

THE CASE FOR PROTO-SEMITIC AND PROTO-ARABIC CASE: A REPLY TO JONATHAN OWENS

AHMAD AL-JALLAD MARIJN VAN PUTTEN¹

Leiden University

Abstract: In several works (1998a;b, 2006/9, 2015), Professor J. Owens has developed a revisionist history of the Arabic system of nominal case inflection. Rather than reconstructing the case system of Classical Arabic, cognate with Akkadian and Ugaritic, for Proto-Arabic, he proposed several scenarios in favor of a caseless variety of Proto-Semitic from which the modern Arabic dialects descend. This article engages with the Owens' methodology, data, and claims in a defense of the traditional reconstruction – Proto-Arabic had a nominal case system similar to Classical Arabic that was lost in the modern dialects. We reconstruct a historical scenario to explain the eventual breakdown and disappearance of case in modern Arabic.

Keywords: *Proto-Semitic case, Proto-Arabic case, case inflection*

1. Background

In 1998a;b and again in 2006/9, Professor J. Owens challenged the accepted reconstruction of the Proto-Semitic nominal case system and its survival into Classical Arabic (Huehnergard 2006; 2008). Instead, he argued that case was an innovation in one Proto-Semitic dialect group, which gave rise to the Semitic languages bearing case (including Classical Arabic), while the other Semitic languages descend from the more archaic Proto-Semitic dialect grouping lacking this feature (including the modern dialects of Arabic) (as represented in Figure 3.1 in Owens 2006/9: 115). His argument is based on a few points: the first is that the modern Arabic dialects do not have a system of nominal case inflection, and caseless varieties of Arabic existed as early as the 8th century CE; the descriptions of case by the Arab grammarians suggest that there was some free variation in the assignment of case; and case is not readily reconstructible for Proto-Semitic.

Owens' reconstruction has not gained a wide following among Semiticists or most Arabists. In an article published in 2015, Owens renewed his position that case cannot be

¹ Disclaimer: The authors wish to state explicitly that the contemporary dialects of Arabic must play an essential role in the reconstruction of Arabic's linguistic past. We do not believe that the spoken dialects are corrupted forms of Classical Arabic or collectively descend from Classical Arabic, a literary variety. Our understanding of the developmental trajectories of the myriad of Arabic varieties, ancient and modern, from Proto-Arabic is an on-going process and this paper hopes to contribute to that effort.

so easily reconstructed for Proto-Semitic. He further argues that the accepted reconstruction is the result of dogmatism on the part of Semiticists, who impose the Classical Arabic/Akkadian system on all the other languages, and that his arguments have been ignored or misrepresented (as exemplified by his criticism of Hasselbach, p.162²). We hope that by engaging with this argument in a detailed and empirical manner, rather than ignoring it, we can close the case on the matter, and return our focus to sharpening our reconstruction of Proto-Semitic nominal morphology. We begin with explaining how the reconstruction of nominal case inflection for Proto-Semitic is not controversial and the identification of case endings in many of the extinct daughter languages is not the result of dogmatism on the part of the entire community of linguists/philologists working on other Semitic languages. In the second section, we focus on parts of the case system that are often excluded or ignored, such as the masculine sound plurals, the duals, and diptotes, and why commonalities here rule out a polygenetic origin of case inflection in Semitic. We conclude by asserting that the absence of case inflection in the modern Semitic languages is not a counter-argument for its existence in Proto-Semitic, and that there is in fact no controversy with the current reconstruction of case for Proto-Semitic and Proto-Arabic.

Before addressing the individual points in Owens' papers, we will try to illustrate what he is contesting: Akkadian (Old Babylonian), Classical Arabic, and Ugaritic attest a nominal case system that looks as follows:

Classical Arabic

	Singular	Five- Nouns singular	Singular Diptote ³	Dual	Masculine Plural	Feminine Plural
Nominative	<i>u(n)</i> ⁴	<i>ū</i>	<i>u</i>	<i>ā(ni)</i>	<i>ū(na)</i>	<i>ātū(n)</i>
Genitive	<i>i(n)</i>	<i>ī</i>	<i>a</i>	<i>ay(ni)</i>	<i>ī(na)</i>	<i>āti(n)</i>
Accusative	<i>a(n)</i>	<i>ā</i>	<i>a</i>	<i>ay(ni)</i>	<i>ī(na)</i>	<i>āti(n)</i>

² Owens (2015: 162) claims that Hasselbach (2013: 69) misrepresents his view that Proto-Semitic had no case, but according to his diagram (fig. 3.1 in Owens 2006/9) it is clear that he implies that the caseless form of Proto-Semitic is older and gave rise to case forms. So perhaps it would have been more accurate to state that early Proto-Semitic had no case while late Proto-Semitic did? Nevertheless, Hasselbach's statement is not factually incorrect, strictly speaking, but possibly not as nuanced as could have been.

³ Diptote is a kind of second declension of certain nouns, usually those belonging to the elative noun pattern, proper nouns, and a few other categories.

⁴ The parentheses include part of the declension ending that does not mark case but rather 'state', that is, whether the noun governs another noun or pronoun. When the noun governs a genitive noun (genitive constructions) or takes a possessive clitic pronoun, these final nasals and vowels disappear.

Ugaritic

	Singular	Five-Nouns singular	Singular Diptote	Dual	Masculine Plural	Feminine Plural
Nominative	<i>u</i>	<i>ū</i>	<i>u</i>	<i>ā(ma)</i>	<i>ū(ma)</i>	<i>ātu</i>
Genitive	<i>i</i>	<i>ī</i>	<i>a</i>	<i>ay(ma)</i>	<i>ī(ma)</i>	<i>āti</i>
Accusative	<i>a</i>	<i>ā</i>	<i>a</i>	<i>ay(ma)</i>	<i>ī(ma)</i>	<i>āti</i>

Akkadian

	Singular	Five-Nouns singular	Singular Diptote	Dual	Masculine Plural	Feminine Plural
Nominative	<i>u(m)</i>	<i>ū</i>	<i>u</i>	<i>ā(n)</i>	<i>ū</i>	<i>ātu(m)</i>
Genitive	<i>i(m)</i>	<i>ī</i>	<i>i</i>	<i>ī(n)</i>	<i>ī</i>	<i>āti(m)</i>
Accusative	<i>a(m)</i>	<i>ā</i>	<i>a</i>	<i>ī(n)</i>	<i>ī</i>	<i>āti(m)</i>

Each of these languages is attested in a different branch of Semitic and, most importantly, the same system is attested in both primary branches of the Semitic language family – East and West. This fact has led scholars to reconstruct the following case system for Proto-Semitic:

Proto-Semitic

	Singular	Five-Nouns singular	Singular Diptote	Dual	Masculine Plural	Feminine Plural
Nominative	<i>u(m)</i>	<i>ū</i>	<i>u</i>	<i>ā(na)</i>	<i>ū(na)</i>	<i>ātu(m)</i>
Genitive	<i>i(m)</i>	<i>ī</i>	<i>a</i>	<i>ay(na)</i>	<i>ī(na)</i>	<i>āti(m)</i>
Accusative	<i>a(m)</i>	<i>ā</i>	<i>a</i>	<i>ay(na)</i>	<i>ī(na)</i>	<i>āti(m)</i>

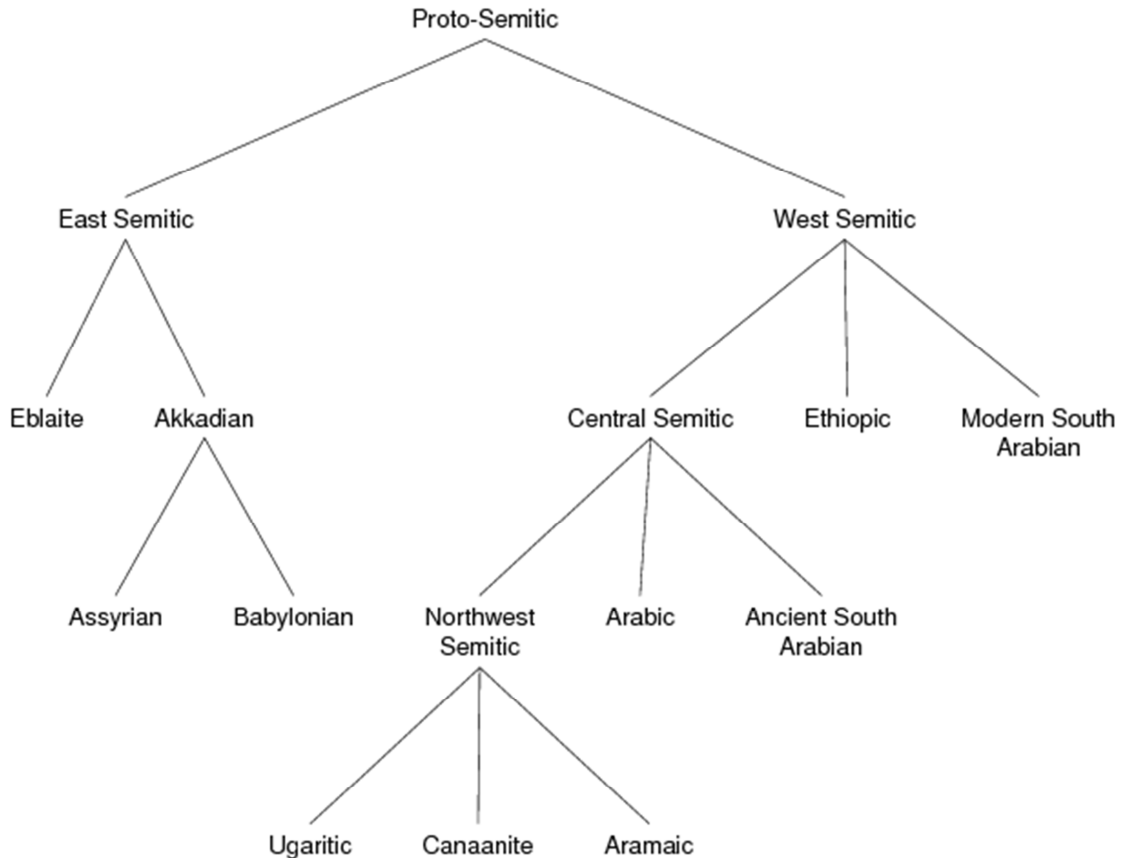
A final and very important point made by E. Cohen in the session of this paper on Academia.edu goes as follows:

Not only form-related peculiarities are attested across the Semitic languages, but yet another thing, just as important—the functions this case system exhibits: a three-case system may work in different ways (compare, for instance, Modern Greek). Yet there are things in the Semitic languages which are unique to the group and are the result of shared retention. For instance:

1. The idea that a verb complement is in the accusative, no matter which verb type is involved. *ḥabar kāna* is basically an accusative complement. The same phenomenon is found in Akkadian, and perhaps elsewhere, whereas non-verbal clauses behave in a totally different way (the predicates are marked as nominative).
2. The genitive case is not only adnominal as is usually the case elsewhere but rather follows construct state, or entities marked as heads (prepositions, adjectives, adverbs, etc.). It is never a verbal complement.

