kommunikationswissenschaft 18:1), Berlin: De Gruyter Mouton, 2000.
- Auroux, Sylvain, E.F.K. Koerner, Hans-Josef Niederehe and Kees Versteegh (eds.), *History of the language sciences. An international handbook on the evolution of the study of languages from the beginnings to the present*, volume 2 (HSK 18:1), Berlin: De Gruyter Mouton, 2001.
- Baalbaki, Ramzi, *The Arabic lexicographical tradition from the 2nd/8th to the 12th/18th century*, Leiden: Brill, 2014.
- Baalbaki, Ramzi, "Arabic to c. 1800", in *The Cambridge world history of lexicography*, edited by John Considine, Cambridge: Cambridge University Press, 2019, pp. 159–181.
- Barnie, Annie., *Jean Le Clerc et la Republique de la Lettres*, Paris: Droz, 1938.
- Barr, James, *Semantics of biblical language*, Oxford: Oxford University Press, 1961.
- Barr, James, *Comparative philology and the text of the Old Testament*, Oxford: the Clarendon Press, 1968.
- Barr, James, *Comparative philology and the text of the Old Testament* (reprint of the first edition with a postscript comprising the pages 355–436), Winona Lake, Indiana: Eisenbrauns, 1987.
- Barr, James, "Linguistic literature, Hebrew;" section 5 of this entry: From the 16th century to the present, in *Encyclopaedia Judaica*, vol. 16 in the part containing Supplementary entries, Jerusalem 1971, pp. 1390–1401.
- Barr, James, "Hebrew lexicography", in *Studies on Semitic lexicography*, edited by Pelio Fronzaroli, Firenze/ Florence: Istituto di linguistica e di lingue orientali, 1973, pp. 103–126.

- Barwick, Karl, *Probleme der stoischen Sprachlehre und Rhetorik* (Abhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig / Philologisch-historische Klasse), Berlin: Akad.-Verlag, 1957.
- Bauer, Hans, und Pontus Leander, *Historische Grammatik der hebräischen Sprache des Alten Testaments*, Halle: Niemeyer, 1922.
- van Bekkum, Wout Jac, “Hebrew linguistics and comparative Semitic grammar”, in Sylvain Auroux et alii, *History of the language sciences*, vol. 1, Berlin 2000, pp. 240–244.
- van der Berg, Johannes, *Religious currents and cross-currents: essays on early modern Protestantism* (Studies of the history of Christian traditions, 65), edited by Jan de Bruin, Pieter Holtrop, Ernestine van der Wall, Leiden: Brill, 1999.
- van Berkel, Klaas. *Universiteit van het Noorden. 1. De oude universiteit: 1614–1876. Vier eeuwen academisch leven in Groningen*, Hilversum: Verloren, 2014.
- Bernecker, Roland, “Etymologie”, in *Historisches Wörterbuch der Rhetorik*, edited by Gert Ueding, vol. 2 (Bie–Eul), Tübingen: Niemeyer, and Berlin: De Gruyter, 1994.
- Blau, Joshua, *Phonology and morphology of Biblical Hebrew: An introduction*, Winona Lake, Indiana: Eisenbrauns, 2010.
- Bobzin, Hartmut, “Geschichte der arabischen Philologie in Europa bis zum Ausgang des achtzehnten Jahrhunderts”, in Wolfdietrich Fischer (ed.), *Grundriß der arabischen Philologie*, vol. III: Supplement, Wiesbaden: Reichert, 1992, pp. 155–187.
- Bobzin, Hartmut, “Semitistik”, in *Der neue Pauly: Encyclopädie der Antike*, Bd 15:3, edited by Hubert Cancik and Helmuth Schneider, Stuttgart: Metzler, 2003, pp. 10–15.
- Borst, Arno, *Der Turmbau von Babel: Geschichte der Meinungen über Ursprung und Vielfalt der Sprachen und Völker*, vol. I: Fundamente und Ausbau, Stuttgart: Hiersemann, 1957.
- Borst, Arno, *Der Turmbau von Babel: Geschichte der Meinungen über Ursprung und Vielfalt der Sprachen und Völker*, vol. II: Ausbau, Teil 1. Stuttgart: Hiersemann, 1958.
- Borst, Arno. *Der Turmbau von Babel: Geschichte der Meinungen über Ursprung und Vielfalt der Sprachen und Völker*, vol. III:1–2. Stuttgart: Hiersemann, 1960–1961.
- Bots, J.A.H, and W. Th. M. Frijhof, “De studentenpopulatie van de Franeker academie: een kwantitatief onderzoek (1585–1811)”, in G.Th. Jensema, F.R.H. Smit and F. Westra (eds.), *Universiteit te Franeker 1585–1811*, Leeuwarden: Frykse Akademie, 1985
- The Brown-Driver-Briggs Hebrew and English lexicon*, the 20th reprinting, 2021. of the first edition: Boston: Houghton & Mifflin, 1906.
- Brekke, Herbert E., Edeltraud Dobnig-Jülch, Hans Jürgen Höller and Helmut Weiß (eds.), *Bio-bibliographisches Handbuch zur Sprachwissenschaft*

- des 18. Jahrhunderts: Die grammatiker, Lexicographen und Sprachtheoretiker des deutschsprachigen Raums mit Beschreibung ihrer Werke, vol. 8 (Schu–Z), Tübingen: Niemeyer, 2005.
- Brugman, J. and Schröder, F. *Arabic studies in the Netherlands*, Leiden: Brill, 1979.
- van Bunge, Wiep, “The early Enlightenment in the Dutch Republic, 1650–1750”, *Intellectual News*, Winter 2004, pp. 61–68.
- van Bunge, Wiep. “Dutch Cartesianism and the advent of Newtonianism”, in Mihnea Dobre and Tammy Nyden (eds.), *Cartesian empiricisms*, Dordrecht: Springer, 2013, pp. 89–104.
- Burke, Peter, *Languages and communities in early modern Europe*, Cambridge: Cambridge University Press, 2004.
- Burnett, Stephen G., *From Christian Hebraism to Jewish Studies. Johannes Buxtorf (1564–1629) and Hebrew learning in the seventeenth century*, Leiden, New York, Köln: Brill, 1996.
- Burnett, Stephen G., “Reassessing the ‘Basel-Wittenberg conflict’: Dimensions of the Reformation-Era discussion of Hebrew scholarship”, in *Hebraica veritas?: Christian Hebraists and the study of Judaism in early modern Europe*, edited by Allison P. Coudert and Jeffrey S. Shoulson, Philadelphia: University of Pennsylvania Press, 2004.
- Burnett, Stephen G., “Later Christian Hebraists”, in *Hebrew Bible / Old Testament: the history of its interpretation*, vol. 2: From the Renaissance to the Enlightenment, ed. by Magne Sæbø, Göttingen: Vandenhoeck & Ruprecht, 2008, pp. 785–801.
- Christmann, Hans Helmut, “Zum Begriff der Analogie in der Sprachbetrachtung des 16. und 19. Jahrhunderts”, in *Stimmen der Romania. Festschrift für W. Theodor Elwert zum 70. Geburtstag*, hrsg. von Gerhard Schmidt und Manfred Tietz, Wiesbaden: Heymann, 1980.
- Clotz, Henrike L., *Hochschule für Holland: die Universität Leiden im Spannungsfeld zwischen Provinz, Stadt und Kirche 1575–1619*, Stuttgart: Steiner, 1998.
- Cohen, David, “La lexicographie comparée”, in *Studies on Semitic lexicography*, (Quaderni di Semitistica 2), edited by Pelio Fronzaroli, Firenze/ Florence: Istituto di linguistica e di lingue orientali, 1973, pp. 183–189.
- Colson, Francis Henry, “The analogist–anomalist controversy”, *The classical quarterly* 13:1 (1919), pp. 24–36.
- Cook, Harold J., “Boerhaave and the flight from reason in medicine”, *Bulletin of the history of medicine* 74 (2000), pp. 221–240.
- Covington, Michael. “Albert Schultens on language relationship”, in *Linguistics*, vol. 17, 1979, pp. 707–708.
- Craig, Marie-Louise, *The emergence of Hebrew-English lexicons: From Udall to Parkhurst*, Canberra: Charles Stuart University, 2008.

- Craig, Marie-Louise, "Pioneers and no through roads: the story of the early English lexicons", in *Foundations for Syriac lexicography V: colloquia of the international Syriac language Project*, edited by Michael Sokoloff, Piscataway, NJ: Gorgias Press, 2013, pp. 21–42.
- Craig, Marie-Louise, "Lexicography: pre-modern period", Geoffrey Khan (ed.), *Encyclopedia of Hebrew language and linguistics*, vol. 2 (G–O), Leiden: Brill, 2013, pp. 514–520.
- Craig, Marie-Louise, "Take one Hebrew lexicon, add fresh theology, and mix well", in *Reflexions on lexicography. Explorations in Ancient Syriac, Hebrew, and Greek sources*, ed. by R. A. Taylor and C. E. Morrisson, Piscataway, NJ: Gorgias Press, 2014, pp. 147–210.
- Dahood, Mitchell, "Hebrew-Ugaritic lexicography I", *Biblica* 44:3 (1963), pp. 289–303.
- DeCogliano, Mark, *Basil of Caesarea's anti-Eunomian theory of names: Christian theology and late-antique philosophy in the fourth century trinitarian controversy*, Leiden & Boston: Brill, 2010.
- Delgado, José Martínez, "Lexicography: Middle Ages", in Geoffrey Khan (ed.), *Encyclopaedia of Hebrew language and linguistics*, vol. 2, Leiden: Brill, 2013.
- Denecker, Tim, *Linguistic ideas in early Latin Christianity (c. 250–636). A historiographical study* (PhD thesis), Leuven: Katholieke Universiteit Leuven, 2015.
- Desbordes, Françoise, "Le schéma 'addition, soustraction, mutation, métathèse' dans les textes anciens", in *Idées grecques et romaines sur le langage: travaux d'histoire et d'épistémologie*, Lyon: ENS, 2007, pp. 55–61.
- Dotan, Arron, "The Origins of Hebrew linguistics and the exegetic tradition", in Sylvain Auroux et alii (eds.), *History of the language sciences*, vol. 1, Berlin 2000, pp. 215–229.
- Droixhe, Daniel, *La linguistique et l'appel de histoire (1600–1800): rationalisme and révolutions positivistes*, Genève: Droz, 1978.
- Droixhe, Daniel, "Interpréter Babel: Simon, Le Clerc, Basnage", in *Beiträge zur Geschichte der Sprachwissenschaft*, vol. 2, 1992, pp. 137–47.
- Droixhe, Daniel, "Les conceptions du changement et de la parenté des langues européennes aux xviiie et xviiiie siècles", in Sylvain Auroux et alii (eds.), *History of the language sciences*, vol. 1, pp. 1057–1071.
- Dyson, R.W., *Augustine. The City of God against the pagans* (Cambridge studies in political thought), Cambridge: Cambridge University Press, 1998.
- Edzard, Lutz, "Biblical Hebrew", in Stefan Weninger (ed.), *The Semitic languages: an international handbook*, Berlin: De Gruyter, 2011, pp. 480–513.
- Engnell, Ivan, *Grammatik i gammaltestamentlig hebreiska*, 2nd ed., 2nd print, Nacka: Esselte Herzog, 1976 (1st ed. 1960).

- The Encyclopaedia Britannica: a dictionary of arts, sciences, literature and general information*, 11th ed. Cambridge 1910.
- Eskhult, Josef, “Humanistic Latin versions of the Hebrew Old Testament”, in *Acta Conventus Neo-Latini Budapestinensis. Proceedings of the thirteenth international congress of Neo-Latin studies*, general editor, Rhoda Schnur, Tempe: Arizona Center for Medieval and Renaissance Studies, 2010, pp. 241–251.
- Eskhult, Josef, “Latin Bible translations in the Protestant Reformation: Historical contexts, philological justification and the impact of classical rhetoric on the conception of translation methods”, in *Shaping the Bible in the Reformation: Books, scholars and their readers in the sixteenth century*, ed. by Bruce Gordon and Matthew McLean; Leiden: Brill, 2012, pp. 167–185.
- Eskhult, Josef, “Augustine and the primeval language in early modern exegesis and philology”, *Language and history*, vol. 56:2 (2013), pp. 98–119.
- Eskhult, Josef, “The primeval language and Hebrew ethnicity in ancient Jewish and Christian thought until Augustine”, *Revue d'Études Augustiniennes et Patristiques*, vol. 60:2 (2014), pp. 291–347.
- Eskhult, Josef, “Albert Schultens (1686–1750) and primeval language: the crisis of a tradition and the turning point of a discourse”, in *Metasprachliche Reflexion und Diskontinuität: Wendepunkte, Krisenzeiten, Umbrüche*, edited by Gerda Haßler, Münster: Nodus Publikationen, 2015, pp. 72–94.
- Eskhult, Josef, “Vulgar Latin as an emergent concept in the Italian Renaissance (1435–1601): its ancient and medieval prehistory and its Renaissance emergence and development”, *Journal of Latin linguistics*, 17:2, Berlin: De Gruyter Mouton, 2018, pp. 191–230.
- Eskhult, Josef, “The concept of dialect in the works of three seventeenth-century linguistic theorists: Georg Stiernhielm, Claudius Salmasius and Christian Ravius: An exploratory survey of their intellectual contexts, defining criteria and classificatory aims”, in Raf Van Rooy (ed.), *Essays in the history of dialect studies. From ancient Greece to modern dialectology*. Münster: Nodus Publikationen, 2020, pp. 85–106.
- Eskhult, Josef, “Christian Ravius’ Turkic and Semitic studies and his work as an Orientalist in the Swedish State Service”, in Éva Á. Csató, Gunilla Gren-Eklund, Lars Johanson, Birsel Karakoç (eds.), *Turcologica Upsaliensia: an illustrated collection of essays*, Leiden: Brill, 2021, pp. 47–71.
- Eskhult, Josef. *Georg Stiernhielm. Linguistic works, volume 2. Etymology, historical and comparative language studies and programme for the renewal of the Swedish language. Unpublished manuscripts and early prints edited with introduction, translation of De linguarum origine*

- praeformatio, and reception studies* (Studia Latina Upsaliensia 38: 2), Uppsala: Uppsala University, 2023.
- Eskhult, Josef, (forthcoming), *Albert Schultens. Unpublished manuscripts on comparative Hebrew philology. Lockean excerpts, lecture notes, and records of dictation, edited with introduction and translation* (Texts and sources in intellectual history), Leiden.
- Feitsma, Anthonia, "Schoola Hemsterhusiana, J.H. Halbertsma and Jacob Grimm", in Jan Noordegraaf (ed.), *Lectio publica Tiberii Hemsterhusii de originibus linguae Graecae*, Amsterdam: Stichting Nederlandistiek VU Amsterdam, and Münster: Nodus Publikationen, 1997.
- Fellman, Jack, "Semitic linguistics and Indo-European comparative and historical grammar", *Linguistics*, vol. 16, 1978, pp. 51–53.
- Formigari, Lia, *A history of language philosophies*, translated by Gabriel Poole (Amsterdam studies in the theory and history of linguistic science, 105), Amsterdam: Benjamins, 2004.
- Friedman, Jerome, *The most ancient testimony: sixteenth-century Christian-Hebraica in the age of Renaissance nostalgia*, Athens, Ohio: Ohio University Press, 1983.
- Fronzaroli, Pelio, "Componential analysis", *Zeitschrift für Althebraistik*, vol. 6, 1993,
- Fück, Johann, *Die Arabische Studien in Europa bis in den Anfang des 20. Jahrhunderts*, Leipzig: Harrassowitz, 1955.
- Fück, Johann, "Geschichte der semitischen Wissenschaft", in *Handbuch der Orientalistik*, vol. 3: Semitistik, Leiden: Brill, 1964, pp. 31–39.
- Garcea, Alessandro, "Etymology, ancient theories of", in *Encyclopaedia of ancient Greek language and linguistics*, vol. 1, Leiden: Brill, 2013.
- Gensini, Stephano, *Il naturale e il simbolico. Saggio su Leibniz*, Roma: Bulzoni, 1991.
- Gerretzen, Jan Gerard, *Schola Hemsterhusiana: de herleving der Grieksche studien aan de Nederlandsche universiteiten in de achttiende eeuw van Perizonius tot en met Valckenaer*, Nijmegen – Utrecht: Dekker & van der Vegt, 1940.
- Goshen-Gottstein, Moshe, "Comparative Semitics — A premature obituary", in *Essays on the occasion of the seventieth anniversary of the Dropsie University (1909–1979)*, edited by Abraham I. Katsh and Leon Nemoy, Philadelphia, Pa: Dropsie University, 1979, pp. 141–150.
- Goshen-Gottstein, Moshe, "The textual criticism of the Old Testament: rise, decline, rebirth", *Journal of Biblical literature* 102:3 (1983), 365–399.
- Goshen-Gottstein, Moshe, "The present state of comparative Semitic linguistics", in *Semitic studies in honour of Wolf Leslau on the occasion of his eighty-fifth birthday*, vol. 2, ed. by Allan S. Kaye, Wiesbaden: Otto Harrassowitz, 1991, pp. 558–569.
- Goshen-Gottstein, Moshe, "The lexicography of Hebrew", in Fredric Dolezan, Antonín Kucera, Alain Rey, Herbert Ernst Wiegand, Werner

- Wolski and Ladislav Zgusta (eds.), *Lexicographica. International annual for lexicography*, vol. 7, Tübingen: Niemeyer, 1992, pp. 72–93.
- Gottheil, Richard, and Wilhelm Bacher, “Hebrew dictionaries”, in *The Jewish Encyclopedia: a descriptive record of the history, religion, literature, and customs of the Jewish people from the earliest times to the present day*, New York: Funk and Wagnall, 1901–1906.
- Grafton, Anthony, *Joseph Scaliger. A study in the history of classical scholarship, 2: Historical Chronology*, Oxford: Clarendon Press, 1993.
- Greenberg, Joseph, “The patterning of root morphemes in Semitic”, *Word* 6 (1950), pp. 162–181.
- Gzella, Holger, “Expansion of the linguistic context of the Hebrew Bible/ Old Testament: Hebrew among the languages of the Near East”, in *The Hebrew Bible / Old Testament. The history of its interpretation*, vol. 3, edited by Magne Sæbø, Göttingen 2013, pp. 134–167.
- van Hal, Toon and John Considine, “Classifying and comparing languages in post-Renaissance Europe (1600–1800)”, *Language and history* 53:2, (2010), pp. 63–69.
- Harris, Roy and Talbot J. Taylor, *Landmarks in linguistic thought I*, 2nd ed., London and New York: Routledge, 1997
- Hasselbach, Rebecca, “The comparative method in Semitic linguistics”, in Jared Klein, Brian Joseph, Matthias Fritz (eds.), *Handbook of comparative and historical Indo-European linguistics*, vol. 1 (HSK 41: 1), Berlin and Boston: De Gruyter, 2017. pp. 93–98.
- Haßler, Gerda, and Neis, Cordula, *Lexikon sprachtheoretischer Grundbegriffe des 17. und 18. Jahrhundert*, 2 vols., Berlin: De Gruyter, 2009.
- Haywood, John A., *Arabic lexicography: its history, and its place in the general history of lexicography*, 2nd ed. (1st ed. 1960), Leiden: Brill, 1965.
- van der Heide, Albert, *Hebrew manuscripts of Leiden University Library* (Codices manuscripti, 18), Leiden: Leiden University, 1977.
- Hesse, Mary, “Aristotle’s logic of analogy”, *The philosophical quarterly*, vol. 15 (1965), no. 61.
- Hoenen M.J.F.M., “Analogie”, in *Historisches Wörterbuch der Rhetorik*, Band 1, edited by Gert Ueding, Tübingen: Niemeyer, 1992
- Ibn Ezra, Abraham de Meir, *Langer Kommentar zum Buch Exodus*, eingeleitet, übersetzt und kommentiert von Dirk U. Rottzoll, Berlin & New York: De Gruyter, 2000.
- Israel, Jonathan, *The Dutch Republic: its rise, greatness and fall 1477–1806*. Oxford: Clarendon Press, 1995.
- Israel, Jonathan, *Radical Enlightenment: philosophy and the making of modernity 1650–1750*, Oxford. Oxford University Press, 2001.

- Israel, Jonathan, *Enlightenment Contested. Philosophy, modernity and the emancipation of man 1670–1752*, Oxford: Oxford University Press, 2006.
- Jones, D. R., “Aids to the study of the Bible: a selective historical account [...]”, in Stanley Lawrence Greenslade (ed.), *The Cambridge history of the Bible, vol. 3: the West from the Reformation to the present day*, Cambridge: Cambridge University Press, 1963.
- de Jonge, Henk Jan, “The study of the New Testament”, in *Leiden University in the seventeenth century*, Leiden: University Press, 1975, pp. 65–109.
- Kaltner, John, *The use of Arabic in Biblical Hebrew lexicography*, Washington, D.C.: Catholic Biblical Association of America, 1996.
- Kaltner, John, “Arabic”, in *Beyond Babel: a handbook for Biblical Hebrew and related languages*, edited by John Kaltner and L. McKenzie, Atlanta: Society of Biblical Literature, 2002, pp. 61–92.
- Khan, Geoffrey, *The Tiberian pronunciation tradition of Biblical Hebrew, including a critical edition and English translation of the sections on consonants and vowels in the Masoretic treatise Hidāyat al-Qāri’ ‘Guide for the Reader’*, Cambridge: Cambridge: Open Book Publishers, 2020.
- Klijnsmit, Anthony J., “Vossius, Spinoza, Schultens. The application of analogia in Hebrew grammar”, *Helmántica. Revista de Filología Clásica y Hebrea*, vol. 51, issue 154 (Salamanca: Universidad Pontificia de Salamanca, 2000), pp. 139–166.
- Knetsch, F.R.J., “Gousset, Jacques”, *Biografisch Lexicon voor de geschiedenis van het Nederlands Protestantisme*, vol. 5, edited by D. Nauta, Kampen: Kok, 2001, pp. 211–213.
- Koehler, Ludwig, and Walter Baumgartner, *Hebräisches und Aramäisches Lexikon zum Alten Testament*, Johann Jacob Stamm’s revised edition of the 3rd edition (1967), Leiden: Brill, 1990.
- van Koningsveld. P. Sj., “Warners manuscripts and books in the main printed catalogues”, in *Lewinus Warner and his legacy: three centuries Legatum Warnerianum in the Leiden University Library*, Leiden: Brill, pp. 33–44.
- Korobkin, N. Daniel, *The Kuzari: in defence of the despised faith / Rabbi Jehuda ha-Levi*. Northvale: Feldheim, 1998.
- Knoeff, Rina, *Herman Boerhaave (1668–1738): Calvinist chemist and physician* (History of science and scholarship in the Netherlands, 3), Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2002.
- Kraus, Hans-Joachim, *Geschichte der historisch-kritischen Erforschung des Alten Testaments von der Reformation bis zur Gegenwart*, Neukirchen: Verlag der Buchhandlung des Erziehungsvereins, 1956.
- Kraus, Hans-Joachim, *Geschichte der historisch-kritischen Erforschung des Alten Testaments von der Reformation bis zur Gegenwart*, (2nd ed.). Neukirchen-Vluyn: Neukirchener Verlag, 1969.

- Krahmalkov, Charles R. "Observations on the Punic monologues of Hanno in the Poenulus", *Orientalia*, new series, 57:1 (1988), pp. 55–66.
- Kuhn, Thomas, *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press, 1962.
- Kutscher, Edward Yechezkel, תולדות מחקר הלשון העברית על רקע הבלשנות הכללית [Toldot meḥkar ha-lašon ha-‘ivrit ‘al reḡa‘ ha-balšanut ha-k’laliṯ], "History of Hebrew language research: against the background of general linguistics), Jerusalem: Akdamon, 1970.
- Lausberg, Heinrich, *Handbook of literary rhetoric: a foundation for literary studies*, Leiden & Boston: Brill, 1998.
- Law, Vivien, *The history of linguistics in Europe from Plato to 1600*. Cambridge: Cambridge University Press, 2003.
- Levitin, Dmitri, "Introduction. Confessionalization and erudition in early modern Europe: A comparative overview of a neglected episode in the history of the Humanities", in Nicholas Hardy and Dmitri Levitin (eds.), *Confessionalization and erudition in early modern Europe: an episode in the history of the Humanities*, Oxford: Oxford University Press, 2019.
- Liddell, Henry George & Robert Scott, *A Greek-English Lexicon*, revised and augmented throughout by Sir Henry Stuart Jones with the assistance of Roderick McKenzie, Oxford: Clarendon Press, 1940.
- van der Linde, J. M., *Jan Willem Kals 1700–1781: Leraar der Hervormden; advocaat van Indian en Neger*, Kampen: J. H. Kok, 1987.
- Loop, Jan, "Kontroverse Bemühungen um den Orient. Johann Jakob Reiske und die deutsche Orientalistik seiner Zeit", in *Johann Jakob Reiske: Leben und Wirkung. Ein Leipziger Byzantinist und Begründer der Orientalistik im 18. Jahrhundert*, hrsg. von Hans-Georg Ebert und Thoralf Hanstein, Leipzig: Evangelische Verlagsanstalt, 2005, pp. 45–85.
- Loop, Jan, *Johann Heinrich Hottinger: Arabic and Islamic studies in the seventeenth century*, Oxford: Oxford University Press, 2013.
- Loop, Jan, "Arabic poetry as teaching material in early modern grammars and textbooks", in *The teaching and learning of Arabic in early modern Europe* (The history of Oriental studies, 3), edited by Jan Loop, Alastair Hamilton, Charles Burnett, Leiden & Boston: Brill, 2017, pp. 230–251.
- Loretz, Oswald, *Habiru-Hebräer: eine sozio-linguistische Studie über die Herkunft des Gentiliziums ‘ibri von Appellativum ḥabiru*, Berlin: De Gruyter, 1984.
- Lyons, John, *Introduction to theoretical linguistics*, Cambridge: Cambridge University Press, 1979 (1st ed. 1968).
- Lyons, John, *Semantics*, volume 2, Cambridge: Cambridge University Press, 1977.
- Maman, Aharon, *Comparative Semitic philology in the Middle Ages from Sa‘adiah Gaon to Ibn Barūn (10th–12th c.)*, translated into English by David Lyons, Leiden & Boston: Brill, 2004.
- Matthew, Peter, "Greek and Latin linguistics", in *History of linguistics*, vol.

- 2: *Classical and medieval linguistics*, London and New York: Longman. 1994.
- Meier-Oeser, Stephan, *Die Spur des Zeichens: Das Zeichen und seine Funktion in der Philosophie des Mittelalters und der frühen Neuzeit*, Berlin: De Gruyter, 1997.
- Meier-Oeser, Stephan, "Meaning in pre-19th century thought", in Claudia Maienborn, Klaus von Heusinger and Paul Portner (eds.) *Semantics. An international handbook of natural language meaning*, volume 1 (Handbücher zur Sprach- und Kommunikationswissenschaft, edited by H. E. Wiegand 33:1), Berlin & Boston: De Gruyter Mouton, 2011.
- Meinhold. Peter, *Die Genesisvorlesung Luthers und ihre Herausgeber*, Stuttgart: Kohlhammer, 1936.
- Miletto, Gianfranco, & Giuseppe Veltri, "Hebraistik in Wittenberg (1502–1813): von der 'lingua sancta' zur Semitistik", in *Gottes Sprache in der philologischen Werkstatt*, Leiden: Brill, 2004, pp. 75–96.
- Miletto, Gianfranco, & Giuseppe Veltri, "Hebrew studies in Wittenberg (1502–1813): from lingua sacra to Semitic studies", in *European journal of Jewish studies*, vol. 6:1 (2012), pp. 1–22.
- Miller, Edward, *The influence of Gesenius on Hebrew lexicography*, New York: Columbia University Press, 1927.
- Molhuysen, Philipp Christian, *Bronnen tot de geschiedenis der Leidsche Universiteit*, vol. 1 (1574–1609), 's-Gravenhage: Nijhoff, 1913.
- Molhuysen, Philipp Christian, *Bronnen tot de geschiedenis der Leidsche Universiteit*, vol. 2 (1610–1647), 's-Gravenhage: Nijhoff, 1916.
- Molhuysen, Philipp Christian, *Bronnen tot de geschiedenis der Leidsche Universiteit*, vol. 3 (1647–1682), 's-Gravenhage: Nijhoff, 1918.
- Molhuysen, Philipp Christian, *Bronnen tot de geschiedenis der Leidsche Universiteit*, vol. 4 (1682–1725), 's-Gravenhage: Nijhoff, 1920.
- Molhuysen, Philipp Christian, *Bronnen tot de geschiedenis der Leidsche Universiteit*, vol. 5 (1725–1765), 's-Gravenhage: Nijhoff, 1921.
- Muller, Jean-Claude, "Early stages of language comparison from Sasseti to Sir William Jones (1786)", *Kratylos: kritisches Berichts- und Rezensionsorgan für indogermanische und allgemeine Sprachwissenschaft*, Jahrgang 31 (Wiesbaden: Reichert, 1986), pp. 1–31.
- Murdoch, Brian, *The medieval popular Bible: expansions of Genesis in the Middle Ages*, Cambridge: Brewer, 2003.
- Nat, Jan, *De studie van de Oostersche talen in Nederland in de 18e en de 19e eeuw*, Purmerend: Muusses, 1929.
- Neis, Cordula, "Origin of language debate", in Keith Brown (coordinating editor, coeditors Alex Barber, Robert J. Stainton), *Concise encyclopaedia of philosophy of language and linguistics*, Oxford: Elsevier, 2010, pp. 551–556.
- Noordegraaf, Jan, "Dutch philologists and general linguistic theory: Anglo-Dutch relations in the eighteenth century", in *Linguists and their*

- diversions. A Festschrift for R. H. Robins on his 75th Birthday*, edited by Vivien Law and Werner Hüllen, Münster: Nodus Publikationen, 1996, pp. 211–243.
- Noordegraaf, Jan, “Historical linguistics in the Low Countries: Lambert ten Kate”, in Sylvain Auroux, et alii (eds.), *History of the language sciences*, vol. 2, Berlin: De Gruyter Mouton, 2001, pp. 1115–1124.
- Noordegraaf, Jan, “A matter of time. Dutch philosophy of language in the eighteenth century”, in *Janus at the Millennium: Perspectives on time in the culture of the Netherlands*, ed. by Thomas F. Shannon and Johan P. Snapper, Dallas, Lanham, Boulder, New York and Oxford: University Press of America, 2004, pp. 211–225.
- Nyberg, Henrik Samuel, *Hebreisk grammatik*, Stockholm, Almqvist & Wiksell, 1952
- del Olmo Lete, Gregorio, *Questions of Semitic linguistics: root and lexeme, the history of research*, Bethesda, Maryland: CDL Press, 2008.
- Olszowy-Schlanger, Judith. “Medieval Hebrew lexicography”, in Geoffrey Khan (ed.), *Encyclopedia of Hebrew language and literature*, Leiden: Brill, 2013.
- Otterspeer, Willem, *Groepsportret met dame, vol. II: De vesting van de macht. De Leidse universiteit, 1673–1775*, Amsterdam: Bakker, 2002.
- Palache, Juda Lion, *Semantic notes on the Hebrew lexicon*, translated from the Dutch original and edited by Rabbi J. Zwi Werblowsky, Leiden: Brill, 1969.
- Percival, Keith, “Deep and surface structure concepts in Renaissance and medieval syntactic theory”, in *History of Linguistic Thought and Contemporary Linguistics*, edited by Herman Parret, Berlin: De Gruyter, 1976, pp. 238–253.
- Philippe, M.-D., “Analogon and analogia”, in *The Thomist: a speculative quarterly review of theology and philosophy*, vol. 33: 1 (1969), pp. 1–74.
- Platt, J.E., “Sixtinus Amama (1593–1629): Franeker professor and citizen of the Republic of letters”, in *Universiteit te Franeker 1585–1811*, edited by G. Th. Jensma, F.R.H Smit, and F. Westra, Leeuwarden: Frykse Akademy, 1985.
- Powers, John, *Inventing chemistry: Herman Boerhaave and the reform of the chemical arts*, Chicago: The University of Chicago Press, 2012.
- Prijs, Joseph, *Die Basler hebräischen Drucken (1492–1866)*, Olten und Freiburg in Breisgau: Urs Graf-Verlag, 1964.
- Rabin, Chaim, *The development of the syntax of post-Biblical Hebrew* (PhD thesis, University of Oxford, 1943), Leiden: Brill, 2000.
- Renner, Frederick, *Interpretatio: language and translation from Cicero to Tytler* (Approaches to translation studies, 99), Amsterdam: Rodopi, 1989.
- Robins, Robert H., *A short history of linguistics*, 4th ed, London and New York: Longman, 1997 (1st ed. 1967).

- Rooden, Peter van, *Theology, biblical scholarship and rabbinical studies in the seventeenth century*, Leiden: Brill, 1989.
- Rosenthal, Franz, *A grammar of Biblical Aramaic*, sixth, revised edition, Wiesbaden: Harrassowitz, 1995.
- Rundgren, Frithiof, *Integrated morphemics. A short outline of a theory of morphemics* (Acta Societatis Linguisticae Upsaliensis. Nova series 3:1, Acta Universitatis Upsaliensis), Stockholm: Almqvist och Wiksell International 1976 (extent: 16 pages).
- Rundgren, Frithiof, “Principia Linguistica Semitica”, *Orientalia Suecana*, vol. XXIX (1980), Stockholm: Almqvist och Wiksell International 1981, pp. 32–102.
- Sara, Salomon I. “The formal approach of ʔal-Khalīl to Arabic lexicography”, *Word* 51 (2000), pp. 21–39.
- Salmon, Vivien, *Language and society in early modern England. Selected essays 1981–1994*. Selected and edited by Konrad Koerner. Amsterdam: John Benjamins, 1996.
- Sanford LaSor, William, “The sequence of phonemes in Semitic roots (based on evidence from Arabic)”, *Hebrew studies* 26 (1985), pp. 71–80.
- Sassen, Ferdinand Léon Rudolphe, “The intellectual climate in Leiden in Boerhaave’s time”, in *Boerhaave and his time* (Analecta Boerhaaviana vol. 6), edited by Gerrit Arie Lindeboom, Leiden: Brill, 1970, pp. 1–16.
- de Saussure, Ferdinand, *Cours de linguistique générale, publié par Charles Bally et Paule Séchehaye avec la collaboration de Albert Riedlinger [...]*. Édition critique préparée par Tullio de Mauro, Paris: Payot, 1987 [1st ed. 1916].
- Schmidt, Jan, “Johannes Heyman (1667–1737): His manuscript collection and the Dutch community of Izmir”, in Colin Imber, Keiko Kiyotaki and Rhoads Murphey (eds.), *Frontiers of Ottoman studies: state, province, and the West*, vol. 2, London : I. B. Tauris, 2005, pp. 75–90.
- Schuurman, Paul, *Ideas, mental faculties and method. The logic of ideas of Descartes and Locke and its reception in the Dutch Republic 1630–1750*, Leiden & Boston: Brill, 2004.
- Segert, Stanislav, “Hebrew and Aramaic lexicography”, in *Wörterbücher/ Dictionaries/ Dictionnaires. Ein internationales Handbuch zur Lexikographie/ An international encyclopaedia of lexicography* (HSK 5:3), ed. by Franz Joseph Hausmann, Oskar Reichmann, Herbert Ernst Wiegand, and Ladislav Zgusta, Berlin: De Gruyter, 1991, pp. 2424–2438.
- Siebenborn, Elmar, *Die Lehre von der Sprachrichtigkeit und ihren Kriterien. Studien zur antiken normativen Grammatik*, Amsterdam: Grönder, 1979.
- Simone, Raffaele, “The early modern period”, in Giulio Lepschy (ed.), *History of linguistics, volume III: Renaissance and early modern linguistics*, London & New York: Routledge, 1998, pp. 149–236.
- Sina, Mario, *Epistolario of Johannes Cocceius*, four volumes, Florence, 1987–1997.

