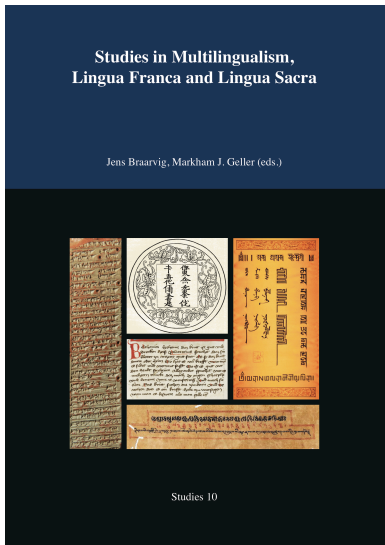


Max Planck Research Library for the History and Development of Knowledge

Studies 10

Daniel Andersson:

Learning Arabic and Learned Bilingualism in Early Modern England: The Case of John Pell



In: Jens Braarvig and Markham J. Geller: *Studies in Multilingualism, Lingua Franca and Lingua Sacra*

Online version at <http://mprl-series.mpg.de/studies/10/>

ISBN 978-3-945561-13-3

First published 2018 by Edition Open Access, Max Planck Institute for the History of Science under Creative Commons by-nc-sa 3.0 Germany Licence.

<http://creativecommons.org/licenses/by-nc-sa/3.0/de/>

Printed and distributed by:

PRO BUSINESS digital printing Deutschland GmbH, Berlin

<http://www.book-on-demand.de/shop/15501>

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>

Chapter 7

Learning Arabic and Learned Bilingualism in Early Modern England: The Case of John Pell

Daniel Andersson

Q. *At the confusion of Babell, into how many languages was the world divided?*

A. Epiphanius and others doe write into 72. as many as there were workemen at the building. Others thinke 72. as many as there were Nations in the world, which *Moses* recites to be 72.

Q. *What preheminece have our best Linguists about others?*

A. The *Hebrewes*, that they drinke at the fountaines. The *Grecians* at the rivers. The *Latines* at the brookes. *English*, and some others at the Lakes. (Basse 1619, sigs. H2r-v)

More than a hint of useless learning is attached to the polyglot in early modern England, as with the Jackdaw in a mid-century anonymous anti-courtier fable who could “spesk Latin, Greeke, Hebrew, French, Italian as easily as my mother tongue, but indeede few can understand me.”¹ One stereotype flowed from once-fashionable works concerning the education of the courtier (Barnes 1606, sig. G3v). A second more learned tradition emphasized the notion, attested to by William Basse, that Hebrew lay behind all other tongues. It is presumably part of the joke against Jackdaw that he lists Hebrew as one of his “courtly” (and presumptively, oral) accomplishments. Yet Jackdaw is perhaps not so foolish. For despite the supremacy of Latin, other ways of thinking about non-Indo-European languages, and above all, may well have been useful for Arabic, the utility of which was as much practical as scholarly.

Interest in Arabic and Islam in sixteenth-century Europe has often focused on the ideological or polemical aspects of the relationship between Eastern and Western cultures.² There has been slightly less attention paid to the philological aspects of this interface.³ One

¹ *Pleasant History of Cawwood the Rooke* (1640, sig. B4v).

² See the otherwise excellent studies of Segesvary (1985); Bisaha (2007); Meserve (2008); Holt (1972). See also Balagna-Coustod (1989), esp. pp. 31 (on Nicholas Clenard’s now lost sixteenth-century Arabic grammar, which he wrote when in Salamanca, which was the only place by 1639 where Hebrew was taught anymore, following the closure of the Spanish mind) and 69–70 (on grammar, and the figures Arnould de l’Isle, Etienne Hubert and Pierre-Victor Calma Cayet).

³ Honorable exceptions include Burman (2007), though some will find the style of this work rather plodding; Jones (1991). We now benefit from Loop, Hamilton and Burnett (2017) and Loop (2013), though these appeared far too late for me to take proper account of.

explanation for this lacuna has been the fact that following the “second revelation” of Averroes in the West through the famous Giunta brothers edition in the sixteenth century, there was less need to learn Arabic to engage with the texts in the original languages that had earlier been deemed so essential for the scientific disciplines.⁴ Although this picture needs some revision in the sixteenth century (since diplomatic connection with the Ottoman empire—and even North Africa—formed an increasingly important conduit for knowledge transfer), it was in the seventeenth century that a renewed attention to the Arabic language, especially in Holland, and then England, became readily discernible.⁵ A number of figures from England could be used to illustrate the growing competence in Arabic, but one of the most intellectually interesting, and certainly *sui generis*, is John Pell, the English mathematician.⁶ The current chapter shows how Pell’s notes allow us to see in practice the kind of benefits, and hindrances, that the study of another non-Indo-European language offered the tyro in Arabic. It also argues for the often ignored intellectual interest in the question of the choice of transliteration system. More generally, early modern England is often described as a multilingual culture with respect to individual learners and translators of texts (especially literary texts), but usually to discuss this with such terms from linguistics as diglossia or alloglottography has seemed inappropriate.⁷ This chapter questions that distinction. A solitary learner’s—perhaps idiosyncratic—attempts to view one language through the lens of another (here Arabic through Hebrew), is surely as part and parcel of a multilingual culture as innumerable traders slipping between one language and another for their transactions in millet or silk.