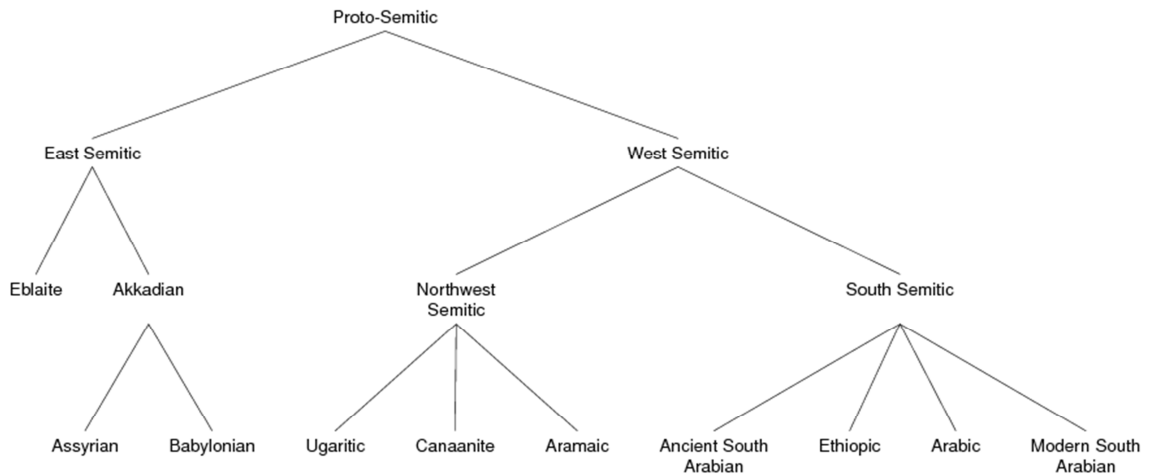
These idiosyncratic functional and formal peculiarities shared by the Semitic languages tell only one story: they are original, from day [one] of Proto-Semitic, and when they are absent, as in the Arabic dialects, it is simply because they were lost.

If we consider the classification of the Semitic languages, we find that these cognate case systems are attested across the family:



According to established historical linguistic methodology, the presence of a nearly identical case system in Ugaritic and Arabic indicates that it was an inheritance from their closest common ancestor, Proto-Central Semitic. In turn, the presence of this system the other main branch of Semitic, East Semitic, indicates that case was an inheritance from their closest common ancestor of all three, Proto-Semitic. Even if we adopt an alternative classification of

Semitic that invokes the existence of a ‘South Semitic’ branch, we come up with the same results:



According to this model, the presence of a nearly identical case system in South Semitic (Arabic) and Northwest Semitic (Ugaritic) indicates that it is an inheritance from their common ancestor, Proto-West Semitic. Again, the presence of the same system in East Semitic indicates that this system was inherited from Proto-Semitic.

Owens challenges this fairly straight-forward reconstruction based on two observations: (1) all of the modern Semitic languages, including modern Arabic, lack a nominal case system that is cognate with the ancient one and (2) many of the ancient languages exhibit a reduced case system or lack case altogether. Rather than trying to explain the absence of the case system in these varieties through normal processes of language change, he argues that case was actually an innovation and he reconstructs a caseless proto-Semitic. In other places (2006/9), Owens argues that Proto-Semitic had two dialects, one with the case system described above and one without, but maintaining that the one without is older. He then argues that the Semitic languages lacking case did not lose the system but rather descend from the variety without case while those with case system descend from the Proto-Semitic system with case.

Both of Owens' views fail to explain several important issues. The first, with a single, caseless Proto-Semitic, does not explain how the precise case system emerged independently in members of both East and West Semitic. The chances of the same case system, with its idiosyncrasies in both form and function, emerging three independent times is infinitesimally lower than the original case system being lost multiple times in different branches of the language family, something which has many cross-linguistic parallels. The second view requires a major reshuffling of the Semitic family tree, placing all the caseless languages together against those with case. Owens never justifies this reclassification with other linguistic features. In fact, all of the other linguistic isoglosses support a basic East - West split. This issue of classification will be taken up in more detail below. Finally, he never accounts for why it is more economic to post two proto-

languages distinguished by the feature of case rather than just one and explaining its loss in the daughter languages.

Given these deficiencies, we think it is clear that the scholarly consensus on the matter of the antiquity of both the Arabic and Semitic case system holds. In the remaining pages of this paper, we will examine Owens' individual arguments and treatment of the Semitic data to establish clearly that all the evidence points towards a Proto-Semitic case system that was lost over time in the various branches of Semitic, including modern Arabic.

2. Is case largely illusory in other Semitic languages?

2.1 Languages without case examined

Owens begins his papers on this subject with calling into question the interpretation of case in the Semitic languages that do not preserve the full Proto-Semitic system. In his latests article (2015), he begins with a list of the Semitic languages that have case, those with no case, and those that have case and caseless varieties. The languages he gives without morphological case are the following.⁵

Geez
Aramaic
Amoritic
Hebrew

It is simply incorrect to consider Geez a caseless Semitic language. It marks the direct object of transitive verbs, adverbs, and other syntactic functions with a final /a/, which is cognate with the accusative in other Semitic languages (Weninger 2011). Moreover, when the writing conventions of Geez were fixed, the nominative and genitive were still expressed by a word-final /ə/, the normal outcome of *u and *i. At a later point, /ə/ was lost in word-final position (Voigt 1983; Correll 1984; Diem 1988; Al-Jallad 2014). The sound plurals *ūna/īna* have been lost, replaced by a single termination, *ān*, and the dual, which also exhibits case, is lost, which happened eventually in most Semitic languages.

Finally, Geez still retains case in the construct forms of three of the so-called “five nouns”, with nom./gen. *-ū*, and acc. *-ā* before pronominal suffixes (Tropper 2002: 78). The only thing one needs to account for is the apparent merger of the nominative and the genitive. While this cannot be achieved through regular sound law, it is trivially easy to understand the breakdown of the distinction. In all other positions where case is expressed, the nominative and genitive merge (through the regular sound law *i, *u > ə). That this distinction would be lost in the Five Nouns, as the distinction no longer existed anywhere else, is unsurprising.

⁵ Missing from this list are the Modern South Arabian languages. The modern Ethio-Semitic languages are also missing, but some of these, like Amharic, do express case (an accusative). These markers, however, are clearly innovations and not cognate with the ancient Semitic case system.

	Geez		Classical Arabic	
	Free	Pre-pronominal	Free	Construct
nom.	<i>ʔab(ə)</i>	<i>ʔabū-ka</i>	<i>ʔabun</i>	<i>ʔabū-ka</i> ‘father’
gen.	<i>ʔab(ə)</i>	<i>ʔabū-ka</i>	<i>ʔabin</i>	<i>ʔabī-ka</i>
acc.	<i>ʔaba</i>	<i>ʔabā-ka</i>	<i>ʔaban</i>	<i>ʔabā-ka</i>

The exact same paradigm is also found for *ʔəḥw* ‘brother’ (N/G *ʔəḥū-*; A *ʔəḥwā-*) cf. CAr. *ʔaḥ-* and *ʔaf* ‘mouth’ (N/G *ʔafū-*; A *ʔafā-*), cf. CAr. *fum-*.⁶ This morphological idiosyncrasy which is completely isolated in Geez and Classical Arabic cannot be explained in any other way but shared inheritance.

Thus, not only does Geez have a functioning case system, but it is the expected reflex of the reconstructed Proto-Semitic case system based on the sound changes and morphological processes that operated in the language. To be clear we are not claiming that Geez preserves a case system identical to Arabic or Akkadian, we are stating that the sound changes and other processes of morphological loss that operated in Geez would produce its case system from a starting point similar to Arabic or Akkadian. Therefore, the Geez system does not contradict the reconstruction of the Proto-Semitic case system based on Classical Arabic, Akkadian, and Ugaritic, languages that did not experience wholesale or partial final-vowel loss.

While Official Aramaic and later varieties lack case, its status in the earliest varieties depends on the classification of the Northwest Semitic language attested at Zincirli, termed Sam’alian by modern scholars. This language attests a systematic distinction between masculine nominative plural *w* /ū/ and oblique *y* /ī/, the exact distribution we find in Akkadian and Arabic.⁷ The ability to detect case in other situations is limited by the orthography, and cannot be considered an indicator that it had disappeared completely or that it was present.

The most important one of these assertions to treat is Amoritic, what is usually called Amorite in the literature, as this “language” seems to function for Owens as a model of the caseless, but final-vowel-having, Proto-Semitic. First, while the term ‘Amorite’ refers to an ancient Northwest Semitic language, or perhaps dialect continuum, no attestations of this language survive. What we do have is a corpus of personal names borne by people who were ethnically and presumably linguistically distinct from the East-Semitic speaking population of Mesopotamia.⁸ The corpus stretches from the mid-third millennium BCE to 1200 BCE, and so naturally it exhibits considerable variation. A corpus of personal names cannot be treated as a reflection of the synchronic grammar of the language of their bearers – this much is common sense. Names are traditional, are often coined in different periods of a language’s history, and rarely have a single

⁶ Only *ḥam* ‘brother-in-law’ seems to have lost the case inflection and has N/G/A *ḥamū-*, cf. CAr. *ḥam*.

⁷ See Noorlander (2012: 223-224) for a discussion on the background of this feature, and on the classification of Sam’alian. In the case of the /y/ ending an apparent subject in H 13 (Tropper 1993: 74), it is possible, following Tropper, that the word *ʔlhy* is to be interpreted as ‘my gods’, with a first person suffix. It is therefore not a solid argument for some kind of free variation in the masculine plural.

⁸ Streck (2011: 453) gives the possibility that Amorite could reflect different Northwest Semitic languages, but states that the pursuit for linguistic boundaries is irrelevant because of the nature of the data.

etymological source. As a thought experiment, consider writing a synchronic grammar of any spoken dialect of Arabic based on the names of its bearers. One would find examples of *h*-causatives, such as *Muḥaymin*, a productive C-stem (IV form), *ʿinʿām*, and the preservation the *t* ending in pause, *Ḥikmat*. Great variation in the vowels of compound names in modern Arabic could also suggest a situation where final vowels seem to be used randomly without any specific function: *ʿabdillā*, *ʿabdallā*, *ʿabdullā* and *ʿabidallā* can all be heard synchronically, and a quick google search will produced many examples of each. When the “Amorite” methodology is applied to modern Arabic, we can clearly see how it would form an unreliable synchronic description of the language. With this in mind, the seemingly random distribution of final vowels in Amorite personal names can reflect a large number of things: they could point towards the breakdown of case in the synchronic variety and the re-interpretation of these vowels in traditional names, just as in the *ʿabdallā* example. Therefore, one would be wrong to conclude that the source language from which these names were drawn lacked case and had non-functional final vowels, but simply that the synchronic grammar of the language in which they were used did.

