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Markham J. Geller:

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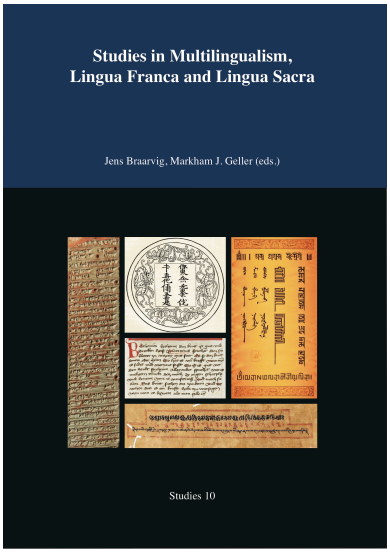

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Chapter 9
The Concept of the Semitic Root in Akkadian Lexicography

Markham J. Geller

The influence of script in a multilingual environment has not yet been fully explored, although it may be self-evident that script and language have no immutable bonds. The relationship of lingua franca and *scriptura franca* is an intimate one, since the mechanics of writing systems can affect how a lingua franca is received and adopted by dependent languages. It is not only the transparency and facility of a writing system that is relevant, but also whether any ordering principles are in-built which can contribute to the functionality of written records. The specific case of the alphabet as an example of *scriptura franca* is an interesting one because of its advantages and disadvantages. The utility of the alphabet was based primarily upon its fixed ordered sequence of characters and its usefulness as a numbering system, which could even be used hermeneutically in the form of *gematria*, in which words with the same the numerical value could replace each other. The assumed advantage of the alphabet as a simplistic writing system in relation to a syllabary is over-stated, because the lack of vowel characters makes reading of any foreign language more difficult. In any case, the writing of Semitic languages in alphabetic characters made the existence of Semitic roots far more visible to anyone analyzing the languages and their structures, and this was another distinct advantage.

Scripts can be used universally to write any number of languages, and any relation between script and language is formally one of convention, not necessity. For this reason, the alphabet has been adapted to numerous languages, without regard to the fact that it was first invented for recording the phonology of a Semitic language. In principle, the same could be said for cuneiform script, which was used for writing languages extending over several language families (Sumerian, Semitic, Indo-European, etc.). Moreover, within the Ancient Near East, one had to choose between a syllabary and alphabet, with virtually no other choice being available (such as the Chinese writing system); even the pictographic writing of Egyptian hieroglyphs was essentially a syllabary. By convention, therefore, cuneiform script was invented for writing on clay with a stylus, as was the earliest form of the alphabet (i.e. in Ugarit), but alphabet scripts were soon adapted to ink on leather or papyrus or clay, and usually written with a brush rather than a stylus.[1]

One of the chief advantages of an alphabet over a syllabary was the ability to organize data simply and effectively. Not only do the alphabetic characters always appear in a standard sequence, but each letter is associated with a numeral reflecting this order.[2] There is no equivalent to such within a cuneiform syllabary, which means that other principles had to be adapted to organize data. One of the most interesting examples of how this might work

[1] For a relatively brief period, Aramaic letters were incised with a stylus on clay tablets, but this soon became obsolete; see Lemaire (2001).

[2] Even in the case of Arabic, the numerical equivalents remain even after the order of the alphabet was changed.

within a cuneiform list occurs in the lexical list Nabnitu, the earliest examples of which are from the latter part of the second millennium BCE.[3] Irving Finkel's comprehensive and instructive introduction to Nabnitu explains in detail how the basic structure of this lexical text reflects a loosely associated *de capite ad calcem* arrangement, with entries being associated with body parts within the early "tablets" (or chapters) of Nabnitu.[4] According to Finkel's analysis, the thematic order of Nabnitu is based primarily upon the opening lines of each tablet, which are known either from surviving manuscripts or from a catalogue of Nabnitu incipits, and from subsequent entries within tablets. In the specific case of the first seven tablets of Nabnitu, a head-to-foot arrangement[5] of entries appears among tablet-incipits as well as with associated nouns within tablets, all corresponding to descriptions of the human body, such as "bodily-form" (*nabnītu*), "head" (*rēšu, qaqqadu*), "forehead" (*pūtu*), "face" (*zīmu, pānu*), "eye" (*īnu*), "nose" (*appu*), "mouth" (*pû*), "hand" (*qātu*), "arm" (*kittabru, ahu*), "fist" (*upnu*), "forearm" (*ammatu*). Verbs related to the use of functions of these body parts were also listed through semantic associations, and all Akkadian entries were combined with their Sumerian counterparts.

