

4

Semitic

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See Map 4.1.

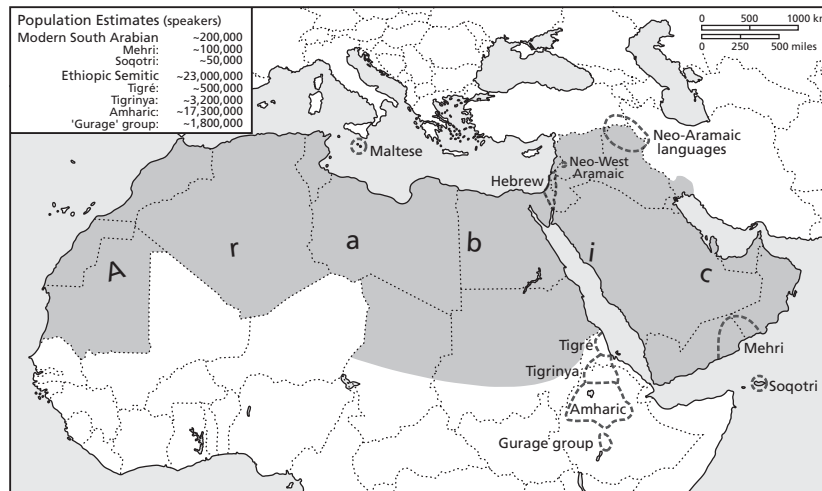
4.1 Distribution of the Semitic languages in time and space

4.1.1 Mesopotamia

The main language in this group, Akkadian, is attested on many thousands of clay tablets, written in a mixed logographic–syllabic writing system with wedge-shaped characters ('cuneiform') adapted from the Akkadians' Sumerian predecessors in the region. The huge Akkadian corpus starts from the middle of the third millennium BC (Old Akkadian), and subsequently, in a northern ('Assyrian', centring around the northern capital city of Aššur, near present-day Mosul) and southern ('Babylonian', roughly from present-day Baghdad to the Persian Gulf) variety, continues down to the last scholarly texts written in the final centuries BC. On chronological grounds, Assyrian and Babylonian are conventionally divided into 'Old' (first half of second millennium), 'Middle' (second half of second millennium), and 'Neo' (first millennium). Old Babylonian, the administrative and literary language of Babylon at the time of Hammurabi, is often taken as a 'classic' form of the language; *Neo-Babylonian* and *Neo-Assyrian* are the languages of the last great Mesopotamian empires preceding the rise of the Persian Empire. It is generally assumed that Akkadian was replaced by Aramaic as a spoken language in Mesopotamia in the course of the first millennium BC. A smaller body of texts, more recently discovered at the Syrian site of Tell-Mardikh (=Ebla), is also written in cuneiform and is roughly contemporary with Old Akkadian. Eblaite is sometimes taken to be an extreme western dialect of Akkadian, but sometimes as a separate Mesopotamian Semitic language. Much work remains to be done on this difficult corpus.

4.1.2 The Levant

The eastern coast of the Mediterranean is the home of three important languages. *Ugaritic*, the earliest of them, was written for only about 200 years, from 1300 to



Map 4.1 *Modern Semitic languages*

1190 BC, and in just one location, on the coast of what is now Syria. About 1,000 well-preserved texts survive, many of them strikingly similar in form and content to biblical poems and narratives.

Phoenician was the language of a group of city-states on the coast of what is modern Lebanon, Israel, and Syria, such as Byblos, Sidon, and Tyre. The inscriptions that have been found there and in many other parts of the eastern Mediterranean date from about the tenth century BC until the first century AD; the forms of the language used in North Africa are known as Punic, and survived until the fifth century. The Phoenician alphabet was the source on which the Greek alphabet, and thence all the European alphabets, were based.

Hebrew is first attested in inscriptions from what is now Israel in the tenth century BC. The subsequent history of the language is best understood as divided into three periods. From the Ancient Hebrew period we have a number of short inscriptions and important bodies of literature: most of the Bible (Old Testament), many of the Dead Sea Scrolls, and the Mishna and associated works (finalized about AD 200). During the latter part of this period Hebrew as a vernacular language gradually receded, replaced by Aramaic, until finally, from about AD 200 or not long after, there were no native speakers of Hebrew. In the second period, the Scholastic or Rabbinic period, Hebrew was not a colloquial language, but it continued in productive use among scholars, who wrote a large variety of religious and belletristic works. Beginning in the 1880s, under the influence of European ideas of nationhood, efforts were made to revive Hebrew as a spoken language. By the 1920s there were significant communities in

Palestine functioning mainly in Hebrew and raising Hebrew-speaking children. Hebrew is now the dominant language among the approximately 7 million Israelis, of whom at least half are native speakers. This third period is best called Israeli Hebrew, as varieties of Hebrew rooted in the Scholastic period are still in use by non-native speakers elsewhere.

4.1.3 The Fertile Crescent (Mesopotamia, N. Syria, Syro-Palestinian Coast)

Aramaic first appears in inscriptions in northern Syria in the ninth century BC. It gradually spread – for reasons that are still poorly understood – throughout the Fertile Crescent, displacing all the indigenous languages, including Akkadian, Phoenician, and Hebrew, and Aramaic was the dominant language in the entire area for over 1,000 years, from about 600 BC until the spread of Arabic after the seventh century AD. At least six Aramaic literary languages developed, and important bodies of Jewish and Christian literature were written. Syriac, the best-documented of all Aramaic languages, with an extensive body of literature, is still the liturgical language of many of the Middle Eastern Christian churches. After the spread of Islam and with it the Arabic language, Aramaic speech receded. There are now several hundred thousand speakers of Aramaic, perhaps more, known as Assyrians or Chaldeans, speaking something between four and ten distinct languages.

4.1.4 Northern and Central Arabian peninsula

Arabic is first attested in a large variety of related dialects in the central and northern Arabian peninsula from the eighth century BC to the mid first century AD. Toward the end of that period a highly elaborated intertribal literary language coalesced; this is the language of the Qur'an and early poetry. As the language spread along with the Islamic empire, starting in the seventh century, it was codified by grammarians and literary scholars, becoming what is known as Classical Arabic. This is still the model for all writing and formal speech in Arabic, so that Modern Standard Arabic is to a considerable degree identical to Classical Arabic; the differences are mainly in vocabulary and in the relative frequencies of particular grammatical structures. Modern Standard Arabic is, however, no-one's native language. All Arabs speak local vernacular forms of the language, many of which, if not for the prestige of Classical Arabic, would be considered different languages. Of these, only *Maltese* has broken away from the model of Classical Arabic. Judged purely by its grammatical structure and basic vocabulary, Maltese would be seen as one variety of North African vernacular Arabic, but culturally it is more associated with Europe and has the status of a separate national language.

4.1.5 Southwest Arabian peninsula

Old South Arabian (OSA) is a group of closely related languages of the city-states (principally Saba, Ma`in, Qataban, Hadramawt, Himyar) in what is modern Yemen, which, from mid-first-millennium BC to mid-first-millennium AD, mediated in the very lucrative spice trade between the southern Arabian peninsula (including goods transiting from the Indian Ocean region beyond) and the Mediterranean world. Written in a very archaic form of the West Semitic alphabet (the one that perhaps comes closest to representing all the consonants of Proto-Semitic), the OSA corpus consists of thousands of monumental inscriptions (mostly on stone and often highly formulaic in content), and a smaller, but very interesting corpus of epistolary and administrative texts written on palm fronds. In spite of sharing in their name the stem ‘Arab’ with Arabic and Modern South Arabian, the Old South Arabian languages have to be taken as a separate language group. There is much that is indeterminate about details of OSA grammar, since its alphabet is one of the most resolutely non-vocalic of all Semitic writing systems; because of this, OSA will not often be used here to illustrate points of Semitic morphology and syntax.

4.1.6 Southern Arabian peninsula

The *Modern South Arabian* (MSA) languages, Mehri, Jibali (Šḥeri), Ḥarsusi, Hobyot, Baḥari, and Soqotri, are now spoken only on the extreme southern periphery of the Arabian peninsula in eastern Yemen, western Oman, and on the Indian Ocean island of Soqotri. They have no native tradition of writing and were unknown to western scholarship until first reported on by explorers early in the nineteenth century, and then studied by a Viennese expedition sent for that purpose only in 1898. These languages have been much better studied since World War II, particularly in the text-collections and dictionaries of Johnstone. The languages are highly conservative in phonology and morphology and preserve a large number of archaic Semitic features.

4.1.7 Horn of Africa

Generally presumed to have been introduced into the Horn of Africa from the Arabian peninsula at some indeterminate date, *Ethiopian Semitic* (ES), although it shares features with both OSA and MSA, is quite distinct from OSA, and cannot be derived from any known form of MSA. Geez, a northern variety, was the language of **ancient** capital Aksum, and is first attested in pre-Christian, and then Christian, monumental inscriptions from around the fourth century AD. Geez was probably no longer a spoken language by

the early medieval period, but continued up to the twentieth century as the only official written language of church and state in Ethiopia. It has given rise to a rich manuscript tradition of mainly religious, but also secular, content. The Ethiopian writing system clearly developed from the OSA alphabet, with a consonant inventory reduced to that of Geez at the time of adaptation, but with the addition, unique in Semitic writing traditions, of more-or-less consistent vocalic diacritics to the consonantal signs, resulting in a quasi-syllabary, whose inspiration, it has been conjectured, may have come from Devanagari, known from contact with trading partners from India in the course of the on-going Indian Ocean trade. Our knowledge of Geez pronunciation is dependent on the ecclesiastical pronunciation traditions, observed in the west since the seventeenth century – of which, however, there is more than one, and which, in phonetic details, are not entirely consistent.

Of the two other northern varieties of ES, Tigrinya, spoken in Eritrea and the northern highlands of Ethiopia, is more or less the modern continuation of Geez, whereas the northern-most Tigre (in Eritrea) represents an earlier branching of Northern ES. The very different, and highly diverse, southern group of ES is most prominently represented by Amharic (until 1975 the only recognized national language of government and mass media, and still the principal written language of Ethiopia). The other southern ES languages include Argobba, closely related to Amharic, and Harari, the language of the city of Harar. Finally, there is a very diversified language sub-family which includes Gafat (now extinct), and a group of more than a dozen languages spoken in a relatively dense area south of Addis Ababa and informally and collectively known as Gurage (including Soddo, Goggot, Muher, Masqan, Ezha, Chaha, Gumer, Guna, Gyeto, Inor, Endgen, Enor, and an 'Eastern Gurage' sub-group including Silte, Inneqor, Wolane, and Zway, which may actually be more closely related to Harari).

4.2 Internal classification

There is general agreement that there is a clear major division between East Semitic ('Mesopotamian Semitic', which retains from Proto-Semitic a prefixing past tense along with a prefixing non-past) and all the other groups (which share an innovative suffixing past tense, along with 'fossilized' remnants of a prefixing past tense), collectively referred to as 'West Semitic'. However, within West Semitic, the consensus is much less clear, and there are major problems with cross-cutting isoglosses. An older division, based on phonological correspondence $*p > p$ (i.e., a retention attested in East Semitic, plus Ugaritic-Canaanite-Aramaic) vs the presumed innovation $*p > f$ (shared by Arabic, OSA, MSA, Ethiopic), distinguished Ugaritic-Canaanite-Aramaic (= North(west) Semitic) from Arabic, OSA, MSA, Ethiopic (= South Semitic). More recently, however,

on the basis of verb morphology (retention of Proto-Semitic and East Semitic present tense **yiqattil* in MSA and Ethiopic vs the innovative present tense *yaqtul-* in Northwest Semitic and Arabic), it has been proposed to group Arabic with Ugaritic-Canaanite-Aramaic into a Central Semitic group. OSA is problematic: although it shares some significant features with MSA-Ethiopic (suffixing past tense 1sg *qatalku*, 2sgm *qatalka*, 2sgf *qatalki*; as opposed to *qataltu*, *qatalta*, *qatalti* in Central Semitic), the evidence – difficult to establish directly since both *yVqattVL-* and *yVqtVL-* would be written *yqtl* – now seems to indicate that it shares the innovative present tense *yaqtul-* with Central Semitic (Nebes 1994). Ethiopic shares important defining features with MSA, and may eventually be shown to share an exclusive common ancestor with it, but, as mentioned, certainly cannot be derived from any currently known variety. Within ES, although Geez is the earliest attested language, and contains many archaic features, it cannot be equated with Proto-ES, nor even with Proto-Northern-ES, since both Southern-ES and the other Northern-ES languages retain archaic features not present in Geez.

4.3 The study of Semitic

As opposed to other language families in this volume, Semitic is one of the most thoroughly documented and researched language families in existence. On the one hand, an adequate overview of its scholarship would almost require a volume in itself; but by the same token, there are many excellent surveys of and introductions to the various languages and sub-domains of this key component of Afroasiatic. The goal of this chapter itself is to provide a typologically oriented introductory survey of data from a representative sample of Semitic languages. We intend the following brief compilation as a first key to further exploration of the bibliography, research, and data of the languages and language groups which constitute this rich domain.

4.3.1 Common Semitic

A good and accessible overview is Huehnergard (2004); on individual languages, see the chapters in Hetzron (1997), Woodard (2004), and Kaye (2007: part 1). Although an up-to-date historical synthesis on the level of Brockelmann (1908–13) has not been produced, for background and historical context (less so for historical linguistics) Lipiński (1997) can be consulted. An earlier, typologically oriented survey somewhat in the spirit of the present chapter is Bergsträsser (1928; translation 1983). On the Semitic genealogical tree, Hetzron (see, for example, 1972a) has been enormously influential. Finally, although after centuries of study a complete Semitic etymological dictionary still does not exist, a start has been made in Militarev and Kogan (2000–).

4.3.2 East Semitic

The standard reference for Akkadian is von Soden (1995), but Huehnergard (1997, cited hereafter as H[page]) is an excellent introduction. CAD (Gelb *et al.* 1956–2011) is a multi-volume dictionary, many decades in the making, and finally finished in 2011. Not enough is yet known about Eblaite to produce a real grammar, but a preliminary survey of the evidence can be found in Gordon (1997), and in proceedings of various annual meetings and publications such as Gordon *et al.* (1987–2002); Akkadian and Eblaite are treated together in Huehnergard and Woods (2004).

4.3.3 Northwest/Central Semitic

4.3.3.1 Hebrew

Standard reference grammars of Biblical Hebrew are Kautzsch (1910) and Joüon (2000), and Waltke and O'Connor (1990) is a handbook of the syntax and semantics, organized by morphological categories. For Rabbinic Hebrew, Pérez Fernández (1997) is a pedagogical grammar with many original observations, and constitutes as well an introduction to the terminology, logic, and culture of rabbinic literature. Glinert (1989) covers the morphology, and especially the syntax and semantics, of Israeli Hebrew with great detail and insight.

4.3.3.2 Aramaic

For Syriac, the standard grammar is still Nöldeke's, originally published in 1880 (Nöldeke 2001 [1904]). A fine pedagogical grammar is Muraoka (1997). Sokoloff (2009) is a superb dictionary. So many grammars and dictionaries for varieties of ancient Aramaic exist, and the body of studies of particular modern Aramaic dialects is growing so rapidly, that it is difficult to select just a few, but two dictionaries deserve mention: Sokoloff (2002) is a comprehensive dictionary – and the first that is based on reliable manuscripts – of the language of the Babylonian Talmud, which still constitutes the core of traditional Jewish education; Sabar (2002) provides an intimate view of the language and culture of the Aramaic-speaking Jewish communities of Kurdistan.

4.3.3.3 Arabic

The literature on Arabic is enormous. A handy one-volume survey is Versteegh (1997), while the *Encyclopedia of Arabic Language and Linguistics* (Versteegh *et al.* 2006–9, in 5 vols.) is monumental. The standard grammar of Classical Arabic is Wright (1896–98). Badawi *et al.* (2004) is a comprehensive description of Modern Standard Arabic syntax, while Aoun *et al.* (2010) is more concerned with formal generative analysis. Holes (2004) is an excellent survey of many aspects of both Modern Standard Arabic

and modern vernacular Arabic. For more on modern vernacular Arabic, Brustad (2000) on syntax and semantics and Watson (2002) on phonology provide broad coverage; Cowell (1964) is perhaps the best reference grammar of a single dialect, remarkable for its comprehensiveness, originality, and insight.

4.3.3.4 *Old South Arabian*

A good overview of the family is provided in Nebes and Stein (2004). A concise grammar of Sabaic is Beeston (1984), and for a dictionary see Beeston *et al.* (1982). A selection of the more recently (re-)discovered non-monumental and cursive texts is published in Ryckmans *et al.* (1994).

4.3.3.5 *Modern South Arabian*

Our surest data about these languages are still supplied by the dictionaries and text collections of T. M. Johnstone (1977, 1981, 1987; Johnstone and Stroomer 1999), with an overview in Johnstone (1975) – see also Simeone-Senelle (1997). The most detailed grammatical information on an MSA language is contained in Rubin (2010, cited later as R[page]), a study of Mehri based on Johnstone's texts and recordings.

4.3.3.6 *Ethiopian Semitic*

For the classification of these languages, see especially Hetzron (1972a); Leslau (1987) is an authoritative etymological dictionary. The standard reference grammar of Geez is Dillmann (1974 [1907]), but Lambdin (1978) is a useful pedagogical introduction; a reference grammar of Amharic was produced by Leslau (1995, cited hereafter as L[page]). A number of useful articles on individual ES languages are contained in Hetzron (1997). For the dense cluster of southern ES, see the overview of Hetzron (1977), the etymological dictionary of Leslau (1979), the morphophonological study of Banksira (2000), and the chapter by Rose (2007).

4.3.4 Languages used in this study

Relevant evidence can of course in principle, and will on occasion, be drawn from the total range of Semitic. However, in order to keep this overview within the bounds of a single chapter, while giving as accurate an impression as possible of the typological range of Semitic through its long-attested history of development, we will try to give as complete a report as possible, given the space limitations, on a sample of Semitic languages which might be taken together to show both the abiding central tendencies and the range differentiation of this uniquely attested language family.

For East Semitic, other things being equal, evidence will be cited from the Old Babylonian dialect of Akkadian. Within West Semitic, the main languages will be

Table 4.1 *Consonants of Old South Arabian.*

		labial	interdental	dental	pal.	lateral	velar	post-vel.	phar.	glottal
stop	vceless			<i>t</i>			<i>k</i>			
	vced	<i>b</i>		<i>d</i>			<i>g</i>		ʕ	ʔ
	emph			<i>ʔ</i>			<i>k</i>			
spirant	vceless	<i>f</i>	<i>θ</i>	<i>s</i>	<i>š</i>	<i>ʃ</i>		<i>x</i>	<i>ħ</i>	<i>h</i>
	vced		<i>ð</i>	<i>z</i>				<i>ɣ</i>		
	emph		<i>θ̤</i>	<i>ʒ</i>		<i>ʃ̤</i>				
resonant				<i>r</i>		<i>l</i>				
glide		<i>w</i>				<i>y</i>				
nasal		<i>m</i>		<i>n</i>						

Biblical Hebrew, Syriac (representing the Aramaic family), Classical Arabic, and Syrian vernacular Arabic, and to a smaller extent modern Israeli Hebrew, the modern Aramaic of the Jews of Amadiya, Iraq, and Maltese. Unless otherwise specified, ‘Hebrew’ is Biblical Hebrew, and ‘Arabic’ is Classical Arabic. As already indicated, the OSA group will be cited only sporadically. The more phonologically and morphologically accessible MSA is represented almost exclusively by material drawn from the compilation of Mehri material assembled recently by Rubin (2010). Ethiopian Semitic is sampled mainly from Ge'ez for the Northern group and Amharic for the Southern.¹

4.4 Phonology

4.4.1 Consonants

The consonant inventory of OSA (table 4.1), together with that of MSA, is the fullest of any branch of Semitic. It shows the characteristic ‘South Semitic’ asymmetry, in which a voiceless labial spirant systematically replaces the voiceless labial stop represented in Eastern and Northwestern Semitic. But apart from that this inventory is the fullest representation of Common Semitic, and has frequently been taken to be at least a close approximation to the consonant inventory of Proto-Semitic. A more recent view has a different interpretation of the sibilants, according to which *s* and *z* were the affricates *ts*, *dz* respectively, and *š* was a plain *s*.

‘Emphatic’ is the traditional term for a class of consonants that are realized as glottalized in MSA and ES, probably also in OSA and Proto-Semitic, and possibly so in Akkadian and earliest NW Semitic (Ugaritic-Canaanite-Aramaic). In Arabic and all the modern Aramaic languages, on the contrary, they are realized as pharyngealized. The most striking typological fact about this inventory is the great elaboration of the spirant

Table 4.2 *Consonant inventory of Old Babylonian Akkadian.*

		labial	dental	pal.	velar	glottal
stop	vceless	<i>p</i>	<i>t</i>		<i>k</i>	
	vced	<i>b</i>	<i>d</i>		<i>g</i>	<i>ʔ</i>
	emph		<i>t̰</i>		<i>k̰</i>	
spirant	vceless		<i>s</i>	<i>š</i>	<i>x</i>	
	vced		<i>z</i>			
	emph		<i>š</i>			

class, and what may be designated as the post-velar (now often called, resurrecting an old traditional term, ‘guttural’); and at the same time, the relative lack of elaboration in labial obstruents (no emphatics, only a voiced stop /b/, and one voiceless labial obstruent which is realized as either a stop or a spirant only). The consonants /x/ and /χ/, which in some languages are realized as velar spirants, seem generally to pattern with the pharyngeals everywhere except for the /x/ in Akkadian, where it is retained as a velar spirant (possibly due to influence of a Sumerian sub-strate). Particularly noteworthy is the class of lateral(-ized) spirants (traditionally noted by Semitists as ‘š’ and ‘š̰’ at a time when their lateral character was not yet recognized), which are attested in Semitic only in OSA and MSA, and which elsewhere merge with obstruents in other articulatory positions.

The consonantal inventory of Old South Arabian is by and large maintained in Modern South Arabian, and in some languages even augmented. Mehri, which will in general be our MSA representative in this survey, fills in a systematic gap in the OSA table by creating a palato-alveolar emphatic, /š̰/. The emphatic spirants otherwise tend to have a markedly voiced quality, so that Rubin (2010) notes the emphatic interdental and lateral continuants as /š̰/ and /z̰/ respectively (he notes the voiceless lateral continuant as /š̰/). The pharyngeal set is maintained, even though in many lexical items /š̰/ is replaced by /ʔ/.

In Akkadian (table 4.2), as mentioned, the voiceless labial obstruent is a stop. The situation is not completely clear for the earliest Old Akkadian, but by Old Babylonian it is clear that there is considerable simplification in both the pharyngeals and spirants. The pharyngeals all disappear, with the exception of /x/, apparently realized as a voiceless velar spirant and – limited to certain intervocalic hiatus functions – /ʔ/. In the spirant series, /θ/ and /ħ/ both merge with /š̰/, /δ/ merges with /z/, while the emphatic spirants /š̰, θ̰/ merge with /š̰/.

Compared with the Proto-Semitic consonant system, which is best represented in Old South Arabian, Arabic shows the effects of several surprising shifts, which make sense as a coherent set if they were initiated by the change of the emphatic consonants from

Table 4.3 *Consonant inventory of Classical Arabic.*

		labial	interdental	dental	pal.	lateral	velar	post-vel.	phar.	glottal
stop	vceless			<i>t</i>			<i>k</i>			
	vced	<i>b</i>		<i>d</i>	<i>ɟ</i>				ʕ	ʔ
	emph			<i>ʔ</i>				<i>q</i>		
spirant	vceless	<i>f</i>	<i>θ</i>	<i>s</i>	<i>ʃ</i>			<i>x</i>	<i>ħ</i>	<i>h</i>
	vced		<i>ð</i>	<i>z</i>				<i>ɣ</i>		
	emph		<i>ð̤</i>	<i>ʒ</i>		<i>ʕ</i>				
resonant				<i>r</i>		<i>l</i>				
glide		<i>w</i>			<i>j</i>					
nasal		<i>m</i>		<i>n</i>						

glottalized to pharyngealized. Because pharyngealized consonants, unlike glottalized ones, can be voiced as well as voiceless, it became possible to create greater phonetic distance between phonemes in crowded areas of the phonemic inventory. Two of the emphatics were voiced (**θ* > *ð̤*, **ʔ* > *ʕ̤*). The velar **k* was retracted and at least sometimes voiced; the conventional symbol for its reflex is *q*, but judging from the range of variation in modern Arabic dialects, *q* was, in the Old Arabic period, [g], [g̊], [q], or glottalized [qʔ]. As a result of the voicing of *q*, Semitic **g* became a palatal stop or affricate, which may be represented as *j̤*. (Modern dialectal reflexes of *j̤* include [j̤], [ɟ̤], [ʒ], [g], and [y].) In addition, **ʃ* and **s* merged as *s*, and **ɟ* was delateralized to create a new *ʃ* phoneme. Although there is medieval and early modern evidence proving the lateral character of *ʕ̤* in Old Arabic, it has lost its lateral feature in all of modern Arabic, merging in each dialect with the reflex of **ð̤*. As a result of these changes, Classical Arabic had a strikingly asymmetrical consonant inventory (table 4.3).

Most modern vernacular Arabic dialects have made the consonant system more symmetrical by adding or losing phonemes. In many urban dialects, the interdentalals have become dental stops (*θ̤*, *ð̤*, *ð̤* > *t*, *d*, *d*). In a few dialects, they have become bilabials (*f*, *v*, *ɸ*). A widespread tradition of reading Classical and Modern Standard Arabic makes a thoroughly artificial distinction between *ð̤* (for Classical *ð̤*) and *d̤* (for Classical *ʕ̤*). Damascus Arabic (table 4.4) is one of those that lost the interdentalals. There of the phonemes in parentheses, *p*, *v*, and *g*, occur in loanwords from other languages or Arabic dialects. The sounds in curly brackets ({*b*}, etc.) are only marginally phonemic. The original uvular *q* has shifted to *ʔ*, except in the very frequent classicisms.

The feature of pharyngealization normally spreads from the lexically emphatic phoneme to adjacent sounds, sometimes to a whole word; thus *bəʔlaʕ* ‘he goes up/out’

Table 4.4 *Consonant inventory of Damascus Arabic.*

		labial	dental	pal.	lateral	velar	post-vel.	phar.	glottal
stop	vceless	(p)	t			k	(q)		
	vced	b	d			(g)		ʕ	ʔ
	vceless emph		t̤						
	vced emph	{b}	d̤						
spirant	vceless	f	s	š		x		ħ	h
	vced	(v)	z	ʒ		ɣ			
	vceless emph		s̤						
	vced emph		z̤						
resonant			r		l				
	emph		{r}		{l}				
glide		w		y					
nasal		m	n						
	emph	{m}	{n}						

is pronounced [bəʔtʕaʕ], and even the pharyngeal consonants can be allophonically pharyngealized, as in *baʕd* [bəʔd] ‘some’ vs *baʕd* [baʕd] ‘after’. Moroccan Arabic has an additional feature of labialization in the phonemes *b^w*, *m^w*, *f^w*, *k^w*, *g^w*, *q^w*, *x^w*, and *y^w*. These have simultaneous pharyngealization, and are only marginally distinct phonemically from the corresponding non-labialized consonants, as in *ʔm^wna* ‘our mother’ vs *m^wnuʕ* (also *mə^wnuʕ*) ‘forbidden’, *x^wra* (also *oxra*) ‘other (FEM.SG)’ versus *xra* ‘feces’.

A widespread reflex of *j*, one which is considered normative in formal reading, is the affricate *ʕʒ*, and many Arabic vernacular dialects have developed additional dental and palatal affricates. Iraqi dialects and many rural dialects in the Levant have *tʃ* from *k*, and in some Bedouin dialects it is *ts*. For Old Arabic *q*, Bedouin and rural dialects have voiced reflexes; *g* is widespread, and this has shifted to *ʕʒ* or *ʕz* in southern Iraq, the Persian Gulf dialects, and Central Arabia.

Maltese (table 4.5) has acquired affricates from two sources: the normal reflex of **j* is *ʕʒ*, while *tʃ*, *ts*, and *ʕz* have entered the language with the numerous loanwords from Italian and Sicilian. Standard Maltese has also lost pharyngealization (though it survives as a suprasegmental feature in most dialects), yielding a consonant inventory that looks strikingly European.