Secondly, we must also keep in mind that the “Amorite” names are not situated in their etymological linguistic context; they are used in Akkadian. Names often lose their ability to inflect when they are placed in a foreign context; just consider Latin names in English or, for a Semitic example, Arabic names in Nabataean Aramaic. The latter often terminate in *-w*, likely the nominative ending /u/, no matter their syntactic position. Vestiges of early case inflection can be found on some compound names, such as *tmʿlhy* /taymollāhe/. This name is also spelled as *tmʿlh* /taymʿallāh/, without the final *y*.⁹ It would be wrong to conclude definitively from such an example that final *y* was in free variation with Ø. It is equally possible, and more likely in light of the comparative evidence, that the former word reflects an earlier linguistic stage of the language and was renewed in some pronunciations to *tmʿlh* /taymʿallāh/, cf. Arabic *ʿabdullā* and *ʿabidallā*.

Thirdly, since many of these names are entire sentences, we cannot be sure if they were still parsed as such or simply lexicalized. If this was the case, then synchronic sound changes, such as vowel reduction, deletion, and so forth, could have operated on these lexicalized strings. Some Nabataean Aramaic names were no longer conceived of as compounds as is evident from spellings such as *ʿbdllhyw*, where *ʿbdllhy* was lexicalized and *wawation* was added to the original genitive ending, as it was no longer analyzed as such. Moreover, personal names in West Semitic (Sabaic, Arabic, and Ugaritic) tend to be diptotic. Some irregularities in the distribution of final vowels may have to do with the onomastic category itself.

Fourthly, we cannot be sure that all the Amorite names attested reflect the same morphological form in the source language – that is, some could reflect citation forms, while others could be extracted from different morphological positions.

The combination of all of these issues makes the use of the Amorite corpus of personal names very tenuous for the advancement of a theory that final short vowels were

⁹ See Negev 1991 on variants of these names. Vocalization of Nabataean names follows the values given to the short vowels in Greek transcriptions; see Al-Jallad (forthcoming) on the phonetic realization of the vowels in Old Arabic.

non-functional in Proto-Semitic. It is methodologically incorrect, therefore, to compare such a corpus to languages represented by full prose texts.¹⁰

2.2 Languages with case systems examined

The languages that Owens marks as *having* case are only two:

Akkadian
(?) Ugaritic

Owens marks Ugaritic in his chart with a question mark in front of it. While he does not elaborate on what this signifies, we can only assume that he intends this to mean that it is not clear whether or not Ugaritic has case – this much can be deduced from his statements about Ugaritic in previous works (e.g. Owens 2006/9: 83f.). This is misleading. First of all, we have several examples of Ugaritic in syllabic cuneiform script, which expresses short vowels, allowing us to confirm the presence of final case vowels nom. *-u*; gen. *-i*; acc. *-a* (perfectly corresponding to the system attested in Arabic and Akkadian) (Troppe 2000: 302ff.). But even in alphabetic writing there is evidence for the final case vowels. Ugaritic has three separate signs to write the glottal stop, depending on whether it is followed by *u*, *i* or *a*, conventionally transcribed as *ú*, *í* and *á*. Nouns that have a stem-final glottal stop would therefore be expected to express case, and this is indeed exactly what we find, e.g. *ksú* ‘throne’ which is attested in all three cases (examples from del Olmo Lete & Sanmartín 2003: 460):

<i>tšdb</i>	<i>ksú</i>	<i>w</i>	<i>yttb</i>
was prepared	throne.NOM	CONJ	sat down.3MPL
‘a throne was prepared (for them) and they sat down’ (nom.)			
<i>grš-h</i>	<i>l- ksí</i>		<i>mlk-h</i>
drove.3MS-3MS	PREP- throne.GEN		royal-3MS
‘he drove him from his royal throne’ (gen.)			
<i>yšdb</i>	<i>ksá</i>	<i>w</i>	<i>ytb</i>
place.3MS	chair.ACC	CONJ	sit.3MS
‘he places a chair and sits down’ (acc.)			

There are many other examples, e.g. *šbu* ‘army, militia’ (del Olmo Lete & Sanmartín 2003: 777) and *lu* ‘suckling (lamb or kid)’ (del Olmo Lete & Sanmartín 2003: 498):

¹⁰ To be clear, we are not disputing the scholarship on Amorite that analyzes these final short vowels as cases, but specifically Owens’ treatment of the entire onomasticon as reflective of a synchronic linguistic system.

šbũ-k *ũl* *mād*
 army.NOM-2MS force immense
 ‘your army (will be) an immense force’ (nom.)

ršp *šbī*
 Ršp.CONSTRUCT army.GEN
 ‘Ršp (deity name) of the army/militia’ (gen.)

šbũ *špš*
 setting.NOM.CONSTRUCT sun
 ‘the setting of Špš’ (nom.)

šbā *rbt* *špš*
 setting.ACC.CONSTRUCT great lady špš
 ‘at the setting of the Great Lady Špš’ (acc.)

āl *yʿdb-km (...)* *k-llī* *b-tbrn*
 NEG he places -2MPL PREP- suckling.GEN PREP-opening
qn-h
 esophagus-3MS
 ‘let him not place you (...) like a suckling in the opening of his esophagus’ (gen.)

aḥ (...) llā *kl[ātṇ]*
 take suckling.ACC both hands
 ‘take (...) a suckling with both (hands)’ (acc.)

Likewise, we can find examples of the masculine sound plural suffix *-ūma* and *-īma* with fully functioning case, e.g. in the *rpū* ‘divine ancestral hero’ in the plural is spelled *rpūm* for the nominative and *rpīm* for the oblique (examples from del Olmo Lete & Sanmartín 2003: 743):

tlḥm *rpūm* *tšṭyn*
 ate Rpu.NOM.PL drank
 ‘the Rpu’s ate and drank’

qrū *rpīm*
 invoke Rpu.ACC.PL
 ‘Invoke the Rpu’s’

These examples clearly illustrate that Ugaritic has a fully functioning nom/gen/acc contrast, which is visible, even within the consonantal writing. Moreover, the function of the vowels that mark the case align perfectly with the one that we find in Classical Arabic and Akkadian.

According to Owens’ classification, Akkadian belongs in the present category. Akkadian is attested over the span of two and half millennia. Over this period, one can

witness the breakdown of the case system, so that Neo-Babylonian likely lost case distinction in all nouns.¹¹ Thus, Akkadian should go in the category of languages with and without case, but with a clear caveat – the caseless varieties are demonstrably younger, in absolute terms, than the varieties with case.¹²

Missing from the list of case-bearing languages is Amarna Canaanite, the language of cuneiform tablets sent to Egypt by Canaanite vassals in the late Bronze Age (Rainey 1996) and Eblaite (Streck 2011b). Both of these exhibit a strikingly similar case system to Arabic, Akkadian, and Ugaritic, with the idiosyncrasies of diptotic inflection and distribution.

2.3 Languages with and without case

Among the languages that have case and no case, Owens lists Sabaic from the Ancient South Arabian family. His main criticism is that case distinction only appears in one lexeme, the word for ‘sons’. Again, this criticism seems to stem from the limitations of the orthography rather than a true absence of case – the spelling conventions of Ancient South Arabian do not indicate internal vowels of any length or word-final short vowels. This means the only place one can expect to encounter case is in construct masculine plurals, where it would be indicated with a word-final long vowel. The commonest word belonging to this category is clearly ‘sons’, and so here we see a distribution that matches Arabic, Akkadian, Sam’alian, Ugaritic, and so on.

External Masculine Plural Case Marking in Semitic

	Arabic	Sabaic	Ugaritic	Sam’alian	Akkadian
Nom.	<i>banū</i>	<i>bnw</i>	<i>rpūm</i>	<i>mlkw</i>	<i>šarrū</i>
Obl.	<i>banī</i>	<i>bn̄y</i>	<i>rpīm</i>	<i>mlky</i>	<i>šarrī</i>

¹¹ See Woodington (1963: 63-65) for a discussion on the distribution of the case vowels. In the plurals the distinction seems all but gone, while in the singular the genitive appears to survive a bit longer than the other cases, but its inconsistent use seems to be a reflection of a learned register rather than the spoken language. The few examples of Neo-Babylonian written in Greek letters indicate that final short vowels had altogether disappeared, e.g. *īññō* = *muršu* (Westenholz 2007: 284).

¹² The unawareness of the chronology of case underlies one of Owens’ hypothesized scenarios for the origins of case in Arabic. He suggests that Arabic-Akkadian bilingual speakers, or Akkadian speakers shifting to Arabic, may have interpreted epenthetic vowels in Arabic as true case vowels, as in Akkadian (2006/9: 101, n.22). This contact scenario is based on the appearance of the word ‘arab’ in an Akkadian text from 853 BCE. Even if we place such an event in this period, the Neo-Assyrian case system was much evolved and very distinct from the Arabic one, with only a nominative/accusative *u* and genitive *i* distinguished in the singular and case distinction totally obliterated in the plurals (Hameen-Antilla 2000: 77). Such a system could not have stood behind the reinterpretation of epenthetic vowels into the robust case system attested in Classical Arabic, along with all of its idiosyncrasies, including diptotic declensions. Moreover, this does not explain at all the verbal mood system, nor case expressed as long vowels.

To illustrate, the Sabaic inscription Bāsh 2 attests both forms in a single inscription in their expected syntactic environments.

<i>ḥm w- 'ḥy-hw</i>	<i>S' 'd</i>	<i>w-Rbs²ms¹m</i>	<i>w-bn-hmw</i>
PN conj-brother.du-3MS	PN	conj-PN	conj-son.pl-3MP
<i>bnw</i>	<i>Bt 't</i>	<i>'dm</i>	<i>bny</i>
son.CNST.PL.NOM	PN	vassals.CNST	sons.CNST.PL.OBL
[S'h]ymm			
[Sh]ymm			
'Ḥm and his brother S' 'd and Rbs ² ms ¹ m and their sons, the children of Bt 't, vassals of the children of Shymm'			

Besides this, it is simply not true that *bn* is the only lexical item that expresses case. The plural relative pronoun *'lw/y* also clearly expresses case, as is shown by Stein himself in the book that Owens cites. The correct construct case vowels are attested in other lexical items as well, but these, being not as frequent as the word for 'son', do not have both case forms attested. The nominative plurals of such nouns, however, show up in nominative positions only.