The difficulties awaiting the student of Arabic in the earlier part of the seventeenth century were considerable. In the first place, there was considerable suspicion attaching to the study of Islam in general in early modern Europe, with the Quran itself having been placed on the Indexes at various points in the sixteenth century.⁸ The lack, furthermore, of an appropriate typographical technology severely hampered the progress of Oriental studies throughout Europe.⁹ The paucity of teachers was another major stumbling block, with Julius Justus Scaliger’s biting comment about people setting themselves up as teachers of Arabic who themselves knew barely the rudiments themselves often repeated; the intrinsic difficulty of the language did not help matters.¹⁰ The language’s difficulty, however, was often paraded as one of the best reasons to study it, along with its utility for theological studies.

⁴The phrase quotes, with due piety, Wolfson (1961, 373–392).

⁵Some of these connections are illuminated in the sprawling work of Haijji (1976).

⁶See now *ODNB*, sub nomine, for a recent sketch, to be supplemented by Malcolm and Stedall (2005).

⁷See, e.g., Boutcher (2000). The traditional explanation that diglossia functions between two varieties of the same language whereas bilingualism refers to two separate languages already presupposes issues and definitions that require historicization.

⁸See Hamilton (2001, 169, n. 3).

⁹There is as yet no study for Arabic typography in Europe to set beside the magisterial *Hebrew Typography in the Northern Netherlands, 1585–1815*, Fuks (1984). See now also for another Semitic language, Wilkinson (2007). The first book to contain Arabic characters was Breidenbach’s *Peregrinatio in Terram Sanctam*, though it was a lone outlier. The influence of the famous late Medici press of the 1590s must not be accorded undue influence given that its output was for the Ottoman market, and not a domestic European one. See Jones (1981). A better step change date is 1585, when Plantin’s son-in-law, Raphelengius, had Arabic types cut. For Holland, see de Nave (1986), for a lucid summary of the sixteenth-century material. Postel’s considerable library of Syriac and Arabic mss was left in the hands of the librarian (Franciscus Junius) of the Elector Palatine in Heidelberg.

¹⁰See now Hamilton (2009).

England, at least in the sixteenth century, was rather a backwater with respect to the study of the Semitic languages, despite several distinguished medieval arabists.¹¹ The story of England's increasing capacity in this field is much clearer since the work of Gerald Toomer.¹² More detail, however, about the Oxford career of the Dutch Orientalist Johannes Van den Driesch in the 1570s is needed (who dedicated his vast work on the Book of Ruth to Archbishop Whitgift in 1584, and the dedicatory epistle tells us that Drusius was at Lambeth Palace at this point).¹³ The precise scope of a mooted intellectual support grouping around Lancelot Andrewes may yet, with further manuscript discoveries, be convincingly proved. There are, moreover, a number of manuscripts that have not yet been taken account of, such as the prayer book and Koran in the Cotton collection and the seemingly seventeenth-century English compilation of semitic grammatical material in the Lansdowne manuscript collection.¹⁴ Without any institutional pedagogy, however, these could only ever be rare exceptions.¹⁵ The sudden departure of Philippus Ferdinandus in Cambridge put paid to the chance to place the study of Arabic there on a securer institutional footing.¹⁶ Whatever the large claims made for the study of Arabic in Matthias Pasor's 1626 *Oratio pro linguae Arabicae* (his inaugural lecture in Oxford), there is no evidence of Pasor (a refugee from the Thirty Years War via Leiden) having pursued Arabic studies at Oxford (and indeed he supplemented his income with lectures in Hebrew at St Mary Hall, and in any case in 1629 he was back in the Low Countries).¹⁷ The market therefore for such works as Thomas Erpenius's grammars, which soon eclipsed all other comparable works, and Agostino Giustiniani's *Psalter* is all the more understandable.¹⁸ Erpenius' *Rudimenta*, for example, went through three editions, and it was one of these editions, it seems, that found its way into the hands of John Pell, and from which he took careful notes. These notes form the basis of the current chapter. How he learnt Arabic tells us as much about the powerfully synthesizing mind of Pell than it does about Erpenius.

