

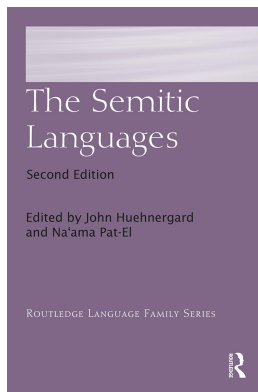
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## **The Semitic Languages**

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### **The Semitic language family**

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## CHAPTER 4

# THE SEMITIC LANGUAGE FAMILY

## A typological perspective

*Na'ama Pat-El*

### 1 INTRODUCTION

The Semitic languages exhibit a number of typologically unique features, especially morphological features, some of which are well known and regularly quoted in typological literature. Three recent articles have collected a large number of typologically uncommon or interesting morphological and syntactic features in the attested Semitic languages, both ancient and modern (Gensler 2011, Waltisberg 2011, Rubin 2017). The current chapter, instead, will review the typology of some of the features reconstructed for Proto-Semitic (see Chapter 3). I will not discuss the reconstruction of these features, as these are thoroughly treated in the previous chapter. By its nature, this chapter is not exhaustive and includes primarily features that are less known to non-specialists and should, perhaps, gain more recognition. Several of these features show remarkable resilience and stability, and are still attested in some modern languages. Stability and distribution will be noted where relevant.

### 2 PHONOLOGY

Proto-Semitic reflects a number of typologically interesting and unusual phonological features. It has a fairly large consonantal inventory of 30 consonants (Table 4.1; see Chapter 3, §2.1), which is on the high end compared to other world languages, as the typical number of consonants in a single language is in the low 20s (Maddieson 2013a).

Other languages with large consonantal inventories are attested in Africa (Niger-Congo and Khoisan), though not typically languages belonging to the Afro-Asiatic phylum. Large consonantal systems are common in languages with clicks, which Proto-Semitic (and its descendants) lacks. While none of the attested Semitic languages preserved all of the consonants of the proto-language, several of them maintain almost a complete inventory; Old and Classical Arabic preserved 28 consonants and Ancient South Arabian has 29 of the original inventory. In general, the large inventory of Proto-Semitic has changed fairly little in the daughter languages, including some modern languages. The Semitic language with the most reduced consonantal system is the Old Babylonian dialect of Akkadian with 20 consonants (see Chapter 5), where the loss of the pharyngeals and glottals left distinctive traces in the vocalic system, which is in turn slightly larger than the vocalic system of Proto-Semitic.

TABLE 4.1 PROTO-SEMITIC CONSONANTS

	BILABIAL	(INTER-)DENTAL	DENTAL-AVEOLAR	PALATAL	VELAR/UVULAR	PHARYNGEAL	GLOTTAL
Plosive	<i>p b</i>		<i>t d t'</i>		<i>k g k'</i>		<i>ʔ</i>
Nasal	<i>m</i>		<i>n</i>				
Trill			<i>r</i>				
Fricative		<i>θ ð θ'</i>	<i>s</i>		<i>x/χ ʁ/ʁ'</i>	<i>ħ ʕ</i>	<i>h</i>
Affricate			<i>ʦ ʄ ʦ'</i>				
Lateral			<i>ʎ (t)ʎ'</i>				
Approximant	<i>w</i>			<i>j</i>			

TABLE 4.2 PROTO-SEMITIC CONSONANTAL TRIADS

PLACE	MANNER	VOICELESS	VOICED	GLOTTALIZED
Dental	Plosive	<i>t</i>	<i>d</i>	<i>t'</i>
	Fricative	<i>θ</i>	<i>ð</i>	<i>θ'</i>
	Affricate	<i>ʦ</i>	<i>ʄ</i>	<i>ʦ'</i>
	Lateral	<i>ʎ</i>	<i>ʎ</i>	<i>(t)ʎ'</i>
Velar	Plosive	<i>k</i>	<i>g</i>	<i>k'</i>
	Fricative	<i>x/χ</i>	<i>ʁ/ʁ'</i>	<i>x'/χ'</i>

One of the most interesting aspects of the consonantal system is the arrangement of its phonation types in triads of voiced-voiceless-glottalic<sup>1</sup> (see Table 4.2). While all human languages use voicing in their consonantal systems and doublets of voiced/voiceless consonants are widespread, triads, where glottalic consonants are contrasted with voiced and voiceless obstruents, are not attested in other language families, to the best of my knowledge.<sup>2</sup> Interestingly, this triad arrangement is still attested in a number of modern Semitic languages (Ethio-Semitic, Modern South Arabian, Neo-Aramaic and Arabic), although with some modifications. In most languages the affricates are realized as sibilants (the affricates in Amharic are a secondary development). The glottalic consonants have shifted to pharyngealized consonants in Arabic (Zemánek 1996) and to velarized or pharyngealized consonants in Eastern Neo-Aramaic (Hoberman 1985). Ethiopian and Modern South Arabian maintain an ejective realization (Lonnet and Simeone-Senelle 1997),<sup>3</sup> which is likely to be reconstructed for Proto-Semitic (Kogan 2011: 61). Some Ethio-Semitic languages have even developed a labial triad with a glottalic bilabial stop (Table 4.3).