CIS 102

<i>b(n)w //</i>	<i>Mḏn</i>	<i>'bkln</i>	<i>ḥwrw</i>	<i>hgrn</i>	<i>'mrn</i>
son.CNST.PL.NOM	PN	TN	inhabitant.CNST.PL.NOM	city.DEF	TOP
'Sons of Mḏn, of the tribe of 'bkln, inhabitants of the city of 'mrn'					

So then, the very fact that the distribution of *w* and *y* in the Sabaic word for son matches the distribution across other branches of the Semitic family strongly suggests that the nominative-oblique distinction in the masculine plural is reconstructible for Proto-Semitic. Even if this distinction is lost in later forms of Sabaic, the fact that they functioned correctly (meaning as in other Semitic languages) in Old Sabaic is enough to reconstruct this distinction for the language. Owens' cites the fact that the words for 'brother' and 'father' do not match 'sons' in exhibiting case inflection as an argument against the presence of nominal inflection. The logic of this statement is not immediately apparent. The word for father is never written with a final vowel when in construct, so it is impossible to say how it inflected. Why 'father' was written in a proclitic fashion, where the final vowel was considered word internal, while 'sons' was not, is unclear. The second word *ḥy* 'brother' is often written with a final <y> when in construct, but not always and there are plenty of examples of the expected form <ḥy>, which matches 'father' (<http://dasi.humnet.unipi.it/>, s.v.). For the latter situation, again, we cannot make any claims about case inflection as the long vowel was treated as if it were word internal. The interpretation of the <y> with pronominal suffixes is interesting, but according to the rules of Sabaic orthography, it cannot represent an internal /ī/ vowel, as *matres lectionis* were not used in this position. It may be the case that the form with a final <y> represents a diminutive, similar to the generalized diminutive form in some Levantine dialects, e.g. Lebanese *ḥayyak* 'your brother', *ḥayyo* 'his brother', etc. Whatever might be the sources of the construct <y>, it must be stressed that it represents either a diphthong /ay/ or /āy/, or simply a consonant /y/, and is not cognate with the genitive ending on /ʔaḥī/. The point

is that not all <y>'s are equal, and so the presence of an inflectionless <y> in ʔh is not immediately comparable to the <y> of oblique bny 'sons'.

Thus, we must conclude from the evidence that in Old Sabaic a nominative-oblique distinction masculine plurals obtained. The word for brother seems to have sometimes taken a <y> suffix when in construct, but this glyph cannot represent a generalized genitive ending /ī/. The orthography of Sabaic requires a consonantal interpretation, meaning it is not related to the case system. As for whether case was present in singular nouns, we simply cannot know; the orthography does not permit us to arrive at any conclusions.¹³

2.4 The alleged “a”-adverbial ending in Semitic

While Owens dismisses the likelihood of a full-fledged case system for Classical Arabic, he does admit the possibility of some type of adverbial ending /a/ based on evidence from Hebrew (the so-called he-locale, e.g. *hab-bāyt-ā* '(in)to the house'). While some scholars have interpreted the Hebrew termination as cognate with the accusative /a/ of Arabic and Akkadian (Wright 1890: 141), its survival in Hebrew runs counter to the loss of word-final short /a/ in other environments (Suchard 2016, §8.2.1). A terminative ending <h> occurs in Ugaritic, which cannot represent a vowel in the orthography but a true consonantal /h/. This ending, scholars concluded, was the true cognate of Hebrew terminative ending *ā*, as by the time of the Masoretes, final /ah/ had already developed into *ā*. This further explains why this final vowel was not lost or subject to the Canaanite shift (**ā* > *o*). Finally, this Northwest Semitic terminative ending *-ah is cognate with the Akkadian terminative ending -iṣ, -aṣ, from Proto-Semitic *-is, *-as, through the West Semitic sound change of *s > h, and cannot be seen as the precursor to the accusative case.

2.5 Is Case a Grammarian Conspiracy?

In section 2.4, Owens (2015: 167-169) argues for, what can only be interpreted as a grammarian conspiracy. He suggests that “at the time of Sibawaih, ca. 150/770, Arabic had the type of free variation among final vowels as Amorite had”. It was the “genius of Sibawaih” that introduced the “idea that short vowels need to be distinguished in terms of lexical value [...] vs, grammatical value”. Eventually Owens puts forth that “the suggestion can be made that Sibawaih took as his empirical input a situation similar to Amorite, and *from it created a case system* which in part reflected the biases in the input itself, but which was not structurally unambiguous system which he defined.” (emphasis our own).

¹³ These conclusions do not differ from Beeston (1984: 32), who recognizes a case system in the demonstratives *w* nominative and *y* oblique, and posits that the nominal case system in the masculine plural may have broken down by the middle Sabaic period.

This hypothesis is of course incompatible with the hypothesis that Classical Arabic case goes back to Proto-Semitic (Owens 2006/9: 115).¹⁴ Moreover, the likelihood that Sibawaih or any other grammarian came up with the Classical Arabic case system, and by sheer chance ended up looking exactly like that which we find not *only* in Akkadian as Owens claims, but also at the very least in Ugaritic, is so infinitesimally small that it deserved no serious defense.

Even if we accept this already unlikely scenario, we still come to a conclusion that is demonstrably wrong, and it stems from the oft-repeated, but wrong, simplifying assumption that case is marked only through final short vowels. Case is also marked with long vowels.

We have Quran manuscripts that predate Sibawaih. Nevertheless, the Quranic consonantal text clearly displays case in the sound masculine plural, the dual, the five nouns and the indefinite accusative. This would be impossible had case been invented by Sibawaih or any other grammarian. Even if one does not accept the existence of Umayyad Qurans, which in our opinion by now is proven beyond much doubt, we can still cite early Islamic inscriptions that easily predate the grammarians that display case, e.g. the Dome of the Rock inscription, dated to 72AH/694AD:

<i>w-slmw?</i> and-greet.MPL 'and greet [him]'	<i>tslym?</i> greeting.ACC				
<i>w-kfy</i> and-sufficient 'and it is sufficient with Allah as protector'	<i>b-ʔllh</i> PREP-Allah	<i>wkyl?</i> protector.ACC			
<i>ln</i> NEG.FUT	<i>ystnkf</i> disdain.3MS	<i>ʔlmsyh</i> the Messiah	<i>ʔn</i> that	<i>ykwn</i> be.3MS	<i>ʕbd ʔllh</i> servant Allah
<i>wl? ʔlmlykh</i> nor the angels 'Never would the Messiah disdain to be a servant of Allah, nor would the nearby angels'	<i>ʔlmqrbwn</i> close.MPL.NOM				
<i>ʕhd</i> witness.3MS <i>w-ʔwlw?</i> and-REL.MPL.NOM 'Allah witnesses that there is no deity except Him, and so do the angels and those of knowledge.'	<i>ʔllh</i> Allah	<i>ʔn-h</i> that-3MS <i>ʔlʕlm</i> knowledge	<i>lʔ ʔllh ʔlʔ</i> not god except	<i>hw w-ʔlmlykh</i> he and-the angels	

¹⁴ It is unclear to us whether Owens has abandoned this idea for the Sibawaih conspiracy theory, or whether he thinks either might be true, but does not know which.

<i>bny</i>	<i>hḡh</i>	<i>ʔlqbh</i>	<i>ʕbd</i>	<i>ʔllh</i>	<i>ʕbdʔllh</i>	<i>ʔlʔmʔm</i>
built.3MS	this	dome	servant	Allah	Abdallah	the Imām
<i>ʔlmʔmwn</i>	<i>ʔmyr</i>	<i>ʔlmwmnyn</i>		<i>fy</i>	<i>snh</i>	
al-Ma(ʕ)mūn	commander	the faithful	MPL.OBL	PREP	year	
<i>ʔʔnyn</i>	<i>w-sbʕyn</i>					
two.OBL	and-seventy.OBL					
‘The Servant of God Abdullah, the Imam al-Maʕmūn the commander of the faithful built this dome in the year 72AH’						

One can anticipate the argument that the Grammarians did not invent the system from scratch but rather borrowed it from other Semitic languages, like Akkadian or Ugaritic, and applied to Arabic. The problems with this hypothesis speak for themselves: there is no evidence that Akkadian or Ugaritic were known in the 8th century CE or that any grammatical tradition associated with them survived. Moreover, if some faint memory of Akkadian somehow survived among the occult in Mesopotamia in the 8th century CE, and this formed the basis for Arabic case, then the Arabic case system would resemble the latest stages of literary Akkadian, that is, Neo-Babylonian. As such, we would expect a system that expresses both the nominative and accusative with the /u/ and the genitive with the /i/, and with no distinction in the plural. This is not the Arabic system. Thus appeals to borrowing from other Semitic languages, as implausible as they may seem from a chronological perspective, do not work on a formal level either.

3. Case and Classification

It should be clear by now that case is attested across the Semitic family, and if indeed we choose to maintain Owens’ model of a caseless Proto-Semitic that is the ancestor of the Semitic languages without case, we must imagine that case was an innovation in a common *Classical Arabic-Akkadian-Samʕalian-Ugaritic-Ancient South Arabian-Geez* sub-grouping, or that it developed in a parallel way independently in each of these groups. The attestation of case across all branches of the Semitic language family is a strong argument against Owens’ innovation proposal. Owens dismisses this argument by stating that the classification of Semitic is not agreed upon by all scholars, rejecting Hetzron’s classification (which has since been modified) and citing Brockelmann’s geography-based proposal from the beginning of the 20th century and some of its revised reiterations (2015: 160). This is misleading. While opinions differ as to the validity of a “Central Semitic”,¹⁵ especially with regard to the place of Arabic in the family tree, no serious classification of Semitic has proposed that Classical Arabic belongs to the same sub-grouping as Akkadian against, for example, Hebrew, Aramaic or Proto-Arabic. Viewing case as an innovation would require a major re-shuffling of the classification of the Semitic family, which cannot be justified on the basis of any other morphological features.

Another important argument against the polygenetic origins of case is the presence and reconstructibility of the various asymmetries in the case system. While singular

¹⁵ For a balanced discussion of the various views, see Huehnergard and Rubin 2011.

nouns exhibit a tripartite *u* nominative, *i* genitive, *a* accusative system, how are we to explain the fact that the feminine plural has a diptotic declension with *u* nominative and *i* oblique, and that this asymmetry is found everywhere case distinction is present? The dual and masculine plural inflection agrees across all languages that maintain these distinctions, and these again do not correspond to the triptotic singular inflection. If the category was an independent innovation, surely we would encounter more variation in the manifestation of these systems, especially because the motivations for diptotic declensions of the plural, dual, and especially the feminine plural, are not at all clear. More problematic is the existence and reconstructibility of the Arabic diptotic declension in singular nouns where, in contrast to the feminine plural, the oblique case is represented by *a*, while the nominative by *u*. Moreover, these nouns lack mimation/nunation, unlike the feminine plurals:

Diptote Feminine Singular		Diptote feminine plural	
<i>makkatu</i>		<i>kitābātun</i>	
<i>makkata</i>		<i>kitābātīn</i>	
	Triptotes	Singular Diptotes	Feminine Plural Diptote
Nom.	- <i>u(n)</i>	- <i>u</i>	- <i>u</i>
Acc.	- <i>a(n)</i>	- <i>a</i>	- <i>i</i>
Gen.	- <i>i(n)</i>	- <i>a</i>	- <i>i</i>

A similar situation is encountered in Ugaritic, where it is observed in cuneiform syllabic writing. Place names in the genitive (where in a triptotic system *-i* would be expected) are found with an *-a* ending (Huehnergard 2012: 40). Place names are also in Arabic one of the types of nouns that have a diptotic flection. This semantic/morphological idiosyncrasy shared between Ugaritic and Arabic is so unusual, that it is impossible to have developed independently. While final short vowels are not detectable in Sabaic, the absence of mimation, another sign of diptosity, is encountered in some place names, such as *thmt* /tiḥāmat/ rather than ***thmtm*, and in the nominal stem *ʔaCCaC*. A late development of such a feature is difficult to explain, while its absence in Akkadian is justified by the fact that it is not analyzable in the synchronic system, and so triptotic inflection was then leveled to this category of singulars.