- Slofstra, Bouke, *Tiberius Hemsterhuis. Lectio publica de originibus linguae Graecae (ca 1750) with a translation and commentary* (Cahiers voor Taalkunde 31), 2nd revised printing, Amsterdam: Stichting Nederlandistiek, and Münster: Nodus Publikationen, 2017.
- Sluiter, Ineke, “The Greek tradition”, in *Emergence of semantics in four linguistic traditions: Hebrew, Sanskrit, Greek, Arabic*, edited and co-authored by Wout J. van Bekkum, Jan Houben, Ineke Sluiter, and Kees Versteegh, Amsterdam: Benjamins, 1997, pp. 149–224.
- Smitskamp, Rijk, *Bibliotheca Orientalis: A description of books illustrating the study and printing of Oriental languages in Europe*, 3 vols. (published anonymously), Leiden: Brill 1976, 1983, and 1991.
- Stam, James H., *Inquiries into the origin of language: the fate of a question*, New York: Harper and Row, 1976.
- Stern, Gustaf, *Meaning and changes of meaning with special reference to the English language*, 2nd ed., Bloomington 1964 (1st ed. Göteborg 1931).
- Strazzoni, Andrea, *Dutch Cartesianism and the birth of Philosophy of Science. From Ragius to ‘s Gravesande*, Berlin: De Gruyter, 2019.
- Tene, David, “Hebrew linguistic literature”, *Encyclopedia Judaica*, vol. 16 (the supplements), Jerusalem 1971, pp. 1355–1367.
- Tene, David, “The earliest comparisons of Hebrew with Aramaic and Arabic”, in Konrad Koerner (ed.), *Progress in Linguistic Historiography Studies in the History of Linguistics*, 20, Amsterdam Studies in the Theory and History of Linguistic Science, III), Amsterdam: Benjamins, 1980, pp. 355–377.
- Todorov, Tzvetan, *Theories of the Symbol*. Translated by Catherine Porter, Oxford: Blackwell, 1982. (The title of the French original is: *Théories du symbole*, Paris: Seuil, 1977.)
- Ullendorff, Edward, “Comparative Semitics”, in G. L. della Vida (ed.), *Linguistica Semitica: presente e futuro*, Rome, 1961, pp. 13–32.
- Vanderjagt, Arjo, “Early humanist concern for the Hebraica veritas”, in *Hebrew Bible / Old Testament: the history of its interpretation*, vol. 2: From the Renaissance to the Enlightenment, ed. by Magne Sæbø, Göttingen: Vandenhoeck & Ruprecht, 2008, pp. 154–189.
- Ventzke, Karl, “Jan Willem Kals, ein denkwürdiger Theologe des 18. Jahrhunderts”, *Dürener Geschichtsblätter* 77 (1988), pp. 63–65.
- Verburg, Pieter A., *Language and its functions*, Amsterdam: Benjamins, 1998.
- Verlinsky, Alexander, “Epicurus and his predecessors on the Origin of Language”, in *Language and Learning: Philosophy of language in the Hellenistic age. Proceedings of the Ninth Symposium Hellenisticum*, edited by Dorothea Frede and Brian Inwood, Cambridge: Cambridge University Press, 2005, pp. 60–63.
- Versteegh, Kees “Latinitas, Hellenismos, Arabiyya”, *Historiographia Linguistica*, vol. 13:2–3 (1987), pp. 425–448.

- Versteegh, Kees, *The Arabic language*, 2nd ed., Edinburgh: Edinburgh University Press, 2014.
- Verwey, Theodor, “Metonymie und Moderne: ein schulrhetorischer Begriff im Hinblick auf die Neuere Deutsche Litteratur”, in Peter L. Oesterreich and Thomas O. Sloane (eds.), *Rhetorica Movet: Studies in Historical and Modern Rhetoric in honour of Heinrich F. Plett*, Leiden: Brill, 1999.
- Voigt, Raine, “Semitische Philologie und vergleichende Grammatik: Geschichte der vergleichende Semitistik”, in Sylvain Auroux et alii (eds.), *History of the language sciences*, vol. 2, Berlin: De Gruyter Mouton, 2001, pp. 1311–1317.
- van der Wal, Ernestine, “Orthodoxy and scepticism in the early Dutch Enlightenment”, in *Scepticism and irreligion in the seventeenth and eighteenth centuries*, edited by Richard H. Popkin and Arjo Vanderjagt Leiden: Brill, pp. 125–141
- Waltke, Bruce K., *An introduction to Biblical Hebrew syntax*, Winona Lake, Indiana: Eisenbrauns, 1990.
- Wiesenfeldt, Gerhard, “The practical tradition of Dutch Newtonianism”, in *Reading Newton in early modern Europe*, ed. by Elizabethanne Boran and Mordechai Feingold, Leiden: Brill, 2017, pp. 89–101.
- Yoffie, Adina M., “Cocceius and the Jewish commentators”, *Journal of the history of ideas*, 65 (2004), pp. 383–398.
- Zwiep, Irene, *Mother of reason and revelation: a short history of medieval Jewish linguistic thought*, Amsterdam: Gieben, 1997.
- Zwiep, Irene, “Die Entwicklung der hebräischen Sprachwissenschaft während des Mittelalters”, in Sylvain Auroux et alii (eds.), *History of the language sciences*, vol. 1, pp. 228–234.
- Zwiep, Irene, “Schultens, Albert”, in *Lexicon grammaticorum: a bio-bibliographical companion to the history of linguistics*, vol. 2 (L–Z), 2nd revised ed., edited by Harro Stammerjohann, Tübingen: Niemeyer, 2009.
- Zwiep, Irene, “Hebrew linguistic tradition”, in Geoffrey Khan (editor), *Encyclopedia of Hebrew language and linguistics*, Leiden: Brill, 2013.
- Zwiep, Irene, “Christian Hebraists in the Netherlands”, in Geoffrey Khan, general editor, *Encyclopedia of Hebrew language and linguistics*, Leiden: Brill, 2013.

Indices

Index I. Names

- Aarsleff, Hans Christian (1925–), Danish linguist, historian of linguistic ideas, professor of English (affiliated to Princeton University in the USA) 137, 192
- Abarbanel (the original name form, in modern time usually spelled Abravanel), Isaac (1437–1508), Portuguese Jewish statesman, philosopher and Bible commentator 108, 139, 145, 146
- Ibn ‘Abbād, Ṣāḥib (938–995), Persian high official (grand vizier), scholar of the grammar and lexicography of Arabic and Arab history 76
- Alabaster, William (1567–1640), English poet, dramatist and theologian 104, 280
- Alberti, Paulus Martin (1666–1729), German Hebraist, Lutheran theologian 79, 131
- Albertz, Rainer (1943–), German theologian, professor of Old Testament (Münster) 135
- Albright, William F. (1889– 1971), American archaeologist and biblical scholar 319
- Aurivillius, Carolus (1717–1786, Swedish Orientalist 298
- Bar ‘Alī, Iṣḥāq (9th century), Syrian physician, lexicographer of Syriac and Arabic 78, 100,
- van Alstein, Pierre Leopold (1791– 1862), Belgian scholar, collector of books 335, 342
- Alsted, Johann Heinrich (1588– 1638), German philosopher, theologian, encyclopaedist, professor of philosophy and theology (Herborn and Weissenburg) 43, 98, 192
- Alting, Jacob (1618–1679), Dutch theologian, Hebraist, professor of Oriental languages (Groningen) 42, 177, 178, 239, 270, 325
- Amama, Sixtinus (1593–1629), Dutch Reformed scholar and Orientalist 33–35, 109
- Ambrosiaster (pseudo-Ambrosius), (late 4th century AD), anonymous Latin author, theologian, exegete, active in Rome 144, 146
- ‘Amr ibn Kulthūm (6th century), pre-Islamic Arab poet 66
- Amyraut, Moses (1596–1664), French Reformed (Huguenot), theologian, professor of theology (Samour) 112
- Andala, Ruardus (1665–1727), Dutch theologian, Cartesian philosopher 40, 44, 52
- Andreae, Tobias (1604–1676), professor of history, philosophy and Greek, (Groningen) 41
- Antarah ibn Shaddad al-Absi (AD 525– 608), pre-Islamic Arab poet and warrior 66
- Ibn Arabshā, Ahmad ibn Muhammad (1392– 1450), Arabian historian, author of a biography of Timur 36, 78
- Aristotle of Stagira (384–322 BC), Greek philosopher 43, 78, 161, 162, 167, 172
- Arminius, Jacob (1560–1609), Dutch theologian, professor of theology (Leiden) 41

- van Asselt, Willem Jan (1646–2014), Dutch theologian, Reformed Church minister, professor of historical theology (Utrecht) 39–42
- August Frederick (1773–1843), Duke of Sussex 322, 338
- Augustine, Aurelius (354–430), bishop of Hippo, theologian, philosopher, Church Father of the West 107, 135, 139, 143–146, 155, 156, 186–188
- Avenarius (Habermann), Johann (1516–1590), German Lutheran theologian and Hebrew scholar 90–93, 97, 104, 120, 121, 127, 130, 132, 145, 277–280, 282, 287, 289, 306
- al-Azharī, Abū Maṣṣūr Muḥammad ibn Aḥmad (895–980), Persian scholar of Arabic, lexicographer of Arabic 76
- Baalbaki, Ramzi (1951–), Lebanese scholar, professor of Arabic (Beirut) 75, 76
- Bacher, Wilhelm (1850–1913), Jewish Hungarian scholar, Orientalist and linguist 79, 80
- Bacon, Roger (d. 1292), English scholastic philosopher 43
- Bacon, Francis of Verulam (1561–1626), English philosopher, statesman, and a pioneer of empiricism 45, 46, 48, 50
- Bar Bahlul, Ḥasan (in Arabic called al-Ḥasan ibn Bahlul al-Awāni al-Ṭirhāni), (10th century), Syrian Christian scholar, lexicographer, bishop 104
- Baldi, Bernardino (1553–1617), Italian Renaissance polymath, translator, mathematician, poet, and Arabist 77
- de Balmes, Abraham de Meir (c. 1440–1523), Italian Jewish philosopher, physician, grammarian 145, 261
- Barr, James (1924–2006), Scottish biblical scholar, Semitist and theologian, professor of the Old Testament (Edinburgh) and Regius professor of Hebrew (Oxford) 13, 18, 22, 23, 74, 214–216
- Barthélemy, Jean Jacques (1716–1795), French clergyman, archaeologist, and numismatologist 318
- Ibn Barūn, Abū Ibrahīm Yīṣḥaq (d. 1128), Spanish Jewish linguist, author of a Hebrew grammar and dictionary 71, 72, 274
- Barwick, Karl (1883–1965), German classical philologist, professor of Latin (Jena) 187
- Bartolucci, Giulio (1613–1687), Italian Hebrew scholar, bibliographer of Hebrew and Rabbinic literature 73, 274
- Baumgartner, Walter (1887–1970), Swiss biblical scholar and Semitist, professor of theology (Giessen and Basel) 129, 253, 255, 256
- Ibn al-Baithar, Abū Muḥammad (1197–1248), Arab botanist, pharmacist, scientist, and physician (Damascus), author of a work on medicaments and foods 57, 78
- Becanus, Johannes Goropius (1519–1573), Dutch physician, humanist, and philologist 157–159, 317
- Bedwell, William (1563–1632), English Arabist, vicar in All Hallows (Tottenham) 77, 104
- van Bekkum, Wouter Jacques (1954–), Dutch Hebraist, professor of Middle East studies (Groningen) 70, 71
- Bellarmino, Robert (1542–1621), Italian Jesuit, theologian, professor of theology (Leuven and Rome) 17
- Berg, Johann Peter (1737–1800) German Orientalist and theologian, professor of Oriental languages (Duisburg) 326, 335, 336
- van der Berg, Johannes (1922–2003), Dutch theologian, professor of ecclesiastical history (Leiden) 25, 43, 272, 273, 327
- Bibliander, Theodor (1504–1564), Swiss Reformed theologian, Orientalist, classical philologist, publisher, professor of theology (Basel) 85, 135, 144, 145, 209, 210, 212

- Björnsthål, Johann Jacob (1731–1791), Swedish Orientalist and traveller 334, 335, 339
- Bochart, Samuel (1599–1667), French Orientalist, Protestant biblical scholar, vicar in Caen 55–57, 59, 60, 82, 118, 150, 156, 207, 223, 270, 287, 289, 308, 334
- Bobzin, Hartmut (1946–), German Orientalist, Arabist, professor of Islamic studies (Erlangen) 55
- Boerhaave, Herman (1668–1738), Dutch scientist, physician, botanist, chemist, pioneer of the inductive empirical method 46–52, 176, 249
- Bohle, Samuel (1611–1638), German Hebraist, Lutheran theologian, professor of theology (Rostock) 79, 106, 108, 112, 113, 115, 116, 126, 130, 209, 211, 212, 269, 271, 277, 280–283, 285
- Bomberg, Daniel (1483–1549), Italian typographer, printer, and publisher of Hebrew books 73, 86
- Bonk, Philippus (fl. 1738–1756), university printer and bookseller 326
- van den Boogert, Maurits Hubrecht (1972–), Dutch historian of the Ottoman Empire 37
- Bopp, Franz (1791–1867), German linguist, scholar of Sanskrit, founder of Indo-European linguistics 18
- Borst, Arno (1925–2007), German historian, professor of history (Constanz) 19, 22, 29
- Boxhorn, Marcus Zuerius (1612–1653), Dutch historian, poet, and etymologist, professor of eloquence and history (Leiden) 158
- Braunius, Johannes (1628–1709), German-Dutch Hebraist with a focus on rabbinics and Hebrew antiquities, Cocceian theologian, professor of Hebrew and theology (Groningen) 38, 42, 289
- Briggs, Charles Augustus (1841–1913), American biblical scholar and Hebraist, professor of Hebrew and the cognate languages (New York) 129, 145, 252
- Brown, Francis (1849–1916), American Semitist, professor of Hebrew and the cognate languages (New York) 129, 145, 252
- Brugman, Jan (1923–2004), Dutch Arabist, professor of Arabic (Leiden) 20, 25–27, 54
- Bruns, Paul Jacob (1743–1814), German Lutheran theologian, Orientalist, and literary historian 105
- Brunsmann, Johan (1637–1707), Norwegian Lutheran theologian and psalmist, active in Copenhagen 198
- Buhl, Frants (1850–1932), Danish Semitist and exegete, professor of Old Testament studies (Leipzig) and Semitic philology (Copenhagen) 128, 129
- van Bunge, Wiep (1960–), Dutch historian of philosophy 45
- Burke, Peter (1938–), British cultural historian, professor of cultural history (Oxford) 157
- Burnett, Stephen G. (1956–), American biblical scholar, Semitist, professor of classics and religious studies (Nebraska-Lincoln) 25, 30, 37, 81
- Buxtorf the Elder, Johannes (1564–1629), German-Swiss Hebraist and biblical scholar, lexicographer of Biblical Hebrew and Targumic Aramaic, historian of Jewish literature, professor of theology (Basel) 81, 93, 94, 95, 104, 105, 108, 109, 113, 125–127, 130, 176, 177, 201, 296, 307, 310
- Buxtorf the Younger, Johannes (1599–1664), Swiss Hebraist, scholar of Old Testament studies and rabbinics, professor of Hebrew (Basel) 137–139, 143–146, 207, 221–224
- the Buxtorfs, both the Elder and the Younger 74, 130, 205, 253, 257, 258, 270
- Calov(ius), Abraham (1612–1686), German Lutheran theologian, commentator of the Bible,

- Superintendent-General of Electoral Saxony, professor of theology (Wittenberg) 87
- Calvin, Jean (1509–1563), Reformer in Geneva, French theologian, dogmatician, and Bible commentator 146
- Canini, Aegidio (1521–1557), Italian classical scholar and Orientalist 204, 205
- Cappel, Louis (1585–1658), French Protestant scholar, Hebraist and theologian, professor of theology and Hebrew (Saumur) 17, 30, 36, 55, 56, 112, 179, 236, 270
- Carpzov, Johann Gottlob (1679–1767), German biblical scholar, Hebraist, theologian, professor of Oriental languages (Leipzig) 137, 214
- Casaubon, Isaac (1559–1614), French classical scholar and theologian 36
- Casaubon, Meric (1599–1671), Dutch-English classical philologist 317
- Castell, Edmund (1606–1685), English Orientalist, professor of Arabic (Cambridge) 26, 77, 96, 103–105, 108, 130, 132, 203, 203, 206, 270, 289, 334
- Chrysostom, John (347–407), Greek theologian, Church Father (Antioch and Constantinople) 135, 145, 155
- Cicero, Marcus Tullius (106–43 BC), Roman philosopher, rhetorician, and statesman 64, 179, 182, 183
- Claparède, David (1727–1801), Swiss Reformed theologian, reader of biblical exegesis and ethics in 1763–1801 (Geneva) 327
- Clines, David J. A. (1938–2022), British biblical scholar, Hebrew lexicographer, professor of biblical studies (Sheffield) 129
- Clodius, Johann Christian (1676–1745), German Orientalist, Hebraist and Arabist, professor of Arabic in Leipzig 119, 120, 127, 222, 334
- von Cocceij, Heinrich (1644–1719), German lawyer (son of Johannes Cocceius), professor of natural and international law (Heidelberg) 108
- Cocceius, Johannes (1603–1669), Dutch theologian, successively professor of biblical interpretation (Bremen), professor of Hebrew and theology (Franeker) and professor of Old and New Testament interpretation (Leiden) 34, 38–43, 106–112, 120, 121, 127, 129, 131, 132, 177, 178, 209, 213, 219, 270, 282, 283, 287, 289, 306, 307, 310, 312
- van der Codde (Coddæus), Willem (1574– after 1625), Dutch theologian, Hebraist, professor of theology (Leiden) 36
- Cohen, David (1922–2013), French linguist and Semitist, lexicographer of Semitic languages 25, 26
- Cohen de Lara, David (c. 1600–1674), Jewish scholar, rabbi, lexicographer (Hamburg) 74, 79, 104
- Colson, Francis Henry (1857–1943), English classicist, headmaster of Plymouth College 164
- de Condillac, Étienne Bonnot (1714–1780), French philosopher, advocate of sensationalism 137
- Coste, Pierre (1668–1747), French scholar, amanuensis of John Locke 195
- Covington, Michael Aaron (1957–), American linguist 19, 25, 27
- Craig, Marie-Louise (PhD 2014), Australian biblical scholar, retired Officer of the Salvation Army, lecturer in biblical languages and biblical studies (Milton, Queensland; and Canberra) 81–83, 126
- Dahood, Mitchell (1922–1982), American Semitist and biblical scholar, professor of Hebrew, Eblaite, and Ugaritic at the Pontifical Biblical Institute (Rome) 318, 319
- al-Damīrī, Kamel al-Din ibn Muhammad ibn Musa (1341–1404), Arab scholar, Sunni theologian, historian, poet 57
- Danz, Johann Andreas (1654–1727),

- German Lutheran theologian and Hebraist, professor of Oriental and biblical languages (Jena) 120, 178, 270, 331
- DelCogliano, Mark (1968–), American theologian with a focus on early Christianity and Latin and Greek patristics, professor of historical theology (Bloomington) 144
- Delgado, José Martínez (1974–), Spanish Semitist, professor of Hebrew (Granada) 69, 70
- Delitzsch, Friedrich (1850–1922), German Assyriologist and biblical critic 318
- Desbordes, Françoise (1944–1998), French linguist, historian of Greco-Roman linguistic ideas 188
- Descartes, René (1596–1650), French philosopher, mathematician, and scientist 46, 47, 52, 112
- Diestel, Ludwig (1825–1879), German theologian, professor of Old Testament exegesis (successively in Greifswald, Jena, and Tübingen) 21, 22, 29, 39, 41, 148
- Dietrich, Franz Eduard Christoph (1810–1883), German Semitist, held the chairs of theology as well as of Old Testament studies and Oriental languages (Marburg) 128
- de Dieu, Louis (Lodewijk), (1590–1642), Dutch Orientalist, Reformed minister, director of the Walloon College in Leiden 55, 207, 222, 270, 228
- Dillmann, August (1823–1894), German Semitist and biblical scholar, Ethiopologist, professor of philosophy (Kiel) and of theology (Giessen and Berlin) 18, 26
- al-Dīn, Taqī ibn Maʾrūph (full name: Taqī al-Dīn Muhammad ibn Maʾrūph Shami al-Asadi), (1521–1585), Ottoman polymath, astronomer of Sultan Selim II 78
- Diodore of Sicily (90–30 BC), Greek historian from Sicily, author of a universal history (*Bibliotheca historica*, first printed in 1472) 150
- Dionysius of Halicarnassus (60– after 7 BC), Greek historian, teacher of rhetoric 173
- Driessen, Antonius (1683–1748), Dutch theologian, controversialist, professor of theology (Groningen) 42, 183, 234, 236
- Driver, Samuel Rolles (1846–1914), British biblical scholar, Hebraist, Regius professor of Hebrew (Oxford) 129, 145, 252
- Driver, Godfrey Rolles (1892–1975), British Orientalist and biblical scholar 319
- Droixhe, Daniel (1946–), Belgian linguist, historian of linguistic ideas, professor of Walloon history and culture (Liège) 19, 29, 148
- Drusius (van den Driesche), Johannes (Jan), (1550–1616), Flemish theologian, Hebraist, Bible commentator, professor of Hebrew (Oxford, Leiden, and Franeker) 34, 35
- Dunkhase, Jan Eike (1973–), German historian of ideas and culture 54
- Ibn Durayd (837–933, full name: Bakr Muhammad ibn al-Ḥasan ibn Durayd al-Azdī al-Baṣrī ad-Dawsī al-Zahrani), Arab philologist, Arabic grammarian, lexicographer, and poet, active in Basra 64, 66, 76
- Edzard, Lutz Eberhard (1962–), German Semitist and Arabist, professor of Semitic linguistics (Oslo), and then professor of Arabic and Semitic languages (Erlangen) 261
- van Eerde, Jan Rudolf (1774–1835), Dutch historian, university librarian, professor of general and national history (Groningen) 66, 335, 338, 339, 342
- Eichhorn, Johann Gottfried (1752–1827), German theologian (adherent of the historical-critical school), Orientalist and literary historian, professor of Oriental languages and

- Old Testament studies (Jena and Göttingen) 61, 80, 105, 111, 125, 137, 227–229
- Engels, Engelbert of Düren (born c. 1569, fl. 1611), German Hebraist, editor of Schindler's polyglot dictionary 97
- Episcopius, Simon (1583–1643), Dutch theologian, professor of theology in Leiden and then at the Remonstrant seminar in Amsterdam 41
- Erpenius, Thomas (1584–1624), Dutch Orientalist, Arabist, professor of Arabic (Leiden) 35–36, 54, 56, 59, 63, 66, 77, 78, 119, 137, 140, 142–144, 202, 203, 207, 250, 259, 261, 270, 280, 296, 325, 334
- Euclid (fl. 300 BC), ancient Greek mathematician, geometer 78, 96
- Eusebius of Caesarea (260–339), Greek church historian, biblical interpreter, bishop of Caesarea 79, 139, 142, 144
- Ewald, Heinrich George August (1803–1875), German Semitist, biblical scholar (of exegesis and Israelite history, professor of Oriental languages (Göttingen) 18, 71
- Ibn Ezra, Abraham ben Meir (1089–1164/67), Spanish Jewish scholar (after 1140 in exile in Rome, Lucca, Rouen, Béziers, and London), Bible commentator, philosopher, and translator of Hayyuj's works 59, 86, 108, 128, 139, 144, 145, 270, 276
- Ibn Fāris (d. AD 1004), Persian scholar in Hamadan and Tehran, Arabic philologist and lexicographer 76, 313
- Farizzol (also spelled Perizzol), Abraham ben Mordecai (1451–1525/26), Italian Jewish scholar, Bible commentator, geographer and polemicist 84
- al-Fasi, David ben Abraham (d. before 1026), Moroccan Jewish scholar from Fez, Karaite Hebrew grammarian and lexicographer 71
- Fellman, Jack (1945–), American-Israeli linguist 19, 22, 24, 27, 28
- al-Fīrūzābādī, (full name: Abū al-Ṭāhir Majīd al-Dīn Muḥammad ibn Ya'qūb ibn Muḥammad ibn Ibrāhīm al-Shīrāzī al-Fīrūzābādī), (1329–1414), Persian-born scholar, active in Mecca and Yemen, chief judge, Arabic lexicographer 57, 65, 66, 76–78, 104, 307
- Ford, Henry (1753–1813), Lord Almoner's professor of Arabic in Oxford (1780–1813) 320, 322
- Ford, William (1771–1832), Manchester bookseller 337
- Formigari, Lia (PhD 1963), Italian philosopher and linguist, historian of philosophy, professor emerita (University of Rome) 192, 193
- Forster, Johann (1496–1556), German Hebraist, Lutheran theologian, Hebrew lexicographer, professor of Hebrew (Wittenberg) 80, 86, 87–93, 97, 104, 115, 120, 121, 126, 127, 130, 132, 209, 277, 278–279, 282, 289, 307, 310, 312
- Freytag, Georg Wilhelm Friedrich (1788–1861), German Orientalist, Arabist, professor of Oriental languages (Bonn) 336
- Fronzaroli, Pelio (1930–), Italian linguist and Semitist (with a focus on Ugaritic and Eblaitic), professor of Hebrew and Semitic languages (Florence) 26, 212
- Fuller, Nicholas (1557–1626), English Hebraist and theologian 137, 143
- Fück, Johann (1894–1974), German Orientalist, Arabist, professor of Arabic and Islamic studies (Halle-Wittenberg) 19, 20, 22, 23
- Fürst, Julius (1805–1873), German Jewish Semitist, professor of Oriental languages and literature (Leipzig) 128, 129
- Gatterer, Johann Christoph (1727–1799), German ethnographic and universal historian, professor of history (Göttingen) 155, 228

- Geiger, Ludwig (1848–1919), German Jewish cultural historian, professor of modern history (Berlin) 80, 89
- Gellius, Aulus (fl. AD in the mid-2nd century), Roman author (miscellanist) 161
- Gerhard, Johann Ernst (1621–1668), German Orientalist and theologian, professor of history and theology (Jena) 105
- Gerretzen, Jan Gerard (1894–1981), Dutch intellectual historian, teacher of classical languages (Nijmegen) 47, 49, 175, 176
- Ben Gershon (Latinized Gersonides), Levi (1288–1344), French Jewish philosopher, exegete, physician, mathematician, Talmudic scholar 86, 144
- Gesenius, Wilhelm (1786–1842), German Semitist, biblical scholar, founder of modern lexicography of Biblical Hebrew, professor of theology (Halle) 13, 18, 26, 72, 80–82, 86, 105, 106, 112, 125–130, 252, 253, 255, 256, 317
- Giggei (Giggaeus), Antonio (d. 1632), Italian Orientalist, Arabist, Hebraist (Milan) 65, 77, 78, 104, 287, 307
- Glaire, Jean-Battiste (1798–1779), French Hebraist and biblical scholar, lecturer in Hebrew, professor of Sacred Scripture (Paris) 322, 323
- Glassius, Salomon (1593–1656), German theologian and biblical critic, superintendent (Sonderhausen and Gotha), professor of theology 191, 192, 249
- Golius, Jacob (1596–1667), Dutch Orientalist, Arabist, mathematician, professor of Arabic and mathematics (Leiden) 16, 36, 54, 63, 65, 77, 78, 99, 104, 108, 207, 251, 254, 270, 280, 287, 307, 308, 310, 336
- Goshen-Gottstein, Moshe (1625–1991), Semitist and biblical scholar, professor of Semitic linguistics and biblical philology (Hebrew University of Jerusalem) 13, 18, 20, 22, 24, 25, 30, 70, 81
- Gottheil, Richard (1862–1936), American Jewish scholar, Semitist 79, 80
- Gousset, Jacques (1635–1704), French Protestant theologian, professor of theology, philosophy and Greek (Groningen) 43, 60, 108, 112–120, 125–127, 131, 132, 206, 209, 210, 247, 269, 271, 277, 278, 283–285, 287, 289, 307, 319
- Grafton, Anthony (1950–), American historian, especially of early modern Europe 141, 157
- ‘s Gravesande, Jacob Willem (1688–1742), Dutch physicist and mathematician, professor of mathematics and astronomy (Leiden) 46–48
- Greenberg, Joseph (1915–2001), American Jewish linguist 261, 263
- Gregory of Nyssa (335–395), Christian theologian, bishop, defender of orthodoxy, one of the Cappadocian Fathers 135, 149, 150
- Grimm, Jacob (1785–1863), German linguist, literary scholar 171, 188
- Groenewegen, Henricus (1640–1692), Dutch Reformed theologian, minister (in Delshaven and Enkhuizen) 42
- Groenewoud, Johannes Jacobus (1754–1825), Dutch Orientalist and Reformed minister (in Frisia and Zeeland) 339
- Groenewoud, Jacobus Cornelis Swijghuijsen (1784–1859), Dutch Orientalist, professor of Oriental languages (Franeker and Utrecht) 325, 338, 339
- Grotius, Hugo (1583–1645), Dutch historian, jurist, Bible commentator 39, 41, 137, 148–150, 155, 222
- Guidi, Ignazio (1844–1935), Italian Orientalist, especially of Ethiopic and Syriac studies 18
- Gustiniano, Augustino (1470–1536), Italian Orientalist, bishop of Nebbio

- (Corsica), professor of Hebrew and Arabic (Paris, 1517–1522) 96
- Gyöngyössi de Pettyens, Paul (1707–1769), Hungarian-Dutch scholar, Orientalist, physician, student of Schultens 294, 297, 327
- Halbertsma, Joast Hiddes (1789–1869), Frisian philologist of the Hemsterhusian School 171
- ha-Levi, Yehuda (c. 1070–1141), Sephardic Jewish philosopher, poet, and physician 138, 139, 144–146
- Hamaker, Henric Arendt (1789–1835), Dutch Orientalist, Arabist, professor of Oriental languages (Franeker and Leiden) 340
- al-Ḥamawī, Yāqūt (1179–1229), Muslim scholar and geographer of Byzantine descent 78
- al-Ḥarīrī (of Basra), Abū Muhammad al-Qāsim ibn ‘Alī ibn ‘Uthmān (1054–1122), Arabic grammarian, known for his fifty *Maqāmāt* 63–66, 337
- al-Ḥārith ibn Ḥillizah (AD 5th century), Arab poet of the tribe of Bakr 66
- Hartwell Horne, Thomas (1780–1862), English theologian, librarian, and bibliographer 129
- Hārūn, Abū al-Faraj ibn al-Faraj (fl. In the first half of the 11th century), Karaite Jewish grammarian and lexicographer, active in Jerusalem 200
- Hasselbach, Rebecca (PhD 2004), American Semitist, Assyriologist, professor of Comparative Semitics (University of Chicago) 18
- Haßler, Gerda (1953–), German linguist, historian of language philosophy and linguistic thought, professor of Romance languages (Potsdam) 160, 162, 164, 165
- Ḥayyuj, Yehuda ben David (945–1000), Maghrebi Jewish scholar, Hebrew grammarian in Cordoba, the original proposer of the triconsonantal theory of Hebrew roots 71, 270, 274, 275
- Haywood, John Alfred (1913–1997), British Arabist, historian of Arabic lexicography, reader in Arabic (Durham) 75, 76, 77
- bar Hebraeus, Gregory (in Syriac Grigorios bar ‘Ebrāyā; in Arabic Abū ‘l-Faraj), (1226–1286), Syrian polymath, bishop, philosopher, poet, physician, historian, grammarian 78
- Heidanus, Abraham (1597–1678), Dutch theologian, adherent of Cartesianism, professor of theology (Leiden) 40
- van der Heide, Albert (1942–), Dutch Hebraist, scholar of Jewish studies, codicologist, lecturer in Hebrew (Leiden) and then professor of Judaism (Amsterdam) 286
- Heidegger, Johann Heinrich (1633–1698), Swiss Reformed theologian, professor of theology (Zürich) 270
- van Helmont, Francis Mercury (1614–1698), Flemish physician, alchemist, and Kabbalist (mainly active in England and Germany) 123, 131, 261, 285
- Helwig, Andreas (1572–1643), German classical philologist, Greek and German etymologist 317, 318
- Hemsterhuis, Tiberius (1685–1766), Dutch classicist and mathematician, professor of philosophy and mathematics (Amsterdam), professor of Greek (Franeker and Leiden) 28, 31, 49, 170–173, 176, 194, 195, 209, 244, 248, 296
- d’Herbelot, Barthélemy (1625–1695), French Orientalist 66
- Herder, Johann Gottfried (1744–1803), German philosopher, cultural historian, and literary critic 29, 137
- Hesse, Mary (1924–2016), English philosopher of science, professor of philosophy of science (Cambridge) 162
- von Hezel, Johann Wilhelm Friedrich (1754–1824), German Orientalist, professor of exegesis of Oriental languages (Tartu) 80, 105, 125, 131

- Heymann, Johannes [–1737], Dutch Orientalist, vicar in Smyrna, Ottoman Empire, professor of Oriental languages (Leiden) 37
- Hiller, Matthäus (1646–1725), German Hebraist and Lutheran theologian, professor of Oriental languages and theology in Tübingen (between 1698 and 1716) 178, 180, 202, 262–264
- Hinckelmann, Abraham (1652–1695), German Orientalist, Lutheran theologian, Superintendent-General and professor of theology (Kiel) 62, 64
- Hippocrates (c.460–c.375 BC), Greek physician, father of medicine 50, 51
- Hobbes, Thomas (1588–1679), English philosopher, founder of modern political theory 45
- Hoenen, Maarten J.F.M (1957–), Dutch philosopher, professor of philosophy (Basel) 161
- Holocke, Laurence (d. 1410), Benedictine monk, supposed author of lost Hebrew dictionary 83, 277
- van den Honert, Taco Hajo (1666–1740), Dutch theologian and Hebraist, professor of Hebrew antiquities (Leiden) 42, 155, 226, 227, 234, 271, 272
- Honorius (fl. 1451), Cistercian monk, supposed author of lost Hebrew dictionary 277
- Horne Tooke, John (1736–1812), English clergyman, politician, philologist, and writer 128, 193
- Hottinger, Johann Heinrich (–1667), Swiss Orientalist and theologian 29, 30, 54, 55, 58, 60, 95, 98–105, 108, 130–132, 203, 208, 223, 232, 252, 270, 289, 296, 308, 315, 334; *Etymologicum Orientale sive Lexicon harmonicum heptaglotton* 58, 95, 98, 100, 101, 103, 203, 252, *Hierozoicon* 55–57, 287, 308, *Smegma Orientale* 55, 58, 98–100, 102, 103, 208, 308, 315
- Huet, Pierre Daniel (1630–1721), French churchman, theologian, classical scholar, bishop of Soissons and Avranches 119, 135, 137, 148–150, 155, 222
- Hulsius, Paul (1655–1712), Dutch theologian, professor of theology (Groningen) 42
- Hunt, Thomas (1696–1774), English Orientalist, Laudian professor of Arabic (Oxford) 320, 321, 324, 327–329, 333
- Hupfeld, Hermann Christian Karl Friedrich (1796–1866), German Orientalist and Bible commentator, professor of theology (successively in Marburg and Halle) 13, 26, 82
- Husztí, György (1710–1767), Hungarian Hebraist, student of Schultens in Leiden, professor of theology (Cluj-Napoca/Klausenburg/Kolozsvár) 246
- Hutchinson, John (1674–1737), English theologian and natural philosopher 322, 333
- Hutter, Elias (1553–1605), German Hebraist, publisher of the Hebrew Bible and of the New Testament, professor of Hebrew (Leipzig) and head of a language school in Nuremberg 261, 262, 264, 296
- al-Idrīsī, Muhammad (1100–1165), Andalusī Arab geographer, adviser of King Roger II of Sicily 78, 96
- Ihre, Johan (1707–1780), Swedish scholar, etymologist, dialectologist, *professor Skytteanus* of eloquence and politics (Uppsala) 158, 188, 317
- Imbonati, Carlo Giuseppe (d. 1697), Italian scholar of Hebrew and theology of the Cistercian Order, abbot, bibliographer of Hebrew 274, 277
- Imru' al-Qays (d. AD 500), pre-Islamic Arab poet 65, 66
- Israel, Jonathan Irvine (1946–), British historian, professor of Dutch history (London), and then professor at School of Historical Studies (Princeton) 32, 40, 44, 45, 47, 49
- Ibn Janah, Jonah or Abū al-Walīd

