

Literary Old Babylonian

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Preface

This grammatical sketch is the fruit of the work of two students of Akkadian, who have agreed to share their perspectives on the structure of Akkadian with the widest possible audience. It has been our choice to do this in the LW/M series in order to suggest to general linguistics community that an ancient Semitic language has something to contribute to the general study of language no less than any other language, ancient or modern. We have chosen Literary Old Babylonian, which has been neglected in Akkadian studies, as our field of study; this may have value for the Assyriological community as well. Although this study presents a rather unconventional look at Akkadian, and a perspective somewhat remote from the consensus view of Semitic languages in general, we hope that our sketch will nevertheless be of interest, not only for the general linguist, but also for Semitists.

For the general reader and the specialist alike, we humbly suggest that one begin by reading the more general morphological sections, and then go on to the more detailed morphological (and especially) morphophonological discussions. Let the reader accustomed to traditional Semitic linguistics be forewarned: the methodology and views propounded here may make for difficult reading. For example, our description differs from the more common ones in suggesting that the Akkadian root is not purely consonantal, so that any changes involved in the structure of derivatives of roots with vocalic radicals are not to be studied as 'pure' morphology, because they are part and parcel of the morphophonological

As mentioned above, this work is the result of collaboration between two scholars of Akkadian: Shlomo Izre'el, who summarizes here his long years of studying Akkadian, and Eran Cohen, who contributes here his expertise in the syntax of Old Babylonian. Therefore, although this work has been a stimulating work for both of us, cooperative in many senses, we should still acknowledge our differences in presentation, and perhaps in some of the insights. Therefore, the reader should note that chapters 1-3 are the work of Izre'el, and chapter 4 is that of Cohen.

It is our pleasure to acknowledge the support of many scholars and friends whose names are too numerous to mention here, but all of whom deserve deep appreciation for what we have learned from them. Still, we cannot forget the academic and personal hospitality of Marcel Sigrist at the École Biblique in Jerusalem, and the group of scholars and students many years ago, who read Literary Old Babylonian texts together, and enhanced our understanding of the texts and their language. Also, from Harvard University (and its vicinity...), among those who deserve special acknowledgment are Tzvi Abusch, Jo Ann Hackett, John Huenergard, Peter Machinist, and Piotr Steinkeller. Thanks are due also to the Groningen Group for the Study of Mesopotamian Literature: Bendt Alster, the lamented Jeremy Black, Jerrold S. Cooper, Brigitte Gronenberg, Anne Kilmer, Piotr Michalowski, Marianna Vogelzang, Herman L. J. Vanstipout, Joan Westenholz, and Franz Wiggermann. Thanks are also due to many good research assistants at Tel-Aviv University and others who helped in the computerization of the texts and the philological and grammatical comments during many years of study. This work was supported by grants from the Israel Science Foundation administered by The Israel Academy of Sciences and Humanities. We further thank Eitan Grossman, our copy editor, who used his good linguistic skills to ensure that our ideas are expressed clearly. We are indebted to Zvi Lederman for drawing the map.

Most of all, however, our thanks go to our students, who have proved to us that a grasp of the structure of the language releases them from learning tons of paradigms, making them ready for a new and eye-opening understanding of texts.

The authors

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Grammatical abbreviations

1	first person
2	second person
3	third person
AB	absolute
ABS	abstract
ADJ	adjective
ADV	adverb
ASV	asseverative
ATT	attributive
X _C	construct
CMP	completive
CONN	connective
D; D	D class; length (doubling) morpheme
DAT	dative
DIR	directional
DU	dual
F	feminine
FOC	focus
IMP	imperative
INF	infinitive
IPV	imperfective
IRR	irrealis
LADV	locative-adverbial
M	masculine
MOD	modal
MOD _{NEG}	negative modal
N; N	N class; <i>n</i> morpheme
N-X	non-x
N _C	construct pronominal nucleus (head)
NEG	negation, negative
NOM	nominative
OBL	oblique
PC	perfect
PL	plural
PREC	precative
PRED	(participial and substantival) predicative
PRON	pronoun
PTC _A	active participle
PTC _{ST}	stative participle
PV	perfective
R; R	detached reduplication class; reduplication
RQ	rhetorical question
Š; Š	Š class; <i>š</i> morpheme
SG	singular
SJ	subject
SUB	subordinative

T, T	<i>t</i> morpheme
TADV	terminative adverbial
TN	<i>tn</i> morpheme
TOP	topic
VOID	void element

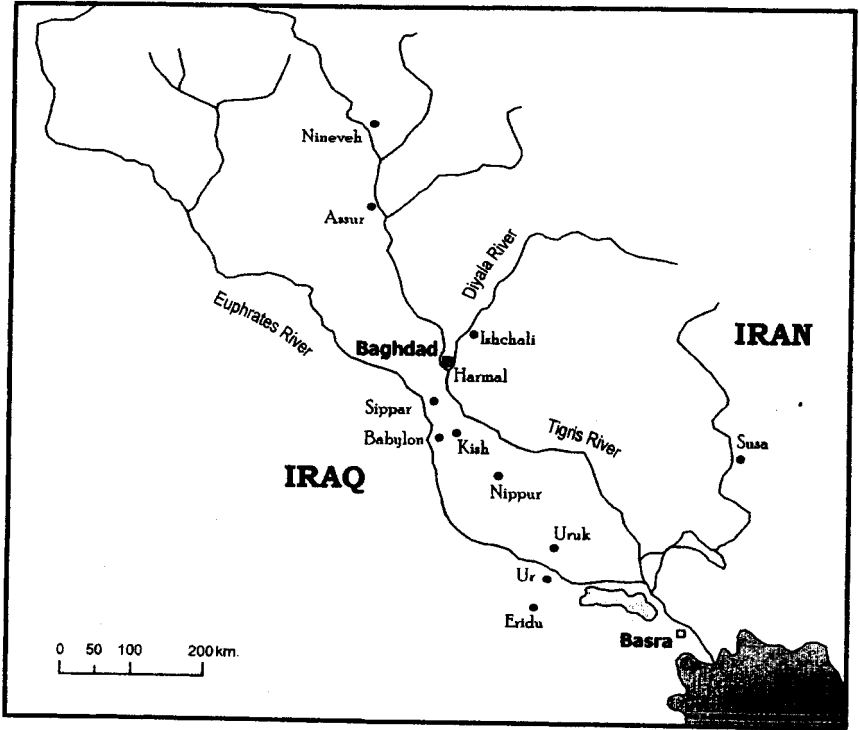
Other abbreviations

ex(x)	example(s)
OB	Old Babylonian
LOB	Literary Old Babylonian
EOB	Everyday Old Babylonian

For **bibliographical abbreviations** and the corpus see pp. 115-117.