Biblical Hebrew and Classical Syriac have identical consonant inventories (table 4.6). Both lost the Semitic interdental, lateral, and post-velar fricatives (*θ*, *ð*, *θ̤*, *ð̤*, *x*, *y*) in the late first millennium BC. The reflexes of the interdentals and laterals in the two languages are different, however; for example, corresponding to Arabic *θawr*- ‘bull’, Syriac has *tawr-a*: while Hebrew has *šor*, and corresponding to Arabic *ʔarṣ*- ‘land’, the

Table 4.5 *Consonant inventory of Maltese.*

		labial	dental	pal.	lateral	velar	phar.	glottal
stop	vceless	<i>p</i>	<i>t</i>			<i>k</i>		
	vced	<i>b</i>	<i>d</i>			<i>g</i>		ʔ
affricate	vceless		<i>ts</i>	<i>ɖʒ</i>				
	vced		<i>tʃ</i>	<i>ɖʒ</i>				
spirant	vceless	<i>f</i>	<i>s</i>	<i>ʃ</i>			<i>ħ</i>	<i>h</i>
	vced	<i>v</i>	<i>z</i>	<i>ʒ</i>				
resonant			<i>r</i>		<i>l</i>			
glide		<i>w</i>		<i>j</i>				
nasal		<i>m</i>	<i>n</i>					

Table 4.6 *Consonant inventory of Biblical Hebrew and Syriac.*

		labial	interdental	dental	pal.	lateral	velar	post-vel.	phar.	glottal
stop	vceless	<i>p</i>		<i>t</i>			<i>k</i>			
	vced	<i>b</i>		<i>d</i>			<i>g</i>		ʕ	ʔ
	emph			<i>t̤</i>				<i>q</i>		
spirant	vceless	<i>φ</i>	<i>θ</i>	<i>s</i>	<i>ʃ</i>		<i>x</i>		<i>ħ</i>	<i>h</i>
	vced	<i>β</i>	<i>ð</i>	<i>z</i>			<i>ɣ</i>			
	emph			<i>ʒ</i>						
resonant			<i>r</i>		<i>l</i>					
glide		<i>w</i>		<i>y</i>						
nasal		<i>m</i>		<i>n</i>						

Syriac is ʔarʕ-a; and the Hebrew is ʔéreʃ. In both Hebrew and Aramaic (Syriac) the six non-emphatic stops, /p, b, t, d, k, g/ had fricative allophones [φ], [β], [θ], [ð], [x], [ɣ] (the first two will be written here as *f* and *v* for convenience) when preceded by a vowel and not geminated, and this shift, known as spirantization, resulted in extremely frequent alternations, such as Syriac *ka:θev* ‘he writes’, *ka:θba*: ‘she writes’, *ʔextov* ‘I will write.’ In the course of time, as some vowels were deleted and morphological levelling took place, these fricatives became separate phonemes (and thus the languages recreated the phonemes θ, ð, x, ɣ). In the various modern Aramaic languages and modern Hebrew, after many additional sound changes including degemination and the elision of some vowels, these fricatives (those that survive in any given dialect) are, unequivocally, phonemes. Modern Aramaic languages have seen many of the same innovations as vernacular Arabic dialects have, and Modern Hebrew is like Maltese in having lost pharyngealization and gained new phonemes.

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Table 4.7 *Consonant inventory of Israeli Hebrew.*

		labial	interdental	dental	pal.	velar	post-vel.	phar.	glottal
stop	vceless	<i>p</i>		<i>t</i>		<i>k</i>			
	vced	<i>b</i>		<i>d</i>		<i>g</i>		(ʕ)	ʔ
	emph								
affricate	vceless			<i>ts</i>	<i>tʃ</i>				
	vced				<i>tʃ</i>				
spirant	vceless	<i>f</i>		<i>s</i>	<i>ʃ</i>		<i>x</i>	(ħ)	<i>h</i>
	vced	<i>v</i>		<i>z</i>	<i>ʒ</i>				
	emph								
resonant				(<i>r</i>)			(<i>ʁ</i>)		
glide					<i>y</i>				
nasal		<i>m</i>		<i>n</i>					

Table 4.8 *Ge`ez consonants.*

		labial	dental	velar	labio-velar	phar.	glottal
stop	vceless	<i>p</i>	<i>t</i>	<i>k</i>	<i>kʷ</i>		
	vced	<i>b</i>	<i>d</i>	<i>g</i>	<i>gʷ</i>	ʕ	ʔ
	emph	<i>p̣</i>	<i>ṭ</i>	<i>ḳ</i>	<i>ḳʷ</i>		
spirant	vceless	<i>f</i>	<i>s</i> [‘s’ ~ ‘sʔ’]	<i>x</i>	<i>xʷ</i>	<i>ħ</i>	<i>h</i>
	vced		<i>z</i>				
	emph		<i>ʃ</i> [‘ʃ’ ~ ‘dʔ’]				

In modern Israeli Hebrew (table 4.7), the phoneme /*r*/ is pronounced as either a uvular [ʁ] or an alveolar [r]. The pharyngeals ħ and ʕ are pronounced only by a minority of speakers, and not consistently even by them; otherwise, they are merged with *x* and ʔ respectively, and all speakers frequently omit *h* and ʔ. The phonemes *tʃ*, *tʃ*, and *ʒ* occur almost exclusively in loanwords from European languages and Arabic, but in those words they are quite stable.

In Ethiopian Semitic (table 4.8), generally, the voiceless labial obstruent is a continuant /*f*/, as in OSA, MSA, and Arabic, and the emphatics are glottalized (again as in OSA and MSA, but not Arabic). In the languages which maintain an inventory of pharyngeals, as is the case in Geez, Tigre, and Tigrinya, the post-velar spirants merge with pharyngeals, with /*y*/ > /ʕ/ and /*x*/ > /ħ/; we know that in Geez, at least, the first merger preceded the second, and that the second followed the creation of the writing

system, since the writing system maintains a separate grapheme ‘x’, but has no **‘y’**. In the continuants, as in Arabic the palato-alveolar spirant merges with /s/, while the lateral spirant becomes a palato-alveolar: /ʃ/ > /s/, and /ʃ/ > /ʃ/. Note that this is supported only by graphic evidence, since the Ethiopic syllabary, on the basis of virtually identical shape with the corresponding OSA characters, has a character series for both /sV/ and /ʃV/. However, the phonetic distinction between characters ‘s’ and ‘ʃ’ is lost in all ES languages, including in all Geez pronunciation traditions, and a phonetic /ʃ/, where it exists, is always the result of a palatalization of /s/. In the other spirant series, the interdental merges with the palato-alveolars (/θ/ > /s/ and /ð/ > /z/); /θ/ apparently merged first with /θ/ (traditionally noted as /d/ in Ethiopianist scholarship). As with ‘s’ ~ ‘ʃ’ and ‘x’ ~ ‘h’, the writing tradition maintains a distinction between a ‘d’ character and a ‘ʃ’ character, but the pronunciation tradition knows only a post-merger pronunciation /ʃ/.

As opposed to the mergers, ES created a new labiovelar consonant series /k^w g^w k^w x^w/; the fact that /x^w/ is included in this series is possible evidence that the pre-merger articulation of /x/ was velar. Sometimes the conditioning environment for the formation of labiovelars is clear, as in the verb *tärg^wämä* ‘interpret, translate’, back-formed from the **Aramaic** loanword *targūm* ‘translation’; in other cases it is not at all clear, as in the minimal pair *gädälä* ‘strive’ vs *g^wädälä* ‘lack’. Finally, from Greek and other loanwords the labial series is filled out with a voiceless and an emphatic segment. These mergers and additions, which are basically common to all ES, yield directly the Geez obstruent inventory of table 4.8 (the resonant, glide, and nasal consonants are as in OSA).

The Southern ES languages seem to have inherited a consonant inventory something like that of Geez. In roughly similar, but not identical fashion, each of them simplified the pharyngeal inventory, and elaborated a series of palato-alveolar spirants and affricates, for the most part through palatalizations of the alveolar dental series.

Amharic, which is typical of the Southern ES languages in this respect, loses the entire inherited pharyngeal inventory, but recreates a /h/ via a spirantization of /k/ (cf. Geez *konä* = Amharic *honä* ‘be, exist’; the fact that there exists a /h^w/ also shows the origin of this consonant from a /k^w/). On the other hand, it creates a series of palato-alveolars in a one-to-one correspondence with the consonants of the dental-alveolar series. This results in both non-alternating palato-alveolars (Geez *dede* ‘door’ = Amharic *daǰǰ*) and synchronically alternating ones: *näggärä* ‘speak’ ~ *nägari* ‘speaker’; *wärrädä* ‘descend’ ~ *wäraǰ*; *gäddälä* ‘kill’ ~ *gäday*. In table 4.9, the inclusion of the glides /w, y/ in a row with the resonants /r, l/ is meant to show that /y/ functions as a palatalization of /l/. (Note that /ç/ functions equally as a palatalization of /ʃ/, which phonetically is often realized as an affricate /ç/.)

Table 4.9 *Amharic consonants*.

		labial	dental-alveolar	palato-alveolar	velar	labiovelar	glottal
stop	vceless	<i>p</i>	<i>t</i>	<i>č</i>	<i>k</i>	<i>k^w</i>	
	vced	<i>b</i>	<i>d</i>	<i>č̣</i>	<i>g</i>	<i>g^w</i>	
	emph	<i>p̣</i>	<i>ṭ</i>	<i>č̣</i>	<i>ḳ</i>	<i>k^w</i>	
spirant	vceless	<i>f</i>	<i>s</i>	<i>š</i>		<i>h^w</i>	<i>h</i>
	vced		<i>z</i>	<i>ž</i>			
	emph		<i>š</i>				
nasal		<i>m</i>	<i>n</i>	<i>ɲ</i>			
sonorant		<i>w</i>	<i>r</i>	<i>l</i>	<i>y</i>		

4.4.2 Vowel

The vowel inventory of Common Semitic is generally accepted to be that of Classical Arabic, with three basic vowels, long and short.

short	<i>i</i>	<i>a</i>	<i>u</i>
long	<i>ī</i>	<i>ā</i>	<i>ū</i>
diphthong	<i>ay aw</i>		

Many modern Arabic dialects have added the long vowels *e:* and *o:*, in most cases from old Arabic *ay* and *aw*. Most of these same dialects still have *ay* and *aw*, phonemically distinct from *e:* and *o:*, in limited phonological or morphological environments. For example, Cairo Arabic has *bet* ‘house’ and *nom* ‘sleep’ (the noun), from old Arabic *bayt-*, *nawm-*, but has *nayma* ‘sleeping (FEM.SG)’ from *na:ʔima-* and *gaww* ‘air’ from *jaww-*. Many dialects have fewer short vowel phonemes than long ones: *i:*, *e:*, *a:*, *o:*, *u:*, but *i*, *a*, *u*. In many dialects the phonemic distinction between *i* and *u* is neutralized, in all or some environments, with the exact quality determined by the surrounding consonants. The biggest difference between Classical Arabic and most or all modern dialects has to do with syllable structure, with a constraint against the appearance of short vowels in open syllables. That is, underlying short vowels are deleted in some open syllables, depending on stress and other factors, in ways that vary from dialect to dialect. In the Arabic of Damascus, there are five long vowels, *i:*, *u:*, *e:*, *o:*, *a:*, which occur in syllables of all types, but the number of short vowels varies from environment to environment, ranging from four (*e*, *o*, *ə*, *a*) to two (*ə*, *a*), with consequent alternations as in *l̥bes* ‘he put on (garment)’, *l̥bset* ‘she put on’, *l̥bs(ə)t* ‘I put on’, *l̥bsəto* ‘she put it on’. Such limitations on short vowels in open syllables have gone to an extreme in Moroccan Arabic, where both the presence and the quality of the short vowels is nearly, though not completely, predictable from their environments, so that the vowels of Moroccan

Arabic are best described not as long and short but as ‘full’ vowels, which are stable though not particularly long, vs vestigial, very short, ‘variable’ vowels; for example, Moroccan Arabic has *ktāb* ‘he wrote’, *kātibāt* ‘she wrote’, *kātibu* ‘they wrote’, *katāb* ‘having written’, from Old Arabic *katāba*, *katabat*, *katābu*-, *katātib*-. The precise quality of this *ā* varies a great deal with the consonantal environment, though in some Moroccan dialects there are contrasts in very limited environments, so that it is necessary to posit a three-way distinction of short vowel phonemes, *ā*, *ā̄*, *ā̇*.

Akkadian operates basically in terms of the three-long-plus-three-short vowels of Common Semitic, but adds a front-mid vowel, short and long (*/e/*, */ē/*), which arises for the most part from */a/* in lexical items which historically contained the pharyngeals */ʕ, ʁ, ħ/*: **ʕazābum* ‘leave’ > *ezēbum*.

short	i	e	a	u
long	ī	ē	ā	ū
diph	ay	aw		

Of the ancient Canaanite languages, it is only for Biblical Hebrew that the vowels are clearly attested, in notations that were added to the biblical text in the late first millennium AD. The best-known of these systems of notation, called Tiberian, has ten vowel symbols, which may be represented as *i*, *e*, *ε*, *a*, *ɔ*, *o*, *u*, *ě*, *ā*, *ō*. An additional symbol, called ‘shwa’ and often transcribed as *ə*, is used both to indicate a short vowel (most often [a]) and to indicate the lack of a vowel at the end of a syllable. Shwa will not be indicated in the transcriptions used here, because its graphic location is predictable and its pronunciation is a matter of reconstruction and interpretations vary. The Tiberian vowel *ɔ* is derived from earlier long **a:* or short **u*. On the basis of non-Tiberian traditions of Hebrew (including modern Israeli Hebrew), and in order to clarify the morphological structures of Hebrew and facilitate comparison with other Semitic languages, *ɔ* from **a:* will be represented in this chapter as *ā̇*, and *ɔ* from **u* as *ȯ*. Hebrew had a phonemic distinction between long and short vowels, but these are only marginally represented in the indigenous notation systems. Thus, the forms *kāṯāw* ‘he wrote’, *kāṯāwēm* ‘you (2mpl) wrote’, and *koṯēw* ‘writing (MASC.SG)’ were underlyingly */katab/*, */katabtēm/*, and */ko:teb/*, and were pronounced by the medieval Tiberian scholars as [kɔ:θa:v], [kaθavté:m], [ko:θé:v], respectively.

There are two indigenous systems of vowel notation for Syriac, and many reading traditions extant today. On the basis of these, the vowels can be reconstructed as follows:

Short	ε, a
Long	ī, e:, ε:, a:
Variable	o(:), u(:)

Syriac *a:* differed from *a* both in length and in quality, with *a:* being farther back and probably rounded.

Because *e:* is much less frequent than *ε:* and does not appear in the examples cited in this chapter, *e:* and *e* will be written instead of *ε:* and *ε*. The length of the vowels *o(:)* and *u(:)* is not indicated in Syriac orthography and will be shown here on an etymological basis, but it is not clear whether it was phonemic in Syriac.

Modern South Arabian vowel systems are complex, diverse, and not yet well understood; moreover, many aspects of their correspondences with the vowel systems of Common Semitic are still to be worked out. Using Mehri as our MSA-type language, we find an asymmetrical eight-vowel system with two phonetically short central vowels (in addition to an [ɛ], which is apparently not phonemic) and six phonetically long vowels, with a striking resemblance to the seven-vowel Ethiopian Semitic system, plus an /ē/, which seems to function mostly, but not always (cf. *bēr* ‘camels’ vs *bār* ‘he went at night’), as an allophone of /ā/. Since the structure of this vowel system is still not clear, following Johnstone (1987) and Rubin (2010b), we incorporate a length-notation into the vowel representation.

short	ə	a	([ɛ])			
long	ī	ē	ē	ā	ō	ū
diphth	ay	aw	əy	əw		

A striking feature of the vowel system is the interaction of the long vowels /ī, ū, ē/ with a preceding glottalized, pharyngeal, or liquid consonant, resulting in a diphthong or long vowel with initial mora /a/, as in: /ī/ > /ay/, cf. *θībər* ‘break’ with *ḵayrəb* ‘approach’; /ū/ > /aw/, cf. *həḵfūl* ‘he cheered up’ with *rəḵawn* ‘he tied up’; /ē/ > /ā/, cf., *ḵəbēr* ‘he was buried’ with *səḵāṭ* ‘it was slaughtered’.

As opposed to MSA, the structure and provenance of the Ethiopian Semitic is quite clear. The basic system of Ethiopian Semitic is:

monophthong	i	e	ä	a	ə	o	u
diphthong		ay	aw				

Here /ä ə/ are in fact phonetically short, while /i e a o u/ are phonetically long. Variations on this system occur in some Southern ES languages, but the above system is basic, and is in fact the vowel inventory for both Geez and Amharic. In this system Semitic long *ī ā ū/ become /i a u/, where phonetic length is non-distinctive, and /a/ is phonetically longer, but also lower and more back than /ä/, which in turn continues Semitic short */a/, and has a more advanced articulation. The origin of /e o/ is less clear-cut, but plausibly involves monophthongization of earlier /ay aw/. Semitic short */i u/ merge into /ə/, which, word-finally and in open syllables, simply disappears (with, as will be seen, dramatic effects on the system of case inflection: compare

Arabic *kalbu*[nom], *kalbi*[gen] with Geez *kälb*[nom.gen] ‘dog’, but *kalba*[acc] with Geez *kälbä*[acc]). Thus, word-interiorly, where disappearance of a vowel would give rise to unacceptable consonant clusters, */i u/ > /ə/ – **qutūl* ‘killed’ > *qətul* – but otherwise > Ø: **labisa* ‘he wore’ > *läbsä*. This complementarity has given rise to endless discussions about the ‘phonematicity’ of /ə/. While the majority of its occurrences are automatically predictable from rules of syllable structure and acceptable and non-acceptable consonant clusters, as in *qtul* > *qətul*, there are instances of ‘non-automatic’ /ə/. These are difficult to establish in Geez, where pronunciation traditions can be contradictory, and the writing system is ambiguous (in the Geez syllabary, the same sign is used for C + Ø and C + ə). However, Amharic has unambiguous instances of distinctive /ə/ in an open syllable, as in *yəčəlat* ‘he can’, where ***yəčəlat* is phonologically possible, but unacceptable (from the ‘middle-weak’ verb *čälä* ‘he could’, where the ablaut relation /a/ ~ /ə/ is part of the realization of a tense distinction).

4.4.3 Syllable structure and word structure constraints

There are a number of basic persistent word-shape tendencies running through Common Semitic:

- (1) in syllable structure: an avoidance ranging from disfavoring to disallowing of initial and final consonant clusters, and of internal clusters of more than two consonants – *CCC, *#CC, *CC# (where ‘#’ symbolizes word boundary);
- (2) a morphological template favoring one or two (mostly monosyllabic) prefixes, and one suffix (additional suffixes tend to be enclitics);
- (3) in the lexicon: a privileging of roots/stems with three consonants (and appropriate vowel patterns), and, to a markedly lesser extent, one, two, or four or more consonants.

Combined, these tendencies determine a relatively limited number of word-templates. Taking only (1) and (2) into account, one can enumerate, for example, some partial templates of inflected and non-inflected words of at least two consonants, where ‘-’ is a morpheme boundary:

- ... V-CCV ... - ...
- ... - ... VCC-V ...
- ... (V/C)-CVC ... - ...
- ... - ... CVC-(V/C) ...
- ... - ... VCCV ... - ...

In addition to this general Semitic tendency, some languages impose specific syllable-structure constraints of their own. For example, Akkadian does not allow a succession of two open syllables word-internally: $** \dots C_1 V C_2 V C_3 V \dots$, which must become $\dots C_1 VC_2C_3V \dots$. This gives rise to alternations such as the perfect 3msg *iptaras*, but perfect 3mpl $**iptarasu > iptarsu$ (compare present 3msg *iparras*, 3mpl *iparrasu*; interestingly, $\dots C_1 V C_2 Vr V \dots$ (with /r/) is allowed, as in the noun *šikaru* ‘beer’). Arabic vernacular dialects vary greatly: some tolerate onset clusters but not coda clusters, and others the opposite, while in some it depends on the sonority of the adjacent consonants. Compare Egyptian *lahm* ‘meat’, *kitāb* ‘book’, with Syrian *lāhēm*, *ktāb*, and Moroccan *lhām*, *ktab*. Where morphological alternation or sound change create consonant clusters which violate the constraints just mentioned, different languages adopt different strategies.

Final vowels are particularly vulnerable to diachronic or systematic synchronic dropping. A particularly frequent environment for the latter in Semitic is the so-called ‘Construct’ environment, where the head noun of a possessive construction enters into a morphological-phonological unified construction with a following “possessing” noun, frequently losing a final vowel or reducing a final syllable, in the process (see below, section 4.6.5).

An obvious case of word-final CC caused by sound change occurs in ES, where word-final /u, i/ > Ø, giving VCC# for every VCC-u/i noun stem in the language; as already mentioned: $*CVCC-u$ [nom], $*CVCC-i$ [gen] > CVCC[nom.gen] (as opposed to $*CVCC-a$ [acc] > CVCC-ä[acc]). In some languages this is resolved by systematic epenthesis (Tigrinya *kälbi* ‘dog’). In Geez the pronunciation tradition lends itself to a variety of interpretations (orthographic ‘*kälb*’ was probably generally realized as /*kälb*/ but perhaps earlier was /*kälbə*/ or /*käləb*/?), but it is clear in Amharic that systematic $\dots CC\#$ is realized as $\dots C_1C_2/$ or $\dots C_1əC_2/$ according to a sonority hierarchy relationship between C_1 and C_2 , with a certain amount of individual variation. Compare: *kənf* ‘wing’ vs *gədəm* ‘area’; *bälg* ‘short rainy season’ vs *fütəl* ‘thread’; *dərək* ‘drought’ vs *kəbər* ‘honor’; *gäbs* ‘barley’ vs *gudəf* ‘dirt’.

Initial clusters are much less frequent in ancient Semitic languages, but ES, specifically Geez and Amharic, does have a few. Starting out from the foreign PN *krəstos* ‘Christ,’ there is a whole series of /#kr/ clusters, e.g. *krəstənnä* ‘Christianity’, in both Geez and Amharic, with the native abstract-noun suffix *-ənnä*. Independently of this, Amharic has /#kr/ clusters in the native words *krar* ‘six-string lyre’ and *krämt* ‘rainy season’ (Geez, according to Leslau (1987), has both *krämt* and *kərəmt*). Many dialects of Arabic and modern Aramaic freely allow initial clusters.

A typologically common word-structure integrating strategy in languages is vowel harmony. Although this is not widespread in Semitic, there exists at least one limited example in Akkadian. In the Assyrian dialect, a short stem-final /a/ in an open syllable

is assimilated to the vowel of the suffix (case for nouns, number–gender for verbs): for *qaqqad-* ‘head’, nom ~ gen ~ acc = *qaqqudum* ~ *qaqqidim* ~ *qaqqadam* (compare Babylonian *qaqqad-um~im~am*); for preterite 3msg *išbat* ‘he seized’ the 2fsg and 3mpl are *tašbitī* and *išbutū* (compare Babylonian *išbat*, *tašbatī*, *išbatū*).

In Classical Arabic, the distinction between long and short vowels is neutralized in utterance-final position. Final short vowels are omitted in so-called ‘pausal’ position (though in poetry they may instead be lengthened). In addition, the *-t-* of the suffix *-at-* on nouns and adjectives, which most often marks feminine gender (but not in the *-at* suffix marking 3rd person feminine singular in verbs), and the *-n* marking the absolute state of nouns and adjectives are also deleted, so that almost all words have two forms, a full form and a shorter ‘pausal’ form: *kita:bun* : *kita:b* ‘book’, *madrasatun* : *madrasa* ‘school’. Modern vernacular dialects have, as a rule, reflexes of the pausal forms, though preservation of the *-t-* or *-n* in certain morphosyntactic environments shows that the alternation of full and pausal forms was a productive feature of the ancestor of the modern vernaculars, which must, therefore, have been similar to Classical Arabic. In this chapter, Classical (and Modern Standard) Arabic nouns and adjectives will often be given in pausal form indicated with a hyphen, as *kita:b-*, *madrasa(t-)*.

4.4.4 Stress

By the very nature of the data, we have no direct evidence for stress placement, much less for contrastive or distinctive stress in Akkadian and OSA. It is, however, generally assumed that the short open vowels that are elided in Akkadian, or that undergo vowel harmony in the Assyrian dialect, were not stressed. In the area of Ethiopian Semitic, observations have been made about stress in the Geez pronunciation tradition, but the evidence is inconclusive. Even for modern Ethiopian Semitic, which has not lacked phonetically sophisticated observers, stress has been notoriously hard to pin down. The same is true of Classical Arabic. Though the indigenous grammarians in the Classical period described the phonetics of consonants and vowels in great detail, they do not refer to stress in any way, and efforts to reconstruct the stress pattern of Classical Arabic on the basis of the modern dialects have proven inconclusive and contradictory, so it is most likely that Classical Arabic had no salient stress at all, like modern Moroccan Arabic. Most dialects outside Morocco, however, have quite significant word stress, and its place is determined, for the most part, by syllable structure. Syrian Arabic is typical: stress is placed on a final heavy syllable (one with a long vowel or ending in two consonants: *darastú*: ‘you-PL studied it-MASC’, *darást* ‘I/you-MASC.SG studied’, *biḥáss* ‘he feels’), otherwise on a heavy penultimate syllable (one with a long vowel or ending in a consonant: *byəsmáʃkon* ‘he hears you’, *madá:res* ‘schools’), otherwise on

the antepenult (*dárasu* ‘they studied’, *mádrase* ‘school’). It would be wrong, however, to conclude from this that stress is completely automatic and non-phonemic, as there are morphologically specified deviations from the default pattern in all known dialects. In Syrian Arabic, the 3rd person feminine singular past tense suffix *-ət* is stressed in certain environments (*fahhamštak* ‘she explained to you’), and verbs and deverbal nouns and adjectives with the intransitivizing affixes *-n-* or *-t-* are stressed on a short penult (*byənháka* ‘it is told’, *muʔtámar* ‘conference’). In Baghdadi Arabic, words with proclitic prepositions are stressed on the initial syllable (*baɣdá:d* but *l-báɣda:d* ‘to Baghdad’, *if-šá:riʕ* ‘the street’ but *mn-íf-ša:riʕ* ‘from the street’, with stress on the definite prefix!). In Cairo, plurals of certain patterns have penultimate stress (*libísa* ‘underpants’, *subúʕa* ‘lions’).

In Hebrew, stress placement is governed by complex morphological principles. The default position for stress is on the final syllable of a word (Biblical Hebrew *káθv-ú* ‘they wrote’), but there are suffixes that are unstressable (*káθáv-ti* ‘I wrote’), and stems that attract stress (*hílbíʕ-u* ‘they dressed’, Israeli Hebrew *yeruʕáʕmi* ‘Jerusalemite’, *yeruʕáʕmijut* ‘Jerusalemite-ness’). Furthermore, these properties can vary according to more distant morphological context: *w-xáθav-tí* ‘I will write’; *yáqóm* ‘he shall rise’ but *way-yáqóm* ‘he rose’).

Early Aramaic, as represented for example in the Aramaic chapters of the Bible, had, like Hebrew, morphologically conditioned stress. In the transition to Syriac, all unstressed final vowels were lost, so that Syriac had no phonemic stress. Most modern Eastern Aramaic languages have penultimate stress except in a very limited set of morphological environments, while modern Western Aramaic is similar to Arabic in having a stress pattern based on syllable weight.

