WHY 'EMPHATICS'?

Kees Versteegh

University of Nijmegen

In the introduction to the second edition of his *Arabische Grammatik* (1781) Johann David Michaelis (1717–1791) explains that, although he himself has never traveled to the East, he has been fortunate in meeting informants for his grammatical description of Arabic:

As you can see in this new edition, I have obtained greater certainty in the meantime, partly through native Arab visitors, partly through returning Europeans, who had learned Arabic in Morocco and Constantinople.[1]

For European Orientalists such opportunities to check their linguistic data were relatively rare, though and their lack of exposure to the language as it was spoken made it difficult for them to know how it sounded. This is particularly clear in their treatment of Arabic sounds that were unknown in European languages, such as those which in Western grammars of Arabic came to be called 'emphatics'. Silvestre de Sacy (1758–1838) is often referred to as the first to use this term. In the introduction to his *Grammaire arabe* he speaks about 'emphasis' or 'emphatic articulation' as "a kind of expansion of the upper palate, which produces an *o*-like sound after the consonant".[2] His characterization of the individual consonants is not very detailed: The ص corresponds to our *s*, but should be articulated somewhat stronger than س or with a certain emphasis ... The ض corresponds to *D* articulated more strongly than the French *d*, or with a certain emphasis ... The ط corresponds to *T* articulated strongly and in an emphatic manner ... The ظ does not differ in its pronunciation from ض at all.[3]

---

[1] Ich bin, wie man aus der neuen Ausgabe sehen wird, seit der Zeit theils durch Besuch gebohrner Araber, theils durch zurückgekommene Europäer, die in Marocco und zu Konstantinopel, Arabisch gelernt haben, zu mehrerer Gewißheit gelanget (Grammatik 2).

[2] Ce que j'appelle emphase ou articulation emphatique, est une espèce de dilatation de la voute supérieure de la bouche qui laisse en quelque sorte entendre un o après la consonne (Grammaire I, 19).

[3] Le ص répond à notre s, mais doit être articulé un peu plus fortement que le س , ou avec une sorte d'emphase ... Le ض répond au D articulé plus fortement que le d français, ou avec une sorte d'emphase ... Le ط répond au T articulé fortement et d'une manière *emphatique* ... *Le* ظ *ne diffère aucunement, dans la prononciation du* ض (Grammaire I, 19f.).

Modern grammars of Arabic routinely call these consonants 'emphatics', and even in the general linguistic literature the term is commonly used (sometimes between quotation marks), for instance by Ladefoged and Maddieson (1996:365). The underlying idea is that these consonants are called 'emphatic' because supposedly they are realized with more energy and intensity than 'normal' consonants.

The 'emphatic' consonants *stricto sensu* are: *ṣād*, *ḍād*, *ṭāʾ*, *ẓāʾ*. In the Arabic grammatical tradition these are called *muṭbaqa* 'covered', so called because the dorsum of the tongue acts as a lid covering the soft palate and the nasal cavity. They belong to a larger group, called *mufaḫḫama*, that includes the *muṭbaqa* as well as the *qāf*, *ġayn*, *ḫāʾ*, and allophonic variants of the *rāʾ*, *lām*, *bāʾ*, *mīm*, and *nūn* (Al-Nassir 1993:50f.). The members of this group have in common that their pronunciation is accompanied by elevation of the tongue to the palate and stricture in the pharynx (Jakobson 1957).[4]

Those Arabic grammatical treatises that were available in Europe in the sixteenth century, mainly the *Āǧurrūmiyya* and al-Ǧurǧānī's *Miʾat ʿāmil*, were mostly concerned with syntax and did not provide any detailed phonetic description of the language. The lack of information on phonetics can only have reinforced the idea that the exact pronunciation of the Arabic sounds was not important when learning Arabic, or, alternatively, that the sounds were so difficult to pronounce that it would be a waste of effort to try to do so.[5]

One of the earliest Western descriptions of the Arabic sound inventory is found in Erpenius' (1584–1624) Arabic grammar.[6] His description of the four *muṭbaqa* consonants is not very precise:

---

[4] In transliteration, the traditional Arabist signs (*ṣ, ḍ, ṭ, ẓ*) will be used here. There is a vast literature about the precise features of this class of consonants, which are variably described as being pharyngealized, velarized, or uvularized. Since this is not the topic of the present paper, I refer to Bellem's (2007) excellent treatment, which also covers the realization of the 'emphatic' consonants in the Arabic dialects. For the wider context of the Semitic languages and the historical development of the Semitic sound inventory, see Lipiński (1997:105f.); Edzard (2013). For the phonetic theories of the Arabic grammarians see Al-Nassir (1993); Bakalla (2007, 2009).

[5] A comprehensive study about the possibilities for scholars in the European Renaissance to hear Arabic in Jones (2020); see also Roman (2005); Hamilton (2006).

[6] Pedro de Alcalá's *Arte para ligeramente saber la lengua araviga* was much earlier (1505) but does not contain any description: he simply lists *Çad, Dad, Ta, Da* without further explanation (Hamilton 2006:168; Zwartjes 2014).

Tsad صاد *TS* but in such a way that *S* is heard rather than *T*. *Dshad* ضاد, but lisping.[7] *Ta* طاء *T* pronounced in the throat.[8] *Dsha* ظاء lisping, hardly differs from ض.[9]

Erpenius had some contacts with native speakers of Arabic (Hamilton 2006:169; Jones 2020:76–92) but did not travel to Arabic-speaking countries. His successor to the Chair of Arabic at Leiden University, Jacobus Golius (1596–1667), familiarized himself with spoken Arabic in Morocco and Syria, but he copied the description of the four 'emphatics' directly from Erpenius, adding only a few details about the vowel variants.

Throughout the seventeenth and eighteenth centuries Erpenius' grammar remained the model for almost all studies about Arabic (Killean 1984:224; Girard 2010), even when other sources of knowledge about the language became available. In former Muslim Spain, many Moriscos managed to hold on to their language, at least for some time after the Reconquista. The official policy against Arabic and literature in Arabic was ambiguous: on the one hand, the Inquisition did everything in its power to annihilate all traces of texts written in Arabic, on the other hand, there was considerable demand for Arabic texts on scientific topics and, as a result, a real interest in learning Arabic.[10] But even with so many native speakers available, grammars were either translations of the *Āǧurrūmiyya* or based on Erpenius' grammar.