Symbols

√	root
'	hiatus (syllable break; mostly left unmarked)
< >	graphemic unit or string (may be left unmarked)
//	phoneme or phonemic string (mostly left unmarked)
{ }	— morphemic string (for analyses; usually within transcription) — syntactic string — in morphophonemic rules: displays possible elements (separated by commas) in a given environment
[]	— indication of restored cuneiform characters, in whole or in part or parts of them, a situation caused by a break in the tablet or by mutilated surface — (restored or actual) pronunciation
⌈ ⌋	indication of partly restored cuneiform characters (transliteration only)
←	structural change (synchronic level) or passage from morphemic to phonemic representation
<	diachronic change
*	reconstructed form
◦	form unattested in the studied corpus but known from other OB texts
~	— variation — in glosses: connects elements that are included in a stem
+	low level (morphemic) boundary
≠	medium level boundary
#	any higher level boundary (usually marked by space)



Map of Ancient Mesopotamia

0 Introduction

0.1 General background

Akkadian, the eastern branch of the Semitic linguistic family, is the common name given to a cluster of languages and dialects used in Mesopotamia and beyond from the middle of the third millennium BCE to the third century CE. This was also the name by which the population of ancient Mesopotamia referred to their language (in the adjectival form *akkadu:*, feminine *akkadi:tu*). Until the beginning of the second millennium BCE, the Akkadian dialects were in close contact with Sumerian, a language of unknown genetic affiliation. As the language of one of the prominent empires of the ancient Near East, Akkadian served as the lingua franca of the entire region, notably during the second millennium BCE, documented from Egypt and Anatolia in the west to Iran in the east. By the middle of the first millennium BCE, Akkadian was replaced by Aramaic, but still continued to serve in the written medium to varying extents for several more centuries.

In the third millennium BCE, there are two main branches attested: Old Akkadian, named after the kingdom of Akkad, and Eblaite, termed after the Syrian city Ebla. During the second and first millennia BCE, Akkadian consists of two main branches, Babylonian and Assyrian. These two branches are commonly classified into three main chronological periods: the old period, until the middle of the second millennium; the middle period, in the second half of the second millennium; and the new period, which lasted until the fall of the great empires of Assyria and Babylonia, ca. 600 BCE. After Akkadian was no longer spoken, Babylonian was still used in academic circles, termed accordingly, Late Babylonian. Old Babylonian, the language of Babylonia at the time of King Hammurabi, was highly esteemed by the scribes of Mesopotamia until the late period. It is hence on the Literary Old Babylonian that the literary standard of both Babylonia and Assyria was based (termed, accordingly, Standard Babylonian).

0.2 The state of the art

The study of Akkadian goes back to the mid-19th century, following the decipherment of the cuneiform script. The discovery of this hitherto unknown Semitic language was followed by the publication of grammars that leaned on contemporary knowledge of the known Semitic languages: Hebrew, Arabic and Aramaic, and Old Ethiopic. It was comparative and historical approaches that initiated the study of Akkadian, and until today, the majority of Akkadian grammars are written as reference books, still dominated by traditional methodologies. Thus, von Soden's *Grundriss der Akkadischen Grammatik*, compiled in 1952 (with additional material in editions from 1969 and 1995), is still the standard grammatical tool in the field of Assyriology. Moreover, while it aspires to synchronic descriptions, in practice, the study of Akkadian is based mainly on a diachronic point of view. This perspective has been used in textbooks of Akkadian for many decades, and it still dominates Akkadian studies today. The first attempt at a synchronic, structural description of an Akkadian variety, Erica Reiner's *A Linguistic Analysis of Akkadian* (1966), a study of the phonology and morphology of literary Babylonian, has not succeeded in changing views among Akkadian scholars. A second attempt was published only 30 years later by Giorgio Buccellati, whose *A Structural Grammar of Babylonian* (1996) provides a more complex view of the structure of Babylonian, including also a study of syntax.

0.3 Aim and scope

Since Akkadian constitutes a continuum of languages and dialects documented over a huge span of time and a large geographical area, it is impossible to draw a coherent structural model from the data at hand. The result of such an endeavor can be no more than a compilation of linguistic features. Furthermore, it is erroneous from the theoretical point of view: while one can describe changes in any individual feature or set of features, a long-term overview of a changing linguistic structure cannot succeed at this time. Any language or linguistic variety, be it modern or ancient, can and must be viewed upon and described synchronically in a systematic, structural way.

As mentioned above (§1.1), Old Babylonian (henceforth: OB) was highly esteemed by the scribes of Mesopotamia to such an extent that they based the literary standard of Semitic Mesopotamia upon it for many centuries. The description of Literary Old Babylonian (henceforth: LOB), i.e., the language of literary texts from the OB period, was thus chosen to be our research goal. Despite consisting of texts from different times and periods, it nevertheless constitutes a relatively coherent corpus.

We have further decided to attempt a model of the grammar of a more confined corpus of LOB; therefore we have limited our corpus to texts containing mythological narratives. Apart from their two main textemes, narrative and dialogue (§4.5), these texts may include hymnic parts of varying length. Research on both epic-mythological texts and hymns have long shown that in spite of obvious differences, their linguistic structures have many common features, notably in morphology, to the extent that the register has been termed 'the hymno-epic dialect'.¹ Still, we call attention to the fact that the designation LOB is more limited than what may be initially implied from this term, and includes a more coherent, yet smaller corpus than the entire literary corpus of the Old Babylonian period.

Structural variation, as one can infer from these texts, is commonplace in every linguistic community. The same applies to a corpus of written texts of a similar genre used in a given single period. Needless to say, written language tends to conceal variation, and standard literary varieties all the more so. Still, some local variation can be ascribed to scribal traditions, to dialectal differences, and to diachronic change; this can be regarded as synchronic variation, of the sort that occurs in any linguistic continuum, whether living or dead, spoken or written. This is traceable mainly in the morphophonological and morphological domains. It is more difficult to isolate non-stylistic variation in the syntactic domain. In a few cases, variants may reveal spoken or dialectal features or forms that do not usually surface in a highly standardized written language, much less in a literary standard variety. Attention will be given to variation in the respective sections of this book. Still, due to the state of the art, the syntactic description does not allow for the study of variation at this time.

All in all, we believe that the model presented in these pages reflects — giving due tribute to its inherent variation — a coherent, synchronic structural profile of the language of our corpus. Considering the state of the art as well as the frame and goals of this series, we have confined ourselves to giving an understandably dense model of the language and defining the basic linguistic strategies of Akkadian as realized in our LOB corpus. Still, we believe that this grammatical sketch gives a view comprehensive enough that the potential

¹Of course, the use of the term 'dialect' for this type of language is a misnomer, since Standard Babylonian is not a *dialect*, viz., a demographically defined linguistic variety, but a contextually defined one.

readers, whether general linguists, Semitists or Assyriologists, will find it useful for their needs.

As this language is also prototypically Semitic, the principles underlying the morphology and syntax of ancient Semitic are revealed as well. As even a glance at the many existing translations of the various Akkadian mythological texts reveals, a vast variety of solutions, sometimes even contradictory, for an entire passage have been proposed. The reason for this lies mainly in the low priority given to pure linguistic analysis of the texts. Astonishing as it may be, this study offers, for the first time, a relatively comprehensive view of the syntax of these texts. It is our hope that this description will allow for a better understanding of LOB texts.

0.4 Technical notes

(1) The transcription of Akkadian used here is the one common to Semitic studies. The IPA equivalents listed in the table below represent the accepted contemporary reading of Akkadian phonemes, rather than any approximated, restored phonetic value. For these, see the respective sections below. A detailed discussion of transliteration and transcription of Akkadian is given in §1.2.

