The Cambridge Handbook of Linguistic Typology

Edited by

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The Semitic Language Family

Aaron D. Rubin

27.1 Introduction

The Semitic languages are most well known among typologists for their non-concatenative morphology and root structure. However, the fact that this family has a written history of over five thousand years means that its languages are of particular value to those typologists interested in language development and change.

Most of the Semitic languages were or are spoken in the Levant, Mesopotamia, Arabia, and across the Red Sea in Ethiopia and Eritrea. Small pockets of Phoenician speakers settled in North Africa in the first millennium BCE (where their language is referred to as Punic), but it was not until the spread of Islam, and its language Arabic, that much of North Africa became Semitic speaking. Arabic once also reached into Spain, Sicily and other Mediterranean islands, though today we find native Semitic-speaking populations only in the Republic of Malta and in a few tiny corners of Cyprus.

Today Arabic is the most important of the Semitic languages, as it is the lingua franca of the Near East and North Africa. With roughly 200 million speakers, it is also (by far) the Semitic language with the greatest number of speakers. Two thousand years ago, Aramaic was the lingua franca of the Near East, and a thousand years earlier, Akkadian had this distinction.

The Semitic languages are part of a larger macro-family that is usually called Afroasiatic. The term Hamito-Semitic has been used in the past, but Afroasiatic is preferable, since the former implies a binary split between Semitic and the other (Hamitic) branches. Other language families within Afroasiatic are Egyptian, Cushitic, Berber and Chadic. The Omotic family may also be an independent branch of Afroasiatic, though some classify it within Cushitic, and still others believe it is not demonstrably related to the rest of Afroasiatic. All of the non-Semitic Afroasiatic languages are (or were, in the case of Egyptian) found in Africa.

There is no consensus among scholars with regards to the proper subgrouping of the Semitic family, and probably there never will be. For a detailed discussion of the internal classification of Semitic, see Rubin (2008) and the sources cited therein. What follows is a brief summary of the languages, including where and when they were (or are) spoken. For a more detailed survey of the languages, see Rubin (2010a). For other recent typological overviews, see Gensler (2011) and Waltisberg (2011).

Akkadian, first attested around 2400 BCE, was spoken by the ancient Babylonians and Assyrians in Mesopotamia, more or less in the area of modern Iraq. Among its various dialects, the major division is between the Babylonian and Assyrian dialects, which in turn are distinguished chronologically. Sometime, probably in the latter half of the first millennium BCE, Akkadian died out as a spoken language, though it continued to be used in writing until about 100 CE.

Arabic today has roughly 200 million speakers, whose domain stretches from Mauritania in the west to Oman in the east. In Africa, it is the main language of all the North African countries, from Mauritania to Egypt, as well as in the northern regions of Chad and Sudan, and is also widely spoken in Djibouti and Eritrea. It is the main language of all the countries of the Middle East, with the exception of Turkey, Iran and Israel. Still, it is widely spoken in Israel and is spoken in small pockets of Turkey and Iran. There are also Arabic-speaking communities in Central Asia (Afghanistan and Uzbekistan). In the Mediterranean, we find **Maltese** and a tiny community of speakers on Cyprus.

Classical Arabic refers to the variety of the written language that was standardized by the eighth century CE. **Modern Standard Arabic** is essentially a modernized version of Classical Arabic that began to take shape in the nineteenth century. Modern Standard Arabic is the language of education, mass media and formal writing in the twenty-two Arab nations, and it is used as a lingua franca across the Arab world.

There also exists a large number of spoken Arabic dialects. Some of these dialects are so different from one another that, if we use mutual intelligibility as a distinguishing criterion, we should really speak of the modern Arabic *languages*, in plural. Scholars usually divide the modern dialects into five major groups: Arabian peninsular, Mesopotamian, Syro-Palestinian (or Syro-Lebanese), Egyptian and Maghrebi (or North African). The individual dialects within each of these groups can vary considerably, not only with respect to location, but often also with respect to religious affiliation. For example, one cannot speak accurately of Baghdadi Arabic, but only of Muslim, Jewish or Christian Baghdadi Arabic. There is also often a difference between the Arabic of the Bedouin (nomads) and that of sedentary Arabic speakers in the same region. Not surprisingly, some dialects have borrowed typological features from neighbouring language families, whether it be Berber, Turkic or Iranian (Indo-European).

Maltese, spoken on Malta and its neighbouring islands, has developed a written tradition of its own, using the Roman script. Though historically a Maghrebi Arabic dialect, it is usually considered a separate language.

There also exist in Africa some pidgin and creolized varieties of Arabic, notably Juba Arabic in southern Sudan and the closely related Nubi (or Ki-Nubi) in Uganda and Kenya. These align typologically with other creoles and, from a typological point of view, are highly divergent from their parent language and other varieties of Semitic.

The **Ṣayhadic** group – also called Old South Arabian, Ancient South Arabian or Epigraphic South Arabian – includes four languages (or dialects): **Sabaic, Minaic, Qatabanic** and **Ḥaḍramitic**. These are known mainly from monumental texts, from around 1000 BCE to about 500 CE, coming primarily from Yemen and Saudi Arabia.

Ugaritic is the language that was spoken around ancient Ugarit (now called Ras Shamra), on the Syrian coast. Texts, mostly very short, are attested only for a brief period in history, from about 1380 to 1180 BCE.

Canaanite is a cover term for a group of closely related dialects, the most famous of which is **Hebrew**. The corpus of **Biblical Hebrew** was written during the period of (roughly) 1150–150 BCE. From the second and third centuries CE, we find a dialect of Hebrew that is usually called Rabbinic or Mishnaic Hebrew. Several important Jewish texts were written in this dialect. Hebrew died out as a spoken language by about the third century CE, but remained widely used as a literary and liturgical language among Jews. In the late nineteenth century, there began a movement to revive Hebrew as a spoken language, and today **Modern Hebrew** (or Israeli Hebrew) is spoken by about 6 million Israelis.

Hebrew is the only Canaanite language still in use, but there are several others known from the ancient period, the most notable of which is **Phoenician**.

Aramaic is first attested from about 900 BCE, around the same time as Hebrew, and remains in use today. During its nearly three millennia of attestation, Aramaic can be divided into a large number of dialects, both chronologically and geographically. One dialect, often called **Imperial Aramaic** became the lingua franca of the Near East from around the eighth century BCE, and into Hellenistic and Roman periods.

In the first few centuries of the Common Era, several very important Aramaic literary traditions developed, and the dialectal differences became even more apparent. Among the most important of these is **Syriac**, originally the dialect of Edessa (now Şanlıurfa, in southeastern Turkey), which became the main liturgical language of Christianity in the Fertile Crescent. In the territory corresponding roughly to modern Iraq are found the closely related **Jewish Babylonian Aramaic** (the language of the Babylonian Talmud) and **Mandaic**.

The Aramaic language has developed into a number of modern languages and dialects, collectively known as **Neo-Aramaic**. Neo-Aramaic

has traditionally been spoken in a non-contiguous area covering parts of Syria, south-eastern Turkey, northern Iraq, and north-western and south-western Iran, mainly by Jewish and Christian communities. However, as a result of the great political upheavals of the last hundred years, most, if not nearly all, Neo-Aramaic speakers have been displaced from these areas.

A group of dialects known as **Western Neo-Aramaic** are spoken in a few villages just outside of Damascus. **Ṭuroyo** is spoken in the Ṭūr ʿAbdīn region of south-eastern Turkey (with large communities in Europe), while the moribund **Neo-Mandaic** is spoken in a couple of towns in south-western Iran. The more than a hundred dialects collectively known as **Northeastern Neo-Aramaic** (NENA) are traditionally spoken in the loosely-defined region known as Kurdistan. One interesting fact about the NENA languages is that dialect grouping is in many cases based on religious affiliation, rather than geographic location. So, for example, the Jewish Neo-Aramaic dialect of one town may be incomprehensible to the Christian Neo-Aramaic speakers of the same town, but not to Jewish speakers of another village. The Neo-Aramaic languages, in particular those of the NENA group, have been heavily influenced by neighbouring non-Semitic languages (especially Kurdish and Turkish), and therefore are in many ways quite divergent from classical varieties of Aramaic.

The **Modern South Arabian** family includes six languages: **Mehri, Jibbali** (or Shaḥri), **Soqoṭri, Ḥarsusi, Hobyot** and **Baṭḥari**. All are spoken in eastern Yemen and western Oman, with the exception of Soqoṭri, which is spoken on the Yemeni-governed island of Soqoṭra. Ḥarsusi, Hobyot and Baṭḥari are highly endangered. These unwritten languages have been known to scholars for fewer than two hundred years.

The Ethiopian branch of Semitic contains a variety of languages, most of which are known only from the nineteenth and twentieth centuries. The major exception is **Ge'ez**, the classical language of Ethiopia and still the liturgical language of the Ethiopian Church, which is attested from perhaps as early as the late third century CE.