An important stimulus for studying Arabic was the drive for missionary activities, by the Franciscans, many of whom worked in the Arabic-speaking world (Zwartjes 2007) and, to a lesser degree, by the Jesuits (Colombo 2019:359–362). In Rome, the Congregatio de Propaganda Fide established schools for the teaching of Oriental languages, in particular Arabic, to carry out their mission. Since their main purpose was the instruction of missionaries, who needed to be able to preach and hear confession in Arabic, their approach to language teaching was practical (Girard

---

[7] *Blaesus* is the term commonly used in these Orientalist grammars to refer to interdentals. The Latin word means 'stammering, mispronouncing', but apparently came to be used in the sense of 'lisping'.

[8] In his paper on *mufaḫḫama*, Jakobson (1957) recalls how native speakers, when asked about the pronunciation of emphatics, point at their throat, indicating that something takes place there when they emit these sounds. The few experiences Erpenius had with native speakers may have been similar.

[9] Tsad صاد TS *sed ita ut* S *magis quam* T *audiatur*. Dshad ضاد *idem blaese*. Ta طاء T *in gutture pronuntiatum*. Dsha ظاء *idem blaese, vix differt a* ض (*Grammatica* 2).

[10] See Jones (2020:10). The expectation of learning Arabic from native speakers even attracted scholars from abroad. Nicolaus Clenardus (1493–1542) traveled from Flanders to Spain for this purpose (Jones 2020:20), but despite the presence of numerous Moriscos he was unable to find a competent teacher. Eventually, he managed to teach himself to read Arabic after only a few lessons (de Callataÿ 2011), but his wish to learn to speak Arabic was only fulfilled when a Spanish nobleman bought for him a learned Muslim slave (Martínez de Castilla 2017:180).

2010) and gave more attention to matters of pronunciation. In his description of the articulation of *ṣ* Philippus Guadagnolus (1596–1656) states that "it makes a stronger hissing sound because it is produced by the entire blade of the tongue attempting rise to the palate".[11] The reference to the activity of the 'blade of the tongue' (*planities linguae*) is correct, but he does not mention any secondary articulation in the pharynx. Antonius Ab Aquila (17th century) presents the 'emphatic' consonants as follows:

> 14ص *ss,* as a geminate *ss*, the blade of the tongue rising with full sound to the palate; 15ض *ddh,* likewise, with the blade of the tongue; 16 ط *tt* as geminate *tt*, with the blade and with full sound; 17 ظ *dth,* almost like 15, i.e., ض.[12]

One way of explaining the pronunciation of the 'emphatics' is by the effect they have on adjacent vowels, formulated as a constraint on the choice of vowel accompanying the consonant. The first to suggest a rule of this kind was Dominicus Germanus (1588-1670). In the introduction to the Arabic script in his *Fabrica linguae arabicae* (1639) he gives almost no details about the articulatory organs involved in pronouncing the 'emphatics', but divides the consonants into two groups, *graves* and *tenues* or *leves*, where the former tends to be pronounced with *a*, rather than *e*, and the latter with *e*, rather than *o*. Thus, as a rule *ṣ* is pronounced with *a*, rather than *e* (*favorisce piu alla fatha* a, *che alla chesra* e). One problem is that the group of *graves* includes consonants like *š* and *ṯ*, which are certainly not *mufaḫḫam*.

Later authors were not always better informed. Agapito del Valle Flemmarum (1653–1687) limits his instruction to the terse statement that *dāl, ḏāl, ḍād, ẓāʾ* are pronounced almost alike, as [d], albeit frequently with 'lisping' (i.e., interdental articulation) in the case of *ḏāl, ḍād,* and *ẓāʾ* (*Flores* 4). In fact, this applies to most later authors in the Franciscan tradition. Thus, for instance, Franciscus de Dombay (1758–1810) simply lists *s durum*, *d durum*, *tt*, *d durum* (*Grammatica* 3), and leaves it at that. Others remark that the rules do not always apply and that for a correct pronunciation one needs proper training. Bernardino González (1665–1735) refers to Dominicus' rule of thumb but recommends the help of a native teacher (*Gramática* II, 20), and so does Francisco Cañes (1730–1795) in the section on the script (*Gramatica* 3).[13] António Baptista (1737–1813) does not even bother to give any rules concerning the pronunciation of the 'emphatics" in his *Instituições*.

---

[11] *At sibilat fortius, quia formatur tota planitie linguae conante ad palatum ascendere* (*Institutiones* 8f.).

[12] *14* ص ss, *sicut duplex* ss, *planitie linguae, sono pleno ascendentis ad palatum; 15* ض ddh, *eadem planitie linguae; 16* ط tt *sicut duplex* tt, *planitie sono pleno; 17* ظ dth, *pene sicut 15,* scilicet ض (*Institutiones* 10f.).

[13] This may be the reason why González' student Lucas Caballero (Zwartjes and Woidich 2012:307) and Cañes (Moscoso García 2017:177) have remarkably little to say about Arabic phonetics. A similar advice to seek the help of a native teacher was given by Giovanni Battista Raimondi (c. 1536–1614), see Jones (2020:191).

The study of Arabic served commercial and political purposes as well. British scholars working in British India gained direct access to Arabic sources through their contacts with Arabic-speaking teachers. The first English grammar of Arabic was produced by John Richardson (1740/41–1795) on behalf of the East India company.[14] His *Grammar of the Arabick language* appeared in London in 1776; it was quite popular and a second edition was published posthumously in 1811 (Killean 1984:224). Yet, with respect to the pronunciation of the 'emphatic' consonants, it did not provide any new insights (*Grammar* 9):

ص as *ss* in *dissolve;* ض by some as *dh* or *dd*, by others as *dz* or *ds;* ط as double *tt*, or *t* with a slight aspiration; ظ almost the same as ض or perhaps as *dth*. [15]

As a professor of Persian and Arabic at the College of Fort William in Kolkata, Matthew Lumsden (1777–1835), shows by the title of his book, *A grammar of the Arabic language according to the principles taught and maintained in the schools of Arabia*, his familiarity with the Arabic grammatical tradition.[16] His description of the emphatic consonants (*Grammar* I, 24–26) illustrates this, when he describes the pronunciation of the *ḍād* in terms going back to Sībawayhi (whom he does not cite by name): "Most Arabs are said to form it on the left side, but others are observed to prefer the right". This description corresponds to a lateral realization of the *ḍād*, which at Lumsden's time must be regarded as purely fictional (except perhaps in South Yemen, but he is not likely to have been aware of that). He adds that *ḍād* is commonly confused with *z* (i.e., *ẓāʾ*); this may be explained by the current pronunciation at his time, especially in Persian-speaking India.