Voiced	voiceless	ejective	other consonants	Vowels
<i>b</i> [b]	<i>p</i> [p]		<i>m</i> [m], <i>w</i> [w]	<i>u</i> [u]
<i>d</i> [d]	<i>t</i> [t]	<i>t</i> [t]	<i>n</i> [n]	<i>i</i> [i]
<i>z</i> [z]	<i>s</i> [s]	<i>š</i> [ʃ]		<i>e</i> [e]
<i>š</i> [ʃ]		<i>l</i> [l], <i>y</i> [j]	<i>a</i> [a]	
<i>g</i> [g]	<i>k</i> [k]	<i>k</i> [k]		
<i>r</i> [r] ²	<i>ḫ</i> [x]			
		ʔ [ʔ; Ø]		

(2) Due to the highly synthetic word structure of Akkadian, a full morphological glossing method will be hard to follow, and in many cases is not really needed, even for the uninitiated reader. We therefore use three ways of glossing, according to complexity: morphological, syntactic and user-friendly. In the following example, the transcription line will be followed by (1) a morphological, (2) a syntactic, and (3) a user-friendly gloss. A combination of methods (1) and (3) will usually be used in the phonological or morphological discussions, where a detailed morphological analysis is needed for only a single word or phrase of a line. Method (2) will be used in the syntactic sections. Lastly, the translation of this line is given.

ki:ma watmu; irtanappudu; ikkišim
 like≠{chick+PL+NOM 3+roam.v.pd~TN~IPV+PLM in+WOOD+ATT}
 when chick.PLM.NOM roam.IPV.3PLM in.wood.ATT

'When the chicks keep roaming in the wood.' (GlgI:17)

Note that the root morpheme (cf. §3.3.1.1) is represented in the morphological gloss line not only by its basic meaning, but also by the root itself.


As for translation, we consistently follow the contextual constraints on meaning, at times at the expense of an easy-to-follow translation. Furthermore, we strive to find appropriate examples from the LOB corpus; examples of our own invention have been avoided.

²Or any other spoken equivalent of *r*.

1 The writing system

1.1 Basics

Akkadian was written in the cuneiform script, which was borrowed from the Sumerian. Having originally developed out of pictographs, cuneiform signs are combinations of wedge-shaped figures (< Latin *cuneus* 'wedge'), pressed into wet clay tablets by a wooden or reed stylus. Akkadian was written left to right and top to bottom, turning the tablet to its reverse side upside down. In multi-column tablets, columns read from left to right on the obverse, and right to left on the reverse. Poetic lines usually coincide with graphic lines. Words are, as a rule, not separated. For an explanation of the transcription and transliteration employed here, see §1.2.

The cuneiform writing system consists of signs which can serve as syllabograms, logograms (which, in tribute to their Sumerian origin, are called Sumerograms), semantic denominators or markers of quantification (the latter two are usually called 'determinatives', and have no phonetic value). For example, the sign  can be read as the syllable *an* (ex. 1), as a logogram for 'god' (transliterated as <DINGIR>, the accepted reading of the Sumerian word for 'god'; ex. 2), or as a semantic denominator for the designation of divine names (transliterated as <ḏ> and not pronounced), be they gods (ex. 3) or deified humans (ex. 4):

- (1) <*ma-an-nu*> *mannu* 'who' (GlgY:141)
- (2) <DINGIR> *ilu* 'god' (CIA3:10)
- (3) <^d*é-a*> 'Ea' (AgA5:16')
- (4) <^dGIŠ> 'Gilgamesh' (passim)

When designated logographically, a word can be designated by either a single sign (as in ex. 2) or by a combination of several signs. The following example represents a single noun 'chair' by three signs, the first being a semantic denominator of wood (or trees):

- (5) <^{DIS}GU.ZA> *kussu* 'throne' (AgA4:1)

Semantic or quantification denominators, like logograms, are usually transliterated by the accepted rendering of their original Sumerian nouns or sign names, and are superscript, in order (1) to mark them as denominators, and (2) to indicate their not being pronounced. They can be prepositive, as in the case of the divine denominator (exx. 3, 4) or postpositive, as in the following two examples, the first (ex. 6) being a denominator of place and place names, the second (ex. 7) a plurality marker:

- (6) <*a-kà-dé*^{KL}> 'Akkad' (Ns1:6')
- (7) <DINGIR^{MES}> *ili*: 'gods' (AhA:193)


Syllabograms can be used as phonetic indicators serving as an aid for the current reading of the phonemic string:


- (8) <KASKAL-na> *ḥarra:na* 'road' (GlgY:252)



Finally, ex. 9 illustrates the range of the types of sign usage: a postpositive semantic denominator for the divine (<^d>), a logographic complex of two signs (<IM.DUGUD>) representing the name of the divine creature Anzu, a postpositive semantic denominator indicating the type of creature, a bird (<^{MUSEN}>), and a syllabogram serving as a phonetic indication of the complete case marker:

- (9) <^dIM.DUGUD^{MUSEN}-am> *anza:m* 'Anzu' (GlgN:11)

Numerals are written either syllabically or iconically. In the latter case, a mathematical approach was used:

(10)  '26' (CIB6:3)

(11)  600.600 (60·10+60·10) '1200' (AhA:416)

The main counting units of the Babylonians were 10 and 60, which, as is clear from the examples above, is reflected in the script: the sign  is used for both '1' and '60'; the sign  indicates '10'.

Cuneiform syllabograms as attested in the LOB corpus can be *V*, *CV*, *VC* and *CVC*.³ Not all *CVC* syllables have representation in the syllabary. Not all closed syllables have equivalent *CVC* signs. In any case, any closed syllable can be written either by a single syllabogram *CVC* or by a sequence of two syllabograms *CV₁-V₁C*. This is true for closed syllables that have an optional written representation by a single sign, whereas syllables without such an option are always spelled by a sequence of more than one sign. Note the following examples, where in the first instance the last syllable of the word *ipaššar* 'he is making clear' is written by a *CVC* sign, while in the second it is written by a *CV₁-V₁C* sequence, viz., <ša-ar>:

(12) <i-pa-aš-šar> (GlgP:1)

<i-pa-aš-ša-ar> (GlgSB:13)

Syllabic boundaries are usually indicated clearly by the sequence of signs used. In the following example, the first two syllables and the last one are closed. The first is written by a single syllabogram of the type *VC* (*is*), the second and the last by a sequence of two syllabograms: *CV₁-V₁C* (*sà-ak* and *ra-am* respectively). The next syllable is open, and it is spelled by a syllabogram of the type *CV* (*ká*).

(13) <iš-sà-ak-ká-ra-am> ||i|š|sà-ak|ká|ra-am|l|l| issakḫaram 'he spoke' (AnzA:8)

So-called broken spelling, i.e., a sign sequence of (*CVC*-*V*(*C*)), is very rarely found, except in morphemic boundaries. In such cases, the syllabic boundary does not overlap with the respective sign boundaries:

(14) <iš-sà-ka-r-am> issakḫaram ← issakḫar+am 3+speak√skr~T~IPV+DIR
'he spoke' (GlgP:2)

Whenever the sequence *CV₁-V₂C* occurs, it means that there is a syllabic boundary between the two vowels. For examples see below, §2.2.3.

Cuneiform writing can mark long vowels by an additional sign of the type *V*. This addition of a vowel is termed *plene spelling* or *plene writing*, and is optional. The following are two different spellings of the same noun, one plene, one lacking the extra vocalic sign:

(15) <ši-i-ra> ši.ra flesh+CMP 'flesh' (EtnS:4')

<ši-ra-am> ši:ram flesh+CMP 'meat' (GlgX1:2')

It may be noted that we draw conclusions about the second form from examples of the first sort. Plene writing is more frequent in words containing historically contracted vocalic strings (ex. 16), in marking contracted vowels across external morphemic boundaries (i.e., not within a stem; cf. §§3.1, 3.3.1; ex. 17), and also seems to be favored as routine spelling of some individual words or forms (ex. 18):

(16) <ša-a-šim> ša:šim ← šua:šim 3SGM_{DAT} '(to) him' (AnzA:26)

(17) <ša-nu-ū> banu: ← banii+u: create√bni~PTC_A+3PLM_{SJ} 'had not been created'
(EtnM1:9)

but not <ša-ak-nu> šaknu: (← šakin+u:) set√škn~PTC_A+3PLM_{SJ} 'were set' (EtnM1:12)

³Bisyllabic values are rarely attested in other Akkadian corpora.