4.5 Major lexical classes

The Semitic languages make a clear distinction between the major lexical classes: Verb, Noun, Adjective. This distinction is expressed not only syntactically (see below), but also in the sound structure, thanks to the unique, and well-known, root-plus-vowel pattern organization of the morphology and lexicon. While primary nouns do not always fit easily into this organization, by and large it is the case that lexical identity tends to be associated with a recurrent sequence of consonants – not always, but frequently, three in number, and commonly referred to as the ‘root’ – while inflectional and derivational variants are associated across the lexicon by characteristic stem-vowel sequences, in addition, of course, to large inventories of affixes, as in other languages. Although divergent ‘root’-types exist in all Semitic languages, the sequence with three obstruent (i.e., non-glide) consonants is by far the most frequent (e.g. *q-t-l* ‘kill’, *k-t-b* ‘write’, etc.), and is in a way the typological norm around which other root-types tend to gravitate;

because of this, examples in the next three sections will be overwhelmingly from this root-type, traditionally known as ‘sound’ roots. However, attention will be drawn on occasion to two important classes of divergent root-types: (a) CCCC roots with four obstruent consonants; and (b) roots having paradigm forms which show less than the canonical number of consonants and whose underlying/effective shape *is* (if they arise from historical assimilation/elision processes), or *is extrapolated/projected from* (if they have been formed proto-historically from pre-root forms such as CVC, CCV, etc.), a root sequence containing one or more ‘weak’ consonants, such as (the inventory may differ from language to language): /w, y, ʔ, n/ – traditionally known as ‘weak’ roots.

There is a striking difference in most Semitic languages between the stem shapes of nouns and adjectives on one hand and verbs on the other. All verbs, including loanwords, must conform to one of the quite limited set of canonical stem patterns (syllable structure and vocalism) for verbs in the language, while nouns and adjectives, especially loanwords, may conform but need not. Thus, Arabic has short nouns like *yad-* ‘hand’, *bn-* ‘son’, *f-* ‘mouth’, *fiʔa(t-)* ‘band’, and words with non-canonical stems like *ʕankabu:t-* ‘spider’, *firdaws-* ‘garden’, but no analogous verbs. Maltese is an exception, having many loan verbs with unassimilated stems but with Arabic affixes: *jiġġustifika* ‘he justifies’ (*ji-* 3rd person present), *tiddawnlowdjah* ‘you download it’ (*ti-* 2nd person, *-h* 3rd person masc. sg. object). Such verbs exist in Moroccan Arabic, too, in jocular use. So there is evidently no fundamental property of Semitic that makes such verbs impossible; nevertheless few languages have them, while most languages modify loanwords to fit canonical templates: Arabic *talfana* ‘he telephoned’.

4.6 Nouns and adjectives

Nominal and adjectival morphology largely involve the same categories and encodings in Semitic, and so will be considered together here (see section 6.4 below). Since number, gender, and case are fused categories in Semitic, fuller contrastive paradigms will only be given below in the section on case. In the next two sections we will simply give an overview characterization of gender and number marking in the various branches of Semitic.

4.6.1 Gender

All Semitic languages follow a strict two-gender system, masculine and feminine. As often as not, in primary nouns, there is no explicit encoding of gender: Akk *abum* ‘father’ vs *ummum* ‘mother’; but when gender is encoded, by far the most common nominal and adjectival suffix is *-Vt* ~ *-t*: Akk *šar-rum* ‘king’ ~ *šarr-at-um* ‘queen’, *bēl-um* ‘lord’ ~ *bēl-t-um* ‘lady’. See below for special adjectival gender encoding. Other

feminine nominal formations in Arabic are *-a*: (*ðikra*: ‘memory’, *kubra*: ‘bigger’) and *-a:ʔ*- (*ṣaḥra:ʔ*- ‘desert’, *ḥamra:ʔ*- ‘red’, *kibriya:ʔ*- ‘arrogance’). While *-a(t-)* is the most productive marker of feminine gender in Arabic, it is not exclusively such: it occurs on some masculine nouns (*xali:fa(t-)* ‘caliph’) and some plurals (*ḥara:miyya(t-)*, pl. of *ḥara:mi:y-* ‘thief (masc.)’; *ṭalaba(t-)*, pl. of *ṭa:lib-* ‘student (masc.)’).

4.6.2 Number

Oldest Semitic had a three-way distinction between singular, dual, and plural in the noun (as well as adjective, verb, and pronoun). The three-way distinction remains valid in Classical Arabic, OSA (morphological evidence largely limited to third person contexts), and MSA, but gives way to a two-way singular ~ plural distinction, with occasional fossilized dual remnants, in the other Semitic languages. As far as the encoding mechanism is concerned, duals, where they exist, are always by suffixation; for plurals, however, a number of Semitic languages use two mechanisms: a default encoding by suffixation, and a largely lexically determined ‘internal plural’ encoding using the familiar ‘root’ plus stem-pattern formation.

First, an overview of number-encoding by *suffixation*. With a couple of marginal/doubtful exceptions, all number marking is done by suffixation in Akk, involving lengthened case or gender vowels for both dual and plural, and a characteristic final *-n* (nunation?) in the dual. OB Akk still shows a limited use of the dual in noun inflection, for ‘natural pairs of objects’; otherwise the dual has disappeared from the OB verbal and pronominal systems, and continues to be less and less frequently used in the nominal inflection of subsequent periods of Akk.

In Mehri, nominal duals are formed by suffixation with *-i*: *warx* ‘month’, du *warx-i*. The quite rare masculine plural suffixes are *-īn* ~ *-ōn*, while the not rare, but still rather infrequent (but frequent in adjectives) feminine suffixes are *-tən* ~ *-ōtən* *-ūtən* ~ *-áwtən*. Both of these formations are usually accompanied by some internal (automatic?) vowel change: *kəṭōb* ‘book’, pl. *kəṭəb-īn*; *ʔayn* ‘eye’, pl. *ʔāyēn-tən*.

In Ethiopian Semitic the suffix plural system is considerably simplified and extended. In Geez (and other Northern Ethiopian Semitic), although a healthy inventory of internal plural patterns is maintained, the widely employed nominal suffix plural for both genders is *-at*, generalized from an earlier feminine plural marking: *may* ‘water’, pl. *may-at*. Adjective plurals maintain a gender distinction, *-an* m ~ *-at* f: msg *sānay* ‘beautiful’, fsg *sānay-t*, mpl *sānay-an*, fpl *sānay-at*. In Southern Ethiopian Semitic, apart from Geez loanwords, the number of nouns with internal plural patterns is reduced to a handful (and some of these have patterns not derivable from the Common Semitic internal plural pattern inventory), and in most languages a single suffix is generalized for all nouns. In Amharic this productive suffix is *-očč* (there is a possible, but problematic, relation

Table 4.10 *Internal plural patterns in Semitic.*

Pattern	Lang.	Singular	Plural
aCCāC	Geez	<i>lābs</i> ‘garment’	<i>albas</i>
	Geez	<i>səm</i> ‘name’	<i>asmat</i>
aCCūC	Geez	<i>hägär</i> ‘city’	<i>ahgur</i>
aCCi/uC-t	Geez	<i>gäbr</i> ‘slave’	<i>agbər-t</i>
aCāCu/iC(-t)	Geez	<i>bäg?</i> ‘sheep’	<i>abagə?</i>
CVCaC	Geez	<i>ʔəzn</i> ‘ear’	<i>əzän</i>
CVCaw	Geez	<i>ʔab</i> ‘father’	<i>abāw</i>
CaCāCi/uC(-t)	Geez	<i>mäsəfn</i> ‘prince’	<i>mäsəfn-t</i>
	Geez	<i>bəhēt</i> ‘earth’	<i>bāhawər-t</i>
CuCu:C	CI Arb	<i>qalb-</i> ‘heart’	<i>qulu:b-</i>
ʔaCCa:C	CI Arb	<i>walad-</i> ‘boy’	<i>ʔawla:d-</i>
CiCa:C	CI Arb	<i>kalb-</i> ‘dog’	<i>kila:b-</i>
CuCuC	CI Arb	<i>kita:b-</i> ‘book’	<i>kuṭub-</i>
Ci/uCaC	CI Arb	<i>ʔurfa(t-)</i> ‘room’	<i>ʔuraf-</i>
	CI Arb	<i>firqə(t-)</i> ‘group’	<i>firaq-</i>
CaCa:CaC	CI Arb	<i>funduq</i> ‘hotel’	<i>fanaxdiq-</i>
		<i>maktab-</i> ‘office’	<i>maka:ti:b-</i>
CaCa:Ca:C	CI Arb	<i>şandu:q</i> ‘box’	<i>şana:di:q-</i>
		<i>maktu:b-</i> ‘something written’	<i>maka:ti:b-</i>

with the *-at* of Geez; there is no *a > o* in ES, but there is an infinitive suffix *-ot*; an environment for palatalization might be the *-i* which always precedes pronominal suffixes with plural nouns in Geez); compare Geez *bet* ‘house’, pl *abyat*, with Amharic *bet* ‘house’, pl *bet-očč*.

The *internal plural* exists only in fossilized form in Akkadian and Aramaic (*qri:θa:* ‘town’, pl *qurya:*), but a fully developed, and apparently quite archaic form of internal plural is found in the Hebrew so-called ‘Segolates’. These are nouns with stems that underlyingly end in a consonant cluster, which, unless a suffix follows, must be broken by epenthesis (and the Hebrew name of the epenthetic vowel [ε], *segol*, provides the name for this class of nouns). Typical examples of this quite numerous class are *mélεx* ‘king’ and *malká* ‘queen’, which share the base /malk/. In the plural, the base is extended to /malak/: *mlāxím* ‘kings’, *mlāxóθ* ‘queens’. This extension is entirely productive, and is likely cognate with the Arabic broken plural pattern that appears in *firaq* ‘group of people’, plural of *firqə(t-)*.

Beyond this, an extensive, and largely overlapping, system of internal plural patterns exists in Arabic, OSA, MSA, and Ethiopian Semitic. Table 4.10, using data from Geez and Arabic (Ce, Arb), is an enumeration of some of the most characteristic patterns (where you will note that sometimes an additional consonant or glide can be added to fit a nominal root to the pattern).

In Arabic, including Maltese, broken plurals are quite productive and can apply to loanwords, such as Arabic *film*, pl *ʔafla:m*; *bank*, pl *bunu:k*; *villa*, pl *vilal*; and Maltese *for* ‘oven’, pl *fran*; *birra* ‘beer’, pl *birer*; *vers* ‘verse’, pl *vrus*; *furketta* ‘fork’, pl *frieket*; *kamra* ‘room’, pl *kmamar*.

4.6.3 Case

Common Semitic has two sets of case encoding: a three-way (‘triptotic’) system, *-u* ‘nominative’, *-i* ‘genitive’, *-a* ‘accusative’; and a two-way (‘diptotic’) system, *-u* ‘nominative’, *-i* ‘genitive-accusative’. The full system is attested in Akkadian and Arabic, and in a phonologically reduced version in Geez (acc. *-ä*, non-acc. \emptyset , because of the merger of short /i, u/ to /ə/, which goes to \emptyset word-finally); it probably existed at least in early OSA but the necessary vocalic evidence is almost totally lacking (cf, however, special plurals of the kinship term *ʔb* ‘father’, which yield *ʔbw* ~ *ʔby* in some contexts appropriate for nominative and non-nominative case respectively). The system has been reconstructed on various grounds for Proto-Semitic, and seems to have gradually disappeared owing to the lability of final short vowels, as indeed is also the case in Ethiopian Semitic (where the final *-ä* of the accusative disappears, but not the final *-ä* of the 3msg past tense!), in modern Arabic dialects, and apparently in the last stages of Akkadian. In Classical Arabic, case (and verbal mood) marking is robust, in that it is written whenever possible and verse meter cannot be parsed without it. On the other hand, it is almost completely redundant, as syntactic properties are indicated by word order, prepositions, and other particles, so that there are very few sentences in which the case of a noun could be changed (the noun remaining in the same location) yielding a different interpretation. Classical Arabic syntax is thus very close to that of the modern vernaculars, which lack overt case.

The triptotic system is the default for the singular noun, the diptotic for the dual and plural. This is the state of affairs in Akkadian, where the sign of the plural is the lengthening of the initial suffix vowel, which is either the case vowel or the initial vowel of the feminine gender marker. The distinction is somewhat more complicated in Arabic, where suffixed plurals are diptotic but most broken plurals are triptotic, and, furthermore, the suffixed masculine plural is virtually limited to morphologically derived nouns, while the so-called ‘feminine plural’ suffix occurs on nouns of all types, including some that are grammatically masculine and loanwords.

Besides this core system, other case markings are attested in Semitic. One case, which may go back to Common Semitic, is found in older Akkadian: a *terminative* case in *-iš* (*il-iš* ‘to/in god’); from the same period there seems to be also a *locative* case in *-um*, harder to isolate because of its apparent homonymy with the nominative (*warx-um* ‘month’, but also ‘in the month’; cf. also the contrast *libb-uš-šu* < *libb-um-šu* ‘in its midst’ vs the prepositional construction *ina libbi-šu*: H312). Clearly a separate

Table 4.11 *Noun inflection in Akk and Arb.*

Gender	Number	Case	Akkadian-N	Akkadian-Adj	Arabic
masc	sg	nom	<i>šarrum</i>	<i>dannum</i>	<i>mudarrisun</i>
		gen	<i>šarrim</i>	<i>dannim</i>	<i>mudarrisin</i>
		acc	<i>šarram</i>	<i>dannam</i>	<i>mudarrisan</i>
	du	nom	<i>šarrān</i>	<i>dannūtum</i>	<i>mudarrisayni</i>
		gen	<i>šarrīn</i>	<i>dannūtīm</i>	<i>mudarrisayni</i>
		acc.			
	pl	nom	<i>šarrū</i>	<i>dannūtum</i>	<i>mudarrisu:na</i>
		gen	<i>šarrī</i>	<i>dannūtīm</i>	<i>mudarrisina</i>
		acc.			
fem	sg	nom	<i>šarratum</i>	<i>dannatum</i>	<i>malikatun</i>
		gen	<i>šarratim</i>	<i>dannatim</i>	<i>malikatin</i>
		acc	<i>šarratam</i>	<i>dannatam</i>	<i>malikatan</i>
	du	nom	<i>šarratān</i>	<i>dannātum</i>	<i>malikata:ni</i>
		gen	<i>šarratīn</i>	<i>dannātīm</i>	<i>malikatayni</i>
		acc			
	pl	nom	<i>šarrātum</i>	<i>dannātum</i>	<i>malika:tun</i>
		gen	<i>šarrātīm</i>	<i>dannātīm</i>	<i>malika:tin</i>
		acc			

development in modern Ethiopian Semitic is the marking *-n* for direct object – see below, section 4.11.2.

4.6.4 Nominal/adjectival declension: number-gender(-case)

The interaction of nominal and adjectival number, gender, and case encoding can be seen in table 4.11, showing Akkadian (*šarrum* ‘king’, *šarratum* ‘queen’, *dannum* ‘mighty’) and Arabic (*mudarris-* ‘teacher’ and *malika-* ‘queen’), using the suffix plural.

4.6.5 State

Not to be separated from the case system is another category of nominal encoding, *the state*, basically a nominal shape adopted in certain syntactically conditioned environments. In Akkadian, there are two principal states.

In the *absolute* state, a noun appears in the shape of its bare stem (plus, if one is present, a gender marker), without the case marker, with the phonological adjustments required by any resulting final -CC clusters. This shape appears in various contexts, but, for example in Akkadian, sometimes in the vocative (*bēltum* ‘lady’, *bēlet* ‘lady!’), and in a number of numeral and quantifier contexts (*uṭṭetum* ‘grain’, *uṭṭet* ‘a single grain’ – see the fuller list and examples in H234ff.), who remarks correctly that the absolute form of a noun can resemble or be identical with the form it takes in the stative construction).

In the other state, the *construct*, that of the head noun of an N-N_[GEN] construction, the noun appears in a reduced, frequently caseless form which, in some contexts or periods, can resemble the absolute (cf. *bēlet mātim* ‘the lady of the land’). This state will be discussed in detail in section 4.10.1.

The systems of states in Aramaic and Arabic are more elaborate. In Aramaic, the absolute and construct states are as described above, but there is in addition a *determinate* state, marked with the suffix *-a:*, which originally functioned – and in many Aramaic languages still functions – to mark semantic definiteness. In Eastern Aramaic, including Syriac and modern Eastern Aramaic, it lost this semantic function, and the determinate state is in fact the syntactically and semantically unmarked form of the word, while the absolute state is limited to numeral and quantifier contexts. Thus, the original functional relationship between *?i:lam* ‘a tree’ and *?i:la:na:* ‘the tree’ was lost in Eastern Aramaic, where *?i:la:na:* means ‘a/the tree’ and *?i:lam* has quite limited functions; some nouns lack an absolute state form.

In Classical Arabic, there is nothing that is analogous formally and functionally to the absolute state of Akkadian (though the pausal form is superficially similar). There are three states. The most unrestricted contextually is the *indeterminate* state. (Several other commonly used terms are misleading: it is often called ‘absolute’, though it does not resemble the absolute state of Akkadian and Aramaic, and it is often called ‘indefinite’, though it can occur on proper nouns, which are syntactically definite.) The *construct* state is as described for Akkadian. The *determinate* state appears in three situations: after the definite prefix *al-*, in vocative function, and in absolute negation (*la: ?i:la:ha* ‘there is no god’).

4.6.6 Mimation/nunation

A pervasive feature of nominal morphology in some older Semitic languages (OSA, Akk, Cl Arb) is the presence of a suffixed /m/ (traditional term ‘mimation’) or /n/ (traditional term ‘nunation’), with an apparent original deictic or definiteness function. Mimation/nunation apparently contrasted with its absence under certain conditions of number (present in singular, absent in dual and plural) or state (absent in ‘absolute’ and ‘construct’ states – see below). The two contrast only in OSA where older texts especially can contrast *mlk-m* and *mlk-n* ‘king’, where there seems to be more deictic or previous-mention force in the *n*-suffixed form. This only occurs in the singular, and is significantly absent in ‘construct’ expressions like *mlk sb?* ‘king of Saba’. Outside OSA one finds only one or the other (Akk and Arb), or only fossilized remnants (Hebrew Ugritic). In OB Akk (as well as in contemporary and older Old Assyrian and Old Akkadian) one still finds suffix /-m/ in non-construct, case-marked masculine singulars and feminine (singular or plural – see paradigms below). It has no

Table 4.12 *Nunation and state in Arabic.*

	Triptote			Suffixed plural	
	Indeterminate	Determinate	Construct	Indeterminate/Determinate	Construct
Nominative	<i>ʔabun</i>	<i>ʔabu</i>	<i>ʔabu:</i>	<i>mudarrisu:na</i>	<i>mudarrisu:</i>
Genitive	<i>ʔabin</i>	<i>ʔabi</i>	<i>ʔabi:</i>	<i>mudarrisi:na</i>	<i>mudarrisi:</i>
Accusative	<i>ʔaban</i>	<i>ʔaba</i>	<i>ʔaba:</i>		

Table 4.13 *Adjective inflection in Mehri.*

Type	sg		pl	
	m	f	m	f
1. gender in both sg and pl	<i>ḵōmāh</i> ‘bad’	<i>ḵámhət</i>	<i>ḵəmhīn</i>	<i>ḵəmhōt</i>
2. gender in sg only	<i>gād</i> ‘good’	<i>gəḵət</i>	<i>giyəd</i>	
3. no gender distinction	<i>ʔəwʔif</i> ‘flat’	<i>ʔəloʔəf</i>		
4. invariable for gender and number	<i>rəhək</i> ‘far’			

distinctive function, and gradually disappears in the later documented development of Akkadian.

There are two types of nunation in Classical Arabic (table 4.12). Triptotic nouns and nouns with the plural suffix *-at-* take a suffix *-n* in the indeterminate state, and duals and plurals suffixed with *-u-* / *-i-* take *-ni* or *-na* respectively in the indeterminate and determinate states; note that the determinate state of plurals in *-u/i:* (as well as of duals) takes nunation, while the determinate state of other nouns does not. Few nouns are overtly different in all three states, but *ʔab-* ‘father’ is one, and it illustrates most clearly the intersecting categories of case and state.

4.6.7 Special adjectival morphology

Although, as mentioned above, adjectival morphology largely coincides with nominal, Akkadian does have a special marker for the masculine plural of adjectives: *-ūt*. In table 4.11, moreover, it should be noted that the Akkadian adjective does not have a dual form, and that the plural form is used in its place. This is also the state of affairs in Mehri, which inflects the adjective for gender (masculine, unmarked; feminine, *-(v)t*) and number (plural – suffix: m. *-īn*, f. *-ōt*; or internal; no dual), but where in addition many adjectives fail to make all possible gender–number distinctions. Rubin (2010: 78–82) (table 4.13) distinguishes four types of gender–number distinction.

In Arabic, two classes of adjectives have special inflectional forms. The first class comprises adjectives referring to colours and ‘defects’ (personal physical characteristics such as ‘deaf’, ‘bald’). The forms are: masculine *ʔaCCaC-* (*ʔaħmar-* ‘red’), feminine *CaCCa:ʔ-* (*ħamra:ʔ-*), masculine plural *CuCC-* (*ħumr-*), feminine plural *CaCCa:wa:t-* (*ħamra:wa:t-*). The second class is the *elative*, which is the comparative and superlative of adjectives, with these forms: masculine *ʔaCCaC-* (*ʔakbar-*), feminine *CuCCa:* (*kubra:*), masculine plural *ʔaCaʔCiC-* (*ʔaka:bir-*), feminine plural *CuCCaya:t* (*kubraya:t-*), from *kabi:r-* ‘big, great’.

4.6.8 Nominal and adjectival derivation

A priori, with a semantic core tied to a (discontinuous) succession of segments, usually consonantal and frequently three, traditionally called the ‘root’, and lexical class tied in large part to fairly clearly defined sets of vowel patterns, one might expect in Semitic a relatively free combinability of roots and patterns, resulting in the kind of productive $N \sim V$ derivations common in English (of the type “man” $N \sim V$). In fact this is not the case. Derivational pairs of base verbs and primary nouns exist, as in Arb *ʔuḏn* ‘ear’ \sim *ʔaḏina* ‘listen’, Akk, *ʔaklum* ‘food’ \sim (*ʔ*)*akālum* ‘eat’, but these are not especially common and certainly not productive. What does exist, aside from the inventory of patterns for the very productive derivation of nouns and adjectives from verbs covered below in section 4.7.2.1 – and some less productive, but still widely used, patterns for making denominative verbs, often via factitive D-stems (Akk *ruggubum* ‘to roof’ from *rugbum* ‘roof’) or causative S-stems (Akk *šumšû* ‘spend the night’ – from *mūšum* ‘night’) – are various derivational paths for the production of diminutives, singulatives, and collectives by both affixes and internal vowel patterns.

- *Diminutives* The pattern *CuCayC* is somewhat productive in Arabic (*kalb-* ‘dog’, dim. *kulayb-*). Its existence in one or two fossil forms (Akk *kusīpum* < **kusayp-* ‘morsel’, < *ksp* ‘bite’; Aramaic *šule:ma:*, Syriac *šlayma:* ‘boy, servant’) may indicate that it is common Semitic. Otherwise independent encodings have evolved, such as *-ay* in Tigre (*bab* ‘door’, dim. *beb-ay*; *bet* ‘house’, dim. *bet-ay*), *-ōt* in Mehri (*rəḥbēt* ‘place’, dim. *rəḥbānōt*; *rəḥmēt* ‘vegetation’, dim. *rəḥmānōt*), *-on* in Aramaic and Hebrew (Syriac *bra:* ‘son’, dim. *bro:ma:*, *mḏi:(n)tta:* ‘city’, dim. *mḏi:(n)tto:mi:ḥa:*; Israeli Hebrew *séfer* ‘book’, dim. *sifrón*, *misʔadá* ‘restaurant’, dim. *misʔadónet*), and reduplication in Israeli Hebrew (*xatúl* ‘cat’, dim. *xataltúl*, *zakán* ‘beard’, dim. *zkankán*, *kaxól* ‘blue’, dim. *kxalxál*; a cute little female cat is a *xataltulónet*).

- *Noun of profession* CaCCāC *gallābum* ‘barber’ (*gullubu* ‘to shear’), Arabic *xabba:z-* ‘baker’ (*xubz-* ‘bread’), *falla:ḥ-* ‘peasant’ (*falaḥa* ‘he tilled’).
- *Singulatives* Tigre *-at*, as in the series *gabil* ‘tribes (collective)’, *gabilat* ‘a single tribe’; vs *gabāyəl* ‘several individual tribes’. These are very productive in Arabic, applying to abstract as well as concrete nouns: Syrian Arabic *xass* ‘lettuce’, *xasse* ‘head of lettuce’, *le:l* ‘night-time’, *le:le* ‘a night’, *fəkar* ‘thought’, *fəkre* ‘a thought, idea’; some words have a four-way contrast, such as *dəbba:n* ‘flies’, *dəbba:ne* ‘a fly’, *dababi:n* ‘(many) flies’, (*tlətt*) *dəbba:na:t* ‘(three) flies’. Many basic terms for ethnicities or nationalities are plural or collective, and for these the suffix *-i* forms singulatives: *ʕarab* ‘Arabs’, *ʕarabi* ‘an Arab’, *ʕamerka:n* ‘Americans’, *ʕamerka:ni* ‘an American’.
- *Particularizing* Akk. noun + *ān-* particular individual (sg) or group (pl) – *nādīn-um* ‘seller (< giver)’, *nādīn-ān-um* ‘the seller in question’; *il-ū* ‘the gods’, *il-ān-ū* ‘a particular group of gods’ (as Huehnergard (1997: 198), notes, in later Akkadian *ilānū* becomes simply an alternate plural to *ilum*).
- *Paucatives–pejoratives* Tigre *-etām* ~ *-etāt* – *sab(?)* ‘men, people’, *sabʔetām* ‘a few people’, *sabʔetāt* ‘some miserable people’.
- *Denominal adjectives* Akk. Noun + *ī-* *šap-lum* ‘bottom’ *šaplī-um* > *šaplūm*, *šaplī-tum* ‘lower (m,f)’. In Arabic these are extremely productive and may be derived from nouns, prepositions, and various other types of words: Syrian Arabic *ʕanu:b* ‘south’, *ʕanu:bi* (fem. *ʕanubiyye*, pl. *ʕanubiyyi:n*) ‘southern’; *zira:ʕa* ‘agriculture’, *zira:ʕi* ‘agricultural’; *sətt* ‘lady’, pl. *səttat*, *səttati* ‘ladies’ (e.g. clothes); *taḥət* ‘below’, *taḥtani* ‘lower’; *ʕaʕfar* ‘yellow’, *ʕaʕfara:ni* ‘yellowish’; *ʕarbʕi:n* ‘forty’, *ʕarbʕi:ni* ‘of the fortieth’; *maʕlu:ma:t* ‘information’ (grammatically plural): *maʕlu:ma:ti* ‘pertaining to information science’. Hebrew *-i* and Syriac *-a:y* are equally productive.
- *Abstract nouns* Akk. Noun + *ūt* – *awīl-um* ‘man’, *awīl-ūt-um* ‘humanity, mankind’; Arabic *iʕtira:k* ‘participation’, *iʕtira:kiyya* ‘socialism’; Israeli Hebrew *ʔenōš* ‘human being’, *ʔenošut* ‘humanity’, *xoveván* ‘amateur’, *xovevanūt* ‘amateurism’.

4.7 Verbs

4.7.1 Finite verb: subject marking plus tense-aspect-mode (TAM)

Over the whole range of Semitic, finite verb morphology basically involves two intersecting sets of paradigms: one set of paradigms for the affixes which encode subject

Table 4.14 *Semitic 'suffix' PNG markers.*

		OB	CIArb	Hebrew	Syriac	Mehri	Geez	Amh
sg	1	-āku	-tu	-ti	-eθ	-(ə)k	-ku	-hu
	2	m	-āta	-ta	-tā	-t	-(ə)k	-ka
		f	-āti	-ti	-t	-t	-(ə)š	-ki
	3	m	-∅	-a	-∅	-∅	-∅	-ä
		f	-at	-at	-ā, -θā	-aθ	-ūt / -ēt	-ät
								-äčč
du	1					-(ə)ki		
	2		-tumā			-(ə)ki		
	3	m	-ā			-ō / -ē		
	f		-atā			-tō / -tē		
pl	1	-ānu	-nā	-nu	-n	-ən	-nä	-n
	2	m	-ātunu	-tum(ū)	-tm	-to:m	-(ə)kəm	-kəmmu
		f	-ātina	-tunna	-tn	-te:m	-(ə)kən	-kən
	3	m	-ū	-ū	-u	-∅ ~ -w	-əm / -∅*	-u
		f	-ā	-na		-∅	-∅	-a

* Mehri 3m pl ablaut

PNG agreement, another set of paradigms for the stem patterns which encode each language's core, frequently tripartite TAM system; these two sets of paradigms are highly homologous among the Semitic languages, and must closely reflect a situation in common/Proto-Semitic. In addition, more or less independently, each language or group of languages develops a set of extended, and periphrastic, tenses.