Lumsden's expertise in Arabic grammatical treatises enabled him to arrive at detailed articulatory descriptions. About the *muṭbaqa* he says (*Grammar* I, 40f.) that they are called thus "because their utterance occasions the tongue to cleave to the palate"; about the realization of *ṣ* he writes (*Grammar* I, 26f.):

The letter صاد is another S, formed as I think, somewhat higher up in the mouth than سين, though the Arabs (the best, or indeed the only good judges of such questions) assign to the same place of utterance.

In the Orientalist tradition in Europe the notion persisted that these consonants were somehow pronounced with more intensity, as suggested by Silvestre de Sacy's reference to an emphatic realization. Savary (1750–1788), whose grammar was written in 1784, but published posthumously in 1813, uses expressions like "stronger (*plus fortement*)" to indicate the pronunciation of the emphatic consonants and he

---

[14] On Richardson and his work for the East India Company see Mills (2017:286–292).

[15] According to Mills (2017:288), the innovatory contribution of his grammar was slightly over-emphasized by its author, since to a large part it was a copy of Erpenius' grammar.

[16] Lumsden also compiled a grammar of Persian (see Jeremiás 2012, 2013).

adds: "We hardly know this distinction between strong and weak consonants, but it is very clear in Arabic".[17]

Silvestre de Sacy cites as one of his predecessors the German theologian Johann Jahn (1750–1816), author of grammars of Hebrew, Aramaic, and Arabic, who was praised by him as having produced the best grammar of Arabic.[18] Jahn does not use the term 'emphatic', nor does he refer to any stronger pronunciation. He explains the four *muṭbaqa* as follows:

> *Zad: Z* deep in the mouth or *SS* between the teeth; *Dhad: Dh* from the throat, according to others *Z*; *Ta: T* deep in the mouth, with the tongue stuck to the palate. *Da: D* from the throat, according to others *ZZ* or *Z*.[19]

A second source mentioned by Silvestre de Sacy was Francisco Martellotto's (d. 1618) *Institutiones linguae arabicae*, who does not use the term 'emphatics', but mentions the greater energy with which they are to be pronounced. Martellotto was familiar with the terminology and framework of the Arabic grammarians (Girard 2020:285f.), but none of the treatises at his disposal contained an introduction to Arabic phonetics. As a result, his knowledge about the pronunciation of Arabic remained basically at the level of Erpenius' *Grammatica arabica*. Martellotto describes the four 'emphatics' as follows:

> ص This differs from S, or س, because it sounds somewhat stronger or (so to speak) a bit more hissing. ض is expressed by tapping the tip of the tongue to the upper gums, which produces a sound mixed from *d* and *z*, but very confused and temperate, so that in fact neither *d* nor *z* is heard. To this is added in the third place *h*, by which the hissing sound of *z* is softened somewhat. ط is pronounced like ت, but with more raising of the palate. ظ This differs from the sound of the letter ض because it is produced by a weaker tap, higher pitched as it were.[20]

It is doubtful that anyone would be able to pronounce the Arabic sounds correctly with just these instructions. The only element taken over by Silvestre de Sacy was that of the stronger pronunciation of the 'emphatics'.

---

[17] *Nous connaissons peu cette distinction de consonnes fortes et faibles; mais elle est très-sensible dans l'arabe* (*Grammaire* 8).

[18] About Jahn see Mackerle (2012)

[19] Zad*: Z tief im Munde oder* SS *zwischen den Zähnen;* Dhad*: Dh aus der Kehle, nach andern* Z*;* Ta*: T tief im Munde, die Zunge an den Gaumen angeschlagen;* Da*: D aus der Kehle, nach andern* ZZ *oder* Z (*Sprachlehre* 5f.).

[20] ص *Hoc differt ab* S*, seu* س*, quod aliquanto fortius, vel (ut sic dicamus) paululum sibilantius sonat;* ض *ictu quodam extremitatis linguae superiores gingivas percutientis expremitur, sonusq. editur ex* d*, &* z *mixtus, sed valde confusus, & temperatus, ita ut expressè, nec sonus* d*, nec* z *audiatur. Unde addita est* h *tertio loco, qua sibilans sonus litterae* z*, quodam modo lenitur;* ط *ut* ت *profertur, maiori tamen elevatione palati;* ظ *Hoc differt a sono litterę* ض *quod minori quidem ictu, sed maiori veluti stridore profertur* (*Institutiones* 10).

First-hand experience of the language, as in the case of de Sousa (1734–1812), who grew up in Damascus,[21] was not enough for an adequate description of Arabic phonetics. Even Maronite scholars, who came to Europe to teach Arabic, such as Petrus Metoscita (1569-1625) or Victorius Scialach (d. 1635), failed to represent the pronunciation of the four 'emphatic' consonants in terms that Western readers could understand. One of these scholars stands out as an exception, Antonius Aryda [Anṭūn ʿArīḍa] (1736–1820), an exiled Maronite priest from Syria, who taught Arabic at the University of Vienna from 1789 till 1806. During his appointment Aryda collaborated with Jahn, who had a position at the same university (Mackerle 2012:48, n. 85). Aryda must have had some renown as Professor of Arabic.[22] He is quoted twice (*Grammatica* 27, 30) by Heinrich Ewald (1803–1875) and he was one of the founders of the journal *Fundgruben des Orients* (Kratschkowski 1957:83).[23]

Aryda distinguishes between the pronunciation of vowels that are *lenis* and vowels that are *emphaticus*:

> The emphatic is to be pronounced with maximal emphasis in the entire mouth, namely by stretching the lower part of the mouth towards, so that it sounds twice as much as a Latin vowel.[24]

The same distinction applies to the pronunciation of the consonants:

> With the said emphatic sound one should pronounce not only the letters ص ض ط ظ ق, which are in opposition to the *lenes* س د ت ز ك , but also the letters ح خ

---

[21] See Zwartjes (2011:243–260).

