

The Comparative Method in Semitic Linguistics*

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"The comparative method is a set of techniques, developed over more than a century and a half, that permits us to recover linguistic constructs of earlier, usually unattested, stages in a family of related languages."¹ It begins with vocabulary, usually basic vocabulary, and the recognition of cognates across the languages compared. It then proceeds to isolate systematic yet essentially nonmotivated correspondences that recur among the compared languages *and* to present these correspondences in an economical yet linguistically natural formula. The comparison may focus on practically any linguistic level, though it is perhaps most familiar as a tool for phonological and morphological analysis. The comparative method is a proven set of linguistic techniques that linguists and Semitists jointly apply with great success.

The goals of the comparative method are as familiar as the method itself. Stated simply, comparative linguists seek

- i to identify instances of genetic relatedness amongst languages;
- ii to explore the history of individual languages;
- iii to develop a theory of linguistic change.²

Identifying genetic relationships is of course fundamental to the comparative task and underlies such basic projects as linguistic classification.³ Exploring the history of individual languages, especially the changes that occur across related languages, often involves the abstractive and retrospective method of reconstruction.⁴ Developing a theory of linguistic change, however, is not a priority of ours. Since Semitists tend to be adverse to theory, we have yielded the more theoretical tasks to others. Our persistent interest in subgrouping, though, shows that we have not ignored this goal altogether.

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1. Robert L. Rankin, "The Comparative Method," in *The Handbook of Historical Linguistics*, ed. Brian D. Joseph and Richard D. Janda (Blackwell Handbooks in Linguistics; Malden, Mass.: Blackwell, 2003) 183.

2. S. P. Harrison, "On the Limits of the Comparative Method," in *ibid.* 214.

3. See John Huehnergard, "Comparative Semitic Linguistics," in *Semitic Linguistics: The State of the Art at the Turn of the Twenty-First Century*, ed. Shlomo Izre'el (IOS 20; n.p.: Eisenbrauns, 2002) 130.

4. See Henry M. Hoenigswald, *Language Change and Linguistic Reconstruction* (Chicago: University of Chicago Press, 1960) 119.

The comparative method has been very successful at producing a stable inventory of proto-Semitic phonemes. There are three vocalic phonemes: an open back vowel, a close front vowel, and a close rounded back vowel. There are also twenty-nine consonantal proto-phonemes whose place and manner of articulation can now be charted on the standard IPA table. For example, the so-called emphatics are now finding their home as ejective counterparts of simple unvoiced segments.⁵ At the same time, current opinion favors a characterization of the alveolar sibilants as proto-affricates.⁶ The comparative method has also been successful at eliminating a putative proto-consonant. Thus the "rare phoneme" **s₄*,⁷ once thought to underlie distal demonstratives, third-person pronouns, and the causative prefix,⁸ now seems to behave according to phonological rules that in turn refute the justification for reconstructing a separate proto-phoneme.⁹ For the moment, the number and identity of proto-Semitic phonemes is secure.¹⁰

The comparative method has had another success in demonstrating the existence of word-initial consonant clusters in the proto-language. This notion is not new, but it has gained momentum since 1985, when Testen showed that a uniquely Aramaic sound change is governed by this very condition, in the form of word-boundary, consonant, and **n*: e.g., **bn-* > *bərâ* 'son' vs. **ban-* > *bəṇayyâ* 'sons'.¹¹ Furthermore, the plural stem itself corroborates the cluster-initial derivation of the base form; it participates in the central Semitic morphophonological rule which inserts an **a*-vowel between two contiguous consonants that precede a plural suffix:¹² e.g., Hebrew *ben* 'son' < **bn-* vs. *bəṇîm* 'sons' < **banîmV*; see also *šet* 'rump' (Is 20:4) vs. *šəṭôt* 'foundations' (Ps 11:3). These nominals therefore confirm a pattern that otherwise seemed to occur only in the proto-Semitic G imperative.¹³ However unstable, **#CC*, is permissible in proto-Semitic.¹⁴

In the arena of morphology, the dust may be settling over the antiquity of the **yaqattVI* verb form. It occurs in Akkadian as a productive imperfective form. It also occurs in Ethiopic with the same characteristics. The logic of the comparative method, then, suggests only one conclusion.