4.7.1.1 *The person-number-gender paradigms*

The subject paradigms specify the prefixes and suffixes which agree, to a varying extent, with the person, number, and gender of the verbal subject. Running the gamut of the family, with the exception of Modern Northeastern Aramaic, each language has two sets (table 4.14 and table 4.15). One, a suffixing set, is frequently considered to be a Semitic innovation, although parallels exist elsewhere in Afroasiatic. This may have ultimately arisen from an enclitic pronominal form attached to a verbal adjective. This origin is most apparent in Akkadian, where the verb form is basically a stative. You will observe in table 4.14 in the marking of the first person singular, and the second person singular and plural, that there is a basic division between a more westerly set of languages (Hebrew, Aramaic, Arabic) which have forms with *-t-*, and the more southerly group which have *-k-* (ES, MSA – OSA is not well attested, but seems also to participate in this isogloss). In one interpretation (Hetzron 1970), Akkadian, with both *-k-* (1sg) and *-t-* (2sg/pl), would reflect the original 'archaic heterogeneity', while the other two groups represent an analogical levelling of one or the other segments throughout the paradigm.

Table 4.15 Semitic 'Prefix' PNG markers.

	OB	Arb*	Maltese**	Hebrew	Syriac	Mehri	Geez	Amh
sg	1	a-...-Ø	n-...-Ø	ʔ-...-Ø	ʔ-...-Ø	ə-...-Ø	ə-...-Ø	ə-...-Ø
	2	ta-...-Ø	t-...-Ø	t-...-Ø	t-...-Ø	tə-...Ø	tə-...-Ø	tə-...-Ø
	f	ta-...-f	t-...-f	t-...-f	t-...-f	tə-...-(i)***	tə-...-i	tə-...-i
3	m	t-...-Ø	j-...-Ø	y-...-Ø	n-...-Ø	yə-...-Ø	yə-...-Ø	yə-...-Ø
	f	ta-...-Ø	t-...-Ø	t-...-Ø	t-...-Ø	tə-...-Ø	tə-...-Ø	tə-...-Ø
	1	t-...-ā				ə-...-ō		
du	2	y-...-ā				tə-...-ō		
	3	t-...-ā				yə-...-ō		
	f	t-...-ā				tə-...-ō		
pl	1	ni-...-Ø	n-...-u	n-...-Ø	n-...-Ø	nə-...Ø	nə-...-Ø	ən(nə)-...-Ø
	2	ta-...-ā	t-...-u	t-...-u	t-...-u	tə-...-əm	tə-...-u	tə-...-u
	f	t-...-ā	t-...-na	t-...-na	t-...-na	tə-...-əm	tə-...-a	tə-...-a
3	m	t-...-ā	y-...-u	y-...-u	n-...-u	yə-...-əm	yə-...-u	yə-...-u
	f	t-...-ā	y-...-na	t-...-na	n-...-u	tə-...-əm	yə-...-a	yə-...-a

* The Arabic prefixes have the vowel *a* or *u*, depending on the derivational type of the verb.

** The Maltese extension of *n-* to the first person singular and of *-u* to the first person plural are typical of North African Arabic.

*** Mehri 2f sg ablaut.

Although the second set (table 4.15) consists, properly speaking, of circumfixes, the paradigm, and the corresponding ‘tenses’ (in the sense of ‘verb form from the point of view of its place in the TAM category range’), are generally referred to as ‘prefixing’, as opposed to the ‘suffixing’, tenses. Note that the Arabic prefixing forms are in fact jussive, since the other two ‘prefixing tenses’ require the additional ‘modal’ suffixes *-u* ~ *-na/i* (for the indicative) and *-a* (for the subjunctive) – see below. It is almost astonishing that this paradigm has cognates in most of the non-Semitic branches of Afroasiatic, meaning that it has survived, complete with peculiarities such as the *t-* that marks second person but also third person feminine, from the Proto-Afroasiatic stage until today, a period of many thousands of years.

4.7.1.2 *The core TAM paradigms*

From the point of view of verbal stem morphology, the multi-dimensional TAM complex gets reduced in (classical) Semitic to an amazingly consistent, largely tripartite unidimensional formal stem system whose members we will call ‘Past’, ‘Present’, ‘Jussive’ (on a tense interpretation of the basic opposition involved; on an aspect reading one might use the labels ‘Perfective’, ‘Imperfective’, ‘Subjunctive’, which, however, would not change the paradigms). This, of course, does not prevent these languages from developing ways of encoding a richer set of intersecting TAM categories by various additional morphological and syntactic means.

In table 4.16, which gives the 3msg form for each tense, we have added the Akkadian stative tense – whose stem is a stative verbal adjective/participle of shape CV₁CV₂C, where V₂ is a short vowel, usually /i/ in action verbs, but sometimes /a/ or /u/ in ‘state’ verbs (*rapaš* ‘wide’, *maruṣ* ‘sick’) – to which the suffixes of table 4.14 can be added, and whose semantics, describing the ‘condition or state resulting from the action of the verb’, ranges from passive to resultative to descriptive: *šabit* ‘he is seized’, *šabtāku* ‘I am seized’, *maqat* ‘she has fallen’. The form (which is not limited to verbal predicates: *šarrum* ‘king’, *šarrāku* ‘I am king’), is generally considered to be homologous to the West Semitic suffixing past, which also has the shape CV₁CV₂C. The stem-class category shows that verbal lexical items can differ in the characteristic short vowel between the last, and second-to-last root consonant, which can either be constant through all tenses, or change (‘ablaut’). In the latter case, the alternation is usually between the low vowel /a/ and a high vowel /i/ or /u/; in Geez, of course, where the short high vowels merge, there are only two stem- and ablaut classes, contrasting /ä/ and /ə/. The length seen in this second stem vowel in Mehri, which reduces to /ə/ in closed syllables may be a secondary, perhaps stress-related, development.

In table 4.16, note that Akkadian is the only language with a prefixing past tense, although ‘fossilized’ prefixing past-tense forms exist in most branches, either for subclasses of tenses – as in the negative past *lam*+Jussive in Arabic *lam yaqtul* ‘he did not

Table 4.16 CCC-root stem shapes in Semitic.

		Tense			
		Suffixing		Prefixing	
Stative	Past	Present	Jussive		
Akk	B-a~u	<i>paris-Ø</i>	<i>i-prus-Ø</i>	<i>i-parras-Ø</i>	<i>l-i-prus-Ø</i>
	B-i	<i>paqid-Ø</i>	<i>i-pqid-Ø</i>	<i>i-paqqid-Ø</i>	<i>l-i-pqid-Ø</i>
	B-a	<i>šabit-Ø</i>	<i>i-šbat-Ø</i>	<i>i-šabbat-Ø</i>	<i>l-i-šbat-Ø</i>
	B-u	<i>maqit-Ø</i>	<i>i-mqut-Ø</i>	<i>i-maqut-Ø</i>	<i>l-i-mqut-Ø</i>
Arb	B-a		<i>katab-a</i>	<i>ya-ktub-Ø-u</i>	<i>ya-ktub-Ø</i>
	B-i		<i>šarib-a</i>	<i>ya-šrab-Ø-u</i>	<i>ya-šrab-Ø</i>
	B-u		<i>ħasun-a</i>	<i>ya-ħsun-Ø-u</i>	<i>ya-ħsun-Ø</i>
Meh	B ₁		<i>kətüb-Ø</i>	<i>yə-kütəb-Ø</i>	<i>yə-ktēb-Ø</i>
			<i>(~kətəb-C)</i>	<i>(~kətəb-V)</i>	<i>(~ktēb-V)</i>
	B ₂		<i>θībər-Ø</i>	<i>yə-θbör-Ø</i>	<i>yə-θbör-Ø</i>
			<i>(~θəbr-V/C)</i>	<i>(~θbər-V)</i>	<i>(~θbər-V)</i>
Geez	B-ä		<i>näggär-ä</i>	<i>yə-näggər-Ø</i>	<i>yə-ngər-Ø</i>
	B-i/u		<i>läb(ə)s-ä</i>	<i>yə-läbbəs-Ø</i>	<i>yə-lbäs-Ø</i>
Amh			<i>näggär-ä</i>	<i>yə-nägr-Ø-all</i>	<i>yə-ngär-Ø</i>

kill’ – or for individual lexical items, as in Geez *bhl* ‘say’, which, contrary to every other lexical verb in the language, forms a prefixing past *yəbəl* ‘he said’. Note further that Akkadian and Geez both have a present tense CVCCVC, with gemination of C₂ and a vowel between C₁ and C₂, while Mehri B₁, typical of MSA presents, has CVCVC, without the gemination of C₂ (in Mehri stem-class B₂, both the present and the jussive have template CCVC, as in Central Semitic). Although Mehri has phonological gemination, this ‘plays almost no role in derivational or inflectional morphology’ (Rubin 2010b), so that it is an open question whether the MSA present tense forms lost gemination from a CVCCVC template, or never developed it from a CVCVC template. In Ethiopian Semitic, an interesting puzzle in this context is the ‘gemination switch’ in Amharic, whereby – just the opposite of Geez and Northern Ethiopian Semitic generally – the C₂ of all past-tense verbs is geminated, while C₂ is non-geminated in the present (there is a clue perhaps in the Tigrinya alternation *yənäggər* ‘he speaks’, but *yənägru* ‘they speak’ – could this be due to analogical extension of pre-vocalic stem-shape?). In all other West Semitic languages, the prefixing present has the same CCVC template as the jussive. The jussive CCVC is thus the one universal template for all Semitic languages.

Main clause vs subordinate clause You will note in the paradigm that Arabic (and perhaps historically other Central Semitic languages) distinguishes the indicative present

Table 4.17 *CCCC-root stem shapes in Semitic.*

	Root-class	Stem	Root	Past	Present	Jussive
Geez	CCCC	B	<i>dngṣ</i> ‘surprise’	<i>dängäṣ-ä</i>	<i>yə-dänägğəṣ</i>	<i>yə-dängəṣ</i>
	CCC	D	<i>fṣm</i> ‘finish’	<i>fäṣṣäm-ä</i>	<i>yə-feṣṣəm</i>	<i>yə-fäṣṣəm</i>
Arb	CCCC	B	<i>trṣm</i> ‘translate’	<i>tarṣam-a</i>	<i>yu-tarṣim-u</i>	<i>yu-tarṣim</i>
	CCC	D	<i>ktb</i> ‘make write’	<i>kattab-a</i>	<i>yu-kattib-u</i>	<i>yu-kattib</i>

from the jussive by an additional indicative main-clause marker *-u*, which contrasts with a parallel marker *-a* for subordinate clauses (for a three-way contrast – indicative *yaktubu*, subjunctive *yaktuba*, jussive *yaktub* – but compare Akkadian, where the subordinate clause marker is *-u*). In Southern Ethiopian Semitic, the non-past main-clause affirmative forms (but not past or negative) typically have a special marking; in Amharic this is a conjugated enclitic form of the verb *allä* ‘to be’ (1sg *-allähu*, 2msg *-alläh*, 2fsg *-alläṣ*, 3msg *-all*, 3fsg *-alläčč*, 1pl *-allä*, 2pl *-allaččəhu*, 3pl *-allu*); subordinate and negative forms are distinguished by not having this marking.

The strategies by which CCCC roots and ‘weak’ roots are related and accommodated to the normative CCC-root paradigms across Semitic are much too complicated and diverse to be inventoried here. However, an idea of the processes involved for the CCCC roots can be obtained by observing, in Geez and Arabic, the parallels between their inflectional forms and the D (middle-geminated) ‘factitive’ derived stem, as laid out in table 4.17. To get an idea of ‘weak’ root morphology, compare the forms in table 4.18 with the ‘sound’ forms in table 4.17.

4.7.1.3 *Extended TAM forms*

There are too many formations for us to catalogue them all here. However, various mechanisms are developed to provide a number of typologically common TAM categories.

- Akkadian A perfect tense has been developed by means of a *t*-infix (homophonous with the ‘reflexive’ derivation infix): past-tense, *iprus* ‘he decided’ vs perfect-tense *iptaras* ‘he has decided’. Akkadian has also developed a verb-inflection category called ‘ventive’, indicating motion toward or orientation to the speaker or speech situation, by means of an *m*-suffix, related to the dative pronoun suffix series: *išpur* ‘he sent’, *išpur-am* ‘he sent in my direction, to me, for my benefit’.
- Hebrew (Biblical) Here a prefixed past (cognate with the Akkadian *i-prus*) is the normal form for referring to past perfective actions. It takes an additional prefix *waC-* (usually with gemination of the following consonant),

Table 4.18 ‘Weak’-root stem shapes in Semitic.

	Root-class	Root	Past	Present	Jussive
Akk	wCC	wšb ‘sit’	ušib	uššab	l-ušib
	CwC	kwn ‘become firm’	i-kūn	i-kān, pl. i-kunn-ū	l-i-kūn
	CCw	xḏw ‘rejoice’	i-xḏu	i-xaddu	l-i-xḏu
	CyC	qyš ‘bestow’	i-qīš	i-qīaš, pl. i-qīšš-ū	l-i-qīš
	CCy	bny ‘build’	i-bni	i-banni	l-i-bni
Geez	wCC	wrd ‘descend’	wäräd-a	yə-wärrəd	yə-räd
	CwC	mwt ‘die’	mot-ä	yə-mäwwət	yə-mut
	CCw	bdw ‘be desert’	bädw-ä	yə-bäddu	yə-bädw
	CyC	šym ‘appoint’	šem-ä	yə-šäyyəm	yə-šim
	CCy	bky ‘cry’	bäkäy-ä	yə-bäkki	yə-bki
Arb	wCC	wšl ‘arrive’	wašal-a	ya-šil-u	ya-šil
	CwC	qwm ‘rise’	qam-a	ya-qu:m-u	ya-qum
	CCw	bdw ‘appear’	bada:	ya-bdu:	ya-bdu
	CyC	syr ‘go’	sa:r-a	ya-si:r-u	ya-sir
	CCy	bny ‘build’ nsy ‘forget’	bana: nasy-a	ya-bni: ya-nsa:	ya-bni ya-nsa

Table 4.19 Biblical Hebrew prefixed conjugations, third-person masculine singular.

Root	Prefixed past	Imperfective
ktb	wayyixtób /waC-yiktob/	yixtób /yiktob/
qwm	wayyáqum /waC-yáqum/	yáqum /yaqu:m/
bny	wayyíven /waC-yibn/	yíven /yibne/
?mr	wayyómər /waC-yá?mar/	yómər /ya?mar/

distinguishing it from the prefixed imperfective. Some verbs show additional phonological differences between the prefixed past and the imperfective: in the past tense the stem is shortened or the stress shifts to the antepenult. For most verbs, however, there is no difference other than the *wa-* prefix. Biblical Hebrew has similarly split the suffix conjugation. The basic form has past meaning (e.g. *kāṯáv* ‘he wrote, has written, had written’), but with the prefix *w-* (not *waC-*) it marks a future, usually with modal meaning (intention, consequence) (*wxāṯáv* ‘he shall write’). Here,

too, some verbs show a stress shift: *kāθávti* ‘I wrote’, *wxāθavtí* ‘I shall write’. In addition, Biblical Hebrew has a non-finite form (known as the infinitive absolute, e.g. *kāθóv*) that can substitute for an inflected verb of almost any tense or aspect.

- Modern Hebrew Following the pattern of post-Biblical Hebrew going back nearly 2,000 years, Modern Hebrew has a three-way tense system. The inherited suffix forms mark past tense, the prefixed forms refer to future, and the active participle functions verbally as a present tense: *katáv* ‘he wrote’, *yixtóv* ‘he will write’, *kotév* ‘writes / is writing (masc. sg.)’. In addition, the combination of the present tense preceded by the past tense of the verb ‘to be’ (both showing agreement with the subject) indicates either past habitual or counterfactual condition: *hayá kotév* ‘he used to write, he would write (if only . . .)’.
- Aramaic Syriac has a basic tense system similar to that of post-Biblical Hebrew; it has a suffixed past tense (*kθav* ‘he wrote, has written’), a participle with present meaning (*ka:θev*), and a prefixed imperfective with mostly future or modal meaning (*nextov* ‘he will/should/may write’). Various combinations of these with the past tense of the verb ‘to be’ are frequent, with a wide range of meanings. There is also a stative (not necessarily passive) participle, which may occur with the preposition *l-* (which otherwise means ‘to’) and a pronoun marking the subject, as in *šarri:ra: wa-θri:ša: hwe: l-i:* ‘true and-straightforward been to-me’, i.e. ‘I have been true and straightforward’.
- Aramaic (Modern) Northeastern Neo-Aramaic has entirely lost the Semitic prefix and suffix conjugations, and replaced them with a highly elaborated system of tenses, aspects, and moods based on the older Aramaic participles and gerunds. The verb ‘open’ has the stem shapes shown in table 4.20, listed with examples illustrating just some of the possibilities.
- Arabic In Classical Arabic the suffix and prefix conjugations represent aspect more consistently than tense: perfective (usually past) and imperfective (usually non-past) respectively. Preceded by the particle *qad*, the suffix form represents a perfect: a state, usually resulting from a prior event (so *qad waqafa*, literally ‘has stood’, can mean ‘is standing’). The imperfective can refer to past, present, or future, but it can be made explicitly future if preceded by *sawfa* or *sa-* (*sa-yaktubu* ‘he will write’). The imperfective with *qad* represents possibility (*qad yaktubu* ‘he might write’). The tense–aspect values are also represented in the choice of negator: most often *ma:* with the suffix-perfective (*ma: kataba* ‘he did not write’) and *la:* with the prefix-imperfective (*la: yaktubu* ‘he doesn’t write, will not write’),

Table 4.20 *Modern Aramaic*.

Stem	Functions	Examples
<i>patix</i>	subjunctive, habitual present, past, future	<i>pátx-a</i> ‘that she open’ <i>pátx-in</i> ‘that I open’ <i>patx-á-lu</i> ‘that she open them’ <i>k-patx-á-lu</i> ‘she opens them’ <i>k-patx-á:wa-lu</i> ‘she used to open them’ <i>b-patx-á:lu</i> ‘she will open them’ <i>b-patx-á:wa-lu</i> ‘she would have opened them’ <i>qam-patx-á:lu</i> ‘she opened them’
<i>ptix</i>	past	<i>ptix-á:lu</i> ‘they opened it (f)’ <i>ptix-á:wa-lu</i> ‘they had opened it (f)’
<i>ptix(t)</i>	stative participle	<i>le ptixa</i> ‘it is open’ <i>po:ya ptixa</i> ‘it (f) will be open’ <i>po:ya ptixa=llu</i> ‘she will have opened them’
<i>ptox</i>	imperative	<i>ptáx-lu</i> ‘open them’
<i>ptax-a</i>	gerund, progressive	<i>wewa bi-ptá:xa=llu</i> ‘he was opening them’

but also *lan* with the prefix-subjunctive marking future time (*lan yaktuba* ‘he will not write’) and *lam* with the prefix-jussive, surprisingly marking past time (*lam yaktub* ‘he did not write’). The perfective and imperfective may be preceded by forms of the verb ‘to be’; the suffix conjugation of ‘be’ specifically marks past time: *kana yaktubu* ‘he.was he.writes’, i.e. ‘he used to write’, *yaku:nu (qad) kataba* ‘he will have written’.

- Mehri This has developed progressive and circumstantial forms using a δ - verb prefix (< δ - relative pronoun): δ + imperfect = present/past progressive: *yōmər* ‘he (always) says’ vs δ -*yōmər* ‘he is/was saying’; δ + perfect = circumstantial, stative: *hēm* δ -*həzīn* ‘they were sad’.
- Geez This has enlarged its tense–aspect inventory with the help of a number of verbs employed as auxiliaries (see useful enumeration in Dillman (1974 [1907]: 151–5) – *wd?* ‘finish’ + past = perfect: *wādā?nā qātārnā* ‘we have (already) decided’; *konā/hällo* ‘he was’ + past = pluperfect: *konā aqāmo* ‘he had set up’; *konā/hällo* ‘he was’ + imperf = future progressive/ingressive – *yəṣṣāhñäf hällo* ‘it will be continually written up’ (Hen. 98.7), *yəmāṣṣə? hällo* ‘he is about to come’ – OR = past progressive/habitual: *konā yəgābbər* ‘he used to make’, *hällo yənābbər* ‘he used to sit, he was sitting’.
- Amharic This has verb-present + *nābbär* ‘was’ (usually invariant, but also conjugated – *nābbärä*, *nābbäräčč*, etc.) = habitual/progressive: *əbāla*

näbbär ‘I used to eat’; verb-present/past + *yəhonall* ‘it is / will-be’ = ‘probably’: *yənägru/näggäru yəhonall* ‘they probably speak/spoke’ (see also tense forms made out of the combination of converb/conjunctive form below, section 4.12.4.3); verb-converb/gerund + enclitic *allä* ‘to be (affirmative main-clause present-future)’ = perfect: *nägrwall* ‘he has spoken’, *nägralläčč* ‘she has spoken’, etc.

4.7.2 Derivation and compounding

4.7.2.1 Class-changing derivation: verb > adjective, noun

Although sub-branches of Semitic do develop new patterns, there are core patterns among those listed below which are widespread throughout Semitic (i.e., belong to Common Semitic), and are thus part of a derivational apparatus that has remained largely intact over millennia. A sample from Akkadian would include (see below for derived stem abbreviations): verbal adjective – CaCVC *damiq-* ‘good’, *rapaš-* ‘wide’, *zapur-* ‘malicious’; participle base stem – CāCīC *pāris-um* ‘decider’; participle-derived stems – *mu* + DerivedStem (D *mu-parris-*, N *mu-n-par(i)s-* > *muppar(i)s*, S *mu-ša-pris*); Infinitive – CaCāC-*um parās-um* ‘to decide’; Noun of Place, Instrument – maCCaC(t)-*škn* ‘place, put’ *maškan-um* ‘location, place’; Noun from B stem with *t*-infix (‘reciprocal’) stem – taCCāC- *mrx* Bt (infinitive *mitxur-um*) ‘oppose one another’, *tamxār-um* ‘battle’; Noun from D stem – taCCīC- *lmd* D ‘teach’ *talmīd-um* ‘student’.

4.7.2.2 Valence-changing derivation: themes

A special sub-class of derivation, which we will refer to as ‘theme’, involves basically transformation, most directly of the argument structure, or ‘valence’, of the verbal scenario (causative, passive, etc.), but also of certain properties of the action involved in the scenario (intensive, frequentative, for the benefit of the subject). Here again, there is a remarkable uniformity over Semitic in the inventory of basic derivational classes, and the affixes which express them, even though there is a certain amount of fluctuation in the base semantic transformation. As can be expected in any derivational system, beyond the base semantic transformation, there is often a great deal of lexical specialization.

There are several conventional ways of naming these derivational themes. In Arabic the themes have been given standard numbers. In Hebrew and Aramaic, indigenous mnemonic terms are used. For most of the other languages, a set of abbreviations of descriptive terms form the labels. In the following, we will use the abbreviated labels together with the Arabic theme numbers. Following tradition, and for convenience, we will use a conventional Arabic third person masculine singular past of the root *qtl* for illustrative purposes (keep in mind that the suffixing tense has quite a different function in Akkadian!).

- **B-stem: Basic, unmarked (Theme I).** This is the underived, simplest form. Form: *qatala*.

A first group of derived stems involves internal stem changes, with no affixes.

- **D-stem: Doubled-C₂ (Theme II).** Form: *qattala*. This stem exists, at least formally, in almost all branches of Semitic, and frequently yields a factitive transitive of a base intransitive stative: Akk. *rappuš-um* ‘widen’ from *rapāš-um* ‘be wide’, Arabic *ʕallama* ‘teach’ from *ʕalima* ‘know, learn’. In Hebrew this stem is frequent but has no consistent semantic value, and in modern Hebrew it is a favourite form for denominal verbs (there are no geminate consonants in modern Hebrew): *miken* ‘he mechanized’ from *mexoná* ‘machine’, *tiyék* ‘he filed (papers)’ from *tik* ‘a file, folder’.
- **L(engthened)-stem: V₁-Lengthen (Theme III).** Form: *qāṭala*. It is less widespread than the D-stem, and covers a wide range of derivational semantics (including intensive, conative, denominative, and purely lexical). In Arabic it is usually transitive and is often conative (implying making an effort), often reciprocally (*sa:baqa-hu* ‘he tried to get ahead of him, competed with him in a race’ from *sabaqa-hu* ‘he preceded him’; Syrian Arabic *manaʕ* ‘he prevented’, *ma:naʕ* ‘he objected, forbade’, *laḥaḏ* ‘he glimpsed’, *la:ḥaḏ* ‘he watched’), and often applicative in function, meaning that the direct object corresponds with a prepositional adjunct of the basic verb: *sa:ra maʕa-hu* ‘he went with him’ and *sa:yara-hu* ‘he went along with him’, Syrian Arabic *ḏəḥek* ‘he laughed’, *ḏa:ḥak* ‘he laughed with (someone)’. In Mehri, referred to by Rubin (2010b) as D/L since it does not contrast with a D-stem, it has an *a-* affix in certain phonological contexts: *aḳōdəm* ‘put in front of’ vs *ḳədūm* ‘go before’.

Note that in Ethiopian Semitic the B, D, and L stems exist formally, but as a purely lexical class. The stems do not contrast, and a given root will be assigned to one or the other throughout its inflection, with little if any semantic rationale: Geez *nägarä* ‘speak’ B-stem, *fäṣṣämä* ‘finish’ D-stem, *baräkä* ‘bless’ L-stem.

Other internally derived stem forms are:

- **R-stem: C₂-reduplicated** Form: *qatattala*. This stem is present but marginal in most branches. However, it is fully exploited as a frequentative-intensive in modern Ethiopian Semitic: Amharic *nägaggärä* ‘to speak frequently, to converse’.

The principal derived stem classes based on affixes are as follows. Note that the addition of an affix is in many cases accompanied by a change in vowels and/or syllable structure.

- **S-stem [š, h~ʔ]: causative (Theme IV).** Form: $\square aqtala$. This stem involves across Semitic a basic correspondence, *š* vs *h~ʔ*, which occurs only in the context of two morphemes: the third person pronoun series (e.g. Akk. *šu* vs Heb. *hu* ‘he’) and the causative derived stem of the verb (e.g. Akk. *u-šapris* ‘make decide’, caus. of *prs* ‘decide’, Heb. *hilibiš* ‘he dressed (someone)’, caus. of *lāvāš* ‘he wore (garment)’). There is a certain amount of discussion in the literature as to whether the correspondence is purely phonological in origin (see Huehnergard 2004: 143) or morphological (analogy-driven assimilation of initial segment of two distinct morphemes) – in any case it points to a possible systematic link between the causative prefix and the form of the pronoun. Akkadian has *š* in both causative and pronoun, while Hebrew, Aramaic, Arabic, and Ethiopian Semitic have *h~ʔ* in both; Ugaritic has *š* in the causative and *h* in the pronoun. The situation is more complicated in OSA, where one language/variety, Saba (and its later successor Ĥimyar), has *h* in both, while the others (NB, for the most part attested earlier) – Maʿīn, Qataban, Ḥaḍramawt – have *š* in both. MSA has a complication of its own, where, in Mehri (and other MSA languages) the third masculine pronouns have *h* (*hē* ‘he’, *hēm* ‘they-m’), whereas the third feminine have *s* (*sē* ‘she’, *sēn* ‘they-f’). On the verb, however, the productive causative in Mehri is with *h*: *bərūk* ‘kneel [of camels]’, *həbrūk* ‘make kneel’. On *š*-causatives in Mehri, see below S + T (+ L). In modern Ethiopian Semitic, Amharic has developed a genuinely causative stem in *-as-* (perhaps by back-formation from *asta-* due to influence of Cushitic?) for causation of transitive verbs, giving rise to derived-stem series such as: *därräqa* ‘to dry (intrans.)’ ~ *adärräqä* ‘to dry (trans.)’ ~ *asdärräqä* ‘to cause someone to dry something’; *bälla* ‘eat’ ~ *abälla* ‘feed (i.e., to provide food)’ ~ *asbälla* ‘make eat, force to eat’.
- **N-stem: passive (Theme VII).** Form: *inqatala*. This stem, mainly passive in function, occurs in Akkadian (*ipparis* ‘it was decided’, inf *naprus-um*), as well as in Hebrew (*nixtav* ‘it was written’) and Arabic (*inkataba* ‘it was written’). This stem may be related to a probably composite stem *tän*-(intrans.) ~ *an*-(trans.) which occurs in Old South Arabian, Mehri, and Ethiopian Semitic, frequently, but not necessarily, occurring with quadriradical roots and L stems, and associated with frequentative and expressive meanings, often involving movement, emotion, light (Amharic *tānfäraggätä* ‘wriggle’, *ankärrabbätä* ‘mistreat’). This stem should also be compared with the Akkadian *-tan-* infix stem, below. In Hebrew this is the productive passive of Basic-stem verbs (*katāv* ‘he wrote’, *nixtav* ‘it was written’), but there are also semantically basic verbs, such as *nixnās* ‘he entered’.