- (18) <š_u-ú> š_u: 3SGM_{NOM} 'he' (GlgP:160)

A combination of broken vocalic sign sequence with what seems to be an indication of vocalic length is also attested:

- (19) <ti-a-am-tim> ti'a:mtim sea+ATT 'sea' (AhA:15)

It is usually assumed that this type of plene writing does not indicate vocalic length but rather a glottal stop (cf. §2.2.3). This is evident in cases where length is not expected in the second syllable but in the first one, as in:

- (20) <ni-ki-a-am> ←ni-ki'am ←ni-ki:am ←ni-ki:+am offering+CMP 'offering'
(AhC5:36)

Syllables including 'weak' consonants ², *w*, and *y* are usually represented by signs that do not distinguish their vowel. Thus ~~𒌷~~ can be rendered as *w* with any vowel, and so forth. The sequence <a-a> stands for Vy(yV):

- (21) <a-a-ia-am> ayya:m 'which' (Sin7:7')
(22) <ša-a-a-ḫa-tim> ṣayyaḫa:tim 'delightful (foods)' (GlgP:153)

Consonant doubling can be marked by the sequence(C)VC₁-C₁V(C). Like the representation of vocalic length, the (explicit) marking of consonant doubling is optional, although it is marked more frequently than vocalic length. Ex. 23, where doubling is left unmarked, may be compared to both forms in ex. 12, where consonant doubling is marked by an additional VC sign, in this case *aš*.

- (23) <i-pa-šar> ipaššar 'he is making clear' (GlgP:44)


In the OB period, the use of CVC-type syllabograms is quite rare, and their use is usually confined to specific words. Only a few CVC syllabograms, notably CV*m* syllabograms, are used more frequently. This is also the case in our texts. The latter are routinely used in nouns in word-final position, representing a syllable closure by *m* in case markers and other affixes (§§2.4.4.6-7, 3.3.2.3). The use of such syllabograms is common in this position, even after the time this final *m* had already been deleted. Therefore, variation between CV*m* and CV syllabograms in similar position is attested, e.g.:

- (24) <i-lu> ilu god+NOM 'the god' (AhA:71)
<a-wi-lum> awi:lu man+NOM 'man' (AhA:191)

This type of variation may be the result of scribal habits in writing individual words. As transcribed, the second form is interpreted as though the final *m* is unrealized; thus, the final sign might be transliterated *lu₄*, to reflect this interpretation. However, since mimation is subject to a high rate of variation in our texts (§2), we tend to transliterate this (and similar signs) with final *m*. This practice is not idiosyncratic, but is rather an established tradition in Akkadian studies.

The number of signs listed in exhaustive sign lists for Akkadian studies is about 500. This is the total number of graphemes known to us from the entire space-time continuum of Akkadian writing; however, not all signs were used simultaneously in all sites at any given time and by all contemporary scribes. Our LOB corpus attests less than 200 signs altogether, of which only three quarters were used for syllabic writing, with only about a hundred in frequent use: 85 CV and VC syllabograms and 17 CVC ones (12 of which are CV*m* signs). The rest were used for logograms and conventional spellings of some specific words, especially of proper names. For example, note the sign LÍL, used in our corpus only for writing the divine names Enlil (<en-lil>, GlgP6:240) and Ninlil (<nin-lil>, SIN7:8'), as well as for the abstract noun derived from the male deity name:

- (25) <[en]-lil-lu-tam> *enlilutam* Enlil+ABS+P+CMP 'Enlilship' (AnzA:1)

Cuneiform signs are polyphonic or polysemic, and may have many syllabic and logographic values. For example, the sign , when used as a logogram, can designate, *inter alia*, the word for 'sun' or 'sun-god' (Akk. *šamšu(m)*, transliterated as UTU; ex. 26) and the word for 'day' (Akk. *umu(m)*, rendered as UD; ex. 27):

- (26) <^dUTU-ši> *šamši* 'the sun' (GlgX4:11)
 (27) <UD.'7'> *sebet umi*: 'seven days' (GlgP:48)

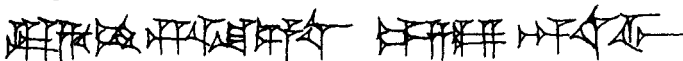
It can also form part of a logographic complex, e.g., in the logographic string used for designating 'silver', where this sign is now rendered as BABBAR:

- (28) <KÛ.BABBAR-am> *kaspa(m)* 'silver' (Nw:R15)

As a syllabogram, this sign may stand for as many as 20 syllabic values, including *ud*, *ut*, *uṭ*, *tam*, *ta*, *tu*, *pir*, *par*, and so on. Not all values for any individual sign were necessarily used simultaneously throughout the entire space-time continuum of Akkadian.

1.2 Transliteration and transcription

Akkadian texts are usually published in transliteration, i.e., each cuneiform character is given a value that approximates a suggested ad-hoc reading in its immediate context. In signlists, each cuneiform sign is given a name, which is usually regarded as its main value. These names are usually given in uppercase, roman characters, and are used not only for discussions, but also within transliteration, wherever an actual reading is unknown or doubtful. Linguistic studies require transcription, where the phonemic string (or an approximation thereof) replaces the transliterated string of cuneiform signs (cuneiform by W. G. Lambert; George 2003: II: plate 18). In the first line of the following example, each cuneiform character is given first its list name. The second line represents the cuneiform characters in the transliteration, where each character is given its value as appropriate to the context given. The third line represents transcription. These are followed by (morphological) gloss and translation:




UR	ḪA	AM	RI	KI	E	UD	PI	ŠA	Ú	AN	UD	IGI
<i>ur-ḫa-am</i>			<i>re-ké-e-tam</i>				<i>wa-ša-ú</i>			^d UTU-ši		
<i>urḫam</i>			<i>re:ke:tam</i>				<i>waša:u</i>			<i>šamši</i>		
way+CMP			far+FF+NOM				go-out+uši~INF+NOM			≠SUN+ATT		

'The distant road, where the sun rises.' (GlgX4:11)

Transliteration, which will be used in this study whenever needed to support a given transcription, is set off by angle brackets.

While cuneiform writing does not usually indicate word division, the usual practice in Assyriological transliteration is to separate words by spaces. Hyphens connect syllabograms within a word, while signs belonging to the same logographic complexes are combined by dots. Akkadian sign values or words are printed in lowercase, italic characters (*gilgameš*), whereas Sumerograms are printed in uppercase, roman characters (GIŠ). Finally, semantic denominators or quantifiers are usually marked by superscript characters (^d; §1.1). The issue of defining a word is discussed in §3.1.

As already indicated above (§1.1), polyphony is a notable feature of Akkadian writing, and many signs can be rendered in more than a single way. Notably, (C)VC signs do not distinguish voiced, voiceless, and emphatic consonants (§2.1.1). Thus,  can be rendered

as one of the three possibilities: /ad/, /at/ or /at/; ~~𒀭𒀭~~ can be rendered by /uz/, /us/ or /uʃ/, and so on. Some of the CV(C) syllabograms also lack this distinction, as in the case of ~~𒀭~~ for either /bu/ and /pu/, or, depending on the scribal tradition, and ~~𒀭𒀭~~ can stand for either /zi/, /si/ or /ʃi/.