The physical format of the notes in which John Pell's attempts to learn Arabic were recorded deserves a word, since it complicates considerably the broader argument being made here.¹⁹ The trickiest issue is chronology. Pell regularly used little octavo pages for his notetaking activities. The handwriting itself is a model of clarity; what makes the forensic task difficult is the ordering of these notes since they do not always contain a date (in Pell's own unusual dating system), and the pages have been stuck, sometimes seemingly in no clear order, onto the folios of their current manuscript, British Library Additional 4377. Since the argument presented in the current chapter turns, to some extent, on the issue of

¹¹ See Burnett (1999).

¹² Toomer (1996).

¹³ Drusius (1632, sig. A3r). The issue for further research to determine is quite how much time Drusius spent in the 1570s at Oxford and how much at Lambeth (see also A2r: "Accessit ad haec mala perigrinatio, quae animum meum a libris sic abalienavit, ut vix cum iis in gratiam redire potuerim").

¹⁴ British Library, London, Cotton MS, Galba IX and X; and British Library, London, Lansdowne MS 694.

¹⁵ It would be good to know who was teaching Sir Kenelm Digby (according to a scrap of evidence from Hartlib in 1634) was a great student of Arabic, which would place him at just the right time and place. See Matar (1998, 83–4).

¹⁶ See Feingold (2017). Feingold's story is one, strictly speaking, of the history of universities, to which Pell stands in some way oblique.

¹⁷ See ODNB *sub nomine* "Matthias Pasor." I have found little evidence of Arabic philology in his Groningen archive papers.

¹⁸ See Fück (1955, 59–71). We await a full study of Erpenius.

¹⁹ British Library, London, Additional MS 4377.

chronology, where relevant, these difficulties will be explicitly mentioned.²⁰ The sheer volume and ambition of his projects must bear some of the blame for the often fragmentary and unfinished nature of his output, of which these physical traces are an apposite index. Pell may not have come up with the plan for the first department store, like Leibniz (a figure with whom he has otherwise much affinity), but there was little in the intellectual life of the time which he did not, for however a brief a time, attempt to become involved with. Although his manner of working seems to have been fairly ordered, the variety of his projects took its toll on the publication of the results of his research: many of his papers were either lost or disordered.²¹ As mentioned already, the notes, as currently preserved, are not in strict chronological order: for example, f. 27 (a series of observations on how to remember the different letters of the alphabet) must date from earlier on than the vocabulary lists of f.14.

As far as the current state of the papers allows us to say, it was toward the end of the 1630s that Pell began to learn Arabic.²² In 1629, he had been teaching at Collyer's School (a Henrician grammar school) in Horsham. Pell had just begun (perhaps in October 1629) to be acquainted with Samuel Hartlib, whose interests extended from mathematics to, most famously, universal language schemes. Hartlib is probably the most influential figure in Pell's intellectual trajectory throughout the 1630s.²³ He was a figure whose mental world was closely tied to the consequences of ideas, chiefly of the Utopian variety. Originally from Poland, Hartlib was in England from September 1628 onwards. The cause of the Palatinate was in particular close to his heart (as has been tirelessly recorded in the secondary literature), as were the possibilities for the overcoming of doctrinal differences through appropriate pedagogic (or, as we might say, "cognitive") training.²⁴ (It is this second part of Hartlib inheritance that is relevant to the interpretation adopted of Pell's Arabic learning here.) These ideas soon found a practical home. By 1630, Pell was teaching in the Chichester Academy that Hartlib had founded in the same year. Even though the Chichester Academy came to grief, and Hartlib returned to London, he remained actively involved with pedagogy throughout the 1630s. Pell was already note-taking in 1631 from Helvicus's work on universal grammar.²⁵ The difficulty in getting away from the political aspects of the "universal reformation" requiring those involved with the Principality of Transylvania to deal with the Ottomans is underscored by Pell's inclusion of a copy of a letter (translated into English) containing "[t]he greate Turke's oathe to Bethlem Gaber, sente to the prince of Transylvania 1620 Jan.3."²⁶

Naturally Pell, given his mathematical interests, was interested in the scientific works that a knowledge of Arabic would allow him to access. In this vein, can one read Pell's comment on the role of Arabic as a preserver of ancient learning:

²⁰Noel Malcolm suggests that, given how studious a person Pell was, it would be unwise to assume *too* much from this chronology.

²¹On the relationship between publication and reputation, see the acute comments of Feingold (2006, 451–468).

²²These notes allow us to nuance Toomer's statement (1996, 198) that we do not know how much Arabic Pell knew.

²³For Hartlib's career(s), see Malcolm and Stedall's judicious summary of the evidence (2005, 26–28, esp. n. 8), where Malcolm makes references to Polish secondary literature that I cannot read.

²⁴For the Utopian (or pre-lapsarian) character of much of the universal language schemes, see now Lewis (2007). For the importance of Transylvania as a confessional buffer state, see now Keul (2009).