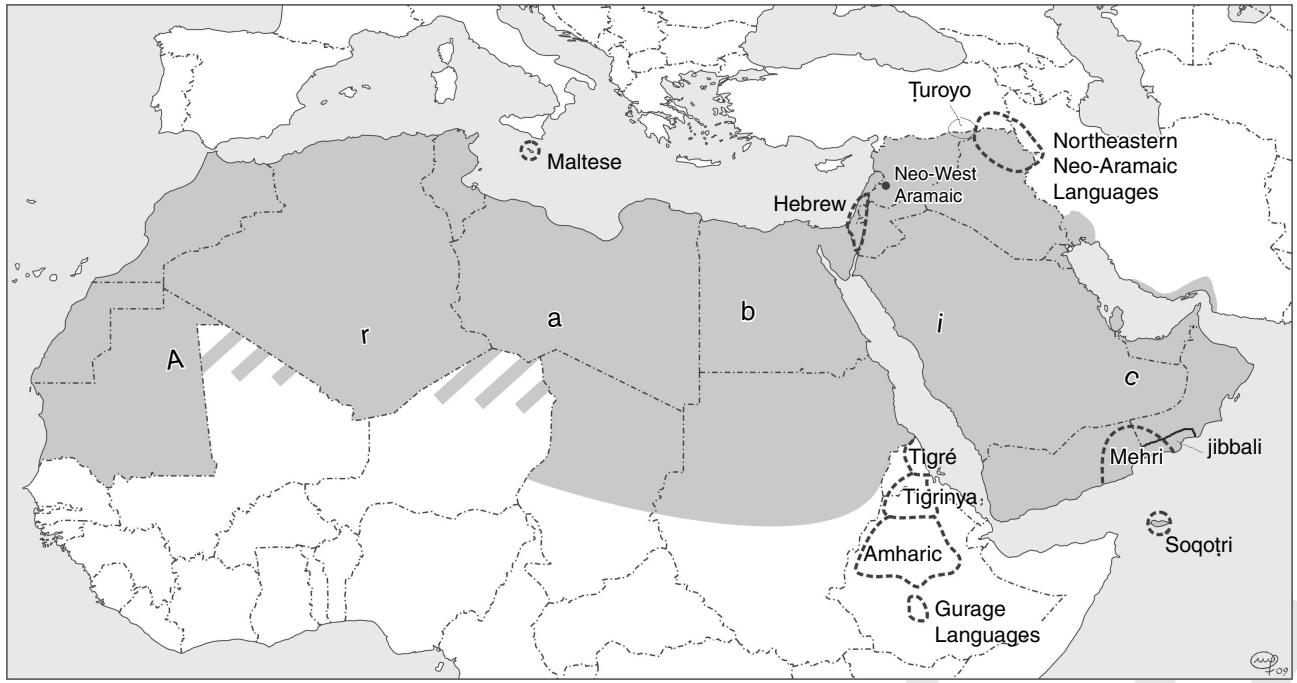
Amharic is attested from the fourteenth century CE, but was not widely written until the nineteenth century. It is today the national language and lingua franca of Ethiopia, and the second most widely spoken (after Arabic) of any Semitic language. **Tigrinya** is spoken in the northern parts of Ethiopia, as well as in Eritrea, where it is the national language. **Tigré** is also spoken in Eritrea.

Argobba, an endangered close relative of Amharic, is spoken mainly in the Ankober region of Ethiopia. **Harari** was historically spoken only in the walled Muslim city of Harar, in south-eastern Ethiopia.

The remaining Ethiopian Semitic languages, other than **Gafat**, which became extinct in the mid twentieth century, are often called together the 'Gurage Languages', though they do not form a single genetic group. There are about a dozen Gurage languages, though some of these may better be

Map 27.1 Classical Semitic languages. © Aaron Rubin

called dialects. Among the better described varieties are **Zay** and **Wolane**. Speakers of the Gurage languages all live in the same region, about 150 miles south-west of Addis Ababa, and most of them are also grouped together ethnically. The Gurage languages form a Semitic island surrounded by speakers of Cushitic languages. Not surprisingly, they show heavy typological influence from Cushitic, as do the other modern Ethiopian Semitic languages, to varying degrees (see Map 27.1 and 27.2).



Map 27.2 Modern Semitic languages. © Aaron Rubin

27.2 Phonology

Table 27.1 details Proto-Semitic's consonant phonemes, according to the reconstruction of one leading scholar (Huehnergard 2004).

Among the series of interdental fricatives, dental/alveolar stops, dental/alveolar affricates, dental/alveolar lateral continuants and velar stops, there is a three-way contrast: voiceless, voiced and glottalic. The glottalic consonants are often referred to in Semitic scholarly literature as 'emphatic', a rather vague term. In Arabic, these consonants are either velarized or pharyngealized (except **k'*, which in Classical and Modern Standard Arabic is realized as a voiceless uvular stop *q*), while in Ethiopian Semitic and Modern South Arabian, they are glottalic. There is good evidence that the glottalic pronunciation can be reconstructed for Proto-Semitic and Akkadian; see Kogan (2011: 59–61) for a review of the evidence, and the references therein. A three-way contrast may also have existed among the velar fricatives (Huehnergard 2003; Kogan 2011: 84–5), though the reconstructed consonant **x'* has not yet been widely accepted. In Tigrinya, *x'* is found as a fricativized allophone of *k'*, unconnected with Proto-Semitic **x'*. There is no evidence for a Proto-Semitic glottalic labial *p'*, though this phoneme exists in Ethiopian languages. Most Ethiopian words with *p'* are borrowings from Greek or other languages (e.g. Ge'ez *p'āp'p'ās* 'bishop').

The affricate set **ᵗs, *ᵈz, *ᵗs'* has traditionally been reconstructed as **s, *z, *ṣ*, but there is compelling evidence to suggest that these phonemes were in

Table 27.1 *Proto-Semitic consonant phonemes*

	Labial	Inter-dental	Dental/ Alveolar	Palatal	Velar	Pharyngeal	Glottal
Stops: voiceless voiced glottalic	*p* *b*		*t* *d* *t'*		*k* *g* *k'*		*ʔ*
Affricates: voiceless voiced glottalic			*ᵗs* *ᵈz* *ᵗs'*				
Fricatives: voiceless voiced glottalic		*θ* *ð* *θ'*	*s*		*x* *ɣ* *(x')*	*ħ* *ʕ*	*h*
Lateral continuants: voiceless voiced glottalic			*ɬ* *l* *ɬ'*				
Nasals	*m*		*n*				
Glides	*w*			*y*			
Tap/Trill			*r*				

fact affricates. It is equally likely that the consonant traditionally reconstructed as palatal *š was really dental/alveolar *s (see Kogan 2011: 61–71 for a comprehensive review of the evidence). The affricates were deaffricated in much of the Semitic family (e.g. Arabic and Ethiopian), while Proto-Semitic *s shifted to š in a number of the languages (e.g. Biblical Hebrew and Babylonian Akkadian). If the traditional reconstruction of *^{t}s and *s as *s and *š is correct, then Semitic would show a number of typological peculiarities, such as š being more common than *s.

The phoneme *ɬ (usually transcribed ś by Semitists) is distinct in a number of the ancient languages (e.g. Biblical Hebrew, Old and Imperial Aramaic, Ṣayhadic and Ge'ez), and there is solid evidence for its pronunciation as a lateral continuant (Steiner 1977; Kogan 2011: 71–80). Among the modern languages, ɬ survives only among the Modern South Arabian group. In some languages, like Hebrew and Aramaic, *ɬ came to be pronounced *s*, while in Arabic it developed into the phoneme *š*. The glottalic lateral ɬ' likewise survives only among the Modern South Arabian group. In Arabic it became a velarized or pharyngealized *d*, i.e. [d^{ɣ}] or [d^{ʕ}] (usually transcribed *ḍ*), while in Hebrew and Akkadian it merged with *^{t}s'. In Old Aramaic, it became a sound that was written with the same symbol used for *k'* (though the phonemes did not merge), but in later Aramaic it merged with ʕ. A voiced lateral fricative [ɮ] developed in Jibbali as an allophone of /l/.

The phoneme *p became a fricative *f* in the Arabic, Old South Arabian, Modern South Arabian, and Ethiopian groups; this is but one of several areal phenomena that are common to these languages. In the Ethiopian languages, a phoneme *p* has been re-introduced; like *p'*, it is found mainly in loanwords from European languages (e.g. Amharic *posta* 'mail').

In most Ethiopian Semitic languages, there also exists a series of labio-velar consonants. For example, in Ge'ez we find the phonemes k^{w}, k'^{w}, g^{w} and x^{w}. In some cases, it is clear that the labio-velar element derives from the historical presence of the vowel *u, e.g., k^{w}əll- 'all' < *kull-. In other cases, there is no obvious explanation for the presence of the labio-velar element.