- **T-affixed-stem: mainly passive-reflexive (Theme VIII).** Form: *iqtatala*. This affix occurs in Akkadian, Mehri, and Old South Arabian as an infix. It occurs in these languages with the Base stem to form reflexive-reciprocals: Akk *mitxus-um* ‘strike one another, fight’, Mehn. *ḡatbər* ‘meet one another’ (from *ḡəbūr* ‘meet’, infix adjacent to second radical). In Akkadian it occurs productively with the D- and S- stems, usually forming the passive of that stem: *ilappat* ‘he touches’, *ušalpat* ‘he destroys’, *uštalpat* ‘he/it is destroyed’ (note that there is an additional *št-* stem, with a long-form present *uštaparras*, with a number of unpredictable derived meanings, which can sometimes function as causative of the Base -t or reflexive of the S- stem). In Mehri a *t*-infix adjacent to the first radical can form the passive of the D/L- stems mentioned above: *əmtəhul* ‘become easier’ from *aməhəl* ‘ease’. Perhaps related to the *-t*-infix stem are the *-tan-* infixed derived stems of Akkadian, fairly productively used as frequentatives (examples in present tense: Base *iptanarras*, D *uptanarras*, S *uštanapras*, N *ittanapras*). In the Arabic Theme VIII, an intransitivizing *t* occurs as an infix (*šarafa* ‘he knew’, *ištarafa* with the preposition *bi-* ‘he acknowledged, admitted’). As a prefix, *ta-* is the regular passive marker in Ethiopian Semitic: Geez *täqätlä*, Amharic *tägäddälä* ‘is killed’, from *qätälä*, *gäddälä* respectively.

There are a number of stems involving a more-or-less morphologized combination of stem-types. (Not included here are either the productive combinations of the *t*-affix in Akkadian, or the derived stems of the completely lexicalized D and L stems in Ethiopian Semitic.) Some of the most important involve the morphologized combination of the *t*-affix with another stem-type.

- **T + D (Theme V) and T + L (Theme VI).** Forms: *taqattala*, *taqa □tala*. In these combinations in Arabic the *t* appears in the prefix *ta-* on the D and L stems (*tašarafa bi-* ‘he became acquainted with’, *tašarafu:* ‘they became acquainted with one another’). Hebrew too has the T + D combination (with epenthetic *hi-*), forming intransitive verbs with a wide range of meanings, and which may be derived from D-type verbs, B-type verbs, or nouns and adjectives: *hiθhalléx* ‘he walked around’ vs *háláx* ‘he walked’, *hiθqaddéš* ‘it becomes consecrated’ vs *qiddéš* ‘he consecrated’, *hiθnabbé* ‘he prophesied’ from *náví* ‘prophet’.

Aramaic has a symmetrical system of three unprefix themes, B, D, and S, and three corresponding passive themes with T (table 4.21). All except the T-S theme are highly productive.

Table 4.21 *Aramaic theme system.*

B	<i>kθav</i> ‘wrote’	<i>ʔeθkθev</i> ‘was written’
D transitive, frequentitive, denominal	<i>qabbel</i> ‘received’	<i>ʔeθqabbal</i> ‘was received’
S causative, inchoative	<i>ʔalbeš</i> ‘dressed (someone)’	<i>ʔettalbaš</i> (< * <i>et-ʔalbaš</i>) ‘(garment) was put on’

- **S + T (+ L): asta- (Theme X).** Form: *istaqta*. In Arabic, Old South Arabian and in Ethiopian Semitic, this derived stem covers a wide variety of unpredictable derived meanings besides the more obvious ‘causative of reflexive’ and ‘reflexive of causative’, or, with the L stem, ‘causative of reciprocal’: cf. Geez *astāqatälä* ‘cause to fight’ (cf. *tāqatälä* ‘fight’), but also ‘help to kill’; Amharic *astānabbärä* ‘direct people to their places’ (cf. *anābbärä* ‘place’). More productive in Amharic is a specially formed *at* + L stem not found in Geez, but presumably a variant form of S + T + L: *aggadälä* ‘cause to kill one another’. To be ranged with this category also are two causative-like *š*-stems in Mehri: *š₁* (*šəkhūr* ‘consider to be too much’, cf. *kīθər* ‘be abundant’) and *š₂* (*šəgēməl* ‘take all of something’, cf. *gəmlēt* ‘total’). But given their typical semantic range (Rubin (2010b: 102–9) – *š₁*: causative-reflexive, causative-passive, ‘believe s.t. is X’, purely lexical; *š₂*: reciprocity, purely lexical), they are probably better classed with the complex ST stems of other Semitic languages, below.

Arabic has three derived themes with geminated third consonant, for example (Theme IX) *ihmarra* ‘it turned red’ (from *ʔahmar* ‘red’), (Quadrilateral Theme IV) *iqšaʕarra* ‘he shuddered, had goose flesh’ (perhaps related to *qišr* ‘peel, skin, crust’).

Some of the languages have a few verbs with rare or even unique combinations of affix and stem modification that are atypical for the language. This is true of Biblical Hebrew and Classical Arabic, but especially so in vernacular Arabic. Syrian Arabic, for example, has *stmānna* ‘he wished’ (S-T-D stem), and Maltese has several verbs with an N-T stem with the T being infix: *insteraq* ‘it was stolen’ from *seraq* ‘he stole’, *inħtieġ* ‘it was necessary’ from *ħaġa* ‘thing’.

- **P(assive)-stem: Passive by internal vowel change.** In Arabic, verbs of any of the stem types described above may be made passive through change of the internal vowels to *u-i* (in the suffixed conjugation) or *u-a* (in the prefixed conjugation): *kuṭiba* ‘it was written’ vs *kataba* ‘he wrote’; *uṣṭuxrija* ‘it was extracted’ vs *istaxraja* ‘he extracted’ (Theme X), from *xaraja* ‘he went out’; *uṣṭuqila* ‘he was arrested’ vs *iṣṭaqala* ‘he arrested’ (Theme VIII),

from *ʕaqala* 'he confined'. Nearly all modern vernacular Arabic dialects have lost the internal passive. Also in Modern South Arabian, there is *kətēb* 'it was written', passive of *kətūb* (but no internal passive of *θībər* base stem). In Hebrew, passives are also formed with the same vowels, from D-stem or S-stem verbs: *sippér* 'he told', *suppár* 'it was told', *hišlāx* 'he threw', *hušlāx* 'it was thrown'.

4.7.2.3 *Compounding*

This is frequent in Modern ES, where it might be an areal feature (cf. Cushitic, ch. 6): its form is generally that of an invariant root, frequently onomatopoeic in character, followed by an inflected auxiliary, often a form of a verb 'to say' (for example, *alä* in Amharic). In Amharic, compounding of this kind yields expressive verbs of sound, movement (*šwa alä* 'fizz', *futt alä* 'slurp', *həqq alä* 'hiccup', *suləll alä* 'run here and there'), but also other verbs (*qučč alä* 'sit down', *zəmm alä* 'be quiet'). Transitive, passive, and causative themes are expressed by the corresponding forms of the verb 'to do': *adärrägä*, *tädärrägä*, *asdärrägä* – *zəqq alä*, *zəqq adärrägä*, *zəqq tädärrägä*, *zəqq asdärrägä*, respectively 'be low', 'lower', 'be lowered', 'have something lowered'.

4.8 **Pronouns, demonstratives, numerals**

4.8.1 Personal independent pronouns

The independent personal pronoun shows a great uniformity across Semitic, particularly in the first and second person forms; for the third person, note in table 4.22 the divergent forms in Geez and Amharic, in Geez based on a different set of pronominal formants, in Amharic on a reduced form of the noun *ras* 'head' (with a unique prefixed plural form in *ənnä-*). The paradigm is completely transformed in Mehri, as also happens in certain MES languages such as Harari.

4.8.2 Personal suffix: possessive and object

Both possessors of nouns and objects of verbs are expressed by pronominal suffixes on the respective noun or verb. Only Akkadian, among the ancient languages, distinguished direct and indirect object, but this distinction has been introduced in colloquial Arabic and modern Aramaic. Table 4.23 shows once more the striking uniformity in these suffixes across the language family. An apparently stable characteristic asymmetry of Semitic is the use of a different suffix for these functions in the first person singular:

Table 4.22 *Independent Pronoun.*

	Akk	Heb	Syr	Arb	Meh	Geez	Amh
sg p1	<i>anāku</i>	<i>ʔānī ʔānoxī</i>	<i>ʔenā</i>	<i>ʔana(:)</i>	<i>hō</i>	<i>ana</i>	<i>əne</i>
sg p2 m	<i>atta</i>	<i>ʔattā</i>	<i>ʔatt</i>	<i>ʔanta</i>	<i>hēt</i>	<i>antä</i>	<i>antä</i>
sg p2 f	<i>atti</i>	<i>ʔatt</i>	<i>ʔatt</i>	<i>ʔanti</i>	<i>hēt</i>	<i>anti</i>	<i>ančī</i>
sg p3 m	<i>šū</i>	<i>hu</i>	<i>hu</i>	<i>huwa</i>	<i>hē</i>	<i>wəʔətu</i>	<i>əssu / ərsu</i>
sg p3 f	<i>šī</i>	<i>hi</i>	<i>hi</i>	<i>hiya</i>	<i>sē</i>	<i>yəʔəti</i>	<i>əsswa / ərswa</i>
du p1					<i>əkay</i>		
du p2 m				<i>ʔantumā</i>	<i>ətay</i>		
du p2 f				<i>ʔantumā</i>	<i>ətay</i>		
du p3 m				<i>humā</i>	<i>(hay)</i>		
du p3 f				<i>humā</i>	<i>(hay)</i>		
pl p1	<i>nīnū</i>	<i>ʔānāhnu</i>	<i>naḥnan</i> ~ <i>ḥnan</i>	<i>naḥnu</i>	<i>nḥā</i>	<i>nəḥnā</i>	<i>əḥnā</i>
pl p2 m	<i>attunu</i>	<i>ʔattēm</i>	<i>ʔatton</i>	<i>ʔantum(u)</i>	<i>ətēm</i>	<i>antəmy</i>	<i>ənnantä</i>
pl p2 f	<i>attina</i>	<i>ʔattēn(nā)</i>	<i>ʔattēn</i>	<i>ʔantunna</i>	<i>ətēn</i>	<i>antən</i>	
pl p3 m	<i>šunu</i>	<i>ḥém(mā)</i>	<i>hennon</i>	<i>hum(u)</i>	<i>hēm</i>	<i>əmuntu</i>	<i>ənnəssu / ənnərsu</i>
pl p3 f	<i>šina</i>	<i>ḥémā</i>	<i>hennēn</i>	<i>hunna</i>	<i>sēn</i>	<i>əmantu</i>	

Geez *bet-yä* ‘my house’ vs *rəʔyā-ni* ‘he saw me’, as opposed to *bet-kä* ‘your house’ vs *rəʔyā-kä* ‘he saw you’).

Only Mehri, which develops other minor differences between the object and possessive suffix, fails to show the characteristic 1 sg obj *-n-*.

A verb in Arabic can take two object suffixes: *isqi-ni:ha* ‘cause me to drink it’, *yuri-kumu:hum* ‘he shows them to you’, *ʔaʔlamtu-ka-hu* ‘I told you it’. In colloquial Arabic, a verb, including a participle, can be suffixed with an indirect object marker, consisting of *-l-* (an enclitic form of the preposition meaning ‘to’) and a pronominal suffix, as in Syrian *fataḥlak* ‘he opened for you’, *ʔa:ʔtlo* ‘she said to him’, *bitaʔrəʔfli* ‘you know for me’, *məʔtaʔtəlkon* ‘(fem.sg) has been yearning for you’, *xa:ʔəʔflak* ‘afraid for you’; the stress pattern shows that each of these is a single word. In some dialects (North African, from Egypt to Morocco, as well as Maltese), a verb may have both a direct and an indirect object suffix. Some examples from Cairo Arabic are: *katabhū:lu* ‘he wrote it to him’, *ḥakuhā:li* ‘they told it to me’. The negative circumfix *ma-...š*, as well as the stress pattern, show that these are single words: *makatabhulū:š* ‘he did not write it to him’, *matwarruhulū:š* ‘(you pl.) do not show it to him’. Similarly, Maltese has: *kitbuhielha* ‘they wrote it to her’, *indentjahieli* ‘he dented it for me’, *tibgħathomlna* ‘you will send them to us’, and with the negative marker *š* (written *-x* in Maltese orthography), *ma sraqnihilhiex* (*ma sraq-ni-hi-l-hie-x*) ‘we did not steal it from (‘to’) her’. Similarly, in Neo-Aramaic, verbs can take indirect object suffixes: *qamyawənnu:lux* (*qam-yaw-ən-lu-lux* past-give-1masc.sg-3pl-2masc.sg) ‘I gave them to you’.

Table 4.23 Possessive/object personal suffixes.

	Akk	Heb	Syr	Arb	Meh(N)	Meh(V)	Ceez	Amh
sg p1	-ī / ya ~ (a)nni	-i ~ -ni	-Ø / -y ~ -ni	-ī / -iya ~ -ni	-i	-āy/āy	-yā ~ -ni	-e ~ -ñ
sg p2	-ka	-(e)kā	-āk	-ka	-(ə)k	-āk	-kā	-h
sg p2	-kī	-ex	-ek	-kī	-(ə)š	-āyš	-kī	-š
sg p3	-šū	-o / -hu	-eh	-hu/-hi	-(ə)h	-īh	-hu	-u
sg p3	-šā ~ šī	-āh / -ehā	-āh	-hā	-(ə)š	-īs	-ha	-wa
du p1					-(ə)ki	-ški		
du p2				-kumā	-(ə)ki	-ški		
du p2				-kumā	-(ə)ki	-ški		
du p3				-humā/-himā	-(ə)hi	-šhi		
du p3				-humā/-himā	-(ə)hi	-šhi		
pl p1	-ni	-(e)nu / -ānu	-an	-nā	-(ə)n	-īn	-nā	-aččən
pl p2	-kamu	-xəm	-kon	-kum(u)	-(ə)kəm	-īkəm	-kəmu	-aččəhu
pl p2	-kina	-xən	-kēn	-kumna	-(ə)kən	-īkən	-kən	
pl p3	-šumu	-hem / -ām(o)	-hon	-hum(u) / -him(u)	-(ə)həm	-īhəm	-homu	-aččəw
pl p3	-šina	-hen, -ān	-hēn	-humā / -himā	-(ə)hən	-īsən	-hon	

Table 4.24 Semitic pronominals.

gloss	Akk	Hebrew	Syriac	Arabic	Geez	Amharic
'this'	<i>annātum</i> (m)	<i>zē</i> (m)	<i>ḥa:n(a):</i> (m)	<i>ḥa:ḏa:</i> (msg)	<i>zə- / zəntu</i> (msg)	<i>yəḥ/ -zih</i> (m)
	<i>annātum</i> (f)	<i>zəḥ</i> (f)	<i>ḥa:ḏ(e):</i> (f)	<i>ḥa:ḏihī</i> (fsg)	<i>zə- / zati</i> (fsg)	<i>yəḥəḏč</i> (f)
	<i>annātum</i> (mpl)	<i>ʔēllē</i> (pl)	<i>ḥa:le:n</i> (pl)	<i>ḥa:ḏa:ni</i> (mdu)	<i>əllu / əllantu</i> (mpl)	<i>ənnāzih</i> (pl)
'that'	<i>šū</i> (msg)	<i>ḥahū</i> (m)	<i>ḥa:w</i> (m)	<i>ḥa:ʔula:ʔi</i> (pl)		
	<i>šī</i> (fsg)	<i>ḥahī</i> (f)	<i>ḥa:y</i> (f)	<i>ḏa:līka</i> (msg)	<i>zəḫ(t)u</i> (m)	<i>ya</i> (m)
	<i>šunu</i> (mpl)	<i>ḥāḥem</i>	<i>ḥa:no:n</i> (mpl)	<i>tilka</i> (fsg)	<i>əntəku</i> (f)	<i>yačč</i> (f)
	<i>šina</i> (fpl)	<i>ḥāhen</i>	<i>ḥa:ne:n</i> (fpl)	<i>ḏa:nika</i> (mdu)	<i>əlləka</i> (pl)	<i>ənnāzīya</i> (pl)
'who'	<i>mannum</i>	<i>mi</i>	<i>man</i>	<i>man</i>	<i>mānu</i>	<i>man</i>
'what'	<i>mīnum</i>	<i>ma</i>	<i>ma:n(a):</i>	<i>maʔḏa:</i>	<i>mən</i>	<i>mən</i>
'which'	<i>ayyūm</i>	<i>ʔeze</i> (m)]	<i>ʔajna:</i> (m)	<i>ʔayy-</i> (m)	<i>əyy</i>	<i>yāt(u)</i>
		<i>ʔezo</i> (f)	<i>ʔayda:</i> (f)	<i>ʔayyat-</i> (f)		
Rel	<i>ša</i>	<i>ʔəlu</i> (pl)	<i>ʔayle:n</i> (pl)			
		<i>ʔāšér,</i>	<i>d-</i>	<i>allaḏi:</i> (msg)	<i>zā-</i>	<i>yā-</i>
		<i>šəC-</i>		<i>allati:</i> (fsg)		<i>yāmmə-</i>
				<i>allaḏa:ni</i> (mdu)		
				<i>allata:ni</i> (fdu)		
				<i>allaḏi:na</i> (pl)		

4.8.3 Demonstrative, interrogative, relative

The same basic uniformity can be seen across the family in the expression of the demonstrative, interrogative, and relative functions. In table 4.24, the major gender and number distinctions are given, but not the marginal case distinction (between nominative and oblique) which is expressed in the Arabic dual via infixation of *-y-* (e.g., ‘this’ *ha:ðami* / *ha:ðayni*, mdu nominative/oblique). The opposition ‘who’ ~ ‘what’ seems to have originally been carried by the vocalic opposition *-a-* ~ *-i-* (levelled in Arabic and Aramaic, and reversed in Hebrew; ‘which’ is basically *ay-*). Both the demonstratives and the relative are built around a pronominal element *ð-*, which shows up (with various augments) as *š-* in Akkadian, as *d-*, *z-*, respectively, in Aramaic and Hebrew, and *z-* in ES (> *y-* in some Amharic contexts). The Akkadian ‘this’ is from a different deictic source, and a special development has taken place in the Hebrew relative.

4.8.4 Article

Semitic has no common inherited morphological or syntactic way to encode definiteness, although that may once have been a function of mimation/nunation (see under ‘Nominal morphology’, above). However, individual languages have independently developed clitics or redefined affixes to encode this function.

Definiteness is marked in Arabic and Hebrew with prefixes and in Aramaic with a suffix. The Arabic prefix is *al-*, with the *l* assimilating to a coronal (dental, alveolar, or post-alveolar) consonant: *al-bayt* ‘the house’, *aṭ-ṭayr* ‘the bird’, *aθ-θalṭ* ‘the snow’, *aš-šams* ‘the sun’. In Hebrew the prefix is *haC-*, that is, *ha-* followed by a copy of the next consonant: (*hab-báyit* ‘the house’). The Aramaic suffix is *-a:*, as in *mark-a:* ‘the king’. In Eastern Aramaic, including Syriac, the suffix no longer marks definiteness (see the description in section 4.6.5, ‘State’).

Perhaps related to one of the definite article forms in Central Semitic, Mehri (similarly other MSA languages) has a prefixed article: *a-* (*bayt* ‘house’, def. *abayt*) ~ *h(ə)* (*brūt* ‘daughter’, def. *həbrūt*) ~ *h(ə)* (*bēr* ‘camels’, def. *həbēr*). The conditioning factor for the three forms is unclear, and in some cases seems to be lexical (Rubin 2010: 68–73; note the /h/ form of the article incorporated in the nouns *hayb* ‘father’, *hām* ‘mother’, *həbrē* ‘son’). Ethiopian Semitic has developed several ways of encoding definiteness, one of which is a form homophonous with that of the noun suffixed with 3sg possessive, cf. Gz and Amh *bet* ‘house’ ~ *bet-u* ‘his house’ or ‘the house’.

4.8.5 Numerals

The numeral series shows the expected lexical conservatism. Only Geez has replaced the common Semitic ‘two’ by a lexical item *kil?* ~ *kal?* ‘both’ (MES has also largely replaced the numeral ‘nine’, cf. Amharic *zätäññ*).

Table 4.25 *Semitic numerals.*

num	Akkadian ('absolute')		Arabic		Geez	
	m	f	m	f	m	f
'1'	<i>ištēn</i>	<i>ištēt</i>	<i>wa:ḥid-</i>	<i>wa:ḥida(t-)</i>	<i>aḥādu</i>	<i>aḥātti</i>
'2'	<i>šinā</i>	<i>šittā</i>	<i>iḥna:ni</i> (nom) <i>iḥnayni</i> (obl)	<i>iḥnata:ni</i> (nom) <i>iḥnatayni</i> (obl)	<i>kəlʔetu</i>	<i>kəlʔeti</i>
'3'	<i>šalāšat</i>	<i>šalāš</i>	<i>ḫala:ḫa(t-)</i>	<i>ḫalaḫ-</i>	<i>šälästu</i>	<i>šälas</i>
'4'	<i>erbet(ti)</i>	<i>erbe / erba</i>	<i>ʔarbaʕa(t-)</i>	<i>ʔarbaʕ-</i>	<i>arbaʕtu</i>	<i>arbaʕ</i>
'5'	<i>xamšat</i>	<i>xamiš</i>	<i>xamsa(t-)</i>	<i>xams-</i>	<i>xäməstu</i>	<i>xäms</i>
'6'	<i>šeššet</i>	<i>šediš (?)</i>	<i>sitta(t-)</i>	<i>sitt-</i>	<i>sədəstu</i>	<i>səssu</i>
'7'	<i>sebet(ti)</i>	<i>sebe</i>	<i>sabʕa(t-)</i>	<i>sabʕ-</i>	<i>säbʕatu</i>	<i>säbʕu</i>
'8'	<i>samānat</i>	<i>samāne</i>	<i>ḫama:miya(t-)</i>	<i>ḫama:miy-</i>	<i>sämantu</i>	<i>sämāni</i>
'9'	<i>tišit</i>	<i>tiše</i>	<i>tisʕa(t-)</i>	<i>tisʕ-</i>	<i>təsʕatu</i>	<i>təsʕu</i>
'10'	<i>eš(e)ret</i>	<i>ešer</i>	<i>ʕašara(t-)</i>	<i>ʕašr-</i>	<i>ʕäšärtu</i>	<i>ʕäšru</i>
'20'	<i>ešrā</i>		<i>ʕišru:na</i> (nom) / <i>ʕišri:na</i> (obl)		<i>ʕəšra</i>	
'30'	<i>šalāšā</i>		<i>ḫala:ḫu:na</i> (nom) / <i>ḫala:ḫi:na</i> (obl)		<i>šäläsa</i>	
'100'	<i>meat</i>		<i>miʔa(t-)</i>		<i>məʔt</i>	
'1,000'	<i>līm(i)</i>		<i>ʔalf-</i>		<i>ʕäšärtu</i> <i>məʔt</i>	

However, the most striking aspect of the morphology of numerals in Semitic is the 'polarity switch' in gender marking. Uniformly, the masculine numerals from '3' to '10' show the *-(a)t-* formative that would ordinarily be expected in feminine nouns, while the corresponding feminine numerals show the zero marking characteristic of the masculine. This is to be correlated with the special syntactic behaviour of numerals, to be taken up below in section 4.10.3.

4.9 Prepositions

Apart from MES, the Semitic languages use prepositions for the expression of dimensional and 'oblique' relationships, even in the case of Akkadian, whose basic word order, as we shall see below, is SOV. Only in MES, which is uniformly strict SOV, is there movement in the direction of 'harmonic' postpositions. This is only partially so in Amharic, which remains mainly prepositional, with an ambifix for 'on', and an optional ambifix for 'in'. Harari, however, is unique in having a wholesale transformation of inherited Semitic prepositions to postpositions.

Table 4.26, which gives the most frequent equivalences for some of the most frequent prepositions, shows a general uniformity across Hebrew, Syriac, Arabic, MSA, and ES, with development of new forms for 'for' in Hebrew and Syriac, and bisyllabic forms of 'on', 'to' and 'with' in Geez; also with a surprising *f-* showing up in Arabic

Table 4.26 *Prepositions in Semitic.*

	Akk	Heb	Syriac	Arabic	Mehri	Geez	Amh	Harari
'in'	<i>ina</i>	<i>b-</i>	<i>b</i>	<i>fi:</i>	<i>b-</i>	<i>bä</i>	<i>bä- ~ (ə/bä) . . . wəst</i>	<i>-be</i>
'on'	<i>eli</i>	<i>ʕal</i>	<i>ʕal</i>	<i>ʕala:</i>	<i>θār</i>	<i>dibä</i>	<i>(ə/bä) . . . lay</i>	<i>-la'ay-be</i>
'for'	<i>ana</i>	<i>lmáʕan</i>	<i>meʕto:l</i>	<i>li-</i>	<i>h-, l-</i>	<i>lä-</i>	<i>lä-</i>	<i>-la</i>
'to'		<i>l-</i>	<i>l-</i>			<i>xäbä</i>	<i>wädä</i>	<i>-de</i>
'from'	<i>ištu</i>	<i>min</i>	<i>men</i>	<i>min</i>	<i>mən</i>	<i>əm</i>	<i>kä-</i>	<i>-be</i>
'with'	<i>itti</i>	<i>ʕim, ʔeθ</i>	<i>ʕam</i>	<i>maʕa</i>	<i>k-</i>	<i>məslä</i>	<i>kä- . . . gar</i>	<i>-bah</i>

Table 4.27 *Prepositions with pronominal suffixes in Arabic.*

			<i>li-</i> 'to'	<i>bi-</i> 'in, at'	<i>ʕala:</i> 'on'	<i>maʕa</i> 'with'	<i>min</i> 'from'
sg	p1		<i>li:</i>	<i>bi:</i>	<i>ʕalayya</i>	<i>maʕi:</i>	<i>minni:</i>
sg	p2	m	<i>laka</i>	<i>bika</i>	<i>ʕalayka</i>	<i>maʕaka</i>	<i>minka</i>
sg	p2	f	<i>laki</i>	<i>biki</i>	<i>ʕalayki</i>	<i>maʕaki</i>	<i>minki</i>
sg	p3	m	<i>lahu:</i>	<i>bihi:</i>	<i>ʕalayhi</i>	<i>maʕahu:</i>	<i>minhu</i>
sg	p3	f	<i>lahā</i>	<i>bihā</i>	<i>ʕalayhā</i>	<i>maʕahā</i>	<i>minhā</i>
du	p2	m/f	<i>lakumā</i>	<i>bikumā</i>	<i>ʕalaykumā</i>	<i>maʕakumā</i>	<i>minkumā</i>
du	p3	m/f	<i>lahumā</i>	<i>bihimā</i>	<i>ʕalayhimā</i>	<i>maʕahumā</i>	<i>minhumā</i>
pl	p1		<i>lanā</i>	<i>binā</i>	<i>ʕalaynā</i>	<i>maʕanā</i>	<i>minnā</i>
pl	p2	m	<i>lakum</i>	<i>bikum</i>	<i>ʕalaykum</i>	<i>maʕakum</i>	<i>minkum</i>
pl	p2	f	<i>lakunna</i>	<i>bikunna</i>	<i>ʕalaykunna</i>	<i>maʕakunna</i>	<i>minkunna</i>
pl	p3	m	<i>lahum</i>	<i>bihim</i>	<i>ʕalayhim</i>	<i>maʕahum</i>	<i>minhum</i>
pl	p3	f	<i>lahunna</i>	<i>bihinna</i>	<i>ʕalayhinna</i>	<i>maʕahunna</i>	<i>minhunna</i>

'in'. The agreement between Mehri and Amharic 'with' (also Amharic 'from'?) is suggestive. Probably the most surprising item of data in this table is the complete independence of Akkadian from the rest of Semitic in the core prepositions – is this due to Akkadian archaism and common West Semitic innovation, or vice versa? (Note also the conceivable, but problematic, relation between West Semitic *b-* and Egyptian *m* 'in' (perhaps with Akkadian *ina* as a different resolution of an inherited Afroasiatic preposition – see Testen (1998)).