²⁵Additional MS, 4377, f.147 (dated 14 May 1631).

²⁶Additional MS, 4377, f.25.

When Greeke had been quite left out of Italy 900 years Emanuel Chrysoloras about 1399 (obtaining no help for his Greeks for which he was sent thither) stayed there & revived y^e knowledge of y^t language.

But about 830 about 200 years after Mahomets death the Arabians fell a studying y^t language and translated a multitude of these books into their language which though they be in things erroneous yet some way they are usefull because they are translations of books not now extant or imperfectly understood or corrupt.

By these Arabians we may supply the 2 former defects & many times the latter preserving by their blundering what was in their coppies.²⁷

Such a translation of intellectual empire had already been hymned in Pell's chief source, Erpenius, who includes an "Oration on the Arabic Language" which praises the tongue in precisely these terms. Pell's Arabic notes, however, are more prone (as one would expect) to comment on more technical issues of the relation of script, sense and sound. But quite how much understanding of the Arabic script did Pell possess?

Certainly, he had access also to examples of it in manuscript, for there are four leaves of a Koran (ff. 27–30), though since the paper is unwatermarked we cannot say whether these pages were imported from the East. Pell's own attempts to write in uninterrupted Arabic script (f. 31r-v) are commendable though notably less fluent, with much clearer breaks and wider spaces between words than in the majority of early modern Arabic manuscripts, as would one expect. The passage of the Quran that he writes out is the third sura (although he stops at verse 8, out of 200). This is certainly more fluent than the presumably earlier attempt to write in Arabic (f. 24), predictably, the opening sura of the Koran, with the spaces between words even more heavily marked. Erpenius's *Rudimenta* contained a section on the different scripts which was sufficiently detailed to enable Pell to make the following comment: "This manuscript of 9 crooked lines is written in Arabicke letters but not in their Sacred hand called by them [MS *not quite legible here*] which is best known to the students of Arabicke hear in Christendome. But it is the Court Hand called Diwan used by the Turkes in their ordinary affairs & law-business."²⁸

As mentioned earlier, Pell's main guide in learning Arabic in the 1630s was the *Rudimenta* of Thomas Erpenius.²⁹ Pell follows his source closely but not slavishly, sometimes making notable improvements in phraseology or precision. For example, his notes on the first page of the Quran were inspired by the similar exercise of the German Kirstenius, an earlier and much less influential grammar than that of Erpenius.³⁰ On the question of the root (and its status), Pell seems simply to follow Erpenius—his interest is here practical and not theoretical (wanting, in other words, to know how to discover it, rather than to understand its elusive grammatical quality).³¹ He is a careful lover of grammatical minutiae and matters of orthography. He comments on the printing conventions for dealing with quiescent consonants, for example.³² Pell's training in, or at least familiarity with, the emendatory

²⁷Additional MS 4377, f. 19.

²⁸British Library, London, Additional MS 4377, f. 15xx.

²⁹The edition that he was using was that of 1628.

³⁰On Kirstenius, see Smitskamp (1992, 118–21) (thanks to Noel Malcolm for this reference).

³¹So f. 7: "Arabicarum vocum analysis sive Radicis arabicae investigatio. Abjice initio quarumlibet praefixas." For a survey of the different ways in which the root was analyzed in premodern grammars, see Rousseau (1984).

³²The relevant passages are Erpenius, *Rudimenta*, 1628, sigs. B5v–B6r and, in Pell, f. 24.

techniques of humanist classical scholarship is responsible for a breathtaking piece of intellectual self-confidence in the notes. Using Erpenius's grammatical instruction, he manages to correct Kirstenius, who had translated al-fatiha (the name of the opening sura) as "caput apertionis." Noting that the form is in fact a verbal adjective, he suggests rather the translation "caput apertivum." Pell's humanistic instincts cannot, however, resist suggesting to him that this was in fact a corruption "per incuriam," leading him to say: "lego igitur S_oWR_aT_oL_iΦ_κT_iΠ_aT_o." Emendation of the holy word of Allah would remain, however, a minority pursuit.

An early comment suggests that Pell had a strong sense that the "reality" that lay behind the various grammatical paradigms of Arabic was sound-based:

To read single Arabic words, as in Grammaticall Paradigms, we must know the sound of the letters [...] "b t θ 3 ɔ π {} d t z s ʃ s d t d y G F k ɔ L m n w h y.
change of π into π"

place of the accent [...] never in ultima, therefore in penultima in all disyllables as onsur, never higher than the antepenult, and there always in polysyllables as nasara, nasarta unlwaaw [y]e penult be made long by quiescent by ٲا as tansoranas tansori'na tansora'na.³³