The Semitic languages have additionally a number of fairly complex and cross-linguistically rare consonants. For example, the proto-language has two pharyngeal consonants (*ħ*, *ʕ*), which makes it one of very few languages with any pharyngeal consonants at all. Incidentally, pharyngeals are more common in Africa, especially in branches of the Afro-Asiatic phylum, than in other regions. Another rare feature of the Proto-Semitic consonantal system is a set of three fricative dentals (*θ*, *ð*, *θ'*). The combination of these two complex consonants, pharyngeal and fricative dentals, in the same language is highly uncommon. While most Semitic languages lost their fricative dentals, and a few lost their pharyngeals as well (e.g., Akkadian, see Chapter 5; Modern Hebrew,

TABLE 4.3 CONSONANTAL TRIADS IN CLASSICAL AND MODERN SEMITIC LANGUAGES

PLACE	MANNER	CLASSICAL ARABIC	EGYPTIAN ARABIC	CLASSICAL ETHIOPIC	AMHARIC	OLD ARAMAIC	NEO WEST ARAMAIC
Dental	Plosive	<i>t d dʕ</i>	<i>t d dʕ/tʕ</i>	<i>t d t'</i>	<i>t d t'</i>	<i>t d t'</i>	<i>t d tʕ</i>
	Fricative	<i>θ ð ðʕ</i>	<i>s z sʕ/zʕ</i>	<i>s z s'</i>	<i>s z s'</i>	<i>θ ð θ'</i>	<i>θ ð ðʕ</i>
	Affricate				<i>tʃ dʒ tʃ'</i>		
	Lateral	<i>-l (t)lʕ</i>	<i>l l -</i>			<i>l l (t)l'</i>	
	Labial			<i>p b p'</i>	<i>p b p'</i>		
Velar	Plosive	<i>k - q</i>	<i>k - q/?</i>	<i>k g k'</i>	<i>k g k'</i>	<i>k g k'</i>	
	Fricative	<i>χ ʕ -</i>	<i>χ ʕ -</i>				
	Labial			<i>kʷ gʷ kʷ</i>	<i>kʷ gʷ kʷ</i>		

see Chapter 22), there are still some languages which retain both (e.g., Levantine Arabic, see Chapter 17).

In comparison to its large number of consonants, Proto-Semitic has an unusually small vocalic inventory, with three vowels {a, u, i}, all with a two-way length distinction. Cross-linguistically, this is very low; the lowest number of vocalic phonemes recorded is two, while the average is five to six (Schwartz et al. 1997). Except for Classical Arabic, no attested Semitic language reflects this system (although Moroccan Arabic and Akkadian come close with four vowels each). Most languages show a significant increase in their vocalic inventory, frequently as a result of loss of consonants or contraction of diphthongs and triphthongs. Semitic thus has a very high ratio of consonants to vowels, a rarity cross-linguistically (Maddieson 2013b).<sup>4</sup>

In addition, Proto-Semitic allows for a fairly small set of permissible syllable types: CV with length variation and CVC without length variation; null onset and consonant nuclei are not permissible.<sup>5</sup> Proto-Semitic does not allow consonantal clusters of any kind in a single syllable in any position, and no long vowels in closed syllables. Almost all Semitic languages for which we have vocalic evidence have strayed from this restriction in some way; Classical Arabic retains these syllable types, but allows CV:C in restricted contexts. Akkadian additionally allows for null onset, a consequence of extensive consonant loss in the language.

### 3 MORPHOLOGY

The morphology of Semitic is widely recognized for its complexity. Some of its features are well known and will be treated here only briefly. The Proto-Semitic root is a discontinuous morpheme, which in the proto-language can include only consonants. The arrangement and co-occurrence of these consonants are phonemically regulated in a number of Semitic languages (Greenberg 1960, Bachra 2001, Berent and Shimron 2003, Rose and King 2007, a.o.), and some scholars have claimed that the set of combinatory rules attested there can be extended to Proto-Semitic (Zaborski 1994), Proto-Afroasiatic (Bender 1978) or that it reflects cross-linguistic co-occurrence principles (Pozdniakov and Segerer 2007, Vernet 2011).

The root is an active morpheme not only in the verbal system, but also in most of the nominal system, with the exception of a closed category of “isolated nouns” (Fox 2003) and pronouns. The reality of an abstract morpheme with no obvious surface forms has always been accepted among Semitists. Consequently, most Semitists hold that surface forms, especially verbs, are derived from roots; however, a number of competing hypotheses suggest rather that Semitic surface forms are derived from other surface forms (“Surface-to-Surface”; Bat-El 1994, Ussishkin 2006, a.o.).<sup>6</sup> Such hypotheses are more in line with the morphological behavior of most languages, yet they have been rejected by most Semitists on the basis of internal (Faust and Hever 2010) and external evidence (Prunet et al. 2000, Prunet 2006). As several scholars have noted, there is no single source form that can explain efficiently all forms in a given paradigm, as the alternative hypothesis would predict, and therefore a more abstract form needs to be postulated. In addition, it can be convincingly shown that morphophonological processes are sensitive to roots rather than to surface forms (Faust and Hever 2010). Such sensitivity must also be at the heart of the consonantal combinatory constraints, which are not affected by intervening segments, like vowels (Rose and Walker 2004). The root remains the most basic morphological unit for both verbs and nouns in the modern Semitic languages, with some modifications. In some modern languages, the root can include a vowel in one root slot (Rose 2007: 408–9), but otherwise this feature is highly stable.