The vowel system reconstructed for Proto-Semitic is quite simple. There were three vowels, *a, *i and *u, and each of these could occur either short or long. This system is preserved in Classical Arabic, while most other ancient and modern languages exhibit developments in their vowel systems. Of course, for many of the ancient languages whose writing systems are purely consonantal (e.g. Phoenician and Sabaic), our knowledge of their vowel systems is quite limited.

27.3 Templatic (Root-Pattern) Morphology

The concept of the consonantal root is fundamental to the morphology and lexicon of Semitic and is, in fact, a defining characteristic of the

family. All verbs and the majority of nouns possess a set of root consonants, usually three, which are used in conjunction with vocalic templates to form words. These templates, which cause the interweaving of the consonants with vowels and often include the addition of prefixes or suffixes, are used to form all words in the language, save the pronouns and various kinds of particles. The roots carry the lexical meanings, while the templates carry the grammatical functions. For example, the Ge'ez root FK'R has a meaning associated with the concept of love, as seen in the words *ʔafk'ara* 'he loved', *yāfak'k'ər* 'he loves (IMPERFECTIVE)', *yāfk'ər* 'he loves (SUBJUNCTIVE)', *ʔafk'ər* 'love!', *tafāk'aru* 'they loved one another', *fək'ur* 'beloved', *fək'r* 'love, affection', *fək'urāwi* 'lover, friend; loving', and *mafk'ari* 'lover, friend'. In each of these words, the root appears with a particular set of vowels, and sometimes also with a prefix and/or suffix.

The vocalic patterns (not including the affixes) are typically used for derivational morphology, such as the deriving of different types of nouns (e.g. agentives and gerunds) and verbs (e.g. causatives, passives and reciprocals), but they can also sometimes be used for inflectional morphology (person, gender and number marking); cf. Jibbali *ɣeyg* 'man' vs. PL. *ɣag*, and *tək'ɔdər* 'you (M.SG.) can' vs. *tək'ídər* 'you (F.SG.) can'.

27.4 Gender and Number

Proto-Semitic had two genders, masculine and feminine. Gender distinction was made in nouns, adjectives, most pronouns (personal and demonstrative), numerals and in verbs. Where person is distinguished (i.e. in verbs and personal pronouns), gender is usually distinguished only for second and third persons; first person is not distinguished for gender, except in some innovative tenses that have developed from nominal forms (i.e. participles; see §27.8.2.2). In some languages, gender distinction has been lost in some or all second and third person forms as well (see §27.5.2 for examples).

In the nominal system (including both nouns and adjectives), feminine nouns are normally predictable from the presence of a feminine suffixed morpheme **-(V)t*, which surfaces in a variety of forms. Every language, however, includes a set of feminine nouns, both animate and inanimate, which lack an explicit feminine morpheme, such as Soqoṭri *fərhim* 'girl', *idhæn* 'ear', and *oʔoz* 'goat'. The word for 'mother' and the words for parts of the body tend to fall in this category. Gender marking on the noun is largely absent from most South Ethiopian languages, though the category of gender is still retained for agreement purposes. In Arabic, which possesses a large number of grammatically singular nouns representing collectives, the feminine form serves to indicate an individual item. For example, in Classical Arabic, we find M. *damʕ* 'tears', F. *damʕa* 'a tear', and M. *tamr* 'dates', F. *tamra* 'a date'. The Semitic numerals appear to

follow a sort of reverse gender marking, whereby the masculine numerals exhibit the feminine-marking morpheme; see further in section 27.7.

With regard to number, the Proto-Semitic nominal and verbal systems distinguished singular, dual and plural. The dual was lost as a productive feature in many of the languages, including Hebrew, Aramaic, Akkadian (except in the oldest periods), and all of Ethiopian, though in most of these languages there are remnants. For example, in Biblical Hebrew, the inherited dual ending *-ayim* is preserved in the forms of certain numerals, like *mātayim* 'two hundred'; many of the body parts that occur in pairs, like *ʔoznayim* 'ears'; certain time words, like *yōmayim* 'two days'; and words for tools or devices with two parts, like *melqāħayim* 'tongs'. Interestingly, in Modern Hebrew, this dual suffix has become semi-productive again, not in spontaneous speech, but in the conscious creation of new words, such as *miškafayim* 'eyeglasses' and *ʔofanayim* 'bicycle'. In languages without a productive dual, like Hebrew, nouns with vestigial dual forms are treated as plural for purposes of agreement with verbs and adjectives, e.g. Modern Hebrew *miškafayim yəqarim* 'expensive[PL] eyeglasses[DU]'. Most Modern South Arabian languages have preserved the nominal and verbal dual, but adjectival agreement is still plural, e.g., Mehri *s'awr-i θrayt t'əlōfəf* 'two flat stones' (stone-DU two flat.PL).

In Classical and Modern Standard Arabic, inanimate plural nouns are usually treated as feminine singular for purposes of agreement with adjectives and verbs, and so we find phrases like *buyūt-u-n kabīr-at-u-n* 'big houses' (house.PL-NOM-INDEF big-F.SG-NOM-INDEF) and *kān-ati l-buyūt-u* 'the houses were' (be:PAST-3F.SG the-house.PL-NOM).

27.5 Nominal and Pronominal System

27.5.1 Demonstratives

Nearly all Semitic languages exhibit a two-way series of demonstratives (proximal-distal), though a small number of languages (e.g. Hobyot, Jibbali, Ge'ez, some NENA dialects and some Anatolian dialects of Arabic) have a three-way series (proximal-distal-remote). Demonstratives decline for number and, usually, gender. In those languages with a case system (e.g. Akkadian and Classical Arabic), they decline for case as well. When used as adjectives modifying a noun, the majority of languages show the order NOUN-DEMONSTRATIVE, as in examples (1), (2) and (3). However, a few languages, including Ethiopian Semitic (4) and the generally conservative Classical Arabic (5), show the order DEMONSTRATIVE-NOUN, as in examples (4) and (5). The demonstrative adjective is used with the definite form of the noun in the Central Semitic and Modern South Arabian languages that have a definite article (cf. (2), (3) and (5)), but not in Ethiopian Semitic (cf. (4)). In Hebrew and Classical Aramaic, the article actually appears on the demonstrative as well as the noun (cf. (3); see also §27.5.5).

(1) Standard Babylonian Akkadian
kasp-u *annū*, *šarrat-u* *annīt-u*
silver-NOM this.M.SG.NOM queen-NOM this.F.SG-NOM
'this silver, this queen'

(2) Jibbali
a-ɣeyg *ðɛnu*, *a-ɣag* *iɮɔhunu*
the-man this.M.SG the-men this.C.PL
'this man, these men'

(3) Modern Hebrew
ha-bayit *ha-ze*, *ha-ʕir* *ha-zot*
the-house the-this.M.SG the-city the-this.F.SG
'this house, this city'

(4) Amharic
yəh *mäs'haf*, *yaččˇ* *set*
this.M.SG book that.F.SG woman
'this book, that woman'

(5) Classical Arabic
hāða *l-bayt-u*, *tilka* *l-marʔat-u*
this.M.SG the-house-NOM that.F.SG the-woman-NOM
'this house, that woman'

In many languages (e.g. Akkadian, Hebrew, Aramaic, Ge'ez), the far demonstrative is identical to the third person personal pronouns. Compare the use of *hu* in the two phrases in (6):

(6) Modern Hebrew
hu *zaken*, *ha-zaken* *ha-hu*
he old.man the-old.man the-that.M.SG
'he is an old man, that old man'

27.5.2 Personal Pronouns

All Semitic languages have a set of independent pronouns. We can reconstruct for Proto-Semitic singular, dual and plural forms for all three persons, with the exception of a first person dual. The Classical Arabic independent pronouns can serve as representative of the Proto-Semitic situation (see Table 27.2).

A first person dual exists in Modern South Arabian (e.g. Soqoṭri *ki*), so either they have innovated, or, less likely, the form was lost in all other languages. No Semitic pronouns indicate clusivity. In Proto-Semitic, gender was distinguished for the second and third persons singular and plural, as also in the verbal system. The third person pronouns were originally anaphoric pronouns (cf. example (6) in §27.5.1).