[22] One of his students in Vienna was the flamboyant Polish explorer, Count Wacław Seweryn Rzewuski (1785–1831), co-founder of *Fundgruben der Orient*, who later met him in 1818/1819 in Syria during his travels (Gouttenoire 1997:149f.). Kratschkowski (1957:70) mentions Aryda as companion of the Swedish Orientalist Jakob Berggren (1790–1868). Berggren mentions being taught Arabic in the monastery of ʿAyn Ṭūr in Lebanon by Aryda, who had recently retired there from his professorship at the University of Vienna. The lessons were cut short by his teacher's death in 1820 (*Reisen* 18, 28). On his travels Berggren was accompanied by Osip Ivanovič Senkovskij/Józef Julian Sękowski (1800–1859), who also studied Arabic at the monastery with Aryda (Serikoff 2009).

[23] He must have had his critics, though, because an anonymous and rather tendentious review of his Arabic grammar appeared in the *Wiener Allgemeine Literatur-Zeitung* 18. Nov. 1814 (p.466), which among other things complained that Aryda's transcription of the emphatics differed from that of his predecessors. One of Aryda's students responded with an *Apologia contra censuram in Grammaticam arabicam*. This student had had the temerity to correct Silvestre de Sacy, which earned him a strong rebuke in the letter to von Hammer-Purgstall, quoted below, n. 32. In a letter dated April 4, 1812, to Friedrich Münter (1761–1830), Silvestre de Sacy hints at negative information about Aryda's qualities as a teacher (Münter, *Briefe* II, 187). In a later letter (November 7, 1812) he mentions Jahn as his source for this gossip (*Briefe* II, 189)!

[24] *Emphaticus autem pronunciandus cum maxima emphasi pleno ore; intimam videlicet oris partem, guttur versus, dilatando; ita ut duplo plus sonet, quam vocalis latina* (*Institutiones* 3f.).

رع غ, which although they do not form an opposition with a *lenis*, are counted among the emphatics, which in fact they are.[25]

The nature of the 'emphatic' pronunciation is explained by him in more detail when he says:

> The emphatic letters ق ظ ط ض ص , have the same nature as the lenes ز ت د س ك , but the former are to be pronounced with much more emphasis than the latter, with the entire mouth, by pushing the tip of the tongue strongly to the beginning of the palate, especially with the two letters ض and ط , and by broadening the lower part of the mouth towards the throat in pronouncing both the said emphatics and the remaining ones.[26]

Ewald criticized Aryda's grammar because of its dependence on the Arabic grammarians, but apparently, he himself did not understand very well how the 'emphatic' consonants had to be pronounced:

> Among the sibilants س is *lenis*, our common *s*, but ص is to be emitted stronger, with aspiration and emphasis, as when you pronounce German *ss*, *ß*.[27]

This is followed by a somewhat confusing explanation of the other 'emphatic' consonants. It appears that Ewald believes that *ḍ* has developed (*enata est*) from *ṣ*. He claims that it is like an ordinary *d*, but has preserved the aspiration and emphasis of *ṣ*; likewise, *ẓ* has developed from *ṭ* with a hissing sound mixed with the letter ط, so that the aspiration and the emphasis remain, the which pronunciation has come to be distinguished by a diacritic point.[28]

Apparently, he thought that the form of the Arabic characters still reflects the original pronunciation, although he acknowledges that in the contemporary language *ḍ* and *ẓ* are often realized identically.

We do not know why Aryda chose the term 'emphatic' to denote the *muṭbaqa* and *mufaḫḫama*. A connection with the Arabic terms is unlikely. The word *muṭbaq* does not have any connotation of intensity and refers to a purely articulatory notion, indicating the position of the tongue in pronouncing the 'emphatics'. The term

---

[25] *Cum dicto sono emphatico pronunciandae sunt tum literae* ق ظ ط ض ص *quae oppositae sunt lenibus* ك ز ت د س, *tum etiam literae* غ ع ر خ ح *quae quamvis lenes oppositas non habeant, numerantur tamen inter emphaticas, quales revera sunt* (*Institutiones* 3f.).

[26] *Literae emphaticae* ق ظ ط ض ص, *sunt eiusdem naturae, ac lenes* ك ز ت د س: *at illae multo maiori cum emphasi sunt pronunciandae, quam istae; pleno videlicet ore, mucronem linguae, in duabus praecipue literis* ض *et* ط, *initio palati fortiter sistendo; atque intimam oris partem, guttur versus, dilatando in pronunciatione tam dictarum, quam caeterarum emphaticarum* (*Institutiones* 9).

[27] *Inter sibilantes* س *est sonus lenis et nobis vulgaris;* ص *autem fortius cum spiritu et emphasi efferendum, quasi Germanorum* ss, ß *pronunciares* (*Grammatica* 31).

[28] *Sono sibilo literae* ط *admixto, ut spiritus eius et emphasis maneat, quae pronunciatio et ipsa paullatim puncto apposito distincta est* (*Grammatica* 31).

mufaḫḫam, which is used for the larger group of consonants pronounced with pharyngealization/velarization as secondary articulation, should probably be interpreted as 'made thick, fat, broad', rather than 'glorified, magnified'. Both connotations are present in the word,[29] but it was the former the Arabic grammarians must have had in mind when applied to pronunciation.

In the Orientalist dictionaries of the seventeenth through nineteenth centuries intensity and emphasis are not mentioned as equivalents for *faḫm*, with one exception. Golius translates *faḫḫama* with "he pronounced *a letter* thicker, with the entire mouth",[30] which is repeated *verbatim* by Freytag (*Lexicon* 464). For *muṭbaq* the only usage referred to by Golius (*Lexicon* col. 1441) is in connection with the pronunciation of the four consonants *ṣ*, *ḍ*, *ṭ*, *ẓ*. Kazimirski translates *faḫḫama* with "to pronounce a letter with emphasis and *so to speak*, to inflate the word *or* the letter in pronouncing it".[31] He is the only exception in using the word *emphase*, but he does not use 'emphatic consonant/letter'. As we have seen above, Aryda is the only one to use *literae emphaticae* as a technical term.