Most nouns and all verbs are formed by a combination of ablaut and concatenative morphology (“root-and-pattern”). This type of morphology is cross-linguistically almost completely restricted to the Afro-Asiatic family, and in particular Semitic (Bickel and Nichols 2007). The centrality of this feature in Semitic morphology has changed very little in modern Semitic languages, and even borrowed lexemes are converted into roots, which are then fitted into existing patterns (e.g., Versteegh 2009). A noted exception is Maltese, where the verbal morphology is affixal rather than concatenative, due to contact with Indo-European languages (Hoberman and Aronoff 2003).

Gender assignment on nominals is semantic-morphological. Many nouns denoting animate females are lexical and not morphologically marked, e.g., *\*ʔimm-* ‘mother’, *\*ʕinǝ-* ‘female goat’. Other unmarked feminine nouns are some paired body parts, e.g., *\*ʔuǝn-* ‘ear’, *\*ʕajn-* ‘eye’ (but not *\*θad-* ‘breast’), and a large number of seemingly random inanimate nouns, like *\*ʔabn-* ‘stone’, *\*ʔarl-* ‘earth’, most of which are primary nouns (Chapter 3, §3.3.2.1). Morphological gender is more typical, however, with feminine nouns carrying a suffix *-t/-at-* before case morphemes, while masculine nouns are unmarked. This system is attested in most Semitic languages, although gender may vary for specific lexical items, in some cases through a secondary derivation with the feminine suffix; for example, in the Neo-Assyrian dialect of Akkadian, *abattu* ‘stone’ is a secondary derivation from *abnu* (<*\*ʔabn-*), reflecting more transparently its gender (*\*ʔabn-* > *\*ʔaban-t-* > *abatt-*). An exception is some modern Ethio-Semitic languages, where nominal gender is only lexical. Gender assignment in this branch is fairly complex and differs significantly from other Semitic languages (see especially Gurage, Chapter 10, as well as Kapliuk 1994).

Gender distinction in the pronominal and verbal systems can be reconstructed not only for the 3rd person, but also for the 2nd (Table 4.4). This distinction holds for the singular and plural, but not for the dual. In the pronominal plural, the gender distinction is based on a combination of two features: the vowel (MPL – *u-* ~ FPL – *i-*), and the nasal consonant (MPL – *m-* ~ FPL – *n-*).

**TABLE 4.4 PROTO-SEMITIC GENDER DISTINCTION IN PERSONAL PRONOUNS (2ND AND 3RD PERSON)**

	INDEPENDENT PRONOUNS		SUFFIXED PRONOUNS		VERBS (PCS)	
	SG	PL	SG	PL	SG	PL
2M	<i>?anta</i>	<i>?antum(±u:)</i>	<i>-ka</i>	<i>-kum(±u:)</i>	<i>ta-CCVC</i>	<i>ta-CCVC-u:</i>
2F	<i>?anti</i>	<i>?antin(±a:)</i>	<i>-ki</i>	<i>-kin(±a:)</i>	<i>ta-CCVC-i:</i>	<i>ta-CCVC-na</i>
3M	<i>su?a</i>	<i>sum(±u:)</i>	<i>-su</i>	<i>-sum(±u:)</i>	<i>ja-CCVC</i>	<i>ja-CCVC-u:</i>
3F	<i>si?a</i>	<i>sin(±a:)</i>	<i>-sa</i>	<i>-sin(±a:)</i>	<i>ta-CCVC</i>	<i>ja-CCVC-na</i>

Despite some erosion (e.g., Mandaic, Chapter 26), gender distinction in the singular pronominal system for both 3rd and 2nd person is strictly kept in almost all modern languages. Even the Ethio-Semitic languages, which no longer maintain systematic nominal gender, exhibit a fairly conservative pronominal system. Plural distinction is maintained in most, though not all, Semitic languages. While Amharic (Chapter 9) has lost gender distinction in the pronominal plural, some closely related languages, Gurage (Chapter 10) and Tigre (Chapter 7), retain gender in both singular and plural. Most languages have kept either the vowel or consonant as a plural gender marker in the pronominal system: Hebrew kept the consonantal distinction and generalized the vowel (2MPL *?attem*, 2FPL *?atten*; see Chapter 21), Aramaic generalized the consonant and kept the vowel distinction (Syriac 2MPL *?atton*, 2FPL *?atten*; see Chapter 25), while some Arabic dialects kept both vowel and consonant distinction (Levantine Arabic 2MPL *?antum*, 2FPL *?antin*; see Chapter 16).