5. E.g., Gotthelf Bergsträsser, *Einführung in die semitischen Sprachen. Sprachproben und grammatische Skizzen* (Munich: Hueber, 1928) 5 (= idem, *Introduction to the Semitic Languages: Text Specimens and Grammatical Sketches*, trans. and ed. Peter T. Daniels [Winona Lake: Eisenbrauns, 1983] 4); and, in detail, Aharon B. Dolgopolsky, "Emphatic Consonants in Semitic," *IOS* 7 (1977): 1-13.

6. E.g., J. Vilenčik, "Welchen Lautwert hatte ض im Ursemitischen?" *OLZ* 33 (1930): 97; and I. M. Diakonoff, *Semito-Hamitic Languages: An Essay in Classification* (Languages of Asia and Africa; Moscow: Nauka, 1965) 20.

7. Diakonoff, *Afrasian Languages* (Languages of Asia and Africa; Moscow: Nauka, 1988) 37.

8. E.g., Ignace J. Gelb, *Sequential Reconstruction of Proto-Akkadian* (AS 18; Chicago: University of Chicago Press, 1969) 172-174.

9. Rainer M. Voigt, "Die Personalpronomina der 3. Personen im Semitischen," *WO* 18 (1987): 49-63. See also idem, "Der Lautwandel *s¹* > *h* in wurzellosen Morphemen des Alt- und Neusüdarabischen," in *Semitic and Cushitic Studies*, ed. Gideon Goldenberg and Shlomo Raz (Wiesbaden: Harrassowitz, 1994) 19-28; and idem, "Akkadisch *šumma* 'wenn' und die Konditionalpartikeln des Westsemitischen," in *Von Alten Orient Zum Alten Testament. Festschrift für Wolfram Freiherrn von Soden zum 85. Geburtstag am 19. Juni 1993*, ed. Manfred Dietrich and Oswald Loretz (AOAT 240; Kevelaer/Neukirchen-Vluyn: Butzon & Bercker/Neukirchener Verlag, 1995) 517-528.

10. Cf. Huehnergard, "Akkadian *h* and West Semitic **h*," in *Studia Semitica*, ed. Leonid Kogan (Orientalia: Papers of the Oriental Institute 3; Moscow: Russian State University for the Humanities, 2003) 102-119.

11. D. Testen, "The Significance of Aramaic *r* < **n*," *JNES* 44 (1985): 143-146.

12. See Mayer Lambert, "[Review of Joüon, *Grammaire de l'hébreu biblique*]," *REJ* 78 (1924): 164 (ad §98e).

13. E.g., M. M. Bravmann, "Notes on the Forms of the Imperative in Hebrew and Arabic," *JQR* 42 (1951): 55 (reprinted as "The Forms of the Imperative [and Jussive] in the Semitic Languages," in idem, *Studies in Semitic Philology* [Studies in Semitic Languages and Linguistics 6; Leiden: Brill, 1977] 198).

14. For an explicit attempt to demonstrate this structure in proto-Akkadian, see Testen, "The East Semitic Precative Paradigm," *JSS* 38 (1993): 10; and, in this context, Arno Poebel, *Studies in Akkadian Grammar* (AS 9; Chicago: University of Chicago Press, 1939) 99-101 n. 1.