Table 27.2 *Classical Arabic independent pronouns*

	SG	DU	PL
1st C	*ʔana*	(none)	*naħnu*
2nd M	*ʔanta*	*ʔantumā*	*ʔantum*
2nd F	*ʔanti*		*ʔantunna*
3rd M	*huwa*	*humā*	*hum*
3rd F	*hiya*		*hunna*

Table 27.3 *Jewish Algerian Arabic*

	SG	PL
1st C	*āna*	*ħnā*
2nd C	*ənti*	*əntum*
3rd M	*ūwa*	*umān*
3rd F	*īya*	

Table 27.4 *Northeastern Neo-Aramaic Jewish dialect of Challa*

	SG	PL
1st C	*ʔāna*	*ʔaxnan*
2nd C	*ʔāhat*	*ʔaxtun*
3rd C	*ʔā(ya)*	*ʔāni*

In many Semitic languages, even some of the ancient ones, the inherited set of independent pronouns has been reduced to include fewer forms. Mostly commonly, the dual has been lost (as also often in the nominal system). We also find loss of gender distinction in the second persons and/or the third person plural. For example, in the Jewish Arabic dialect of Algiers (Table 27.3), gender is distinguished only in the third person singular forms (Cohen 1912). In the NENA Jewish dialect of Challa (southeastern Turkey) (Table 27.4), gender is not distinguished at all (Fassberg 2010), probably due to the influence of Turkish or Kurdish.

27.5.3 Reciprocity

Reciprocity is typically expressed in the Semitic languages by means of a derived verbal pattern, as discussed in section 27.8.1.3. However, many languages have also developed a grammaticalized reciprocal pronoun (Bar-Asher Siegal 2014a). Examples are Syriac *ħdāde* 'each other' (< *ħad* 'one'), Mehri *t'āt'īday-* 'each other' (< *t'āt'* 'one'), Wolane *gɛgbɛgɛg-* 'each other' (< *gɛg* 'body') (7) and Akkadian *axāmiš* or *axāʔiš* 'each other' (< *axu* 'brother').

(7) Wolane
gɛgbɛgɛg-nim *tɛmāgɛdu*
RECIP-POSS.3PL burn:RECIP.PAST.3.PL
'They burned each other.' (Meyer 2006)

27.5.4 Reflexivity

Reflexivity is often expressed by means of verbal derivation, as discussed in section 27.8.1.4. Still, most Semitic languages have also developed a means of expressing an independent reflexive pronoun. This is nearly always the result of a grammaticalization based on a word meaning 'body' or a part of the body, such as 'head', 'soul', 'eye' or 'bone' (Rubin 2005). Some examples are Post-Biblical Hebrew *ʕaṣm-* (< *ʕéṣem* 'bone') (8), Amharic *ras-* (< 'head'), Wolane *gɛgg-* (< 'body') (9), Old Assyrian *pagr-* (< 'body'), Classical Arabic *nafs-* (< 'soul') and *ʕayn-* (< 'eye') and Algerian Arabic *rōḥ-* (< 'soul, spirit, breath').

(8) Modern Hebrew
hu *amar* *le-ʕaṣm-o*
he say:PAST.3M.SG to-bone-3M.SG
'he said to himself'

(9) Wolane
gɛgg-eyɛ *k'ɛtɛl-ku*
body-1C.SG kill:PAST-1C.SG
'I killed myself.' (Meyer 2006)

27.5.5 Definiteness and Indefiniteness

No definite or indefinite articles can be reconstructed for Proto-Semitic, but articles are found in many of the descendant languages. In Central Semitic, definite articles have developed from demonstratives (Rubin 2005). The articles do not decline for number or gender. In Hebrew and Arabic, the articles are prefixed, while in Aramaic and Ṣayhadic they are suffixed. Several modern Semitic languages, including Tigrinya and Ṭuroyo, also make use of demonstratives to indicate definiteness, and these appear to be on their way to becoming fully functioning definite articles. A number of South Ethiopian languages possess definite articles which derive from third person possessive suffixes, e.g. Amharic *bet-u* 'his house/the house' (see further in Rubin 2010c). This is typologically a more unusual type of grammaticalization, but one that is known from elsewhere (e.g. Indonesian, Yucatec Mayan and some Turkic languages). Some other Semitic languages have borrowed definite articles, including several NENA dialects (borrowed from Kurdish), Argobba (borrowed from Oromo), and Omani Mehri and Jibbali (likely borrowed from Arabic).

Indefinite articles are much rarer in Semitic. Where they have evolved, they derive from the numeral 'one'. Examples can be found in Neo-Aramaic (see Khan 2008 for an excellent study), some modern Arabic dialects and some Ethiopian languages. The development in Neo-Aramaic and Mesopotamian dialects of Arabic is probably the result of areal (Turkic and Iranian) influence.

In phrases with a modified noun, the placement of the definite article varies among the languages. For example, in Hebrew and Arabic, both an attributive adjective and the noun receive the article, as in Palestinian Arabic *l-bēt l-kbīr* 'the big house' (the-house the-big). In Amharic, on the other hand, only the adjective receives the article in such a phrase: *təllək'-u bet* 'the big house' (big-the house). This placement of the article on the modifier in Amharic extends even to other types of modifiers, like relative clauses, e.g. Amharic *yä-mät't'a-w säw* 'the man who came' (REL-come: PAST.3M.SG-the man).

27.5.6 Possession

27.5.6.1 Nominal and Pronominal Possession

Proto-Semitic nouns had two forms, known in traditional Semitic scholarship as 'states', the uses of which were connected to a noun's syntactic function. The construct (or bound) state exhibited no special marker (though it retains a case ending in some languages) and was used when the noun governed a directly following element. This element could be a noun in the genitive case, in which case the two elements formed a genitive phrase (10); a pronominal (possessive) suffix (see below); or a relative clause (11). In most languages, however, the construct state is not used before a relative clause; it is common only in Akkadian and Ṣayhadic.

(10) Old Babylonian Akkadian
bēl *bīt-im*
master:CONSTR house-GEN
'the master of the house'

(11) *bīt* *imqut-u*
house:CONSTR fall:PAST.3M.SG-SUBORD
'the house that fell' (von Soden 1995)

To indicate pronominal possession, there was a special set of pronominal suffixes attached to the construct form of the noun. Examples are Classical Arabic *bint-u-ka* 'your daughter' (daughter-NOM-2M.SG) and Biblical Hebrew *sūs-ō* 'his horse' (horse-3M.SG). No independent possessive pronouns or possessive adjectives are reconstructable for Proto-Semitic.

The use of the construct state to express a genitive phrase (as in (10), above) is a characteristic feature of the Semitic languages. Yet in a number

of the languages, independent genitive exponents have developed, often replacing the use of the construct state as a means of indicating nominal and pronominal possession. Examples are Post-Biblical Hebrew *šel* 'of' < relative *še-* + *l-* 'to' and Yemeni Arabic *ħagg* 'of' < Classical Arabic *ħaqq* 'property' (Rubin 2004, 2005). Cf. Modern Hebrew *ha-sus šel ha-boker* 'the cowboy's horse' (the-horse of the-cowboy) and *ha-sus šel-o* 'his horse' (the-horse of-3M.SG). Such genitive exponents typically combine with suffixed personal pronouns (those that were used also with nouns), though in some languages we find independent possessive pronouns and adjectives based on the genitive exponent plus the independent subject pronouns, as in Amharic *yäne* 'my; mine' (< *yä-* + *ənē*, lit. 'of-I') and Mehri *ðə-hōh* 'my; mine' (lit. 'of-I'). In some modern languages (e.g. Amharic) the construct state does not exist, except sometimes in frozen usages.

When not governing a directly following element, a Proto-Semitic noun was considered to be in the free (or unbound) state. The free state was marked by a set of nasal suffixes, which appeared after the case endings; the distribution seems to have been **-m* after short vowels and **-na* after long vowels or diphthongs. Most languages have levelled one or the other of the nasal consonants, that is, to **-n* and **-na* (e.g. Arabic) or to **-m* and **-ma* (e.g. Hebrew). The addition of the markers **-n*/**-m* and **-na*/**-ma* is usually referred to by Semitists as 'nunation' and 'mimation', after the names of the letters *n* (*nun*) and *m* (*mim*) in the Arabic alphabet.

27.5.6.2 H-Possession

Nearly all Semitic languages lack a verb of possession ('have'). In most languages, such possession is expressed with a prepositional phrase, though the preposition may be locative (12), comitative (13) or dative (14). Sometimes these phrases are used along with an existential particle or verb of existence ('be'), as in (14). As a variant of the dative prepositional construction, we find in Ethiopian Semitic a dative object pronoun suffixed to a form of the verb 'be' (15).

(12) Moroccan Arabic
ʕand-u *əl-ktāb*
by-3M.SG the-book
'He has the book.' (Caubet 1993)

(13) Mehri
š-īs *wōz*
with-3F.SG goat.INDEF
'She had a goat.' (Rubin 2010b)

(14) Jewish Arbīl Arabic
ašqad *aku* *lək*
how.much there.is to-2M.SG
'How much do you have?' (Jastrow 1990)

(15) Wolane
ʔadd wāšt al-ɛt-ey
one sister be:NONPAST-3F.SG-OBJ.3M.SG
'He has one sister.' (Meyer 2006)

27.5.7 Nominal Case

Proto-Semitic distinguished three cases in the singular, traditionally called nominative, accusative and genitive. In the dual and plural, the accusative and genitive were not distinguished. In addition to indicating a direct object, the accusative case was used in some adverbial constructions (e.g., Arabic *al-yawm-a* the-day-ACC 'today'). The genitive case was used to mark both the possessor in genitive constructions (see §27.5.6.1) and the objects of all prepositions. Case marking was done by means of vocalic suffixes on the noun; see Table 27.5.