The presence of case in both East and West Semitic, a basic division that is established by a number of important isoglosses, suggests that case was a Proto-Semitic feature *or* a parallel innovation. The cognate asymmetries in the system attested across these branches make parallel development from an earlier caseless variety virtually impossible.¹⁶ Therefore, even if case cannot be reconstructed to the ancestor of every West Semitic linguistic subgrouping, e.g. Modern South Arabian or Aramaic, the fact that it is securely reconstructible for Proto-West Semitic means that it is more likely and economical that the system was lost in the ancestor of those language groupings rather

¹⁶ Note that case has emerged secondarily in Amharic, and it can in no way be confused with the ancient system. If, indeed, the morphological category developed independently across multiple branches, we should expect this degree of dissimilarity.

than developing parallel in the East and West Semitic languages that exhibit case. Thus, the only reasonable conclusion emerging from the study of this data is that the case system was a Proto-Semitic feature that was lost over time.

4. Case in Afro-Asiatic

Owens (2015: 161) briefly discusses case in Afro-Asiatic, and concludes that, since no case system like Semitic's can be found in any of the non-Semitic languages of the family, and therefore "case in Semitic needs to be seen as innovative". This conclusion cannot be drawn from the Afro-Asiatic data available to us.

Proto-Afro-Asiatic reconstruction and even the reconstruction of its daughter Proto-Languages other than Semitic is currently in its infancy. Any pronouncement about the presence of case in Proto-Afro-Asiatic is extremely premature. Some preliminary work on consonant correspondences has been undertaken (e.g. Takács 2011), and even these attempts can be considered speculative at best. If we move past the most uncontroversial sound correspondences, we are left with no more than one or two examples of every reconstructed Proto-Afro-Asiatic consonant. Almost no work has been done on the vocalic reconstruction of Proto-Afro-Asiatic. As case in Proto-Semitic surface as vowels, we would not even know how to start to prove that there is no cognate case system in Proto-Afro-Asiatic.

With that, we have to take into account the massive mismatch in time-depth of the different Proto-Languages and the lack of long written history of many of these families. As an example we take Proto-Berber. Proto-Berber is dated by Louali & Philippson (2004) around the first millennium BCE, while Kossmann (2013: 51) argues for a similar period between 500 BCE and the beginning of the christian era. Lexicostatistical dating by Blažek (2019) yields a similar date (680 BCE). Even if Proto-Berber forms a sub-branch of Afro-Asiatic with Semitic (which by virtue of several striking morphological similarities does not seem unlikely), we must conclude that the ancestor of Proto-Berber must have split off thousands of years earlier than the point to which we can reconstruct Proto-Berber, by virtue of the first Semitic languages already being attested thousands of years earlier than Proto-Berber (similar point are raised by Blench 2001 and Louali & Philippson 2004). Considering this situation, it would be a miracle if Proto-Berber *had* retained final short vowels that would still be reconstructible from the modern data that we have, which is more than two millennia later than Proto-Berber. Similar problems are present in Cushitic and Chadic.¹⁷ Thus, the state that Afro-Asiatic reconstruction is

¹⁷ Even so, as Owens points out, Appleyard (2011: 48) reconstructs a case system for Proto-Cushitic that looks as follows: Masculine nominative *i*, absolutive *a* genitive *i*; Feminine nom. *a*, abs. *a* gen. *(a)ti*. As Lameen Souag points out in an academia.edu session, Appleyard's reconstruction supports the reconstruction of *a* as a marker of direct objects, one of the two primary functions of the absolutive, and of *i* as the marker of the genitive older than Proto-Semitic. If the Cushitic nominative originated in a focus morpheme, then it would be the only one that disagrees with the Semitic system, and may therefore even be a Cushitic innovation. But without regular sound correspondences established, it is also possible that Cushitic *i* is cognate with both Semitic *u* and *i* in this position. The Cushitic data of the

currently in, and – barring the discovery of ancient documents of Berber, Cushitic or Chadic – the state in which it will probably remain, it is simply unthinkable to use Afro-Asiatic evidence to make any pronouncements for or against case in Proto-Semitic being innovative or archaic.

5. The absence of case in Modern Arabic and why it isn't a big deal

The absence of case in the Modern Arabic dialects appears to Owens as an insurmountable problem in the reconstruction of Proto-Arabic as a language that used to have case. This is problematic for two reasons: first, the selection of varieties to decide on reconstruction is limited for no obvious reason. Second, there are easily explained internal developments that lead to a caseless system in the modern dialects. We will discuss these two points separately.

5.1 Selection of varieties for reconstruction

Owens insists that for the reconstruction of Proto-Arabic, one ought to make use of the modern dialects. Indeed, if one takes the modern dialects we would be hard pressed to reconstruct a fully functioning case system (although one can certainly see vestiges, for which, see below). As Owens states, “the comparative method is a retrospective method based on reconstruction of attested varieties. In the case of Arabic, reconstruction proceeds from the attested contemporary dialects, backwards (2016: 161)”. However, Classical Arabic is, of course, also an attested variety, as is the pre-Islamic evidence of Arabic.¹⁸ It is not clear why Owens excludes these varieties and solely relies on contemporary dialects for reconstructed Arabic. The obvious result, however, is that it excludes all varieties of Arabic that have clear attestations of case. The resulting incomplete reconstruction will therefore obviously yield a Proto-Arabic without case.

Internal reconstruction (see below), the pre-Islamic evidence, and the comparative Semitic data reveal that Classical Arabic is simply more conservative in this realm of morphology than the modern dialects.¹⁹

The vast majority of Semitic languages that have written records disappeared as spoken languages ages ago and have no surviving contemporary dialects, but these are

masculine, taken at face value then, supports the idea that the Semitic nominal case system is older than Proto-Semitic.

¹⁸ To be clear, pre-Islamic Arabic does not refer to the dialectal material collected by the Arab Grammarians or the pre-Islamic poems that were recorded in the Islamic period. What we mean by this term is the documentary evidence of Arabic produced prior to the rise of Islam. For an outline of this corpus and its linguistic features, see Al-Jallad (forthcoming).

¹⁹ That is not to say that Classical Arabic is always more conservative than the modern dialects in every respect. For example, Najdi Arabic retains the ancient Proto-Semitic Barth-Ginsberg alternation of the prefix vowel *ya-ktib* ‘he writes’ versus *yi-smaʿ* ‘he heard’ (Ingham 1994: 22f.), a feature completely absent in Classical Arabic. Its presence in Najdi Arabic confirms that we have to reconstruct this alternation for Proto-Arabic, despite its absence in Classical Arabic.

essential to the reconstruction of Proto-Semitic. As Owens clearly recognizes the value in the use of non-contemporary dialects for the reconstruction of Proto-Semitic (e.g., his use of Amorite), it is wholly mysterious why non-contemporary dialects are not to be used for the reconstruction of Proto-Arabic.

5.2 Loss of case in the Arabic dialects

The loss of case in all modern dialects of Arabic is easily understood as the result of regular phonetic developments. The vast majority of nouns in Arabic express case distinction with final short vowels with or without nunation. All modern dialects lost final short vowels, as clearly exemplified by the fact that the 3ms ending on the suffix conjugation is gone: *katab* vs *kataba*; prepositions like *qabla* become *qabl*; the dual is *-ēn* or *-ayn*, rather than *-ayni*, and the plural is *-īn* rather than *-īna*, etc.²⁰ Beside nominal case inflection, the loss of final-short vowels has obliterated the distinction in the moods of the prefix conjugation, e.g. imperfect (final *-u*) from the subjunctive (final *-a*) and the jussive (no final vowel). From such a situation, where the vast majority of the nouns no longer distinguish case, it is perfectly imaginable that other case distinctions would become less clear to its speakers, and would eventually be lost.

Examples of petrified case persist in exactly the environments where case would not be lost due to regular sound laws, but through analogical leveling. The indefinite accusative, used for adverbial forms, which, when not completely replaced by the classical *-an* form, shows up as *-a* in many modern dialects, e.g. Moroccan Arabic *bərɾa* ‘outside’ < **barrā* < **barran* (Harrell 1966: s.v.); Mardin Arabic *ḡadde* ‘tomorrow’ < **ḡaddā*; *qable* < **qablā* ‘early’ (Grigore 2009: 252-253); Algerian Arabic *ḥəqqə* ‘really’, *dima* ‘always’ (L. Souag, p.c.); CyA *parra* ‘outside’ < **barrā* (Borg 2004:154), vocative forms like *yammā* ‘O mother’ and *yābā* ‘O father’ (see Appendix I for discussion), and of course the common greeting *halā* < **ḥalā* < **ḥalan*.

In a reply to a draft of this paper on Academia.edu, Owens suggests that one of the reasons why reconstructing case vowels in Arabic is problematic, is because, according to him there are reconstructible short vowels in the pronominal system, which challenges the loss of the short case vowels through a process of apocope.

It goes without saying that, due to pressure of various analogies from various parts of the paradigm, a pronominal system is not exactly the place where one should look for the otherwise elusive proof of final short vowels. Some of the examples Owens summons as proof have already been discussed. The forms he mentions are:

²⁰ The “preservation” of vowels in the feminine suffix conjugation and pronoun *anti* is explained through leveling with the 2fs prefix conjugation ending, *ī*. The form *anta/inta* goes back to one with a final /h/, *antah*, while the form *ant/int* is the proper reflex of Old Arabic *anta*; see Al-Jallad (2014).

-tu '1SG'	<i>qəl-tu</i>	'I	said'
-ti '2FSG'	<i>qəl-ti</i>	'you.F.SG.	said'
-ta '2MSG'	<i>qul-ta</i>	'you.M.SG	said'
-na '3FPL'	<i>yaktub-na</i>	'they.F	write'
-ki '2FSG, object'	<i>beet-ki</i>	'your	house'
-a	doubled verbs in western Sudanic Arabic, <i>tamma</i> 'finish'		
-u	suffix of indefinite nouns in Tihama Arabic.		