It is the very fact that [these] two Semitic languages, geographically the most remote from each other, and otherwise with very little in common that is not demonstrably Semitic *Gemeingut*, share this particular formation that adds cogency to the thesis that it [sc., **yaqattVI*] is proto-Semitic.¹⁵

But problems remain. First, there are discrepancies between the Akkadian and Ethiopic forms that still require explanation.¹⁶ Second, the gemination in these forms may well be iconic – a grammaticalized representation of durativity or a related imperfective category.¹⁷ In which case, this imperfective inflection could have arisen independently in these two distantly related languages.¹⁸

Historical origin notwithstanding, **yaqattVI* is one of the two attested prefixed finite verb forms in the Semitic languages. The other is **yaqtVI* and, unlike **yaqattVI*, is a solidly proto-Semitic form. Together, they comprise a compatible and complementary pair. Huehnergard characterizes them as "two basic indicative forms" which are distinguished according to aspect (perfective vs. imperfective).¹⁹ Yet are they truly "indicative?" Unfortunately, the term is equivocal. Trask defines it as a declarative: "The mood category associated with the uttering of a statement which the speaker believes to be true."²⁰ Palmer prefers to subsume this grammatical category under the semantic heading "realis."²¹ Either way, it is not likely that the prefixed verbs are indicative. The proof lies in the shorter, **yaqtVI* form. For as all scholars recognize, proto-Semitic **yaqtVI* has two discrete semantic values. One is a preterite, and the other is an optative (jussive).²² Biblical Hebrew provides a typical illustration.

yəqem He reduced the storm to a whisper, and the waves went silent. (Ps 107:29)²³
So shall Yahweh do. *yəqem* May Yahweh fulfill your words. (Jer 28:6; see also 1 Sam 1:23)

The two meanings share common ground, however. They share the notion of temporal remoteness or distance from the speaker's present,²⁴ albeit in different ways. One form, **yaqtVI* preterite, is a declarative that refers to the simple past, devoid of implication for the present state of affairs. The other form, **yaqattVI*

15. Joseph H. Greenberg, "The Afro-Asiatic (Hamito-Semitic) Present," *JAOS* 72 (1952): 2a. See also Voigt, "The Hamitic Connection: Semitic and Semito-Hamitic," in *Semitic Linguistics: The State of the Art at the Turn of the Twenty-First Century* 284.

16. See Frithiof Rundgren, *Über Bildungen mit (š) und n-t-Demonstrativen im Semitischen. Beiträge zur vergleichenden Grammatik der semitischen Sprachen* (Uppsala: Almqvist & Wiksells, 1955) 319-332; and, at some length, idem, *Intensiv und Aspektkorrelation. Studien zur äthiopischen und akkadischen Verbalstamm-bildung* (Uppsala Universitets Årsskrift 1959:5; Uppsala/Wiesbaden: Almqvist & Wiksells/Harrassowitz, 1959) 141-162. Cf. Voigt, "Drei neue vergleichende semitische Werke," *WO* 31 (2000/2001): 178-180.

17. N. J. C. Kouwenberg, *Gemination in the Akkadian Verb* (Studia Semitica Neerlandica 32; Assen: Van Gorcum, 1997) 36-37. See also C. Brockelmann, "Die 'Tempora' des Semitischen," *Zeitschrift für Phonetik* 5 (1951): 140. Cf. Voigt, "Die Entwicklung des Aspektsystems vom Ursemitischen zum Hebräischen," *ZDMG* 154 (2004): 42.

18. For the situation in modern south Arabian dialects, see David Cohen, *La phrase nominale et l'évolution du système verbal en sémitique. Études de syntaxe historique* (Collection linguistique de la Société de Linguistique de Paris 72; Louvain/Paris: Peeters, 1984) 68-75, esp. 75 with n. 37 (reference courtesy of Antoine Lonnet).

19. Huehnergard, "Afro-Asiatic," in *The Cambridge Encyclopedia of the World's Ancient Languages*, ed. Roger D. Woodard (Cambridge/New York: Cambridge University Press, 2004) 151.

20. R. L. Trask, *A Dictionary of Grammatical Terms in Linguistics* (London/New York: Routledge, 1993) 72.

21. F. R. Palmer, *Mood and Modality* (Cambridge Textbooks in Linguistics; 2nd ed.; Cambridge: Cambridge University Press, 2001) 145.

22. See, recently, Amikam Gai, "The Connection Between Past and Optative in the Classical Semitic Languages," *ZDMG* 150 (2000): 17-28.