From this point on in Nabnitu, beginning with the eighth tablet, no body parts are specifically mentioned and the head-to-foot pattern is less clear, although now explained by Finkel as verbs that could be associated with the "mouth" (ie. *manû* to recite, *zamāru* to sing, *akālu* to eat) or the "hand" (e.g. *šaṭāru* to write, *edēlu* to bolt, etc.). Finkel sees the next division of tablets as reflecting the "feet,"[6] with incipits having verbs such as to "coil" (*kanānu*), to "flatten" (*sapānu*), to "pass by" (*etēqu*), or to "jump" (*šahāṭu*). After Tablet 30, this order appears to break down entirely. Nevertheless, the patterns are clear enough to consider that certain ordering principles are in place, even though the precise head-to-foot arrangement found in Finkel's introduction to MSL 16 may need to be reconsidered. The nouns indicating parts of the body from the head to arms are clear enough, but one cannot help wondering why this structure was not continued for later tablets, simply by inserting words for hand or leg or foot or other synonyms for these body parts. A different ordering principle could be proposed, beginning with the terms *šaṭāru* to write, *edēlu* to lock out, *sapānu* to "smooth out" (barley), *mahāru* "receive"[7] and *nadānu* "give" (goods), all of which could have had commercial connections, rather than simply being associated with the "hand."[8]

Similarly, *nasāhu* to "uproot," *gullubu* to "shear" (or "shave"), *mahāṣu* to "strike,"[9] *kanānu* to "coil,"[10] *sapānu* to "flatten"[11] could reflect the common uses of such terms in hand-working or crafts. By the same token, verbs such as *etēqu* to "pass by," *šahāṭu* to "jump," *arāhu* to "hasten," *re'û* to "shepherd," *arādu* to "descend," and *erēbu* to "enter"[12] may have described different paces of walking or moving. The point is that the ordering principles may vary from one section to another, but some sort of order based on semantics

[3] MSL 16 = Finkel (1982).
[4] Finkel (1982, 23ff).
[5] This kind of head-to-foot arrangement, otherwise known from medically-oriented texts like the *Diagnostic Handbook* was common to medical literature in general, see Heeßel (2000); Scurlock (2014, 13–271).
[6] See Finkel's scheme, MSL 16, 27.
[7] The entry is *mahāru ša še'i u kaspi*, "to receive referring to barley and silver."
[8] As argued in MSL 16, 25–26.
[9] The entry is *mahāṣu ša amēli*, "to strike referring to a man," which could be a kind of manual activity.
[10] The entry is *kanānu ša šipri*, "to coil referring to work" (not a snake).
[11] MSL 16, 26–27.
[12] MSL 16, 27.

is apparent in the text of Nabnitu. The final result was that the Akkadian terms in the right hand column of Nabnitu could be used to identify the Sumerian equivalent of each term in the left-hand column of the lists, which was the point of the exercise.[13]

Within the individual tablets, however, another ordering principle is visible, which Finkel has ingeniously and provocatively identified as the awareness of the root system of Semitic languages,[14] which has been further elaborated by Lutz Edzard.[15] Finkel's remarks on this subject are worth repeating:

> We are obliged to conclude that the processes of lexicography had engendered at least a partial understanding of the root system, since it is, after all, a natural outcome of any classification of Semitic vocabulary. It seems doubtful, on the other hand, that the refined concept of a tri-radical root such as was developed by the Arab grammarians and lexicographers of the ninth century CE can be posited for Mesopotamia of the second millennium BCE.[16]