There is a practical reason why such a reality would be evident to the seventeenth-century student of Arabic. The grammatical inflections and conjugations of both Latin and Greek obviously involve some changes to the sound of the endings (from e.g. *ambulo* to *ambulat*), but if one ignored the auditory elements of such endings, one would not be seriously hampered in one's linguistic progress. Furthermore, accent in Greek does not function as a marker of grammatical difference *within* a particular verb or noun; rather accentuation is a way of choosing between homographs, such as the two meanings of βίος.³⁴ A glance at grammars of Latin and Greek from the sixteenth century make hardly any reference to the constitutive value of sound at all.³⁵ The development of the discipline of phonology (usually associated with Harvey's teacher, Fabricius da Aquadepente) may have contributed to the early seventeenth-century sense among the empirically minded of the "reality" of the sound beneath the grammatical structures.³⁶ This seemingly novel style of physiological thinking about linguistic practice was in turn prepared for by the immensely popular work by Scaliger on *Poetics*, where the basic phonetic capacities of man were conceived as matter on which the form of grammatical structure was placed.³⁷ To return to Pell, the other auditory problem that is faced by the student of Arabic revolves around what transliteration system to adopt. Questions of transliteration had even received some attention for English,

³³Additional MS 4377, f.1r.

³⁴See, e.g., ΜΕΓΑ ΕΤΥΜΟΛΟΓΙΚΟΝ. *Etymologicum magnum*..., 1549, sub verbo "βίος." We shall know more about the diffusion of this kind of exercise when Paul Botley finishes his work on learning Greek in Renaissance Europe.

³⁵See, e.g., Ramus (1578, sigs. A2v–sA3r), where the brief discussion of sound is never linked to any syntactic features, but rather provides simple definitions of terms such as liquid and vowel (e.g.: "D[iscipulus]: Quid est syllaba unius literae? P[raeceptor] est vocalis quaelibet; ut a e i o u y.")

³⁶The works that are regularly cited are the *De voce*, the *De loquela brutorum* and the *De locutione et eius instrumentis*. On the reception of Paduan medical ideas in England, see now Woolfson (1999, 73–102). To Woolfson, add the early seventeenth-century notes in an English hand found in the margins of the *De visione, voce, auditu*... at British Library, London, shelfmark, 536 m4.

³⁷Stemming from Aristotle, *Poetics*, II.1.

as the (lugubriously black-letter) attempt of London printer William Bullokar to produce a reformed orthography in the 1580s makes clear.³⁸ With languages, however, written in other scripts, the problem was naturally more pressing.³⁹ Since many of the sounds of Arabic do not have exact equivalents in Latin, Greek or English, and even Hebrew does not provide an exact analogue, considerable thought had to attend the question of transliteration.

There was no universally agreed transliteration system for Arabic in early modern Europe. The encounter with the gutturals produced a number of scholarly attempts to clear the lexicographical throat. The unwieldy *Lexicon Arabico-Latinum* of Franciscus Raphelengius, posthumously published in 1613, completed by his sons and by Erpenius, allowed one such system the oxygen of print.⁴⁰ That transliteration system differs slightly from the adopted in the *Lexicon Pentaglotton* from which Pell took notes.⁴¹ A third system still is in place in Pell's notes from the *Tabula Cebetis*. Although there is no date superscription for the *Tabula* notes, the slightly uncomfortable and awkward script suggests it is early on. Furthermore, the transliteration system that Pell uses for the Arabic words also suggests that these notes date from early on. It is, however, different again from the transliteration system of 1982. For example, Pell uses Hebrew letters first to refer to Plato (rather than the Arabic script of the book from which he is taking notes): פלטן first becomes אאPLTN.⁴² Finally, at one point (perhaps very early in his career, since it uses only Roman alphabet characters) Pell transcribes another piece of Arabic, using, it would seem, a system that distinguishes, for example, between ح and ه by using both capital and minuscule versions of the letter h: AllaHo La ilaha illa Howa: wayala-illahi FaYataWaCCaLi.⁴³ It is an open question whether he really understood the Arabic behind this phrase. Whilst no very definite conclusions can be made about dating, given the above-mentioned difficulties, what is worth underscoring here is that Pell remains interested in the question of transliteration throughout his engagement with Arabic and that he attempts a system that is his own (in the sense of being a hybrid of other systems). Transliteration does not appear to have been simply a learner's crib for Pell, to be kicked away as soon as he could read without it (as surely he could have done after only a few weeks of instruction, let alone several months). It was an interesting intellectual problem in itself.

There is, furthermore, an interesting intellectual hinterland to this fact, and that revolves around Pell's curiosity (and that of those around him) about theories of a universal language or writing system that were so marked a feature of mid-seventeenth-century life in the *respublica literarum*. As if to underscore this interest, the very same manuscript volume in which the notes on Arabic are found is also the home to cut out leaves from works on Universal Character, as well as some notes on shorthand. At the top of one paradigm for the passive of KWL, Pell writes two Greek adverbs: ἀνομαλῶς and ἀναλογικῶς.⁴⁴ Since neither

³⁸Bullokar (1580). On Bullokar (c. 1531–1609), see now *ODNB* sub nomine.