The final *-a* in doubled verbs of Sudanese Arabic is explained by Owens himself in a footnote in his reply, but we will replicate the argument in full here. As is common in the modern Arabic dialects, the final doubled verbs have partially merged with the stem II final-weak paradigm, e.g. in Eastern Libyan Arabic we find (Owens 1984: 116):

	Doubled		Stem II weak	
	sg.	pl.	sg.	pl.
1s	<i>daffēt</i>	<i>daffēna</i>	<i>ṣallēt</i>	<i>ṣallēna</i>
3m	<i>daff</i>	<i>daffo</i>	<i>ṣalla</i>	<i>ṣallo</i>
3f	<i>daffat</i>	<i>daffan</i>	<i>ṣallat</i>	<i>ṣallan</i>

The initial merger of these two classes is presumably from the fact that the 3sg.f. forms look identical (also in Classical Arabic). The complete merger of these paradigms as attested in Sudanese Arabic is a trivial analogy when all but the 3sg.m. paradigm had already merged.²¹

What is important in this discussion however, is that this data cannot be solved within Owens' reconstruction of a caseless form of Proto-Arabic any better than it can in a case-bearing Proto-Arabic. We will, for this discussion limit ourselves to the perfect suffixes *-tu*, *-ti*, *-ta*. These suffixes are distributed across the dialects in a rather haphazard way, (examples taken from Fischer & Jastrow 1980):

	Mekka	Baghdad	Qarṭmīn	Yemen
1s	<i>-t</i>	<i>-it</i>	<i>-tu</i>	<i>-tu</i>
2sm	<i>-t</i>	<i>-it</i>	<i>-it</i>	<i>-ta</i>
2sf	<i>-ti</i>	<i>-ti</i>	<i>-ti</i>	<i>-ti</i>

2sf

The reconstruction of 2sf appears to be evidently **-ti*. None of these dialects would have lost **i* here. However this conflicts with the 2sf pronominal suffix, presumably to be reconstructed as **-ki* (see also Owens 2006/9: 246), which surfaces in Mekka and Yemen as *-ik*, in Baghdad as *-ič*, Qarṭmīn as *-ĕi* and Yemen as *-ik*. *-ti* and *-ik* cannot both come

²¹ A similar complete merger of Doubled and Stem II weak verbs is attested in Jabal Rāziḥ, e.g. *šammē* 'to smell' (Behnstedt 1987: 145).

from a final short vowel **i*, as they clearly yield two different results. One can try to save this by assuming the 2sf suffix is **-ik*, but this is obviously special pleading, and does not explain the Qarṭmīn (or Classical Arabic) form. Without a regular sound correspondence, we cannot reconstruct a single short vowel **i*. We must thus also explain this form through some analogy in Owens' caseless model.

1s

Baghdadi and Mekkan shifted **-tu* to *-t* (and Baghdadi subsequently *-it*). So we may posit a sound law **u > Ø* in word final position. If we maintain however that the 3sm pronominal suffix **-hu* is also to be reconstructed with a word-final short vowel (as Owens 2006/9: 253 would), we run into a problem. The reflexes in all of these dialects of that form is not *-hu*, but rather *-uh* or similar, even in Qarṭmīn, where final *-u* is expected to be retained if one reconstructs the 1s form as **-tu*. Once again, in the absence of a regular sound law we must assume some kind of analogy.

2sm

All dialects lost the word final short vowel **a*, except Yemeni. The sound law **a > Ø* presents itself on the basis of just this form. However the 2sm possessive suffix *-ak* in all of these dialects likely also comes from **-ka* (Owens 2006/9: 250). Here once again we are unable to account for both forms.

Owens (loc. cit) assumes that in the pronominal forms **-ki* and **-ka*, an epenthetic vowel was inserted in the **CC* cluster that developed when added to a nouns. But the apparent non-operation of this epenthesis rule in the verbal suffixes is not accounted for. Nor is the syncope of the final short vowel **a* in the Yemeni form, after the insertion of the unaccounted for epenthesis.

In other words, for these forms to be reconstructible for Proto-Arabic, both in Owens' model and in our model we would have to find some form of analogical explanation to explain these -VC versus -CV doublets. The only difference in this case is that we have provided an analogical solution to solve at least the doublets of the 2s forms, while Owens (2006/9; 2016) has not. Due to these problems, these forms cannot possibly be used as evidence of retention of final short vowels in the modern dialects.

The final example that Owens cites is, what we will call here "Tihāmah Wawation". This final *-u* does not co-occur with the definite article, nor in construct or with indefinite diptotic nouns such as *ʔaffal*-elatives, and adjectives of colors/physical defects. In other words: Tihāma Wawation occurs in the exact environments where Classical Arabic has nunation.

Combining this with the fact that in the Ṣaʿdah region we find the Im-Maṭṭah dialect that has the exact same distribution, but with a suffix *-in* (Behnstedt 1987), and that several of dialects of the Tihāmah have *-un* rather than *-u* (Behnstedt 1985: 60), there is truly no doubt that this form should be derived from original Classical Arabic-like

Tanwīn, probably continuing the case vowel of the nominative, which was either guarded from syncope by the final *n*, or was actually lengthened to *-ū* (compare indefinite accusative *-an* > *-ā* in Classical Arabic pause).

5.3 Talking past each other?

One cannot shake the feeling that Owens and we are to some extent talking past each other. Owens (2006/9: 116) states that "[s]ince caseless forms can be comparatively reconstructed at least as early as the seventh/eighth centuries, from the time of the Arabic diaspora, they are minimally as old as the case-Arabic described by Sibawaih, and hence can be projected into proto-Arabic as well".²²

We do not necessarily agree with Owens that caseless forms have to be reconstructed back comparatively as early as the seventh and eighth centuries. It is possible that much later dialectal contact may have levelled case bearing dialects towards the caseless varieties. These dialects did not exist in isolation. But it is certainly a defensible position, and at least partial breakdown of the case system must have been in place in several Arabic varieties (see section 5.4). However, the second part of the conclusion that caseless forms and case-Arabic are both to be reconstructed back to the Proto-Language, because both must have existed in the seventh/eighth centuries, does not follow from the first part of the sentence in what is normally understood by the term "Proto-Arabic", i.e. the common ancestor of all forms of Arabic.

This is the canonical meaning of a Proto-Language, and any textbook on historical linguistics will say this, e.g. Trask (2015: 167), Campbell (2004: 125), Beekes (2011: 4). If a caseless and case bearing variety indeed go back to Proto-Semitic, whether the innovations is having case, or being caseless, the earliest common ancestor of Arabic would, in fact, be Proto-Semitic. But these are, in Owen's model two separate stages. It is therefore regrettable that Owens (2006/9: 2) does not actually define what Proto-Arabic means to him:

"Proto-Arabic. The fundamental object of any historical linguistics is the reconstruction of a proto-language. This is a well-known and established concept which will be familiar to most readers, and which is not dependent as a concept or as a method of application on the circumstances of any individual language or language family."

As a result we are unable to criticise Owens' ideas within his own definition of a proto-language.

²² Owens seems to have changed his mind on his conclusions, as in his 2015 article he states: "There is no evidence from such reconstruction that proto-Arabic had case: reconstructed Arabic had no case." (pg. 161). However no explanation is given how he has arrived at this different conclusion, as the section quoted purports to be a summary of Owens (2006/9). It should also be noted here that the quoted sentence seems to suggest that he envisions a difference between Proto-Arabic and reconstructed Arabic. We do not understand what the difference would be.

At risk of setting up a straw man, our most generous interpretation of these statements, is that Owens, having a dialectological background, has a more variationist approach to the concept of “language” than is often assumed within historical linguistics. In this view then, two linguistic features may exist side-by-side for a period of time, without one necessarily outweighing the other. We infer this view from Owens’ exposition on linguistic variation being present in a language for a period of time in his book (2006/9: 116f.). It is true that traditional comparative historical linguistic methodology is not very well equipped at reconstructing such situations,²³ hence the resulting absurd conclusion that that Proto-Arabic would be the same as Proto-Semitic.

However, it is important to note here that even if we take this, hopefully correct, interpretation of Owens’ meaning, the conclusion still does not follow from the premise. The fact that it is possible that at the Proto-Arabic stage there was a diglossia or internal dialectal/sociolectal variation of case bearing and caseless varieties does not mean it *necessarily* has to. All we can conclude is that, at the earliest time that we have written evidence of Arabic, there is a case bearing variety, and certainly evidence for varieties where case is absent in all contexts that we have evidence for. There is no *a priori* reason to think that this situation goes back to a Proto-Arabic stage.

At the basis of this misunderstanding, seems to lie a misconception about the comparative method. Owens says that “if a trait is attested across different sub-branches of a family, it is a proto-feature” (Owens 2015: 160). It is not exactly clear from the context if he is attributing this view to semitacists, or uses it as a criterion himself, or both. We assume the latter, but the view expressed is not how the comparative method works.

Owens sees the branches with languages with case (e.g. Akkadian) and branches without (e.g. Hebrew). From this according to the cited criterion should follow that both having case and having no case is simultaneously a proto-feature. Applying this criterion indiscriminately obviously yields a reconstruction of a Proto-language that can never have branching features. Proto-Semitic would have to have simultaneously VSO order (most of Semitic) and SOV order (Akkadian, Amharic); Proto-Germanic simultaneously would have a definite article marked for case (Icelandic, German), and one without (Dutch, English). If a plausible scenario exists that can explain two features as having developed from a single one, then that scenario is the most parsimonious.

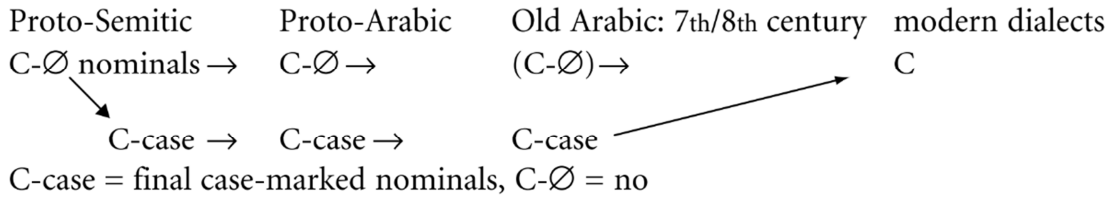
Owens finds the hypothetical case-bearing/caseless stage of Proto-Semitic likely because, in his view, there is clear evidence of other caseless Semitic languages. We hope to have shown in section 5.2, that all instances of potentially caseless varieties, a case-bearing ancestor is the likely a precursor. More importantly, the hypothesis that Proto-Semitic already had this caseless/case-bearing dichotomy, would be significantly strengthened if there was evidence of other Semitic languages that had the same dichotomous situation that Owens supposes for Proto-Arabic. As individual Semitic languages are either case-bearing or caseless, projecting the supposed Proto-Arabic situation back to Proto-Semitic, is assuming an extraordinary stability of this supposed Proto-Arabic situation, without explaining why it was unstable in all other Semitic languages. Without supporting evidence for such a claim, the reconstruction of Proto-Semitic with case,

²³ For a discussion on these problems, see Trask (2015: 219f.).

and showing that case was lost through trivial sound laws and several morphological developments in the language that do not have it is the preferable.

5.4 A nuanced timeline of Arabic

Owens (2006/9: 115) presents a timeline of how he envisions the development of varieties of Arabic having case and not having case, into the modern era. Owens, unlike other scholars that have cast doubt on the history of case in Arabic (e.g. Lancioni 2009), admits that it is not likely that these case systems in the different Semitic languages developed completely independently. But he maintains that the modern Arabic dialects *must* have developed from a caseless variety, and in the article under discussion here, he has attempted, unsuccessfully in our opinion, to show that caseless varieties of proto-sub-branches of Semitic are necessary to reconstruct as well. And as, apparently the loss of case is, to him inherently unlikely, he projects the caseless variety of Arabic, back to a caseless variety of Proto-Semitic. This timeline looks as follows:



This timeline cannot be maintained for Arabic, nor for any other Semitic language. As we have hoped to show, it requires only a few global and simple steps to arrive at caseless Arabic from a system that is essentially identical to what is retained on Classical Arabic.