A fairly well-known feature is nominal pluralization by pattern replacement (Chapter 3, §3.3.2.2). One pattern, the so-called *a*-insertion, was described by Greenberg as a feature of Afro-Asiatic (1955).<sup>7</sup> Some Semitic languages show a fairly regular correspondence of a singular pattern to a plural pattern; for example, QvTL- ~ QvTaL- is a common pattern replacement in Northwest Semitic (e.g., SG *\*kalb-* ~ PL *\*kalab-* ‘dog’, SG *\*gurn-* ~ PL *\*guran-* ‘threshing floor’). These SG ~ PL correspondences cannot, however, be reconstructed to Proto-Semitic; for example, the noun *\*kalb* ‘dog’ will take the plural *kila:b* in Arabic and Mehri,<sup>8</sup> *\*kalab-* in Aramaic and Hebrew, and *?aklab* (< *\*?akla:b*) in Classical Ethiopic. Languages may exhibit multiple possible plurals for a single noun. For ‘dogs’, Classical Ethiopic may use *käläb-at* (< *\*kalab-a:t*; like Aramaic) and *?äkläbt* (< *\*?aklibi*) alongside *?äklab*, while Arabic may also use *?akla:b* (like Ethiopic) alongside *kila:b*.

The use of pluralization via pattern replacement as well as suffixation is attested in all subsequent nodes; some languages (e.g., Modern South Arabian) make extensive use of pattern replacement, while in others it is peripheral and restricted to a small subset of patterns (Aramaic) or residual (Akkadian). In Modern South Arabian and most colloquial dialects of Arabic, it is still the most common form of nominal pluralization. The Proto-Semitic system of plural coding with its unpredictable pattern replacement and suffixation is one of the most complex morphological number systems known (Corbett 2000: 150).

There are a number of lesser-known morphological features that should be noted for their typological significance. In the nominal system, pluralization by suffixation is common in most nodes, and both the morphemes and the strategy are easily reconstructible to Proto-Semitic. The plural suffixes are typically described in correspondence to

gender: *\*-u:-na* (MPL.NOM-NBND)/*\*-a:t-u-m* (FPL.NOM-NBND) (Hasselbach 2007). These suffixes, however, are largely gender-neutral when attached to substantives, and only follow gender assignment when attached to adjectives (including participles). In other words, plural suffixes on substantives do not always map onto gender, regardless of animacy, while the same suffixes on adjectives do. For example, it is possible to reconstruct a noun phrase such as the following to Proto-Central Semitic:<sup>9</sup> *\*ʔabaw-a:t-u-m t'a:b-u:-na* (father-PL-NOM-NBND good-MPL.NOM-NBND) 'good fathers', where the MPL substantive is marked with *\*-a:t-*, while the MPL adjective is marked with *\*-u:-*. This mismatch is attested in all Semitic languages to various degrees. In a number of languages some substantives can take reflexes of either of these suffixes, sometimes in complementary distribution, e.g., Hebrew *kikkār* 'loaf.FSG' ~ *kikkārīm*<sup>10</sup> FPL.NBND/ *kikkārōt* FPL.BND.<sup>11</sup> In general, the plural suffix does not change the gender of the noun; thus, the Hebrew noun *kikkār* is feminine, whether its plural is a reflex of *\*-u:-* or *\*-a:t-*. In Akkadian, however, the gender of the plural is determined by the suffix, and frequently ends up being different than the gender of the singular, e.g., *bīt-* 'house.MSG' ~ *bīt-āt-* 'houses-FPL'; some nouns have two plurals with morphologically conditioned gender, e.g., *bāb-* 'gate.MSG' ~ *bāb-ū* MPL/*bāb-āt-* FPL 'gates'. In some modern languages which use suffixes for pluralization, the mismatch between number and gender persists. In Modern Hebrew, the plural of substantives continues to be morphologically gender-neutral; e.g., *tinok* 'baby.MSG' ~ *tinokot* 'baby.MPL' and *betsa* 'egg.FSG' ~ *betsim* 'eggs.FPL.' (Schwarzwald 1991). Other languages shifted to a single plural marker for all genders; for example, Amharic uses only *-offif* (likely < *\*-āt*), whereas some Northeastern Neo-Aramaic dialects use only a reflex of *\*-ū/-ī*.

Another interesting aspect of number and gender is found in the numeral system. The cardinal numerals show gender polarity (or "chiastic concord"), in which numerals higher than two, which are marked morphologically as feminine (with the suffix *\*(a)t*), modify masculine nouns, while unmarked numerals modify feminine nouns: *\*θala:θ-at-u-m marʔ-u:-na* (three-FSG-NOM-NBND man-PL.NOM-NBND) ~ *\*θala:θ-u-m marʔ-a:t-u-m* (three-NOM-NBND woman-PL-NOM-NBND). This gender-inversion has never been adequately explained (Hetron 1967: 180–4, Hasselbach 2014: 58). The system shows signs of collapse in most modern languages, where typically one of the forms is used for both genders (for Hebrew, see Ravid 1995; for Arabic, see Bloch 1971) or the masculine is used when the numeral is bound and the feminine is used when the numeral is unbound (Bloch 1971, Bolozky and Haydar 1986). Even one ancient language, Ugaritic (see Chapter 19), does not maintain the original chiastic concord. At least some Modern South Arabian languages, on the other hand, preserve gender polarity (Rubin 2010: 209–11).