In general, case markers precede a pronominal suffix marking possession, e.g. Classical Arabic *maʕa bint-i-hā* 'with her daughter' (with daughter-GEN-3F.SG).

The instability of word-final short vowels led to the loss of case marking in most languages. In the dual and plural, the long case vowels were not subject to loss, but with the collapse of the case system, the oblique suffix regularly replaced the nominative.

A number of Semitic languages have developed new means of marking a direct object, in each case with differential object marking, that is, with restrictions on the type of object marked. In Canaanite and some early Aramaic dialects, we find a particle (e.g. Hebrew *ʔēt*), which marks definite direct objects (16). In a number of other languages, including a number of Aramaic dialects (17), some Arabic dialects, Ge'ez, Tigrinya (18) and Tigré, the dative preposition has developed into a marker of definite direct objects (Rubin 2005). Amharic marks definite direct objects with a special accusative suffix, which may also be connected with an earlier dative preposition (Appleyard 2004).

(16) Biblical Hebrew

bārā	*ʔĕlōhīm*	*ʔēt*	*haš-šāmayim*	*wə-ʔēt*	*hā-ʔāreṣ*
create: PAST.3M.SG	God	ACC	the-heavens	and-ACC	the-earth

'God created the heavens and the earth.' (Gen. 1:1)

Table 27.5 *Proto-Semitic case endings*

	SG	DUAL	PL
NOM	*-u*	*-ā*	*-ū*
ACC	*-a*	*-ay*	*-ī*
GEN	*-i*		

(17) Egyptian (Imperial) Aramaic (unvocalized)
ʔzl-t *hšḵḥ-t* *l-ʔḥyqr*
go:PAST-1SG find:PAST-1SG DAT-Ahiqar
'I went and found Ahiqar.' (Muraoka and Porten 2003)

(18) Tigrinya
ʔəta *dəmmu* *n-äti* *s'äba* *sätəyat-o*
that:F.SG cat DAT-that:M.SG milk drink:PAST.3F.SG-OBJ.3M.SG
'The cat drank the milk.' (Melles 2001)

Besides the three basic Proto-Semitic cases discussed above, there are two other suffixes which some scholars have considered to be case endings, namely the suffixes that appear in Akkadian as *-iš* and *-u(m)*. Akkadian *-iš* is called a terminative-adverbial ending in the standard grammars. It has the basic meaning 'to, for' and can usually be replaced by the Akkadian preposition *ana* 'to, for'. This suffix most likely corresponds to the terminative/directive suffix *-(a)h* found in Hebrew and Ugaritic, e.g., Hebrew *mizraḥ* 'east', *mizrāḥāh* 'to the east, eastwards', with a shift of Proto-Semitic **s* > *h* seen in several other morphemes and function words.

The Akkadian suffix *-u(m)* functions as a locative-adverbial suffix in Akkadian, e.g. *bīt* 'house', *bītum* 'in the house'. This suffix appears identical in shape to the Akkadian nominative case ending *-u(m)*, though the two behave differently when pronominal suffixes are added. It is unclear, therefore, if the two are historically the same. Some have suggested that this suffix provides evidence of ergativity at some pre-Semitic stage, but this is highly speculative (see Waltisberg 2002 and Hasselbach 2013 for an argument against ergativity).

Several types of ergative systems have developed in many of the Neo-Aramaic dialects, undoubtedly under the influence of neighbouring Iranian dialects, with which Aramaic has been in close contact for well over two thousand years. See Khan (2015) for a detailed overview of ergativity in Neo-Aramaic.

27.5.8 Plural Formation

There are two basic ways in which plurality can be indicated in Semitic. The first is by external means, with the addition of a suffixed morpheme to the noun. The second is by internal means, by replacement of the noun's vocalic pattern; these are usually termed 'internal plurals' or 'broken plurals'. In East Semitic and in Northwest Semitic, we find only the external means of plural marking, though a few noun types show remnants of internal plural marking. Examples of external plural marking are Hebrew *sūs* 'horse', pl. *sūs-īm* and Ṭuroyo *ħawro* 'friend', pl. *ħawr-one*. In Arabic, Ṣayhadic, Ethiopian and Modern South Arabian, internal plural marking is widespread, though we find external plural marking in these languages as well. Examples are Palestinian Arabic *šubbāk* 'window', PL. *šabābīk* and

Jibbali *məgrīr* 'beehive', PL. *məgrōr*. Often both types of plural marking can be used together in the same word, and so we find plural marking that is indicated by both pattern replacement and suffixation; cf. Ge'ez *hagar* 'city', PL. *ʔahgur* (internal) or *ʔahgur-āt* (internal plus external).

In many modern South Ethiopian languages, though external plural marking has become more common, we also find an innovative type of internal plural that makes use of reduplication. For example, in Zay, in which external plural marking is the norm, and in which other types of internal plural marking have been lost, some nouns indicate the plural through partial reduplication, as in *gāngē* 'mule', PL. *gāngāgu*; and *təri* 'tray', PL. *tərāru* (Meyer 2005).

27.6 Adverbs

Semitic languages normally have a limited set of words that function only as adverbs. Each language has numerous demonstrative adverbs (e.g. Dhofari Arabic *hinnī* 'here', *hinnāk* 'there'), adverbs of manner (e.g. Jibbali *ṭɛnu* 'thus') and adverbs of time (e.g. Amharic *nägä* 'tomorrow'). Many languages have basic (non-transparent) adverbs of time that do not exist in English, for example Wolane *ʔaymənɛ* 'last year', and Mehri *yəllōh* 'last night'.

However, most languages do not have a productive means of deriving adverbs, and so adverbial expression is often done by means of a prepositional phrase (19), or even an unmarked adjective (20). Alternatively, in some languages, a limited number of adverbial meanings can be expressed through verb serialization (21).

(19) Modern Hebrew
bə-koši, *bə-ʔofen* *tivʕi*, *bli* *kavana*
with-difficulty, with-manner natural, without intention
'hardly, naturally, unintentionally'

(20) *hu* *kotev* *yafe*
he write:PRES.M.SG beautiful[ADJ].M.SG
'He writes beautifully.'

(21) Ge'ez
wa-gabʔa *wa-laʔaka*
and-return:PAST-3SG and-send:PAST-3SG
'and he sent again' (Tropper 2002: 200)

Ethiopian Semitic languages, like Amharic, are particularly fond of using verbal phrases to express adverbial connotations (Leslau 1995; Kapeliuk 2011).

A few languages do possess an identifiable adverbial marker, like Akkadian *-iš*, which can be used to form adverbs from adjectives (e.g.

damk'iš 'well' ← *damik'-* 'good') and Syriac *-āʔīt*, which forms adverbs of quality and manner from adjectives and some nouns (e.g. *šappīrāʔīt* 'beautifully' ← *šappīr* 'beautiful'; *ʔalāhāʔīt* 'divinely' ← *ʔalāh* 'God').

27.7 Numerals

In the classical Semitic languages, numerals from 'one' through 'ten' have masculine and feminine forms. Strangely, the masculine numerals from 'three' through 'ten' (that is, those numerals that accompany masculine nouns) look morphologically feminine, while the feminine numerals from 'three' through 'ten' (those numerals that accompany feminine nouns) look morphologically masculine. This peculiar situation has yet to be satisfactorily explained (Hetzron 1967 is one attempt). Table 27.6 lists the forms of the numerals 'one' through 'ten' in Old Babylonian Akkadian (without case endings); note the presence of the feminine morpheme *-(a)t* on the masculine numerals 'three' through 'ten'.

Teens are expressed in various ways. For example, in Hebrew we find the order digit + 'ten'; cf. *ʔarbāʕā ʕaśar* '14 (M.)'. In Akkadian, the ten and digit are combined; cf. Akkadian *erbēšer* '14 (F.)' and *erbēšeret* '14 (M.)'. The order 'ten + digit' is common in Ethiopian Semitic, though not always with the conjunction, e.g. Ge'ez *ʕaśartu wa-ʔaḥadu* '11 (M.)' and Amharic *asra säbatt* '17 (C.)'.

In some of the modern languages, gender distinction among the digits and teen numerals has been neutralized, resulting in a single form for both genders. This happens for both the digits and the teens in most modern Ethiopian languages and in many NENA dialects, and with the teens in Arabic dialects.

The number 'twenty' is made by adding a suffix to 'ten' (e.g. Akkadian *ešrā* '20'), while 'thirty' through 'ninety' are made by a suffix added to the digits 'three' to 'nine' (e.g. Akkadian *xamšā* '50').