The pronominal object of a preposition takes the form of a suffix (e.g. *min* 'from', *minka* 'from you'). The Arabic forms in table 4.27 are typical of the Semitic languages.

4.10 NP syntax

With the exception of one group, default NP structure is quite uniform across Semitic, with the head N coming first, preceded at most by a proclitic article (see section 4.8.4) and in some languages a demonstrative or numeral, and followed by possessive, adjectival,

and relative-clause modifiers. This holds even in Akkadian, where the basic sentence SOV structure might lead one to expect the ‘harmonic’ N-final NP structure. This latter structure does in fact occur in the Modern Ethiopian Semitic languages, which are uniformly SOV in sentence structure. In the sections that follow we will consider each of the non-sentential (for the relative see below, 12.4.1) NP constituents.

4.10.1 Possessive construction

Semitic approaches possessive modification of nouns in two ways: (1) by a quasi-morphologized, so-called ‘construct-state’ construction (already referred to in section 4.6.5); (2) by more syntactically explicit structures, frequently involving particles or pronominal elements, here globally referred to simply as ‘non-construct’. In those languages in which the construct state is a shortened form of the basic noun, most clearly in Akkadian, the construct state of a noun is formed by phonological reduction, affecting the final (usually case-marking) vowel of the first noun in a two-noun N + Case – N + Gen construction, presumably where phonological prominence is given to the second noun, while the second element can consist of a full noun phrase, which may itself contain determiners, adjectives, relative clauses, etc. In Hebrew the phonological reduction of the noun in the construct state is internal to the stem. (Often, as we will have occasion to note later on, the phonological reduction in the construct is the same as, or nearly the same as, the phonological reduction before the possessive suffix.) Whereas in some languages (such as Akkadian), the formation of the construct state remains on the level of phrase-level phonology, in other languages we see different degrees of morphologization (cf. Nichols (1986) on ‘head-marking constructions’), ranging from incipient (Hebrew, Arabic) up to full (Geez). By definition this construction only occurs in N-initial NP, and is incompatible with languages (Modern Ethiopian Semitic) in which the possessive modifier must precede the head noun.

Languages differ with respect to the form of the construct state and have their own non-construct versions of the possessive. In the following, for each of the major branches we will provide an example of each construction.

- *Akkadian* For the OB construct, mimation and case marking are dropped on the first noun, except in the masc. pl. and the dual, thus: **bēlum/am/im + mātīm* > *bēl mātīm* ‘the lord(nom,acc,gen) of the land’, ***šarrātum/im + mātīm* > *šarrāt mātīm* ‘the queens(nom, acc-gen) of the land’; but *bēlū mātīm* ‘the lords(nom) of the land’, *ana bēlī mātīm* ‘to the lords(acc-gen) of the land’, *uznā bēlim* ‘the (two) ears(nom) of the lord’. If the dropping of the case vowel leaves the first noun ending in a consonant cluster, one of three basic strategies is called upon. There is considerable

complexity in the criteria for choosing the strategy, and variation according to locality and period (H55–63) gives a very useful overview for OB). The three strategies are: (1) epenthesis before final consonant (***bēlum/am/im mātīm* > *bēlet mātīm*); (2) suffixation of epenthetic *-i* (***napištum/am/im mātīm* > *napišti mātīm* ‘the life of the land’); (3) simplification of final geminate (***šarrum/am/im mātīm* > *šar mātīm* ‘the king of the country’ – *šarri mātīm* is also sometimes possible). For a non-construct alternative the construction N *ša* N is always possible: *bēlum ša mātīm*, *napištam ša mātīm*, *šarrum ša mātīm*, etc.

- *Hebrew* Nouns are reduced in the construct state if reduction is phonologically possible (*dāvār* ‘word’, const. *dvar*; *báyiθ* ‘house’, const. *beθ*; *šemóθ* ‘names’, const. *šmoθ*). In addition, feminine nouns ending in *-ā* change the ending to *-aθ* (*nḏāvā* ‘generosity’, const. *niḏvāθ* < **nḏvaθ*), and plurals ending in *-im* change the ending to *-e* (*bānīm* ‘sons’, const. *bne*). There are many special cases and irregularly formed construct states, and for many words there is no overt change to mark the construct state. In a construct phrase, the head (the first noun, the one in the construct state) may not have the definite prefix, and if the second noun is definite it applies semantically to the whole: *béθ ham-mélex* ‘house [of] the king: the king’s house’. A noun with a possessive suffix has essentially the same syntactic structure as a construct phrase, with the noun stem functioning as the head and the suffix as the second element; that is why a noun with a possessive suffix may not take the definite article (*beθxá* ‘your house’, not **hab-beθxá*). If the second noun in a construct phrase has a possessive suffix, it is definite and so is the whole phrase: *kissé malxuθ-ó* ‘chair kingdom-his: his throne’. Construct phrases may be embedded (or ‘chained’): *ḥāšár ginnáθ biḥán hammélex* ‘the courtyard of the garden of the pavilion of the king’. But nothing may intervene between the head and the second noun. Therefore an adjective or relative clause that modifies the head must be placed at the end of the whole phrase: *ṣattéreθ zāháv gḏolá* ‘crown(fem) gold(masc) large(fem) : a large gold crown’, *ṯiggéreθ hap-purím haz-zóθ haš-šeniθ* ‘letter the-Purim the-this the-second: this second letter of the Purim festival’, Israeli Hebrew *megilót ha-kát ha-atiká še avdú* ‘scrolls the-sect(fem) the-ancient(fem.sg) that were.lost : the scrolls of the ancient sect that were lost’. The second term of the construct phrase, however, may consist of a noun-phrase structure of any complexity, so, for example, the two nouns may be followed by two adjectives, each modifying one of the nouns, in the reverse order: Israeli Hebrew *masá hasatá adatít akšani* ‘campaign(masc) incitement(fem) communal(fem) persistent(masc): a persistent campaign

of communal incitement'. Hebrew has a set of analytical alternatives to the construct phrase, with a word analogous to English *of*. In Biblical Hebrew, the structure is N (*ʔāšer*) l-N (that is, 'N which [is] to-N', e.g. *haš-šōn ʔāšer l-ʔāvīhā* 'the flock of her father'); this is particularly useful when the second noun is definite but the whole phrase is not (*mizmōr l-ḏāwīḏ* 'a psalm of David'). In modern Hebrew, there are three possibilities: a construct phrase (*bigdēy ha-tinók* 'the clothes of the baby' or 'the baby-clothes'), a 'šel-phrase', N šel N, with šel corresponding to *of* (*ha-bgadīm šel ha-tinók* 'the clothes of the baby'), and a compound of the two, with the first noun suffixed with a possessive suffix agreeing with the second noun, N-poss; šel N_i (*bgad-āv šel ha-tinók* 'his-clothes of the baby : the baby's clothes'). The functional and semantic differences among these are quite complicated, and vary with register; in colloquial Hebrew, for example, the construct phrase occurs mainly in terms that are semantic units (though not limited to lexicalized compounds).

- *Aramaic/Syriac* The chief formal sign of the construct state is the lack of the determinate suffix *-a*, though in many words this entails changes in syllable structure; the determinate plural suffix *-e* is replaced by *-ay*. The syntactic patterns in Aramaic are quite similar to those in Hebrew, with the Syriac all-purpose linker *d(a)*- (relativizer, complementizer, possessive marker) serving as the *of*-equivalent. Syriac has the same three structures as modern Hebrew, and, as in colloquial Hebrew, the simple construct phrase is most common in semantic units: *qa:l zmi:ra:θa:* 'the sound of songs', *malka: d-va:vel* 'the king of Babylon', *ʔala:h-ho:n da-xristyame:* 'the(ir) God of the Christians'.
- *Arabic* In Classical Arabic, the chief morphological sign of the construct phrase is the genitive case marking of the second noun. Other signs are applicable only in limited morphological, lexical, or semantic environments: the head noun may not take the definite article nor the *-n* or *-na* / *-ni* suffix, and two types of nouns have special construct state forms (plurals suffixed with *-u:na* / *-i:na* and four or five nouns like *ʔab-* 'father'). Unlike Akkadian, the first noun does not lose its case-marking suffix. Thus, 'a library of a university' is *maktabat-u/a/i ʔa:miʕat-i-n* (library-NOM/ACC/GEN university-GEN-ABSOLUTE, with the case of the first noun determined by the syntactic environment), and 'the university library' is *maktabat-u/a/i al-ʔa:miʕat-i*. In modern vernacular Arabic, nouns generally resemble their Classical Arabic pausal form, i.e. *maktaba*, *ʔa:miʕa*, but the first word in a construct phrase retains the *-t-* of the (mostly feminine) suffix *-at-*, so the corresponding phrases in Syrian colloquial Arabic are

maktabet ža:mŷa, maktabet əl-ža:mŷa. Most syntactic properties remain the same, especially the fact that nothing may intervene between the two nouns, so an adjective agreeing with the first noun must follow the second. Thus the syntactic properties remain similar, while morphologically the construct phrase in Classical Arabic is marked chiefly on the second element, with genitive case, while in vernacular Arabic it is marked, if at all, on the head, by the *-t-* suffix. Here the morphological signs of the construct phrase are underlined:

Isolated noun ('the library')	Construct phrase ('the university library')
<i>al-maktab-at-u/a/i</i>	<i>maktab-at-u/a/i al-ža:miŷat-i</i>
<i>əl-maktab-e</i>	<i>maktab-et əl-ža:mŷa</i>

Vernacular Arabic, in the head-marking character of the construct phrase, strikingly resembles Hebrew and Aramaic, as opposed to Classical Arabic.

Another way of forming possessive phrases in Classical Arabic is with the preposition *li-* 'to' as the analogue of the English *of* (*maktabatun li-(a)l-ža:miŷati* 'a library of the university') when it is needed because the second noun is definite and the first is indefinite. In modern vernacular Arabic, *of-* analogues are quite frequent (Cairene *bita:ŷ*, Syrian *tabaŷ*, Iraqi *ma:l*, Moroccan *djal*, Arabian *hagg*, etc.). In Egyptian Arabic (and sometimes elsewhere), this word agrees in gender and number with the head noun (masc *bita:ŷ*, fem *bita:ŷit*, pl. *bitu:ŷ*). The syntactic freedom of these structures is much greater than that of the construct phrase; for example, Syrian *tabaŷ mi:n hal-ktab* 'of who this-book : whose is this book?' or *hayy tabaŷna* 'this of-us : this is ours' have no direct equivalent construct phrase.

- *Mehri* In Mehri the construct has largely disappeared except for with a handful of head nouns: *bəŋ, bəŋt* 'son-of, daughter-of', *bət* 'house[=clan]-of', *bāl* 'owner-of', etc. In all other cases, the possessive construction is expressed as N₁ δə N₂. Thus one can have either *bəŋt həkəm* or (*hə*)*brīt* δə *həkəm* for '(the) daughter of the ruler', but only *xā δ-abayt* for 'door of the house'.
- *Geez* In Geez, as mentioned, disappearance of final *-u, -i* has reduced the case system to a single marked case, the accusative with *-ä*: *bet* 'house (unmarked)' vs *bet-ä* 'house (accusative)'. In a complete morphologization of the construct construction, this case marker has been taken over as the marker of the head noun in the N₁-of-N₂ construction: N₁-ä N₂, as in *bet-ä nəguś* 'house of (the) king'. The possessive construction can

also be expressed using the relative-possessive clitic *zä-*: N_1 *zä-N_2* – *bet zä-nəguś* ‘house of (the) king’. Finally, especially where it is important to express the definiteness of the head noun, there is a construction N_1 -PossSuff *lä-N_2* as in *bet-u lä-nəguś* ‘the house of the king (lit. “his-house to-the-king”).

- *Amharic* The construct exists in Amharic only in learned and religious borrowings from Geez, such as *bet-ä kristiyan* ‘church (lit. “house-of-Christians”). Otherwise the possessor noun is marked by the proclitic *yä-*, and precedes the possessed: N_1 -of- N_2 is expressed as *yä-N_2 N_1*, *yä-nəguś bet* ‘house of the king’. Akin to this construction are quasi-compounds without the marker *yä-*, such as *buna bet* ‘café (lit. “coffee house”), *təməhərt bet* ‘school (lit. “learning house”).

4.10.2 Adjectival modification

In general, the order of adjectival modifier and noun is the same as possessive-modifier and noun.

- *Akkadian* The adjective follows the noun, and agrees with it in gender, case, and number – except that adjectives do not have a dual form, and appear in the plural when modifying a dual noun: *šarratam tābtam* ‘the good queen (acc)’, *šarrī dannūtīm* ‘the mighty kings (acc-gen)’, *qātān dannātum* ‘two mighty hands’. Cf. above 6.4 and table 4.11.
- *Hebrew* The adjective follows the noun and agrees with it in gender, number, and definiteness: *zāq-ā yōl-ā u-mār-ā* ‘a great and bitter cry’, *beš-īm šāzuv-ōθ* ‘forsaken eggs’ (*bešā* ‘egg’ is feminine, though it has the *-im* plural suffix), *hab-báyit hag-gāđól* ‘the great house’.
- *Aramaic (Syriac)* The adjective follows the noun and agrees with it in gender and number (*malka:θa: ta:va:θa:* ‘good queens’). Agreement in state is not so rigid. Nouns and their attributive adjectives are normally in the determinate state, which is functionally the unmarked state. A noun in the absolute state may be accompanied by an adjective in the absolute state (*zavni:n saggi:ʔa:n* ‘many times’) or in the determinate state (*tarte:n nešši:n i:đi:ʔa:θa:* ‘two known women’), and the opposite is also possible, a determinate noun with an absolute adjective. A predicate adjective is regularly in the absolute state: *mayya: gni:ve: ħle:n* ‘water(dtrm) stolen(dtrm) sweet(abs) : stolen water is sweet’.
- *Arabic* An attributive adjective follows the noun and agrees with it in gender, number, and definiteness (*al-bint-u al-kabi:r-at-u* ‘the big girl’),

with one noteworthy feature that pervades the agreement patterns of the language: a non-human plural may be treated as feminine singular. In Modern Standard Arabic, as in some periods of Classical Arabic, this is obligatory, feminine singular agreement being ungrammatical: *buyu:tun kabi:ratun* ‘houses(masc) big(fem.sg)’, **buyu:tun kiba:run* ‘houses big(masc.pl)’. In modern vernacular Arabic, as in earlier Classical Arabic, both patterns are possible, with a semantic difference: feminine singular agreement for generics or collectives, plural agreement for individuated objects. To express a superlative, the structure is formally a construct phrase: the adjective appears before the noun, and the noun is in the genitive case; this is a usual construction with ‘elatives’ (the comparative/superlative of the form – masc *ʔaCCaC-*, fem *CuCCa:*), as in *kubra: al-muduni* ‘the biggest(fem.sg) of the cities(fem.pl)’, *kubra: šarikaati attaʔmiini* ‘the biggest of the insurance companies’. The adjective often does not show agreement with the noun: *ʔafḍalu imraʔatin* ‘the best(masc) woman’, *ʔaqša: ħurriyyatin mumkinatin* ‘the most extreme(masc) possible freedom(fem)’, *ʔaqša: al-juhu:di* ‘the utmost(masc.sg) of efforts’. Not only elatives but also ordinal numerals and some other adjectives can appear before a noun, with superlative sense, likewise with no agreement: *θa:mi:jawmin* ‘the second day’, *xayru mumaθθilin* ‘the best representative’, *šarru xašlatayni* ‘the worst two qualities’. Examples of positive adjectives with superlative meaning in this construction are *ša:liħu al- ʔaxla:qi* ‘good(masc.sg) the-manners(pl) : the best of manners’, *kabi:ru kutta:bi al-ʔima:ra:ti* ‘the greatest of the writers of the Emirates’. Elative adjectives in other constructions may be marked as definite, showing normal agreement (*al-kumbiyu:tara:tu ad-daftariyyatu al-ʔaʔla: ʔada:ʔan* ‘the notebook computers the highest [with respect to] performance : the notebook with the highest performance’). An adjective that is the first element in a construct phrase may be marked definite in agreement with the head noun, unlike in nominal constructs (*ad-dawa:ʔu al-ba:hiḏu at-taka:li:fi* ‘the-medicine(nom) the-outrageous(nom) the-expenses(gen) : the outrageously expensive medicine’).

- *Mehri* The adjective follows the noun, and agrees with it in gender and number – except that adjectives do not have a dual form, and appear in the plural when modifying a dual noun. See above, 6.7 and table 4.13 (for examples, see Rubin (2010b: 77f.)).
- *Geez* The adjective usually, but not always, follows the noun, and agrees with it in gender, case (acc. only!), and number. Gender is consistently distinguished for animate nouns, but there is a tendency toward a ‘natural’

gender system, whereby inanimates concord as unmarked (hence, masculine); a certain amount of fluctuation can be seen in the biblical texts: cf. Mk 4:8, where *śānay* (m) / *śānayt* (f) ‘good’ occur as textual variants modifying *mādr* ‘earth’. For word order, note also the variation in a single manuscript *mādr śānay* (Mk 4:13) and *śānay mādr* (Mk 4:20) for ‘good earth’ (in the Zuurmond 1989 edition of Mark for the Novum Testamentum Aethiopicum).

- *Amharic* The adjective always precedes the noun (and any possessive modifier): *təlləq* (*yä-nəguś*) *bet* ‘a big house (of the king)’. Agreement is complex, and depends on the definiteness of the NP (see discussion in Leslau (1995: 208–13, with table on p. 214)). Briefly, definiteness is always marked on the adjective, if present: *bet-u* ‘the house’, *təlləq-u bet* ‘the big house’. If the NP is indefinite, the direct object marker *-n* occurs only on the noun; the plural marker occurs on the noun, but may optionally appear on the adjective also: *təlləq bet-n* ‘a big house’, *təlləq/təlləq(-očč) bet-očč* ‘big houses’. In definite NPs, case is marked only on the adjective, and number must be marked on the adjective as well as the noun: *təlləq-u-n bet* ‘the big house (dir. obj.)’, *təlləq-očč-u(-n) bet-očč* ‘the big houses (dir. obj.)’.

4.10.3 Syntax of numeric expressions

In many Semitic languages the syntax of numeric expressions does not follow the same rules as ordinary nominal or demonstrative modification. A peculiarity common to all Semitic languages which morphologically distinguish gender in the numeral is that for the numerals ‘3’–‘10’, the form that goes with masculine nouns is morphologically feminine, and the form with feminine nouns is morphologically masculine – see table 4.25. Note that even in Amharic, which has only one form for all numerals after ‘1’, the form which is retained for numerals ‘2’–‘8’ is recognizably feminine. This inverse (‘chiastic’) agreement pattern is often cited as one of the clear examples of Semitic polarity (‘polarity switch’ in this case).

- *Akkadian* The numeral usually precedes the noun and is in a caseless construct-like ‘absolute’ state; the plural, not the dual, is normally used with ‘2’, otherwise the noun has the number and case required by the syntactic context: *xamšat alpī* ‘five oxen’. In the less common cases where the numeral follows the noun, the numeral is in the unmarked state and has the context-appropriate case: *šadī sebettam* ‘seven mountains (acc)’.
- *Hebrew* The numeral ‘one’ is syntactically an adjective, following the noun, and agreeing in gender, definiteness, and number (in the plural it

means ‘several’). The other numerals normally appear before the noun, and the numerals from ‘3’ to ‘10’ take what appears to be reversed gender: *šlošá ʔānāšīm* ‘three men(masc)’. The numeral ‘2’ is in the construct state (*šne ʔānāšīm* ‘two men’), and ‘3’ to ‘10’ may also be in the construct state, especially if the noun is definite (*šlōšēθ hā-ʔānāšīm* ‘the three men’). Occasionally, especially in lists, the numeral follows the noun, agreeing in gender, and in the absolute state. With numerals other than ‘1’, the noun is in the plural, except that following numbers higher than ‘10’ a few frequently counted nouns are often in the singular (*ʔaḥād ʔāsār yom* ‘eleven days’). The same structures are standard in modern Israeli Hebrew, but in casual speech it is as usual (though severely deprecated!) for the numeral not to agree in gender (the feminine form is used), and for the noun to be in the singular even with low numbers (*štey šēkel* ‘two shekels’, with a feminine numeral and singular noun).

- *Aramaic (Syriac)* The numerals agree with the noun in gender (in the polar fashion, for ‘3’–‘19’), and most often precede the noun, but they may follow. A noun preceded by a numeral may be in the absolute or the determinate state, but a noun followed by a numeral is in the determinate state; with numbers other than ‘1’, the noun is plural.
- *Arabic* The syntax of numeric expressions in Arabic is quite complicated. The number ‘1’ follows the noun, and other numbers usually precede the noun, with the numerals ‘3’–‘19’ agreeing with the noun in gender (in polar fashion). After the numbers ‘3’–‘10’, the noun is in the genitive plural (*xamsatu riḡalīn* ‘five men’, *xamsu nisa:ʔīn* ‘five women’); after ‘11’–‘99’, in the accusative singular (*xamsata ʔašara raḡulan* ‘fifteen men’); and after ‘100’ and higher, in the genitive singular (*xamsu-miʔati raḡulin* ‘500 men’). The numerals (except for the teens, which are invariable) are marked for case, according to their position in the larger syntactic context. The numeral ‘2’ is different: the dual number is productive, and the separate numeral ‘2’ is not normally used instead of the dual morphology. Nouns, adjectives, verbs, and demonstratives show dual morphology: *ha:ta:ni al-muʔallimata:ni al-ʔadi:datani wašalata: . . .* ‘these(fem.du) the-teachers(fem.du) the-new(fem.du) arrived(fem.du) . . . : these two new teachers arrived’.

In modern vernacular Arabic, the numeral system is much simpler, as there is no case marking and no agreement in gender. The numerals ‘3’–‘10’ still have two forms, but these are no longer feminine and masculine, but rather are used with a noun or without, respectively: *xams ʔulla:b* ‘five students’, but in answer to ‘how many students?’, *xamse* ‘five’. The dual functions less like a grammatical category and more like a numeral that

happens to take the form of a suffix: only nouns take dual morphology, not adjectives, verbs, or demonstratives, and agreement with a dual noun is generally plural, unlike non-human plurals which take feminine singular agreement: *s-səntem əl-ʔawwala:niyyim* ‘the first two years’.

- *Mehri* The numerals ‘1’ and ‘2’ usually follow the noun, which is usually in the dual with ‘2’; otherwise the numerals ‘3’–‘10’ usually precede the noun. The special forms of ‘3’–‘10’ for enumeration of days (*yūm*) is reminiscent of the Akkadian absolute form of the numeral, and precedes the noun: *sāḥayt məhré* ‘three Mehri men’, *šəhəlīθ sənayn* ‘three years’, *šələθ yūm* ‘three days’.
- *Geez* Numerals normally precede the noun, which, after ‘1’, are normally in the singular, but can be in the plural; gender agreement is not always maintained, and in such cases the generalized form is the masculine (i.e. morphological feminine – cf. situation in Amharic): *sədəstu səb?* ‘six men’, *səssu ʔanəst* ‘six women’.
- *Amharic* Numerals precede the noun; from ‘2’ on, the noun may be either singular or plural in form, and the verb agrees with the *form* of the noun: *hulätt säw mäṭṭa / hulätt säw-očč mäṭṭu* ‘two men came’. As with the modifying adjective, the numeral normally takes the definite and direct-object marker: *hulätt-u-n säw-očč ayyä-hw-aččäw* ‘I saw the two men’ vs *säw-očč-u-n ayyä-hw-aččäw* ‘I saw the men’.

4.11 Verbal syntax

4.11.1 Expression of tense, mood, subordination, negation

In the morphology section, in order to clarify homologies and correspondences, a unified terminology (not always that of traditional pedagogical and reference grammars for a particular language) was used for a core set of TAM verbal forms which structure verbal morphology ‘in a remarkably uniform fashion across Semitic’: past, present, jussive. In this section we try to be more precise about the actual semantics and syntactic context of these forms, and of the principal additional forms, periphrastic and single-word, elaborated within the various major branches of Semitic.

4.11.1.1 Akkadian

Tense In Akkadian the simple past (‘preterite’) *iprus* ‘he decided’ contrasts both with the present (‘present–future’, ‘durative with time-reference from context’) *iparras* ‘he decides, will decide, is deciding, was deciding’) and with a perfect (‘perfective’, ‘past with focus’, partially homophonous with the *t*-infix reflexive stem) *iptaras* ‘he

has decided'. In addition, all tenses and modes can be suffixed with a dative element *-m* (post-consonantal *-am*, post-*-ā/ū -nim*) which covers a wide semantic spectrum, but basically gives the verb in question an orientation to, for, or near the speaker: *allik* 'I went' vs *allik-am* 'I came'.

Mood The base modal form, the jussive, suppletes the second person imperative *purus(-ī/ā)* 'decide (fsg/pl)!', with first and third person command forms *lu-prus* 'may I decide', *i niprus* 'may we decide', *li-prus/li-prus-u* 'may he/they decide'. It consists of a stem homophonous with the past, preceded by *li-* 'third person', *lu-* 'first person singular', *i ni-* 'first person plural'. Its main use is as a main clause precative, but it can also occur in certain subordinate clauses of command or purpose: *šupur li-ṭrud-ūni-m* 'command (imperative) that they send-here (ventive)' [H147].

Subordinate The marker for verbs in subordinate clauses is *-u*, suffixed only to verbs with no other inflectional ending (*-ī, -ū, -ā, ot* Ventive): *ša ašpur-u/tašpurī* 'which I/you(fem.sg) decide'.

Negation Main-clause indicative forms are negated by *ul* 'not' placed before the verb: *ul iprus/iparras/iptaras* 'he did/does/will/has not decided'; subordinate clauses by *lā*: *ša lā išpur-u* 'who did not decide'. A negative command ('prohibitive') is formed for all persons by *lā* with the present: *lā taparras/iparras* 'do not decide / he shall not decide'; a negative wish ('vetative') is formed for all persons by *ayy-*(before V)/*ē-*(before C) with the past: *ayy-aprus/ē-taprus* 'may I/you not decide'.

4.11.1.2 Arabic

Tense, Mood, Subordinate, Negation Negation in Arabic is intimately connected with tense and mood. There are several negative particles: *ma:* (as in *ma: kataba* 'he did not write') occurs chiefly with the suffixed past tense and sometimes with nominal predicates; *la:* (*la: yaktubu* 'he does not write') occurs with the present tense and with imperatives; *lam* (followed by the jussive) refers to past time (*lam yaktub* 'he did not write'); *lan* (followed by the subjunctive) refers emphatically to the future (*lan yaktuba* 'he will definitely not write').

4.11.1.3 Mehri

Tense The simple past contrasts with the 'present', which 'can, in various contexts, indicate almost any tense or aspect . . . a general, habitual, or immediate present; a habitual past; a future; a present or past progressive; or a circumstantial complement . . . [or] a narrative past' (Rubin 2010b: 123f.). A specific future tense is formed by the present

participle (msg *kətbōna* fsg *kətbīta*, mdu *kətbōni*, fdu *kətbáwti*, mpl *kətyēba*, fpl *kətbūtən*): *šhəṭōna tīk* ‘I’ll slaughter you’. The present can be prefixed with *δə-* to give a present progressive (*δə-yōmər* ‘he is saying’), as can the past to yield a variety of tense modifications, principally circumstantial and stative (*δə-ħəzīn* ‘they were sad’).