- Marwān (990–1055), Andalusian Jewish scholar, physician, Hebrew grammarian and lexicographer, active in Saragossa 70–72, 82, 86, 270, 274–276
- al-Jawharī (al-Jauhari / al-Ġawhari), Abū Naṣr Ismāʿīl ibn Ḥammad (d. 1002 or 1008), Persian scholar of Turcic-Transoxian descent, Arabic lexicographer 65, 66, 76–78, 104, 307, 313
- Jones, Sir William (1746–1794), English Orientalist, jurist, political thinker, judge (Calcutta, Bengal) 23, 24, 28, 29, 65, 66, 336
- de Jonge, Henk Jan (1943–2022), Dutch church historian, professor of New Testament theology (Leiden) 33
- Jerome (Hieronimus), (342–420), theologian, translator of the Vulgate and Bible commentator 135, 144, 155
- Jost, Isaac Marc (1793–1860), German Jewish historian, teacher at Jewish schools in Berlin and Frankfurt am Main 326
- Junius (du Jon), the Elder, Franciscus (François), (1545–1602), French-Dutch Reformed theologian, Hebrew philologist, professor of theology (Leiden) 94, 144, 146
- Kaʿb ibn Zuhayr (AD 7th century), Arab poet, writer of lyric (*qaṣīda*) and panegyric (*naʿat*) Arabic poetry 65
- al-Khalīl, ibn Aḥmed (d. 786), Arabic lexicographer 75, 76
- Ben Kalonymus, Yishaq Nathan (1286–1328), Jewish philosopher and translator, author of a lexicographic concordance of the Hebrew Bible 72, 73, 84, 104, 289, 307
- Kals, Jan Willem (1700–1781), Dutch Reformed theologian, Hebraist and clergyman 291, 298, 303, 306, 315, 320–322, 324, 328–332, 336, 338
- Kaltner, John (1954–), American scholar of Islamic studies, professor of Muslim-Christian relations (Memphis, Tennessee), 25, 27, 28
- Ibn Kaspi, Joseph (1279/ 1280–1340/ 1345), Provençal Jewish biblical interpreter, philosopher and grammarian 72, 73
- ten Kate, Lambert (1674–1731), Dutch Germanist 27, 49
- Kaulen, Franz Philip (1827–1907), German biblical scholar 136
- Keckermann, Bartolomäus (1572–1609) German Reformed theologian, philosopher and educator 281
- Keuchen, Walter (born c. 1580, fl. 1610), German Hebraist, censor of Hebrew publications in Frankfurt am Main 97
- Khan, Geoffrey (1958–), British Semitist, professor Regius of Hebrew (Cambridge) 6, 200
- Kimchi, David (1160–1235), Jewish scholar, Hebrew grammarian and lexicographer, biblical commentator 72, 73, 83–86, 93, 104, 108, 126, 145, 200, 270, 274–277, 289, 307
- Kircher, Athanasius (1601/1602–1680), German polymath, scientist, mathematician, Egyptologist 137, 159
- Knoeff, Rina (PhD 2000), Dutch historian of medicine and science, professor (Groningen) 51
- Koehler, Ludwig (1880–1956), German biblical scholar, Semitist and theologian 129, 253, 255, 256, 312, 317
- Kokovtsov, Paul Konstaninovich (1891–1942), Russian Orientalist and Hebraist, professor of Oriental languages (St. Petersburg) 72
- König, Friedrich Eduard (1846–1936), German Hebraist, lexicographer, and exegete 129
- Korobkin, Daniel (c. 1958–), rabbi, American scholar of medieval Jewish and Islamic thought (Toronto) 138, 139
- Kraus, Hans-Joachim (1918–2000), German theologian, historian of biblical interpretation 21, 22
- Kromayer, Johann Abraham (1665–

- 1733), German theologian, Hebraist and Arabist, superintendent of Ohrdruf 60, 61, 206, 207, 209
- Kuhn, Thomas (1922–1996), American historian and philosopher of science 136
- Kutscher, Eduard Yechezkel (1909–1971), Israeli scholar, linguist and Hebraist 18, 19, 22, 23, 27, 28
- Labīd (full name Abū Aqīl Labīd ibn Rabīʿa ibn Mālik al-ʿĀmir), (c. 560–661), Arab poet from Hejaz 65, 66
- Lausberg, Heinrich (1912–1992), German classical philologist and historical linguist 162, 182, 188, 190, 209
- Law, Vivien (1954–2002), Canadian-British linguist, historian of linguistic ideas with a focus on medieval grammar, professor of linguistics (Cambridge) 28, 164
- Le Clerc (Clericus), Jean (Johannes), (1657–1736), Swiss biblical scholar, critic, journalist, from 1684 active as professor of philosophy, literature and Hebrew at the Remonstrant Seminary in Amsterdam 16, 41, 48, 49, 50, 137, 148, 150–152, 154, 155, 179, 185, 206, 222, 224, 226, 248, 249, 289, 300, 307
- Le Mair, Johannes (1712–1798), Dutch publisher 291, 325, 326, 468
- Leibniz, Gottfried Wilhelm (1646–1716), German polymath, mathematician, philosopher, diplomatist, linguist 20, 25, 61, 122, 123, 158, 194, 197–199
- Leigh, Edward (1602–1671), English Puritan, theologian, Hebraist and classical scholar 104, 105, 132, 280
- Lefèvre, Lucien (1850–1902), French lithographer and poster artist 2
- L'Empereur, Constantine (1591–1648), Dutch Hebraist and theologian, professor of Hebrew and theology (Leiden) 33, 36
- van Lennep, Johann Daniel (1724–1771), Dutch classicist, professor of Greek and Latin (Groningen) 164, 165, 173–175, 241, 296
- Leo, Christopher (fl. 1836), English Jewish scholar of Hebrew and German (Cambridge) 128
- Leopold, Ernst Friedrich (1804–1852), German Hebraist and Hebrew lexicographer 128, 129
- Leusden, Johannes (1624–1699), Dutch Reformed theologian and Orientalist, professor of Hebrew (Utrecht) 33
- van Leeuwen, Richard (PhD 1991), Dutch Arabist, lecturer of Arabic and Islamic studies (Amsterdam) 31
- Levita, Elia (1469–1549), Italian Jewish Hebraist, grammarian and lexicographer 72, 74, 145, 274, 296
- Locke, John (1632–1704), English philosopher, founder of British empiricism 17, 28, 44, 45, 47, 124, 131, 158, 192–199, 244, 245, 308
- Loop, Jan (1974–), Swiss Arabist, historian of Near Eastern and Islamic studies, professor of early modern history and religious studies (Copenhagen) 25, 28–30, 59, 63, 99, 101, 106
- Loretz, Oswald (1928–2014), German theologian, priest, Orientalist with a focus on Ugaritic, professor of theology (Münster) 138
- Löscher (Loescher), Valentin Ernst (1672–1749), German Lutheran theologian and churchman, professor of theology (Wittenberg 1707–1709), superintendent of Jüterbog and Delitzsch (1698–1707) and of Dresden (1709–1749) 79, 82, 127, 137, 178–180, 211, 214, 239, 277, 281, 309
- Lucretius (96/ 94–50/ 52 BC), Roman Epicurean philosopher, didactic poet 150
- Ludolf, Hiob (1624–1704), German Orientalist, pioneer of Ethiopic studies in Europe 26, 55, 56, 101, 104, 108, 270, 289
- Luqmān, the Wise, Arab sage, mentioned in the Koran (Sura 31),

- identified with Luqmān the fabulist 63, 78
- Luther, Martin (1483–1546), Reformer, professor of biblical interpretation (Wittenberg) 110, 118, 140, 146, 213, 226
- Luzac, Johann (1702–1783), Dutch publisher (Leiden) 352, 367, 368
- Luzac, Elie (1721–1796), Dutch publisher, journalist, and scientist (Leiden) 328
- al-Makīn, Jiris ibn al-‘Amīd (also known as George Elmacin), (1206–1280), Coptic historian 62, 78
- al-Ma‘arrī, Abū al-‘Alā (in Latin Abulola), (973–1057), Arab poet, critic and satirist 63
- Ibn Manzūr, full name Muhammad ibn Mukarram ibn Ali ibn Ahmad Manzūr al-Ansari al-Ifriqi al-Mistri al-Khazraji (1233–1311), Arab philologist of Tunisia, judge in Tripoli, lexicographer of Arabic 77
- Ibn Ma‘rūph. See al-Dīn.
- Maria Eleonora of Brandenburg (1607–1675), German Countess 110
- Marini, Marco (1542–1594), Italian Orientalist from Brescia, Hebrew lexicographer 92–93
- Martini, Matthias (1572–1630), German classical scholar, theologian and philosopher, professor of theology (Bremen) 109
- Martini, Martino (1614–1661), Italian Jesuit missionary in China, historian, cartographer 159
- Masius, Andreas (1514–1573), Flemish scholar of Syriac, compiler of the dictionary *Syrorum peculium* 104
- Maukisch, Johann (1617–1669), German Lutheran theologian, professor of theology (Danzig) 87, 90
- May (Majus), Johann Heinrich the Elder (1653–1719), German Orientalist, Lutheran theologian, historian, professor of Hebrew and theology (Giessen) 90, 109, 111, 112, 120, 121, 131, 132, 289, 307
- Mees, Menso Alting (1744–1795), Dutch academic and minister in Middle Frisia (Woltersum and Leermens), the son of the preacher Petrus Mees (1707–1780) 339
- Meier-Oeser, Stephan (1957–), German scholar, historian of medieval philosophy 197, 211
- Mercier, Jean (d. 1570), French Hebraist, grammarian 86, 87, 90, 92, 93, 97, 130, 144–146, 205, 270
- Meyer, Gottlob Wilhelm (1768–1816), German biblical scholar, Lutheran theologian, professor of theology (Altdorf and Erlangen) 96, 105
- Michaelis, Johann David (1717–1791), German Orientalist and theologian, professor of philosophy (Göttingen) 23, 82, 104, 111, 116, 119, 125, 127, 138, 331, 332, 336
- à Middoch, Henric (fl. 1678), Dutch Hebraist 105, 132, 280
- Miller, Edward (fl. 1927), American scholar, Columbia University fellow in Semitics 127, 128
- Millies, Henric Christian (1810–1868), Dutch Orientalist, professor of theology (Amsterdam) 335, 339, 341
- Millot, Adolphe Philippe (1857–1921), French painter, lithographer, and entomologist 2
- Molhuysen, Philipp Christiaan (1870–1944), Dutch librarian, historian, biographer (Leiden) 35–37, 49, 171, 297
- Morhof, Georg Daniel (1639–1690), German polymath, professor of eloquence and poetry and finally of history (Kiel) 157
- Morin, Etienne (1624–1700), French-Dutch protestant scholar, Orientalist, vicar in Caen, professor of Oriental languages (Amsterdam) 137, 156
- Morin, Jean (1591–1659), French biblical scholar and critic, Orientalist 17, 101, 104, 233
- al-Muhasībī (781–857), Arab philosopher and theologian (Baghdad) 57

- Mühlau, Ferdinand (1839–1914), German scholar, Lutheran theologian and Hebraist, professor of exegetic theology (Tartu) and New Testament exegesis (Kiel) 13, 128
- Muller, Jean-Claude (1956–), Luxembourgian linguist and cultural scholar 19, 25, 27
- Müller, Andreas (c. 1630–1694/1699), German scholar, Hebraist and Sinologist 79
- Münster, Sebastian (1488–1552), German Orientalist, Hebraist, cartographer, cosmographer, professor of Hebrew (Basel), 81, 83, 84, 85, 88, 92, 93, 104, 130, 135, 201, 204, 205, 277, 279
- Musschenbroek, Pieter van (1792–1761), Dutch scientist, professor of mathematics, medicine, and philosophy (Utrecht 1723–1739), professor of physics, mathematics, astronomy, and natural philosophy (Leiden 1740–1761) 47, 49, 176
- al-Mutanabbī, Abū al-Tayyib Aḥmad ibn Ḥusayn of Kufa (915–965), Arab poet 78
- Muzjmel (10th century), Arabic lexicographer 78
- ben Nachman (Nachmanides), Moses (1194–1270), Spanish Jewish philosopher, physician and commentator of the Bible 84, 138
- al-Naḥḥās, Abū Jaʿfar Aḥmad Ibn Muhammad ibn Ismail ibn Yūnus al-Murād (d. AD 949), Egyptian grammarian and scholar of the Koran 65, 66
- Nat, Jan (1895–1942), Dutch Semitist, historian of Dutch Oriental studies (Amsterdam, where he was a pupil of Juda Lion Palache) 19, 21
- Neis, Cordula (1971–), German linguist, historian of linguistic ideas 18, 25, 30, 137
- Neubauer, Adolf (1832–1907), Hungarian Jewish Hebraist, librarian at Bodleian Library, reader of rabbinic Hebrew (Oxford) 72
- Neumann, Caspar (1648–1715), German theologian, scholar who developed a pictographic method of Hebrew semantics, inspector of Protestant schools and churches in Breslau and professor of theology 60, 121–124, 127, 131, 211, 277, 285
- Neumann, Petrus Werner, alias rabbi Hertog Leuwy (fl. 1740s), Dutch Hebraist, rabbi in Leeuwarden before his conversion to Christianity, lecturer in Oriental languages (Utrecht) 340
- Newton, Isaac (1642–1727), English scientist, mathematician, physicist, astronomer, and theologian 45, 47, 49, 52
- Nizolius (Nizzoli), Marius (Mario), (1498–1566), Italian grammarian and philosopher 197
- Nöldeke, Theodore (1836–1930), German Semitist and scholar of the Koran, professor of Oriental languages (Kiel and Strasbourg) 18, 26
- Nolde (Noldius), Christian (1626–1683), Icelandic-Danish theologian, professor of theology (Copenhagen) 270, 289
- Nonius Marcellus (4th century AD), Roman grammarian 209
- Noordegraaf, Jan (1948–), Dutch linguist, historian of linguistic ideas, professor of linguistics (Amsterdam) 27, 49
- al-Nuwayrī (1279–1333), Shibāb al-Dīn Aḥmad bin ʿabd al-Wahhāb (1279–1333), Egyptian historian and encyclopaedist 37, 78
- Olmo Lete, Gregorio del (1935–), Spanish Semitist, professor of Semitic languages with a special focus on Hebrew and Ugaritic (Barcelona) 214–216
- Olszowy-Schlanger, Judith (1967–), French Hebraist, esp. of Hebrew

- palaeography and codicology,
professor of Hebrew and Judaeo-
Arabic manuscript studies (Paris),
director of the Oxford Center for
Hebrew and Jewish studies 83, 277
- Origen of Alexandria (AD 185–235),
Church Father, biblical scholar,
theologian 135, 143, 155
- Ovid (Publius Ovidius Naso), Roman
poet 317
- Packard, Joseph (1812–1902),
American biblical scholar and priest,
professor of sacred literature
(Virginia theological seminary) 62
- Pagninus (also spelled Pagnino), Santes
(1470–1536), Italian Dominican,
biblical scholar, Hebraist, Hebrew
grammarian and lexicographer 83,
85–88, 92, 93, 104, 109, 126, 130,
135, 144, 201, 277, 278, 280, 289,
296, 307
- Palache, Juda Lion (1886–1944), Dutch
Jewish scholar, professor of Semitic
languages and Old Testament
interpretation (Amsterdam) 310
- van der Palm, Johannes Henric (1763–
1840), Dutch Orientalist and
educational politician, professor of
Oriental languages and sacred
literature (Leiden) 64, 66, 339
- Pareau, Jean Henri (1761–1833), Dutch
Orientalist, professor of Oriental
languages (Harderwijk and Utrecht)
325
- Pareau, Louis Gerlach (1800–1866),
Dutch theologian belonging to the
Groningen school of the Dutch
Reformed Church, the son of Jean
Henri Pareau 325
- Parkhurst, John (1728–1797), English
scholar, Hebrew lexicographer 126,
299, 320, 322, 332, 333, 337, 338
- Pezron, Paul-Yves (1630–1706), French
scholar of Celtic languages,
Cistercian monk, theologian 318
- Pellikan, Konrad, (1478–1556), German
Reformed theologian, Hebraist,
professor of theology (Basel),
professor of Greek and Hebrew
(Zürich) 85
- Pereira, Benito (1536–1610), Spanish
philosopher, theologian, and biblical
interpreter 144, 145
- Pell Platt, Thomas (1798–1852), British
Orientalist 322, 337
- Percival, Keith (1930–2020), British-
American linguist, professor of
historical linguistics (in Wisconsin-
Milwaukee and Kansas) 168
- Perizonius, Jacob (1651–1715), Dutch
classical scholar, professor of
eloquence (Franeker and Leiden)
168–172, 187, 242, 243
- Pfeiffer, August (1640–1698), German
Orientalist, Lutheran theologian,
professor of Oriental languages
(Leipzig), superintendent of Lübeck
59, 60, 79, 90, 137, 144, 146–147,
178, 205, 206, 211, 232, 261–262,
270, 279, 296, 297
- Philippe, Marie-Dominique (1912–
2006), French theologian and
philosopher, professor of
metaphysics (Université de
Fribourg) 161, 162
- de la Place, Josué (1596–1665), French
Reformed theologian, professor of
theology (Samour) 112
- Plato (429–348 BC), Greek philosopher
42, 43, 144, 161
- Pococke, Edward (1604–1691), English
Orientalist, Arabist, professor of
Arabic and Hebrew (Oxford) 53–56,
60, 72, 82, 206, 270, 312, 314, 334,
336
- Polak, Frank (1943–), Israeli Semitist
and biblical scholar, professor of
Biblical Studies (Tel Aviv) 6, 23
- Postel, Guillaume (1510–1581), French
polymath, Orientalist, classical
scholar, diplomatist, cartographer,
Kabbalist 54, 78, 135, 144
- Praetorius, Franz (1847–1927), German
Semitist, professor of Oriental
languages (Breslau and Halle) 18, 26
- Prijs, Joseph (1889–1956), rabbi,
German scholar, historian of Jewish
studies, bibliographer 81

- Putman, Henry (1725–1797), minister of the Dutch Reformed Church in London 336
- al-Qālī, abū Alī (893–967), Ismāʿīl Ibn-al-Qāsim, Iraqi Arab philologist, scholar of Arabic prose and poetry (Baghdad) 76
- al-Qazwīnī, Zakariya (1203–1283), Arab cosmographer, geographer, professor of jurisprudence, chief judge (*qadi*), active in Wasit 57
- Quintilian, Marcus Fabius (AD c. 35 – c. 100), Roman educator, rhetorician (Rome) 161–163, 182, 183, 187–191, 209, 243, 246
- Ibn Quraysh, Yehuda (fl. 9th century), Algerian Jewish scholar, grammarian, lexicographer 71, 72, 206, 274
- de Raey, Johannes (1622–1702), Dutch Cartesian philosopher, professor of philosophy (Leiden, Amsterdam) 48
- Rambach, Johann Jacob (1693–1735), German theologian and hermeneutical theorist 211
- Ramus (de la Ramée), Petrus (Pierre), (1615–1572), French philosopher, logician and rhetorician (active in Paris) 191
- Raphelengius (van Ravelingen), Franciscus (Frans), Flemish Orientalist and printer, professor of Hebrew (Leiden) 35, 76, 77, 78, 87, 96, 108, 130
- Rashi (an acronym of Rabbi Shʿlomon Yiṣḥaq), (1040–1105), French Jewish scholar, prominent biblical expositor, commentator of the Talmud 84, 86, 138, 144–146, 289
- Rask, Rasmus (1787–1832), Danish linguist, grammarian, scholar of comparative philology, professor of Eastern languages (Copenhagen) 188
- Ravius, Christian(us), (1613–1677), German Orientalist, professor of Oriental languages (Uppsala), professor of biblical chronology (Frankfurt an der Oder) 105, 166, 176–177, 202, 207, 208, 212, 225, 239, 259, 261, 296, 334
- al-Rawīya, Hammad (d. AD 772), Iranian scholar active in Kufah, anthologist of Arabic antiquities, collector of *al-Muʿallaqat* poems 63
- Reiske, Johann Jacob (1716–1774), German Arabist and Greek scholar, pioneer of Arabic philology and numismatics, headmaster of St Nicholas school in Leipzig 20, 27–29, 250, 336
- Renner, Frederick M. (1919–1993), Slovenian-American Germanist, translator and educator 181, 189, 225
- Reuchlin, Anton (1522–1558), German Hebraist and clergyman, professor of Hebrew (Strassburg) 73, 289
- Reuchlin, Johannes (1455–1522), German humanist, Kabbalist, lawyer, political counselor, Hebraist, Hebrew lexicographer, finally professor of Hebrew (Ingolstadt and Tübingen) 79, 80, 83–86, 126, 130, 132, 201, 277, 279; *De rudimentis Hebraicis* 79, 83, 85
- Rhenferd(ius), Jacob (1654–1712), Dutch Orientalist, professor of Hebrew (Franeker) 34, 35, 208, 209
- al-Rizzi, Sergius (1572–1638), Lebanese Maronite bishop, scholar of Syriac, active in Rome 77
- Robins, Robert (1921–2000), British linguist, historian of linguistic ideas, professor of general linguistics (London) 137, 164, 172
- Robinson, Edward (1794–1863), scholar of the geography of Palestine and biblical archaeology, professor of sacred literature (Andover Theological Seminary), librarian of the Burke Library 128, 129
- Rooden, Peter van (1956–), Dutch historian of religion (University of Amsterdam) 33, 36
- Rosenthal, Franz (1914–2003), American Semitist and Arabist, professor of Semitic languages, after

- that, Sterling professor emeritus of Arabic (Yale University) 204, 205
- de' Rossi, Azariah ben Moses (1513–1578), Italian Jewish scholar and author, physician (Ferrara) 139, 144, 145
- Rundgren, Frithiof (1921–2006), Swedish Semitist, professor of Semitic languages (Uppsala) 240
- Saadia Gaon (882–942), rabbi, director of the Academy of Sura (southern Iraq), grammarian, philosopher 69, 70, 71, 76, 77, 86, 96, 138, 200, 261, 270, 274, 275
- Sa'dī of Siraz (1210–1291), Persian poet, author of the didactic work *Gulistān* 36
- de Sacy, Antoine-Isaac Sylvestre (1758–1838), French Orientalist, Arabist, professor of Arabic (Paris) 18, 62, 289
- Sale, George (1697–1736), English Orientalist, solicitor, translator of the Koran into English 155
- Sallier, Claude (1685–1761), French Orientalist, professor of Hebrew (Collège de France, Paris) 298
- Salmasius, Claudius (1588–1653), French classical philologist, from 1631 professor in Leiden 270
- Salmon, Vivien (1921–2010), British linguist, historian of linguistic ideas, education, and didactics 136
- Sanctius (Sanchéz), Franciscus (1523–1600), Spanish scholar, Renaissance humanist, linguist 166–170, 172, 187, 210, 239, 242, 243
- Sanford LaSor, Wiliam (1911–1991), American Semitist, professor of Old Testament (Pasadena, California) 261, 263, 265
- Ibn Saruq, Menaḥem (920–970), Spanish Jewish philologist, poet 70, 71, 79, 83, 200, 274
- Sassen, Ferdinand Léon Rudolphe (1894–1971), Dutch philosopher, professor of philosophy (Nijmegen and Leiden) 47
- Scaliger, Iulius Caesar (1484–1558), Italian-French classicist and physician 113, 114, 137, 124, 165, 166, 210, 239
- Scaliger, Joseph Justus (1540–1609), French polymath, historian, classical philologist, professor of history (Leiden) 78, 78, 119, 137, 140–144, 157, 270
- Schaaf, Carolus (1646–1729), German Syriac scholar, lecturer in Hebrew and other Semitic languages (Leiden, 1680–1719), extraordinary professor of Oriental languages (Leiden, 1720–1729) 33, 36, 37
- Scheidius, Everard (1742–1794), Dutch Orientalist, Reformed theologian, professor of Oriental languages, Old and New Testament studies, and Greek (Harderwijk), and professor of Oriental languages (Leiden, 1793–1794) 164, 165, 175, 289, 296, 323, 335, 336, 338, 339
- Schindler, Valentin (1543–1604), German Orientalist, professor of Oriental languages (Wittenberg and Helmstedt) 77, 95–98, 100, 101, 104–106, 108, 109, 130, 132, 203, 206, 207, 252–256, 270, 277, 280, 296, 334; *Lexicon pentaglotton* 77, 95, 97, 98, 103–105, 109, 203, 206, 207, 252–256, 280
- von Schlözer, August Ludwig (1735–1809), German historian, philologist, jurist, and publisher 29, 155, 228
- Schneppen, Heinz (1931–), German historian and diplomatist 39
- Schroeder, Nicolaus Wilhelm (1721–1798), German-Dutch Orientalist, for almost fifty years professor of Oriental languages at the University of Groningen 126, 129, 298, 336
- Schultens, Albert (1685–1750), Dutch Orientalist, Hebraist and Arabist, professor of Hebrew (Franeker), professor of Oriental languages (Leiden). *passim*, mainly:
– achievements as evaluated in modern research 18–31

- analogy, concept of 160, 239–242
- Arabic literature, studies of and manuscript copying of 62–66
- Arabic language, use of for biblical interpretation 55–61
- Biblical Hebrew, epistemic lacunae (*defectus*) of 231–236
- comparative Hebrew philology, innovations in 13–14, 16, self-understanding as a renewer of 14, 270–271
- confessional and intellectual contexts: Cocceianism and Remonstrantism 38–44; British empiricism 44–52
- principal dialects of Ancient Greece, classification of 229–230
- etymological dictionary of Biblical Hebrew: the draft 286–288, the printed sample 288–289, records of his dictation 291–295, goals, dating and purposes 295–301, 325, microstructure of 306–309, examples 309–316
- Greco-Roman theory of language, Schultens’ adoption of 183–185
- Hebrew lexicography: Jewish lexicographers 69–74, Christian lexicographers 79–123, 132, Schultens’ innovatio 124, his goals 269, 299–300, disapproval of the logical approach towards 272–273 and views on earlier lexicographers 274–285,
- Hebrew consonantal phonemes, Schultens’ classification of 201
- language origins and language relationship, Schultens’ views on 123–125, his references to the views of Joseph Justus Scaliger 142, Nicolas Fuller 143, August Pfeiffer 147, and Georg Stiernhielm 159
- Lockean cognitive semantics and etymology, Schultens’ approval of 193, 195 f.
- morphological pattering of the Hebrew root, Schultens’ theory and practice of 264, 265, 301–306
- Oriental, i.e. Semitic, languages, Schultens’ reclassification of 219–220, 225–227
- Persian and Turkish excluded from Schultens’ concept of Oriental languages 15, 21, 226
- Persian, (Ottoman) Turkish, Coptic and Armenian, Schultens’ knowledge of 15, 222, his possession of dictionaries and grammars of these languages 222
- political background and educational contexts of Schultens’ philology 32–37
- topic of the primeval language of humankind, Schultens’ metadiscursive views on 121–122
- semantic ambiguity of Biblical Hebrew, Schultens’ refutation of the charge of 236–237
- semantic research: Schultens’ concept of proper meaning 210–211, his concept of formal meaning 212, his classicizing concepts 243 f., his epistemological bases 244–246, his views on semantic change and development 246–248, his concept of “natural rhetoric” as a set of cognitive metaphors and metonymies 248–250
- sound correspondences, Schultens’ observations on those between Hebrew and Arabic 252–256 and between Hebrew and Aramaic 257–258
- treatises on Biblical Hebrew etymology and philology: *De utilitate linguae Arabicae* (1706) 19, 49, 55; *De defectibus hodiernis linguae Hebraeae* (1731) 124, 184, 232, 234, 236, 237, 242, 280, 300, 325, 330, 337 *Clavis dialectorum*, the first edition (1733) 26, 96, 201, 202,

- 206, 209, 251–260, 287, 288, 304, 305, 314, the second edition (1770) 325;
Vindiciae Originum Hebraearum etc. (1737) 234, 236, 237, 272, 283, 300, 315, 325
Liber Jobi cum nova versione ad Hebraeum fontem et commentario perpetuo (1737) 41, 283, 288, 299
Origines Hebraeae, first volume (1724) 32, 66, 231, 232, 286, 300, 315, second volume (1738) 15, 21, 24, 32, 50, 57, 219, 220, 225, 226, 229, 233–235, 245, 270–270, 275–285; both volumes 19, 44, 124, 127, 331, the 1761 edition 325
Vetus et regia via Hebraizandi (1738) 19, 34–35., 43, 44, 49, 124, 125, 195, 210, 229, 238, 245–249, 269, 271, 272, 283–285, 288, 337
Epistola prima ad F.O. Menkenium (1749) 244, 250
 – treatises on the primeval language:
Excursus primus (1739) 272, 277, 278, 283, 284, *Excursus secundus* (1739) 270. *Excursus tertius* etc. (1739) 50, 221, 227, 229, 234, 239, 249, 279, 285, 299
 Preface to *Proverbia Salomonis* (1748) 30, 32, 43, 50, 143, 220, 222, 223, 229, 230, 270, 284, 300, 330
 – treatises on Hebrew and Aramaic grammar:
Institutiones ad fundamenta linguae Hebraeae (1737) 138, 177, 184, 201, 229, 230, 235, 239–241, 249, 274, 275, 285, 286, 288, 295, 296, 300, 304, 337
Institutiones Aramaeae (1745–1749) 201, 202, 240, 257, 258, 295, 300
 – *Stricturae ad origines Hebraeas*, the ordinary title of Schultens’ unpublished Hebrew dictionary 290–292, 337–342, with variants, such as *Lexicon Hebraicum* 291, 293, and *Cursus radicum* 291, account of extant records 291–295, former owners of records 320–342
 – possession of books according to the printed catalogue of a part of his private library, titled *Pars bibliothecae Schultensianae* (Leiden 1750) 45, 48, 49, 73, 74, 79, 84, 87, 90–92, 94, 95, 97, 103, 104, 105, 112, 119, 120, 121, 132, 209, 22, 261, 274, 280; according to the catalogue of the library of the Schultens’ family titled *Bibliotheca Schultensiana*, (Leiden 1780) 75, 85, 112, 132, 158, 178, 222, 274, 280, 289
 Schultens, Henric Albert (1749–1793), Dutch Orientalist, Arabist (the son of Jan Jacob Schultens, the grandson of Albert Schultens), professor of Oriental languages and Hebrew antiquities (Amsterdam and Leiden) 23, 65, 325, 335, 336, 340
 Schultens, Jan Jacob (1717–1778), Dutch Orientalist and theologian, professor of Oriental languages and theology (Hernborn and Leiden) 38, 66, 74, 85, 158, 213, 236–238, 246, 321, 326, 334, 336, 339
 Schulz, Johann Christoph Friedrich (1747–1806), German biblical scholar, Orientalist, Lutheran theologian, professor of Oriental literature and theology (Giessen), 79, 111, 127
 Schuurman, Paul (c. 1960–), Dutch scholar, professor of the history of philosophy (Rotterdam) 47, 48
 Selden, John (1584–1654), English polymath, jurist, scholar of Jewish law 270
 Senguerd, Wolferd (1646–1724), Dutch natural philosopher, professor of physics (Leiden) 48, 49

- Sforno, Obadiah ben Jacob (c. 1470–c. 1550), Italian Jewish scholar, biblical commentator, philosopher, physician and educator 83, 139, 146
- Ibn Sīdah, Abū'l-Ḥasan 'Alī ibn Ismā'īl (1007–1066), Andalusian Arabic scholar, Arabic lexicographer 76
- Siebenborn, Elmar (1942–2020), German classicist 160–163, 189
- Siegfried, Carl (1830–1903), German Orientalist and theologian, professor of Old Testament theology (Jena) 106, 128
- Simon, Richard (1638–1712), French biblical critic 17, 89, 118, 135, 137, 148, 150, 179, 233, 274, 275
- Simone, Raffaele (1944–), Italian linguist, lexicographer, historian of linguistic ideas and language philosophy 136, 137, 192, 225
- Simonis, Johannes (1698–1768), German Hebraist, professor of church history and Hebrew antiquities (Halle) 82, 125, 127–129, 211, 331
- Slofstra, Bouke (c. 1950–), Dutch classicist and linguist 49, 170–172, 195, 209
- Sluiter, Ineke (1959–), Dutch classicist, professor of Greek (Leiden) 186
- Spinoza, Baruch (1632–1677), Dutch scholar of Portuguese Jewish descent, philosopher, biblical critic, Hebrew philologist 25, 118, 152–154, 177–180, 231–236, 239, 300
- Stade, Bernhard (1848–1906), German theologian, Hebraist and historian, professor of theology (Giessen) 129
- Stam, James Henry (1937–), American educator of philosophy, professor of philosophy (Upsala College) and professor of education, public issues (Monmouth University) 137, 192
- Stamm, Johann Jacob (1910–1993), Swiss Reformed theologian, Semitist, reader in Hebrew (Basel), and extraordinary professor of Old Testament and general history of religion (Bern) 129, 312
- Steinschneider, Moritz (1816–1907), Moravian Jewish bibliographer of Hebrew and Jewish literature, *Orientalist* 80, 323
- Sterringa, Julius Abraham (1660–1724), Dutch theologian, Reformed minister in Lippenhuizen and Boornbergum 35
- Steuco, Agustino (1497–1548), Italian humanist (of Eugubini), biblical scholar 145, 146
- Stiernhielm, Georg (1598–1672), Swedish official, linguist, poet, and mathematician 158, 159, 224
- Stockius, Christian (1672–1733), German Orientalist and Greek scholar, extraordinary professor of philosophy (Jena) 109, 111, 120, 121, 127, 129, 130, 132, 209, 285, 287, 289, 306, 312
- Strazzoni, Andrea (c. 1984–), Italian historian of science, specializing in Dutch Cartesianism, assistant professor (Turino) 40, 41, 46, 48
- Stuart, Moses (1780–1852), American theologian and Hebraist, professor of sacred literature (Andover Seminary, Boston) 129, 130
- al-Ṭaballabī (Latinized Teblebius), Abdallah ibn Muhammad (fl. 16th century), Arabic grammarian 65, 66
- Ṭarafah, ibn al-'Abd (AD 543–569), pre-Islamic Arab poet 65, 66
- Taylor, John (1694–1761), English clergyman, Presbyterian minister in Norwich, Hebrew scholar 125–126
- Taylor, Talbot, professor of linguistics and English (Williamsburg, Virginia) 193, 194
- al-Tebrīzī, Yahyā ibn 'Alī (d. AD 1109), Arabic grammarian 65
- Tene, David (1922–1997), Israeli scholar of medieval and modern Hebrew, lecturer in Hebrew linguistics (Hebrew University of Jerusalem) 69–71, 261
- Theodoret of Cyrrihus (393–457), theologian of the School of Antioch, Bible commentator, bishop 135, 149

- Thomassin, Louis (1619–1695), French theologian, Hebraist, professor of theology (Samour and at Seminary of Saint-Magloire, Paris) 318
- Thornthorn, E. N., esquire of Kennington 322, 323, 337
- van Til, Salomon (1643–1713), Dutch Reformed theologian, professor of Church history and philology (Amsterdam) and professor of theology (Leiden) 42, 184, 185
- Timur (1320–1405), Turcic-Mongol conqueror, known in the West as Tamerlane 36, 63, 78
- Todorov, Tzvetan (1939–2017), Bulgarian-French philosopher, historian, and literary critic 196
- Tremellius, Immanuel (1510–1580), Italian Jewish-Christian convert, Regius professor of Hebrew in Cambridge (1547–53), professor of Old Testament in Heidelberg (1561), Latin Bible translator 94
- Tronchin, Louis (1629–1705), a Swiss Reformed theologian, professor of theology (Geneva) 40
- Trostius, Martin (1588–1636), German Hebraist, professor of Hebrew (Wittenberg) 104, 212, 296
- Uchtmanns, Allardt (1612–1680), Dutch Hebraist and classical scholar, lecturer in Hebrew (Leiden) 36
- Ullendorf, Edward (1920–2011), British Semitist, Ethiopologist, professor of Semitic languages (London) 18
- Varro, Marcus Terentius (116–27 BC); Roman polymath and grammar, 163–166, 168, 172, 175, 177, 186, 187, 209, 239, 243
- Verburg, Jacob (1778–1861), Dutch Orientalist, professor of Oriental languages and Jewish antiquities (Deventer) 335, 340
- Verburg, Pieter Adrianus (1905–1989), Dutch linguist, professor of general linguistics (Groningen) 170, 175, 176, 240
- Verestói, György (1698–1764), Hungarian Reformed theologian, professor of philosophy and then of theology (Cluj-Napoca), bishop of Transylvania 293
- Versteegh, Kees (1947–), Dutch linguist, Arabist, professor of Islamic studies and Arabic (Nijmegen) 53, 76
- Vico, Giambattista (1668–1744), Italian historian, philosopher, rhetorician, and jurist 194
- Voetius, Gisbert (1589–1676), Dutch Reformed theologian and educator, professor of theology, Hebrew, and other Oriental languages (Utrecht) 39, 42, 43
- Voigt, Rainer (1944–), German Semitist, professor of Semitic languages (FU Berlin) 101, 102
- de Volder, Burchard (1643–1709), Dutch physicist and empiricist, professor of physics (Leiden) 48
- Volck, Johann Christoph Wilhelm (1835–1904), German theologian, professor of theology (Tartu, Greiswald, and Rostock) 128
- Voorst, Jan Jacob (1791–1859), Dutch Reformed minister 342
- van Voorst, Dirk Cornelis (1753–1833), Dutch Reformed minister (in Hien and Dodewaard), book collector 335, 342
- van Voorst, Johannes (1757–1833), Dutch theologian, professor of theology (Leiden) 335, 339
- Vossius, Gerard Joannis (1577–1649), Dutch classical scholar, historian, theologian, professor of rhetoric and Greek (Leiden) and professor of history (Amsterdam) 166, 172, 175, 183, 190–192, 239, 246, 309
- Vossius, Isaac (1618–1689), Dutch polymath, philologist, historian and manuscript collector 17, 152–154, 232–236
- Vriemoet, Emo Lucius (1699–1760), Dutch Orientalist professor of Oriental languages and of Hebrew antiquities (Franeker) 320, 327
- Vrolijk, Arnoud (PhD 1998), Dutch

- Arabist, curator of Oriental manuscripts and printed works at Leiden University Libraries 31
- van Waenen, Cornelis (1732–1805), Dutch Orientalist, Arabist and Reformed minister 185, 213, 341
- von Waenen, Jacob Albert (fl. 1827), Dutch Reformed minister (Woerden) 335, 341
- van der Wal, Ernestine (1953–), Dutch historian of religion 40
- Walton, Brian (1600–1661), English Orientalist, bishop of Chester, main editor of the London Polyglot Bible 54, 59, 60, 137, 157, 236, 270, 334
- Warner, Levinus (1618–1665), German-Dutch Orientalist, Dutch ambassador in Constantinople 16
- Wasmuth, Mattias (1625–1688), German Orientalist and Lutheran theologian, professor of Oriental languages and theology (Kiel) 178, 179, 211, 212
- Webb, John (1611–1672), English architect and scholar 159
- Werenfels, Samuel (1657–1740), Swiss theologian, professor of dogmatics, polemics, and Old and New Testament studies (Basel) 236–238
- Whiston, William (1667–1752), English theologian, historian, natural philosopher, mathematician 233
- White, John (fl. 1798–1811), bookseller and publisher in London at Fleet Street 336
- White, Joseph (1745–1814), English Orientalist, Arabist, Laudian professor of Arabic, and Regius professor of Hebrew in Oxford 320
- William IV, Prince of Orange (Willem Karel Hendric Friso 1711–1751), stadtholder of the northern provinces and, in 1747–1751, hereditary stadtholder of the United Provinces of the Netherlands 33, 34
- Willmet, Joannes (Jan), (1750–1835), Dutch Orientalist, professor of Oriental languages (Harderwijk and Amsterdam) 325, 335, 339–341
- Wittich, Christoph (1625–1687), Dutch theologian, professor of theology (Leiden) 40
- Wolf, Johann Christoph (1683–1739), German Hebraist, bibliographer, professor of Oriental languages and literature (Hamburg High School, Academic Gymnasium) 79, 83–85, 89, 92, 93, 112, 118, 127, 274, 277
- Wotton, William (1666–1727), English polymath, classical scholar, theologian and linguist 224–225
- Wright, William (1830–1889), British Orientalist, professor of Arabic (Cambridge) 18
- Ibn Yahja, Gedaliah ben Joseph (c. 1515–1587), Italian Jewish Talmudist and historian 139, 146
- Ben Yehiel, Nathan (1035–1106), Italian Jewish scholar, lexicographer of Targumic Aramaic 74, 78, 85
- Ximenius (Jiménez), Franciscus (Francisco), (1436–1517), Spanish cardinal, archbishop of Toledo 83, 84
- Ypey, Annaeus (1760–1837), Dutch theologian, esp. church historian, professor of church history (Harderwijk), professor of dogmatics, hermeneutics and homiletics (Groningen) 42
- al-Zamakhsharī, Abū al-Qāsim Maḥmūd ibn ‘Umar (1075–1144), Arabic lexicographer, commentator of the Koran 65, 66, 76, 78
- de Zamora, Alfonso (c. 1474–), Spanish Jewish Hebraist, professor of Oriental languages (Salamanca) 73
- Zedler, Johann Heinrich (1706–1761), German encyclopaedist and publisher 165, 169
- Zwiep, Irene (1962–), Dutch Semitist, historian of Hebrew linguistic thought and European Jewish intellectual history, professor of Hebrew and Jewish studies (Amsterdam) 25, 31, 49

Index II. Subjects and key words

Akkadian language 129, 317–319

alphabet, Arabic allography of in
Hebrew types 207

ambiguity, semantic 88, 115, 116, 118,
124, 130, 179, 180, 183, 235, 238

Ancient Hebrew

- historical status: a human language
13, vernacular of the Hebrews 16

- research on: the narrow conception
of its former extent 275,
morphological reconstruction of
60, 239, 131, etymological
semantics 63, 125

- linguistic qualities: structural
regularity of 25, 260, rich and
regular 38, triconsonantal
structure of in root morpheme
formation 260, regular and
precise 179, having syntactic
regularity and semantic clarity
179, semantic concord and
semantic stability, rhetorical
dignity and impressiveness 299,

ancient Hebrew people (Hebrews) 138,
139, 153

analogy (*analogia*),

- a cross-disciplinary concept,
divided into arithmetic, geometric
and harmonic types 161; originally
meaning “according to a relation”
161; implying a method of inference
from the known to the unknown
162; in the 18th century, providing a
new method for the natural sciences
175–176

- linguistic analogy: pre-modern
concepts, in contrast to modern 160,
opposed to the principle of linguistic
irregularity (*anomalia*) by Varro 163
and the Stoics 186

- linguistic analogy: a principle of
regularity 16, 31, 107, 160, 164–
167, 169, 170–172, 174, 179, 222,
239–241, 260, 276, 302; applied to
the regularity of inflectional
morphology by Alexandrian
grammarians 162; applied to the

regularity of inflectional and
derivational morphology by Varro
163–164; Quintilian’s use of
comparatio similitum as a tool for
linguistic correctness 162–163;
applied to morphological regularity
in the Renaissance 164–167; applied
to morphophonology by early
modern Hebraists 176–180,
including Schultens 160, 239, 240,
260; applied to semantics 187 and
termed by Perizonius *analogia
significationis* 168 f.; applied to
syntax (*analogia syntaxeos*) 165,
167, 169, 170, 172, 241; the views
of Valckenaer 173, of Cocceius 177,
of Spinoza 178, of Löschner 179
– tripartition consisting of
morphological, semantic and
syntactic analogy, as systematized
by van Lennep 174 and
conceptualized by Albert Schultens
241 f.