The transliteration system uses diacritics or numbers to distinguish between different signs with the same value. When the sign ~~𒀭~~, of which the given basic notation is *zi*, serves to designate /si/, it is given a diacritic in the form of an acute accent: *śi*, to distinguish it from the sign with the designation *si*, viz., ~~𒀭~~. The first two alternative signs for each value are marked by diacritic marks, and subscript numerals are used for any further such sign, e.g., < = *u* (read: *u* one), ~~𒀭𒀭~~ = *ú* (read: *u* two), ~~𒀭𒀭𒀭~~ = *û* (read: *u* three), ~~𒀭𒀭𒀭𒀭~~ = *u*₄ (read: *u* four).

There is no orthographic distinction between the vowels *e* and *i* in most syllabograms of the types CV, VC. CVC syllabograms never distinguish between these two vowels. Accordingly, it is quite difficult to distinguish between the vowels *i* and *e*. Scribal traditions differ in their use of syllabograms with high front vowels. Also, this distinction may appear only in certain words, while in others, this distinction is not maintained:

(29) <*be-lí-šu*> *be:li:šu* lord+ATT+3SGM_{ATT} 'his lord' (AhC1:12)

(30) <*it-bé-e-ma*> *itbe:ma* 3+rise+*tbe*~PV+CONN 'she got up' (AhC5:37)⁴

That in the second instance we have to render *be* rather than *bi*, which is the primary rendering of this sign, is indicated by the use of the sign *e* (rather than *i*) for plene writing.

Thus, transliteration of Akkadian cuneiform is not a 1:1 rendering of the individual signs. It is a flexible transliteration, trying to capture the phonemic character of the signs.

2 Phonology

The use of the term 'phonemic system' for a written (and dead) language clearly implies a misnomer. The system of a written medium of a language, although related to its spoken medium, necessarily differs from it. Therefore, it seems appropriate to regard the system as related to graphemes rather than to phonemes. The system is not one of distinct graphic representations, however, but one that correlates linguistic minimal segmental units of a language to graphic representations. It represents the linguistic conception of the set of minimal segmental distinctions in the written language. In the case of a language using a syllabic writing system, the correlation between the phonemic system of the spoken language and the 'phonemic' system of the written language may be much more complex than in the case of a language using an alphabetic or semi-alphabetic script.

In the case of a dead language, where no spoken data exist, one must rely only on the written data at hand, and the underlying system of phonological units may be partially irretrievable. Any representation of such a system is by its very nature a reconstructed one, and reflects a very different system from the contemporary spoken language, even for the original readers of that material in ancient times.

In the case of any of the Akkadian languages, the reconstruction of a phonemic system may rely on clues from the writing system and from analysis of its variants, but it relies mainly on data drawn from: (1) comparisons with Akkadian loanwords in cognate languages, (2) loan words within Akkadian, (3) transcriptions of Akkadian words and names in non-

⁴The enclitic particle, which is used as a conjunction (§§4.4.1-3), will, as a rule, not be translated when interpreting individual words.

Akkadian scripts, (4) transcriptions of foreign names in cuneiform, and (5) comparative and historical linguistic research.

As for LOB, one must note that the texts, as preserved today, may be copies of older tablets, whose source may have been written tablets, dictation or memory. At least in the first case, the original spelling may have been kept, and may thereby reflect an older pronunciation. In the latter two cases spelling may reflect, at least partially, the contemporary oral aspect of the recited text. A salient example of arbitrary variation in spelling between older and newer forms is the spelling of forms with and without mimation in a single text, a feature of the older language (§§2.4.4.6-7):

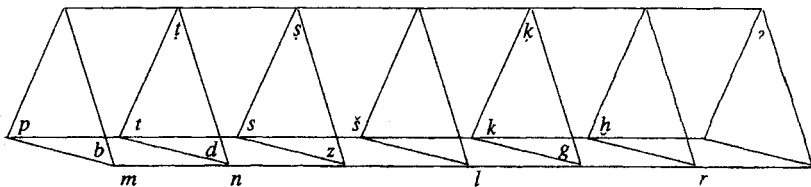
- (31) <it-bé i-ta-wa-a a-na ib-ri-šu>
itbe itawwar ana ibri:šu (GlgSB:3)
 <it-bé i-ta-wa-am a-na ib-ri-[š]u>
itbe itawwam ana ibri:šu (GlgSB:32)
 he-arose 3+*speak*√*auu*~*ṭ*~*IPV*+*DIR* to friend-his
 'He arose, he spoke to his friend.'

Mimmed forms seem to reflect an archaic spelling, yet, since they are overtly spelled (for *CVm* signs see above, §1.1), one must regard them as including *m* as an entity of the linguistic system, which may have been still pronounced when reading these texts aloud also in later times.

Given the complexity of the data in this respect, the following description may be regarded as a rough approximation of the phonemic system of LOB.

2.1 Phonemic Inventory

2.1.1 Consonants



The diagram is a schematic representation of the LOB consonantal phonemic system. It is drawn in such a way as to represent the relative proximity of each phoneme to its counterparts, arranged according to place of articulation. It is organized according to the reconstructed relationship between phonemes represented by the writing system and their possible oral equivalents. The diagram is further designed to show relationships between phonemes, where each unit may differ from one or two others only by voicing or glottalization (or, in the case of *m*, *n* and *l*, also by their liquid feature). Glottalization is reconstructed for what is usually termed in Semitic studies 'emphatic' consonants. Glottalization or ejectives is taken as the phonetic realization of emphatic consonants in early Semitic, and, by implication, in Akkadian as well, conforming to the phonetic realization of the emphatic consonants in southern Semitic languages.⁵

⁵Emphatic consonants in Arabic, a central Semitic language, is pharyngalized.

The bilabial phonemes *p* and *b* are distinguished only by voicing, with *m* being their nasal counterpart. *d* is the voiced counterpart of *t*, *t* being the ejective counterpart of both, while *n* is nasal. The same relationship of voiced : voiceless : ejective exists between the respective alveolars *s*, *z* and *š* and between the velars *g*, *k* and *ḳ*. While the correspondence of *r* cannot be reconstructed, structural rules shared between *r* and *h* on one side (§2.4.1.2) and — albeit unattested in our corpus — between *r* and *l* may suggest the relative position of *r* in this chart. Finally, ʔ represents the glottal stop, and is located on the same axis as the glottalized-ejective consonants.

s, *z* and *š* may have been realized as affricates or fricatives, depending on the period. Recent research suggests that Akkadian originally possessed three affricate phonemes, voiced, voiceless and ejective. During the OB period, a process of simplification is thought to have changed the character of these three phones to fricative, first as allophones in word-initial position and when doubled, then in all positions. This variation is a feature of southern Babylonia and is reflected in writing by the use of S-syllables for the fricative and Z-syllables for the affricate variant. In our corpus, this allographic variation is attested in full only in the earliest texts, e.g.:

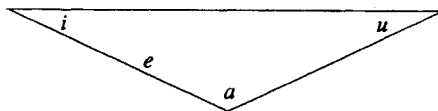
- (32) <i-SI-ru> *isiru*: 'they_m surrounded' (Ns2:1')
 <ku-UZ-ZI-i-im> [kuʔsi:m] /*kussim*/ 'chair' (Ns6:11)

This graphemic variation seems to have remained in scribal traditions, with increasing number of exceptions in later texts. For example, the two consecutive Gilgamesh tablets GlgP and GlgY, probably written by the same scribe as early as the 18th century BCE, already attest to a few exceptions to this rule. Therefore, one may conclude that during most of the period covered by our corpus, the simplification of the respective phonemes was prevalent. Of course, from the phonological point of view it makes no difference whether any single phoneme changes its actual corresponding pronunciation, as long as its systemic status remains the same.