³⁹For sixteenth-century knowledge of non-European languages and scripts, see Gesner's *Mithridates* (1555), consisting of a range of Lord's Prayers.

⁴⁰On this, see now Alistair Hamilton, "Nam Tirones Sumus." The work was based on a manuscript that had once been in the hands of Raphelengius's teachers, Guillaume Postel (so Hamilton).

⁴¹At f.19x he copies out the transliteration system adopted by the *Lexicon Pentaglotton, Hebraicum, Chaldaicum, Syriacum, Thalmudico-Rabbinicum & Arabicum. In quo omnes voces Hebraeae [...] opus novum nunc post Authoris obitum*.

⁴²Additional MS, 4377, f.4r.

⁴³Additional MS, 4377, f.18x.

⁴⁴For "analogia" in Greek in the sense of grammatical regularity, see now Lallot (1998, 80–81). For the so-called dispute between the followers of "analogy" (those of Aristarchus the grammarian) and those of "anomaly" (those

Kirstenius' *Arabicae* nor Erpenius's *Rudimenta* mentions either words, we can be fairly sure that they are Pell's own frame of reference for understanding his material. Although it was not the major focus of grammatical research in the Renaissance, the Alexandrian debate over anomaly versus analogy (as played out by the Stoics in the later Roman period) nonetheless was available to scholars and did become the object of some discussion. Varro's *De lingua latina* contained a detailed account of both of these terms and was widely disseminated throughout Europe.⁴⁵ What is at issue in the anomaly/analogy controversy may be stated, broadly, as the extent of uniformity, and hence describability of a system, at the expense of its variability. Behind this in turn lies the issue, familiar from medieval discussions, of whether or not grammar counted as a science, since, by Aristotelian lights, no science worthy of the name could consist in the recounting of linguistic particulars.⁴⁶ We have already seen the intense interest in numbering and schematization that afflicts Pell. How could he fail to see the issue of the status of a grammatical system? Book X of *De Lingua Latina* contains a mathematical mode for four schemata of grammatical inflection. The notion of analogy is illustrated in the Renaissance editions with a mathematical table. The issue, we may say, of the analogy and anomaly distinction may thus be better described as a more general problem of Renaissance linguistics. At another point, Pell writes down a table (Table 1)—he transliterates the paradigm for the verb غَزَوْ (which he glosses with “oppugnavit” using the third person perfect, as being the simplest form in Arabic). We see him writing the term “αναλογικως” over the third.⁴⁷

In the light of this, the issue of Pell's particularly careful transliteration system for Arabic becomes relevant. At one level, the transliteration system is explained by the (possible) early date of these pages of the manuscript. And yet, learning the Arabic alphabet is not so hard that Pell's attachment to his system is not capable of alternative explanation. If the parallels with Greek linguistic usage are to be taken seriously (and are not simply *aides-memoire* or *causa illustrationis*), then we must consider that the transliteration system was another of the attempts at a universal character.

of Crates), see now the sources marshalled in Dickey (2007, 6 n. 15). As to the reality of the debate, the jury is out, but for an up-to-date summary of the positions adopted in the secondary literature, see Ax (2000).

⁴⁵See the entry for Varro in Brown (1980). Varro's work on the *De lingua latina* had been edited by Antonio Agostin, but had achieved a raised scholarly profile following the emendatory activity of Scaliger (whose *coniectanea* were in later editions often bound with the original text of Agostin), and then, in 1605, Gaspar Schoppe produced a new edition.

⁴⁶See now Beurle (2010, 105ff).

⁴⁷I register here Sam Wilder's perceptively baffled comment: “Of the parsing of semitic root patterns does cut rather to the quick of that enticing area of language systems theory and controversy that gets debated along those lines. They really do: one is confronted with a promise of an almost pristine semantic calculus unimaginable in our chaotic Indo-European ‘accidental’ linguistic universe of borrowings and etymological bastardry. This is where Pell seems to be so interestingly stewing. Yet then, when he has analogikos at the top of a column in a verb-parsing table, I am a bit confused.”