23. For the translation and reading adopted here, see Arnold B. Ehrlich, *Die Psalmen* (Berlin: Poppelauer, 1905) 269.

24. Suzanne Fleischman, "Temporal Distance: A Basic Linguistic Metaphor," *Studies in Language* 13 (1989): 1-50.

optative, is a desiderative expression that is oriented toward the future behavior of an addressee other than the speaker.²⁵ That is, they both refer to situations that are dissociated from the speaker's actual present or reality. Both incarnations of **yaqtVl* therefore express the non-realis.²⁶ The semantics of **yaqtattVl* also intersect with the non-real. Regardless of the particular aspectual subclass, this imperfective form expresses what may be called "non-accomplished non-complete" situations.²⁷ In addition, each subclass confirms the affinity to irrealis. For instance, when the imperfective expresses habituality, it "involves induction from limited observations about the actual world to a generalisation about possible worlds."²⁸ The point at which the speaker moves beyond an ascertainable situation or firsthand experience, that speaker enters the realm of the irrealis. Proto-Semitic, then, does not have "two basic indicative forms" that inflect with personal prefixes. Rather, the two can be reduced to one basic irrealis verb form that is finite and that subdivides along modal and aspectual axes.

The case of the feminine ending **-t* is also interesting from the perspective of the comparative method. Every Semitic language deploys this suffix as an agreement marker on adjectives; viz., **-t*, or its variant **-at*, is an obligatory suffix on adjectives governed by a feminine singular noun. So too, it is a common device to mark the female member of cognate pairs: e.g., *šarru* 'king' / *šarratu* 'queen' (Akk.); *mlk* 'king' / *mlkt* 'queen' (Ug.); *maliku* 'king' / *malikatu* 'queen' (Arab.); and *nəguś* 'king' / *nəgəšt* 'queen' (Eth.). But in other paradigms and constructions, it marks neither the feminine nor singularity. The proto-Semitic series of the first ten cardinal numerals is a good example.²⁹ The two lowest numerals, '1' and '2', are adjectives and inflect by agreement; accordingly, their suffix **-t* is feminine. But when the threshold between '2' and '3' is crossed, two changes occur: the numerals have nominal morphology, and the suffix **-t* is attached to numerals governed by masculine nouns (while feminine heads govern zero-ending numerals). On the numerals '3' through '10', **-t* does not mark feminine gender in proto-Semitic. In another example, the ending **-t* of the suffixed finite verb has variable meaning. In the third person forms, where the inflectional endings are largely isomorphic with those of the predicate adjective, the ending predictably denotes the feminine singular (**-at* vs. ms. sg. **-a*). In the first and second persons, though, where the inflectional endings are isomorphic with the independent subjective pronouns, **-t* marks the second person. Rephrased in nongrammatical terms, the ending **-t* marks the addressee of a conversational pair.³⁰ Two final examples show that the grammatically feminine **-t* also transforms one word class into another. It can transform a mass noun into a count noun: e.g., *kakkūtu* 'lentil' < *kakkū* 'lentils' (Akk.); *b'ôrtâ* 'turd' < *b'ôrâ* 'excrement' (Syr.); *ša* ^u*râ* 'strand of hair' < *še* ^u*r* 'hair' (Hebr.); and

25. For the relation between future tense and desiderative mood, see E. Adelaide Hahn, *Subjunctive and Optative: Their Origin as Futures* (Philological Monographs of the American Philological Association 16; New York: American Philological Association, 1953) 75-76.

26. Despite a claim to the contrary (Robert Hetzron, "The Evidence for Perfect **y'aqtul* and Jussive **yaqt'ul* in Proto-Semitic," *JSS* 14 [1969]: 3, 10-18), the occasional accentual distinction between jussive and preterite forms in biblical Hebrew is governed by Hebrew-internal conditions (Garr, "Driver's *Treatise* and the Study of Hebrew: Then and Now," in S. R. Driver, *A Treatise on the Use of the Tenses in Hebrew and Some Other Syntactical Questions* [3rd ed.; 1892; reprinted, Grand Rapids/Cambridge: Eerdmans, 1998] lxviii with n. 204) and therefore cannot be attributed to proto-Semitic.