Let us assume, for example, the following rules,²⁴ all of which are common cross-linguistically, which would cause enough upheaval to potentially invoke the complete breakdown of the case system.

1. $*a, *i, *u\#^{25} > \emptyset$
2. $*n\# > \emptyset$;²⁶
3. $*i, *u\# > \emptyset$.²⁷

²⁴ Other steps of the development with equally trivial and common sound laws may be proposed as well, and we by no means claim here that these are the sound laws that work for all dialects of Arabic. They are however consistent, at least, for the dialects that have $-a < *-\bar{a} < *-an$ as the regular reflex of the adverbial ending.

²⁵ Cf. French *poule* [pul] < Latin *pullus*; *hôte* [ot] < Latin *hostis*; *terre* [tɛʁ] < *terra*.

²⁶ Cf. Hollandic Dutch *lopen* 'to walk' originally pronounced **lōpən* (hence the orthography) now [lowpə].

²⁷ Cf. Modern Japanese, e.g. *kaku* 'to write', [kak] or [kakɯ]; *kaki* 'writing' [kak] or [kaki]

The table below lists the categories that have case expressed in the language, and what their result would be after these three sound laws.

	Before loss	After loss	Syncretism
Indefinite triptotes	3 cases	1 case (acc.)	no cases
Definite triptotes	3 cases	no cases	no cases
Diptotes	2 cases	no cases	no cases
Five nouns (indef.)	3 cases	1 case (acc.)	no cases
Five nouns (construct)	3 cases	3 cases	no cases
Sound masc. plural	2 cases	2 cases	no cases
Sound fem. plural	2 cases	no cases	no cases
Dual	2 cases	2 cases	no cases

As one can see in this table, an large amount of the distinctions would have already been lost from these sound laws. A few simple steps can then get rid of the remaining case distinctions.

1. Triptotes (with only one case, and only in the indefinite) and diptotes (with none) merge.
2. The five isolated nouns that have a three case distinction not expressed anywhere else is levelled to a caseless forms.
3. The two cases expressed by the masculine plural and dual are levelled with the feminine plural which has lost all case distinction.

It is important to note here that it is too simplistic to deal with the definition of varieties that have case or are caseless. This is a false dichotomy that not only Owens (2006/9; 2016) falls prey to, but also among many others Lancioni (2009), Blau (1977), and Corriente (1971). Pointing at the fact, as Diem does, that case appears to have broken down where we see it in late Nabatean Arabic, does not prove that *all* case marking is gone in Nabatean Arabic.²⁸ By virtue of the corpus of Nabatean Arabic being almost exclusively names in an Aramaic context, we lack most contexts where we would be able to see case. All we can say about Nabatean Arabic is that it does not obviously express case in the form of final short vowels. Needless to say, case is not only expressed in the final short vowels. It is also expressed in the five nouns as long vowels, in the sound masculine plural suffixes and in the dual suffixes. We have none of these in Nabatean Arabic, and simply cannot say anything about how case developed in these contexts.

²⁸ And certainly does not prove that case has never existed, nor even allow that as a possible interpretation of the data. The many forms like <\$bdlhy>, whether archaic or not, cannot be interpreted as anything other than reflecting the form /ʕabdu-llāhi/, with the final case vowel in the genitive. The final vowel marking in Nabatean Arabic is *always* Ø or <w> and never <y> unless it is a compound name of the type mentioned here. This is exactly where we expect the genitive case.

However that a stage would have to exist before the phonetic loss of the final case vowels and the complete breakdown of the system, is not only logically plausible, it is exactly what we see in the Early Islamic Graeco-Arabica. Here we find clear examples of the noun *ʔab-* ‘father’ that still has case (at least the nominative and the genitive), despite the final short vowels have already been lost. This is obviously the stage after the sound laws that caused the loss of many case distinctions, but before the general collapse of the complete case system. Some examples are the following (and in the Papyri we find many more like them):

Αβου Σουφουαν

/ʔabū sufwān/

(not **ʔabū sufwānin)

Οβαιδαλλα β(ιν) Αβιλαας

/ʕobaydalla(h) bin ʔabī l-ʕāṣ/

(not **ʕubaydullahi bnu ʔabī l-ʕāṣi)

This should not be meant to taken as evidence that the loss of case had only just started at the start of the Islamic Period. This situation is more complex and more diverse. The Pre-Islamic Graeco-Arabic inscription in Al-Jallad & al-Manaser (2015) seems to point at a variety of Arabic that underwent a different development with a different breakdown of the system. Here the short accusative vowel *-a* is present, but all other short vowels are not.

A timeline of case from Semitic to the modern dialects then, would be more accurately represented as this:

Proto-Semitic	Proto-Arabic	Old Arabic: before 7th C.	Early Islamic	modern
C-case →	C-case →	C-case →	C-case (?)	
		C-partial →	C-partial	
		C-Ø (?) →	C-Ø →	C-Ø

C-case = Dialect that retains essentially the Proto-Arabic system (e.g. Classical Arabic, Early Nabatean Arabic (?))

C-partial = Dialect that retains part of the Proto-Arabic system (e.g. Safaitic, Early Islamic Arabic)

C-Ø = Dialect that has lost case (e.g. the modern dialects, Late Nabatean Arabic (?))
(?) is a sign that the evidence is not quite clear as to whether such a variety existed as a living language in the given period.

It should be noted here, that such a chart can be highly misleading. So here are some notes as to explain what we do not propose it means: We do not envision a linear path of modern caseless varieties back to ancient caseless varieties. Varieties that had case, or partial case may have developed into caseless varieties as well, due to individual

developments or dialect mixing. The other direction seems more difficult to envision, but perhaps not completely impossible.

What is important to note is that, it is much more economical to assume that all of Arabic derives from a single Semitic case system, rather than two systems. The caseless system can easily be derived from the case system through simple sound laws and analogies. Losing the final unstressed part of a word is cross-linguistically so incredibly common, that it is hardly surprising that it happened multiple times. The chances however, of retaining a Proto-Semitic dialectal split of case-bearing and caseless varieties, all the while undergoing all the shared innovations of Arabic, without ever splitting off into completely different languages over a period of thousands of years, is such an extraordinary claim, that the mere absence of case in the modern dialects simply is not enough evidence to defend such a claim.

6. Case Closed?

Owens is 100% correct in emphasizing the need for critical doubt, and engagement with his skepticism will no doubt lead to a sharper and more complete justifications for reconstructions among Semiticists, especially ones that can be more readily interpretable by those coming from other fields. We hope to have shown that, at least when it comes to case, there is nothing controversial about its reconstruction for either Proto-Semitic or Proto-Arabic.

We also hope to have shown that the three alternative options presented by Owens are all improbable if not impossible:

1. Proto-Semitic did not have case, it was innovated in several clearly unrelated languages in the same way.
2. Arabic's case is an invention of the grammarians.
3. Proto-Semitic and Proto-Arabic had caseless and case-bearing varieties within the same language. This situation was stable enough to persist unaltered for thousands of years into Arabic.

Appendix I: the diachronic background of vocative forms terminating in -ā in modern Arabic

In Classical Arabic, vocative nouns normally take the nominative ending -u without nunation, but when they are in construct with another noun or a clitic pronoun, they take the accusative ending -a (Fischer 2002: §157a). This highly idiosyncratic behavior of construct vocatives is replicated in petrified vocatives of some kinship terms in the modern dialects, e.g. *yābā*, *yābāy* 'O my father' or *yammā* 'O my mother'. Owens, in an Academia.edu reply to an earlier draft of this paper, cleverly identified a parallel in the vocative of nouns with the first person singular clitic pronoun in the work of ibn Yaṣīṣ, a 13th c. grammarian. One can say for 'O my servant boy' the following:

- a. *yā ġulāmī*
 b. *yā ġulāmi*
 c. *yā ġulāmā*

Example a is the common Classical Arabic way of expressing this construction, while example b is attested in the Qur'an and reflects some contextual shortening of the vowel e.g. *yā-qawm-i* 'o my people!', *yā-ʔabat-i* 'o my father', *yā-ʔibād-i* 'o my servants!', *yā-rabb-i* 'o my lord!'. c is also attested in the Qur'an for 1cs vocatives that function as expressions of woe. In the Quran it is written with *ʔalif maqṣūrah*, e.g. *yā-ʔasaf-ā* 'o my sorrow!' (Q12:84), *yā-waylat-ā* 'O my woe!' (Q5:31; 11:72; 25:28), *yā-ḥasrat-ā* 'O my regret!' (Q39:56).²⁹ We would interpret example c to reflect the following:

*yā	<i>ġulāma</i>	-ya
VOC	servant boy.ACC	my

Now, while Classical Arabic neutralizes the expression of case in singular nouns with the clitic pronoun *-ī*, other Semitic languages do not do this. For example, Ugaritic preserves a consonantal *y* 1cs ending in nouns in the genitive and accusative while collapsing it to a vowel in the nominative:

<i>mlk</i> /malkī/	'my king.NOM'
<i>mlky</i> /malkiya/	'my king.GEN'
<i>mlky</i> /malkaya/	'my king.ACC'

Example c may, in our opinion, be an archaism where the expression of the accusative case is preserved, making use of the *-ya* allomorph of the 1cs pronoun that occurs after long vowels in Classical Arabic. In the language of the Quran the form appears to be an archaism only retained in expressions of woe, where perhaps the *-ā* ending was no longer felt as a 1cs suffix. The final *ā* is the result of the collapse of the ensuing triphthong, **ġulāmaya* to *ġulāmā*, just as *banaya* 'he built' becomes *banā*.³⁰ The Ugaritic paradigm may be original and the Classical Arabic distribution would then reflect leveling of the nominative allomorph for all members of the paradigm.

Forms like *yammā* may reflect the same phenomenon: *yā 'imma-ya*. 'O Father' exhibits two forms: *yā-bā-y*, which reflects the original long accusative vowel (<*yā *ʔabā-ya*), and *yā-bā*, which could reflect pattern copying from *yammā*. These forms are especially interesting because they cannot be interpreted as borrowings from the literary variety, as example c is marginal in Classical Arabic at best. Thus, these expressions cannot be written off as Classicisms, but are true reflections of a colloquial case-bearing variety.

²⁹ We thank Ibrahim Hawari for pointing this out to us.

³⁰ Note that both the vocative *-ā* and the *-ā* of *banā* are written with an *alif maqṣūrah* and both are read with an /ē/ vowel in the reading traditions that distinguish the original **-ā/-awa* from **-aya*; see Van Putten (2017) for a discussion.

Appendix II: Lancioni's "provocative solution"

While Owens (2006/9: 101) has argued that case vowels may have originally been epenthetic vowels of some sort, only later grammaticalizing into case vowels, he does not provide any explanation as to the process and context in which these epenthetic vowels came to be inserted.