Mood As can be seen in the morphology, the ‘jussive’ differs from the ‘present’ by stem-shape, and otherwise has almost identical PNG affixes to the ‘present’ (except prefixation of *l-* to first person sg and du; and suffix *-ē* in dual instead of *-ō*). In main clauses it has cohortative or precative function: *hībō l-āmōl* ‘what should I do?’ As a subordinate, it occurs in clauses of desire, command, purpose, etc.: *ṭəḷəb-k tīk təkḷēθ lay* ‘I ask you to tell me’. A special conditional form is formed by the ‘jussive’ + *-ən*.

Subordinate Other than the subordinate use of the jussive, there is no special inflected subordinate form (see below, on *δə-* as complementizer).

Negation There are a number of negative particles with special meaning, but general clause negation, main or subordinate, is expressed by (*ə*)*l-* Verb . . . *lā* (where *lā* usually comes at the end of the clause): *hō əl kəs-k yənīθ lā* ‘I didn’t find women’.

4.11.1.4 *Geez*

Tense The indicative tenses are used in main and subordinate clauses to signify the simple past – *nägärä* ‘he spoke’ – in contrast with a ‘present’, *yənābbər*, which can signify ‘he sits, he is sitting, he will sit, etc.’

Mood The jussive, which differs from the present in stem shape, can be optionally preceded by *la-*. In main clauses it has a cohortative or precative function: (*la-*)*yəngər* ‘let him speak’; in subordinate clauses it can be used alone or with *kämä* to express commands or desire, or as a general equivalent of English infinitive complements: *ṷazäzo kämä yəngər* ‘he commanded him to speak’, *wätänä yəngər* ‘he began to speak’.

Subordinate Other than this, there is no special subordinate form.

Negation Clause negation, both main and subordinate, is with the prefix *ʔi-* (*ʔi-nägärä* ‘he did not speak’), which with the jussive functions as a negative imperative (*ʔi-təngər* ‘do not speak!’, *ʔi-yəngər* ‘let him not speak’).

4.11.1.5 *Amharic*

Tense The main clause preterite tense is the simple past tense form: *näggärä* ‘he spoke’. For the main-clause present–future, however, the simple present *yənägr* must

have an enclitic form of the verb *allä* ‘exist’ (3msg in short form *-al*): *yənägral* ‘he speaks, he will speak’. A number of compound tenses have been developed, involving various prefixed conjunctions, but genuine main-clause forms are present + EXIST-PAST (*näbbärä*, usually *näbbär* in 3msg) for a past habitual: *yənägr näbbär* ‘he was speaking’; and compound forms of the so-called ‘converb’ (CäCC + PossSuf; see below, ‘conjunctive’) with the present and past existential to form a perfect and pluperfect tense: *nägro-al* ‘he has spoken’, *nägro näbbär* ‘he had spoken’.

Mood The jussive, preceded by *lə-* in the 1sg, is a main-clause form only: *yəngär* ‘may he speak’, *l-əngär* ‘may I speak’.

Subordinate The cases of the relative and the other subordinates have to be distinguished; in both cases, the COMP element appears as a prefix on the verb. The relative past is simply *yä* + past: *yä-näggärä* ‘who spoke’; similarly other subordinate past clauses: CONJ-*näggärä* ‘(that/when/etc.) he spoke’. Present–future relative has the prefix *yämmə-* (with *ə-yə-* > *-i-*): *yämm-i-nägr* ‘who speaks’; other present-future subordinates: CONJ-*i-nägr* ‘(that/when/etc.) he speaks’.

Negation Negation is with *al-* (*al-yə-* > *ay-*; *al-tə* > *at(t)-*) prefixed to the verb in both main and subordinate clauses. In main clauses the verb is suffixed with *-mm*: *al-näggärä-mm* / *al-näggärhu-mm* ‘he/I did not speak’; *ay-nägr-əmm* / *al-nägr-əmm* ‘he/I do not speak’. Subordinates are without the *-mm*: COMP-*al-näggärä* / COMP-*al-näggärhu* ‘(which/that/etc.) he/I did not speak’; COMP-*ay-nägr* / COMP-*al-nägr* ‘(which/that/etc.) he/I do not speak’.

4.11.2 Valency and argument structure

4.11.2.1 Akkadian

Nominal complements precede the verb, marked with the appropriate case (accusative) or preposition + N + genitive: *šarr-am i-dūk* ‘he killed the king’, *ana bīt-im illik* ‘he went to the house’. Usually only one accusative complement is possible, but a few verbs of ‘providing’ or ‘receiving/taking’ can take two accusative objects, both the patient provided-with or taken-from, and the object provided or taken: *amt-am šikar-am ta-pqid* ‘you provided the female-slave with beer’ (H34) and *awil-am eql-am a-bqur* ‘I claimed the field from the man’ (H35). More generally, under conditions yet to be fully worked out, adverbial phrases of place, time, and origin can also be replaced by the accusative, apparently under the general proviso that the relationship of the complement to the verb be contextually clear: *šarrāq-am abull-am i-šbat-ū* ‘they seized the thief(acc) at the city-gate(acc)’ (H172), *qāšāt-ī-šunu lā te-leqqē-šunūti* ‘you will not accept their

gifts(acc) from them(acc)' (H172). Given this general possibility of double accusatives, it is not surprising that causative verbs (S-stem) can also express as accusative object both the subject and the object of the caused verb: *awāt-ī-ki axx-ī-ya u-še-šmi* 'I caused my brothers(acc) to hear your words(acc)' (H300).

4.11.2.2 *Mehri*

In general, verb complements follow the verb, and a pronominal complement generally precedes a non-pronominal. There is a large development of prepositional complements, with prepositions marking what might be ordinarily thought of as direct objects. For *bə-* in this context see the long list of such verbs in Rubin (2010b: 174ff.), and in particular the list of examples (R177) for *nūka* (Prep-) NP₁ *b*-NP₂ 'bring NP₂ to NP₁' (*naka-k tī-k bī-həm* 'I have brought them for you'). Otherwise many verbs take a direct object where one would expect an indirect object, and with *wəzūm* 'give', a double direct object is possible: (R191) *wəzm-ōna tī-š xəməin qarš* 'I will give you fifty dollars', *əl wəzəm-k tī-n tī-həm lā* 'you have not given them to us'. Note that in verbs of saying, *ʔāmōr* 'say' takes *h-* for indirect object, while *kəlūθ* 'speak' takes *l-* (R185).

4.11.2.3 *Geez*

Objects generally follow the verb, and are marked with the accusative *-ä*: *afqärä bəʔsīt-ä* 'he loved a woman'. However, definite object nouns are often marked with the preposition *lä-*, with a direct object pronominal suffix on the verb: *afqär-a lä-bəsʔsīt* 'he loved the woman (lit. "he loved her to the woman")' (note above, section 4.8.4, a similar construction for the definite noun in the possessive construction). An indirect object appears before a direct one: *təwälləd läkä wäld-ä* 'she will bear you a son' (R227); *wähäbku-kä-hu* 'I have given it to you' (R227).

4.11.2.4 *Amharic*

Objects precede the verb and are marked with *-n* only with proper nouns or nouns in semantically or syntactically definite NPs, e.g., *bet särra* 'he built a house' vs *bet-u-n särra* 'he built the house', *säw ayyä* 'he saw a man' vs *Käbbädä-n ayyä* 'he saw Kabbada'. 'Semantically definite' is not a hard-and-fast criterion, but includes those NPs headed by general or abstract nouns (L182): *əgziʔabəher säw-ən fäʔtärä* 'God created man', *mot-ən ay-färu-m* 'they do not fear death'. The complements of certain verbs of motion also take the *-n* suffix: *bet-u-n gäbba* 'he entered his house', *agär-u-n tāmälläsä* 'he returned to his country'. Under certain conditions the indirect object can also be marked by *-n*: *ləʃ-u-n məsa-w-n säʔt-äč* 'she gave the child his lunch'. Finally, the *-n* enclitic can also mark NPs of manner and circumstance – *ləʃ-u-n əʃʃ-u-n yaz-äčč* 'she grasped the child by the hand' – or time: *qän-u-n mulu tänña* 'he slept the whole

day' (L894). In doubly transitive verbs, formed by the *as-* causative of a transitive verb ('X caused Y to Verb Z'), both the (definite) subject and the (definite) object of the causativized verb can be marked with *-n*: *ləḵ-u-n dəmmät-u-n as-yaz-ä-w* 'he had the child hold the cat', *Käbbädä-n bet-u-n as-ṭäbbäqä-w* 'he had Kabbada guard the house' (L483).

4.12 Sentential syntax

We list here some examples of major sentence types, with discussion of order of constituents.

4.12.1 Simple verbal sentence

4.12.1.1 Akkadian

The normal word-order is SOV:

- (1) *bēl um bīt am i bni*
lord nom house acc 3msg build.past
'the lord built the/a house'.

4.12.1.2 Hebrew

The normal word order in Biblical Hebrew is VSO, but topicalization frequently puts a noun, which may be a subject, an object, or any other noun, before the verb; this usually entails a change in the verb morphology (discussed under consecutive structures, section 4.12.4.3). In Israeli Hebrew, SVO order is the most neutral, but here, too, verb-initial clauses are not infrequent.

4.12.1.3 Aramaic (Syriac)

Word order in Aramaic is extremely flexible, though SVO is probably the most neutral order.

4.12.1.4 Arabic

The basic word order is VSO. However, topicalization structures frequently create SVO and other orders.

4.12.1.5 Mehri

Here are examples of various sentence word-order – SVO:

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- (2) *sənnawrot tə ħbōb a ɣayg*
cat 3fsg love.pres def man
'the cat loved the man' (R124)

VOS

- (3) *yə-ktəlīθ b-ay a-ḳəbōyəl*
3m-talk.refl.pres.pl about-obj.1sg def-tribe.pl
'the tribes will talk about me' (R125)

SV+O

- (4) *a-bēli šə-wədē-kəm*
def-God 3Theme-protect-obj.2mpl
'may God preserve you' (R122)

V+OS

- (5) *a-bəśr-ək a-bēli bə-xayr*
dTheme-give:good:news-obj.2msg def-God n-good
'may God give you good news' (R122)

4.12.1.6 *Geez*

The unmarked main clause word order is VSO:

- (6) *sārĥ-ä nəguś bet*
build-3msg.past king house
'the/a king built the/a house'

4.12.1.7 *Amharic*

Word order in both main and subordinate clauses is invariably SOV:

- (7) *nəguś-u bet-u-n sārra-w*
king-m.def house-m.def-acc build.past.3msg-3msg.obj
'the king built the house',

nəguś bet sārra
king house build.past.3msg
'a king built a house'.

As can be easily seen from other sections – above, 4.10.1–3, 4.11.1–2, and below 4.12.4.3 – with the exception of the persistence of prepositions (only occasionally augmented or replaced by postpositions), most of the other word-order properties of Amharic are harmonious with those of a typical OV language.

4.12.2 Copula sentence

4.12.2.1 Akkadian

Two constructions are possible: (a) simple juxtaposition – NP₁ NP₂/Adj ‘NP₁ is NP₂/Adj’:

- (8) *šarr-at-um dann-at-um*
queen-f-nom.sg mighty-f-nom.sg
‘the queen is mighty’

(b) use of the stative form (see above, section 4.6.5) of noun or adjective:

- (9) *šarr-at-um dann-at*
queen-f-nom.sg mighty-f
‘the queen is mighty’.

(See H223) on the difference between *Xammurapi šarrum* and *Xammurapi šar*, both of which mean ‘Hammurapi is king’.) There is no clear past-tense equivalent – one has to add adverbials or some verbal paraphrase.

4.12.2.2 Hebrew

Equational sentences can consist of simple juxtaposition of the two elements – *hammizbéaḥ ʿeṣ* ‘the altar [is] wood’ – but there is frequently also a third-person pronoun, either between the two elements or following the predicate:

- (10) *šévaʿ šâním hénnâ*
seven years they
‘They are seven years.’
(Genesis 41:26)

In modern Hebrew, the copular pronoun is required, optional, or avoided, depending on the various syntactic environments.

4.12.2.3 Aramaic (Syriac)

Sentences without a copula occur relatively rarely. Two constructions with explicit copulas are far more frequent. The first has a form of *ʔiθ* (originally meaning ‘exist’), agreeing with the subject:

- (11) *qri:θa: ʔi:θ-e:h ʕa:lma:*
field(f) is-3fsg world(m)
‘The field is the world.’
(Matthew 13:38)

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- (12) *bayt(y) be:θ slo:θa: ?i:θ-aw*
my:house(m) house(const) prayer(f) is-3msg
'My house is a house of prayer.'
(Luke 19:46)

The other structure involves a third-person enclitic pronoun, agreeing with the subject but following the predicate:

- (13) *?urħa: da-šra:ra: ?ali:ša:=(h)y*
path(f) of-truth(m) narrow(f)=3fsg
'The path of truth is narrow.'

Often the copular pronoun follows the head of the predicate, rather than the entire predicate:

- (14) *zayn-e:h šfal=(h)u men di:l-an*
weapon-3msg weak=3msg from of-1pl
'His weapon is weaker than ours.'

4.12.2.4 *Aramaic (Modern)*

Northeastern Neo-Aramaic has an overt copula in nearly all such sentences, and, as in Syriac, it is enclitic to the head of the predicate:

- (15) *bná:θa bšš ?úrṣ-e=lu mōnn-i*
daughters more big-pl=3pl from-1sg
'The daughters are bigger than me.'

4.12.2.5 *Mehri*

Here there is juxtaposition of subject and predicate, with tense usually taken from the context:

- (16) *ħāgōr bōyər*
slave cunning
'the slave is/was cunning'.

Some nuances of meaning in copula-like sentences can be expressed by verbs such as *wīka* 'become, stay, happen' (Rubin 2010a: 260–3), *yəkūn* 'be habitually, generally' (Rubin 2010a: 263f.).

4.12.2.6 *Geez*

Copula sentences can be formed by simple juxtaposition:

- (17) *xäṭawəṭ-i-homu* *Yäbiy-at*
sin.pl-pl-3mpl great-fpl
'their sins are great'

More often, there is a structure NP Pro NP/Adj, where the pronoun is usually simply the third person:

- (18) *Dawit wəṭətu nəgus*
David he(pro.3msg) king
'David is king'
ana wəṭətu nəgus
I(pro.1sg) he(pro.3msg) king
'I am king'

Agreement in person is possible, but marked: *ʔänä nəgus ʔänä* 'I am king'. For modal and temporal nuance, ordinary verbal sentences with *konä* or *hällö* 'be, exist' are used.

4.12.2.7 Amharic

Amharic has developed an explicit affirmative and negative copula – affirmative: *nä* + object-pronominal suffixes (*nä-nän*, 'I am'; *nä-h*, 'you (msg) are'; *nä-š*, 'you (fsg) are'; *nä-w*, 'he is'; *nä-čč/n-at*, 'she is'; *nä-n*, 'we are'; *n-aččəhu* [respect: *nä-wot*], 'you (pl) are'; *n-aččäw*, 'they are'); negative: a conjugated frozen negative form of verb *dlw* (*aydällähumm*, 'I am not'; *aydällähəmm*, 'you (msg) are not'; *aydälläšəmm*, 'you (fsg) are not'; *aydällämm*, 'he is not'; *aydälläččəmm*, 'she is not'; *aydällänəmm*, 'we are not'; *aydälläččəhum*, 'you (pl) are not'; *aydällumm*, 'they are not'); the past tense, affirmative and negative, is with the verb *näbbärä*. This copula occurs in the usual sentence-final verb position:

- (19) *mist-u* *dägg n-at/aydäll-äčč-əmm/näbbär-äčč/al-näbbär-äčč-əmm*
wife-poss.3msg kind cop-3fsg/cop.neg-3fsg-negenc/be.past-3fsg/not-be.past-3fsg-negenc
'his wife is/isn't/was/wasn't kind'.

In subordinate clauses, copulative sentences are expressed with the appropriate forms of the verb *honä* 'to be' (or, alternatively, *näbbärä* for the relative past):

- (20) *astämari yämm-i-honä-w ləjj ahun tämari nä-w*
teacher rel-3msg-be.pres-def boy now student cop-3msg
'the boy who will be a teacher is now a student',

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astāmari yä-näbbär-ä-w ləjǰ ahun tāmari nä-w
teacher rel-be.past-3msg-def boy now student cop-3msg
'the boy who was a student is now a teacher'

4.12.3 Topicalization and focalization

4.12.3.1 *Akkadian*

Under appropriate pragmatic conditions, the object may simply be fronted:

- (21) *bīt-am bēl-um i-bni*
house-acc lord-nom 3msg-build.past
'the lord built the house'

In a distinct construction, a topicalized noun may be extracted from a clause, marked as nominative (classically termed the *casus pendens*, see H211f.), and replaced in the clause by a pronoun:

- (22) *šarr-um mār-šu i-mraš*
king-nom son-poss.3msg 3msg-sick.past
'the king – his son fell ill'
(H212)

sinništ-um šī ax-ū-ka
woman-nom pro.acc.3fsg brother-nom.pl-poss.2msg
ixxassi (for *i-xxaz-ši*)
3msg-take.pres-acc.3fsg
'the woman – your brothers will marry ('take') her'
(H212)

As opposed to the nouns, the verb remains almost invariably in clause-last position. Note that, in spite of this unmarked SOV word order, the other word-order properties of Akkadian are 'harmonious' with an unmarked VO word order.

4.12.3.2 *Arabic*

Arabic has a highly differentiated variety of topicalization and focus constructions. The simplest, consisting merely of preposing a constituent, is limited to adverbials; simple fronting of an object is extremely rare. Topic–comment structures are common; the topic is a noun phrase in the nominative case, and the comment is a complete sentence, which usually contains a resumptive pronoun agreeing with the comment, unless it would be in the position of subject of the comment clause. Resumptive pronouns are underlined:

- (23) *al-ḥuḡratu allati: yaʕmalu fi:-ha: ʒawwu-ha: xa:niquṇ*
def-room(f) which(f) he:works in-3fsg air(m)-3fsg suffocating(m)
'The room that he works in, its air is suffocating.'
- (24) *aṭ-ṭabi:batu al-ʔamri:kiyyatu la: yabdu: ʕala: waʒhi-ha: ʔayyu*
def-doctor(f) def-American(f) neg appears(m) on face-3fsg any
taʕbi:rin
expression(m)
'The American doctor, no expression appears on her face.'

A subject that precedes the verb should be considered to be in topic position. The topic may be introduced by *ʔinna* (which also occurs as the complementizer after the verb 'to say'), in which case the topic is in the accusative case:

- (25) *ʔinna ha:ða: al-ʔixfa:q-a mutawaqqaʕ-un*
comp this def-failure-acc expected-nom
'This failure is expected.'
- (26) *ʔinna an-nisa:ʔ-a la: yaksibna ʕayʔan min ða:lika*
comp def-women-acc neg gain.3fsg thing from that
'Women do not gain anything by that.'

A still more explicit and flexible topicalization structure consists of *ʔamma:* preceding the topic and the conjunction *fa-* preceding the comment:

- (27) *ʔamma: muntij-u: aθ-θaqa:ʕati, fa huwa la:*
as.for producers-nom.pl(const) def-culture, conj he neg
yasmaʕu isma-hum
hears name-3mpl
'As for the producers of culture, he does not hear their name.'

The topic marked by *ʔamma:* is most often in contrast to an entity mentioned previously.

4.12.3.3 *Geez*

Both subject and object can be fronted under a variety of pragmatic conditions, principally foregrounding; S is often fronted in subordinate clauses:

- (28) *əgziʔ-ä-bher wäḥäb-ä-kəmu z-ä ʕälä-ä sänbät*
god(lord-const-earth) give.past-3msg-obj.2mp this-acc day-acc sabbath
'God has given you this Sabbath day'

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- (29) *xätiʔ-əyü ə-z-zekkär (<ə-t-zekkär) yom*
sin-poss.1sg 1sg-refl-remember.pres today
'I remember today my sin'
- (30) *əsmä ab y-a-fäqqəd wäld-o (< wäld-ä-hu)*
because father 3msg-caus-love.pres son-acc-poss.3msg
'for the father loves his son'.

VOS is also possible:

- (31) *a-rxäw-ä mäskot-a lä-tabot Nox ənt-ä*
cause-open.past-3msg window.f-acc to-ark Noah which.f-acc
gäbr-ä
make.past-3msg
'Noah opened the window of the ark which he made'

Note in (31) that the position of the subject, *Nox* 'Noah', could be conditioned by the fact that it is also S of the relative clause which follows. Foregrounding can also be accomplished by a series of enclitics of varying degrees of strength:

- (32) *nəguś-ni/-ssä/-mmä ʕədw-ä şäbʔ-ä*
king-fgenc1/fgenc2/fgenc3 enemy-acc fight.past-3msg
'the king fought the enemy'.

Closely related to this is the use of cleft sentences:

- (33) *nəguś-əssä wəʔətu/kon-ä zä-şäbʔ-ä*
king-fgenc he(pro.nom.3msg)/be.past-3msg rel.ms-fight.past-3msg
ʕədw-ä
enemy-acc
'it is/was the king who fought the enemy',
ʕədəw-ssä zä-şäbʔ-ä nəguś
enemy-fgenc rel.ms-fight.past-3msg king
'it is the enemy that the king fought'

The example below shows a negative cleft construction:

- (34) *akko nəguś zä-şäbʔ-ä ʕədw-ä*
not king rel.ms-fight.past-3msg enemy-acc
'it is not the king who fought the enemy'

4.12.3.4 *Amharic*

The principal mechanisms of topicalization in Amharic are with foregrounding or topicalizing enclitics such as *-ss* –

- (35) *mar-əss yällä-m*
honey-fgenc not:be-negenc
'(as for) honey there is none'

– and a widespread use of cleft sentences, formed with a relativized verb and a copula:

- (36) *yä-mätta əssu n-äw*
rel-come.past(-3msg) 3sg cop-3msg
'it is *he* who came (the one who came is he)'.

4.12.4 Major types of complex sentence

14.12.4.1 *Relative clauses*

Akkadian The relative clause complementizer is the indeclinable *ša*, the verb, which is always clause-final, takes the subordinate clause-marker *-u*:

- (37) *šarr-um ša bīt-am ina āl-im ēpuš-u*
king-nom rel house-acc in city-gen make.past.3msg-rel
i-māt
3msg-die.past
'the king who built a house in the city died',
bīt-um ša šarr-um ina āl-im ēpuš-u
house-nom rel king-nom in city-gen make.past.3msg-rel
i-mqut
3msg-collapse.past
'the house which the king built in the city collapsed',
āl-am ša šarr-um ina libb-ī-šu bīt-tam
city-acc rel king-nom in heart-gen-poss.3msg house-acc
ēpuš-u i-šbat
make.past.3msg-rel 3msg-seize.past
'he seized the city in whose midst the king built a house' etc.

Under certain circumstances, the complementizer *ša* can be deleted, in which case the head noun appears in the construct: compare *bītum ša šarrim*, *bīt šarrim* 'the house of the king, the king's house' with *bītum ša šarrum ēpušu*, *bīt šarrum ēpušu* 'the house (which) the king built' (cf. H188).

Hebrew In Biblical Hebrew, relative clauses are most often introduced with the invariant complementizer *ʔāšēr*, and the clause contains a resumptive pronoun (except for the subject and sometimes the object); word order is flexible. The resumptive pronoun is underlined in these examples:

- (38) *hāʔiš ʔāšēr hammélex hāféš b-iqār-ó*
the.man comp the.king wishes for-honour-3msg
'The man whom the king wishes to honor'
(Esther 6:6)
- (39) *sus ʔāšēr rāxāv šal-áw hammélex*
horse comp rode on-3msg the.king
'a horse on which the king has ridden'
(Esther 6:8)

Arabic A relative clause attached to an indefinite noun has no overt marker:

- (40) *ziya:ratun tastayriqū ʔusbu:ʕan*
visit lasts week
'a visit that lasts a week'
- (41) *mašdarun rafaða al-kašf-a ʕan ismi-hi*
source refused def-revelation-acc about name-3msg
'a source that refused to reveal its name'

If the head is definite, the relative pronoun is present and agrees with it in gender, number, and case (though case is overt only in the dual). The relative pronoun is in the case appropriate to the matrix clause, not the subordinate clause:

- (42) *fi: al-ʕals-at-ayni alla-t-ayni inʕaqad-at-aa ʔamsi*
in def-session-f-du.gen rel-f-du.gen were.held-3f-du yesterday
'in the two sessions that were held yesterday'

Thus a relative clause, like an adjective, agrees with its head noun in gender, number, case, and *definiteness*.

Mehri The basic relative pronoun is the indeclinable $\delta(\partial)$:

- (43) *ʔāšər δə-ʕayg δə-y-āgōb b-a-ʕəgg-ēt*
friend poss-man rel-3msg-love.pres in-def-girl-f
'the friend of the man who was in love with the girl',

- (44) *ṭawy-əh* *ɣayg əδ-ḫayma wə-δ-gawya*
come.past.3msg-obj.3msg man rel-thirst.past conj-rel-hunger.past
'a man who was thirsty and hungry came to him'.

If the head noun is the direct object of the relative verb, then a resumptive object pronoun is obligatory:

- (45) *əl kəs-k* *ʔəḥād lā δ-ə-ɣarb-əh*
neg find.past-1sg one neg rel-1sg-know.pres-obj.3msg
'I didn't find anyone that I knew'.

The relative can be omitted optionally:

- (46) *ɣəlawḵ* *ʔəḥād yə-ɣörəb a-ɣəröy-i*
look:for.past.3mpl one 3msg-know.pres def-language-poss.1sg
'they looked for someone who spoke my language'.

There are also more complex relative markers which behave syntactically like *δə- käl* *δ-* 'whoever', *ləḥān* 'all that', *mən hāl* 'where' (Rubin 2010a: 51–7).

Geez The relative pronoun in Geez is ordinarily inflected for number and gender – msg *zä-*, fsg *əntä*, pl *əllä* – but sometimes appears as invariable *zä-*: *nəguś zä-yähäwwər*, *nəgəšt əntä täḥäwwər*, *nəgəšt əllä yähäwwəru* 'the king/queen/kings who come'. A head noun which is object of the relative clause is usually represented by an object suffix on the verb of the relative clause:

- (47) *ʔäḥzab zä-/əllä* *ʔəntəmu tə-t-wärräs-əww-omu* (for
tə-t-wärräs-u-homu)
people.pl rel.ms/rel.pl pro.2mp 2-refl-inherit.pres-pl-obj.3mp
'the peoples whom you will inherit'.

The example below shows the object of a preposition as head of the relative clause:

- (48) *mədr ənt-ä* *bä-wəstet-a tǎ-wäld-ä*
land rel.f-acc in-midst-poss.3fsg pass-born.past-3msg
'the land in whose midst he was born (the land which in-her-midst he was born)'.

Interesting in the light of later developments in Ethiopian Semitic is the fact that short relative clauses frequently come before the head noun:

- (49) *zä-yə-mäyşəʔ* *ʕäläm*
rel-3msg-come.pres world
'the world to come'.

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Amharic The relative markers in Amharic are *yä-* (with past-tense verbs) and *yämmə-* (with present–future). As is the case with all nominal modifiers, the relative clause precedes the head, and the relative marker is attached to the relative-clause-final verb:

- (50) *addis-u-n bet bä-Addis-Abäbä wəṣṭ*
new-def-acc house in-Addis-Ababa midst
yä-särra/yämm-i-sära säw ayyä-hu
rel-build.past.3msg/rel-3msg-build.pres man see.past-1sg
'I saw a man who built / will-build the new house in Addis Ababa.'

Likewise, as with all nominal modifiers, head-noun definite and direct-object markers are attached to the end of the relative clause, i.e., the verb:

- (51) *addis-u-n bet bä-Addis-Abäbä wəṣṭ*
new-def-acc house in-Addis-Ababa midst
yä-särra-w-n/yämm-i-sära-w-n säw
rel-build.past.3msg-def-acc/rel-3msg-build.pres-def-acc man
ayyä-hu
see.past-1sg
'I saw the man who built / will-build the new house in Addis Ababa.'

This is as opposed to:

- (52) *säw-iyye-n ayyä-hu*
man-def-acc see.past-1sg
'I saw the man.'