Table 27.6 *Old Babylonian Akkadian numerals*

	M	F
1	*ištēn*	*ištēt*
2	*šinā*	*šittā*
3	*šalāšat*	*šalāš*
4	*erbet*	*erbe*
5	*xamšat*	*xamiš*
6	*šeššet*	*šediš*
7	*sebet*	*sebe*
8	*samānat*	*samāne*
9	*tišīt*	*tiše*
10	*ešeret*	*ešer*

27.8 Verb System

As already mentioned above (§27.3), the most characteristic morphological feature of the Semitic languages is the use of vocalic templates to encode grammatical information. Nowhere is this more evident than in the verbal system. All Semitic verbs possess a lexical root, which is a set of consonants that contain the general lexical meaning. Each root can be used in conjunction with one or more verbal stems, each of which is associated with a vocalic pattern and, optionally, an affix. Within each stem, vocalic templates, prefixes and suffixes are used in order to construct each verbal form. In short, the roots carry the lexical meanings, while the templates and affixes carry the grammatical functions, indicating person, gender, number, tense, voice and mood. This is illustrated by the following forms of the Syriac root KTB, which has a basic meaning associated with writing: *ʔeḵtōḇ* 'I write', *neḵtōḇ* 'he writes/we write', *kṯaḇ* 'he wrote', *kṯaḇən* 'we wrote', *kṯōḇ* 'write! (M.SG.)', *kāṯeḇ* 'is writing (M.SG.)', *ʔeṯkəṯeḇ* 'it was written', *ʔaḵteḇ* 'I cause to be written', etc.

The number of root consonants is normally three, and thus we can usually cite a triliteral root. In the classical languages, we occasionally find quadriliteral roots (i.e. roots with four consonants); in some of the modern languages these are more frequent. Even verbs borrowed from non-Semitic languages are normally fitted into the root system, and so we find verbs like Modern Hebrew *hipnet* 'he hypnotized' (root HPNT, from English) and Syriac *palsep̄* 'he philosophized' (root PLSP, from Greek *philosophos* 'philosopher'), both of which follow the normal patterns for quadriliteral roots. An interesting exception is Maltese, where borrowings are normally incorporated into the verbal system as words, rather than as roots, e.g. *iddownlowdja* 'he downloaded' (from English) and *iffaċilita* 'he facilitated' (from Italian *facilitare*) (Hoberman and Aronoff 2003).

27.8.1 Valency and Verbal Derivation

Every Semitic language has a basic, unmarked verbal stem. This is usually called the G-Stem in Semitic grammars, for German *Grundstamm* 'basic stem'. In some languages, the vocalic pattern of the basic stem can distinguish a stative/intransitive verb from a transitive one; cf. Mehri *θəbūr* 'he broke (trans.)' vs. *θībər* 'it broke (intrans.)'. This situation has been obscured in some other languages because of historical restructuring of the verbal system (see, e.g., Joosten 1998).

In addition to this basic stem, there are derived stems that are used to indicate an increase or decrease in valency. Among other things, they are used to express causative, transitive, reflexive, reciprocal, and passive meanings. The stems are characterized either by prefixation or infixation

of consonantal elements, and/or by phonological alteration of the root via gemination, vowel lengthening or reduplication.

The number of verbal stems differs for each language. For example, in Syriac there are six stems (with vestiges of others), in Classical Arabic there are fifteen and in the NENA dialect of Arbīl there are just two. Moreover, the functions of a particular stem in one language do not always correspond with its functions in another language. For example, the so-called Dt-Stem (characterized by a prefixed or infixed *t* and historical gemination of the second root consonant) is often reciprocal or reflexive in Hebrew (e.g. *hitħabbē* 'he hid himself and *hitrāʾū* 'they saw one another'), while in Syriac, it is simply a passive (e.g. *ʔeṯqabbal* 'he was received' ← *qabbel* 'he received').

27.8.1.1 Passives

Most Semitic languages distinguish active and passive (including mediopassive) voice through verbal morphology. Some encode passivity by means of a derived verbal stem, usually a stem with a prefixed or infixed morpheme *n* or *t*. Some examples are: Biblical Hebrew *šālaħ* 'he sent'→ *nišlaħ* 'he was sent', Old Babylonian Akkadian *inaddin* 'he gives' → *innaddin* 'he is given', Amharic *samä* 'he kissed' → *täsamä* 'he was kissed', and Syriac *neqṭōl* 'he will kill' → *neṯqəṭel* 'he will be killed'.

In addition to derived passives, some languages make use of an 'internal' passive, meaning that the morphology is by means of the internal vowel pattern only. We find internal passives in Classical and Modern Standard Arabic (e.g., *saʔalat* 'she asked' → *suʔilat* 'she was asked'), some modern Arabic dialects, to a limited extent in Hebrew (though rare in modern spoken Hebrew), in the older Aramaic dialects (all BCE) and to a limited extent in Modern South Arabian. For ancient languages whose scripts do not indicate vowels (e.g. Ugaritic and Sabaic), the existence of internal passives is less certain.

In addition to morphological passives, many languages also indicate passivity by syntactic means, either with an impersonal third person plural verb (22) or by means of an auxiliary verb ('be', 'become', or 'come') and a past participle (23). The latter is usually a development resulting from language contact.

(22) NENA (Qaraqosh)
bet-əħ *kəm-bane-lə* *šətqə*
house-3M.SG PAST-build:PRES.3PL-OBJ.3M.SG last.year
'His house was built last year.' (lit. 'His house, they built it last year.')
(Khan 2002)

(23) NENA (Jewish Arbīl)
bel-eu *ʔilye-le* *xrāwa*
house-3M.SG come:PAST-3M.SG destroy:INF
'His house was destroyed.' (Khan 1999)

27.8.1.2 Causatives

Causativity is most often expressed via a verbal stem characterized by an affix **sa-*, a morpheme reconstructable even for Afroasiatic, which surfaces as *ša-, ha-* or *(ʔ)a-* in most of the attested Semitic languages. Some examples are Old Babylonian Akkadian *ušakniš* 'he subjugated' (cf. *iknuš* 'he bowed down'), Mehri *hək'fūd* 'he brought down' (cf. *k'əfūd* 'he went down'), Arabic *ʔaʕlama* 'he informed' (cf. *ʕalima* 'he knew'), and Amharic *abälla* 'he fed' (cf. *bälla* 'he ate'). The stem known as the D-Stem, characterized by the gemination of the second root consonant, can also have a causative function, especially when the basic stem has a stative or intransitive meaning, e.g. Arabic *farraqa* 'he frightened' (cf. *faraqa* 'he was afraid').

27.8.1.3. Reciprocals

As noted in section 27.5.3, reciprocity may be expressed through the use of a special independent pronoun, but more often is expressed by means of verbal derivation. Such derived verbal stems typically have a prefixed or infixed morpheme *t*. Examples are Old Babylonian Akkadian *irtakbū* 'they mounted one another (i.e. they mated)' (cf. *irkabū* 'they mounted'), Modern Hebrew *hitnašku* 'they kissed each other' (cf. *nišku* 'they kissed (somone)'), Amharic *tägaddälu* 'they killed one another' (cf. *gäddälu* 'they killed') and Jibbali *ɣətrəb* 'they knew one another' (cf. *ɣarɔb* 'they knew').

27.8.1.4 Reflexives

As noted in section 27.5.4, reflexivity is sometimes expressed through the use of a special independent pronoun, but can also be expressed by means of verbal derivation. Such derived verbs are sometimes the same as those used for reciprocity (with a prefixed or infixed *t*), though other stems can also have this use. Some examples are Arabic *tanazzala* 'he lowered himself' (cf. *nazala* 'he went down'), Modern Hebrew *hitmateaħ* 'he stretched (himself) out' (cf. *mataħ* 'he stretched (trans.)'), Amharic *tat't'äbä* 'he washed himself' (cf. *at't'äbä* 'he washed (trans.)') and Mehri *šək'rōh* 'he hid himself' (cf. *k'ərōh* 'he hid (trans.)').

27.8.1.5 Pluralic Action

A couple of different stems are associated with plurality of the action. The D-Stem (characterized by gemination of the second root consonant) can sometimes have this function, e.g. Arabic *kassara* 'shatter (trans.) into many pieces' (cf. *kasara* 'break (trans.)'). In modern Ethiopian Semitic languages, the stem characterized by reduplication and gemination of the penultimate root consonant can have pluralic associations, e.g. Amharic *gänät'at't'älä* 'tear into pieces' (cf. *gänät't'älä* 'tear off, tear out'), *läwawwät'ä* 'vary (change often); change completely' (cf. *läwwät'ä* 'change').

27.8.2 Tense and Aspect

For Proto-Semitic, two basic verbal forms can be reconstructed, and it is likely that these mainly distinguished perfective and imperfective aspect. For some of the ancient languages, the issue of tense vs. aspect is a difficult one, and it is very difficult to say that the verbal system of, say, Akkadian or Biblical Hebrew, distinguished only tense or only aspect (see Joosten 2002 and Cook 2006 for discussion of this issue in Biblical Hebrew).