Cardinal numbers that are multiples of 10 (decades) in Semitic are marked with suffixes on the singular base digit (except for 20, whose base form is 10, not 2; see Table 4.5). These suffixes are plural suffixes in most Semitic languages, and dual suffixes in others (Geez and Akkadian). Thus, the numeral 30, Arabic *θala:θ-u:na* or Akkadian *fala:f-a:*, is 'three-PL'. See Table 4.5 for some examples. This system does not extend to numbers higher than 90. To the best of my knowledge, this system has no documented parallel elsewhere.<sup>12</sup> In many languages, decades are multiplication of 10 or 20 (e.g., Danish *tresindstyvende* '60, lit. 3 times 20') or additions of a number and 10 or 20 (e.g., French *soixante-dix* '70, lit. 60–10'). In Semitic, however, with the exception of 20, decades have no relation to 10, even though the system is essentially decimal. This is the only language family with this feature (Comrie 2013). Modern Semitic languages continue to use this feature, with the exception of some Ethio-Semitic languages which shifted to overt multiplications of 10, possibly under the influence of neighboring Cushitic languages (Leslau 1952).

TABLE 4.5 DECADES 20–50

	ARABIC	AKKADIAN
20	<i>ʕiṣr-u:na</i> (< <i>ʕiṣr-</i> ‘10’)	<i>ešr-ā</i> (< <i>ešer-</i> ‘10’)
30	<i>θala:θ-u:na</i> (< <i>θala:θ-</i> ‘3’)	<i>šalāš-ā</i> (< <i>šalāš-</i> ‘3’)
40	<i>ʔarbaš-u:na</i> (< <i>ʔarbaš-</i> ‘4’)	<i>erbe-ā</i> (< <i>erbe-</i> ‘4’)
50	<i>χams-u:na</i> (< <i>xams-</i> ‘5’)	<i>ḫamš-ā</i> (< <i>ḫamiš-</i> ‘5’)

TABLE 4.6 2MSG AND 3FSG FORMS OF THE PREFIX CONJUGATION

	PS √DKR ‘INVOKE’	OLD ASSYRIAN √PQD ‘ASSIGN’	CL. ETHIOPIC √GBR ‘DO’	JIBBALI √SFR ‘TRAVEL’	ARABIC √SMʕ ‘HEAR’	HEBREW √QSM ‘DIVINE’
2MSG	* <i>taðkur</i>	<i>tapqid</i>	<i>təgbär</i>	<i>təsfər</i>	<i>tasmaʕu</i>	<i>tiqšōm</i>
3FSG	* <i>taðkur</i>	<i>tapqid</i>	<i>təgbär</i>	<i>təsfər</i>	<i>tasmaʕu</i>	<i>tiqšōm</i>

There are two interesting cases of multiple values marked with a single morpheme (syncretism), which must be reconstructed to the proto-language as such. In the verbal system, gemination of the second root radical serves as an inflectional morpheme, marking the long prefix conjugation (PCL), e.g., \**ji-ðakkar* 3MSG-*invoke.PCL* ‘he invokes’ (vs. short prefix conjugation, PCS, \**ja-ðkur* 3MSG-*invoke.PCS* ‘he invoked’), and a derivational morpheme, marking the D stem, e.g., \**ju-θabbir* 3MSG-*break.D.PCS* ‘he broke (something) up’ (vs. G stem \**ja-θbir* 3MSG-*break.G.PCS* ‘he broke’).<sup>13</sup> In D PCL forms, gemination functions in both inflectional and derivational functions. This feature is attested in Akkadian (*u-nakkar* 3SG-*remove.D.PCL* ‘he removes’) and Ethiopic (*jə-feššəm* 3MSG-*complete.D.PCL* ‘he completes’).<sup>14</sup> In Modern South Arabian languages, which also show a reflex of gemination as an inflectional morpheme, a couple of sound changes (-VCC > V:C, and \**a:* > *o*) obscured the morphology of the original form, *jə-godələn* 3SG-*tie.D.PCL* ‘he ties’. The forms with gemination, D and PCL, remain distinct because the categories ‘stem’ and ‘tense’ have different vocalic templates.

The prefix \**t-* also reflects two morphological values in the verbal system: gender (F) and person (2). Most persons with one of these features are also marked with a gender-number suffix, and therefore have distinct realizations, except 2MSG and 3FSG forms of the prefix conjugations. As a result both these forms are identical in almost all daughter languages (see Table 4.6);<sup>15</sup> this accidental syncretism is reconstructible to the proto-language.