- analogy cited as a source of
knowledge by Schultens 50

analogy of faith (*analogia fidei*) 39,
107, 111

analogy of the Holy Scriptures

(*analogia Scripturae*) 39, 111

Arabic language (*Arabica*)

- views on the historical origins and
linguistic qualities of: a branch
of the primeval language 219–
220; a sister dialect of Hebrew
13, 21–22, 30–31, 219, 221, 273,
330; occupying the southern
zone in the Semitic-speaking
region 228; perceived by
Schultens as the most ancient
and archaic of the Semitic
languages 16, 30; used as a
proto-Semitic basis 25; the
purest and clearest dialect 22–23;
structurally similar to the ancient
Greek dialect Ionic through its
avoidance of phonetic
assimilation 229–230
– disciplinary status and scholarly
functions of: a handmaid of

- theology 19, 55; an archive or repository for retrieval of the original meanings of Hebrew words 19, 29, 99, 308; chairs in Leiden 35–37; motives for the study of 53–55; utility for biblical interpretation 55–62; used by medieval Jewish scholars for the study of Biblical Hebrew 72, 276; used by Schultens as the principal aid for the morphological and semantic analysis of Ancient Hebrew 13, 27, 113, especially for elucidating the etymology of Hebrew words 34, 272–273, 308, 310–315, 324, 325, 329, 332; used to restore lost roots to Biblical Hebrew by Hottinger 101–102 and Stockius 120
- Arabic graphemes: the allography of Arabic letters in Hebrew typefaces 207
- Arabic lexicography: indigenous development up to the 15th century 75–76; early modern European development 76–77; the Arabic dictionaries of Raphelengius (*Lexicon Arabicum*) 77 and of Golius (*Lexicon Arabico-Latinum*) 36, 77–78; Arabic included in the polyglot dictionaries of Schindler 77, 95, 130, 280 and of Hottinger 77, 99, 100–102, 130
- Arabic literature; attributed very high antiquity by Schultens 18; Schultens' textual corpus of 63–65
- Arabic poetry 16, 62–64, 66, 76, 78, 308, Schultens' manuscript study and copying of *al-Mu'allaqāt* 63, 66, of Diwan of the Hudhayls 64, 66, of ibn Durayd's poems 64, 66, his manuscript study and probable excerpting of *al-Ḥamāsa* 64, 66, his reply to Reiske's criticism of his editing of parts of *al-Ḥamāsa* 250
- Arabic prose, the stories of al-Ḥarīrī titled *al-Maqāmāt*: Schultens' manuscript study of 64, his classification of this genre as oratory and rhythmic prose 64, his copying of 65
- Arabic people (Arabs) 18, 20, 53, 54, 57, 58, 64, 76, 220, 228, 274, 276
- Arabic phonology: differences in relation to Hebrew 208: sporadic sound correspondences in relation to Hebrew 259–260; pre-modern classification of consonants 202 f.; sound correspondences with Hebrew 207, 251–256
- Aramaic language, *passim*, e.g.
 - views on the historical origins and linguistic qualities of: a comprehensive term for Chaldaic and Syriac 220; offspring of Hebrew 20, 26; offspring of the primeval language 151; a sister language, or sister dialect, of Hebrew 13, 22, 219–221; derived from an unknown proto-language 26; Aramaic cognates to Hebrew words 204–206, 257–258, 313; according to Van den Honert, Old Aramaic developed into Syriac and Arabic 227
 - disciplinary and scholarly functions: professorships in Leiden 35–36; an aid in restoring lost roots to its “Hebrew mother” 59, 101; a source of knowledge in Hebrew lexicography 70–72, 120, 274, 303
- Aramaic lexicography: contributions to Biblical Aramaic by Nathan ben Yehiel 74, 77, 80; Pagninus 80; Münster 93, 276; Hottinger 103; Cocceius 106, 111; Buxtorf the Elder 113; contributions to Talmudic Aramaic by Hottinger 100; contributions to Targumic Aramaic 73, 74 by Schindler 95, 105, 131
- Aramaic phonology, regular sound shifts (sound correspondences) in relation to Hebrew 204–206, 257–258
- Aramaic Bible translations (the Targums) 110, 277

- Armenian language 215, 222
- Bible, translations of: into Aramaic 97, 110, Greek 97, 110, Latin and German 97,
- ancient translations of 14, 56, 69, 100, 1905, 110, 111, 116, 278, 283, ancient versions of 269, Septuagint 93, 98, 105, 110, 111, 130, 131, 138, 233, 234, 313, 319, Vulgate 17, 83–86, 93, 105, 118, 131, 233, 269, 277, 278, Targums 74, 86, 93, 95, 105, 111, 130, 131, 278, Arabic Bible translations 53, 54, 62, 98,
 - Münster's Latin translation of 85, Tremellius' and Junius' Latin translation of 94, Saadia Gaon's Arabic translation of the Pentateuch 96, the Dutch States' translation 40, 110, translations into European vernaculars 234
 - polyglot editions of 23, Antwerp Polyglot 87, 96, Complutensian (Alcala) Polyglot 83, London Polyglot 15, 54, 59, 62, 100, 104, Paris Polyglot 97, 104, Schindler's minor Polyglot Bible (Wittenberg 1578) 96
- Biblical Hebrew
- research on: Schultens' innovation in treating the morphology and etymology of 13–14, 16; early modern study of as an interaction between textual criticism and the comparative method 24; sources of knowledge about 34, 69, 116, 129; the limited remains of 59, 231, 260, 265, 301; the linguistic horizon expanded in the 19th and 20th centuries 316–317
 - historical status of: result of the diversification of the primeval language of humankind 220
 - linguistic qualities of: polysemous meanings of 109, according to early modern critics, having an ambiguous nature 114, 231, 235, 236, imperfections in the morphosyntax and vocabulary of 234
- Canaanite language (*Chananaea*) 142, 148, 149, 153, 154, 229, 316, 319; language of Canaan 119
- Canaanite people (the Canaanites) 118, 140, 143, 145, 147, 150, 153, 221
- Cartesianism and Cartesian philosophy 27, 40, 44–46, 48, 52
- Chaldaic language (*Chaldaica*), misnomer for Aramaic 15, 35, 95, 97, 151, 208, 219, 220, 222, 229, 230, 282
- Classical philology 13, 15, 16, 33, 140, 160, 164, 175, 210
- Cocceian school of theology, characteristics of 38–41, advocates of 42–43
- confessionalization 33, 74, Schultens' confessional identity 38 and his confessional toleration 50; inter-confessional tension 118
- Confusion of Languages at Babel 118, 139, 145, 147, 149, 155, 223, 224
- Coptic language 15, 222
- dialects, ancient Greek 223, Aeolian, Attic, Doric, Ionian 19, 20, 173, 229 f.: Germanic 61; Oriental 30, 222, 235, 268, 282, 283, 324, 340, dialects of the Orient 219, kinship of 269, Schultens' classification of 19, 20, 22, 23, 28, 224–226
- Dutch Reformed Church 12, 13, divided into Orthodox and Remonstrants at the Synod of Dort (Dordrecht) 41, General Synod of 342
- Dutch Reformed Orthodoxy, divided into Cocceians and Voetians 38–40, Schultens' Cocceian affiliation 38
- Dutch Republic 23, 32–33, 38, 47, 175, 343, the second Stadholderless period of 32, political parties of (Republicans and Orangists) 41
- empiricism, as an epistemic current: inductive method of 31, 45, 47, 49, British 27, 44–45; Newtonian 45; Lockean 16, 27, 44–45; Dutch advocates of 46–49, 176; Dutch scholars combining it with Cartesian

- rationalism 48; implying the principles of experiment (*experimentum*) and rational conclusion (*rationcinatio*) 48; Schultens' biographical views on Boerhaave's empiricism 49–52, applied to the study of languages by ten Kate and Hemsterhuis 49
- Enlightenment, Dutch 13, 31, 44, 45, Dutch enlightened science 31, 49
- Ethiopic language (*Aethiopica*) 15, 20, 22, 55, 56, 95, 98–105, 108, 120, 130, 131, 147, 204, 212, 220–222, 280, 320, 322, 328, 335; a daughter-language, or daughter-dialect, of Hebrew 15, 20, 22, sister-language or sister-dialect of Hebrew 15, 22, restores words to Biblical Hebrew 102, Ethiopic-Hebrew comparativism by Hiob Ludolf 55, by Hottinger 100–102 and by Stockius 120, classified as a sub-branch under Arabic 220
- etymology (the study of the original form and meaning of words), the Latin term *etymologia* comprising phonology, etymology and morphology 165, Stoic semantic principles of 186–188
- Hebrew 14, 15, 34, 44, 124–125, 195, 200, 210, 244, 249, 291, 298, 310–316, 326, 330
 - Greek 49, 171, 173
 - Lockean etymology 195–197
 - semantic etymology, a field of study innovated by Schultens 124, modern approaches to 214–216
- euphony, historical principle in the formation of language 15, 183, 241, 262
- Flood (of Noah) 16, 145, 221, 226
- Franecker, University of 32, 34, 43, 44, 109, 171, 184, 231, 287
- Greek language 19, 20, 22, 86, 88, 91, 110, 147, 153, 161, 170, 171, 173–176, 181, 188, 195, 229, 244, 248, 308, 310, 318
- Groningen, University of 32, 43, 113, 339, Schultens' studies in Groningen 43, 55
- Hebrew dictionary, Schultens' compilation, dictated in public lectures 291; records of 291–295, dating of 298–300; purpose of 300–301; the biconsonantal macrostructure of 304–305; the microstructure of an entry 306–307; the practice of etymology in 307–316
- Hebrew language (*Hebraea*, *Hebraica*), passim, particularly
- views on the historical origins and attributes: mother of all languages 21, 30, 58, 60, 103, 117, 143, 144, 146, 205, 223, 282, 284, 286, perfect 115, 144, 272, holy 72, 117, 135, 143, 150, thought to be preserved only among a sacred lineage of Hebrews 43, 145–146, desacralized into a human language by Isaac Vossius 152–153, Spinoza 153–154, Le Clerc 154, and Schultens 13, 14, 19, 21, 22, 29, 31, 38, 43, 49 f., 195, 224, 272, 273
 - historical relationship: a sister language of Arabic 21, 30, 31, Aramaic 219–221, of Arabic and Aramaic 13, 219, 221, 273, 324, of Arabic, Aramaic and Ethiopic 15, 21;
 - linguistic qualities: lexical richness (*copia*, *abundantia*) 182, 184, 185, 297: lexical polysemy 118, 123, 213, 216, 235, 236, 278, 285, 302: semantic ambiguity 88, 115, 116, 124, 130, 179, 180, 235, 238;
 - approaches to the study of: sources of knowledge about 13, 16, 50, 114, 125 (n. 431), 131–132, 278, 331; the incomplete knowledge conceptualized as *defectus*, “absence, loss, lacuna”, 231–232; the restoration of

- knowledge about Ancient Hebrew 231–233, 276
- lexicography, Biblical Hebrew 16, 27, 69, 84, 79, 94, Biblical Hebrew dictionary/dictionaries 99, 101, 102, 108, 130, historiography of 79–81, periodization of 70, 81–82; medieval practice of 69–74; early modern theory and practice of 26, 31, 83–126; sources and methods of 131–132, rabbinic tradition as a source of influence in the practice of 83–94; comparative approaches to 95–105, logical semantic approaches to 106–120; etymological approaches to 121–125; Schultens’ goals of 268, 299–300, Schultens’ innovations in 124–125, 271 f., Schultens’ self-esteem as a pioneer of 269; Schultens’ views on his Jewish predecessors of 273–275 and Christian predecessors of 276–285; post-Schultensian development of 125–125; Gesenius’ contribution to 126–127; post-Gesenian development of 128–129;
- Hebrew morphology, Schultens’ views on the rules for root patterning 301–303
- Hebrew phonology, pre-modern classification of the consonants 200–201
- Himyaritic dialect (a mistaken term for the South Arabic language, Sabaic also called Sabaean) 314
- Himyaritic inscriptions 316
- homonyms 84, 113, 118, 235, 236, 238, 269, 270, 284, 317, in Latin *homonymiae* (nom. pl.) 270 *homonymias* (acc. pl.) 238, *homonymiis* (abl. pl.), 114, 117, 235), homonymous 95, 167,
- homonymy 73, 117, 167, 216, 238, 247, 284, 309, 317, *homonymia* 238
- human language 13, 14, 19, 21, 22, 29, 31, 38, 224, 272, 273, human languages 22, 195, 272
- Hutchinsonianism 322
- ideomorpheme 240
- infinitive, historical precedence of over verbal and nominal roots 296–298
- irony (*ironia*), a semantic concept 191, 192, 213, 246
- language, Greco-Roman theory of 181–182, grammatical and rhetorical qualities of, according to the doctrine of *elocutio* 182–183, particular or distinctive character of (designated as *proprietas linguae* and *genius linguae* in Latin) 225–226
- meaning (*significatio*, *significatus*, *notio*, *idea*, *conceptus*), lexical, (1) classical and early modern approaches to:
 - concept of proper meaning (*proprietas verborum*) 182, 188, ambiguity of in Latin linguistic tradition 188–190; the opposite of in Latin linguistic tradition 191, occurring in early modern Hebrew lexicography 211–212: Forster 88–89, Avenarius 90, Hottinger 101, Cocceius 108–110, Gousset 112, 114, 116, 117; Leibniz’s views on 198, 199; Schultens’ views on 116, 184, 196, 312, Schultens’ criticism of Forster’s inquiry into 278
 - concept of general, so-called formal meaning, as recorded in Forster 90, Bohle 106, Gousset 115, 116, 119, Neumann 124, Leibniz 197, Clericus 226; philosophical origin of 211; early modern definitions of 212; Schultens’ equation of with the original meaning 212, 244, 280; Schultens’ criticism of logical semantics 268, 270, 279–280, 281, 284; James Barr’s definition of 214
 - concept of original meaning: in Scaliger 114, in Sanctius 267, termed *origo* in Latin by Schultens 243, distinct from secondary meaning 244,

- associated with a specific or concrete object 245
- concept of primary meaning (*primitiva significatio, primaria notio, prima notio*), equated with proper meaning, with which it is often juxtaposed 88, 90, 99, 103, 114–118, 120, 124; use of in Locke 292, in Scaliger 210, in Ravius 212, in Schultens 124, 232, 243–250, 288
- concept of emphatic (that is, implied) meaning 190, 214
- concept of transferred meaning (*tropus, tropica significatio*) 182, 185, 190 f., 212, 243, 244, 249, 308, vegetative metaphor of 249
- concept of secondary meaning:
 - having a relation of similarity to the primary meaning 167, 210
- relationship between proper and transferred meanings 166, 169, 190, 212–213
- perceptible or sense-perceptible origin of meaning 82, 124, 195
- metaphor (*metaphora*) as a semantic concept 92, 95, 96, 122, 129, 184, 187, 189, 191, 192, 194, 195, 197, 199, 213, 216, 243, 244, 246–248, 285, 308, 309, 311, 313, 314, the term of rarely used by John Locke 192, metaphorical meaning 65, 174, 175, 195, 213 (*metaphoricas*, viz. *significationes*), 310, metaphorical semantics 249, 299, metaphorical use 120, metaphorical usage 212, 309, metaphorical genesis 193, metaphorical sense 316
- metonymy (*metonymia*) as a semantic concept 95, 96, 129, 184, 187, 191, 192, 197, 199, 213, 216, 243, 244, 246–248, 285, 308, 309, 311, metonymic meaning 65, 174, 175, 195, 213 (*metonymicas*, viz. *significationes*), 310, metonymic use 120, metonymic semantics 249, 299, metonymic usage 212
- morphology 13, 16, 17, 82, 101, 121, 131, 163–166, 172, 173, 176–179, 212, 221, 222, 240–242, 249, 265
- morpheme 240
- morphophonology, Hebrew, regular structure of 178, 239; the Latin term of 182 and its opposite 183
- morphosyntax, of Biblical Hebrew 88, 160, 234
- Oriental languages, Schultens' strict concept of it as only comprising those related to Hebrew 15, 21, 226, Oriental dialects 283, 284
- Persian language 15, 21, 36, 37, 63, 95, 104, 158, 222, 226, 280, Arabic-Persian dictionaries 77, 78
- philology, biblical 13, 14, 16, 19, 37, 38, 55, 108, early modern schools of 21, as a branch of learning in Latin known as *philologia sacra* 12–16, Hebrew 14, 19, 38, 43, 44, 125, 213, 231, 238, 278, 285, 319, 322, Biblical Hebrew 5, 6, 38, 322, Glassius' treatise on 191, Cocceius' orations on 108, 219
- Phoenician language 119, 140–142, 149, 150, 318, 319
- Phoenician people 140–142, 228
- Phoenician script 34, 143, 203, 208, 317
- polysemy 118, 124, 167, 213, 216, 236, 237, 278, 285, 308
- phonetics and phonology, comparative Semitic 202, 208 f.
- phonology, Hebrew 201
- phraseology, Hebrew 60, 88, 232
- primeval, or primordial, language (*lingua primaeva, lingua primogenia*), passim, mainly
 - the question of its identity as topical in the early modern period 17, ancient claims to its identity with Hebrew 135, the persistence of this idea in early modern normal science 136, how this topic was related to the origin of Hebrew as an ethnic term 138–139, criticism of the old idea by Joseph Scaliger 140–141 and Thomas Erpenius 142,

- arguments in favour of its identity with Hebrew by Johannes Buxtorf 144–146 and August Pfeiffer 146–147, rationalist criticism of the identification of the primeval language with Hebrew by Grotius 148, Huet 149–150, Richard Simon 150, Le Clerc 150–154, An universal history (1736) 155–156 and the French Encyclopaedia 156, relativization by claims of primordality in relation to national languages: Swedish 158–159 (Stiernhielm and Rudbeck) and Chinese (Webb) 159
- Schultens’ linguistic theory on this topic in writings after 1729: broke with the old idea of identifying it with Hebrew 22 (Barr), 27 (Kaltner), 30 f. (Neis); is the ancestor language (proto-language) of Hebrew, Aramaic, Syriac, and Arabic 27 (Covington), 220, 226, is closer to Arabic than to Hebrew 22 (Barr), 29 (Loop); is not identical to Hebrew 14, 219; meta-discursive remarks on the preceding debate about its identity 121–122
- Punic language 141, 148–149
- Ramism and post-Ramism: principle of freedom 43, educational method, 98, 102, approach to semantic change and limitation of tropes 191–192, Schultens’ unaware adherence to the Ramist semantic tradition 246
- rationalism 45, its interplay with empiricism 46 (Bacon), 49 (Le Clerc), 50 and 125 (Schultens), transformed biblical exegesis 148, applied to semantics in Hebrew lexicography 119 (Gousset), applied in a pragmatic form to etymology by the Hemsterhusian school 170
- Reformed Church, Dutch Cocceians and Voetians 40–42, Schultens affiliated to the Cocceian party 38
- related languages 16, 35, 38, 44, 58, 59, 61, 69, 102, 105, 113, 116, 130, 132, 140, 221, 239, 265, 278, 282, 284, 285, 301, 317, 344
- Hebrew and Arabic as sister or twin dialects 30
 - Hebrew and Phoenician 140, Phoenician and Hebrew 149
 - Hebrew, Aramaic and Arabic 219, 228
 - Hebrew and Akkadian 317
 - Hebrew and Ugaritic 319
- rhetoric, used as a term for semantics 249, Schultens’ distinction between *rhetorica naturalis* and *rhetorica artificialis* 249, his idea of “natural rhetoric” as constituted by a set of cognitive metaphors and metonyms 248–250
- root (root morpheme), lexicographical views of 88–96, 101, 103, 105, 116–118, 126, 216, 269, 275, 277, 279, 281, 283, 285, 290, regularity in the formation of 160, 177, reconstruction of lost roots by means of Arabic 57–60, 99, 102, 111, 131, 132, 232, 241, triconsonantal structure and nature of 72, 203, biconsonantal theory of 122; series of biconsonantal structural units in Schultens’ Hebrew dictionary 304–307, Schultens’ logical assumption of the loss of root morphemes in Hebrew 301–303, vegetative metaphor of 249
- root morphemes 92, 102, 160, 240, 260, 265, 307, the Semitic root morpheme, conceptualized as and termed ideomorpheme by Frithiof Rundgren 240
- root patterning (sequence of radicals), Hiller’s rules for co-occurrence restrictions of 260–264, Schultens’ repudiation of Hiller’s rules for 264–265

- Samaritan language 15, 37, 38, 98, 100–105, 120, 130, 208, 212, 221, 222, Samaritan people 58, 141, Samaritan script 113
- Scythian language as the ancestor language of Dutch 157 and of most of the European languages and Persian 158
- semantic change 96, 124, 169, 182, 191, 212, 214–216, 244–248, 300, 308, 310
- according to the Stoics, caused by metaphor, synecdoche, metonymy, and *antiphrasis* (i.e. opposite) 191; according to Schindler, through metonymy, metaphor and synecdoche 96; according to Schultens, caused by metaphor, metonymy and synecdoche as cognitive processes 244, 245, 247, 248; Le Clerc explaining these categories as rhetorical devices 248
 - in relation to proper and primary meaning 169, 182
- semantic origin, Schultens’ etymological approach as informed by John Locke’s empirical and sensualist epistemology 44, 124, 195, 244, 272, 308, 344
- semantic origins and change 13, 16, 197, 215, 247, 248, 299, 309, 343, Schultens’ sensualist concept of 244, his combined sensualist and rhetorical principles of 247
- semantic development, the question of the directionality of 13, 16, Schultens’ affiliation with the Ramist-Vossian tradition 246–247
- semantics
- Hebrew, logical approach to 106, 119, 120, 130, 210, 214, Schultens’ criticism of the logical or rationalist approach to 44, 247, 269, designation of this method and its practitioners as metaphysical 44, 272, 285
 - cognitive, as pursued by John Locke 192–194, early modern interpretation of Locke’s semantic theory 195–197, Schultens’ reasons for studying 195
 - metaphorical and metonymic 299
- Semitic languages
- as dialects of one and the same language 14, regional and ethnic dialects 16, as closely related dialects 20, Hebrew, Chaldaic, Syriac and Arabic as four dialects formerly occupying the Orient 219
 - Schultens’ use of a tree-model metaphor for describing them as branches of a primordial trunk 219–220
 - Schultens had the concept, but not the term of 226
 - as a term proposed by T.H. van den Honert 227, invented by Schlözer and introduced by Eichhorn in the 1780s 227–228
 - geographical area divided into three zones by Eichhorn 228
 - as a closely related group of languages paralleled by the ancient Greek dialects 20, 229 typological similarities 230
- Semitic philology, comparative: medieval anticipation of 69, 71, 72, 274, 275; early modern emergence of 95–104, 111, 120, 130; Schultens’ contribution to, as evaluated in modern times 22–28; Schultens’ theory and practice of 49, 57, 131, 220, 221, 226, 269–271, 274, 299, 307, 308
- sensible ideas 193, 196
- sound change, concept of (*permutatio litterarum*) 96, 164, 206
- “sound changes”, an inappropriate term for sound correspondences used by Albert Schultens 251; observations of regular “sound interchanges” 96, 204, 205, 206, 209, and of sporadic “sound interchanges” 258, 259
- sound correspondences between Semitic languages 13, 14, 71, 72, 96, 200, 202–207, 209, 251–254, 257–259,

- 314; the principle of 203; the concept of 251; by Albert Schultens, divided into “direct”, i.e. regular, and “indirect”, i.e. sporadic 251
- “sound shifts”, an early modern concept of sound correspondence (owing to the supposed primordality of Hebrew) 204, 207, 257
- Spinozism 44, 52, 234, 344
- stems, derivative (in Hebrew termed *binyānīm*, “buildings”) 86, 89, 91, 102, 120, 160, 179, 232, 240, 241; stem forms 89, 240, 306, 310, 315, 316, 333, *derivativae formationes* as a term proposed by Schultens 240
- synecdoche (*synecdoche*) as a semantic concept 96, 129, 187, 191, 192, 199, 213, 244, 246–248, 285, 308, 309, 311, synecdochical uses 120, 299
- syntax, approaches to:
- Cicero’s and Quintilian’s terminology for correct and clear syntax and their opposites in the doctrine of *elocutio* 182–183, and their concept of ornate or rhetorical syntax and its opposite 182–183
 - Gerard Vossius’ distinction between regular and figurative syntax 166, regular syntactic structure termed *analogia syntaxeos* 165, 241 and *analogia constructionis* 165, 169
 - Franciscus Sanctius’ focus on regular or ordinary syntactic structure 167, 169
 - Schultens’ definition of syntax as unlimited in combinatory possibilities 241, his use of the term *analogia syntaxeos* 241, syntax as an integral part of his concept of language 249
- Syriac language
- historical origins: descended from the primeval language as a branch 216, 221; views of J.J. Scaliger on 141; related to Hebrew, Arabic and Ethiopic 22, 22, 26, 221; Van den Honert’s views on its historical pedigree 227; structural similarity to Doric among the ancient Greek dialects 230; subordinated to Aramaic by Schultens 220
 - disciplinary status and scholarly functions: taught by Rhenferd in Franeker 35, by Schaaf in Leiden 37, and by Cappel in Samour 56; used in the polyglot dictionaries of Schindler, Hottinger, and Castell 95–104, 130, 131, 280; used by Stockius 120 and in BDB 129; a scantily used source in Schultens’ lexicography 131, 301, 307, 309
- Targums, Aramaic 74, 84, 86, 94, 95, 105, 130, 131, 278, *Targum Jonathan*, also called *Targum Yerushalmi*, 85, 93, 135, 144, Chaldaic paraphrases (*Paraphrases Chaldaicae*) 98, 278
- Tower of Babel 17, 118, 136, 140, 145, 150, the building of Babel 151, 155, 157, 224 f, the narrative of 148
- trope (*tropus*), a Greco-Latin term for the change of the proper and natural meaning of single words 116, 182 f., Schultens’ use of this concept 184–185, Stoic classification of 190–191, Pierre de la Ramée’s delimitation of 191–192, 18th-century interest into caused by Lockean etymology 193, 194, Leibniz’s views on 198, Schultens’ classification of 246, 248, references to different kinds of 184, 187, 199, 211, 250
- Turkish language 15, 21, 37, 95, 222, 226, 280
- unrelated languages 136, 225, 248, unrelated language groups, Joseph Scaliger’s classification of 141
- usage, Biblical Hebrew 112, 114, 116, 119, 120, 125, 130, 131, 278, 283–285, 333
- words, Biblical Hebrew 60, 70, 71, 94, 95, 110, 111, 120, 203, 239, 308
- Vossianism, a position of Hebrew philology 233–234, 344

Index III. Words in Semitic languages

Arabic words

ʾitnān, fem. *ʾitnatāni*, “two” 256
baʾara, “to dig a well” 315
baqara, “to split”; Schultens gives the meaning “to cleave, divide up” 316
bāna, “to be clear; to make clear” 315
b-w-r (as root morpheme), according to Schultens, “to slit, cleave, incise, engrave” 314
bajada “to stop, sit down, dwell (according to Golius 1653), otherwise “to be away, leave” 310
tady, “breast” 256
talj, “snow” 256
taʾaya, “to be broken with a crash” 256, allegedly a cognate of תָּאַץ “to make a crash, crash into; to lay waste” 256
taḡr, according to Schultens, “transition through a mountain pass”, otherwise “opening, split, cleft” 256
tamma, “there” 256
ḥašada, according to Schultens, “to flow together or from all directions” 313 (otherwise “to gather, assemble, store up”); *ʾayn ḥāšada* “a spring flowing forward” 313
ḥabl, “rope, cord” 311
ḥabala, “to tie together” 311
ḥazara, according to Schultens, both “to prohibit, shut off” and “to fence in, enclose” 254
ḥadara, according to Schultens, “to hide behind a veil” (otherwise “to dwell”) 253
ḥaḍara, “to be green” 255
ḥayyaṭa, “to sew, to sew together” 253
ḥalaʾa, “to put off, take off (garment)” 437
ḍakara, “to keep in memory”, mainly in the basic meaning “to mention” 310
raḡuba, according to Schultens: “to be of an empty stomach” 253, properly “to be wide, spacious”, especially about an empty stomach 254
raḡiba, “to desire, wish for” 253
ḍidd, (1) “contrary”, (2) “similar” 254
ḍaḥika, “to laugh” 254

ḍāqa, “to be narrow” 254
sabʿ, “seven” 255
silāḥ, “weapon of attack, missile” 256
šabaʾa, “to be full” 255
šabaḡa, “to be abundant” 255
šaḡafa, “to be violent, hard” 255
šahr, “a back”, according to Schultens, “ridge” 254
šilāḥ, “weapon of attack, missile” 256
ḡalama, according to Schultens, “to be obscure, shadowy”, otherwise “to cut off” 254
ašuma, “to become important, to excel, to magnify” 254
ʾāḍa “to return; bring back, restore” 253
ḡātā, “to cover, to veil” 253
faraḡa, “to incubate, to hatch (about birds); to put out new shoots (about trees)” 253
qayṣ, “summer” 255
kaʾiba, “to be sad”, original meaning according to Schultens, “to have a yellow-grey colour” 472
nawaʾa, “to raise, lift” 473
waʾaḡa, “to exhort”, according to Schultens, both “to admonish” and “to exhort” 255
waṭaba, “to jump up” 256, 314; in Himyaritic “to sit (down)” 256, 313, 314, the imperative *ṭib* 313
wariṭa, “to be heir” 256
wasāʾa, “to be wide, roomy” 255
waṣaba, “to be firm”, according to Schultens, about things 254
wazaba, “to be assiduous, constant, firm”, according to Schultens, about persons 254
yaḡiḡa, “to awake” 255

Aramaic words

אָדִין (*ʾaḍayin*), “then” 206
 אָרַע (*ʾara*), the emphatic form אָרַע (*ʾarʾā*), “earth” 204, 205, 257
 בָּדַר (in the *paal* form *badder*), “to spread, diffuse” 206, 253
 דָּבַח (*dʾbaḥ*), “to sacrifice” 204, 206, 257

דהב (*d^hab*), “gold” 204, 206, 257
 די (*dī*), “this; which” 257
 דכר (*d^kkar*), “to remember” 206, 257
 דכרן (*dākrān*), “memorial” 204, 206, 257
 דרע (*d^rra*), “seed” 204
 דרע (*d^rra*), “arm” 205, 206
 טיהרא (*tīhara*), “midday” 258
 טיר (*tīr*) “stronghold” 206
 טל (*tal*), allegedly according to
 Schultens: “hoar-frost, white frost,
 rime”, otherwise “dew” 258
 טלל (*l^lal*), “to cover, conceal; seek
 shade, to be shadowy” 258
 מתקל (*mitqal*), “weight, weighing”
 יעט (*y^ʿat*) “to advise, counsel” 205
 עמר (*amar*), “wool” 204, 205, 258
 קיט (*qayit*), “summer” 204, 206
 רעע (*r^ʿa*), “to crush, smash” 206
 תבר (*t^ʿbar*), “to break” 258
 תדין (*taddīn*), “breast”.
 תוב (*tūb*), “to return” 205, 258
 תלג (*l^lag*), “snow” 205, 258
 תלת (*l^lāl*), “three” 258
 תלתא (*l^lātā*), fem., “three” 204, 206
 תנה (*t^ʿnā*), “to repeat” 258
 תקל (*t^ʿqal*), “to weigh, ponder” 258
 תרע (*t^ʿra*), “gate of a city” 206