Lancioni (2009: 231-236) proposes a "provocative solution" to the enigma of the case endings. He suggests that these epenthetic vowels were inserted, essentially *metri causa*, for Arabic poetry which strongly favours CV syllables to "comply with the needs of the rhyme system" (p. 235). Lancioni's hypothesis suffers from all the same weaknesses as Owens'. He ignores the obvious examples of case not marked by final short vowels (sound masculine plural, dual and the five nouns). Moreover, Lancioni claims that Arabic case is "[...] marked by a lack of allomorphy (see Table 3 above)". The cited table in fact contains the diptotic case endings, which are a textbook example of allomorphy. We therefore also cannot agree that "one can reasonably assume that they are not originally cases, but epenthetic vowels."

Besides these shortcomings, the suggestion that Arabic would require such epenthetic vowels to compose poetry has several large implications. First, it would mean that the poetic meter used in Arabic would be fundamentally incompatible with the syllabic structure of the Arabic language itself. Such a mismatch between poetic structure and linguistic structure is, of course, not *a priori* impossible. However, it does seem highly unlikely that such a mismatch between poetic and linguistic structure can develop in a native tradition, rather than a borrowed tradition to which the meters may have been better suited. As we have no reason to assume that the metrical poetic tradition of Arabic was imported from some other language with a similar poetic tradition, this explanation remains fully *ad hoc*. Most importantly, this does not explain the presence of a nearly identical case system in other Semitic languages, like Akkadian and Ugaritic. Both these languages did have a poetic tradition, but the Akkadian nor the Ugaritic tradition made use of meter or rhyme in their poetic tradition. The emergence of a nearly identical case system *metri causa*, is therefore impossible for these languages.

Finally, it is not clear that Lancioni's incompatibility hypothesis is correct. There is in fact poetry composed in modern dialects with meters close to the Classical Arabic meters, which are nevertheless completely caseless, and do not have a need for epenthetic vowels to create CV syllables. Short syllables may simply either be CV or C. An example of this is given by Clive Holes in his *EALL* article on Nabaṭī poetry (Holes 2011), which has a – U – | – – U – | – U – – meter, essentially identical to the Classical *sarīf* save for an additional final long syllable in the third foot.

To conclude, Lancioni's "provocative solution", solves none of the problems present in Owens' original hypothesis, and does not provide a plausible model for understanding the appearance of Owens' hypothesized epenthetic final vowels.

References

- Al-Jallad, A. 2014. "Final short vowels in Ge'ez, Hebrew 'atta, and the Anceps Paradox", in *Journal of Semitic Studies* 59(1). 315-327.
- Al-Jallad, A. forthcoming. "The earliest stages of Arabic and its classification", in *Routledge Handbook of Arabic Linguistics*, edited by R. Bassiouney and E. Benmamoun. Pre-Print version here: https://www.academia.edu/18470301/Al-Jallad_The_earliest_stages_of_Arabic_and_its_linguistic_classification_Routledge_Handbook_of_Arabic_Linguistics_forthcoming
- Beekes, R. S. P. *Comparative Indo-European Linguistics: An Introduction*. Revised and corrected by M. de Vaan. Amsterdam & Philadelphia: John Benjamins.
- Behnstedt, P. 1987. *Die Dialekte der Gegend von Ṣa'dah (Nord-Jemen)*. Wiesbaden: Harrassowitz.
- Blažek, V. 2010. "On classification of Berber. Paper presented at the 40th Colloquium of African Languages and Linguistics." Leiden.
- Blau, J. 1977. "The Beginnings of the Arabic Diglossia. A Study of the Origins of Neoarabic", in *Afroasiatic Linguistics* 4(4). 175-202.
- Blench, R. 2001. "Types of language spread and their archaeological correlates: The example of Berber", in *Origini* 23. 169-190.
- Borg, A. 2004. *A Comparative Glossary of Cypriot Maronite Arabic (Arabic-English): with an introductory essay*. Leiden: Brill.
- Campbell, L. 2004. *Historical Linguistics. An Introduction*. 2nd Edition. Edinburgh: Edinburgh University Press.
- Correll, C. 1984. "Noch einmal zur Rekonstruktion des altäthiopischen Vokalsystems", in *Linguistische Berichte* 93. 51-65.
- Corriente, F. 1971. "On the Functional Yield of Some Synthetic Devices in Arabic and Semitic Morphology", in *The Jewish Quarterly Review* 62(1). 20-50.
- Diem, W. 1988. "Laryngalesetze und Vokalismus: Ein Beitrag zur Geschichte des Altäthiopischen", in *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 138. 236-262.
- Fischer, W. 2002. *A Grammar of Classical Arabic*. 3rd revised edition, translated from the German by J. Rodgers. New Haven & London: Yale University Press.
- Grigore, G. 2009. *L'arabe parlé à Mardin: monographie d'un parler arabe "périphérique"*. Piscataway, N.J.: Gorgias Press.
- Hasselbach, R. 2013. *Case in Semitic*. Oxford: Oxford University Press.
- Hameen-Anttila, J. 2000. *A Sketch of Neo-Assyrian Grammar*. (SAAS 13) Helsinki: Neo-Assyrian Text Corpus Project.
- Harrell, R.S. 1966. *A Dictionary of Moroccan Arabic: Moroccan-English*. Washington DC: Georgetown University Press.
- Hinds, M. & Badawi, El-S. 1986. *A Dictionary of Egyptian Arabic. Arabic-English*. Beirut: Librarie du Liban.
- Holes, C. 2011. "Nabaṭī Poetry, Language of", in L. Edzard & R. de Jong, *Encyclopedia of Arabic Language and Linguistics*. Consulted online on 09 January 2017: http://dx.doi.org.ezproxy.leidenuniv.nl:2048/10.1163/1570-6699_eall_EALL_SIM_000031
- Huehnergard, J. 2006. "Proto-Semitic and Proto-Akkadian", in *The Akkadian Language in its Semitic Context: Studies in the Akkadian of the Third and Second Millennium BC*. Eds. G. Deutscher and N. Kouwenberg. Leiden: NINO. 1-18.
- Huehnergard, J. 2008. "Afro-Asiatic", in *The Ancient Languages of Syria-Palestine and Arabia*, ed. Roger D. Woodard. Cambridge: Cambridge University Press. 225-246.
- Huehnergard, J. 2012. *An Introduction to Ugaritic*. Peabody, MA: Hendrickson Publishers.
- Huehnergard, J. and A. Rubin. 2011. "Phyla and Waves: Models of Classification of the Semitic Languages", in S. Weninger, G. Khan, M. Streck, and J. Watson (eds), *The Semitic Languages: An International Handbook*, (Handbücher zur Sprach- und Kommunikationswissenschaft 36). Boston-Berlin: De Gruyter Mouton. 259-278.
- Ingham, B. 1994. *Najdi Arabic. Central Arabian*. Amsterdam & Philadelphia: John Benjamins.
- Kossmann, M. 2013. *The Arabic Influence on Northern Berber*. Leiden: Brill.
- Lancioni, G. 2009. "Formulaic models and formulaicity in Classical and Modern Standard Arabic", in R. Corrigan, E.A. Moravcsik, H. Ouali & K.M. Wheatly (eds) *Formulaic Languages. Volume 1. Distribution and historical change*. Amsterdam-Philadelphia: John Benjamins.

- Louali, N. & G. Philippon. 2004. "Berber expansion into and within north-west Africa. A linguistic contribution", in *Afrika und Übersee* 87. 105-130.
- Negev, A. 1991. *Personal Names in the Nabataean Realm*. Jerusalem: Institute of Archaeology, Hebrew University.
- Olmo Lete G. del & J. Sanmartín. 2003. *A Dictionary of the Ugaritic Language in the Alphabetic Tradition*. Translated by W.G.E. Watson. 2 parts. Leiden & Boston: Brill.
- Owens, J. 1984. *A Short Reference Grammar of Eastern Libyan Arabic*. Wiesbaden: Harrassowitz.
- Owens, J. 1998. "Case and Proto-Arabic, Part I", in *Bulletin of the School of Oriental and Africa Studies*. 61(1). 51-73.
- Owens, J. 1998. "Case and Proto-Arabic, Part II", in *Bulletin of the School of Oriental and African Studies*. 61(2). 215-227.
- Owens, J. 2006/9. *A linguistic history of Arabic*. Oxford: OUP.
- Owens, J. 2015. "Reflections on Arabic and Semitic: Can proto-Semitic case be justified?", in *Kervan - International Journal of Afro-Asiatic Studies* 19. 159-172.
- Putten, M. van. forthcoming. "The development of the triphthongs in Quranic and Classical Arabic", in *Arabian Epigraphic Notes*.
- Rainey, A. F. 1996. *Canaanite in the Amarna Tablets. A Linguistic Analysis of the Mixed Dialect Used by Scribes from Canaan* (Handbuch der Orientalistik 1/25) Leiden: Brill.
- Sasse, H.-J. 1984. "Case in Cushitic, Semitic and Berber", in James Bynon (ed.) *Current Progress in Afro-Asiatic Linguistics: Papers of the Third International hamito-Semitic Congress*. Amsterdam & Philadelphia: John Benjamins.
- Streck, M. 2011a. "Old Akkadian and Eblite", in S. Weninger, G. Khan, M. Streck, and J. Watson (eds), *The Semitic Languages: An International Handbook*, (Handbücher zur Sprach- und Kommunikationswissenschaft 36). Boston-Berlin: De Gruyter Mouton. 340-359.
- Streck, M. 2011b. "Amorite", in S. Weninger, G. Khan, M. Streck, and J. Watson (eds), *The Semitic Languages: An International Handbook*, (Handbücher zur Sprach- und Kommunikationswissenschaft 36). Boston-Berlin: De Gruyter Mouton. 452-459.
- Suchard, B. D. 2016. *The development of the Biblical Hebrew vowels*. PhD Thesis (Leiden University).
- Takács, G. 2011. *Studies in Afro-Asiatic Comparative Phonology: Consonants*. Berlin: Dietrich Reimer Verlag.
- Trask, L. 2015. *Trask's Historical Linguistics*. Third Edition. Revised and edited by R. McColl Millar. London & New York: Routledge.
- Tropper, J. 2000. *Ugaritische Grammatik*. Münster: Ugarit-Verlag.
- Tropper, J. 2002. *Altätiopisch Grammatik des Ge'ez mit Übungstexten und Glossar*. Münster: Ugarit-Verlag.
- Voigt, R. 1983 "The Vowel System of Gə'əz", in S. Segert and A. J. E. Bodrogligeti (eds.), *Ethiopian Studies. Dedicated to Wolf Leslau on the occasion of his seventy-fifth birthday November 14th, 1981* (Wiesbaden: Harrassowitz). 355-362.
- Weninger, S. 2011. "Old Ethiopic", in S. Weninger, G. Khan, M. Streck, and J. Watson (eds), *The Semitic Languages: An International Handbook*, (Handbücher zur Sprach- und Kommunikationswissenschaft 36). Boston-Berlin: De Gruyter Mouton. 1124-1142.
- Westenholz, A. 2007. "The Graeco-Babyloniaca Once Again", in *Zeitschr. f. Assyriologie* 97. 262-313.
- Wright, W. 1890. *Lectures on the Comparative Grammar of the Semitic Languages*. Cambridge: Cambridge University Press.