GaZaWa oppugnavit	Active	Αναλογικως
GZWT	GZWT GZWT	GZW GZWT
*	GZWTMκ	GZWκ GZWTκ
GZWNκ	GZWTM GZWTN	GZWWκ GZWN

Table 1

A second issue, and one which connects Pell's notes less to an ideal language than to a real one, was the proximity or otherwise of Hebrew to Arabic, and whether or not, one was in fact just a dialect of the other. Latin, after all, had since the time of Plutarch (often with political coloring) been thought of as a mere dialect of Greek and this theory resurfaced from time to elsewhere in early modern Europe.⁴⁸ Scaliger (as already pointed out in the secondary literature) rejected the similarity of Hebrew to Arabic, arguing that this simply impeded the proper acquisition of each language.⁴⁹ Certainly, however, Hebrew is present at every stage of Pell's learning of the language (this, then, is the "learned bilingualism" of the current chapter's title). Throughout Pell's early vocabulary lists, there is nearly always a Hebrew word for every Arabic one. Much of the detail of the analogy between Hebrew and Arabic turns on phonetic qualities. Take, for example, the following comment:

On day 10982

_allways in [th]e very end of a word after the last consonant

for the most part after קעעטטצצה therefore one is called Kaf [th]e other Kef

& before y^m if no vowel come next after as when they are shevated as כב Bak
else כב Beka

And for [y]s reason a is used in the names of Hha, Cha, Sad, Dad, Ta, da, yain,
Gain, Kaf, left out of all [y]e rest save dal Dal Lam Waw.

The curious expression "shevated" may cause the uninitiated to pause. It derives from Hebrew grammar and has no place in Arabic. The "sheva" (in today's terminology a "schwa") is a symbol placed under a Hebrew letter to indicate the absence of a vowel (unless the letter is a final consonant). The parallels, grammatical and lexical and phonological, with Hebrew are a marked feature of Pell having learned this second Semitic language.

Jackdaw thought that his polyglot abilities, comprehensible or no, qualified him to take the place of the Eagle, in the little Reynard the Fox-inspired political allegory with which we began:

⁴⁸See the discussion in Gabba (1963). For the marshaling of the ancient sources, see Cupaiuolo (1925).

⁴⁹*Epistulae*, 1627, 197 and 203.

However, I hope you will consider my worthinesse, and place me as your substitute, during the time that your Eagleship shall be absent in the Desart of *Arabia*. And so ends *Jackdaw*, praying for your long life, and to give you a taste of my Languages.⁵⁰

With the Eagle in Arabia, Jackdaw need not have his knowledge of how to learn Arabic tested (or tasted). Perhaps like Pell, he would have started with a productive if unstable medley of Hebrew, Latin and Greek.

Acknowledgements

Thanks to Arne Böge for a pleasant afternoon in Dresden back in 2006 spent in a bookshop where I picked up a copy of Johann Fück's seminal *Die Arabischen Studien in Europa*. Noel Malcolm and Sam Wilder commented with their characteristic acuity and generosity. This is for Peter Chadwick, who shared my enthusiasm for finding other beginners in Arabic, and who has always supported my work.

References

- Ax, W. (2000). Sprache als Gegenstand der alexandrinischen und pergamanischen Philologie. In: *Logos und Lexis*. Ed. by W. Ax and F. Grewing. Stuttgart: Steiner, 91–115.
- Balagna-Coustod, J. (1989). *Arabe et humanisme dans le temps des Valois*. Paris: Maisonneuve et Larose.
- Barnes, B. (1606). *Four Bookes of Offices*. London: T. Adams and C. Burbie.
- Basse, W. (1619). *A Helpe to Discourse, or A Miscelany of Merriment*. London: Becket.
- Beurle, A. (2010). *Sprachdenken im Mittelalter: Ein Vergleich mit der Moderne*. Studia Linguistica Germanica 99. Berlin: De Gruyter.
- Bisaha, N. (2007). *Creating East and West: Renaissance Humanism and the Ottoman Turks*. Philadelphia: University of Pennsylvania Press.
- Boutcher, W. (2000). "Who Taught Thee Rhetoricke to Deceive a Maid?": Christopher Marlowe's Hero and Leander, Juan Boscán's Leandro, and Renaissance Vernacular Humanism. *Comparative Literature* 52(1):11–52.
- Brown, V. (1980). Varro, Marcus Terentius. In: *Catalogus Translationum et Commentariorum: Mediaeval and Renaissance Latin Translations and Commentaries: Annotated Lists and Guides* Vol. 5. Ed. by F. E. Cranz and P. O. Kristeller. Washington, DC: Catholic University of America Press, 451–500.
- Bullock, W. (1580). *Booke at Large for the Amendment of Orthographie for English Speech*. London: Cambridge Scholars Publishing.
- Burman, T. E. (2007). *Reading the Qur'an in Latin Christendom, 1140–1560*. Philadelphia: University of Pennsylvania Press.
- Burnett, C. (1999). *The Introduction of Arabic Learning into England*. London: British Library.
- Cupaiuolo, T. (1925). *La teoria della derivazione della lingua latina dall' eolico*. Palermo: Boccone del povero.

⁵⁰*The Pleasant History of Cawwood the Rooke* 1640, sig. B4v).