It is difficult to say who introduced the term. In the first edition of Silvestre de Sacy's *Grammaire arabe* (1810) the term *emphase* is applied to the pronunciation and is not a feature of the consonants in question. He does not quote Aryda and from his correspondence it appears that in 1812 he did not yet own a copy of the *Institutiones*.[32] By 1816, he must have obtained one because he quotes it in a review.[33] Then, in the second edition of the *Grammaire* (1831) he quotes Aryda once.[34] Aryda, on the other hand, does not quote Silvestre de Sacy's *Grammaire*, which had appeared three years earlier, although he must have known of it, if not personally, then through Jahn. Even if he borrowed the term 'emphasis' from Silvestre de Sacy, his use of 'emphatic' as a phonetic feature of the consonants in question (*emphaticae literae*) constituted an innovation.

Some additional observations may be made. In the first place, almost all authors know that in modern varieties of Arabic *ẓāʾ* and *ḍād* are usually realized identically, Bedouin dialects tending towards [ðˤ], urban dialects towards [dˤ].

---

[29] Ibn Manẓūr, *Lisān* XII, 449f., where *faḫm* is equated with *ḍaḫm* 'fat'.

[30] *Crassius, plenoque ore, extulit litteram* (*Lexicon* col. 1768).

[31] *Prononcer une lettre avec emphase et* pour ainsi dire *enfler le mot* ou *la lettre en les prononçant* (*Dictionnaire* II, 553).

[32] Letter from Silvestre de Sacy to Joseph von Hammer-Purgstall (1774–1856), dated February 3, 1816 (von Hammer-Purgstall, *Briefe* 1203–1205).

[33] Review of Oberleitner's *Fundamenta* in the *Journal des savans* (January 1824, p. 273), in which Silvestre de Sacy calls Aryda's *Institutiones* a book with many errors; twenty-two years earlier he had praised the meticulous care with which Aryda had contributed to Jahn's dictionary (*Magasin Encyclopédique ou Journal des Sciences* 4, 1802, 305–328, in particular 313).

[34] *Grammaire* I, 126 (on the quadriliteral roots).

In the second place, most grammar books seem to be aware of a correlation between the pronunciation of the 'emphatic' consonants and the following vowels, although Jahn (*Sprachlehre* 11) adds that this rule has so many exceptions that it can hardly be accepted as a rule. Some even go so far as to claim that emphatic and non-emphatic consonants sound alike, distinguished only by the adjacent vowels.

In the third place, many scholars, especially in Germany, tended to compare the Arabic sounds with those of Hebrew,[35] with which they were more familiar. In the case of ṣ, Ewald and others posited some sort of affricate realization on the basis of Hebrew *ṣade*.[36]

The authors' struggle to differentiate sounds that to them sounded identical is visible in their efforts to represent the Arabic characters with Latin letters to make things easier for the beginning student.[37] In the case of the four *muṭbaqa* consonants, various devices were proposed for this purpose (see Table 1), including the reduplication of the Latin letter, combinations of letters, superscript dot, and subscript dot.

---

[35] Early European Hebrew grammars did not use 'emphatic' in phonetics but reserved the term for forms with an emphasizing function (Nicolai, *Anmerkungen* 43, who distinguishes between *nicht-bedeutende Buchstaben* and *litterae emphaticae* or *intendentes*). In general Hebrew grammars seem to have taken for granted that some Hebrew consonants sounded identical, but Pierre Guarin (1678–1729) distinguishes between *ṭet* and *tav*: the former "is to be pronounced with a fuller mouth and thicker voice than the Latin *t*" (*ore pleniore ac voce crassiori proferendum est quam* t *Latinum*); *tav* on the other hand sounds more like the Latin *t* (*Grammatica* I, 6).

[36] This confusion is even clearer in Johann Friedrich Hirt's (1719–1783) remark (*Institutiones* 2f.) that ṣ is to be pronounced as *ts* with predominance of the *s*, and ḍ as *ts* with predominance of the *t*, which, to put it mildly, is not a very accurate description. Likewise, we find in Wasmuth's grammar (1654:2) about *ṣād*: ts *ita tamen ut* S *magis sonet quam* t, and about *ḍād*: *idem blaesè*. Ultimately, this goes back to Erpenius' description.

[37] For such efforts in the sixteenth century see Jones (2020:191, 195). Michaelis (*Grammatik* 32–41) devotes an entire paragraph to this topic, *Wie man die arabischen Buchstaben* in nominibus propriis *im Deutschen oder Lateinischen auszudrücken hat*, about the need to transcribe geographical names in Arabic sources.

	ص	ض	ط	ظ
Pedro de Alcalá (1505)	*ç*	*d*	*t*	*d*
Postel (1538)	*tz*	*thd*	*t*	*tdh*
Christmann (1582)	*tz*	*tzh*	*tt*	*tth*
Raimondi (1592) (Jones 2020:253)	*s*	*dh*	*t*	*thd*
Erpenius (1613)	*Tsad*	*Dshad*	*Ta*	*Dsha*
Martellotto (1620)	*Sad*	*Dzhad*	*Ta*	*Thda*
Scialach (1622)	*Sad* *s*	*Tdhad* *dzh*	*Tta* *tt*	*Tzdha* *tdh*
Metoscita (1624)	*Ssad*	*Dhad*	*Tta*	*Dha*
Dominicus Germanus (1639)	*Sszhad*	*Dzhad*	*Tthe*	*Ttzhe*
Philippus Guadagnolus (1642)	*Ssad*	*Dsad*	*Tda*	*Tdha*
Ab Aquila (1650)	*ss*	*dh*	*tt*	*dth*
Valle Flemmarum (1687)	*ss*	*dzh*	*tt*	*dth*
Lakemacher (1718)	*Zad*	*Dad*	*Ta*	*Dsa*
Assemani (1732)	*Ssad*	*Dsad*	*Tta*	*Tdha*
Hirt (1770)	*z* or *ts*	*z* or *ts*	*t*	*d*
Baptista (1774)	*ss*	*d*	*t*	*dz*
Cañes (1775)	*ss*	*dd*	*tt*	*tz*
Richardson (1776)	*ss*	*dh* or *dd* *dz* or *ds*	*tt* or *t* with aspiration	*dh* or *dd* *dz* or *ds* perhaps *dth*
Michaelis (1781[2])	*Sad* *ts*	*Dad*	*Ta* *t*	*Da*
Sousa (1795)	*Sád* *sç*	*Dád* *dh*	*Táh* *t*	*Záh* *z*
Jahn (1796)	*Zad* *z* or *ss*	*Dhad* *dh* or *z*	*Ta* *t*	*Da* *d* or *zz* or *z*
Dombay (1800)	*essād* *s durum*	*eddād* *d durum*	*ettā* *tt*	*ettā* *d durum*
Silvestre de Sacy (1810)	*s*	*d* or *dh*	*t* or *th*	*d* or *dh*
Aryda (1813)	*ṡ*	*ḋ*	*ṫ*	*ż*
Caspari (1848)	*ṣ*	*ḍ*	*ṭ*	*ẓ*