#### 4 SYNTAX

One of the best-known features of Semitic syntax is its unmarked declarative V(S)(O) word order, which is observable in Classical Arabic, Classical Hebrew and other languages. The order of sentential constituents has changed in all the Semitic languages, mostly to SV(O), but at least in two cases, Akkadian and Ethio-Semitic, to S(O)V. In both cases the change was motivated by contact with neighboring non-Semitic languages: Akkadian, under the influence of Sumerian, a language isolate, and Amharic (and other Ethio-Semitic



TABLE 4.7 GENITIVE AND RELATIVE MARKING IN PROTO-SEMITIC (FOR ‘HOUSE OF THE KING’ AND ‘HOUSE THAT HE BUILT’)

		APPOSITION	HEAD	MODIFIER
Genitive	Construct		<i>bajt-u-ø</i> house.msg-nom-bnd	<i>malk-i-m</i> king-GEN-NBND
	Marker	<i>bajt-u-m</i> house.MSG-NOM-NBND	<i>θu:</i> REL.MSG.NOM.BND	
Relative	Construct		<i>bajt-u-ø</i> house.MSG-NOM-BND	<i>ja-bni:-u(-su)</i> 3MSG-build.PCS-
	Marker	<i>bajt-u-m</i> house.MSG-NOM-NBND	<i>θu:</i> REL.MSG-NOM-BND	SUBORD(-3MSG)

languages), under the influence of Cushitic languages (Leslau 1945, Deutscher 2000). In Akkadian, despite the change in sentential word order, the order of other constituents has not changed, and remained overwhelmingly head-initial for the entire time the language is attested, over 2,000 years. In modern Ethio-Semitic, a dependent-initial order is attested in a number of the modern languages, and evidence indicates that the change took centuries to be completed (Little 1974, Gensler 1997: 139–42).

In many Semitic nodes, strategies to mark relative clauses and genitives are identical. Semitic is thus one of a handful of languages where the genitive and relative share syntactic encoding (Gil 2013). Two strategies are reconstructible to the proto-language (see Table 4.7 and Chapter 3, §4.3): the “construct” and the marker strategy (Goldenberg 1995). The construct involves no overt marking, except the lack of the bound morpheme (nasalization) on the head noun, e.g., *\*malk-u-ø* king-NOM-BND (vs. *\*malk-u-m* king-NOM-NBND). The marker strategy involves a so-called relative-determinative marker, which is inflected for gender-number-case in strict agreement with the head noun (Chapter 3, §3.1.3; Huehnergard 2006).<sup>16</sup> The relative marker agrees with the head noun in gender-number-case, but not in “state,” since the head noun is marked as NBND, while the relative marker is marked as BND.

There is no semantic difference between these strategies, although some languages developed a secondary distributional distinction. There is no consistent evidence for constraints on, or licensing of, each of these strategies, so it is currently impossible to reconstruct the distribution of each strategy, if one existed. The individual Semitic languages typically show preference for one of these strategies governed by language-specific criteria, but not necessarily consistently for the relative and genitive. For example, in Arabic, the preference is for a marker for the relative but construct for the genitive, while Aramaic prefers the marker for both and Classical Ethiopic alternates between the two, as the following examples from Classical Ethiopic show:

#### Construct strategy:

Genitive: *wängel-ä*    *mängəst-ä*    *ʔəgziʔäbher*  
gospel-BND    kingdom-BND    god  
‘The gospel of the kingdom of God’ (apud Bulakh 2009).

Relative: *gize*    *yə-ʕrāb*    *šāhay*  
time.BND    3MSG-set.PCS    sun  
‘A time the sun must go down’ (Genesis 15:17).

**Marker strategy:**

Genitive: *ḵənatu zā ʔādim*  
 belt REL leather  
 ‘A leather belt’ (Matt. 3:4).

Relative: *nəguś mākwännən za-ʔə-reʕʕəj-omu lā-ḥəzb-əyā ʔəsraʔel*  
 king judge REL-3MSG-lead.PCL-3MPL OBJ-people-1SG Israel  
 ‘A king-judge who will lead my people Israel’ (Matt. 2:6).

Despite some phonological and formal changes that affected the inflection of the relative marker (Huehnergard and Pat-El 2018), the coding of the relative/genitive is surprisingly stable in the Semitic languages.<sup>17</sup> For example, the Canaanite branch largely replaced the Semitic relative marker with another particle, grammaticalized from a noun (\**ʔaθar* ‘place.MS.BND’; Huehnergard 2006), which shows no agreement with its head noun; nevertheless, the syntax of the relative and genitive remained unchanged (Pat-El 2010a). See the following examples from Biblical Hebrew.

**Construct strategy:**

Genitive: *rāʕ-at Nābāl*  
 evil-FSG.BND PN  
 ‘Nabal’s mischief’ (1 Samuel 25:39).

Relative: *bə-ʔereʕ lō ʕāḅar b-ḥ ʔš*  
 in-land.FSG.BND NEG pass.3MSG.SC in-3FSG man.M  
 ‘In a land none has passed through’ (Jeremiah 2:6).

**Marker strategy:**

Genitive: *hā-rāʕā ʔāšer Hādād*  
 DEF-evil.FSG.NBND REL PN  
 ‘Hadad’s mischief’ (1 Kings 11:25).

Relative: *hā-ʔereʕ ʔāšer gar-tā b-ḥ*  
 DEF-land.FSG.NBND REL reside.SC-2MSG in-3FSG  
 ‘the land in which you resided’ (Genesis 21:23).