- de Nave, F., ed. (1986). *Philologia Arabica: Arabische studiën en drukken in de Nederlanden in de 16de en 17de eeuw*. Antwerpen: Museum Plantin-Moretus.
- Dickey, E. (2007). *Ancient Greek Scholarship*. Oxford: Oxford University Press.
- Drusius, J. (1632). *Historia Ruth Ex Ebraeo Latine conversa, & commentario explicata*. Amsterdam: Jansson.
- Feingold, M. (2006). Parallel Lives: The Mathematical Careers of John Pell and John Wallis. *Huntington Library Quarterly*:451–468.
- Feingold, Mordechai (2017). Learning Arabic in Early-Modern England. In: *The Teaching and Learning of Arabic In Early Modern Europe*. Ed. by Jan Loop, Alastair Hamilton, and Charles Burnett. Leiden: Brill.
- Fück, J. (1955). *Die Arabischen Studien in Europa von 12. bis den Anfang des 20. Jahrhunderts*. Leipzig: Harrassowitz Verlag.
- Fuks, L., ed. (1984). *Hebrew Typography in the Northern Netherlands 1585–1815*. Leiden: Brill.
- Gabba, E. (1963). Il latino come dialetto greco. *Miscellanea di Studi Alessandrini Rostagni*: 188–194.
- Haijji, M. (1976). *L'activité intellectuelle au Maroc a l'époque sa'dide*. 2 vols. Rabat: Dar El Magrehes.
- Hamilton, A. (2001). The Study of Islam in Early Modern Europe. *Archiv für Religionsgeschichte*:169–182.
- (2009). Isaac Casaubon the Arabist: Video longum esse iter. *JWCI*:35–54.
- Holt, P. M. (1972). *A Seventeenth-Century Defender of Islam: Henry Stubbe (1632–1676) and his Book*. London: Dr Williams Trust.
- Jones, J. R. (1991). *Learning Arabic in Renaissance Europe*. unpublished. PhD thesis. London: University of London.
- Jones, R. (1981). *The Arabic and Persian Studies of Giovan Battista Raimondi (c. 1536–1614)*. Unpublished dissertation. PhD thesis. London: The Warburg Institute.
- Keul, I. (2009). *Early Modern Religious Communities in East Central Europe*. Leiden: Brill.
- Lallot, J. (1998). *La Grammaire de Denys le Thrace: Traduite et annotée*. 2nd ed. Paris: CNRS Éd.
- Lewis, R. (2007). *Language, Mind and Logic: Artificial Language Schemes from Bacon to Locke*. Cambridge: Cambridge University Press.
- Loop, Jan (2013). *Johann Heinrich Hottinger: Arabic and Islamic Studies in the Seventeenth Century*. Oxford: Oxford University Press.
- Loop, Jan, Alastair Hamilton, and Charles Burnett, eds. (2017). *The Teaching and Learning of Arabic In Early Modern Europe*. Leiden: Brill.
- Malcolm, N. and J. Stedall, eds. (2005). *John Pell (1611–1685) and His Correspondence with Sir Charles Cavendish: The Mental World of an Early Modern Mathematician*. Oxford: Oxford University Press.
- Matar, N. I. (1998). *Islam in Britain, 1558–1685*. Cambridge: Cambridge University Press.
- MEIA ETYMOLOGIKON. Etymologicum magnum. Magnum etymologicum Graecae linguae, nunc recens summa adhibita diligentia excusum, & innumerabilibus pene dictionibus locupletatum* (1549). Venice: Federicus Tarrisanus.
- Meserve, M. (2008). *Empires of Islam*. Harvard: Harvard University Press.
- Ramus, P. (1578). *Rudimenta grammaticae latinae*. Frankfurt: Wechel.

- Rousseau, J. (1984). La racine arabe et son traitement par les grammariens europeens. *Bulletin de la Societé linguistique de Paris*:285–321.
- Segesvary, J. (1985). *Islam et la Reforme*. Paris: Éditions L'Age d'homme cop.
- Smitskamp, R. (1992). *Philologia Orientalis: A Description of Books Illustrating the Study and Printing of Oriental Languages in 16th- and 17th-Century Europe*. Leiden: Brill.
- The Pleasant History of Cawwood the Rooke or, the Assembly of Birds* (1640). London.
- Toomer, G. J. (1996). *Eastern Wisedome and Learning*. Oxford: Oxford University Press.
- Wilkinson, J. (2007). Tremellius: 1569 Edition of the Syriac New Testamanet. *Journal of Ecclesiastical History*:9–25.
- Wolfson, H. A. (1961). The Twice-Revealed Averroes. *Speculum*:373–392.
- Wolfson, J. (1999). *Padua and the Tudors: English Students in Italy 1485–1603*. Basingstoke: University of Toronto Press.