Table 1: Transcription of emphatic consonants by European Orientalists

Aryda was the only grammarian to give a more or less accurate description of the phonetic nature of the 'emphatic' consonants. From the conversations in Arabic with him that Jahn reproduces in his chrestomathy we learn that he regarded the Arabic language as the richest and most beautiful language in the world. He insists that the differences between *fuṣḥā* and *ʿāmmiyya* are small and cannot be compared with those between Latin and Italian, but he has a keen eye for these differences, freely using Syrian dialect forms like imperfects with *b-* or deictics *hal-* and *hēk*.[38]

After Aryda's introduction of *literae emphaticae* as a technical term, his students were probably responsible for its reception in traditional Arabic grammars.[39] Thus, for instance, Carl Brockelmann (*Vergleichende Grammatik* I, 43) uses *emphatisch* as a standard equivalent for "with stronger tension in the articulatory organs" (*mit stärkerer Anspannung der artikulierenden Teile*). Through the translation of Carl-Paul Caspari's *Grammatica arabica* (1848), it was introduced by William Wright (1830–1869) into English grammars of Arabic (Larcher 2014), together with its nowadays customary transcription with subscript dot.

REFERENCES

A. Primary sources

Ab Aquila, *Institutiones* = Antonius Ab Aquila (17th century), *Arabicae linguae novae, et methodicae institutiones*. Rome: Typis Sac. Cong. de Prop. Fide, 1650.

Adelung, *Mithridates* = Johann Christoph Adelung (1732–1806), *Mithridates oder allgemeine Sprachenkunde mit dem Vater Unser als Sprachprobe in bey nahe fünfhundert Sprachen und Mundarten*. 5 vols. Berlin: Vosische Buchhandlung, 1806–1817. (Repr. Hildesheim & New York: G. Olms, 1970.)

Alcalá, *Arte* = Pedro de Alcalá (15th century), *Arte para ligeramente saber la lengua araviga*. Salamanca: Juan Varela, 1505.

Aryda, *Institutiones* = Antonius Aryda [Anṭūn ʿArīḍa al-Ṭarābulusī al-Mārūnī] (1736–1820), *Institutiones grammaticae arabicae*. Vienna: J.B. Zweck, 1813.

[Assemani], *Rudimenta* = [Giuseppe Simonio Assemani (1687–1768)], *Rudimenta linguae arabicae*. Rome: Typis Sacrae Congregationis de Propaganda Fide, 1732.

---

[38] Aryda contradicts Carsten Niebuhr's (1733–1815) observations about the difference between Classical Arabic and the modern colloquial language (*Beschreibung* xv-xvi). Adelung (*Mithridates* I, 391) criticizes Aryda's view; he claims that confusing *die neuere Schrift- und Umgangssprache* with the *Volkssprachen* led to his mistaken belief in the lack of change in the language.

[39] Ernst Friedrich Rosenmüller (*Institutiones* 16f.) uses the term in a passage copied from Aryda, without acknowledgment; he does cite his grammar elsewhere, so he must have been familiar with it. The same applies to the *Fundamenta* (1822) by Andreas Oberleitner, Aryda's successor at the University of Vienna after his retirement in 1816.

Baptista, *Instituições* = António Baptista (1737–1813), *Instituições da língua arábiga*. Lisbon: Regia Oficina Typographica, 1774.

Berggren, *Reisen* = Jakob Berggren (1790–1868), *Reisen in Europa und im Morgenlande*, II. German transl. Franz Heinrich Ungewitter. Leipzig & Darmstadt: Leske, 1828.

Brockelmann, *Vergleichende Grammatik* = Carl Brockelmann (1868-1956), *Grundriss der vergleichenden Grammatik der semitischen Sprachen*. I. *Laut- und Formenlehre*. Berlin: Reuther & Reichard, 1908.

Cañes, *Gramatica* = Francisco Cañes (1730–1795), *Gramatica arabigo-española, vulgar, y literal con un diccionario arabigo-español*. Madrid: Don Antonio Perez de Soto, 1775.

Caspari, *Grammatica* = Carl-Paul Caspari (1840–1892), *Grammatica arabica in usum scholarum academicarum*. Leipzig: C.L. Fritzsch, 1848.

Christmann, *Alphabetum* = Jakob Christmann (1554–1613), *Alphabetum arabicum cum Isagoge scribendi legendique arabicè*. Neustadt: Matthias Harnisch, 1582.

Dombay, *Grammatica* = Franciscus de Dombay (1758–1810), *Grammatica linguae Mauro-Arabicae juxta vernaculi idiomatis usum, accessit vocabularium Latino-Arabicum*. Vienna: Apud Camesina, 1800.

Erpenius, *Grammatica* = Thomas Erpenius (1584–1624), *Grammatica arabica*. Leiden: In officina Raphelengiana, 1613.

Ewald, *Grammatica* = Georg Heinrich August Ewald (1803–1875), *Grammatica critica linguae arabicae cum brevi metrorum doctrina*. 2 vols. Leipzig: Hahn, 1831, 1833.

Freytag, *Lexicon* = Georg Wilhelm Freytag (1788–1861), *Lexicon arabico-latinum ex opere suo maiore in usum tironum excerptum*. Halle: C.A. Schwetschke, 1837.

Germanus, *Fabrica* = Dominicus Germanus de Silesia (1588–1670), *Fabrica linguae arabicae cum interpretatione Latina & Italica, accomodata ad usum linguae vulgaris, & scripturalis*. Rome: Typis Sac. Congreg. de Prop. Fide, 1639.