š may have been the voiceless correlate of a voiced fricative lateral phoneme, at least in some positions. This can be deduced, *inter alia*, from a change in the Middle Babylonian period of *š* to *l* before dental stops and sibilants, e.g., *sinništu* > *sinniltu* 'woman'; *ušzi:z* > *ulzi:z* 'he made (someone, something) stand'.

2.1.2 Vowels

LOB distinguishes between four vowel phonemes:



These four phonemes can be established through minimal pairs:

- (33) *ili* god+ATT 'god' (AhA:215)
eli 'on' (GlgSB:33)
ali 'where' (AhA:291)
uli 'not' (Bel8:6')
- (34) *šir* flesh(≠) 'flesh (of)' (AhA:215)
šer(um) morning(+NOM) 'morning star' (GlgP:7)
šar(u) wind(+NOM) 'wind' (AhB1:14)
šur bull(≠) 'bull (of)' (Ad2:3)

The phoneme *e* has complex allophonic relationships with both *a* and *i*. A change of *a*→*e* is effective by the presence of structural *e* within the boundaries of a stem and beyond (§2.4.1.1). A change of *i*→*e* is observed in the environment of *r* and *h* (§2.4.1.2), as well as in other cases (§2.4.1.3).

2.1.3 Segmental length

In addition to consonantal and vocalic phonemes, Akkadian possesses a length segment: with a phonemic status. In the following pair, the first form is the stative participle, the second is the active participle, the distinction being made by length only:

- (35) *šakin* 'it is set' (Er:51)
šakin 'installer (of)' (AnzA:11)

Depending on the environment, this phoneme assumes either vocalic or consonantal behavior (§2.4.8).

Vocalic length is commonly indicated by two distinct markers in Akkadian studies: a macron and a circumflex (e.g., *ā* and *â* respectively). This distinction rests mainly on historical grounds, circumflexed vowels indicating a long vowel resulting from contraction of a sequence of more than two segments. Occasionally, this difference is indicated in script:

- (36) <na-du-ú pa-ar-šú>
nadu *paršū*
 throw\ndi~PTC_A+PLM_{BJ} officē+PL+NOM
 'Offices are withdrawn.' (AhC4:15)

In *paršū*: (=paršū), plain morphological length indicating plurality is not overtly expressed in spelling, while in *nadu*: (=nadū), length originating from contraction (<*nadiiw> is spelled plene. It is questionable whether there was a phonemic distinction or any difference in pronunciation between the two types. Variation between plene and short spelling occurs with all types of vocalic length, e.g.:

- (37) <[b]e-le-et be-le-e-tim> *be:let be:le:tim* lord+FF≠lord+PL+FF+OBL
 'mistress of mistresses' (AgA6:27')
- (38) <e-bé-e-el> *tebe:l* ←*te+be:l* 2+rule\bel~IPV 'you_{SGM} will rule' (Ns6:10)
 <e-'še'-er> *eše:n* ←*e+še:n* 1SG+load\šen~IPV 'I will load' (GlgP:152)

In ex. 37, only morphological length that marks plurality is indicated by plene spelling, whereas (historical) lexical length remains unnoticed in the spelling. Ex. 38 shows variant spellings of the same verbal pattern (IPV), which includes length that is the outcome of contraction. However, both this spelling variation and morphemic analysis suggest that the synchronic distinction between different types of vocalic length cannot be sustained, and in cases where there is spelling differentiation between the two types of vowels, it reflects a distinction which can be assessed only in historical terms. It may well be, however, that 'circumflexed' vowels carried, at least in some environments, word stress (§2.5.1). Since prosodic differences is not a component of the written medium, this grammatical sketch takes as a postulate that there is only one length phoneme. As a rule, the transcription used here tries to adhere to the phonological structure manifested through spelling and (morpho)phonological analyses. See further §2.5.1.

2.2 Variants and sub-phonemic segments

2.2.1 Semivowels

The vocalic phonemes *u* and *i* are realized as semivowels in prevocalic position:

- (39) <uš-we-ed-di> ušweddi 1SG+know√ude~š~D~PV 'I made known, assigned'
(AnzA:49)
<la-wi> lawi encircle√lui~PTC_A+3SGM_{SJ} 'is surrounded' (AhA:71)
- (40) <ia-ti> ya.ti 1SG_{OBL} 'me' (GlgP:13)
<na-pi-iš-ti-ia> napišitiya soul+P+ATT+1SG_{ATT} 'my life' (GlgHB:41)

2.2.2 Realization of the weak consonants ʔ, w, y

Phonemic ʔ may or may not be indicated in script:

- (41) <na-ʔi-ri-im> na:ʔerim (for the convention of transliteration see §2.4.1.2)
(Ns5:02)
<na-e-ri> na:ʔeri or na:eri (EtnM6:3') roar√nʔr~PTC_A+ATT 'roaring'

The second form may reflect the realization of /ʔ/ as \emptyset . Similarly, the first form in ex. 42 may reflect the loss of ʔ at syllable end or its lack of representation in the script. The second form reflects the retention of the glottal stop in the same position.

- (42) <li-né> li:ne: or li:ne:ʔ MOD+3+turn-back√neʔ~PV 'may he turn back' (Ad1:6)
<i-né-eʔ> ine:ʔ 3+turn-back√neʔ~PV 'he turned back' (GlgP:230)

Similarly, the semivowels *w* and *y* (§2.2.1) may or may not be indicated in script. In exx. 44 and 46 one can perhaps assume a change of *w/u*→ \emptyset or *w/u*→ʔ and *y/i*→ \emptyset or *y/i*→ʔ respectively, a change that one can better advocate in ex. 47 (for the representation of ʔ by a vocalic sign, see §2.2.3):

- (43) <lu-we-di> luweddi MOD+1SG+know√ude~D~PV 'I will inform' (AnzA:33)
- (44) <ú-e-de-ši> uwedde:ši or u'edde:ši 3+know√ude~D~PV+3SGF_{OMP}
'he assigned her' (AgA7:16')
- (45) <e-li-ia> eli:ya on+1SG_{ATT} 'for me' (GlgP:8)
- (46) <e-tu-sa-al-li-a> etusallia: ←etusalli:a: (§2.4.2.2)
MOD_{NEG}+2+pray√sli~D~PV+2PL 'do not pray' (AhB2:10)
- (47) <ki-bi-a-am> kibi'am ←kibi:am ←kibi+ \emptyset +am say√kbi~IMP+SGM+DIR 'say_{SGM}!'
(GlgX4:5)

Variants may be dialectal, as in the two following examples, the first similar to a rather widespread allomorph of the 1SG_{ATT} case morpheme (ex. 45; §3.3.4.1), which is rare in this environment (ex. 48); the second is more widely attested in the environment of final *-u* (ex. 49):

- (48) <mu-še-bi-ru-ú-ia> muše:biru:ya cross√ebr~D~PTC_A+PL+NOM+1SG_{ATT}
'my transferrers', 'the ones helping me cross' (GlgX4:22)
- (49) <ma-ru-ú-a> ma:ru:a child+PL+NOM+1SG_{ATT} 'my children' (EtnS:17')

Lastly, beside the already mentioned change of *y/i*→ʔ at the boundary between the stem and the affix of the following forms, a change in the opposite direction of ʔ→*w* can be assumed within its stem; this probably shows that the original weak consonant ʔ had lost its doubling, and perhaps its glottal pronunciation, before having given way to the insertion of a glide at the hiatus (cf. §2.2.3).