The Semitic relative clause introduced via relative marker shows unique syntactic features, and does not fall neatly under any attested typological category (Comrie 1998b, 2006; Deutscher 2001). The relative marker has bound (BND) morphology, which marks it as the head of its clause, but shows gender-number-case agreement with the antecedent, and crucially is not affected by the syntax of the relative clause.<sup>18</sup> In addition, the role of the head is obligatorily indicated in the relative clause, typically through agreement markers,<sup>19</sup> either in the verbal morphology, or through pronouns. See for example the following representative examples from Arabic. In the first example, the relative marker, (*a*):*ati*: (REL.FSG), agrees in gender-number with the head noun, *ʕi.r* (caravan.FS); the relative clause contains pronominal reference to it, *fi:-ha*: (in-3FSG). In the second example, the relative pronoun, (*a*):*aḍajni* (REL.DU.OBL) agrees in gender-number-case with the head noun, *ḵajtʕa.n-ajni* (devil-DU.OBL);

the relative clause contains agreement reference encoded as number suffix on the verb, *-a*: (SC.DU):

<i>wa-sʔal . . .</i>	<i>l-ʕi:r-a</i>	<i>llati:</i>	<i>ʔaqbal-na:</i>	<i>fi:-ha:</i>
and-ask.IMP.MSG	DEF-caravan.FSG-ACC	REL.FSG	arrive.SC-1PL	in-3FSG
‘And ask (about) the caravan with which we came’ (Classical Arabic, Qurʔa:n 12:82)				
<i>ʔari-na:</i>	<i>aç-çajtʕa:n-ajni</i>	<i>llaðajni</i>	<i>ʔadʕalla:-na:</i>	
show.IMP.MSG-1PL	DEF-demon.M-DU.OBL	REL.DU.OBL	confuse.SC.MDU-1PL	
‘Show us the two demons who led us astray’ (Classical Arabic, Wright 1896–98: 2.320).				

The inflection of the relative pronoun was simplified in most languages due to regular phonological processes (Huehnergard and Pat-El 2018). In all languages that preserved some inflection (Classical Ethiopic, Ugaritic, Arabic, Old South Arabian), the agreement pattern of the relative pronoun is identical, and easily reconstructible for Proto-Semitic. Crucially, the internal syntax of the relative has not changed in the daughter languages.<sup>20</sup> Thus, despite the typological rarity and complexity of the Semitic relative, it is nevertheless a highly stable feature.

Beyond the relative marker, no other subordination marker can be confidently reconstructed to the proto-language. Almost all adverbial markers of subordination developed from heads of relative clauses fairly straightforwardly, and are branch- or language-specific innovations (Pat-El 2008). See Table 4.8 for a sample of the most common subordinators in a number of branches.

The vast majority of these subordinators have nominal origins and show residual construct morphology, such as lack of nasalization (Arabic *qabla*, Akkadian *ūm*) or other construct markers (Ethiopic *-ä*). Word classes reported to be cross-linguistically common sources for subordinators, namely adverbs, adpositions, complementizers, interrogatives and relativizers (Kortmann 1998), are not typically used as sources for subordinators in Semitic.

The Semitic languages typically allow at least two types of predicates: verbal, where the predicate shows agreement with the subject in gender-number-person, and nominal (or non-verbal), where the predicate either shows no agreement with the subject, or shows only gender-number agreement, but not person. Non-verbal predication in Semitic exhibits a number of typologically uncommon features. A predicate in this predication type may be an adjective (including participles), prepositional phrase, adverb,

TABLE 4.8 SAMPLE ADVERBIAL SUBORDINATORS

	‘BEFORE’	‘BECAUSE’	‘SO THAT’	‘WHEN’
Akkadian	<i>adi . . . lā (adi=until)</i>	<i>kīma, aššum</i>	<i>kīma, aššum</i>	<i>kīma, inūma, ūm</i>
Arabic	<i>qabla, aʔma:ma</i>	<i>liʔanna, bi-sabab</i>	<i>likaj, ḥatta:, biḥajθu</i>	<i>ḥi:na</i>
Hebrew	<i>ʔerem</i>	<i>ʕeqeḥ, kī, yaʕan</i>	<i>ləmaʕan neg. pen</i>	<i>kī</i>
Ethiopic	<i>ʔamḳədmä, ʔənbälä</i>	<i>ʔəsmä</i>	<i>kämä</i> neg. <i>ʔənbälä</i>	<i>sobä</i>
Ancient South Arabia		<i>k, ywm</i>	<i>br, k</i>	<i>lhm, ln, ywm, brt</i>

substantive or subordinated clause. All non-verbal predicates share syntactic encoding, which is different than the encoding used for verbal predication. There is some debate whether adjectives and substantives were morphologically marked as predicates in the proto-language, while other non-verbal predicates were not; in this chapter, I take the position that all non-verbal predicates share the same syntax. If this is correct, Semitic belongs to a minority of world languages, where nominal and locational predicates share coding (Stassen 1997).<sup>21</sup>

While some Semitic languages developed verbal copulas to be used with non-verbal predicates,<sup>22</sup> it is impossible to reconstruct a verbal copula to the proto-language; instead, the 3rd person pronoun can be used in some contexts as a (nonobligatory) copula (Goldenberg 2003). Nominal predication without a copula (“bipartite nominal sentences”) and with a copula (“tripartite nominal sentences”) are still used in Modern Hebrew, Western Neo-Aramaic and modern Arabic dialects, showing the syntax of non-verbal predication to be a very stable cluster of features (Khan 2006).