27.8.2.1 Past Tenses

In East Semitic (Akkadian), there existed a form known as the stative or verbal adjective, which, unlike the other verb tenses, marked person, number and gender exclusively by means of suffixes. In West Semitic, the inherited, prefixed past tense (e.g. Akkadian *nišrik* 'we stole') was replaced by this suffixed conjugation (e.g. Arabic *saraqnā* 'we stole'). Additional innovative past tenses developed in later forms of Aramaic and in Ethiopian. Already in the early first millennium CE, it became possible in some dialects of Aramaic – such as Syriac, Mandaic and Jewish Babylonian Aramaic – to express a perfect tense by means of a construction which consisted of a past participle plus the preposition *l-* 'to, for' with a pronominal suffix as in (24).

(24) Syriac
gbar lā *ħkīm* *l-ī*
man NEG know:PART.PASS.M.SG to-1SG
'I have not known a man.' (Nöldeke 1904)

Some believe that the preposition in this construction was originally instrumental in function (e.g. 'it was known to/by me' → 'I have known it'), though the preposition *l-* does not normally mark the agent of a passive. Dative *l-* is used for possession in Aramaic (see §27.5.6.3), and so others believe that a phrase like Syriac *ħkīm lī* is a perfect tense, the literal equivalent of English 'I have known'. It has been suggested that such a development in Aramaic may have been a calque from Persian (see Bar-Asher Siegal 2014b for a discussion and counterargument). This new past tense, whatever its origin, has completely replaced the inherited past tense in most Neo-Aramaic languages.

In Ge'ez, there exists a verbal form variously known as the gerund, perfective active participle, or converb. This form is always subordinate to the main verb and can be translated by either an English participial phrase or a temporal clause as in (25).

(25) Ge'ez
wa-s'awim-o . . . *rəxba*
CONJ-fast:GER-3M.SG be.hungry:PAST.3M.SG
'Having fasted . . . he was hungry' (Tropper 2002)

In Tigrinya, this equivalent form has become a simple past tense, replacing the inherited past tense in most contexts, e.g. *s'äwimu* (variant *s'oymu*) 'he fasted'. Similar developments have taken place in other modern Ethiopian languages.

In most other Semitic languages, secondary past tenses have developed, mostly by means of auxiliary verbs or other particles (Rubin 2005). For example, in many Arabic dialects, the past tense of the verb 'be' is used in combination with other verbal forms to create the past perfect, past progressive, and past habitual.

27.8.2.2 Present Tenses

In Classical Arabic, Biblical Hebrew, Ge'ez, Akkadian and other classical Semitic languages, there is a single non-past verbal tense that covers both present and future time. In many languages, however, new forms have developed that are specifically marked as general presents, present progressives, or present indicatives. In some languages, including later forms of Hebrew and Aramaic, the inherited participial form, which is nominal in origin, has become the present tense. In some other languages, a present tense is marked by a particle attached to an existing verbal form. Such particles derive most often from locative verbs or prepositions, i.e. the verbs 'be', 'sit', 'stand', or 'lie', or the preposition 'in, at' (Rubin 2005). For example, the prefix *da-* in Muslim Baghdadi Arabic (*qa-* in Jewish and Christian dialects) is attached to the inherited non-past form and indicates a present progressive, continuous, or habitual as in (26). This prefix derives from *qāʕid*, a participial form of the verb 'sit'.

(26) Muslim Baghdadi Arabic

da-yiktib	*maktūb*
PROG-write:NONPAST.3M.SG	letter

'He is writing a letter.' (Erwin 1963)

In some NENA dialects, a present indicative is marked by a prefix *k-*. This derives from an earlier prefix *qā-*, used in older dialects of Aramaic to mark a continuous or habitual present, which ultimately derives from a form *qāʔem*, a participial form of the verb 'stand'.

In most Ethiopian languages, the inherited non-past form can be combined with a form of the verb 'be'. This compound form indicates the non-past in a main clause, while the inherited, simple non-past is used in subordinate or negative clauses. Thus in many Ethiopian languages, including Amharic, the present and future are not normally distinguished.

27.8.2.3 Future Tenses

Explicit future tenses have developed in a number of Semitic languages. Often markers of the future derive from grammaticalized forms of verbs meaning 'go' or 'want', though other sources are well attested (Rubin 2005). For example, in numerous Arabic dialects, a future-marking

prefix is derived from a verb 'go', e.g. Muslim Baghdadi Arabic *raħ-yiji* 'he will come' (Erwin 1963; *raħ* < *rāyiħ* 'going'). Several dialects of NENA have a future-marking particle *bəd-* (variants *bət-, b-, d-*), which is derived from an earlier Aramaic construction *bāʕe d-* 'want that' or *bʕe d-* 'it is desired that', e.g. NENA (Qaraqosh) *bəd-páθəx* 'he will open' (Khan 2002). A future tense form derived from a verb 'want' can be found also in several Arabic dialects and in some Modern South Arabian languages. In Mehri, the active participle has come to indicate future tense, with the result that the inherited non-past form has become the basic present tense.

27.8.3 Mood

All Semitic languages possess an imperative form, though in nearly all of the languages, imperatives occur only in positive commands. Negative commands are normally expressed by negating another verbal form, normally the non-past or the jussive (on this term, see below). Negation of the actual imperative form is found only in some Neo-Aramaic dialects, e.g. in the Jewish NENA dialect of Arbīl. There are no first or third person imperatives in Semitic, though there is a jussive mood that fulfils the function of the imperative for these persons. The jussive in Proto-Semitic seems to have been identical in shape to the perfective verbal form. In West Semitic, the inherited perfective (of the shape **prefix + CCVC*) lost its function as the normal indicator of past tense, but the form itself survived in its jussive function. This is most evident in Modern South Arabian and in Ethiopian Semitic; cf. Geʻez *nabara* 'he sat' and jussive *yənbar* 'let him sit, may he sit'.

The situation in the rest of West Semitic is slightly more complex. The inherited perfective form, in combination with a suffix **-u* (originally a marker of subordination) came to indicate non-past, replacing the inherited non-past form (Rubin 2005). The result is that in Central Semitic there was a form of the shape **prefix + CCVC* that indicated the jussive, and a form **prefix + CCVC-u* that indicated non-past. This situation is found in Classical and Modern Standard Arabic. As in Akkadian, the Arabic jussive (when used as a true jussive, i.e. as a first or third person imperative) is preceded by an asseverative particle, e.g. indicative non-past *yašrab-u* 'he drinks' vs. jussive *li-yašrab* 'let him drink, may he drink'. In some Central Semitic languages, including modern Arabic dialects, Hebrew and Aramaic, the final short *-u* of this innovative non-past form was lost, with the result that the non-past and jussive merged in most environments. So, in Biblical Hebrew, for example, the jussive is most often not morphologically distinct from the non-past, and a jussive meaning must be gleaned from context. Compare examples (27) and (28), both of which contain the identical verbal form *yittēn*.

(27) Biblical Hebrew
yittēn *ʔeṯ-šēlāṯ-ēḵ*
give:NONPAST.3M.SG ACC-request-2F.SG
'May He grant your request!' (1 Samuel 1:17)

(28) *kōl ʔăšer l-ā-ʔīš yittēn bə ʿāḏ nap̄š-ō*
all REL to-the-man give:NONPAST.3M.SG for soul-3M.SG
'All that man has he will give for his life.' (Job 2:4)

In addition to the indicative and jussive moods, Arabic possesses a subjunctive mood, formed with the same verbal base plus a suffix *-a* (e.g. *yašrab-a*). The subjunctive is used in subordinate clauses, most often following subordinating conjunctions. In Akkadian, subordination is marked by attaching the suffix *-u* to verbs; this is the same suffix that in Central Semitic marks the indicative.

The jussive and subjunctive moods of the written language are absent from the modern Arabic dialects, due to the loss of final short vowels. However, there is some distinction of mood by innovative means. In some of the dialects in which a present tense marker has developed, lack of this marker can indicate a subjunctive or jussive. In example (29), we see the Syrian Arabic present tense marker *b-* used in an indicative phrase. In example (30), on the other hand, we see how the absence of this (or any other) preverbal marker can indicate a jussive meaning.

(29) Syrian Arabic
b-ināmu *ʕal-ʔəsṭūħ* *bə-l-lēl*
PRES-sleep:NONPAST.3M.PL on.the-roof in-the-night
'They sleep on the roof at night.'

(30) *yəxrab* *bēt-o*
be.ruined:NONPAST.3M.SG house-3M.SG
'May his house be ruined!' (Cowell 1964)

The situation in many Neo-Aramaic dialects parallels that of Syrian Arabic, which is to say that a subjunctive or jussive can be marked by the absence of an overt present or future tense prefix.