- (50) <š_u-wi-a-a>_m š_uwi[?]am ←š_u[?]i:am ←š_u[?]i:am ←š_u[?]ü+am
seek_Nš[?]i~D~IMP+DIR+1SG_{DAT} 'seek for me!' (GlgIM:22)

Doubling of weak consonants is hardly ever indicated in script. In fact, only once in our corpus (ex. 51) is doubling of the glottal stop overtly indicated; exx. 52 and 53 may represent doubling in defective spelling:

- (51) <[li]-ir-[?]ta-a[?]-[?]u-[?][ub]> [l]irta[?]u[b] MOD+3+shake_Nr[?]b~TN~PV
'[may] he tremble' (AnzA:59)
- (52) <ur-ta[?]-a-ab urta[?]ab 3+shake_Nr[?]b~D~T~IPV 'it will enrage' (GlgSB:19)
- (53) <[?]i[?]-a-ad-ru> i[?]adru: 3+dark_Nd[?]r~N~PV+PLM 'they_m became dark' (AhC5:45)

In contrast, the following forms suggest the loss of glottal-stop doubling, and perhaps even a total loss of the consonantal realization of the glottal stop:

- (54) <lu-uš-te-e> lušte, lušte[?]e, lušte[?]e, or (perhaps less likely) lušte[?]e (AhC1:14)
<lu-uš-te-i> lušte[?]i, lušte[?]i, or lušte[?]i (AhC1:17)
MOD+1SG+seek_Nš[?]e~TN~PV 'let me seek'

Doubling of *w* and *y* is never represented in spelling, and it is unknown whether simplification of doubling has occurred in this environment:

- (55) <i-wa-li-id-ma> iw_walidma 3+born_Nuld~N~PV+CONN 'he was born' (GlgP:18)
<a-a-ia-am> ayya_m which+CMP 'which' (Sin7:7)

In this study, doubling of [?], *w* and *y* is always marked so as to enable morphological transparency.

2.2.3 Hiatus and glides

Hiatus is indicated in the script only by the sequence of syllabic signs with different vowels (CV₁-V₂C):

- (56) <š_u-a-ti> š_uati 'him' (GlgX4:20)

It is impossible to tell whether any glide was pronounced in such cases. Possible glides are *w*, *y* and [?]. In some cases, different glides may appear in similar words:

- (57) <ša-ma-i> šama:i (AhA:170)
<ša-ma-a-i> šama:i (Nw:LE)
<ša-ma-yi> (AhC2:35) šama:yi: 'sky'

In the first two occurrences of *šama:i* (the first being the most common way of writing it), either a hiatus without a glide or a [?]-glide may be assumed. In the last occurrence, a *y*-glide is indicated in spelling.

As mentioned above (§1.1), the sign sequence CV₁-V₂-V₂C may indicate the syllabic sequence CV₁-[?]-V₂C. Glides in the form of a glottal stop are indicated thus as well:

- (58) <ir-de-a-am-[?]ma[?]> irde[?]amma ←irde:[?]am+ma 3+lead_Nrde~PV+DIR+CONN
'he led' (GlgSB:43)

2.3 Syllable structure

Possible LOB syllables are V(:), CV(:), V(:)C and CV(:)C. Scholars differ as to whether (C)V:C syllables are permissible. While the question has been posed for Akkadian in general, one may definitely surmise that Akkadian languages and dialects would vary in this respect. As for the LOB corpus discussed here, plene writing suggests that (C)V:C syllables do occur in etymologically, lexically constrained environments (ex. 59), as they

do in morphologically long environments (ex. 60, second vowel) or those indicating prosodic lengthening, e.g., reflecting accent in questions (ex. 61, last vowel) or one that has been constrained by poetic needs (ex. 62, second vowel). CV:C syllables are not limited to word-final position (as in exx. 60, 61, 62), occurring in other environments as well (ex. 59).

- (59) <te_a-e-em-ka> te:mka matter+2SGM_{ATT} 'your reason' (AnzB:6')
 (60) <ši-ma-a-at> ši:ma:t decree+PL+F(≠) 'customs (of)' (GlgP:150)
 (61) <ia-a-ši-im-ma-a> ya:šimma: 1SG_{DAT}+FOC 'is it against me?' (AHA:107)
 (62) <di-iš-pi-i-im> dišpi:m ← dišpim honey+ATT 'honey' (Bell:3)

The evidence for V:C syllables seems to be ambiguous, however. Apparent V(:)C syllables in non-initial position are usually assumed to have a glottal stop at their onset, although this is not necessarily the case, if one can perhaps draw conclusions from the occurrence of open syllables in the same position (cf. ex. 56, §2.2.3). In any case, apparent V:C syllables, marked by plene spelling, usually occur at word-initial position:

- (63) <i-in-ka> i:nka eye+2SGM_{ATT} 'your eye' (Ns5:15)
 (64) <a-aḥ-ḥi-i-ka> aḥḥi:ka brother+PL+OBL+2SGM_{ATT} 'your brothers' (Ad2:3)
 (65) <i-ip-pu-uš> i:ppuṣ 3+do:lepš~IPV 'he does' (GlgP:136)

While in ex. 63, length is etymological, one would not tend to interpret the plene writing in ex. 64 as representing a long vowel, as there is no etymological reason to postulate length in this form. It might seem reasonable to assume that this type of plene writing serves as the index of a syllable onset, as in the case of medial (?)V:C syllables (cf. §2.2.3, ex. 58), at least historically (<'aḥḥ-). This does not, however, seem to be the case with the verbal form in ex. 65, which exhibits a widespread spelling convention of IPV verbs of roots with vocalic first radicals. As other verbal forms are not thus spelled, we tend to interpret these forms as exhibiting actual vocalic length rather than a glottal onset. Since plene spellings of this sort are confined to forms with vocalic personal prefixes (1SG and 3SG), we tend to interpret all other forms as representing short initial syllables (but cf. §2.4.2.6.1, note 7):

- (66) <te-'ep'-pu-uš> teppuṣ ← te:ppuṣ ← ta+eppuṣ 2+do:lepš~IPV 'you_{SGM} will do' (GlgSB:17)

(C)VCC syllables do not occur. A rule of epenthesis operates in order to avoid such strings. Ex. 67 shows epenthesis resolving a CCC cluster. Ex. 68 shows the resolution of a CC cluster in word-final position, in this case the result of the annexation of an apocopated pronominal suffix (§3.3.4.1):

- (67) ši:mtašū ← ši:mt+šū decree+P+3SGM_{ATT} 'his fate' (Ad2:15)
 (68) awatak ← awat+k speech+2SGM_{ATT} 'your speech' (ADA:6)

Clusters may be resolved in varying ways:

- (69) kaḅlaka ← kaḅl+ka battle+2SGM_{ATT} 'your battle' (Ad2:6)
 kaḅalšū ← kaḅl+šū battle+3SGM_{ATT} 'his battle' (AnzA:78)

Rarely, pseudo-epenthesis occurs between the feminine marker *at* (ex. 70) or the plural feminine morphological complex *at* (ex. 71) and a pronominal suffix when the latter is attached to it without the regular mediating case element:

- (70) tanidataša praise+F+CMP+3SGF_{ATT} 'her praise' (AgA2:5)
 (71) ištara:tašin god+PL+P+3PLF_{ATT} 'their goddesses' (AgA2:12)

This text shows what seems to be a dialectal feature, viz., the omission of the vocalic case marker in the PLF, as opposed to the normal procedure in Akkadian (cf. §2.4.3.2). As for the annexation of the 3GF pronominal suffix, it is usually regular (cf. also *ianittaki* praise+FF+2SGF_{ATT} 'your praise', AgB5:25, as well as *tanitki* 'your praise', AgB5:27, which may look like a case of consonant-cluster simplification).