To substantiate this point, Finkel points out that verbal forms are first listed as G-Stem infinitives often followed by the same verb in its derived forms,[17] or with nominal and adjectival derivatives of a verb.[18] Moreover, homophones are collected into successive lists,[19] and in many other instances roots are listed in sequences which show consistent phonological attraction of entries with similar labial, velar, and dental phonemes,[20] and this analysis has been further analyzed by Lutz Edzard.[21]

The question is whether this ordering of sequence of Akkadian words could only have been accomplished after the invention of the alphabet, which is based primarily upon Semitic roots. Were native speakers of Akkadian in Mesopotamia aware of the root system of their language before alphabetic writing made this so obvious?[22] Certain details in Nabnitu makes one wonder if various associations within this list would have been less obvious without the guidance of a skeletal writing system which mainly records consonants, that is, the alphabet or something similar. The patterns begin already with the opening entries of Nabnitu, which play with roots which would normally in alphabetic scripts be described as "weak" (√bn' or √bwn) or geminate (√bnn):

1	[sig$_7$].alam	*nabnītu*	(physical) form
2	alan$^{a\text{-}lam}$alam	*bunnanû*	physiognomy
5	x igi	*būnu*	appearance

Table 1

[13] As explained by Finkel, MSL 16, 38.
[14] MSL 16, 36–38.
[15] Edzard (2011).
[16] MSL 16, 38
[17] MSL 16, 29f.
[18] MSL 16, 31.
[19] MSL 16, 33.
[20] MSL 16, 34–35.
[21] Edzard (2011, 28–29).
[22] The assumption is that speakers of Ugaritic or Akkadian in Ugarit would have recognized Semitic roots, once they grew accustomed to alphabetic writing.

and then reverting to a homonym √bn' "to create" or "to be beautiful," that is:

13	kul.kul	*banû ša qaqqadu ša* SAG.KUL.KUL	be beautiful (referring) to the head and (god) Sagkulkul
14	mud	*banû ša alādi*	to create (referring) to giving birth

Table 2

The difficulty is whether these associations were purely semantic or influenced by a theory or awareness of Semitic roots. From an etymological viewpoint, only the terms *nabnītu* "form" and *banû* "create" are actual cognates, nor can one argue that the remaining entries are homonyms, because of vowel differences and additional syllables. In fact, the argument for Semitic roots is inconclusive, since there were semantic reasons for associating words meaning to "create" and "be beautiful" and "appearance" which could have governed this pattern.

One of the more intriguing examples of word association occurs in Nabn. IV 19–28,[23] in which we find a series of words beginning with an entry for "tongue" (*lišanu*), but the Sumerian equivalents must also be taken into account. The relevant entries are also discussed by Lutz Edzard:

19	eme	*lišānu*	tongue
20	lú.eme.tuku	*ša lišānu*	(man) having a tongue (speaker)
22	lú.eme.nu.tuku	*lā išānû*	(Sum. one lacking a tongue), unimportant[i]
23	lú.sag.du.nu.tuku	MIN	(Sum. one lacking a head), unimportant
24	$^{si\text{-}la}$sila$_{11}$	*lâšu*	to knead
25	silig	*lîšu*	dough
26	níg.sila$_{11}$.gá	*lîšu*	dough
27	$^{ni.sag}$muru$_4$	*lîšu*	dough
28	mu x x	*laššu*	there is not
29	sumun$^{su\text{-}mun\text{-}zi}$zi	*lušû*	grease

Table 3: Edzard (2011, 26) [i]lit. "one who is lacking."

The pattern here shows variations of various Semitic roots with playful associations between them, and the rulings in Nabnitu show this section to be a discrete unit. **The initial entry *lišānu* "tongue" (corresponding to the root Semitic √*lšn*) alternatives with a negation of *išû*, "to have," followed by the verb *lâšu* "to knead" and the noun *līšu* "dough,"**

[23] MSL 16, 77.

but ending with another negation of "to have" (*laššu* < *la išû*). These terms have little in common with each other except for the sequence of the /l/ and /š/ phonemes, while vowel length is ignored entirely (e.g. *lišānu* vs. *lā išānû* vs. *laššu*). It is the lack of interest in the vowel quantity which could suggest a focus on "consonants," similar to what one might expect from an alphabetic orthography, but these entries could easily be explained as homophones (*lâšu* and *laššu*) and sequences of similar sounds while ignoring the meanings.