Hebrew words

אבב (*ābab*), according to Schultens, “to
 sprout up, shoot forth while
 ripening”, otherwise “to be or
 become green” 287–289, 291, 293,
 294, 338, 448, 460
 אבד (*ābad*), “to lose, perish” 433, 448,
 460, 468
 אבה (*ābā*), “to wish” 433, 461
 אבוי (*ābōy*), “woe”, 326
 אבל (*ābal*), “to grow weak, languish”
 309, 456, 462
 אבן (*ābān*), “stone” 457
 אביב (*ābib*), “ear of corn, a green
 maturing ear” 109
 אוד (*ūd*) “to be bent, curved” 470
 אחז (*āhaz*), “to seize” 330
 אכל (*ākal*), “to eat” 316
 אלוה (*alōah*), “God” 245, in plural אלהים
 (*alōhīm*), 245

אלה in the *qal* (*ālaf*), “to learn”, in the
piel (*illef*), “to teach” 476, 477
 אלה (*ālaf*), “thousand” 476, 477
 אלוף (*allūf*), “chief of a tribe, chiliarch”
 476
 אמר (*amar*), “to say” 316
 ארג (*ārag*), “to weave” 294
 ארגמן (*argāmān*) “purple” 294
 ארץ (*æræs*), “earth” 204, 205, 257
 אשם (*āšam*), “guilt, fault” 256
 באר [*b-ʿ-r*], in the *piel* (*bēʿer*) “to make
 distinct and clear, explain” 287, 294,
 303, 314, 463, 472
 באר (*b^ʿer*), “a well” 314
 בגד (*bægæd*), “garment, covering” 310
 בגד (*bægæd*), “unfaithfulness, treachery,
 deceit” 310
 בזר (*bāzar*), “to spread” 253
 בין (*bīn*) and בון (*būn*), “to discern,
 distinguish”, hence “to notice,
 perceive, understand” 314
 בין (*bēn*), “between” 315
 בין (*bayīn*), “interval, space between”,
 Schultens: “a space that separates or
 distinguishes two things” 315
 בקר in the *piel* בקר (*biqquer*), “to examine
 accurately, explore, inquire, seek”
 315
 בקר (*boqær*), “morning” 315
 בקר (*bāqār*), “cattle” 315
 בקש (*biqqeš*), “to seek” 431
 בקרת (*biqqōræt*), “punishment,
 whipping” 315
 ברא (*bārā*), “to create” 245, 281
 ברך in the stem *qal* (*bārak*) “to kneel”;
 in the *piel*: *berēk* “to bless” 310 and
 berak “to bless” 427
 ברר (*bārar*), “to lead, choose, separate,
 declare, purify” 431
 ברוש (*b^ʿrōš*), “fir” or “cedar” 427
 בשר (*bāšār*) “flesh” 255
 גדול (*gādōl*), “great” 276
 גור (*gūr*), (1) “to dwell as a foreigner, to
 sojourn”, (2) “to fear”, (3) “to
 meet, gather together” 312
 הלל (*hālal*), “to shine; to be boastful,
 praise; to be infatuated, foolish” 237
 זאב (*z^ʿēb*), “wolf” 252
 זוב (*z^ʿbūb*), “a fly” 252

זבח (*zābah*), “to sacrifice” 252
 זהב (*zāhāb*), “gold” 204, 206, 252, 257
 זו (*zō*), “this” 257
 זוב (*zūb*), original meaning, allegedly
 “to flow after having melted”,
 otherwise: “to flow” 252
 זכר (*zākār*), “to remember” 206, 252,
 257, 310
 זכרון (*zikkārōn*), “memorial” 257
 זָכָר (*zākār*), “male, man” 206, 252, 257,
 311
 זקן (*zāqān*), “beard” 252
 זרר (*z-r-r*) in *poel* “to sneeze” 287
 זרוע (*z'rōa*), “arm” 205, 206, 252
 חבא (*hābā*), “to hide, conceal” 253, 287
 חבט (*hāḥaṭ*), “to shake” 253
 חבל (*hāḥal*), (1) “to bind, pledge”, (2)
 “to act perniciously, injure” and (3)
 “to be pregnant, give birth to” 311
 –רוחי חבבלה (*rūḥi ḥubbālā* “my spirit
 is broken” 311 f.
 חֶבֶל (*hæbæl*), (1) “cord, rope, line”, (2)
 “land or territory assigned by lot,
 inherited portion” 311
 חָבֵל (*hōḥēl*) “sailor, shipmaster” 311
 חֶדֶר (*hædær*), “an inner room, chamber”
 253
 חטא (*hāṭā*), “to sin”, properly “to miss
 the goal” 253
 חוט (*hūt*), “a thread” 253
 חטף (*hāṭaf*), “to seize hastily, catch,
 snatch” 253
 חכם (*hākām*) “wise” 276
 חלל (*hālal*), according to Schindler,
 literally “to untie, loosen, open”;
 figuratively “to pollute, defile,
 profane, dishonor, and begin” 429
 חָלַף (*hālaf*), “to succeed (someone), to
 replace” 253, basic meaning: “to
 change, alter, transmute”, applied to
 space: “to depart from”, to time: “to
 pass over”, to quality: “to renew”,
 and to evil: “to corrupt, lose” 437
 חמד (*hāmaḏ*), “to desire, take pleasure
 in” 458
 חמל (*hāmal*), “to spare, to pardon” 253
 חָמֵשׁ (*hāmēš*), “five” 255
 חסד (*hāsād*), “to be good, kind,
 benevolent” 297, 312

חֶסֶד (*hæsæd*), “covenantal fidelity;
 loyalty; goodness, kindness, grace,
 mercy, piety” 312
 חֶצֶר (*hāšēr*), “court, enclosure” 254
 חֶצִיר (*hāšīr*), “green grass” 255
 חָשַׁב, *hāšab*, “to think” 355
 חרוץ (*hārūš*), “sharp, diligent,
 industrious” 184
 טפח (*tāfah*), “to extend, spread” 298
 יָבֵשׁ (*yābeš*), “to dry up; to get dry”, 255
 ידע (*yāda*), “to know”, in the *hiphil* “to
 make known, announce” 92
 יָחַדָּו (*yāḥdaw*), “together” 109
 יעץ (*yāʿaš*), “to advise, counsel” 205,
 255
 יקץ (*yāqaš*), “to stay awake, wake;
 awake” 255
 יָרַשׁ (*yāreš*), “to take possession of;
 inherit” 256
 יָשַׁב (*yāšab*), “to sit down” 256, 313–
 314, 44, 465
 יָשַׁע (*yāša*), generally accepted original
 sense “to be spacious, broad”; in the
hiphil (הושיע, *hōšīa*), “to help,
 rescue, liberate, save”, and in *niphal*
 “to be supported” 255, 315, 466
 כאב (*kāʿab*), “to feel pain, to be in pain”
 473
 כַּתַּח (*kāṭaṭ*) “to beat, crush” 287
 לא (*lō*) “not” 287
 לִאֲרָךְ (*lāʾak*), “to send a messenger”,
 restored to Hebrew from Ethiopic
 330
 מָאֵד (*mʾōd*) “much” 470
 מֵאָה (*meʾā*), “hundred” 470
 מָשַׁח (*māšah*), “to grease, to oil” 255
 מִשַּׁח (*m-š-*), a root restored by Schultens
 and ascribed the meaning “to stroke
 in wiping; wipe with a gentle hand”
 333
 מִשְׁקָל (*mišqāl*), “weighing; pound” 256
 נָא (*nā*), “I pray” 474
 נָגַר (*nāgar*), “to pour, flow” 237
 נָשָׂא (*nāšā*), “to lift (up), carry, take”
 255
 נָשַׁב, *nāšab*, “to blow” 255
 נָשָׁח (*nāšā*), “to forget” 311
 נָשִׁים (*nāšīm*), “women” 311

סָאָה (*sā'ā*), seah, a unit of dry measure like flour and grain 471
 סָפָה (*sāfā*), 1. “to sweep away, destroy”, 2. “to add” 286, 294, 299, 321, 332, 338, 341
 סָפַח (*sāfah*), “to add, join, attach to” 291, 293, 294, 295, 298, 322, 323, 329, 330, 475
 סָפִיחַ (*sāfiḥ*), allegedly “low, mean position, a contemptible condition” 475, otherwise: “growth from spilled kernels”, accidentally in harvesting
 עִבְרִי (*ibrī*), an ethnic term “a Hebrew”; in the Septuagint, an appellative noun meaning “a foreigner, a traveller” 138, 142; עִבְרִים (*ibrīm*), “Hebrews” or “foreigners” 148
 עוּז (*ūz*), “to take recourse”; original meaning according to Schultens: “to flee to an asylum, to retreat” 253
 עֲטָא (*āṭā*), “to cover, to veil” 253
 עָמַם (*āmam*), “to burden” 253
 עָצַם (*āṣam*), “to be strong, brave, mighty” 254
 עָרַשׁ (*æræs*) “couch, bed” 287
 פִּזַּר (in the *piel*: *pizzer*) “to spread, disperse” 206, 253
 פָּחַד (*pāḥad*) “to dread, fear, be in awe” 287
 פָּרַח (*pārah*), “to blossom, flourish” 253
 רָזָא (*rāzā*), “to be meagre, become meagre” 253
 רָעַב (*rā'eb*), “to hunger” 253
 צָד (*ṣad*), “side” 253
 צָבַר (*ṣāḥbar*), “to heap, collect” 254
 צַדִּיק (*ṣaddīq*) “righteous” 276
 צֹהַר (*ṣohar*), “light, midday” 204, 254, 258
 צָחַק (*ṣāḥaq*), “to laugh” 254
 צֶל (*ṣel*), “shadow” 254, 258
 צָלַל (*ṣālal*), “to seek shade, to be shadowy” 258
 צָלַל (*ṣālal*), in the sense “to cover” 254
 צֶלֶם (*ṣelām*), according to Schultens, “a shady or sketched image”, otherwise “image, statue, idol” 254
 צָמָא (*ṣāmā*), “to thirst” 254
 צֶמֶר (*ṣæmæṛ*), “wool” 204, 257
 צָעַן (*ṣā'an*), “to move”, as a nomad 254

קָב וְנָקִי (*qab w'-nāqī*) “small and pure”, title of a commentary 84
 קִיץ (*qayis*), “summer” 255
 רִבְבָּהּ (*rīḥbāḥ*), “ten thousand” 477
 שָׂבַע (*ṣāḥba*), “to be saturated” 255
 שֶׁאֵ (*ṣæ*), “sheep, cattle” 255
 שָׁהַד (*ṣāhed*), “to witness” 255
 שְׁבִיל (*ṣḥīl*), “track, pathway, road” 255
 שֶׁבַע (*ṣāḥba*), “seven” 255
 שָׁלַט (*ṣālaṭ*), “to have power over” 255
 שָׁכַן (*ṣākan*), “to rest” 255
 שְׁלוֹם (*ṣālōm*), “soundness, welfare, peace” 255
 שָׁמַיִם (*ṣāmayim*), “heavens” 255
 שָׁמַע (*ṣāma*), “to hear” 255
 נָשַׁב (*nāṣaḥ*), “to blow” 255
 שָׁלַח (*ṣæmæš*), “sun” 255
 שָׁלַח (*ṣælah*), “missile” 256
 שָׁאָה (*ṣā'ā*), “to make a noise with a crash(ing)” 256
 שָׁבַר (*ṣāḥbar*), “to break” 204, 258
 שָׁד (*ṣad*), “breast” 256
 שׁוּב (*ṣūḥ*), “to return” 205, 258
 שָׁקַל (*ṣākal*), “to be deprived” 256
 שָׁלַג (*ṣælæg*), “snow” 205, 256, 258
 שְׁלוֹם (*ṣālōm*), “well-being, peace” 255
 שָׁלַח, *ṣælah*, “missile” 256
 שָׁלוֹשׁ (*ṣālōš*), “three” 206, 256, 258
 שְׁלוֹשָׁה (*ṣālōšā*), “three” (fem.) 204
 שָׁם (*ṣām*), “there” 256
 שָׁמַיִם (*ṣāmayim*), “heavens” 255
 שָׁמַשׁ (*ṣæmæš*), “sun” 255
 שְׁמוֹנָה (*ṣḥmōnā*), “eight” 256
 שָׁנָא (*ṣānā*), “to continue” 258
 שְׁנַיִם (*ṣḥnayim*), “two” 256
 שַׁעַר (*ṣa'ar*), “door, gate”, 206, 253, 256; original meaning, allegedly “an opening, a fissure” 253, 256
 שָׁפַר (*ṣæṣæf*; Isa 54:8), according to Schultens, “rough hardness”, otherwise: “flowing, streaming” 255
 שָׁקַל (*ṣāqal*), “to weigh, ponder” 258

Syriac words

יָתַב (*īteḥ*) “to sit down” 314
 יָעָא (*i'ā*), “shine forth; sprout forth, shoot forth, appear” 258
 ṭahrā or ṭahrāyā, “midday, noon” 258
 talgā, “snow” 20

Illustrations

List of illustrations

Pictures

Figure 1. Portrait of Albert Schultens. Oil painting by Hieronymus van der Mij, 1736. (See page 12.)

Figure 24. Male and female date palms. Colour lithograph by Adolphe Philippe Millot and Lucien Lefèvre, 1889.

Early modern Hebrew and comparative Semitic dictionaries: Samples

Figures 2a–2b. Johannes Reuchlin, *De rudimentis Hebraicis*, Phorzheim 1506, the title on p. 1, and samples of entries, p. 92.

Figures 3a–3b. Yishāq Nathan ben Kalonymus, *Sefer yā`īr nāfīḇ* (1447), published in Latin as *Concordantiarum Hebraicarum capita*, Basel 1556, the title page and pp. 260–262.

Figures 4a–4b. Johannes Forster, *Dictionarium Hebraicum novum*, Basel 1557, the title page and p. 112.

Figures 5a–5b. Johannes Avenarius (Habermann), *Liber radicum seu lexicon Ebraicum*, Wittenberg 1568, the title page and p. 2.

Figure 6. Johannes Buxtorf the Elder, *Lexicon Hebraicum et Chaldaicum*, Basel 1645, the title page.

Figures 7a–7c. Valentin Schindler, *Lexicon pentaglotton*, title pages of the editions of Frankfurt am Main and Hanau 1612 and pp. 483–584.

Figures 8a–8b. Johann Heinrich Hottinger, *Smegma orientale*, Heidelberg 1658, the title page and p. 141.

Figures 9a–9c. Johann Heinrich Hottinger, *Etymologicum Orientale sive Lexicon harmonicum ἐπταγλωττον*, Frankfurt am Main 1661, the layout of the six columns on pp. 2–3, and the title page.

Figures 10a–10c. Edmund Castell, *Lexicon heptaglotton*, London 1669, the title page and the preface, pp. 2–3.

Figures 11a–11c. Johannes Cocceius, *Lexicon et commentarius linguae Hebraicae Veteris Testamenti*, title pages of the 1669 and 1689 editions and pp. 1–2 of the 1689 edition.

Figures 12a–12b. Jacques Gousset, *Commentarii linguae Ebraicae*, Amsterdam and Utrecht 1702, the title page, and p. 218.

Figures 13a–13b. Christian Stockius, *Clavis linguae sanctae*, title pages of the 2nd and 3rd editions, Jena 1727 and Jena 1735.

Figure 14a–14c. Elias Hutter, *Cubus alphabeticus sanctae Ebraeae linguae*, Hamburg 1588, the title page and the cube of Hebrew roots beginning with א

Schultens' unpublished Hebrew dictionary: The draft, the printed sample, and selected records of the dictation

Figures 15a–15d. Leiden UB, MS Or. 1459 A, *Stricturae ad origines*, fols. 11v–12r and 103v–104r.

Figures 16a–16b. Stuttgart, Württembergische Landesbibliothek, call number Phil. qt. K. 83, *Lexicon Hebraeum cum originibus*.

Figures 17a–17e. Frankfurt am Main UL, MS lat. qu. 131, *Stricturae ad origines Hebraeas*.

Figure 18. Oxford, Bodleian Library, MS Or. 257, *Cursus radicum Hebrae linguae*.

Figures 19a–19b. Munich, Bavarian State Library, Cod. Hebr. 378, *Stricturae ad origines Hebraeas*.

Figures 20a–20c. Blois, Bibliothèque Abbé-Grégoire, MS 149–153, *Lexicon Hebraicum a litera א usque ad litteram ט*.

Figures 21a–21b. Utrecht University Library, MS 537, *Stricturae ad origines Hebraeas [...] ad calamum dictatae*.

Figures 22a–22c. Utrecht University Library, MS 538 (former shelfmark 7. G. 24–26), *Stricturae ad origines Hebraeas ordine alphabetico*.

Figure 23. Bibliothèque de Genève, MS Fr. 3375, *Dictata in Lexicon Hebraicum*.

Early modern Hebrew and comparative Hebrew dictionaries: Title pages and samples

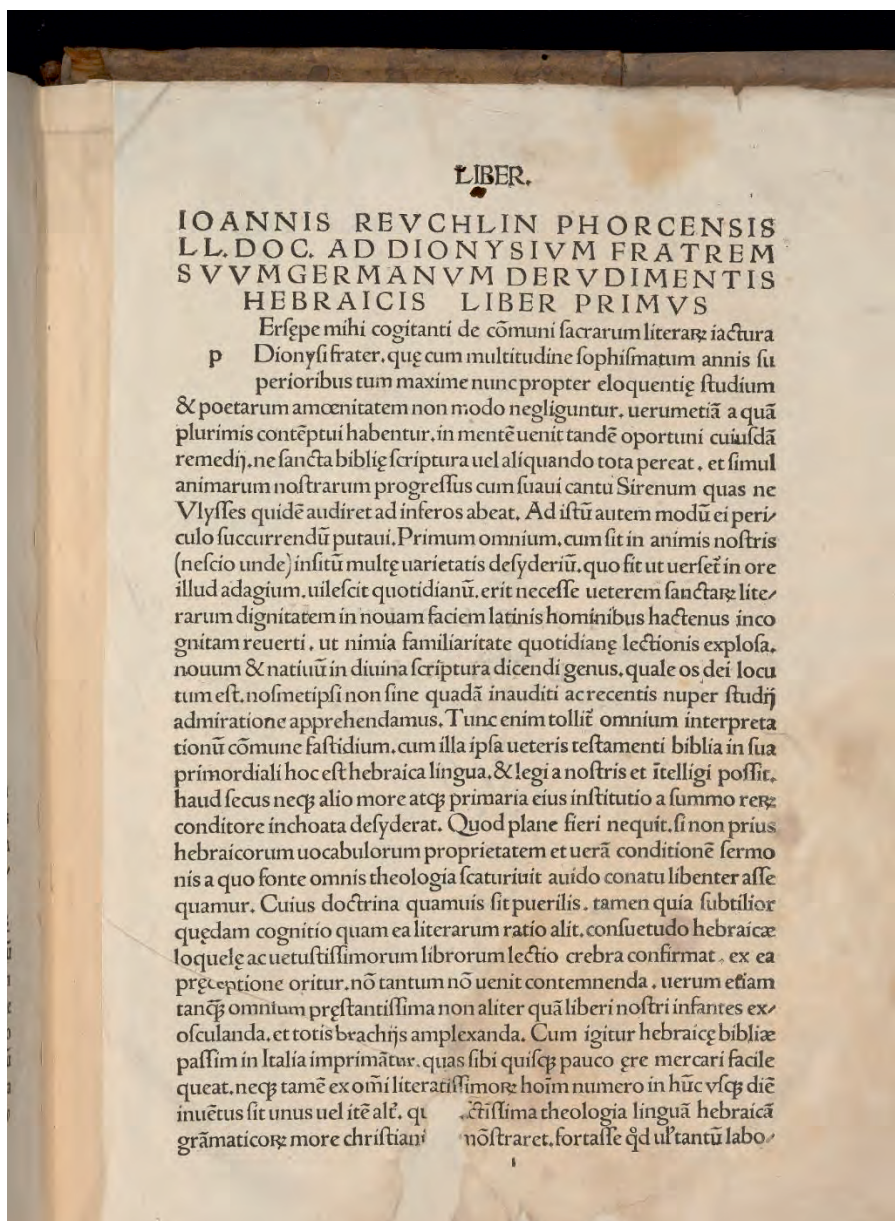


Figure 2a. Johannes Reuchlin, *De rudimentis Hebraicis*, Phorzheim 1506, p. 1: title in the heading and the first page of the first book. Courtesy of Uppsala University Library.

PRIMVS

ברך Benedixit, ut ps. cxvij. Benedictus qui uenit in nomīe dñi. Benediximus uobis de domo dñi. Item salutauit, ut Genesis. xlvij. Qui benedicēs illi, pro quo hebraica ueritas habet. Et salutauit Iacob Pharaonem. Item flexit genua, ut ps. xcv. secundū hebraicam ueritatem. venite adoremus. curuemur. flectamus genua. & Gen. xxiij. Cumq; camelos fecisset accumbere.

ברך Blasphemauit, increpauit, reprehendit, maledixit, ut, iij. Regū xxi. pro eo quod nos legimus, Benedixit Naboth deū et regē, quam obrem eduxerūt eum extra ciuitatē, et lapidibus interfecerūt, hebrei trāsserūt sic. blasphemauit, & chaldaica trāslatio Ionathē hēt **גריה**

idest contempsit. vnde Lyra exponit benedixit .i. maledixit. sic Iob. ij. Benedic deo, et morere. hebrei exponunt. increpa et reprehēde deū.

ברכה Munus. donum. Genesis. xxxij. Et suscipe benedictionem quam attuli tibi. idest suscipe munus quod allatum est tibi.

ברכים uel **ברכי** Genua. ut Deuteronomij. xxvij. Percutiat te dominus ulcere pessimo in genibus et in suris.

ברכה Fons. uiuarium. stagnum. piscina. ut Canticorum septimo.

Oculi tui sicut piscine in hesbon.

ברם Vestis cuiusdā preciosissimę genus. alij putāt esse scriniolum preciosorū iocaliū. Hiero. traduxit gazā preciosam. Ezech. xxvij. Ipsi negociatores tui multipharīam inuolucris hiacynthi et polymitorū gazarūq; preciosarū. vbi septuagīta interpretati sunt thesauros electos.

ברק Replendentia. fulgur. coruscatio. scintillatio. ij. Regum. xxij.

Misit sagittas suas et dissipauit eos, fulgur et consumpsit eos. Significat et lapidem eiusmodi.

ברקנים Spinarum quedā species, quas trāslatio nostra tribulos vocauit. Iudicum. viij. Et cum reuersus fuero uictor in pace conteram carnes uestras cum spinis tribuliscq; deserti.

ברש Arbor quedam ex qua fiunt iacula. Hieronymus traduxit. abietem, alij cedrū. Isaie. lv. pro saluicula ascendet abies. & eiusdem lx. abies & buxus & pinus simul.

Figure 2b. Reuchlin, *De rudimentis Hebraicis*, p. 92, from the root ברך in the piel (here vocalized *berak* as in Gen 24:1, instead of *berek*), benedixit, “he blessed”, to ברש (*b^orōš*), *arbor quaedam*, “any tree”, namely the fir (*abies*) or the cedar (*cedrus*). Courtesy of Uppsala University Library.



Figure 3a. Yishāq Nathan ben Kalonymus, Concordance and dictionary of Biblical Hebrew entitled *Sefer yā'ir nātīb*, “Book enlightening the pathway”, composed about 1447 and published in Basel in 1556 in Anton Reuchlin’s Latin translation as *Concordantiarum Hebraicarum capita*. Courtesy of the Diocesan Library of Västerås (shelfmark: Teologi XII Österländska språk, biblisk apparat Fol.).

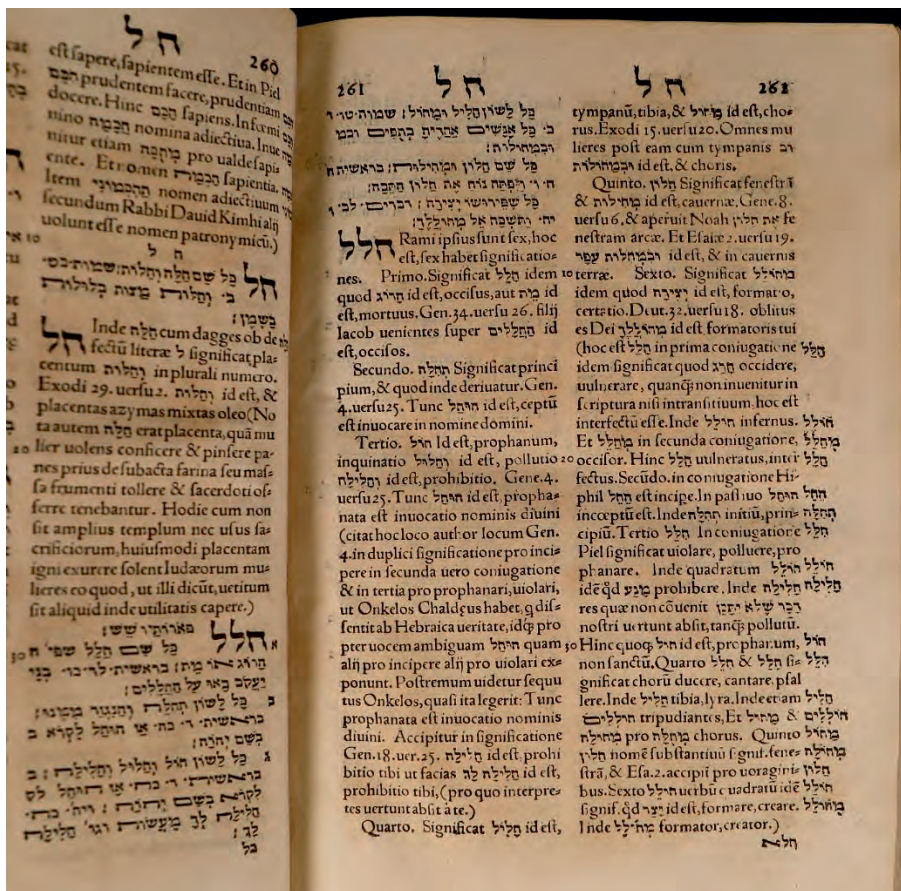


Figure 3b. Yishāq Nathan ben Kalonymus, *Sefer yā'ir nātīb*, in Latin translation: *Concordantiarum Hebraicarum capita*, Basel 1556, pp. 260–262. The polysemous root חלל (*hālāl*) literally means “to untie, loosen, open” and figuratively, “to pollute, defile, profane, dishonor, and begin” (according to the Brown-Driver-Briggs Hebrew lexicon). Courtesy of the Diocesan Library of Västerås.

DICTIONARIUM

HEBRAICVM NOVVM, NON EX RA-

BINORVM COMMENTIS, NEC NOSTRATIVM DOCTORVM

*stulta imitatione descriptum, sed ex ipsis thesauris sacrarum Bibliorum,
& eorundem accurata locorum collatione depromptum, cum phrasibus
scripturae Veteris & Novi Testamenti diligenter annotatis,*

**Autore Ioanne Forstero Augustano, sacrae Theologiae Doctore, ac
Hebraicae linguae professore in Academia
Vuitebergenfi.**

*Cui in fine adnexus est locorum S. scripturae in eo
explicatorum Index fidelissimus.*



BASILEAE, M D LVII

Cautum privilegio Imp. Maiest. ne quis imitetur.

Figure 4a. Johannes Forster, *Dictionarium Hebraicum novum*, Basel 1557, title page. Courtesy of the Diocesan Library of Västerås (selfmark P.O.D. VIII:8).

cerdos. cap. 27. Non inquirere inter bonū & malum. Ezéch. 34. Sic inquiram oues meas. 2. Reg. 16. Sed de altari meo erit inquirendum. Psal. 27. Et ad inquirendum in regia eius. Prouerb. 20. Et postea uota inquirere.

174
בִּקֵּשׁ

Quæsiuit, scilicet magno studio, conatu, ut aliquid quis cōsequatur & obrineat. & fit ambulatione & pedibus, non interrogatione seu uerbis, & in hoc differt à uerbo בָּשָׂא. Deut. 13. Quia quæsiuit expellere te. 1. Sam. 13. Quæsiuit Iehoua sibi uirum secundū cor suum. 2. Sam. 21. Et quæsiuit Dauid faciem Iehoua. Et iterū: Et quæsiuit Saul percutere eos. Psal. 45. Et fortes quæsiuerūt animam meam. Psal. 34. Quære pacem. 2. Sam. 4. Nonne quæram sanguinem eius. Prou. 29. Sed recti quærent animam suam. Iere. 45. Et tu quæres tibi magna, ne quæras.

Participium præsens בִּקְשֵׁי Gen. 37. Fratres meos ego quæro. Exod. 33. Omnis quærens Iehoua egredietur. 2. Sam. 17. Quem tu quæris. Et pluraliter בִּקְשֵׁי Exod. 10. Hoc ipsum uos quæritis. Prouerb. 29. Multi quærent faciem dominatoris.

Et in statu regiminis בִּקְשֵׁי Ierem. 19. Et in manu quærentium animam eorum. Et cum affixis. Psal. 40. Et latrabuntur omnes quærentes te.

In uoce passiua בִּקֵּשׁ Ierem. 50. Quæretur iniquitas Israel. Esther 2. Et quæsit est res. Ezéch. 26. Quæreris & non inuenieris.

INDE NOMEN.

בִּקְשָׁה

Inquisitio, petitio. & legitur tantum in statu affixorum. Efd. 7. Dedit omnem inquisitionem eius. cap. 5. Et quæ inquisitio tua. Et, mox iterum: Ad faciendum inquisitionem meam, anshufen.

175
בָּרַר

Cognitionem habet significatione cum uerbis בָּאָר & בָּרָא בָּרָא בָּרָא בָּרָא, nisi quod ut forma, ita modo significandi inter se differant. Significat autem in lucem producere, eligere, secernere, declarare, expurgare, & multiphariam cōiugatur. Ezéch. 20. Et expurgabo ex uobis rebelles. Eccl. 3. Ad expurgandum eos Deum, id est quod deus eos expurgauerit & declarauerit. & cap. 9. Et ad expurgandū omne istud, id est, declarandum.

Participiū præteritum בָּרַר Iesaię 49. Et posuit me in sagittam expurgatam. Iob 33. Et scientiam labia mea expurgatā loquuta sunt. Et pluraliter בָּרַרְיִים. 1. Paralip. 7. Omnes isti filij Affer principes domus patrū expurgati, id est, expediti, electi. Et in genere fœminino בָּרַרְיָה Zoph. 3. Labium expurgatum ad inuocādum. Et pluraliter בָּרַרְיָה Nehe. 5. Oues sex expurgatæ, id est, electæ.

In uoce passiua seu nomen participiale בָּרַר purus. Psal. 18. Cum puro, purum te exhibebis.

In secunda coniugatione בָּרַר Dan. 11. Et ad expurgandum & ad dealbandum.

In tertia coniugatione בָּרַר Iere. 51. Expurgate sagittas. & cap. 4. Non ad uentilandum neque ad expurgandum.

In quarta coniugatione בָּרַרְיָה Psal. 18. Erga purum, expurgatum exhibebis te.

INDE NOMINA.

בָּרַר

Expurgatus, nomen participiale. Psal. 18. Erga purum, purum exhibebis te.

בָּרַר

Primo, purus, clarus. Iob 11. Et purus fui in oculis tuis. Prouerb. 14. Vbi nō sunt homines, præsepe purum est. Et in regimine mutat cametz in pathah בָּרַר Psal. 24. Et purus corde. Et pluraliter in statu regiminis בָּרַר Psal. 73. Puris corde. Et in genere fœminino בָּרַרְיָה Psal. 19. Mandatum Iehoua est purum, illuminans oculos, id est, clarum. Cant. 6. Pura est genitrici sug. Et mox iterum: Pura ut sol, id est, clara.

Secundo dicitur far seu frumentum, & Græcis σῖτον frumentū expurgatum seu expurgandum ē paleis. Gen. 41. Et coaceruauit Ioseph far, quasi arenam maris. Psal. 65. Et ualles amicientur farre. 72. Et densitas farris in terra. Iere. 23. Quid paleæ cum farre. Iob 2. Et plenæ erunt areae farre.

Tertio, idem significat quod בָּרַר filius, diuersa tamen ratione, nam hoc filium significat delectum, expurgatū, clarum, declaratum, dilectum præ alijs. usitatus est in Chaldaea lingua quam Hebræa. Psal. 2. Osculamini filium. Vocat autem Propheta Christum isto nomine, quia cōceptus ē spiritu sancto natus sine peccato, sine labe peccati purus, sanctus & selectus præ alijs

Figure 4b. Forster, *Dictionarium Hebraicum novum*, Basel 1557, p. 112, entries for בִּקֵּשׁ (*bīqṣēš*), “to seek with great eagerness or attempt”, and בָּרַר (*bārār*), “to lead, choose, separate, declare, purify”. Courtesy of the Diocesan Library of Västerås.

סֵפֶר הַשָּׁרָשִׁים :

HOC EST,
LIBER RADICVM SEV
LEXICON EBRAICVM, IN QVO
OMNIVM VOCABVLORVM BIBLICORVM PROPRIÆ
ac certæ redduntur significationes, cum vera & dilucida multorum
locorum scripturæ sacræ explicatiōe.

*Adiecta est plerisq; Radicibus Symphonicarum
linguarum derivatio.*

AVTORE

M. JOHANNE AVENARIO
EGRANO.

PSALMO

כִּי קוֹנִיתִק :



XXV.

חֵם וְיִשָּׁר יִצְחָק

Cum Gratia & Priuilegio.

WITEBERGAE

EXCVDEBAT IOHANNES CRATO.

ANNO

M. D. LXVIII.

Figure 5a. Johannes Avenarius, סֵפֶר הַשָּׁרָשִׁים, *hoc est Liber radicum seu lexicon Ebraicum*, first edition, Wittenberg 1568. Courtesy of Uppsala University.

Inde nomina.

- אבדה** Perditio, amissio, res amissa, nomen passivæ significationis, *ein verlust*, &c.
Leuit. 5. §. 22. Aut inuenerit rem amissam, & negauerit eam, & iurauerit falso.
In regimine. Deut. 22. §. 3. Et sic facies omni rei perditæ fratris tui, quæ amissa est. **אבדה**
אבדון Perditio. Hæc forma tantum usurpatur in statu absoluto, & caret plurali nu.
Prover. 15. §. 11. Infernus & perditio est coram Iehoua, quanto magis eorda, &c. **אבדון**
Et cap. 27. §. 20. Infernus & perditio non saturabuntur, & oculi hominū nō facia: **אבדון**
Secundum puncta legitur **אבדון** & secundum literas **אבדה**
אבדן Perditio, ablatio, non inuenitur nisi semel in statu absoluto.
Esther 9. §. 5. Et percusserunt Iudæi, & c. ictu gladij & occisione, & perditione. **אבדן**
אבדן Perditio, ablatio, amissio. Semel tantum reperitur in Biblijs sacris.
In regimine. Esth. 8. §. 6. Et quomodo potero inspicere perditionem gentis meæ, **אבדן**
אבה voluit, bene affectus est erga aliquem acquiuit. Cognationem habet cum **אב**
dilexit, item cum **אב** & **אבה** appetiuit. Hæc enim omnia generali significatione
ne non longè inter se differunt. Hinc *ἡμέω* mitigo, *ἡμεῖ* beneuolus, & assums
pro Lambda *βέλωμαι*, volo, *ἀβουῶ*, precesiones.
In I. coniugat. **אבה** voluit, consensit. Usurpatur intransitiue, semperq; addi
tur negatiua particula, exceptis duob. locis quæ sequuntur: testimonij inferuntur.
Deut. 1. §. 26. Et non voluistis ascendere, sed exacerbastis os Domini Dei vestri. **אבה**
Iesa. 28. §. 12. Et non vulerunt audire, & c. Vbi **אבה** in fine est paragogica litera. **אבה**
Ezech. 3. §. 7. Et domus Israel nō volent audire te, quia ipsi nō volunt audire me. **אבה**
Iob. 39. §. 12. Num vult vnicornis seruire tibi, aut pernoctabit ad presepe tuum? **אבה**
Ies. 1. §. 19. si vuleritis & audieritis, bonum terræ comedetis. **אבה**
Prover. 1. §. 10. Filii mi, si fuerint tibi peccatores, ne velis, id est ne consentias. **אבה**
vbi pro **אבה** radicali ponitur **א** quiescens in zere, et peoal implicite quiescit.
Inde nomina.
אב Pater, itē auus cum cōpositis, pauus, atauus, & c. Nā hoc generali nomine ma
iores & omnes qui longo tempore antecesserunt vocant Ebraei, & nonnunq;
honoris gratia usurpatur de dignioribus. Hinc multa deriuntur nomina lati
na & Græca, vt Auus, *ἀββα* Abbas *ein Apt*. Et conuersa radice *πάτερ* pater, *πα
ter*, in his vltima syllaba est affirmatio. Item *πάτριος*. i. auus, *πατρίων* autē voco.
Mal. 1. §. 6. Et si ego sum pater, vbi est honor meus? & si dominus ego, ubi timor zc. **אב**
Cum affixo leui. Exo. 20. §. 10. Honora patrem tuū & matrē tuā, vt plongentur. **אבך**
Gen. 26. §. 15. Et oēs puteos quos foderant serui patris eius in dieb. Abraham & c. **אבך**
Cum affixo graui. Gen. 43. §. 26. Et dixit, Nunquid est pax Patri vestro seni?
In regimine. Psal. 68. §. 6. pater pupillorum, & iudex viduarū, Deus in habitatioe. **אבך**
Et plura. Deu. 24. §. 16. Nō occidentur patres pro filijs, & filij nō occidentur, & c. **אבות**
Cum affixis. Psal. 106. §. 6. peccauimus cum patribus nostris, iniuste egimus, & c. **אבותינו**
In regim. Exo. 10. §. 6. quas (locustas) nō viderūt patres tui, & patres patrū tuorū, **אבות**
Semel accipitur abstractē pro voluntate seu appetitu paterno.
Cum affixo Iob 34. §. penultimo. Appetitus meus est vt probeur Iob. **אבך**
אבה Voluntas, appetitus, *βούλησις*, Legitur tantum semel in hac forma.
Iob 9. §. 26. transferunt cum nauibus voluntatis. i. voluntariē currentibus, **אבה**
אבך Egenus, inopes *πενής* qui res sibi necessarias quibus eget appetit.
Psal. 82. §. 4. liberate pauperem, & egenum de manu impiorum eripite. **אבך**
Cum affixo. Exod. 23. §. 6. Non declines iudicium egeni tui in causa sua. **אבך**
Et pluri. Pl. 72. §. 13. parcer super exhausto & inope, & animas egenorum saluabit. **אבך**
Cum affix. Pl. 122. §. 15. victui eius benedicendo benedicā, egenos eius saturabo. **אבך**
In regim. Ies. 29. §. 19. Et inopes hominum in sancto Israelis exultabunt, **אבך**
אבך Appetitus, voluntas, desiderium habendi aliquid, semel inuenitur.
Ecclē. 12. §. 7. Et dissoluetur appetitus, i. languet & labefactabitur. **אבך**
אבך Papæ, vah, interiectio exclamantis propter egestatem, hinc *εαῖ*, papæ.
Pro. 23. §. 29. Cui vah, cui Papæ? cui contentiones? cui gemitus? & c. **אבך**
אבדה

Figure 5b. Avenarius, *Liber radicum seu lexicon Ebraicum*, p. 2. The sub-entries at the top are nouns derived from the root אבד ('ābad), "to lose, perish", such as אבדה, "loss, a lost thing". Then the entry on the root אבה ('ābā), "to wish (voluit), be well affectionate toward someone (bene affectatus est erga aliquem), to find rest/ pleasure (acquiuit)", follows. In turn, nominal derivatives are listed. Courtesy of Uppsala University Library.