27. Paul J. Hopper and Sandra A. Thompson, "Transitivity in Grammar and Discourse," *Lg* 56 (1980): 273.

28. Bernard Comrie, *Tense* (Cambridge Textbooks in Linguistics; Cambridge: Cambridge University Press, 1985) 40. For a different yet compatible interpretation, see T. Givón, "Irrealis and the Subjunctive," *Studies in Language* 18 (1994): 270.

29. For a recent reexamination, see Elmar Ternes, "Entgegenetzte Genuszuweisung bei Numeralia im Semitischen: einige grammatiktheoretische und typologische Überlegungen," in "*Sprich doch mit deinen Knechten aramäisch, wir verstehen es!*" 60 *Beiträge zur Semitistik: Festschrift für Otto Jastrow zum 60. Geburtstag*, ed. Werner Arnold and Hartmut Bobzin (Wiesbaden: Harrassowitz, 2002) 719-736.

30. The same distribution may be attributed to **-t* in the proto-Semitic prefixed verb form: in third-person forms, it marks the feminine singular; elsewhere, it marks the second person.

dahabatu 'gold piece' < *dahabu* 'gold' (Arab.).³¹ But it can also transform a basic property concept (adjective) into an abstract mass noun: e.g., *kittu* 'truth, justice' < *kīnu* 'true, just' (Akk.); *gdlt* 'greatness' < *gd* 'large' (Ug.); *waqāḥatu* 'insolence' < *waqāḥu* 'insolent' (Arab.); and *śannāyt* 'beauty' < *śannāy* 'beautiful' (Eth.).³² In each of these examples, **t* serves the same function:³³ it marks the inverse of the basic grammatical or semantic category to which it is attached. In masculine/feminine singular pairs, it marks the nonbasic member. In a conversational situation, it marks the nonspeaker. In the case of natural mass nouns, it marks the nonmass counterpart. With adjectives, it marks a timeless nominal derivative. In a binary nominal system, then, **t* is the "other."³⁴ On such an analysis, this (pro-)nominal marker even has an echo in the proto-Semitic verb system. For if Dombrowski is correct in his interpretation of the Semitic *t*-stems, this derivational affix performs a series of predictable semantic shifts or reorientations, whether in the aspect of the underlying verb or in the direction of its dynamic activity.³⁵ If so, the affix *t* is a very deep inverse marker in Semitic. Clearly, we still have much to learn from the time-honored comparative method.³⁶

31. E.g., Brockelmann, *Grundriss der vergleichenden Grammatik der semitischen Sprachen* (2 vols.; Berlin: Reuther & Reichard, 1908-1913) 1 §227Ac (noting that Eth. lacks this construction); and Burkhart Kienast, *Historische Semitische Sprachwissenschaft* (Wiesbaden: Harrassowitz, 2001) §124.3a.

32. E.g., Brockelmann, *Grundriss der vergleichenden Grammatik* 1 §227Aa; and Kienast, *Historische Semitische Sprachwissenschaft* §124.3c.

33. Cf. Voigt, *WO* 18 (1987): 60.

34. See E. A. Speiser, "Studies in Semitic Formatives," *JAOS* 56 (1936): 39-40 (= idem, *Oriental and Semitic Studies Collected Writings of E. A. Speiser*, ed. J. J. Finkelstein and Moshe Greenberg [Philadelphia: University of Pennsylvania Press: 1967] 425).

35. Bruno W. W. Dombrowski, "Some Remarks on the Hebrew Hithpa'el and Inversative -T- in the Semitic Languages," *JNES* 21 (1962): 220-223, esp. 222b-223a. Cf. Michael P. Streck, *Die akkadischen Verbalstämme mit ta-Infix* (AOAT 303; Münster: Ugarit-Verlag, 2003) 106-110.

36. Cf. Bruce K. Waltke and M. O'Connor, *An Introduction to Biblical Hebrew Syntax* (Winona Lake: Eisenbrauns, 1990) 427 n. 10.