Another example of lexical correspondences not based upon semantics occurs in Nabn. IV A, 206–216:

206	$^{ku\text{-}ud}$kud	*dânu*	to judge
207	kud	*dayyānu*	judge
208	zag.^{šá}ša$_4$	*dunnu*	power
209	giš.ná.aš.na	*dinnûtu*	bedstead
210	níg.sag.íl.la	*dinānu*	substitute
211	níg$^{ni\text{-}ig}$zu	*nindanu*	measuring pole
212	níg.da.na	*nindanu*	measuring pole
213	u$_4$.dug$_4$.ga	*adannu*	fixed time
214	an.za.gàr	*dimtu*	tower
215	ér (A^{er}IGI)	*dimtu*	tears
216	di	*dīnu*	legal case

Table 4: MSL 16, 84–85

The mixture of forms in this list has been set apart by rulings, indicating a discrete unit which only has one thing in common, a sequence of /d/ and /n/ or /m/ phonemes,[24] with little attention paid to vowel quantity, as before. Various permutations of words do not indicate any evidence of the awareness of Semitic roots, however, since no single tri-radical root can be identified to explain this sequence of entries.

This being the case, let us review the best arguments posed by Irving Finkel and Lutz Edzard for detectable Semitic roots in Nabnitu. Finkel[25] gives as best evidence for the concept of the root in Nabnitu the following entries from Nabn. XVI, 1–63:

[24] See Edzard (2011, 291).
[25] MSL 16, 36.

1	[šu.te.gá]	[*mahāru ša* ŠE *u* KÙ.BABBAR]	to receive (referring) to barley and silver
4	[šu.gíd]	[MIN (= *mahāru*) *ša*] *qiš-ti*	ditto (referring) to a gift
23	[.....]	[MIN (= *mahāru*) *šá* IGI	ditto (referring) to the eye / face, be pleasing
27	[ru.gú]	[MIN] *ša mahirti*	ditto (referring) to upstream
28	[šen.šen.sag.gi$_4$.a]	*qabal lā mahār*	battle not to be faced
29	[.....]	*qablu ša lā immahharu*	battle which cannot be faced
30	[.....]	*mihru ša* ÍD	barrier (referring) to a river
33	[giš.gi$_4$.gál]	MIN (= *mihru*) *ša zamāri*	refrain, (referring) to singing
34	[^{d}mu.uh.ra]	ŠU	ditto (= divine name)
35	[.....]	*muhra qurribšu*	approach! present it!
36	[.....]	*mahra*	before
37	[.....]	*mahirtu*	leg bone
38	[.....]	*mahīru*	market place
39	[.....]	*māhiru*	rival
40	[.....]	*māhiršu*	his rival
41–42	[a.ba .....]	*mannu māhiršu*	who can rival him?
43	[.....]	*galab māhiri*	public barber
44	[.....]	*mithurtu*	conflict
45	[.....]	*lišān mithurti*	contrasting languages
52	[.....]	*mithāru*	of equal size
54	[.....]	*mithuru*	to agree
56	^{giš}m[á.....]	^{giš}MÁ *muhra*	sail the boat!
57	gaba.ri [..] x	*mihra muhra*	face the facts!
58–59	[sag.í]l	*mahrû*	foremost
60	sag.í.[l h]u.tùm	*muhrû libilšu*	let the foremost fetch it
61	an.ta.[gi.g]i	*mahrû*	first (above all)
62	lugal.ra gaba.ri.[gi].íb	*šarra muhur*	approach the king!
63	ur.sag è x [..].íb	*qarrada* MIN	approach the hero!

Table 5: MSL 16, 142, followed by Edzard (2011, 30)

This discrete section of Nabnitu, enclosed by a ruling, certainly shows awareness of cognates related to the infinitive *mahāru*, to "receive" or "oppose," with various derived idiomatic expressions referring to "divergent" but "equal" forces meeting each other (such as in a market or in battle or in contrasting languages). So while the list is a remarkable study in semantics, the question remains open as to whether this list shows awareness of a Semitic root √*mḫr*, rather than simply noting derived stems (Gt, Dt) and grammatical forms (imperatives and participles) of a standard Akkadian verb, *mahāru*.