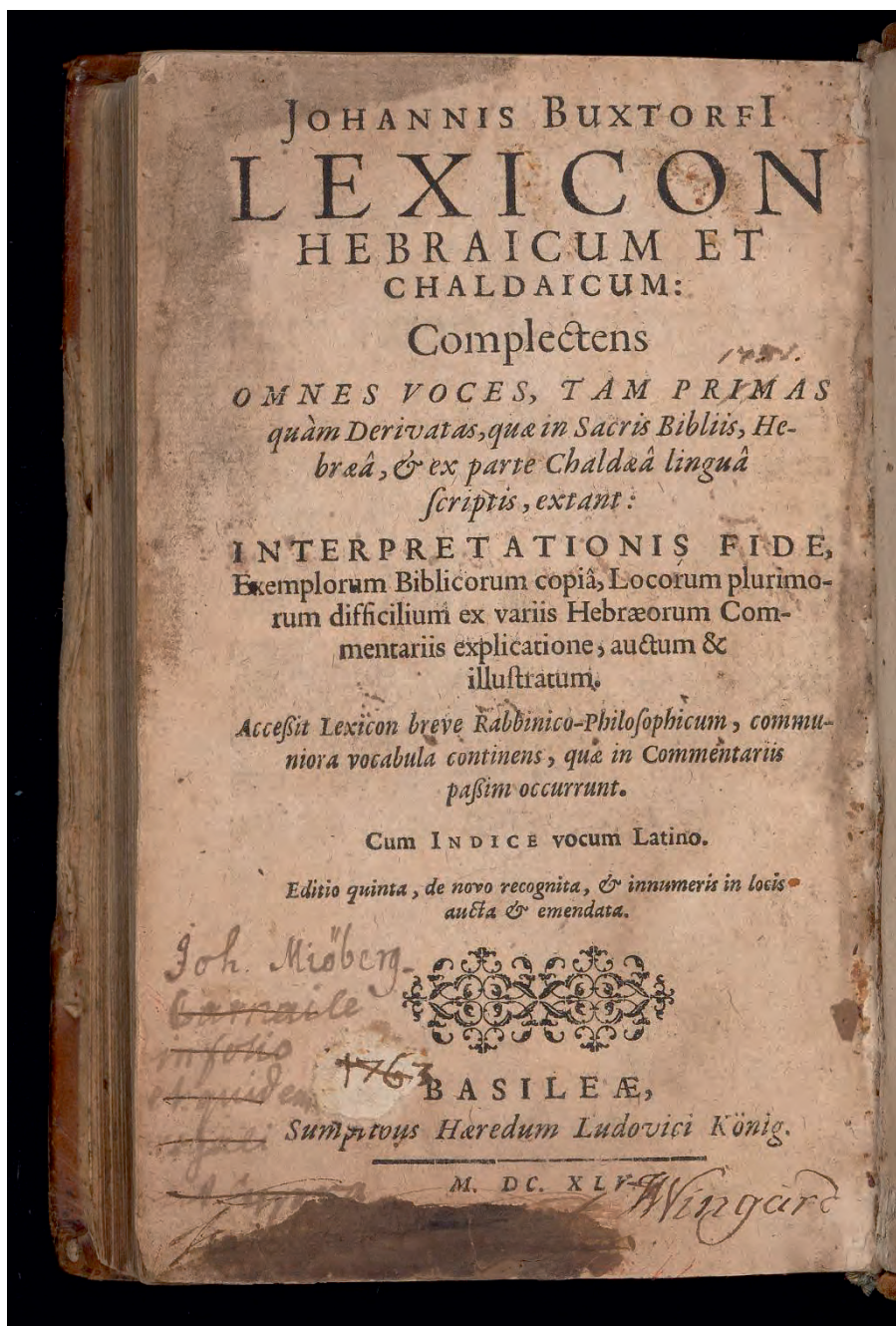


Figure 6. Johannes Buxtorf the Elder, *Lexicon Hebraicum et Chaldaicum*, Basileae/ Basel 1645, title page. Courtesy of Uppsala University Library.

LEXICON PENTAGLOTTON,

Hebraicum, Chaldaicum, Syriacum, Talmudico-
Rabbinicum, & Arabicum.

IN QVO OMNES VOCES HEBRÆÆ, CHALDÆÆ,
Syrae, Rabbinicae & Arabicae, adjectis hincinde Persicis, Aethiopicis & Turcicis,
ordine Alphabetico, sub suis singulae Radicibus digestae continentur: Earumque Si-
gnificationes, Usus ac Elegancia, ex SS. Hebraeis Bibliis; horum Chaldaicis Para-
phrasibus; Testamento N. Syriaco; utroque Babylonico & Hierosolymitano Tal-
mudo, Midraschim, Rabbinorum Commentatoribus, Theologis & Philosophis;
Arabica V. & N. Instrumenti Translatione, Alkorano, Avicenna, &c. ut & Graeca
Lxx. Interpretum, & omnibus Latinis Bibliorum versionibus, doctè, amplè,
ac dilucidè proponuntur & explicantur.

VARIORVM ITEM INTERPRETVM DIFFICILES,
ac discrepantes sententiae conferuntur, & examinantur.

COLLECTUM, ET CONCINNATUM

à
Clarissimo & doctissimo viro,

DN. VALENTINO SCHINDLERO, OEDERANO,
*Linguarum Orientalium in praecipuis Germania Academiis,
quondam Professore.*

Opus novum, nunc post Authoris obitum, ex ipso Autographo fidelissimè descriptum,
& in locis dubiis cum Bibliis Regiis collatum, communique Reipubl.
Christianae bono in lucem editum.

Cum INDICE gemino:

1. Abbreviaturarum Hebraearum copiosissimo.
2. Omnium vocum Latinarum, quibus dicta Idiomata explicantur, locupletissimo.



Cum privilegiis S. Cæs. Majest. & Regiae Galliarum.

Cura & Auspiciis RYLANDIORVM.

FRANCOFVRTI AD MOENVM,

Typis Joannis Jacobi Hennei.

MDCXII.



Figure 7a. Valentin Schindler, *Lexicon pentaglotton*, Frankfurt am Main 1612, title page. Courtesy of Uppsala University Library.

LEXICON PENTAGLOTTON,

Hebraicum, Chaldaicum, Syriacum, Talmudico-
Rabbinicum, & Arabicum.

IN QVO OMNES VOCES HEBRÆÆ, CHALDÆÆ,
Syrae, Rabbinicae & Arabicae, adjectis hincinde Persicis, Æthiopiciis & Turcicis,
ordine Alphabetico, sub suis singulae Radicibus digestæ continentur: Earumq; Si-
gnificationes, Usus ac Elegantia, ex SS. Hebraeis Bibliis, horum Chaldaicis Para-
phrasibus; Testamento N. Syriaco; utroq; Babylonico & Hierosolymitano Tal-
mudo, Midraschim, Rabbinorum Commentatoribus, Theologis & Philosophis;
Arabica V. & N. Instrumenti Translatione, Alkorano, Avicenna, &c. ut & Græca
Lxx. Interpretum, & omnibus Latinis Bibliorum versionibus, doctè, amplè,
ac dilucidè proponuntur & explicantur.

VARIORVM ITEM INTERPRETVM DIFFICILES,
ac discrepantes sententia conferuntur, & examinantur.

COLLECTVM, ET CONCINNATVM

à
Clarissimo & doctissimo viro,

DN. VALENTINO SCHINDLERO OEDERANO,
*Linguarum Orientalium in celeberrimis Witembergensi & Helmstädensi Aca-
demiis, quondam Professore.*

Opus novum, nunc post Authoris obitum, ex ipso Autographo fidelissimè descriptum;
& in locis dubiis cum Bibliis Regis collatum, communique Reipubl.
Christianæ bono in lucem editum.

Cum triplici INDICE:

1. Abbreuiatarum Hebræarum copiosissimo.
2. Nominum propriorum hoc Lexico citatorum.
3. Omnium vocum Latinarum, quibus dicta Idioma explicantur, locupletissimæ:



Cum privilegiis S. Cæs. Majest. & Regiæ Galliarum:

Cura & Auspicijs RYLANDIORVM:

HANOVIAE,

Typis Joannis Jacobi Hennæi.

MDCXII.

Figure 7b. Valentin Schindler, *Lexicon pentaglotton*, Hanau 1612, title page. Courtesy of the Diocesan Library of Västerås (shelfmark: Teologi XII Österländska språk, biblisk apparat).

somnium visionis nocturna: res vana & instabilis. Joel 2. vers. 28. vel 3. vers. 1. *se- nes vestri* חלמו חלמו *somnia somniabant*: visiones habebunt. 7. *Æneid. de sacer- dote*: *somnoq. petiuit*.

Multa modis simulacra videt volantis miris: *Et varias audit voces fruiturg. decorum*

Colloquio. Jerem. 27. & ad חלמו חלמו *somnia vestra*: illis qui somniant *somnia vestra*. Syr. Matth. 1. *apparuit ei Angelus Domini בחלום in somnio*.

חלמו gemma, cor confortans; quamq; in digito gestans plerunq; videt *somnia, amethystus*. Exod. 28. *וחלמו & amethystus*. B Targ. חלמו וסין וסין *oculus vituli*.

חלמו somniator. Jerem. 29. & ad Sama- jam חלמו *somniatorem dices*: qui ipsis somniabat *somnia*, quod cirò essent redi- turi in Hierusalem. Targ. חלמו *qui est ex Halem*. accepit pro gentili.

Rabb. חלמו *herba*, somnum concili- ans, *malva*.

Arab. חלמו *ihetelem pollutio nocturna*, in fomno contingens.

חלם. duo significata habet. I. Rabb. חלם *elevatio, cumulus, acervus*.

חלם *fundus terre*, ex qua formatur, au- rum, argentum, vitrum.

II. Arab. cum punctato חלם *challas per- fecit, complevit, peregit, finivit, absolvit, expe- dit, determinavit*. P. Alf. חלם *archallas finitus, absolutus fuit*.

Nom. חלם *challas finis, completio, abso- lutio operis*.

חלם *muchallis completor, finitor*: P. Lur. D חלם *muchallisin finitores*.

חלם *ichtelis celeritas*.

חלם *challas rete*, in quo infans nascitur, *chorion, secunda*.

Deinde חלם *challas aptavit coria*. חלם *coriarius*.

חלע. Arab. cum punctato חלע *chala exuit, expoliavit*. Ephel. 3. vers. 9. חלע *exuite hominem veterem*. Achor. 10. vers. 48. חלע *exue calceos tuos*. Alc. Manna. חלע *exue calceos tuos*.

Nom. חלע *chala expoliatio*.

Deinde Hirphil חלע *achla dislocavit membra*.

חלע *dislocatio, luxatio*.

חלע *paralyticus*: P. Lur. חלע *paralyticus*.

חלף. quatuor signific. habet. I. חלף, Chald. חלף *mutavit, permutavit, commutavit, transmutavit, variavit vel rem vel locum, disces- sit, vel tempus, praterit, transijt, pertransijt, vel qualitatem, in bonum, renovavit*: in

malum, corruptis, *removit, perdidit, sublat*. Jud. 5. *vulneravit* חלף *& mutavit tempus*:

corruptis, perdidit. Psalm. 90. v. 5. *mane ut fuerum* חלף *mutabitur*. v. 6. *mane* חלף *& mutabitur*. Targ. חלף *& angeli*:

incrementum sumet. Esa. 2. v. 16. & *idola omnino* חלף *mutabitur*. Targ. חלף *effla- bunt*: omnia peribunt; ex terra tollen- tur. Esa. 24. חלף *mutarunt statum*. Tar- gum חלף *aboleverunt*. 1. Sam. 10. חלף *& mutabū inde & ultra*. Targum חלף *& ibi*. Job. 4. & *ventus contra faciem meam* חלף *mutabit*. Targ. חלף *transibit*. Esa. 8. v. 8. חלף *& mutabitur* Juda. Targum חלף *& transibit*. Chald. Dan. 4. *donec septem tempe- ra* חלף *transcant*. Psalm. 8. חלף. Targum חלף *qui transit vias maris*. Piel. חלף, Syr. חלף *& חלף idem*. 2. Sam. 12. vers. 20. חלף. Targ. חלף *& mutabat vestes suas*. Syr. Achor. 28. חלף *mutaverunt sermones suos*. Chald. Psalm. 15. *jurat proximo suum*: חלף, Targ. חלף *mutat*. Syr. Gal. 1. חלף *mutent Evangelium Christi*. Alcor. 2. חלף *& חלף mutabit Deus pactum suum*. P. Alf. Syr. חלף *& חלף mutatus, transforma- tus fuit*. Achor. 2. חלף *mutabitur in cali- genem*. Matth. 17. v. 2. חלף *& transfor- matus est Jesus*. Hirphil. חלף. Arab. חלף *idem*. Gen. 31. חלף, Targ. חלף *& muta- vis mercedem meam decem vicibus*. Ibidem, חלף. Targ. חלף *& mutasti mercedem meam*. Esa. 9. v. 10. & *cedras* חלף *permuta- bimus*: in locum earum substituemus. Job. 20. חלף *mutabit eum arcus aeneus*. Hier. fugabit eum. praecedit, חלף *fugiet ab armis ferreis*. Esa. 40. v. 31. & *expectantes Domi- num* חלף *permutabunt robur*. Targ. חלף *ade- dent*: augebunt, renovabunt vires: prius- quam consumatur robur prius, venierit il- lis robur aliud a Deo: instaurabuntur. Job. 14. v. 7. *quia est ligno spes, si excindatur, & ite- rum* חלף *mutabit*. Scil. robur. Targ. חלף *שכב*. L x x. חלף *efflorescit*: producet trun- cum alium. ¶ Et interdum subintellecto חלף *robore*. Job. 29. & *arcus meus in manu mea* חלף *mutabit*. scilicet חלף *robur*.

Nom. חלף, Chald. חלף *pro, vice loco, pro- pter, eò quod*. Rabb. *diversitas*. Num. 18. חלף. Targ. חלף *pro ministerio ipsorum*.

חלף, Fozem. חלף. Chald. חלף *muta- tio, permutatio, commutatio, diversitas, diffi- rentia*: P. Lur. חלף *mutationes*. Prov. 31. *pro- riosum pro muto in causa omnium* חלף *mutatio- nis*: qui sunt rei mortis & in- terficiendi; mutatio miseriarum in bo- nos dies, dies mortis, est mutatio homi- nis ex vita in mortem. Targ. חלף *muta- tio*.

Figure 7c. Schindler, *Lexicon pentaglotton*, Hanau 1612, pp. 483–484, the end of the entry חלם (*hālam*), (1) “to be strong”, (2) “to dream”; the root חלם (*hālas*) in Rabbinic Hebrew with the nominal derivative חולסית “elevation, heap”, and in Arabic the verb *hallasa*, “to end, to perfect, accomplish, finish”; the root חלע (*hāla*) in the Arabic verb *hala’a*, “to put off, take off” (garment); and finally the Hebrew (and Semitic) root חלף (*hālaf*), “to change, alter, transmute”, applied to space “to depart from”, to time “to go or pass over”, to quality “to renew”, and to evil “to corrupt, lose”. Courtesy of the Diocesan Library of Västerås.

JOH. HENRICI HOTTINGERI
S.T.H.D. *Et in Electorali Heidelbergensium
Academia Professoris*

S M E G M A
O R I E N T A L E:
SORDIBUS BARBARISMI,
*Contentui præsertim Linguarum Orienta-
lium oppositum.*



HEIDELBERGÆ;
*Typis & Impensis ADRIANI WYNGAERDEN,
Academ. Bibliopolæ & Typographi.*
c15 15C LII 8.

Figure 8a. Johann Heinrich Hottinger, *Smegma orientale*, Heidelberg 1658, title page. Courtesy of Diocesan Library of Västerås (shelfmark: Teologi XII Österländska språk, biblisk apparat).

nes. Unde & רִיר stella, unionis instar fulgens: Fulgur gladii & splendor. רִיר clarè lucens lucerna.

רִיר Spurca fuit vestis, manus. Unde רִיר spurcitia, sordes, trita vestis. Ab hac radice commodè deducimus רִיר contentus, fastidium, nausea. Ratio Etymologiae satis est manifesta.

רִיר Arab. Acuta fuit res quaecunque. Conjug. 4. Acuit. Hinc nomen רִיר acies, acumen. Heb. רִיר stimulus, aculeus baculo infixus, ad pungendum jumentum.

רִיר Arab. Gradatim fuit progressus & ascendit. Reclè processit in religione & sermone. Hinc Heb. מִרְרָה Gradatio, præcipitium.

רִיר Hirundinem vertunt, Psal. 84. v. 4. Quòd, ut Kimchius scribit, libertatem habeat nidificandi & volandi in hominum ædibus: vel, ut monet Isidorus, aliis a vibus non impetatur, nec unquam præda sit. Hoc sensu רִיר habet cum nomine רִיר libertatem significante. Quia verò Græci modò ψαλλόν reddunt, modò ψαλλόν turturem, generale forte nomen est ψαλλόν, quales aviculæ illæ saltitantes sunt, passer, hirundo motacilla, denotans. Sic res clara crit. רִיר enim Arabicè, præter alia, ψαλλόν notat.

רִיר Non malè explicatur *inquirere, investigare*; addere tamen aliquid Emphascos videtur notio Arabica, quæ significat *trivit librum, perlegit studiosè, didicit sub alio, exercuit ac prælegendo docuit*. Unde רִיר Arab. מִרְרָם Commentarius, quo quis docetur: מִרְרָם verò Gymnasium, Academia, Collegium.

רִיר & רִיר celestina transferunt vocem nautarum se invicem hortantium, ac ovantium. Sumitur etiam pro

Figure 8b. Hottinger, *Smegma orientale*, chapter 7, presenting a dictionary of Hebrew-Arabic cognates, p. 141. Courtesy of the Diocesan Library of Västerås.

V. Propria Chald. Syriac. Talmud. Rabb. Samarit. Ethiop. Arab.	IV. Harmonia filiarum inter se, vel omnium, vel quarundam, exclusa matre Hebræa.
1. <i>Chald.</i> אַב, Julius.	1. אַב Syr. אַב Chald. אַב Ethiop. אַב
2. <i>Talm.</i> אַב sylvæ. <i>Chald. Syriac. Talm.</i> אַב, organum, fistula facta ex recenti calamo <i>Arabic.</i> verb. a. accinxit se: b. movit. c. clamavit.	
3. <i>Syr.</i> אַב claudus. <i>Arab.</i> אַב sculum.	
4. <i>Ethiop.</i> Infipiens fuit. <i>Arabic.</i> a. constitit. b. Ferum evasit animal.	
5. <i>Arab.</i> אַב a. difficile fuit negotium. b. abruptus fuit funis.	5. אַב <i>Ethiop. Arabic.</i> Noluit.
6. <i>Chald.</i> אַב Mitrus. אַב Ligones.	
7. <i>Arab.</i> per אַב reprehendit.	
8. <i>Chald.</i> אַב uter ex corio. <i>Talm.</i> אַב matula. <i>Arab.</i> אַב Axilla.	
9. <i>Arab.</i> Carnosus fuit.	
10. <i>Arab.</i> a. sine pastore vagari. b. vincere. c. Abstinere à congressu. <i>Chald.</i> אַב Porta. <i>Chald. Syr.</i> אַב Magnates. <i>Ethiop.</i> Verb. Perdidit. Nom. אַב membrum, materia; Archetypus.	10. אַב <i>Arab.</i> 1. camelos multos possedit. Unde <i>Syr.</i> אַב, grex, turma camelorum. 2. <i>Arab.</i> אַב Idem 2. <i>Arab.</i> fulste percussit: unde <i>Ful-</i> <i>Ethiop.</i>
11. <i>Arabic.</i> a. suspectum habuit. b. vituperavit.	

Figure 9b. Johan Heinrich Hottinger, *Etymologicum Orientale sive Lexicon harmonicum ἐπτάγλωσσον*, Frankfurt am Main 1661, p. 3, columns 4–5 on the combinations of the units אַב and אַב with a third radical (the same as those listed in the second column) in Semitic languages other than Hebrew. Courtesy of Uppsala University Library.

III. Harmonia matris Hebrææ cum filiabus Chaldeæ, Syra, Talmud-Rabb. Samarit. Arab. Æthiop.	II. Rhizologia. i. e. Radix Hebræa cum diversis significationibus.	I. Radix inusitata ex aliis Linguis vicinis restituenda.
		1. אא
		אב 1.
2. Chald. אבא vel אבא. Syr. אבא. Fructus recens; Arab. אב Pabulum virens.	אב viror. 2. אב, a. culmus. b. mensis spicarum, Martius.	2. Chald. Pah. אב protulit fructus.
4. Chald. Syr. Arabic. Samar. Rabb.	Periit res, vel persona.	3. 4.
5. Chald. Talmud. 1. voluit. Arab. 2. Pater fuit. Unde Chald. Syr. Samar. Arab. Talmud. Æthiop. אבא Pater, author.	1. voluit, acquievit. 2. Pater a. fuit, unde אב Pater, inventor, Magister.	5. 6. אב Pater fuit.
	אבה strepitus, al. mucro; al. potestas, al. occisio.	7. 8. אבה per-misit, potestatem dedit. טבה. ט. 8.
	Hithpah. Elevavit se. Luxit tam de animatis, quam inanimatis.	9. 10.
11. Chald. Æthiop. Samar. אבני. Lapidēs.	אבן Lapis quilibet, vas lapideum. 2. universus. 3. Pondus. אבני fella parturientium. 2. Instrumentum figuli.	11. Æthiop. Lapis factus est.

Figure 9a. Johan Heinrich Hottinger, *Etymologicum Orientale sive Lexicon harmonicum ἐπὶ ὁλόωτον*, Frankfurt am Main 1661, columns 1–3 on the roots and their meanings in Semitic languages, including Hebrew. Here, the units אא and אב are combined with a third radical, viz. א, ב, ג, ד, ה, ו, ז, ח, ט, י, ל and י. Courtesy of Uppsala University Library.

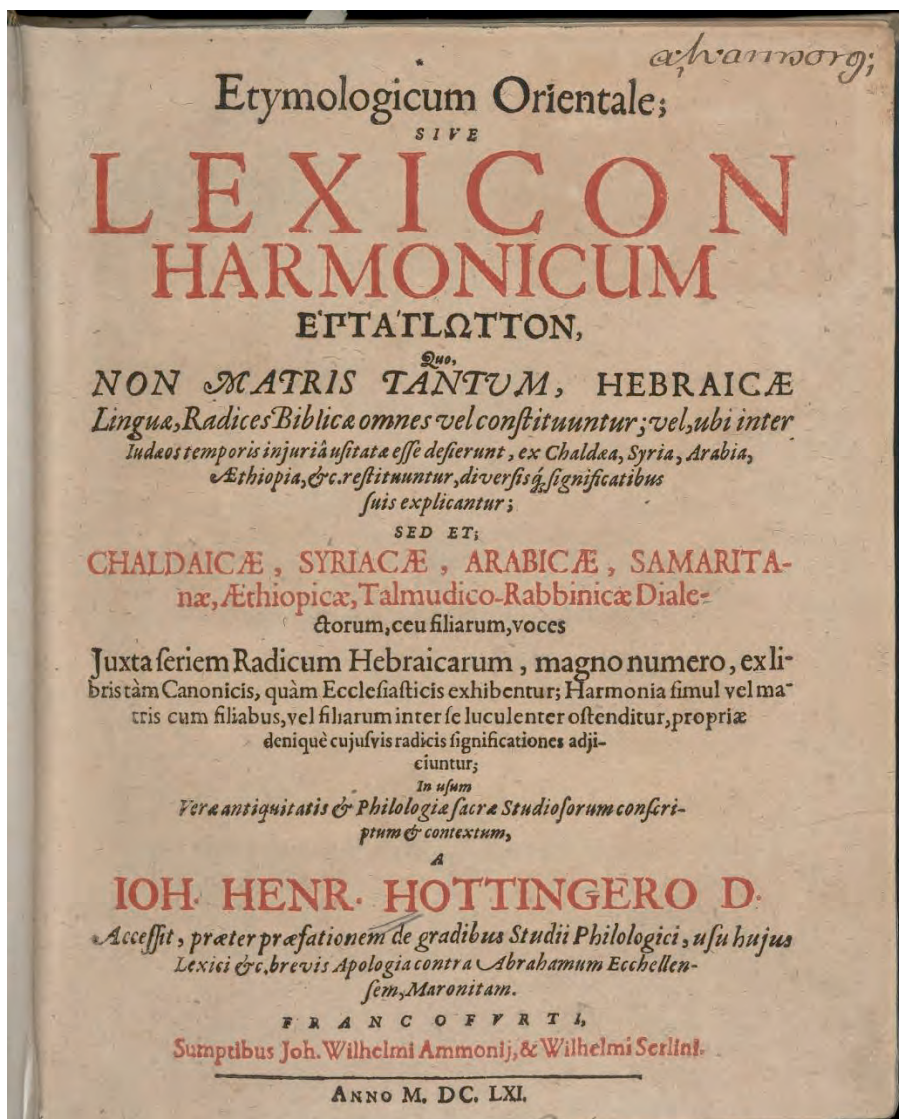


Figure 9c. Johann Heinrich Hottinger, *Etymologicum Orientale sive Lexicon harmonicum* ἐπτάγλωττον, Frankfurt am Main 1661, title page. Courtesy of Uppsala University Library.

LEXICON HEPTAGLOTTON,

{ **H**EBRAICUM, } { **S**AMARITANUM, }
{ **C**HALDAICUM, } { **Æ**THIOPICUM, } Conjunctim;
{ **S**YRIACUM, } { **A**RABICUM, }

Et **P**ERSICUM, Separatim.

Opus non tantum ad

BIBLIA POLYGLOTTA LONDINENSIA,

BIBLIA REGIA PARISIENSIA,

BIBLIA REGIA ANTWERPIANA,

BIBLIA que **CARD. XIMENII COMPLUTENSIA;**

Sed ad omnes omnino tam **MSS.** quam impressos Libros, in Universis hęc
Linguis extantes, apprimē utile & perneceffarium.

In quo vocum significationes, omnium præsertim in SS. Hebræis Bibliis semel tantum occurrentium, multo aliter quam apud Modernos, sive Hebræos, sive Christianos, ex tribus Chaldaïs Targumin, utroque Babylonico, & Hierosolymitano Talmude, vetustissimorum Rabbiorum Commentatoribus, Theologis, & Philosophis, Variis S. Scripturæ Lectionibus Hebr. Chald. &c. tribus exemplaribus V. & N. T. Syris, tribus magna ex parte utriusque Æthiopis, tribus Arabicis, duobus Persicis, tribus Pentateuchis Samaritanis: Lexicis item in omnibus hęc Linguis vix numerandis; Alcorano, Avicenna, Geographo Nubienſi, &c. ut & Græca LXX Interpretum versione, ample & dilucidē eruantur, proponuntur, & explicantur.

Adjectis hinc inde vocabulis Armenis, Turcicis, Indis, Japonicis, &c. ad illustrationem harum Linguarum infervientibus.

Variorum insuper Interpretum difficiles ac discrepantes sententiæ, conferuntur & examinantur: quamplurima Errata in aliis Lexicis, nec non in ipsis Bibliis Polyglottis, tum nostris, tum & aliis omnibus, etiam pravæ haud raro Translationes emendantur, & ad verum suum sensum restituantur.

Cui accessit **BREVIS, & HARMONICA**

(quantum fieri potuit)

GRAMMATICÆ,

Omnium præcedentium Linguarum Delineatio.

Authore **EDMUNDO CASTELLO, S. T. D.**

Regie M. à Sacris: Lingua Arabice apud Cantabrigienses Professore:

Atque Ecclesiæ CHRISTI Cantuariensis Præbendario.

L O N D I N I,

Imprimebat **THOMAS ROYCROFT,**

Sumptibus **ROBERTI SCOTT,** Bibliopolæ Londinenſis.

CIO. DC. LXXXVI.

Figure 10a. Edmund Castell, *Lexicon heptaglotton*, London 1669, title page. Courtesy of the Diocesan Library of Västerås (shelfmark: teologi XII Österländska språk, biblisk apparat Fol).

[illegible]

• A Alphabetum

444

Alphabetum Arabicum.					Alphabetum Persicum.				
Nomen.	Figura.	Figura.	Figura.	Potestas.	Nomen.	Figura.	Figura.	Figura.	Potestas.
Elif	ا	ا	ا	1	Elif	ا	ا	ا	Ar. 1
Be	ب	ب	ب	2	Be	ب	ب	ب	ut P Lat.
Te	ت	ت	ت	3	Te	ت	ت	ت	ut Ar.
Thfe	ث	ث	ث	4	Se	ث	ث	ث	ut Ar.
Zjim	ج	ج	ج	5	Sjim	ج	ج	ج	ut Ar.
Hha	ح	ح	ح	6	Che	چ	چ	چ	Angl. Ch.
Cha	خ	خ	خ	7	Hha	ح	ح	ح	ut Ar.
Dal	د	د	د	8	Cha	خ	خ	خ	ut Ar.
Dhfal	ذ	ذ	ذ	9	Dal	د	د	د	ut Ar.
Re	ر	ر	ر	10	Zal	ز	ز	ز	ut Ar.
Ze	ز	ز	ز	20	Re	ر	ر	ر	ut Ar.
Sin	س	س	س	30	Ze	ز	ز	ز	ut Ar.
Schin	ش	ش	ش	40	Zhe	ژ	ژ	ژ	Zz Ital.
Sad	ص	ص	ص	50	Sin	س	س	س	ut Ar.
Dad	ض	ض	ض	60	Schin	ش	ش	ش	ut Ar.
Ta	ط	ط	ط	70	Sad	ص	ص	ص	ut Ar.
Da	ظ	ظ	ظ	80	Zad	ض	ض	ض	ut Ar.
Aain	ع	ع	ع	90	Ta	ط	ط	ط	ut Ar.
Gain	غ	غ	غ	100	Sa	س	س	س	ut Ar.
Fe	ف	ف	ف	200	Aain	ع	ع	ع	ut Ar.
Kaf	ق	ق	ق	300	Gain	غ	غ	غ	ut Ar.
Kef	ك	ك	ك	400	Fe	ف	ف	ف	ut Ar.
Lam	ل	ل	ل	500	Kaf	ق	ق	ق	ut Ar.
Mim	م	م	م	600	Kef	ك	ك	ك	ut Ar.
Nun	ن	ن	ن	700	Ghaf	گ	گ	گ	ut Gh.
Waw	و	و	و	800	Lam	ل	ل	ل	ut Ar.
He	ه	ه	ه	900	Mim	م	م	م	ut Ar.
Je	ي	ي	ي	1000	Nun	ن	ن	ن	ut Ar.
Lam clif	لا	لا	لا		Waw	و	و	و	ut Ar.
					He	ه	ه	ه	ut Ar.
					Ye	ي	ي	ي	ut Ar.

Figure 10c. Castell, *Lexicon heptaglotton*, p. 2: Arabic and Persian script. Courtesy of Uppsala University Library.

2777 תרל"ט
JOHANNIS COCCEI,
S. Theologiae in Academia Lugdunensi
Professoris
LEXICON
ET
COMMENTARIUS
SERMONIS HEBRAICI
ET CHALDAICI
VETERIS TESTAMENTI.

ACCEDUNT
Interpretatio Vocum Germanica; Belgica
ac Graeca ex LXX. Interpretibus;
Et necessarij INDICES.



AMSTELODAMI,
Ex Officinâ JOHANNIS A SOMERËN, Bibliopola.
M. DC. LXIX.

Cum Privilegio.
*fiel'd' jorkman. 1797. August 20. possessor auctione Bedm.
ed filiae Annae Christinae Octobri 1800 donavit.*

Figure 11a. Johannes Cocceius, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti*, Amsterdam 1669. Courtesy of Uppsala University Library.

JOHANNIS COCCEI
Theologiæ Doctoris ac Professoris
LEXICON
ET
COMMENTARIUS
SERMONIS HEBRAICI
ET CHALDAICI.

Editio Altera,

Lugdunenſi longè correctior atque auctior.

Utpote in qua

- I. Infinita menda ſublata: II. Significationes numeris diſtinctæ:
III. Animadverſiones breves ac ſubitariae,
& Supplementa adjecta ſunt,

Operâ atque ſtudiô

JOHANNIS HENRICI MAJI,

Theol. Exegeticæ & Linguarum Oriental. Profeſſ. P. in Illuſtri Gymnaſio
atque Paſtoris in primario Templo Durlac.

Cum Sereniſſimorum Electorum,

Saxonici atque Brandenburgici

Privilegiis.



FRANCOFURTI AD MOENVM

Typis & impensis Balthasaris Christophori Wustii.

Anno M. DC. XXCIX.

Figure 11b. Johannes Cocceius, *Lexicon et commentarius sermonis Hebraici et Chaldaici Veteris Testamenti*, 2nd edition by Johann Henrich Maj, Frankfurt am Main 1689, title page. Courtesy of the Diocesan Library of Västerås (shelfmark: Teologi XVI Exegetik Fol.).