Golius, *Lexicon* = Jacobus Golius (1596–1667), *Lexicon arabico-latinum*. Leiden: Elsevier, 1653.

___, *Tyrocinium* = Jacobus Golius, *Arabicae linguae tyrocinium, id est Thomae Erpenii Grammatica arabica*. Leiden: Joannes Maire, 1656.

González, *Gramática* = Bernardino González (1665–1735), *Gramática arábica*. Ed. in facsimile by Ramón Lourido Díaz. 2 vols. Madrid: Real Academia de la Historia, 2005 [ca. 1710].

Guadagnolus, *Institutiones* = Philippus Guadagnolus (1596–1656), *Breves arabicae linguae institutiones*. Rome: Ex Typographia Sac. Congregationis de Propaganda Fide, 1642.

Guarin, *Grammatica* = Pierre Guarin (1678–1729), *Grammatica hebraica et chaldaica*. Paris: Jacob Collombat, 1724.

Hammer-Purgstall, *Briefe* = Joseph von Hammer-Purgstall (1774–1856), *Erinnerungen und Briefe: Briefe von 1790 bis Ende 1819*, ed. by Walter Höflechner and Alexandra Wagner. 3 vols. Graz: Universität Graz.

Hirt, *Institutiones* = Johann Friedrich Hirt (1719–1783), *Institutiones arabicae linguae adiecta est chrestomathia arabica*. Jena: Apud viduam Croeckerianam, 1770.

Ibn Manẓūr, *Lisān* = Abū l-Faḍl Muḥammad ibn Mukarram Ibn Manẓūr (1232–1311), *Lisān al-ʿarab*. 20 vols. Cairo: Dār al-Maʿārif, n.d.

Jahn, *Sprachlehre* = Johann Jahn (1750–1816), *Arabische Sprachlehre etwas vollständiger ausgearbeitet.* Vienna: Christian Friedrich Wappler, 1796.

Kazimirski, *Dictionnaire* = Albert de Biberstein Kazimirski (1808–1887), *Dictionnaire arabe-français contenant toutes les racines de la langue arabe, leurs dérivés, tant dans l'idiome vulgaire que l'idiome littéral*. 2 vols. Paris: Maisonneuve, 1860. (Repr., Beirut: Dar Albouraq, 2004.)

Lakemacher, *Elementa* = Johann Gottfried Lakemacher (1695–1736), *Elementa linguae arabicae*. Helmstadt: Hermannus Danielus Hammius, 1718.

Lumsden, *Grammar* = Matthew Lumsden (1777–1835), *A grammar of the Arabic language according to the principles taught and maintained in the schools of Arabia*. 2 vols. Calcutta: The Honorable Company's Press, 1813.

Martellotto, *Institutiones* = Francisco Martellotto (d. 1618), *Institutiones linguae arabicae*. Rome: Stephanus Paulinus, 1620.

Metoscita, *Institutiones* = Petrus Metoscita (1569–1625), *Institutiones linguae arabicae*. Rome: Stephanus Paulinus, 1624.

Michaelis, *Grammatik* = Johann David Michaelis (1717–1791), *Arabische Grammatik, nebst einer Arabischen Chrestomathie*. 2nd ed. Göttingen: Victorin Bossiegel, 1781.

Münter, *Briefe* = Friedrich [Frederik] Münter (1761–1830), *Aus dem Briefwechsel Friedrich Münters: Europäische Beziehungen eines dänischen Gelehrten, 1780–1830*. II. *L-Z*, ed. by Øjvind Andreasen. Copenhagen: P. Haase & Leipzig: O. Harrassowitz, 1944.

Nicolai, *Anmerkungen* = Gottlob Samuel Nicolai (1725–1765), *Anmerkungen und Zusätze zur Erklärung und Beweis aller Regeln der hebräischen Grammatik des sel. Herrn Danz*. Berlin: Christoph Gottlieb Nicolai, 1751.

Niebuhr, *Beschreibung* = Carsten Niebuhr (1733–1815), *Beschreibung von Arabien aus eigenen Beobachtungen und im Lande selbst gesammleten* [sic] *Nachrichten*. Copenhagen: Nicolaus Möller, 1772.

Oberleitner, *Fundamenta* = Andreas Oberleitner (1789–1832), *Fundamenta linguae arabicae.* Vienna: Anton Schmid, 1822.

Postel, *Grammatica* = Guillaume Postel (1510–1581), *Grammatica arabica*. Paris: Pierre Gromors, [1538].

Richardson, *Grammar* = John Richardson (1740/41–1795), *A grammar of the Arabick language in which the rules are illustrated by authorities from the best*

writers. London: William Richardson, 1776. (2nd ed., London: Lackington, Allen and Company, 1811.)

Rosenmüller, *Institutiones* = Ernst Friedrich Carl Rosenmüller (1768–1835), *Institutiones ad fundamenta linguae arabicae*. Leipzig: Io. Ambros. Barth, 1818.

Savary, *Grammaire* = Claude-Étienne Savary (1750–1788), *Grammaire de la langue arabe vulgaire et littérale*. Ed. by Louis-Mathieu Langlès. Paris: Imprimerie impériale, 1813 [1784].

Scialach, *Instructio* = Victorius Scialach (d. 1635), *Introductio ad grammaticam arabicam*. Rome: Stephanus Paulinus, 1622.

Silvestre de Sacy, *Grammaire* = Antoine Isaac Silvestre de Sacy (1758–1838), *Grammaire arabe à l'usage des élèves de l'école spéciale des langues orientales vivantes*. Paris: Imprimerie impériale, 1810. (2nd ed., Paris: Imprimerie royale, 1831.)

Sousa, *Compendio* = João de Sousa (1734?–1812), *Compendio da grammatica arabiga*. Lisbon: Offic. da Acad. Real das Scienc., 1795.

Valle Flemmarum, *Flores* = Agapitus à Valle Flemmarum (1653–1687), *Flores grammaticales arabici idiomatis*. Padua: Typographia Seminarii, 1687.

Wasmuth, *Grammatica* = Matthias Wasmuth (1625–1688), *Grammatica arabica*. Amsterdam: Joannes Jansonius, 1654.