Note that the relativized verb clause has noun-like status in very common cleft-sentence constructions of the sort 'that X is Y':

- (53) *yämm-i-mäṭa-w bä-mäkina n-äw*
rel.pres-3msg-come.pres-def in-car cop-3msg
'he will come in a car (= that he will come is in a car)'

4.12.4.2 *Subordinate clauses*

Akkadian The principal complementizer with object clauses of verbs of 'saying', 'knowing', etc., is *kīma* 'that'. As is the case with subordinate clauses generally (note that *kīma* also appears in 'when' clauses with the meanings 'when, as soon as'), the object clause always precedes the main clause:

- (54) *šāpir-um kīma immer-ī nēmett-a-ka ana ekall-im lā*
prefect-nom that sheep-pl tax-acc-poss.2msg to palace-gen not
t-ubl-am u-lammid-an-ni
2msg-carry.past-ven 3msg-learn.fact-ven-obj.1sg
'the prefect informed me that you had not brought the sheep, your tax,
to the palace',
- (55) *eql-um kīma zītt-ī ul ī-de*
field-nom that share-poss.1sg not 3msg-know.past
'he did not know that the field is my share'
(H287)

Direct quotation, although it can be unmarked and simply inferred from context, usually involves the quotative particle *umma* – frequently translated by 'as follows' – following the speech verb, most often *qabû* 'say'; *umma* in turn is most often followed by a noun or pronoun referring to the speaker, followed by the 'consecutive suffix' (see below, 12.4.3) *-ma*, followed by the direct quote, as in the very frequent epistolary introductory formula:

- (56) PN *kiam i-qbi-am umma šū-ma* X
PN thus 3msg-speak.past-ven quote pro.ind.3msg-conj X
'PN spoke thus to me, and he [said as follows] "X"'.
(H287)

The formula can be abbreviated to the last phrase:

- (57) *umma awīl-um-ma* X
quote man-nom-conj X
'the man [said as follows] "X"'.
(H287)

That a phrase is direct speech can also be indicated by adding the suffix *-mi* to one or more salient words in the phrase:

- (58) *awīl-um-mi ulā-mi i-mxur-an-ni*
man-nom-fgenc not-fgenc 3msg-approach.past-ven-obj.1sg
'"the man did not approach me"
(H136)

Otherwise, subordinate clauses generally are introduced by a complementizer such as *inūma* 'when', *ištu* 'after', *aššum* 'when/because'; the object clause always precedes the main clause, and the verb of the clause has the subordinate clause marker *-u*:

- (59a) *inūma axx-ū i-zuzz-u*
when brother-pl 3m-divide-pl/rel
'when the brothers make a property division',
(H287)

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(59b) *ištu i-nn-emd-u*
after(from) 3m-ingr-stand.past-pl/rel
'after they moved in together',

(59c) *aššum kiam -iqb-û-ši*
because thus 3msg-say.past-rel-obj.3fsg
'because he spoke thus to her'.

Finally, although the infinitive in Akkadian, as in most other Semitic languages, is almost always strictly a verbal noun (hence more like the English gerund), there are a certain number of verbs that can govern an infinitive in the accusative case in ways that approximate an infinitive complement. Thus, with *le'ûm* 'be able', we can find:

(60) *apāl-am te-le"-ī*
answer.inf-acc 2s-be.able.pres-f
'you can answer'

With *šapārum* 'write, order', we find:

(61) *ana bār-îm nadān-am a-špur-ak-kum*
to diviner-gen give.inf-acc 1sg-write.past-ven-2mp
'I write to you to give to the diviner.'

Moreover, infinitives in the genitive after a preposition can function as purpose or temporal clauses:

(62a) *ana kunn-im turd-aš-šu*
for establish.inf-gen send.imptv-ven-obj.3msg
'send him here to verify (for verification)'

(62b) *ina sanāq-im i-mūt*
in arrive.inf-gen 3msg-die.past
'when he arrived (upon arrival), he died.'

Arabic Arabic has several subordinating complementizers, all of which appear at the start of their clause. The most frequent and basic of them are *ʔan* and *ʔanna*. The main syntactic difference between the two is that *ʔan* is followed by a verb in the subjunctive, while *ʔanna* is followed by a noun in the accusative. As a gross generalization, *ʔan* clauses are hypothetical, representing a verbal situation that is possible, necessary, desired, and the like, while *ʔanna* marks clauses that are asserted. Some examples of *ʔan* clauses:

- (63a) *qarrar-a* *ʔan* *y-asi:r-a*
decided-3msg comp 3-go-sbjn
'He decided to go.'
- (63b) *y-umkinu-hu* *ʔan* *y-alʕab-a*
3-be:possible-3msg comp 3-play-sbjn
'It is possible for him to play.'
- (63c) *xaʕar-a* *li:* *ʔan* *ʔ-uxbir-a* *zawʕ-i:*
occurred-3msg to.me comp 1-inform-sbjn husband-1sg
'It occurred to me to tell my husband.'
- (63d) *ʔaʕarr-a* *ʕala:* *ʔan* *y-alʕab-u:*
insisted-3msg on comp 3-play-pl(sbjn)
'He insisted that they play.'

For the same functions as a *ʔan* clause with a finite verb, gerunds are a frequent alternative; thus, the same meanings as in (b–d) can be rephrased as *yumkinuhu* *al-laʕbu*, *xaʕara li: ʔixba:ru zawʕi:*, *ʔaʕarra ʕala: laʕbi-him*; the gerunds are marked definite, and if the subject is different from that of the main clause it is indicated by a suffixed pronoun, as in *laʕbi-him* 'their playing'.

Examples of *ʔanna* clauses are:

- (64a) *ʕarraha* *ʔanna* *wiza:rat-a* *aʕ-ʕiħħati* *satadrusu*
he.announced comp ministry-acc def-health will.study
'He announced that the Ministry of Health will study . . .'
- (64b) *al-muʕkilatu* *ʔanna* *al-falla:h-i:na* *la: yusaddidu:na*
def-problem comp def-peasants-pl.acc neg they.pay.off
'The problem is that the peasants do not pay off (their debts).'

Asyndetic subordinate clauses (i.e. those without a complementizer) occur in two situations: first, when the subordinate clause represents the circumstances surrounding the main clause:

- (65) *inʕalaq-at* *fi: aʕ-ʕa:riʕi* *t-abħaθu* *ʕan* *ʔaʕfa:liha:*
departed-3fsg in def-street 3fsg-search(pres) for her:children
'She went into the street looking for her children'

Second, they occur after verbs of certain semantic types that frequently require clausal complements:

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- (66a) *daʕ-ni: ʔ-usa:ʕid-ka*
give-1sg 1sg-help(juss)-2msg
'Let me help you.'
- (66b) *la: ʔ-aḥṣabu-ka t-ahtammu*
neg 1sg-think-2msg 2-are.interested
'I do not think you are interested.'

Mehri Mehri uses a variety of subordinate constructions. Temporal clauses are introduced by a complementizer *tē*, *hīs*, *mət* 'when', followed by a clause with the verb usually in the past:

- (67a) *tē nūka aɣ-ay, yə-ɣərəb-ay*
when come.past.3msg brother-poss.1sg 3msg-recognize.pres-obj.1sg
'when my brother came, he recognized me'
(R301)
- (67b) *ʔəʕ a-ɣayg hīs hōma a-ʕawt δə-ḥəybūt*
rise.past.3msg def-man when hear.past.3msg def-voice poss-camel
'the man arose when he heard the sound of the camel'
(R302)
- (67c) *mət nūka a-kaɣδ, hə-wfi*
when come.past.3msg def-summer h Theme-pay.imptv
'when summer comes, pay me'
(R294)

Purpose clauses are usually simply clauses with the verb in the jussive:

- (68) *wəzəm-ih moh yə-ttəʕ*
give.past.3msg-obj.3msg water 3msg-drink.subj
'he gave him water to drink'
(R292)

Circumstantial clauses usually involve a prefix *δə-* (complementizer or circumstantial prefix, cf. Ruben 2010b: 291):

- (69) *ʔə-ʕəni-həm δ-yə-ɣətəryəm*
1sg-see.pres-obj.3mpl rel-3m-speak.t1Theme.subj.pl
'I saw them speaking'
(R291)

There are a few verbs like *yəʕ* 'be afraid', which takes an optional pronominal object with the matrix verb, and then a clause in the jussive introduced by *mən* 'from':

- (70) *yəšš-ək tī-k mən tə-htəwūl*
fear.past-1sg obj-2msg from 2msg-go.crazy.t2Theme.subj
'I am afraid that you will go crazy'
(R286)

Otherwise, clauses are split – sometimes according to principles that have not yet been worked out – between those involving the complementizer *δə-* 'that' and a finite verb, and others simply requiring a complement clause with the verb in the jussive. A clear case of the latter is with the verb *hōm* 'want', which takes a jussive complement:

- (71) *hām-k tə-šnē tēθ-i*
want.past-1sg 2sg-see.subj wife-poss.1sg
'I want you to see my wife'
(R166)

Otherwise, in many verbs of thinking, knowing, believing, swearing, promising, etc., the choice of subordinate construction seems to depend on the individual verb, and with some verbs (perhaps more than the corpus allows us to realize) both constructions are possible – compare:

- (72) *mōn ʔāmōr hū-k δ-hō ʔōmər*
who say.past.3msg to-obj.2msg that-pro.1sg sing.dTheme.subj
'who told you that I sing?'
(R290, with *δ-*)

with:

- (73) *ʔāmawr yə-štōm kāil-šīən*
say.past.3mpl 3msg-buy.pres every-thing
'they said (that) he buys everything'
(R290, without *δ-*)

and:

- (74) *yərōb δə-hē zərūk ʔār a-zēməl*
know.past.3msg that-pro.3msg stab.past.3msg only def-camel.gear
'he knew that he had only stabbed the camel-gear'
(R288, with *δ-*)

and:

- (75) *hō ə-yōrəb h-əmbərawtən yə-bady-əm lā*
pro.1sg 1sg-know.pres def-boys 3m-lie.pres.dTheme-3mpl neg
'I know (that) the boys don't lie'
(R288, without *δ-*)

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Geez With certain verbs of perception, indicative object clauses can occur without a complementizer:

(76a) *rəʔy-ä tā-sätq-ä sämay*
see.past-3msg pass-split.past-3msg heaven
'he saw the heavens split'

(76b) *räkäb-o(< räkäb-ä-hu) yə-qäwwəm*
find.past-3msg-obj.3msg 3msg-stand.pres
'he found him standing.'

Otherwise, indicative object clauses with verbs of speech and cognition are introduced by a complementizer such as *kämä* 'that', *əsmä* 'because', *ənzä* 'while':

(77) *a-ʔmär-ä kämä tā-nätg-ä may*
(caus)-know.past-3msg that pass-recede.past-3msg water
'he knew that the water had receded.'

A special case is formed by the impersonal verb *mäsälä* 'seem', which takes as subject a clause with a relativized verb:

(78) *mäsäl-omu(<ä-homu) zä-tä-ħäwwər xäbä mäqabər*
seem.past-3msg-obj.3mp rel-3fsg-go.pres toward tomb.pl
'it seemed to them that she was going to the tombs.'

Non-indicative clauses of purpose or volition take a verb in the jussive, with or without a complement *kämä*:

(79a) *fäqäd-ä kämä tə-baʔ*
want.past-3msg that 2msg-come.juss
'he wanted you to come'

(79b) *fätäw-u yə-rʔäy-u*
desire.past-3pl 3m-see.juss-pl
'they desired to see'

(79c) *mäşʔ-ä yə-rʔäy*
come.past-3msg 3msg-see.juss
'he came to see.'

Finally, a number of verbs, *kəhlä* 'be able', *dägämä* 'repeat, do again', have the accusative of the infinitive in their object clauses:

- (80a) *ʔi-yə-kəl xädig-ä ʔäbu-hu*
not-3msg-be:able.pres leave.inf-acc father-poss.3sg
'he cannot leave his father'
- (80b) *dägäm-ku nägirot-ä-kəmu*
do:again.past-1sg speak.inf-acc-obj.2mp
'I spoke to you again.'

Amharic Ahmaric has an extremely rich repertory of subordinate clause mechanisms based on: relative clause constructions, infinitive constructions, simple present constructions, and direct speech.

- (a) *Relative clause constructions* Structure is Complementizer + Relative-clause for temporal or content clauses, some of the most common complementizers being: *ändä* 'that', *sälä* 'because', *əyyä* 'while'. There are two things to keep in mind: one is that, as always in Amharic, the complementizer is procliticized to the verb so that we get a structure Comp + *yä-lyämmə* + Verb; the other is that initial *yä-*, whether that of the relative or that of the possessive construction, disappears after a preceding particle (so that **bä* + *yä-nəgus bet* 'in the king's house (lit. "in of-the-king house")' is realized as *bä-nəgus bet*. Thus we have:

- (81) *tənantənnä ändä-mätta* (from **ändä-yä-mätta*)
yesterday that-come.past.3msg
awq-allä-hu
1sg.know.pres-aux-1sg
'I know that he came yesterday.'

We can be sure that the verb form is relative since in the present the sentence will be:

- (82) *nägä ändä-mm-i-mätta* (from **ändä-yämm-i-mätta*)
tomorrow that-rel.pres-3msg-come.pres
awq-allä-hu
1sg.know.pres-aux-1sg
'I know that he will come tomorrow.'

There are also preposed + postposed complex complementizers such as *bä... gize* 'when', *kä... bähwala* 'after', *əskä... dəräś* 'until':

- (83) *nägä kä-mm-i-mätta bähwala*
tomorrow from-rel.pres-3msg-come.pres after
ay-llä-hu-t
1sg.see.pres-aux-1sg-obj.3msg
'after he comes tomorrow, I will see him.'

- (b) *Infinitive constructions* The simple infinitive, usually with the subject as possessive suffix and marked as direct object with the suffix *-n*, can be used as the clausal object of verbs of saying, knowing, hearing, etc.:

(84) *bet-u bā-dāhna mā-drās-u-n*
house-def in-safety inf-arrive-poss.3msg-acc
nāggār-ā-nī
tell.past-3msg-obj.1sg
'he told me that he had arrived home safely.'
(L744)

Causal and temporal clauses can be expressed by Preposition + Infinitive + Possessive constructions:

(85a) *ənnat-u-n bā-m-ayāt-u bātam dāss*
mother-poss.3msg-acc in-inf-see.inf-poss.3msg very please
alā-w
say.past-obj.3msg
'he was very pleased because he saw his mother'.
(L745)

(85b) *bārr-u-n kā-mā-kfāt-e əsswa-n*
door-def-acc from-inf-open.inf-poss.1sg pro.3fsg-acc
ayyā-hw-at
see.past-1sg-obj.3fsg
'as soon as I opened the door I saw her.'
(L736)

- (c) *Simple present constructions* A wide variety of clauses can be expressed by Particle + Simple-Present constructions, e.g., with:

***bə* 'if, when'**

(86) *b-i-čəl-u šərrəššər yə-hed-u nābbār*
if-3m-be:able.pres-pl walk 3m-go.pres-pl be.past.3msg
'if they could, would they go for a walk?'
(L813)

***sə* 'while'**

(87a) *ləjj-u s-iy-a-lāqs wal-ä*
child-def while-3msg-(caus)-cry.pres spend.day.past-3msg
'the child spent the day (while) crying'

- (87b) *mən sə-ttə-sära wal-kä*
what while-2msg-do.pres spend.day.past-2msg
'while doing what did you spend the day? what did you spend
the day doing?'
(L340)
- əndə, lə, . . . zänd (postposition!) 'that / in order to'**
- (88a) *mäkwännən-u wättaddär-u-n bet-u ənd-i-hed*
officer-def soldier-def-acc house-def that-3msg-go.pres
fäqqäd-ä-llä-t
permit.past-3msg-to-obj.3msg
'the officer permitted the private to go home'
- (88b) *kä-rsəwo gar l-i-n-nägaggär (< l-i-t-nägaggär)*
with-pro.2pol with to-3msg-refl-speak.pres.freq
mätta
come.past.3msg
'he came to speak with you',
- (88c) *gänzäb a-gäññ zänd ə-sär-allä-hw*
money 1sg.(caus)-earn.pres in.order 1sg.-work.pres-aux-1sg
'I work in order to make money.'
(L349–50)
- (d) *Direct speech constructions* All embedded direct speech (including
thought) must be expressed as object of the verb *alä* 'say':
- (89) *bet-e bä-dähna darräs-ku al-ä*
house-poss.1sg in-safety arrive.past-1sg say.past-3msg
'he said "I arrived at my house safely."'
- If another verb of speaking is needed in the main clause, direct speech must
still be an object clause with *alä*, itself in consecutive-clause (converb)
form (see below, 12.4.3) as object of the main-clause verb:
- (90) *bet-e bä-dähna darräs-ku bəl-o*
house-poss.1sg in-safety arrive.past-1sg say.ger-3msg
ast-awwäq-ä-ññ/nägaggär-ä-ññ
caus:refl-know.past-3msg-obj.1sg/tell.past-3msg-obj.1sg
'"I have arrived at my house safely" (saying) he told/informed
me.'

The direct speech construction is very widely used in Amharic, and in the preceding example a direct speech construction is much more likely to be used than one of the indirect speech constructions corresponding to ‘He informed/told me that he arrived home safely’, such as the one cited in (89). In fact, a wide variety of purpose and content clauses are expressed using direct speech constructions where European languages would use a subordinate object clause:

(91a) *dabbo ə-gäz-allä-hu bəl-o suq hed-ä*
 bread 1sg-buy.pres-aux-1sg say ger-3msg market go.past-3msg
 ‘he went to the market to buy bread (lit. “I will buy bread”
 he-saying he went to the market)’

(91b) *dabbo ə-gäz-allä-hu bəyy-e suq hed-ku*
 bread 1sg-buy.pres-aux-1sg say ger-1sg market go.past-1sg
 ‘I went to the market to buy bread (lit. “I will buy bread”
 I-saying I went to the market)’
 (cf. L750)

kubbanəyya-w wəl-u-n al-(ə)särrəz-əmm
 company-def contract-def-acc not-(1sg)-annul.pres-negenc
al-ä
 say.past-3msg
 ‘the company refused to annul the contract (lit. the company
 “I will not annul the contract” said).’
 (L778)

4.12.4.3 *Conjunction and consecutive constructions*

Akkadian Akkadian has two conjoining constructions: (1) *X u Y*, where *X* and *Y* can be either clauses or clause constituents, where *X u Y* is logically and semantically equivalent to *Y u X*, and where *u* might be glossed ‘and also / but also’ (i.e., there is no separate expression for ‘but’ as opposed to ‘and’); (2) *X-ma Y*, where *X* and *Y* must be clauses and *-ma* is encliticized to the clause-final verb or predicate, where *X-ma Y* is not logically and semantically equivalent to *Y-ma X*, and where *-ma* might be glossed ‘and/but so / and/but then’ (note that in a non-clause-conjunction context *X-ma* can be a means of foregrounding a sentence constituent: *šarrum-ma illik* ‘it is the king who went’). This distinction is nicely made and illustrated in H49–51:

- (92) *bīt-am i-ššur-ū u kasp-am itti*
 house-acc 3m-keep(*nšr*).past-pl and silver-acc from
šarr-im i-mxur-ū
 king-gen 3m-receive.past-pl
 ‘they kept the house and-(also) they received silver from the king’

vs

- (93) *bīt-am i-pšur-ū-ma kasp-am itti šarr-im*
 house-acc 3m-sell(*pšr*).past-pl-conj silver-acc from king-gen
i-mxur-ū
 3m-receive.past-pl
 ‘they sold the house and-(then) they received silver from the king’

Hebrew Biblical Hebrew has a specialized inflectional verb form that indicates sequential events, especially those that constitute the plot of a story. These are expressed with the prefixed past tense, which is a fusion of a conjunction (*waC-*) and a verb:

- (94) *wat-táhar wat-téleð ?eθ qáyin*
 conj-she.conceived conj-she.bore obj Cain
 ‘She conceived and bore Cain.’

This fused consecutive prefixed-past verb form must always be first in its clause, and any verb that is not clause-initial, either because another word is topicalized or because the clause is negated, must be in the suffixed past rather than in the prefixed past. Actions or states that are not the next event in the plot sequence but are rather background information or are simultaneous with the previous clause will be expressed with ~~one of these structures,~~ a suffixed past or a participle – and not the prefixed past. In the following examples, the prefixed past verbs and their glosses are underlined, and suffixed past verbs are marked ‘past’:

- (95) *way-y-āvó?-u šné ham-mal?áxim sđóm-á bāšérev*
conj-3m-enter-pl two def-angels Sodom-to in.the.evening
w-lót yošév b-šášar sđóm way-y-ár lót way-y-áqom
 and-Lot sit(pcpl) in-gate Sodom conj-3m-saw Lot conj-3m-rose
liqrāθám way-y-ištáhu
 towards.them conj-3m-bowed
 ‘The two angels entered Sodom in the evening, while Lot was sitting in the gateway of Sodom; Lot saw them and rose to (greet) them and bowed.’
 (Genesis 19:1)

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- (96) *way-y-irʔ-ú ʔeħáw ki ʔoθó ʔāháv ʔāvihém*
conj-3m-saw-pl his.brothers comp him loved(past.3msg) their.father
mikkəl ʔeħáw way-y-isnʔ-ú ʔoθó w-lo
of.all his.brothers conj-3m-hated-pl him conj-neg
yāxl-ú dabbr-ó l-šālóm
able(past)-3pl speak-him for-peace
'His brothers saw that his father loved him more than all his brothers and (so) they hated him and could not speak with him peaceably.'
(Genesis 37:4)
- (97) *wa-y-qanʔ-u vo ʔeħáw, w-ʔāvív šámár*
conj-3m-be:envy-pl him his.brothers, conj-his.father kept(past.3msg)
ʔeθ had-dāvár
obj def-matter
'His brothers got jealous of him, but his father kept the matter (in mind).'
(Genesis 37:11)

Arabic Arabic, like Akkadian, has a distinction between two conjunctions: *wa-*, which links constituents that are parallel or simultaneous, and *fa-*, which links constituents that are sequential. Thus *fa-* may imply:

temporal sequence

- (98) *ša:r-at al-mawta fa yalab-at-hu*
wrestled-3fsg def-death conj overcame-3fsg-3msg
'She wrestled with death and (then) defeated it.'

causal consequence

- (99) *lam yastaʔiʔ ʔan yataʕa:wana maʕahu fa istaqala*
neg.past be.able comp cooperate with.him conj resigned
'He was unable to work with him and (so) he resigned.'

logical reason

- (100) *šammamat ʔan tuxbira muħammad fa huwa xaʕi:buha:*
she.resolved comp she.inform Muhammad conj he her.fiancé
'She resolved to tell Muhammad, for he was her fiancé.'

In contrast, *wa-* often marks a temporal clause indicating simultaneity (often marked, as in Hebrew, by the presence of a preverbal phrase, noun, or pronoun):

- (101) *yatana:walu ʕaʕa:mahu wa ʕala: raʕsihi ħa:risun*
he.receives his.food comp on his.head guard
'He receives his food while a guard is (standing) over his head.'

- (102) *ma:t-at wa hiya t-alidu*
died-3fsg conj she 3fsg-give.birth
'She died while giving birth.'

Mehri The conjunction *wə- ~ u-* (< *əw?) is used for both clause and clause-constituent conjunction:

- (103) *ʔagb-ək b-īs wə-sē ʔagəb-ōt b-ay*
love.past-1sg in-obj.3fsg conj-pro.3fsg love.past-3fsg in-obj.1sg
'I fell in love ith her, and she fell in love with me.'
(R236)

Geez Ordinary clause and clause-constituent conjunction are formed with *wä-*. With foregrounding enclitics such as *-ni* 'even' and *-əssä* 'on the one hand', various conjunctive and adversative effects are possible:

- (104a) *bä-kämä bä-sämay wä-bä-mədr-ni*
in-as in-heaven and-in-earth-fgenc
'on earth as it is in heaven'
- (104b) *qal-əssä qal-ä Yaʕqob wä-ʔədäw zä-ʕesaw*
voice-fgenc voice-const Jacob and-hands poss-Esau
'as for the voice, it is the voice of Jacob, but the hands are of Esau.'

The 'and-so/then' consecutive construction uses the infinitive-like converb ('gerund', base-stem form, CäCiC-) in a structure . . . Converb-Accusative-Possessive-suffix before a main clause structure. The resulting Clause₁ – Clause₂ proposition can signify:

temporal priority of Clause₁

- (105a) *sämiʕ-o* (< *sämiʕ-ä-hu) *Herodəs dängäd-ä*
hear.ger-(acc-)3msg Herod alarm.past-3msg
'Herod heard this and was alarmed (lit. he-hearing, Herod was alarmed)'
- (105b) *həwir-ä-kəmu tə-säʔäl-u*
go.ger-acc-2mp (pass-)ask.imptv-pl
'go and ask (lit. you(pl)-going ask (imptv-pl))'

simultaneity and manner (Clause₁) of Clause₂

- (106) *tä-ʕägis-ä-kä a-ḏməʔ-(ä)ni*
(pass)-patient-acc-2msg (caus)-hear.imptv-obj.1sg
'hear me patiently (lit. you(sg)-being-patient hear me).'

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Amharic Clause constituents can be conjoined in the structures X-(ə)nnā Y, or X-(ə)mm Y-(əmm) . . . :

- (107) *čäw-ənnā bārbārre / čäw-əmm bārbārre-mm*
salt-conj pepper / salt-conj pepper-conj
'salt and pepper'.

Both structures also occur with clauses, -(ə)mm fairly freely for arbitrary conjunction:

- (108) *qän-u-n mulu yə-bäl-all-əmm*
day-def-acc full 3msg-eat.pres-aux.3msg-conj
yə-tät-all-əmm
3msg-drink.pres-aux.3msg-conj
'the whole day he eats and drinks.'
(L726)

The conjunction -ənnā has more restrictions: with compound tenses it has causal semantics:

- (109) *bätam y-aṭän-all-ənnā fätäna-w-ən*
much 3msg-study.pres-aux.3msg-conj exam-def-acc
y-alf-all
3msg-pass.pres-aux.3msg
'because he studies a lot, he will pass the exam.'
(L747)

Even as a conjunction, it more frequently has a connotation of temporal sequence:

- (110) *māṣhaf-očč-u-n yə-yəz-ənnā (**yə-yəz-all-ənnā) wädä təməhərt*
book-pl-def-acc 3msg-take.pres-conj toward study
bet yə-hed-all
house 3msg-go.pres-aux.3msg
'he takes his books and goes to school.'
(cf. L727)

As in Geez, 'and-so/then' conjunction is handled by the very widely used con-verb construction. This can be used both for clauses describing a succession of activities:

- (111) *bält-o suq hed-ä*
eat.ger-3msg market go.past-3msg
'he ate and then went to the market'

and for simultaneous actions:

- (112) *roṭ-o hed-ä*
run.ger-3msg go.past-3msg
'he went running (he-running went).'

In this latter, sense it is practically a kind of complement for verbs of finishing:

- (113) *bält-oč ärräs-ä*
eat.ger-3msg finish.past-3msg
'he finished eating.'

Out of the latter use arise a large number of virtually fixed adverbial expressions, which are usually inflected for person, but which sometimes can be used in a frozen 3msg form, of which a few of the more common are:

- abro* 'together' (from *abbärä* 'join up / be united')**
- (114) *abr-ä-n ənnə-hed-allä-n*
join.ger-1pl 1pl-go.pres-aux-1pl
'we will go together'
- dägmo* 'also, again' (from *däggmä* 'repeat, do again')**
- (115) *gänzäb dägm-o yə-fälləg-all*
money repeat.ger-3msg 3msg-want.pres-aux.3msg
'he also wants money'
- mälləso* 'again, back, in return' (from *tämälläsä* 'return')**
- (116) *mälləšš-e mätta-hu-t*
return.ger-1sg hit.past-1sg-obj.3msg
'I hit him back'
- qädmo* 'before, already' (from *qäddämä* 'advance, be first')**
- (117) *qädmo/qädəmm-e awq-äw*
advance.ger-3msg/advance.ger-1sg 1sg.know.pres-obj.3msg
näbbär
be.past(-3msg)
'I knew him (from) before.'
(L364–74)

Note also the tense forms made out of combination of converb/conjunctive form – above, section 4.7.1.3.