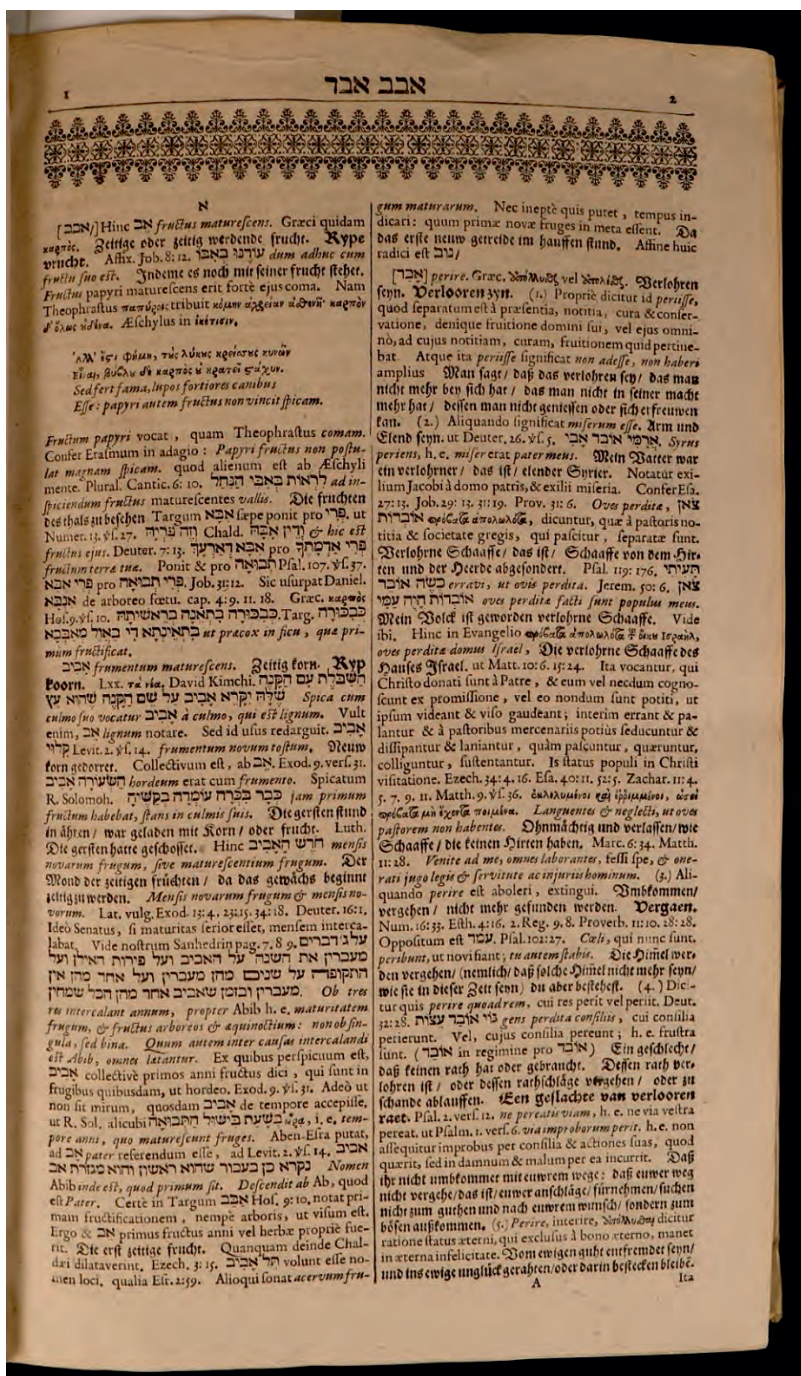


Figure 11c. Johannes Cocceius, *Lexicon et commentarius linguae Hebraicae* etc. Frankfurt am Main 1689, pp. 1–2, derivatives of the root אבב ('āḇab), and the root אבד ('āḇad). Courtesy of the Diocesan Library of Västerås.

COMMENTARII LINGUÆ EBRAICÆ,

In quibus præcipua opera impenditur

PRIMARIO SIGNIFICATUI & sensui dictionum phrasiumque, accuratâ investigatione definiendo:

HOMONYMIIS, & interpretationibus vagis, ancipitibus, arbitrariis, eliminandis;

LOCIS INSIGNIBUS SS. Scripturæ explanandis:

PARALLELIS Veteris & Novi Testamenti, tum peculiari discussione, tum collatione mutuâ, firmandis & vindicandis:

(Præter ALIA quæ Præfatio recenset)

A JACOBO GUSSETIO Blœfseni,

Professore in Academiâ Provinciali GRONINGÆ & OMMELANDIÆ
SS. Theologiam, Philosophiam & Hellenismum docente.

Contenta hoc Volumine indicantur in paginâ Præfationem sequente.



AMSTELÆDAMI,

Excudunt HENRICUS & Vidua THEOD. BOOM, JOANNES & ÆGIDIUS
JANSSONII à WAESBERGE, GERHARDUS BORSTIUS,
JOANNES WOLTERS;

Et Ultraj. GUILLIELMUS vande WATER, & GUILLIELMUS BROEDELET.

M D C C II.

Figure 12a. Jacques Gousset, *Commentarii lingue Ebraicæ*, Amsterdam and Utrecht 1702. Courtesy of the Diocesan Library of Västerås (shelfmark: Teologi XII Österländska språk, biblisk apparat Fol.).

viros, quos deglutire avert. Locus est Psal. 62. 4. Ego *iniquitatem* illam non satis nativam sentio, ut eam approbem. Approbarem potius radicem *iniquitatis* ponendam propter istud Pihel *iniquitas* quod ab ea secundum talium verborum normis prodiret. At non posset usui à Salomone quaesito interire, ut ab eadem radice *iniquitas* deduceretur *iniquitas*; nam nulla talium derivationum dantur exempla. Denique nec à nomine *iniquitas* aut ab *iniquitas* fieret plurale *iniquitates* regulariter. Quare ito dictis ad *iniquitas* radicem. Et addoplu-
 c. ram *in* servilem esse; ac proinde *iniquitas* dici ab *iniquitas* / ut *iniquitas* à *iniquitas* / Sed ut ad *iniquitas* redeam, ac concludam, nihil video solidius quam ut putetur verbum à nomine formatum, nempe ab *iniquitas* ipso, per aliquam soni mimetiam: imperfectam tamen illam, cum *in* mobile antea, in origine, reddat quiescens in Cholem.

dicis modò bonum quid intentum, modò fugam mali, modò denique consequens aliquod inseparabile. Observa autem aliquid inexpectatum in *in* connectente ea, quorum alterum est consequens alterius. Interdum tanquam consecuturum, res quæ tamen eventura non est, notatur per istud *in*, dum conversum quoque est prateriti in futurum. Exod. 7. 2. Aharon verò frater tuus dicit Pharaoni et mittit *in* (וְיִשְׁלַח) filios Israël è terrâ suâ; ibi tantum intelligitur, dicit Pharaoni, eo animo ut Pharaon mittat, vel, animo faciendi ut is mittat &c. Nam reipsâ hoc non erat secuturum, non enim verbum Aharon à Mose dictatum, & ab Aharone pronuntiatum effecturum erat hanc rem, sed hoc effectum reservatum erat plagis violenter coacturis. Item Lam. 1. 19. Clamavi ad Amasios meos & hi me sefellertur, mei Sacerdotes & Seniores in urbe interierunt, cum quæviserunt cibum ab iis, & reficiunt *in* (וְיִשְׁלַח) hoc est, animo reficiendi animam suam. Nam eventui contraria fuerat cogitatio eorum. Interierunt enim, fallentibus eos amicis, ita ut solus ille affectus restet qui verus sit, & sic exprimat. Eodem modo expono Gen. 3. 22. ne immitat manum suam, & capiat etiam de arbore vitæ, & edat, *in* (וְיִשְׁלַח) & vivat, hoc est, animo vivendi in æternum. Nam hoc non secutum fuisset ex eiu, ne quidem si vim naturalem vivificandi arbori tribuas. Dei enim iustitia vindicæ penas infligisset potentia supernaturali, & propter hunc aulum aggravasset. Porro hæc loca, quoad Latinitatem reddi possunt: Ex. 8. 2. effecturus ut mittat: Lam. 2. 13. restauratur; & Gen. 3. 22. victurus. Eadem enim æquivocatio sic fiet in versione quæ est in textu, quæ & solveretur eadem viâ nempe considerata contrarietate eventus connexi per *in* unde patet non ipsum eventum intelligi adju-
 gendum, sed animum solum affectumque agentis.

Quod spectat expositionem *in* per particulas, sic etiam, post, facile negotium, propter sensus earum, conformitatem cum *in*. Cujus prater vi evidens est in narratione, dum notat eventum consequentem rem proximè narratam, & effectum causæ efficaci connectit. Sic Gen. 2. 7. *in* & fuit &c. Hoc est, & inde venit ut Adam fuerit in animam viventem. Illud enim ordo verborum rerumque dictat.

Dum exponitur *in* *nimirum*, otiosum valde est, non verò tam necit rem rei, quam phrasin phrasî, verbum verbo: quod de linguæ genio est.

Cur possit explicari *in*, res clara est. Expolitio *aliqui* non caret difficultate. Ad eam affertur Job. 6. 14. contabescit solatium debetur ab amico, & derelinqueret timorem Dei. Ps. 51. 18. Non placent tibi sacrificia, & darem tibi Prov. 23. 1. 2. cum sedebis comedendi gratia cum magnate, attende quæ coram te sunt, & cultrium gutturi tuo imponeres. Ps. 55. 13. Non inimicus meus, infamavit me, & tolerarem. Dicerem *in* & denotare connexionem antecedentis & consequentis naturalem. Nam ea in istis evidens est: sed obstat Job. 6. 14. ubi contraria sunt ante & post *in*. Quare est Ellipsis supprimens rem contrariam *in* *etiam* orationis, fundentem tamen *in* *denotans*, tanquam suam sequalem, & suum adjunctum naturalem. Job. 6. 14. Contabescit cado solatium à sodali, hæc est *etiam*, & nisi soletur, hæc est res ellipticè tacta, contraria *in* *etiam* derelinqueret timorem Dei, hæc est sequela rei illius tacite supplendæ in mente tuâ. Eodem pacto, Prov. 23. 2. supple post *in* *etiam* nisi attendas. Psal. 55. 13. (ubi protalis est negans,) supple post *in* *etiam* si id faceret ille. Pariter exponerem Psal. 51. 18. post *in* & si placerent tibi darem. Sed hic repugnat accentus, quia ante *in* est minister, cum sit rex in aliis exemplis. Ideo aliam viam inivi ad rad. *in* quâ *in* nomen est donarium, cum paragoge per *in* vide ibi. Porro ellipsis illa quam supra proposui ad

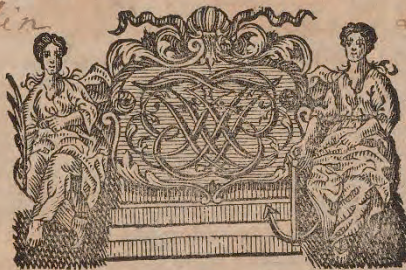
A. *in* copulativa varias significaciones habere traditur, quia & ex augentur penè in infinitum, quo vel solo refutatur illa sententia. Dicendum potius fuit *in* Grammaticè nihil magis per se significare quam *et*. Ebraicæque audientes *in* eorantum moneri conjungenda esse sequentia cum præcedentibus, at modo conjunctionis eorum non designato. Modus autem ille quilibet est, intelligi debuit ex serie sermonis, rerumque antecedentium ac posterorum naturis ac relatione ad se invicem, quatenus ex aliunde quam ab hac particula *in* innoverant, ita ut qui *in* aliter quam per *et* exponit, suam interpretationem probare debent. Dicendum præterea linguas recentiores informale alias particulas diversorum conjunctionis modorum significativas, iisque pro rerum indole, in sermone connectendo, propriis locis uti: Ebraicorum autem linguam ut ab ipsâ generis humani infantia natam, sic infantile quid respicientem, (quod & apparet in defectu distinctionis præteritorum, optativorumque ac subjunctivorum) arte carentem, semper suum simplex *in* repetivisse. Quod si semper quoque verteremus per *et*, quicquid habet Ebraicus contextus, refereremus, & seril mentis attentione in versione nostrâ æque ac in prototypo Lector varietatem latentem perciperet. Quapropter particula hujus varios usus tradere, non est Grammatici Ebraicæ, sed ad rhetoricam artem potius spectat. Traduntur ergo illi usus per accidens tantum, & respectu quodam externo, nempe in ordine ad alias linguas, & ad interpretes juvandos, ut pro *in* eam particulam substituant, quam quis lingua illâ exterâ sermonem faciens tali loco politurus fuisset. Cumque hoc pacto simplicissimæ vi conjunctivæ ipsius *in* aliqua alia notio superaddatur, agnoscendum est non sic meram versionem fieri, sed paraphrasin veluti aut Commentarium compendiosum. Id tamen facere necessarium, quia Versiones traduntur populi non ita exercitatis ac erant Ebraei ad intellectendam occurrente copulativa simpliciter cogitationem in eos respectus quos requirit sermonis series. Itaque qui redderet ubique *in* simpliciter *et*, nos non poneret in eodem statu quo erant Ebraei. Egentibus enim auxilio illud non dare, non idem est, ac illud non dare non egentibus.

Interpres copulativæ hujus particulae *etiam* *etiam* *etiam*, sub diversis quasi *etiam* *etiam* *etiam* tradunt. Quæ Lege admittenda sunt, ut copulativa vis in quilibet ipsius *in* interpretatione regnet, facilliquè distinguatur, quædam autem ex iis, quæ adferuntur à Doctis, non sunt admittenda.

1. *in* significat, *etiam* *etiam* *etiam*. Quando copulat cum

Figure 12b. Gousset, *Commentarii lingue Ebraicæ*, 1702, p. 218, mainly on the conjunction *in* (viz. *in*, *in*, *in*). Courtesy of the Diocesan Library of Västerås. Gousset argues that it only marked a connection, so there is no need to differentiate its meanings too much.

CHRISTIANI STOCKII
PROF. PUBL. IN ACAD. IEN.
CLAVIS
LINGVAE SANCTAE
VETERIS TESTAMENTI
ADITVM APERIENS,
VOCVM RADICES IVXTA ORDINEM
ALPHABETICVM MONSTRANS,
QVÆ DEPERDITÆ VISÆ SVNT, EX LINGVA
CHALDAICA, SYRIACA, SAMARITANA, ARABICA
ET ÆTHIOPICA RESTITVENS,
VOCVM SIGNIFICATIONES
TVM GENERALES, TVM SPECIALES,
ORDINE CONCINNO
EXHIBENS,
TAM TIRONVM, QVAM HOMILETICES
ET EXEGESEOS CVLTORVM STVDIIS APPRIME INSERVIENS
AC SVBINDE
CONCORDANTIARVM VICEM SVPLENS,
CVM INDICE VOCVM,
CVI ACCEDIT
BREVE DICTIONARIVM CHALDÆO-RABBINICVM.
EDITIO ALTERA PRIORI IN SINGVLIS FERE PAGINIS
AVCTIOR ET EMENDATIO.



I E N Æ,
APVD IOH. FELICEM BIELCKIVM,
M DCC XXVII.

Figure 13a. Christian Stockius, *Clavis linguae sanctae*, 3rd ed. Jena 1727, title page. Courtesy of Uppsala University Library.



Figure 13b. Christian Stockius, *Clavis linguae sanctae*, 3rd ed. Jena 1735, portrait of the author and title page. Courtesy of the Diocesan Library of Västerås (shelfmark: Teologi XII Österländska språk, biblisk apparat).

CVBVS
ALPHABETICVS SAN-
CTÆ EBRÆÆ
LINGVÆ

VEL

LEXICI EBRAICI NOVVM COMPENDI-
um *תעבא* *עבא*, in tabulas Alphabeticas ita digestum, ut singula Radices
nativam & congenerem derivatarum vocum significationem,
in suis communium angulorum arcobis, primo statim
intuitu, lectori sese offerant.

*Ad usum eorum, qui Ebraice discere incipiunt, jampridem
inventus & Germanica lingua editus*

AB

ELIA HUTTERO.

*Nunc vero recognitus, & in latinum sermonem con-
versus, studio & opera*

DAVIDIS WOLDERI ECCLESIA-
STÆ HAMBURGENSIS.

Post præfationem addita est Commonefactio de
CVBICI hujus operis usu.



CVM GRATIA ET PRIVILEGIO CÆSA-
REÆ MAJESTATIS.

HAMBVRGI
EXCVDEBAT JACOBVS WOLFIVS.

ANNO

M. D. LXXXVIII.

Figure 14a. Elias Hutter, *Cubus alphabeticus sanctae Ebraeae linguae vel lexici Ebraici novum compendium*, Hamburg 1588, title page. Courtesy of Uppsala University Library.

	ל	מ	נ	ס	ע	פ	ק	ר	ש	ט	ז
ז								Creavit, paravit, comparavit, reparavit. Bene paratus, pinguis.			Veles iuxta teretes, sine.
ח											
ט											Recreavit, recreatio.
י											
יא											
יב											
יג											
יד											
טו											
טז											
יז											
יח											
יט											
כ											
כא											
כב											
כג											
כד											
כה											
כו											
כז											
כח											
כט											
ל											

Figure 14c. Hutter's cube: Roots beginning with *bēṭ*, horizontally combined with consonants from *lāmed* to *tāw* as the second radical and vertically with consonants from the entire alphabet as the third radical. Courtesy of Uppsala University Library.

Schultens' unpublished Hebrew dictionary: The draft, the printed sample and selected records of the dictation

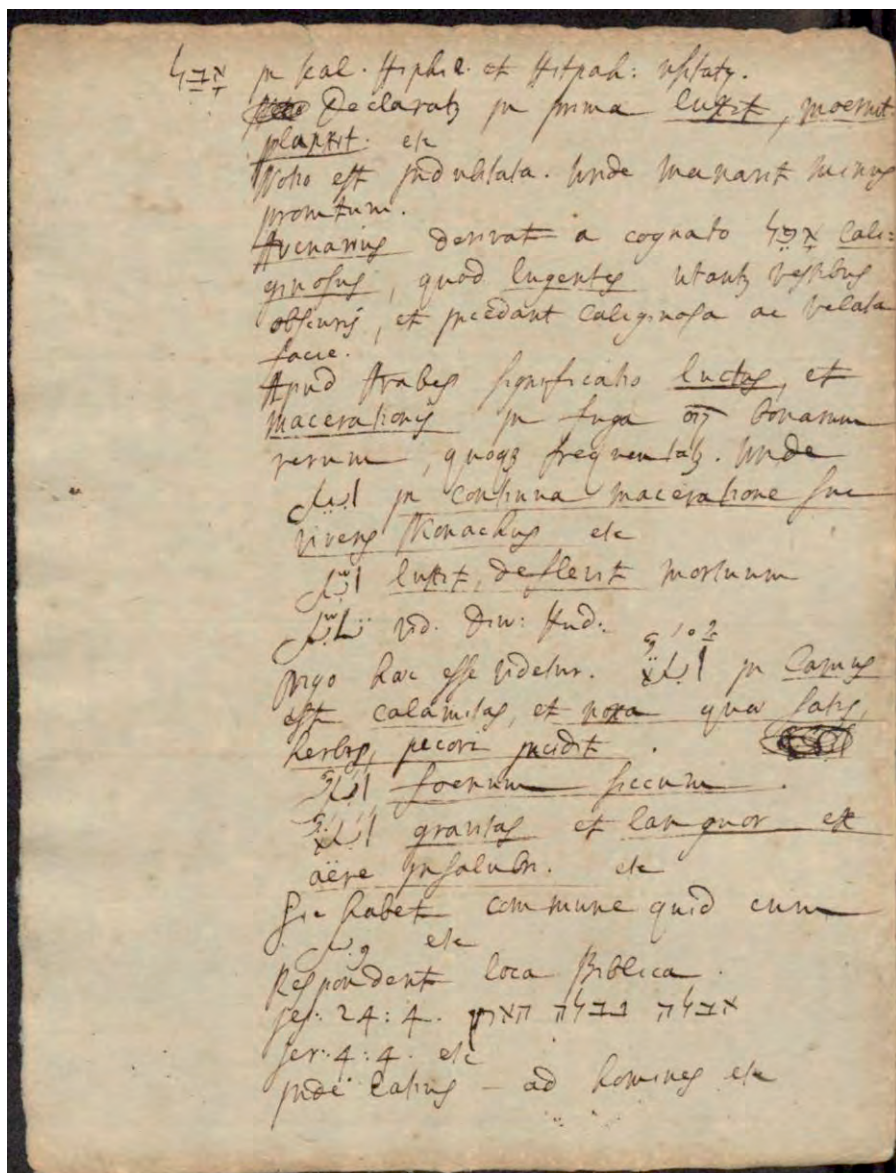


Figure 15a. Leiden UB, Special Collections, MS Or. 1459, the draft titled *Stricturae ad origines*, fol. 11v, the root אבל (*ʾāḇal*), “to mourn, lament”. Courtesy of Leiden University Libraries.

12

424. pro. unde?
etc etc

77X Lapis a 777 significat, ut Aren:
alk etc
Differenciam habet. nec tamen cart.
quod habet cil coaleuit. concret.
de sanguine atro.
Item de uido in ligno
unde xii. nodus in ligno.
sed hoc uiden possunt orta a lapide
quasi dray in lapidem concretescere
coalescere. Lapire. Lapidescere.
etc
Et tamen Lapis etiam hinc hominem
intendere possunt tanquam concretum
et coaleuitum corpus etc etc
Ceterum Hys. diversis habetur sub-
lac radice a lapide profutisse
autumem.
cil perberant mala suspicione
aliquem. ut 77 quid. suspicio
propterea etc

Figure 15b. Leiden UB, Special Collections, MS Or. 1459, the draft titled *Stricturae ad origines*, fol. 12r, the noun אֶבֶן ('æbæn), "stone". Courtesy of Leiden University Libraries.

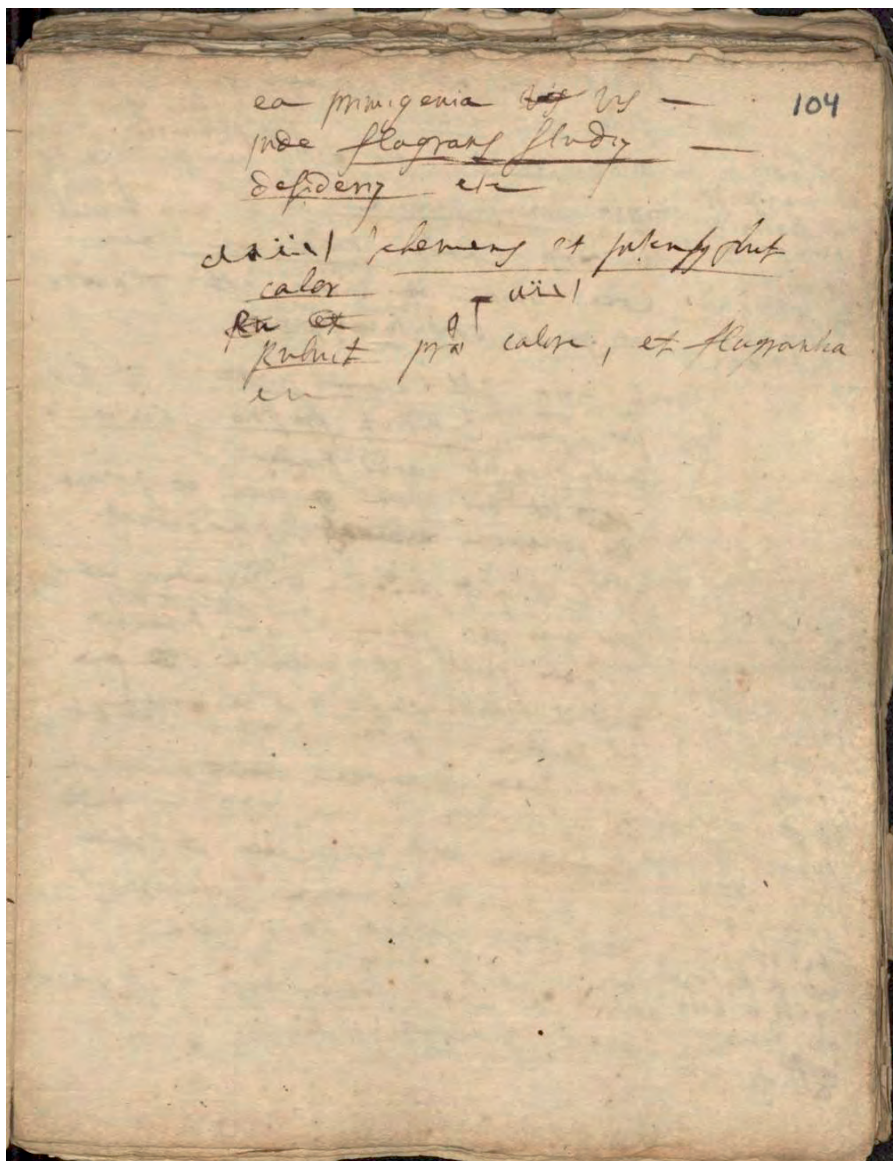


Figure 15d. Leiden UB, Special Collections, MS Or. 1459, the draft titled *Stricturae ad origines*, fol. 104r. Courtesy of Leiden University Libraries.

O R I G I N I B U S.

460

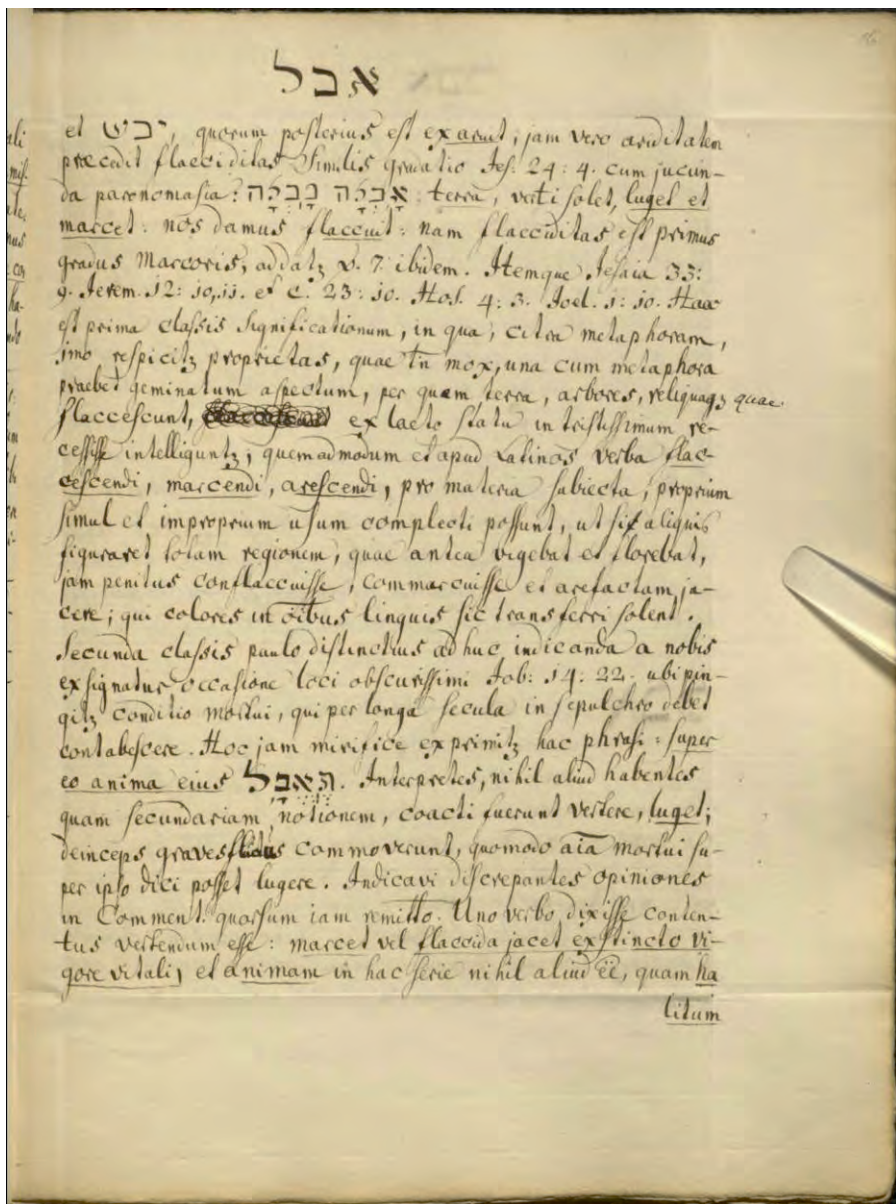


Figure 17a. University Library of Frankfurt am Main (Universitätsbibliothek Johann Christian Senckenberg), MS lat. qu. 131, *Stricturae ad origines Hebraeas*, fol. 16r, s.v. אבל (*ābal*), “to mourn, lament”. For Schultens’ etymology of this root, see Section 19.5.1, the first example. Digitization: Retrieved from the digitized version on the home page. Courtesy of the Frankfurt University Library.

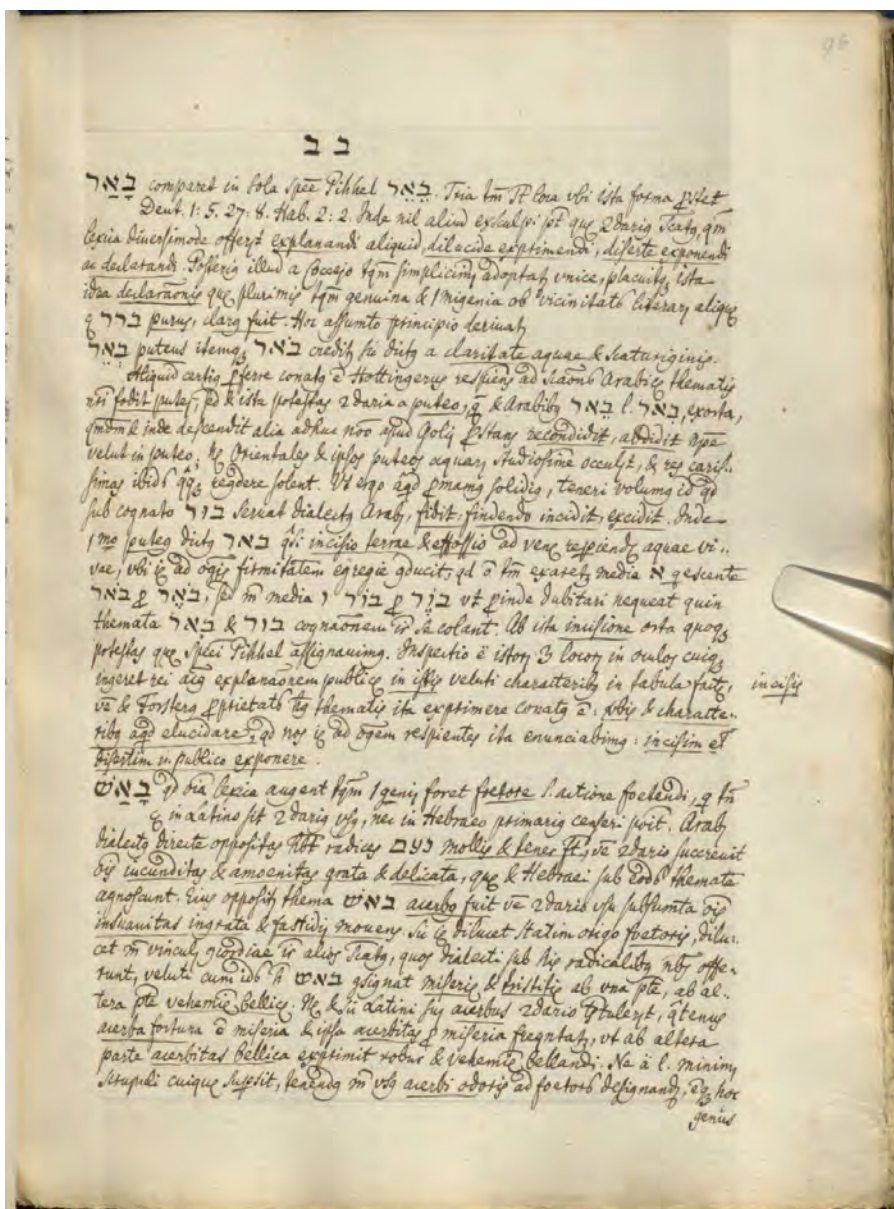


Figure 17b. The Frankfurt University Library (Universitätsbibliothek Johann Christian Senckenberg), MS lat. qu. 131: *Structurae ad origines Hebraeas*, fol. 96r, the root בָּאֵר (b-ʾ-r), in the piel (bē'er). For Schultens' etymology, see Section 19.5.2, the first example. Digitization: Retrieved from the digitized version on the home page. Courtesy of the Frankfurt University Library.

o poet quæ in talibz nra citra aoritatem sit ad se fang indubita-
 tam originem Hebraicam nobis recludunt arabes qd idem thema
 U^u amplittam et ditatam finit copiam scaon aliare
 aliis pcellens ad oem gravitatem et majestatem veteris opulentiæ
 emanantem ex omigenia dea laxitatis live amplitudinis laæ
 et spatiole qm nra arelet nra impediatur in loco in Tom: 1. Orig:
 ita deducte et adstructe ut qd o agnoscat v ultro oculos claudere
 debeat v de hacce plane hebet judicandz sit inde U^u ppræ am-
 plitudine laæ auctz v in laxitatem amplittam immittit hinc
 nove qd em uti ppræ in qd ex angustis et miseris in libertatem
 laxitatem qd ubertate ois bonor vnderat ab hinc p nra lingue am-
 ppræ in qd amplitta ois bonor copia gaudet qd admodum ipse Reg
 ita ab arabibz indignit p in participio pntem et al amplitulle p
 in specie passiva amplitudine ois auctgulle q p excelleniam ois
 pon.

Figure 17e. The Frankfurt University Library (Universitätsbibliothek Johann Christian Senckenberg), MS lat. qu. 132, p. 2326, s.v. *yaša* ('), "to save". For Schultens' etymology "to be spacious, broad", see Section 19.5.2, p. 315. See also Eskhult, *Schultens as an innovator*, vol. 2, Section 6.2.5, p. 133, and Section 8.1.5, p. 217. Digitization: Retrieved from the digitized version on the home page. Courtesy of the Frankfurt University Library.

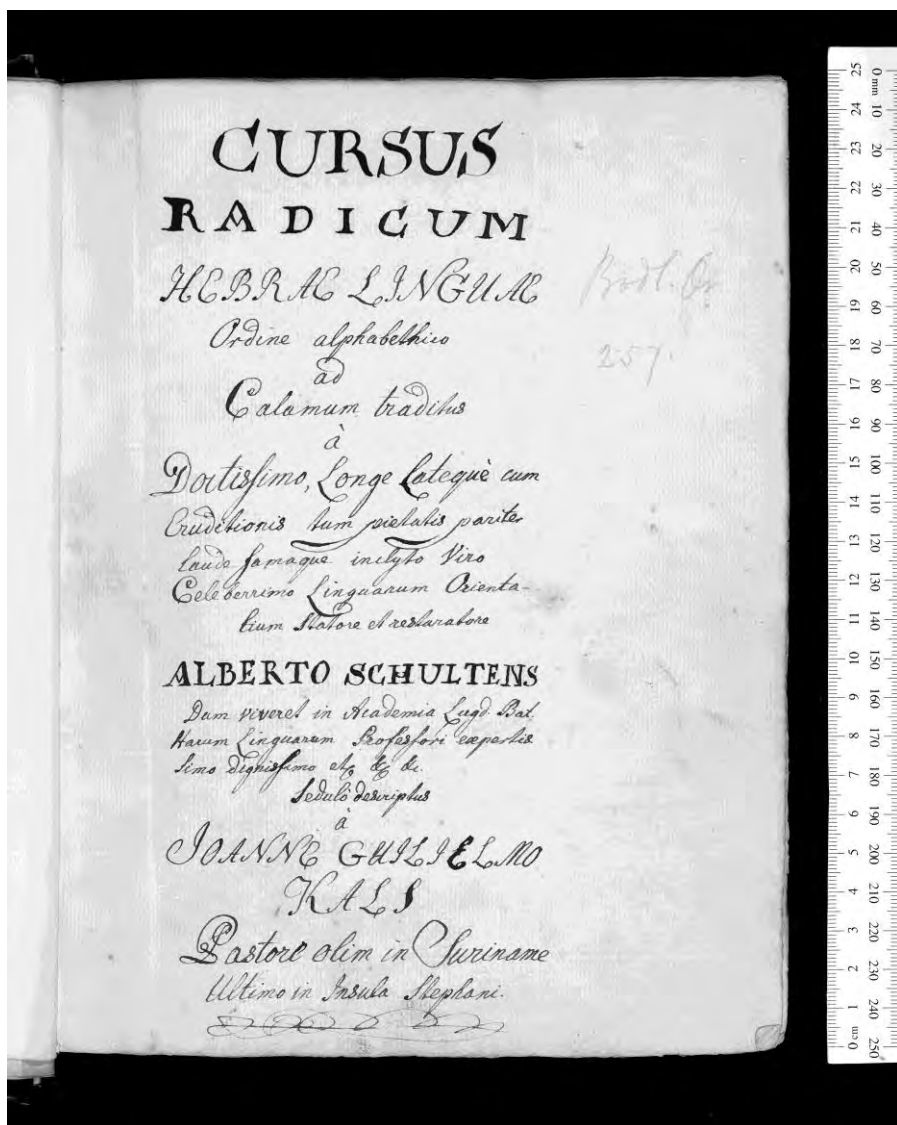


Figure 18. Oxford, Bodleian Library, MS Bodl. Or. 257, *Cursus radicum Hebrae linguae*, the title page. Jan Willem Kals' autograph copy of his record of Schultens' dictation for an etymological Hebrew dictionary. Digitization: the Bodleian Libraries, University of Oxford.