The discussion in this chapter, while by no means exhaustive, is meant to introduce some of the typologically unique and important features of Proto-Semitic. That some of these rare features are also stable is noteworthy.

## NOTES

- 1 The glottalic consonants are termed “emphatics” in Semitic linguistics. This practice avoids referring to their specific phonetic realization in individual languages, which is sometimes unclear in languages with no reliable modern records.
- 2 Several languages in Central and South America show limited systems with a glottalized component. Some Mayan languages distinguish only /b/ /p/ and /pʔ/, but no other contrastive sets are common (Danny Law, p.c.). The same contrastive set is found in Hup (Nadahup), but otherwise glottalic consonants are neutralized in terms of voicing (Epps 2008: 63).
- 3 Watson and Bellem (2010) argue that among the Modern South Arabian languages, at least in Mehri and Jibbāli, only *k'* is glottalic in all positions, while other consonants may have a glottalic allophone but are otherwise pharyngealized.
- 4 This feature of Proto-Semitic has been used as an indirect support for the reconstruction of a single phonemic vowel (\**e*) for Proto-Indo-European as part of the Laryngeal Theory (Comrie 1998a: 77). It is worth noting, however, that Semitic does not exhibit the type of ablaut hypothesized for Proto-Indo-European.
- 5 Although see Testen (1985) for an attempt to reconstruct /n/ as a consonant nucleus in Proto-Semitic.
- 6 The debate has thus far only engaged with modern Semitic languages, primarily modern Arabic dialects, Modern Hebrew and modern Ethio-Semitic dialects; however, the implication of a “stem-hypothesis” has obvious consequences for our understanding of the Semitic linguistic system and, of course, will significantly affect the reconstruction of Proto-Semitic morphology.
- 7 The description in Greenberg is problematic both synchronically and diachronically. Ratcliffe (1998) offers a better description and analysis of this feature in the Semitic languages.
- 8 Mehri shows additional sound changes, thus surface forms are *kawb* ~ *kəlo:b*.
- 9 Because plural strategies diverge, it is not feasible to reconstruct a specific lexical item with a specific plural morpheme to the proto-language.
- 10 The Hebrew plural suffix –*īm-* is a reflex of the oblique plural suffix followed by the NBND morpheme (< \**-i:-na*).

- 11 The distribution in Hebrew is unpredictable and tends to vary; thus, for example, one can find *kikkārōt* FPL.BND as well as *kikkārē* FPL.BND.
- 12 Greenberg (1978: 279) mentions Sidamo, a Cushitic language, where 50–90 are the plurals of 5–9, as an example of such a system, and suggests it explains the decades in Ethio-Semitic. This is incorrect as the decades in Sidamo are constructed as the multiplication of the singular by 10 (Leslau 1952: 72). E.g., ‘10’ *tonne*, ‘5’ *onte* > ‘50’ *ontetennetet*.
- 13 For the function of the different stems in Semitic, see Chapter 3, §3.5.5.
- 14 The Ethiopic form shows an unexpected *-e-* (< \**aj*) before the gemination. The origin of this vowel is unclear.
- 15 In Old Babylonian Akkadian 3sg is common gender; since it is based on the masculine (*iprus*) it is distinct from 2MSG (*taprus*).
- 16 Traditionally, the marker is referred to as a ‘pronoun’ (e.g., Pennachietti 1968, Deutscher 2001). For arguments in favor of an adjectival analysis, see Huehnergard and Pat-El (2018).
- 17 Among modern Semitic languages the identity of the relative and genitive is still attested in Ethio-Semitic, Neo-Aramaic, Modern South Arabian and the Maghribi dialects of Arabic, but is missing from Modern Hebrew and most dialects of Arabic, due to later syntactic and formal innovations.
- 18 In most attested languages, the relative marker has lost most of its morphology. The Proto-Semitic inflection is reconstructible on the basis of languages which preserved most of the original morphology, namely Old Akkadian, Classical Arabic and to some degree Ugaritic (Huehnergard 2006).
- 19 With the possible exception of direct objects.
- 20 Furthermore, some secondary developments, for example, in Syriac, reflect a pattern of agreement that is identical to the original relative, namely the relative marker is in agreement with the antecedent, but does not participate in the syntax of the relative clause (Pat-El 2010b).
- 21 See Chapter 3, §4.2, where it is suggested that predicative substantives and adjectives were marked with a final *-a*. The evidence, however, is open to differing interpretations. If the position taken in Chapter 3 is correct, nominal predicates in Proto-Semitic were differentiated from locational predicates.
- 22 Some languages, like Aramaic and Hebrew, use  $\sqrt{\text{hwy}}$  which originally meant ‘to fall’, while others, like Arabic, use  $\sqrt{\text{kwn}}$ , which originally meant ‘to be stationed’. Several languages use the existential as a copula.

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