B. Secondary sources

Al-Nassir, A.A. [ʿAbd al-Munʿim ʿAbd al-Amīr al-Nāṣir]. 1993. *Sibawayh the phonologist: A critical study of the phonetic and phonological theory of Sibawayh as presented in his treatise* Al-Kitab. London and New York: Kegan Paul International.

Bakalla, Muhammad Hasan. 2007. "'Iṭbāq". In: *Encyclopedia of Arabic language and linguistics*, ed. by Mushira Eid a.o., IV, 459–461. Leiden: E.J. Brill.

___. 2009. "*Tafxīm*". In: *Encyclopedia of Arabic Language and Linguistics*, ed. by Mushira Eid et al.., IV, 421–424. Leiden: E.J. Brill.

Bellem, Alex. 2007. *Towards a comparative typology of emphatics: Across Semitic and into Arabic dialect phonology*. Ph.D. diss., University of London.

Callataÿ, Godefroid de. 2012. « Apprendre l'arabe en autodidacte est possible: Nicolaus Clenardus l'a fait au 16ème siècle et il nous explique comment ». *Acta Orientalia Belgica* 25.9–30.

Colombo, Emanuele. 2019. "Jesuits and Islam in Early Modern Europe". In: *The Oxford handbook of the Jesuits*, ed. by Ines G. Županov, 349-378. Oxford: Oxford University Press.

Edzard, Lutz. 2013. "Emphatic consonants". In: *Encyclopedia of Hebrew language and linguistics*, ed by Geoffrey Khan a.o., I, 819–820. Leiden: E.J. Brill.

Girard, Aurélien. 2010. « Des manuels de langue entre mission et érudition orientaliste au XVIIème siècle: Les grammaires de l'arabe des *caracciolini* ». In:

L'Ordine dei Chierici Regolari Minori (Caracciolini): Religione e cultura in età posttridentina, ed. by Irene Fosi and Giovanni Pizzorusso, 279–295. Casoria: Loffredo.

_____. 2017. "Teaching and learning Arabic in Early Modern Rome: Shaping a missionary language". In: *The teaching and learning of Arabic in Early Modern Europe*, ed. by Jan Loop, Alastair Hamilton, and Charles Burnett, 189–212. Leiden: E.J. Brill.

Gouttenoire, Marie-Andrée. 1997. « L'insurrection d'Alep de 1819 vue par le comte Wenceslas Rzewuski ». *Bulletin d'Etudes Orientales* 49.129–176.

Hamilton, Alastair. 2006. "Arabic studies in Europe". In: *Encyclopedia of Arabic language and linguistics*, ed. by Mushira Eid a.o., I, 166–172. Leiden: E.J. Brill.

Jakobson, Roman. 1957. "*Mufaxxama*: The 'emphatic' phonemes". In: *Studies presented to Joshua Whatmough*, ed. by Ernst Pulgram, 105–115. The Hague: Mouton.

Jeremiás, Éva M. 2012, 2013. "Matthew Lumsden's *Persian Grammar* (Calcutta, 1810), I, II". *Iran: Journal of the British Institute of Persian Studies* 50:1.129–140; 51:1.197–206.

Jones, Robert. 2020. *Learning Arabic in Renaissance Europe (1505–1624).* Leiden: E.J. Brill.

Killean, Carolyn G. 1984. "The development of Western grammars of Arabic". *Journal of Near Eastern Studies* 43.223–230.

Kratschkowski, Ignati Julianowitsch [Ignatij Julianovič Kračkovskij]. 1957. *Die russische Arabistik: Umrisse einer Entwicklung*. German transl. by Otto Mehlitz. Leipzig: VEB Otto Harrassowitz.

Ladefoged, Peter and Ian Maddieson. 1996. *The sounds of the world's languages*. Oxford: Blackwell.

Larcher, Pierre. 2014. « L'étrange destin d'un livre: La soi-disant *Grammaire arabe* de William Wright (1830–1889) ». *Historiographia Linguistica* 41.109–126.

Lipiński, Edward. 1997. *Semitic languages: Outline of a comparative grammar*. Leuven: Peeters.

Mackerle, Adam. 2012. "Johann Jahn, katolický biblista a orientalista doby osvícenství". *Studia theologica* 14:2.29–55.

Martínez de Castilla Muñoz, Nuria. 2017. "The teaching and learning of Arabic in Salamanca in the Early Modern period". In: *The teaching and learning of Arabic in Early Modern Europe*. ed. by Jan Loop, Alastair Hamilton, and Charles Burnett, 163–188. Leiden: E.J. Brill.

Mills, Simon. 2017. "Learning Arabic in the overseas factories: The case of the English". In: *The teaching and learning of Arabic in Early Modern Europe*, ed. by Jan Loop, Alastair Hamilton, and Charles Burnett, 272–293. Leiden: E.J. Brill.

Moscoso García, Francisco. 2017. "El siglo XVIII español y el estudio del árabe: El árabe dialectal en la *Gramatica* del Padre Cañes". *Revista de Estudios Medievales Mediterráneos* 22.165–186.

Roman, André. 2005. « Grammaire générale et grammaires arabes en France ». *Arabica* 52.315–347.

Serikoff, Nikolaj. 2009. "Thinking in a different language: The Orientalist Senkovskii and 'Orientalism'". *Acta Orientalia Vilnensia* 10:1.111–124.

Zwartjes, Otto. 2007. "Inflection and government in Arabic according to Spanish missionary grammarians from Damascus (XVIIIth century): Grammars at the crossroads of two systems?". In: *Approaches to Arabic linguistics presented to Kees Versteegh on the occasion of his sixtieth birthday*, ed. by Everhard Ditters and Harald Motzki, 209–244. Leiden: E.J. Brill.

___. 2011. *Portuguese missionary grammars in Asia, Africa and Brazil, 1550–1800*. Amsterdam and Philadelphia: J. Benjamins.

___. 2014. "More on 'Arabic linguistic terminology in Pedro de Alcalá'". *Historiographia Linguistica* 41.247–297.

___, & Manfred Woidich. 2012. "Damascus Arabic according to the *Compendio* of Lucas Caballero (1709)". *Middle Arabic and Mixed Arabic: Diachrony and synchrony*, ed. by Arie Schippers and Liesbeth Zack, 295–333. Leiden: E.J. Brill.