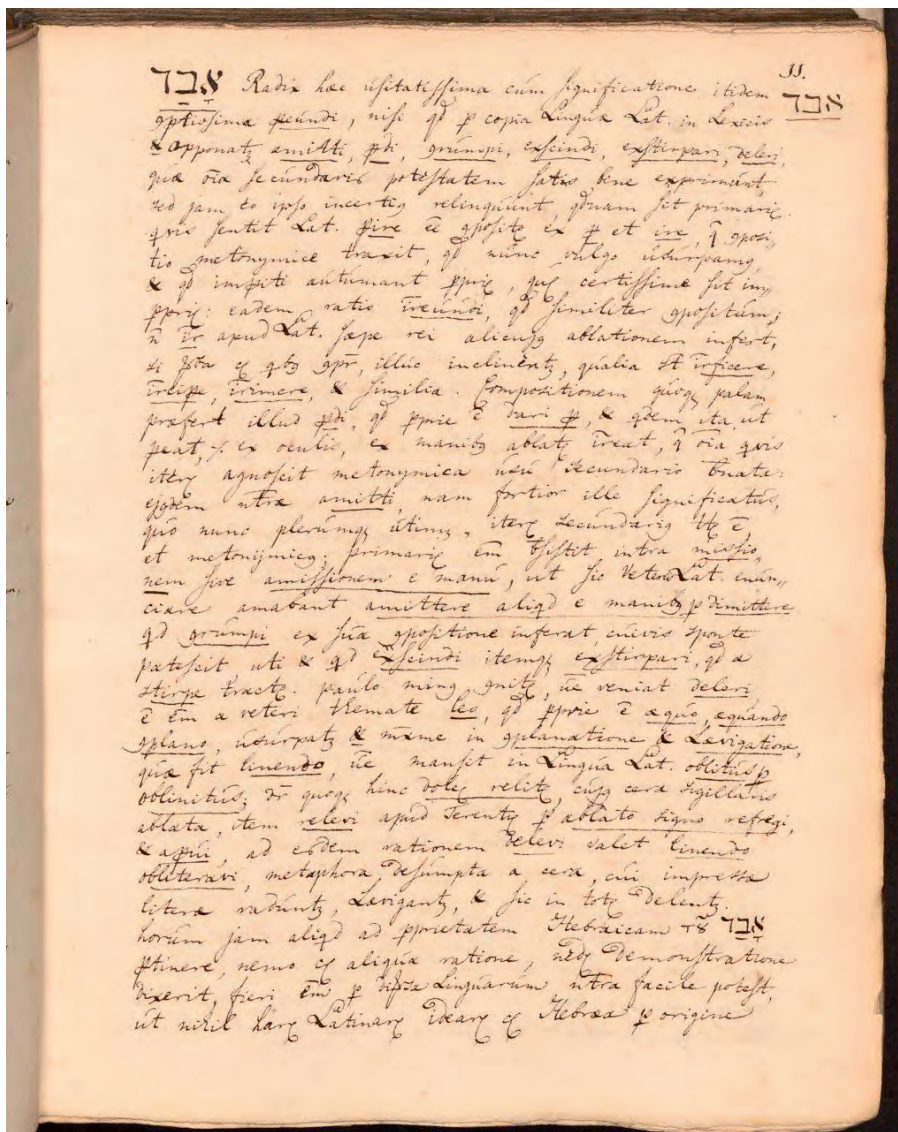


Figure 19. Bavarian State Library, Munich (Bayerische Staatsbibliothek, München), Cod. Hebr. 378, vol. 1, *Structurae ad origines Hebraeas*, p. 11, s.v. אָבַד (*‘ābad*), “to lose, perish”. Courtesy of the Bavarian State Library, Munich.

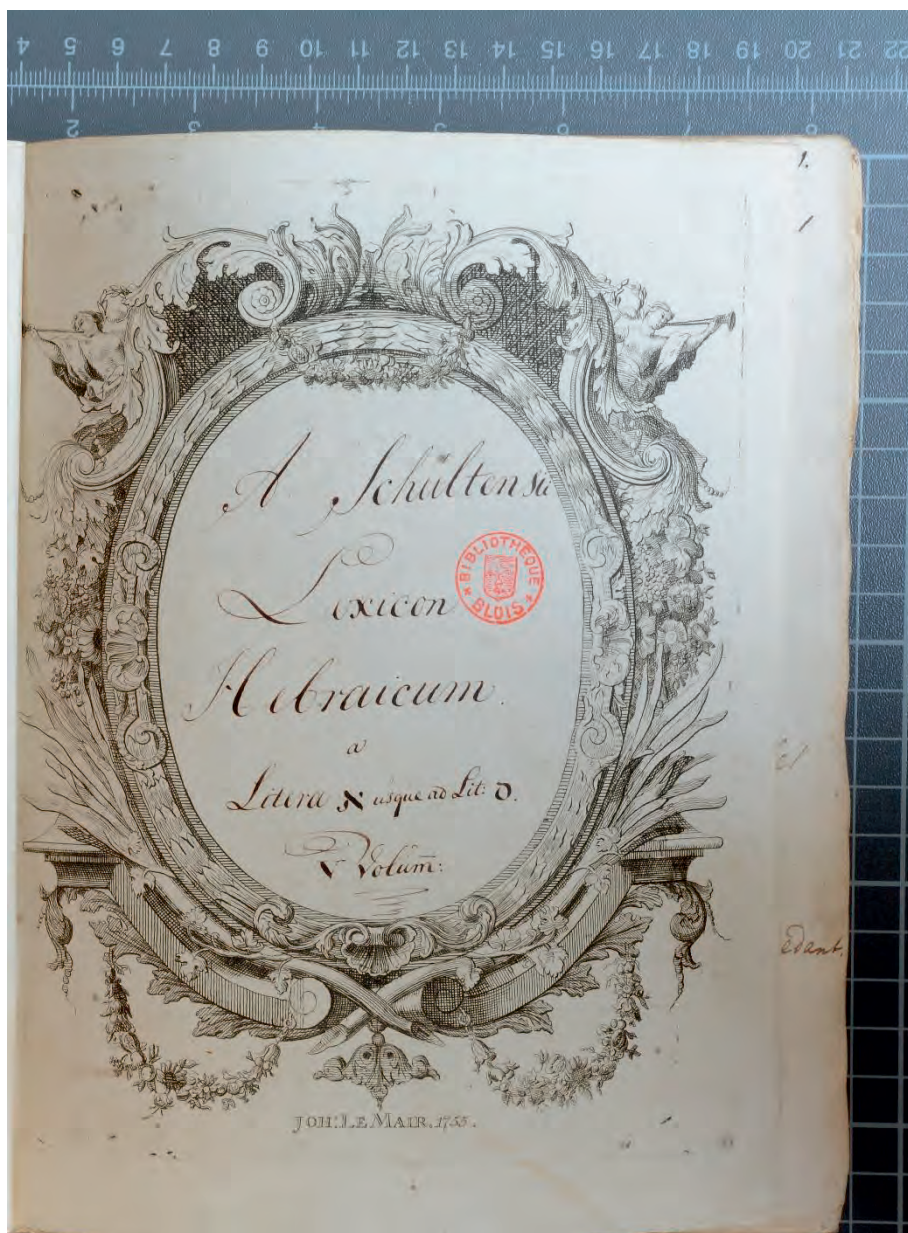


Figure 20a. Blois, Bibliothèque Abbé-Grégoire, MS 149, *Lexicon Hebraicum a litera א usque ad litteram ד*, title page with the owner's name, Jean Le Mair, dated 1755. Digitized by Pascale Lhomme. Courtesy of Bibliothèque Abbé-Grégoire, Blois.

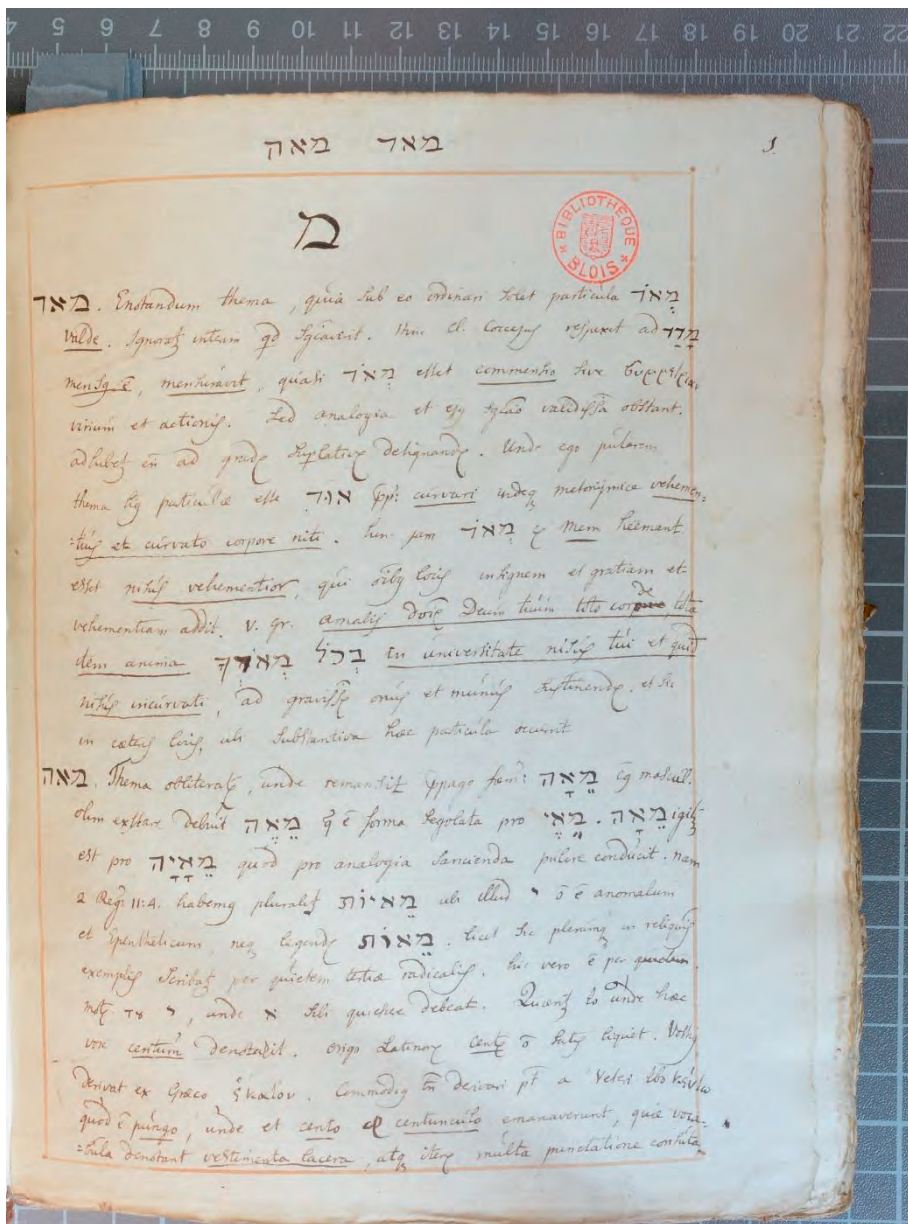


Figure 20b. Blois, Bibliothèque Abbé-Grégoire, MS 153, *Lexicon Hebraicum a litera א usque ad litteram ס*, the first page of words beginning with *mēm*, viz. *מָאֵד* (*m'ōd*) “much” and *מָאָה* (*me'ā*), “hundred”. Rejecting Cocceius’ derivation of *מָאֵד* from the verb *מָדַד* (*mādad*), “to measure”. Schultens proposes that it derives from the Hebrew root morpheme *אָוֶד* (*’ūd*), “to be bent, curved”. Digitized by Pascale Lhomme. Courtesy of Bibliothèque Abbé-Grégoire, Blois.

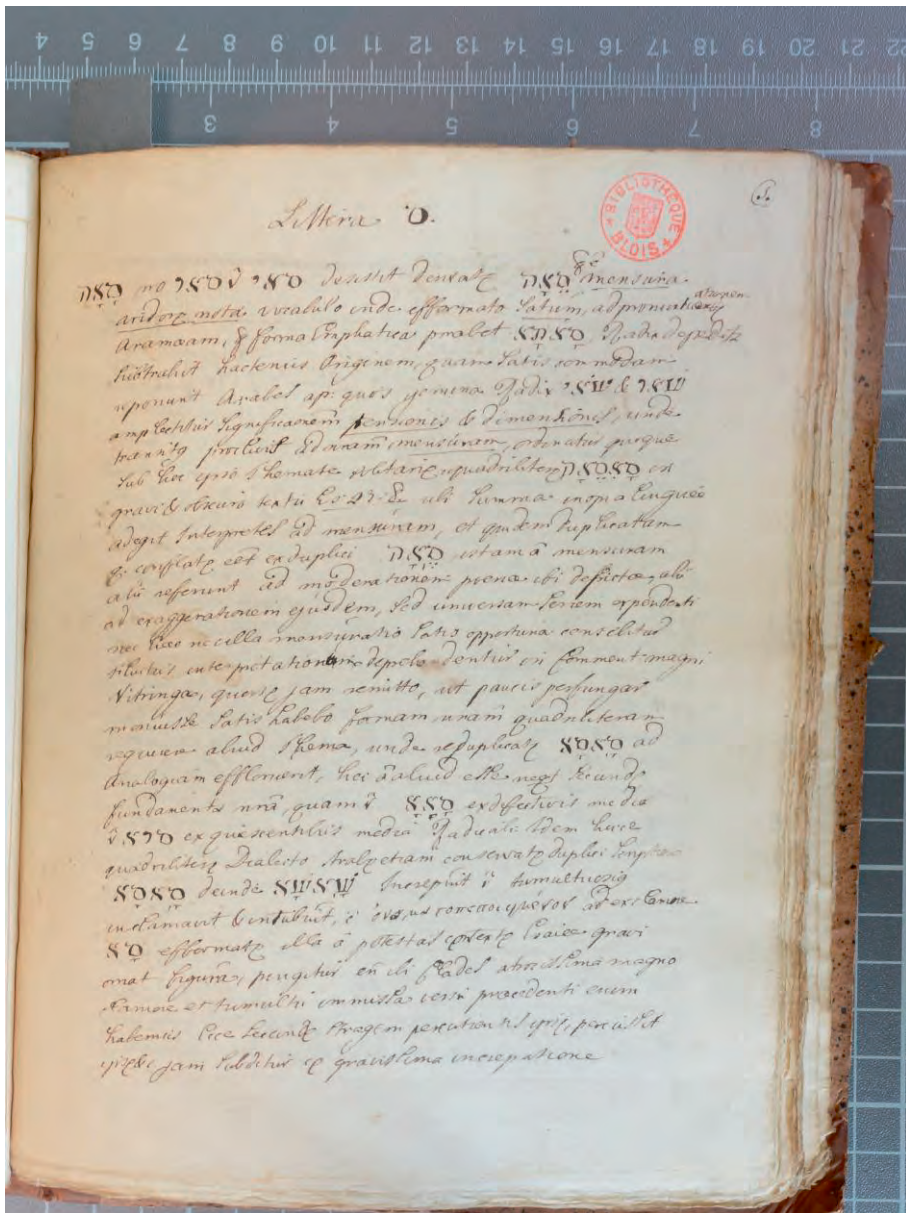


Figure 20c. Blois, Bibliothèque Abbé-Grégoire, MS 153, *Lexicon Hebraicum a litera x usque ad litteram d*, the first page of words beginning with *sāmek*. Schultens discusses the meaning of the lost verbal root סא, of which only the derivative סא (sā'ā), *mensura aridorum*, “a measure of dry goods” (such as flour, grain), survives. He proposes that the lost verbal root סא (sā'ā) is related to Arabic *se'awa* and *se'aya*, which mean “to weigh and measure”, and compares it with other Arabic words. Digitized by Pascale Lhomme. Courtesy of Bibliothèque Abbé-Grégoire, Blois.

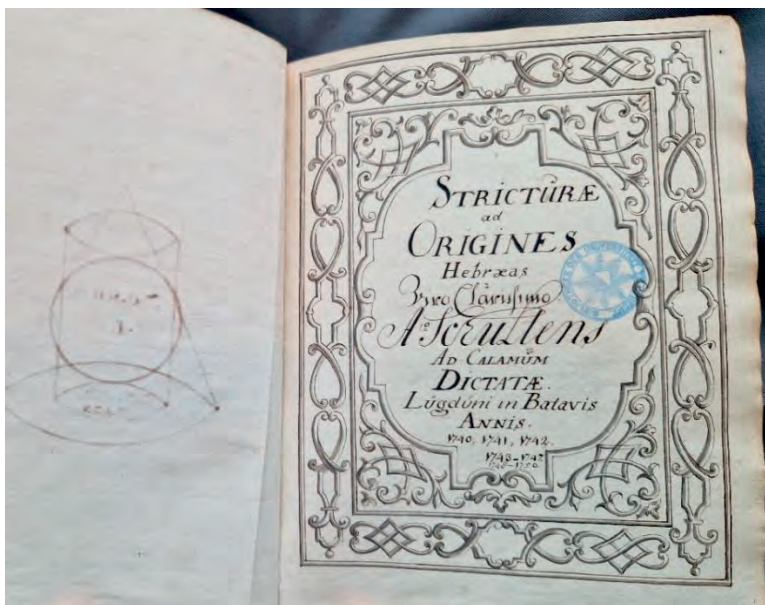


Figure 21a. Utrecht University Library, MS 537, *Stricturae ad origines Hebraeas* [...] *ad calamum dictatae*, vol. 1 (7 N. 10), title page. Digitized by Frans Sellies, Special Collections. Courtesy of Utrecht University Library.

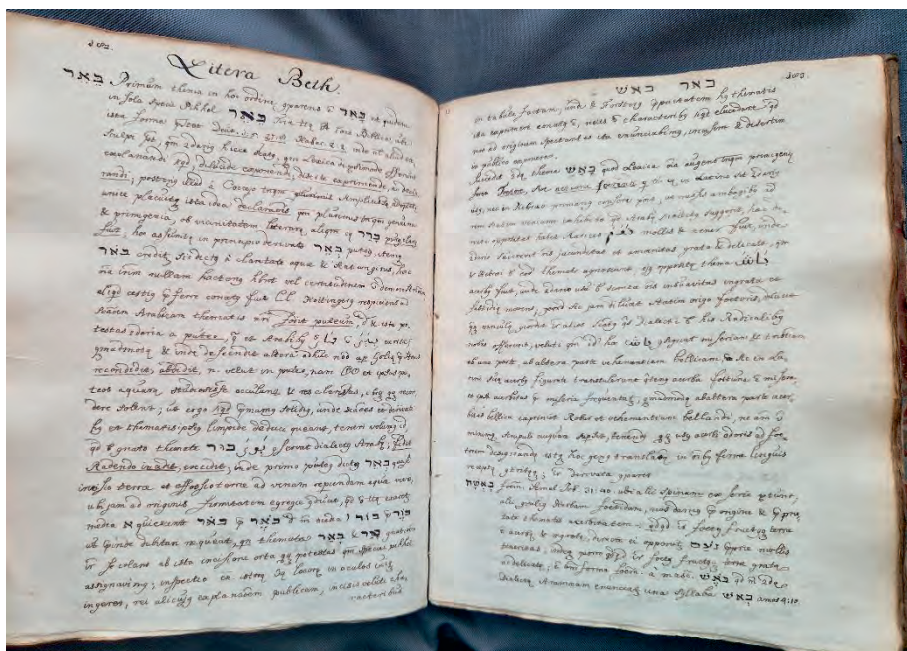


Figure 21b. Utrecht University Library, MS 537, *Stricturae ad origines Hebraeas*, pp. 282–283, s.v. באב (*b-ʾ-r*), in the *piel*, “to clearly express, declare”. Digitized by Frans Sellies. Courtesy of Utrecht University Library.

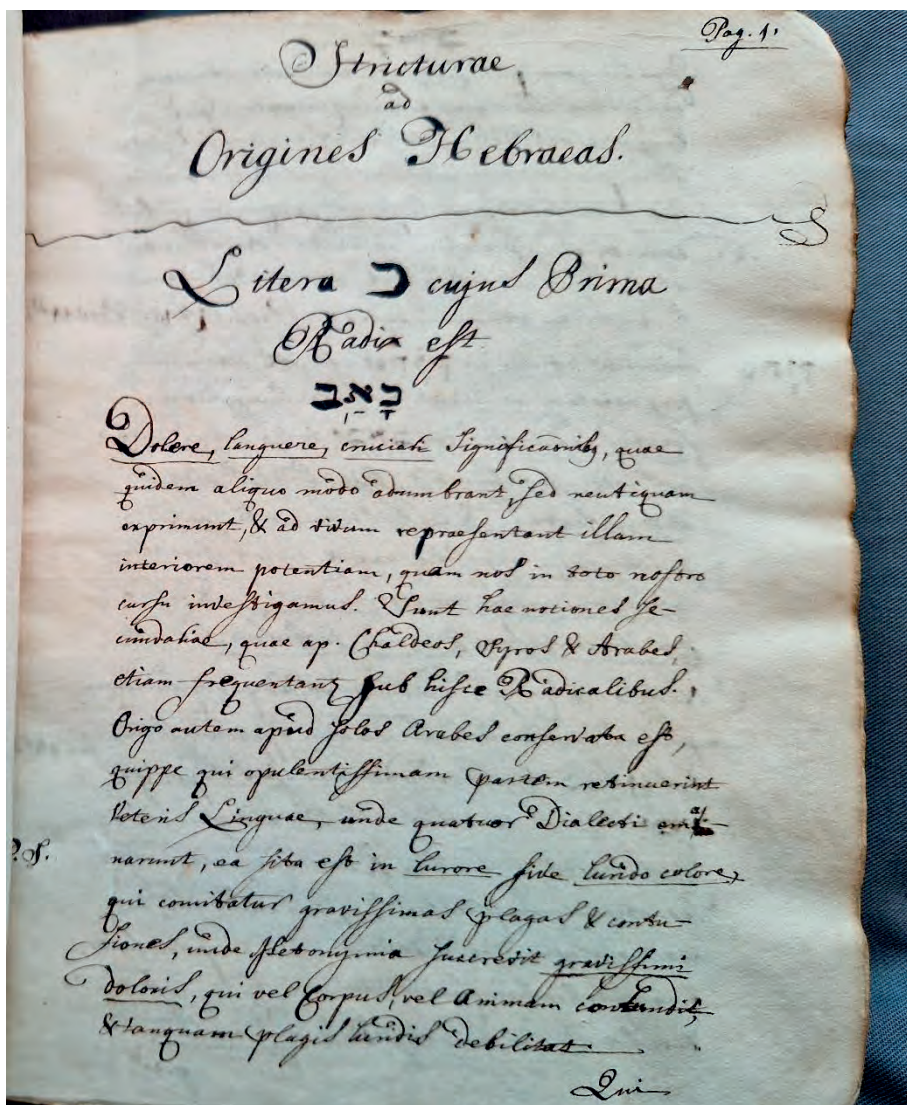


Figure 22a. Utrecht University Library, MS 538 *Structurae ad origines Hebraeas*, vol. 3, first entry of the letter *kāf*, כאב (*kā'ab*), "to feel pain, to be in pain". The original meaning is derived from Arabic *ka'iba*, "to be sad", for which Schultens suggests the etymology "to have a pale, yellow-grey colour" resulting from severe blows and crushing. From this the metonymy of "severe pain" developed, which crushes and weakens either the body or the soul. Schultens argues that the original meaning is only preserved among the Arabs because they retain most of the ancient language (*opulentissimam partem veteris linguae*) from which the principal oriental dialects arose.

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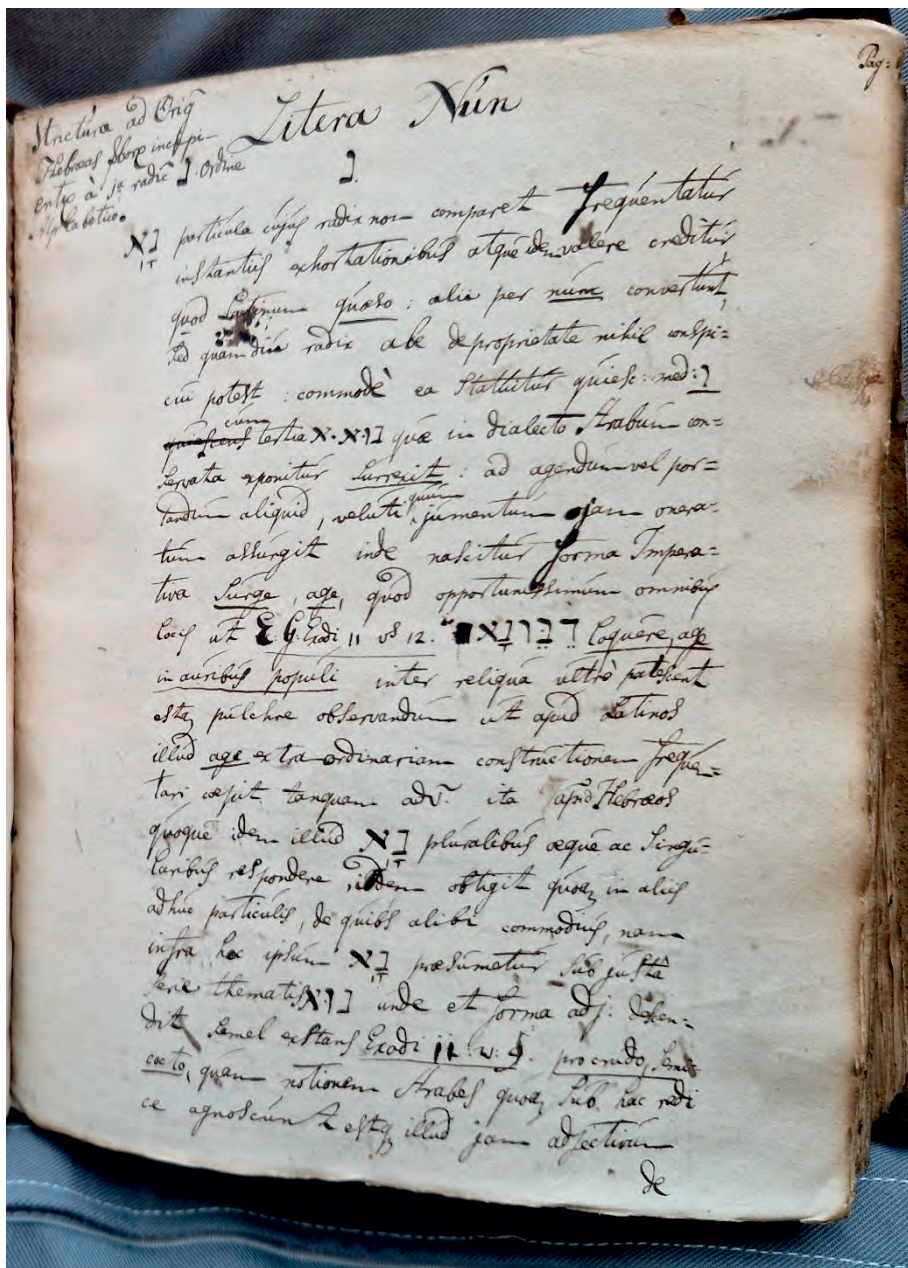


Figure 22b. Utrecht University Library, MS 538 *Stricturae ad origines Hebraeas*, vol. 3, the first entry under the letter *nūn*, namely the particle of exhortation נָּ (*nā*), “I pray”, corresponding to Latin *quaeso*. Schultens derives נָּ from the Arabic root *nawa’a*, “to raise, to lift”.

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Figure 22c. Utrecht University Library, MS 538 *Stricturae ad origines Hebraeas ordine alphabetico*, vol. 3 (7 G. 26), last page. The noun סַפְיָה (*sāfiyah*) is defined as “low, mean position, a contemptible condition” and derives from the root סַפַּח (*sāfah*). Two *hitpa'el* forms are also discussed. Schultens maintains that everything would be transparent if Ancient Hebrew, as a living language, were restored to its copiousness. The colophon reads: “NB. Huc cel[eberrimus] ille auctor pervenit, cum eum, post aliquot hebdomadarum morbum, mors oppressit 26 Jan. 1750”, that is: “The famous author had reached this point when death caused him to cease on 26 January 1750, after an illness of some weeks”.

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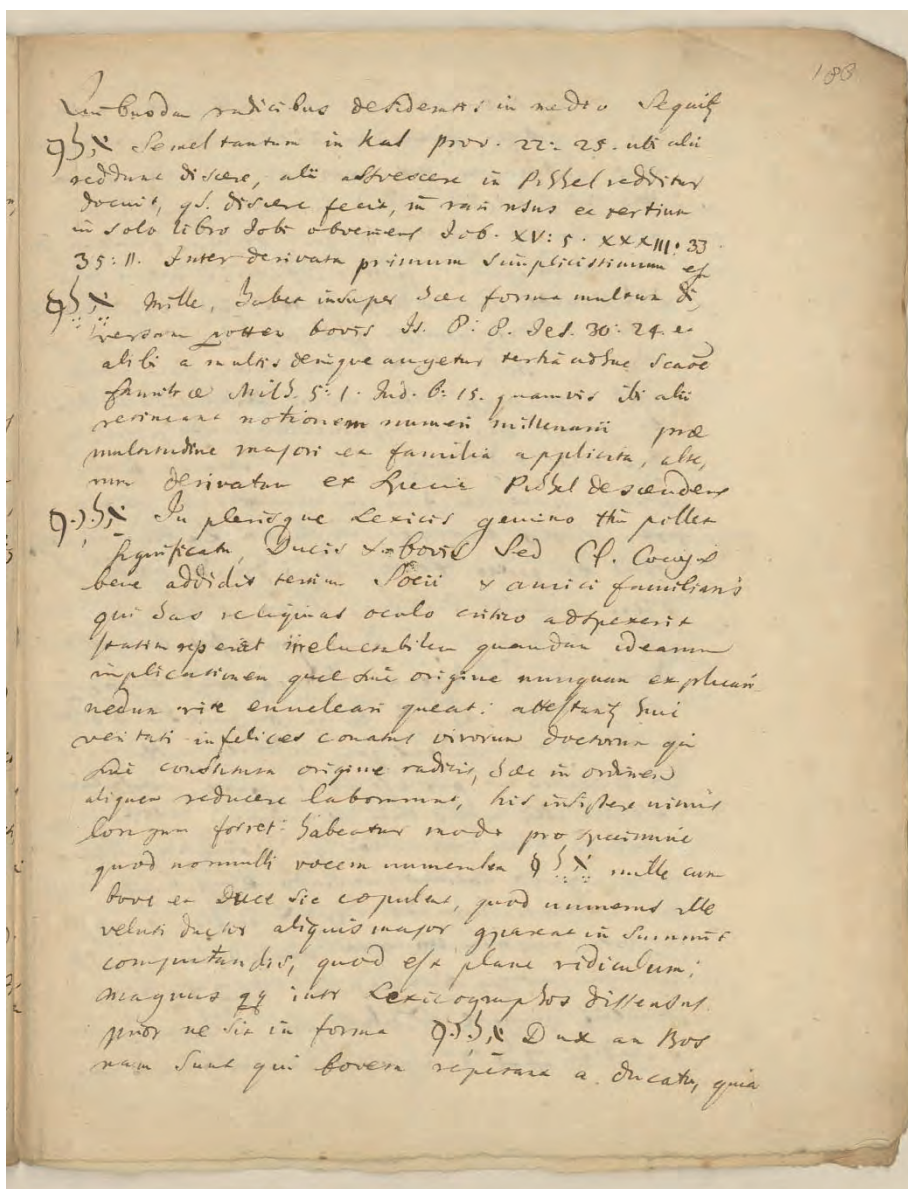


Figure 23a. Bibliothèque de Genève, MS fr. 3375, *Dictamina in lexicon Hebraicum*, p. 186, three entry words: the root אלה in the *qal* (‘ālaf), “to learn”, and in the *piel* (‘illef), “to teach”; the noun אֶלֶף (‘ælæf), “thousand”; and the noun אֶלּוּף (‘allūf), “chief of a tribe, chiliarch”, and “intimate friend”. Courtesy of Bibliothèque de Genève.

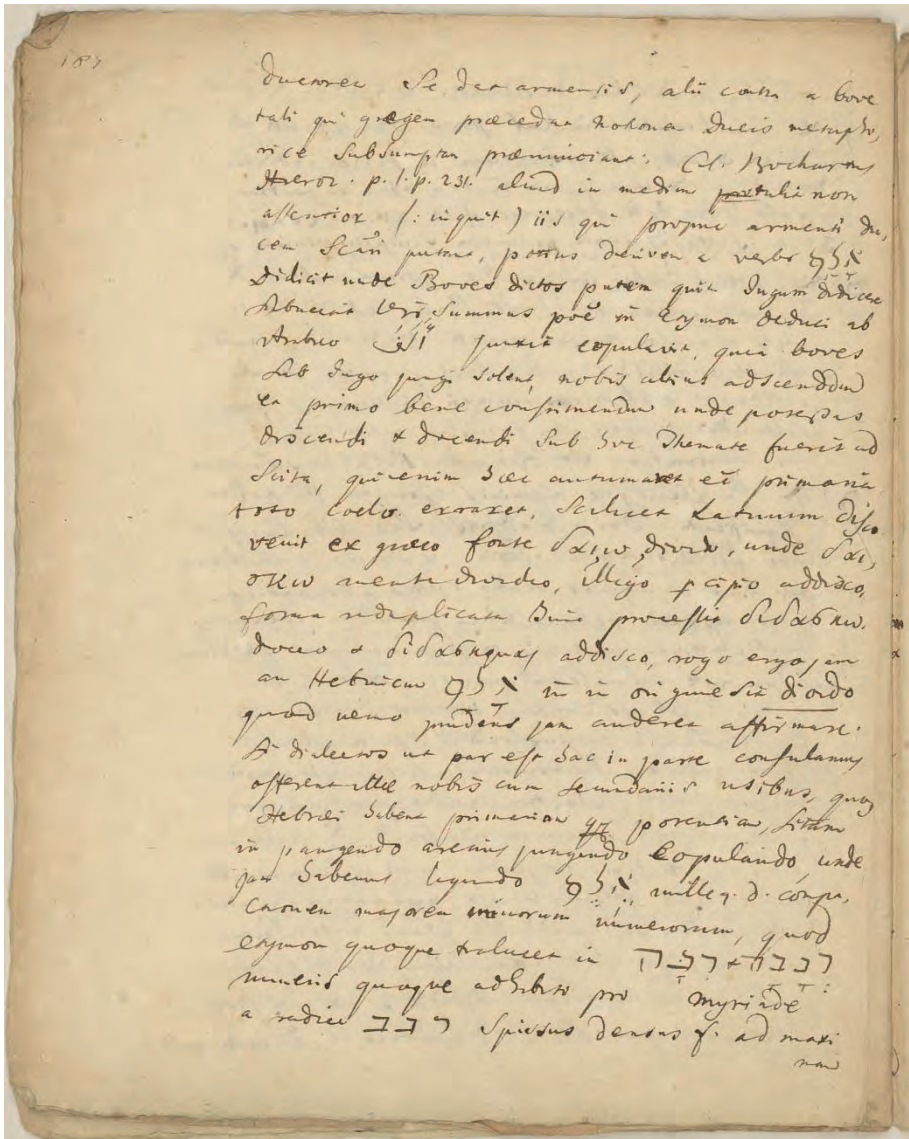


Figure 23b. Bibliothèque de Genève, MS fr. 3375, *Dictamina in lexicon Hebraicum*, p. 187: Schultens discusses the semantic counterparts of the root אָלַף (*ālaf*), “to learn”, in Latin and Greek, *disco* and δίδασκω, deriving *disco* from Greek δαίω “to divide” or δαίσσω “to discern, understand, perceive”, the reduplicated form of which is δίδασκω. He proposes an etymological derivation of אָלַף, viz. “to join together (*pango*), to link narrowly (*arctius iungo*), to connect (*copulo*)”. אֶלֶף (*āleḥ*), “thousand”, is etymologized as “a joining together” (*compactio*), while רֶבֶבָה (*rēbābā*), “ten thousand, myriad”, presents a semantic parallel, since it is derived from רָבַב “to be or become many”, originally “to be dense, thick”. Courtesy of Bibliothèque de Genève.



Figure 24. Male and female date palms. Colour lithograph by Adolphe Philippe Millot and Lucien Lefèvre (printed by Jean-Noël Monrocq). Source: Georges Octave Dujardin-Beaumetz and Ed. Égasse, *Les plantes médicinales indigènes et exotiques*, Paris 1889, plate 18. Courtesy of the Natural History Museum of Denmark, Copenhagen. In *Oratio altera de linguae Arabicae antiquissima origine* (Leiden 1732, pp. 3–4), Schultens compares Hebrew to a female date palm and Arabic to a male date palm.

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