Another argument in favor of a tri-radical root in Nabnitu is the appearance of metathesis in certain groups of words, which might suggest conscious manipulation of root radicals. Lutz Edzard gives the following example from Nabn. 17: 295–291:

275	gaz	*kasāpu*	break into pieces
277	kù	*kaspu*	silver
288	duh.še.giš.ì	*kupsu*	bran
289	hul.gál	*kispu*	funerary offering (Sum. = "be evil")
291	níg.pàd.du	*kusāpu*	breadcrumbs

Table 6: Edzard (2011, 27)

The point of this passage is that Akkadian has homonyms such as *kasāpu* "to break into pieces" and *kasāpu*, "to make funerary offerings," which are the bases for the alternative forms in this group of nouns.[26] In fact, Akkadian *kupsu* "bran" has an alternative writing *kuspu* and *kisbu* in another lexical list,[27] while *kispu* "funerary offering" also has a variant form *kipsu*.[28] Furthermore, the Sumerian expression hul.gál (in l. 289) would be a better equivalent for Akkadian *kibsu* "track, path,"[29] since the word *kibsu* often denotes the "tracks" of demons or the source of malevolent dust used in sorcery, for which the Sumerian expression hul.gál "being evil" would be more appropriate. In other words, the pattern of metathesis seen in this list of Nabnitu nouns reflects a phenomenon attested elsewhere in Akkadian lexicography, that secondary metathesized forms of these nouns were recognized, which weakens the argument that Nabnitu's formulations reflect a unique awareness of Semitic verbal roots.

Since there is nothing in the evidence so far considered enabling one to make a *prima facie* case for the awareness of the Semitic root system in Nabnitu, one other possibility remains, namely that Mesopotamian scholars could have been conscious of the prior invention of the alphabet, which could have influenced the Nabnitu lists by drawing attention to the root system and by extension the consonants as independent from vowels, which cannot be expressed in a syllabary. Even the most trivial indication that the alphabetic writing system was known to composers of Nabnitu would be enough to tip the balance in favor of the

[26] It should be noted that line 290, omitted by Edzard, is more consistent with Sumerian lexicography, giving Sumerian ki.sì.ga as corresponding to Akkadian *kispu*, "funerary offering," and for which there is also a Sumerian loanword into Akkadian, *kisikkû*.
[27] See CAD K 555.
[28] CAD K 425.
[29] Which also has an alternative lexical writing *kispu*, see CAD K 336.

Semitic root system having a subliminal role in producing this lexical text. However, one of the key advantages of the alphabet, as mentioned above, was its utility as a tool for ordering data, since the fixed A-B-C (aleph-bet-gimel) sequence was known from the earliest traces of this writing system. Had the alphabet been known to Nabnitu-scholars, there would have been plenty of opportunity to use its powerful ordering capabilities within the seemingly arbitrary listings of Akkadian words. Unfortunately, such is not the case. There does not appear to be a single instance in Nabnitu of words being listed according to an alphabetic order of opening syllables, nor is there even a close approximation of an alphabetic order. This suggests that even if the text of Nabnitu was influenced by awareness of the Semitic root system, the alphabet appears to be ruled out as the heuristic tool which could have effected this awareness.

Conclusion

The original intention of this paper was to substantiate the theory of Irving Finkel and Lutz Edzard that the unusual Sumerian-Akkadian lexical list Nabnitu demonstrated principles of ordering entries that could only be explained by reference to an awareness of the Semitic tri-radical root system. The present author was surprised by the data, since every attempt has proven unsuccessful to demonstrate beyond reasonable doubt that discrete groupings of entries of Akkadian words (with Sumerian equivalents) in Nabnitu resulted from a cognizance of the Semitic roots of these terms. Each individual grouping of entries could easily be explained by semantic, homophonic, and cognate characteristics of listings of Akkadian verbs and their derived forms. The problem facing ancient scholars of how to order data effectively within a syllabary writing system remains to be solved.

Abbreviations

MSL = Materials for the Sumerian Lexicon

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