Akkadian exhibits another verbal form, known as the 'ventive', that is sometimes called a mood by Semitists, presumably with the idea that 'mood' covers any type of verbal modification. The ventive is really a type of verbal deixis, with no modal functions. It gives the sense of direction or activity towards the speaker: contrast *illik* 'went' and ventive *illik-am* 'he came'; *ublū* 'they brought (there)' and ventive *ublū-nim* 'they brought here'; and *ūṣi* 'I went out' and ventive *ūṣi-am* 'I came out here' (von Soden 1995). It has been argued, rather convincingly, that the suffix *-ā* that can be attached to Biblical Hebrew imperatives has a ventive function (Fassberg 1999).

27.9 Positional Relations

Prepositions are the norm in most Semitic languages, including all of the ancient languages. Some languages also use postpositions and circumpositions. In languages that have retained case marking, prepositions always govern the genitive case. Semitic prepositions are of two types. There are those that are cliticized to their head noun and those that are treated as independent words. The former type usually number only three to four in a given language, with the great majority of prepositions treated as separate units.

In nearly all of the languages, the expression of the pronominal object of a preposition is by means of a pronominal suffix attached to the preposition. For example, from the Jibbali preposition *l-* 'to, for', we find *li* 'to me', *lek* 'to you (M.SG.)', *leš* 'to him', *lɛn* 'to us', etc. Some modern Ethiopian languages, on the other hand, use the independent forms of the pronouns with prepositions (as well as with postpositions and circumpositions); cf. Amharic *wädäne* 'to me' (< *wädä* 'to' + *əne* 'I').

In modern Ethiopian Semitic languages, there is a greater tendency towards circumpositions and postpositions. The postpositions are often the result of grammaticalized nouns, for which there was a preceding genitive phrase used as a modifier (31). The prepositional elements of the circumpositions in Amharic can be omitted in both speech and writing, resulting in a postposition (Leslau 1995).

(31) Amharic

b-antä	*bet*	(< **bä-yä-antä bet*)
PREP-you	according.to	(< in-of-you house)
'according to you'		(< 'in the house of you')

In some South Ethiopian languages, if a noun is preceded by a modifier, a preposition is repeated for each element, e.g. Zay *t-etate tä-set* 'with that woman' (with-that:F.SG with-woman, Leslau 1999). This was also the case in the Soqoṭri recorded in the early twentieth century, but in modern Soqoṭri, only the second occurrence of the preposition has survived, with the result that prepositions can be embedded within a noun phrase, e.g. *di-hoh k-əmboriye* 'with my children' (of-I with-children; see further in Lonnet 1998).

27.10 Word Order and Constituent Order

The standard word order in Proto-Semitic was likely Verb–Subject(–Object), as in Biblical Hebrew (32), Classical Arabic and Ge'ez. In addition, modifiers such as adjectives (33), genitives (34) and relative clauses (35) followed their head noun.

(32) Biblical Hebrew
wa-yyarʔ *ʔĕlōhīm* *ʔet-hā-ʔāreṣ*
and-see:PAST.3M.SG God ACC-the-earth
'And God saw the earth.' (Gen. 6:12)

(33) *ha-yyām* *ha-ggadōl*
the-sea the-great
'the great sea' (Num. 34:6)

(34) Ge'ez
nəguš-a *hagar*
king-GEN city
'the king of the city'

(35) *bəʔsi* *za-mota*
man REL-die:PAST.3M.SG
'the man who died'

Many of the languages, both ancient and modern, deviate from the standard Semitic type. Akkadian adopted AOV/SV word order as a result of contact with Sumerian, though all modifiers still normally follow their head noun (Deutscher 2000). Modern Hebrew, Neo-Aramaic languages and a number of modern Arabic dialects (e.g. Iraqi, Chadian) exhibit AVO/SV word order. In Modern Hebrew, this is the result of general European influence. In these languages, as in Akkadian, modifiers still follow their head noun.

The most drastic changes in word ordering are found in the modern Ethiopian languages. All modern Ethiopian Semitic languages exhibit AOV/SV word order (36), as a result of contact with Cushitic languages (Leslau 1945). In addition, nearly all the languages place adjectives, genitives (37) and relatives (38) before their head nouns.

(36) Wolane
worāβɛ *wurbɛ* *qɛtɛl-ɛ*
hyena lion kill:PAST-3M.SG
'A hyena killed a lion.' (Meyer 2006)

(37) Zay
yä-šum-i *gār*
of-chief-the house
'the chief's house'

(38) *gəɲi-y* *yä-gaɲ-e* *bäyu*
dog-ACC REL-find:PAST.3M.SG-the child
'the child who found the dog' (Leslau 1999)

27.11 Relative Clauses

In Proto-Semitic, relative clauses could be asyndetic, in which case the antecedent was in the construct state (see §27.5.6.1), or syndetic, in which case the antecedent was followed by a determinative-relative pronoun that declined for gender, number and case. The former type is found in Akkadian and in Ṣayhadic, with vestiges in Ge'ez, Hebrew and elsewhere. The latter type is widespread in Semitic, though the inherited relative has in many languages become indeclinable. For example, while a fully declinable relative pronoun existed in Old Akkadian (third millennium BCE), in Old Babylonian Akkadian (2000–1500 BCE), the masculine singular accusative form *ša* became an indeclinable relative pronoun.

In the Canaanite dialects, a noun **ʔaθar* 'place' became grammaticalized as a relative pronoun (39), replacing the inherited forms, though the Proto-Semitic relative is attested as such in some archaic texts. Huehnergard (2006) presents a very detailed discussion of this development.

(39) Biblical Hebrew
hā-ʔīš *ʔăšer* *heʕĕlā-nū*
the-man REL bring.up:PAST.3M.SG-OBJ.1PL
'the man who brought us up' (Exodus 32:1)

Relative clauses in Arabic exhibit some interesting syntactic restrictions. The relative pronoun itself, which in the Classical and Modern Standard varieties declines for gender and number (and in the dual, also for case), is an Arabic innovation. But the relative pronoun is used only when the antecedent is definite (40); when the antecedent is indefinite, the relative clause is asyndetic (41). This type of asyndetic clause, with an indefinite antecedent in the free (unbound) state, is also found occasionally in Ge'ez, Mehri, and elsewhere, though only in Arabic is it the rule. (In fact, though it is the rule according to Arabic grammarians, in actual usage the rule is occasionally broken; see Pat-El 2014: 37–8.)

(40) Modern Standard Arabic
ʔas-siyyāħ-u *llaðīna* *yaṣilūna*
the-tourists-NOM REL:M.PL arrive:NONPAST.3M.PL
'the tourists who arrive'

(41) *rajul-un* *yamtaliku* *š-šajāʕat-a*
man-NOM.INDEF possess:NONPAST.3M.SG the-courage-ACC
'a man who possesses courage' (Ryding 2005)

In modern Arabic dialects, the relative pronoun is usually a single, indeclinable form, but relative clauses exhibit the same distinction based on whether or not the antecedent is definite or indefinite (42–43).

(42) Iraqi (Muslim Baghdadi) Arabic
l-iħṣān *illi* *ɣiḷab* *haš-šōṭ*
the-horse REL win:PAST.3M.SG this-race
'the horse that won this race'

(43) *ibnayya* *tiħči* *xamis* *luɣāt*
girl speak:PRES.3F.SG five languages
'a girl who speaks five languages' (Erwin 1963)

When a Semitic relative pronoun stands in a prepositional relationship, a resumptive pronoun is normally employed. In some languages this is optional, but most often it is obligatory (44). Resumptive pronouns are also found even when the relative pronoun stands for the direct object, and in fact, such use of a resumptive pronoun is obligatory in some languages, such as Mehri, Jibbali (45) and many Arabic dialects. Only in a few languages (e.g. Ge'ez and some Arabic dialects) do we sometimes find a preposition preceding a relative pronoun (like English 'in which').

(44) Biblical Hebrew
hā-ʔīš *ʔăšer* *ʕāśītī* *ʕimm-o*
the-man REL do:PAST.1SG with-3M.SG
'the man with whom I worked' (Ruth 2:19)

(45) Jibbali
yɔ *ɛ-ɬínɛ́n* *tó-hum*
people REL-see:PAST.1.PL ACC-3.M.PL
'the people that we saw' (Rubin 2014)

Relative clauses normally follow their antecedents, but in modern Ethiopian Semitic languages, relative clauses usually precede (46).

(46) Amharic
yä-mät't'a-w *säw*
REL-come:PAST.3 M.SG-the man
'the man who came' (Leslau 1995)

27.12 Conclusion

The long periods of attestation for many of the Semitic languages – some as long as three thousand years – coupled with the long history of contact with other languages make them very valuable as a source for the study of typological change over time (including grammaticalization), as well as typological change due to language contact. All of the languages are remarkable for their adherence to a system of templatic morphology, which is used for both inflection and derivation.

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