In word-medial position, the epenthetic vowel is *a*; at word boundaries, i.e., when two words are joined to form an attributive construction (§3.3.2.4), it is *i*:

(72) *šimti marti* decree+FF≠land+ATT 'the custom of the land' (GlgP:98)

For other connective vowels in the construct state, see §2.4.3.2.

2.4 Morphophonemic rules

Being an exclusively written, and, moreover, an extinct language, LOB does not lend itself to the analysis of purely phonemic rules: as against the few surface variants listed in the previous sections, all the rules listed below are morphophonological in that even the most widespread of these rules are either confined to some morphological environments or constrained by morphological boundaries.

2.4.1 Non-phonemic *e*

2.4.1.1 The change of *a*→*e*

Any *a* changes to *e* in the environment of structural *e*, both root radicals (e.g., *šme* 'hear', ex. 73; *ekm* 'take-away', ex. 74) and lexically-constrained *e* (e.g., in derivatives of *l_mn* 'bad' or *šhr* 'small', ex. 75). This change affects all *a*-vowels within the boundaries of a stem and further spreads across stem boundaries to affect all non-distinctive vowels in the person and gender morphemes which are adjacent to the stem. It affects the *a* vowel of the gender marker *at* (ex. 76) and all *a* vowels of the personal prefixes of the verb (ex. 73). Among the person markers of the predicative noun, it affects the connective *a*: of the first and second person (ex. 74) and the *a* of the 3SGF (ex. 75), but not the long *a* of the 3PLF or 3DU (cf. the paradigm in §3.3.5.3.1).

(73) *ešme* ←*a*+*šme* 1SG+hear/šme~PV 'I heard' (AhC3:43)

(74) *ekme:ku* ←*ekim*+*a:ku* take-away/ekm~PTC_A+1SG_{S₃} 'I am deprived of' (GlgHA:2)

(75) *lemnet* ←*lamin*+*at* bad/l_mn~PTC_A+3SGF_{S₃} 'she is bad' (AgA8:17')

Cf. *sapnat* ←*sapin*+*at* flat/špn~PTC_A+3SGF_{S₃} 'it is flat' (CIA4:13')

(76) *meše:le:tum* ←*mašeal*+*:at*+*um* (§§2.4.8, 3.3.2.1) sharpened-stone+PL+F+NOM 'blades' (GlgY:33)

Further spread is blocked by morphemic boundaries. Ex. 77 shows an epenthetic vowel *a* following the feminine marker, ex. 78 the completive marker *-am* following an infinitive, and ex. 79 the enclitic particle *-ma* following an imperative verbal form, all unaffected by the structural *e* which forms part of the preceding stem. Note that all three forms testify to the inner-stem change of a pattern vowel *a* to *e* (for the morphological structures, cf. 3.3.1.3).

(77) *ne:rebtašu* ←*naerabt*+*a*+*šu* entrance/erb+FF+3SGM_{ATT} 'his entering' (EtnS:2)

(78) *epe:šam* ←*eapa*:š+*am* do/epš~INF+CMP '(to) do' (GlgY:114)

(79) *nišemme:ma* ←*ni*+šammae+*ma* 1PL+hear/šme~IPV+CONN 'we hear' (GlgY:193)

This word-internal change is usually referred to as vowel harmony. One must note, however, that the change of *a*→*e* is not phonetically constrained, but rather is a structurally determined feature. This is overt in such forms where the only *e* vowel at the surface level

is one that forms part of the pattern ($\leftarrow a$), while the *e* at the morphological level remains beneath the production level and is therefore not overt:

- (80) *išemmu*: $\leftarrow i + \text{šammae} + u$: 3+hear $\sqrt{\text{šme}}$ - IPV 'they_M were listening to' (AhA:77)

A non-structural *e*, i.e., one that is brought about by changes at or closer to the surface structure, does not have this effect:

- (81) *šame*: $\leftarrow \text{šama}$:⁹*i* (cf. §2.4.2.3) sky+ $\text{PL} + \text{OBL}$ 'sky' (AnzA:49)

Also, there are some cases where this rule does not operate, as in the following examples:

- (82) (*e*):*tašmia*: (MOD_{NEG}+)2+hear $\sqrt{\text{šme}}$ - $\text{IMP} + \text{PL}$ '(don't) listen' (AhB8:33)⁶

- (83) ø *semia:ku* or ø *šemea:ku* hear $\sqrt{\text{šme}}$ - $\text{PTC}_A + 1\text{SG}_{S_1}$ 'I have heard'

- (84) *etpušat* do $\sqrt{\text{lepš}}$ - $\text{T} \sim \text{PTC}_A + 3\text{SG}_{S_1}$ 'able' (AgA8:19')

- (85) *uḫappi:am* 3+break $\sqrt{\text{hpe}}$ - $\text{D} \sim \text{PC} + \text{DIR}$ 'he broke' (GilgX4:1)

Example 82 should be compared to the form *ešme* (ex. 73), where the prefix of the person morpheme has an *e* as an allophone of *a*. Example 83, unattested in our corpus, but nevertheless common in OB, being probably a standard formation of the stative-participle inflection of roots with final radical *e*, should be compared to the form *ekme:ku* (ex. 74), where the first radical has affected the change of the rather distant long *a* to *e*. Ex. 84 should be compared to *lemnet* (ex. 75), where the vowel *a* of the 3SG_S marker is affected. The last example (85) should be compared to the following one, which, interestingly, is found in the very same text:

- (86) *tuḫteppi:šunu:ti* 2+break $\sqrt{\text{hpe}}$ - $\text{D} \sim \text{PC} + \text{PLM}_{\text{CMP}}$ 'you_{SGM} have broken them' (GilgX4:24)

Notably, this rule seems to be less operative in verbs of the D and Š classes.

2.4.1.2 $i \rightarrow e / \{r, \text{h}\}$

In the environment of *r* or *h*, the phoneme *i* is realized as *e*. The following examples illustrate the application of this rule in both closed (exx. 87, 88, 90, 91) and open syllables (exx. 89, 92), when the vowel is short (exx. 87, 89, 90, 92 first vowel) or long (exx. 88, 91, 93 second vowel):

- (87) <ga-me-er-tam> *gamertam* end+ $\text{F} + \text{CMP}$ 'destruction' (AhC5:44)

- (88) <e-e-er-ta-am> *te:rtam* instruction+ $\text{F} + \text{CMP}$ 'message' (Ns6:3)

- (89) <na-e-ri> *na:eri* roar \sqrt{n} - $\text{r} \sim \text{PTC}_A + \text{ATT}$ 'roaring' (EtnM6:3')

- (90) <me-eh-rum> *mehrum* equal+NOM 'rival' (GlgP:195)

- (91) <né-e-eh-tim> *ne:htim* calm+ $\text{F} + \text{ATT}$ 'tranquillity' (Nw:R18)

- (92) <me-ḫe-e-ma> *meḫe:ma* storm+ $\text{ATT} + \text{FOC}$ 'storm' (GlgHB:19)

Spelling does not distinguish between *i* and *e* in the majority of cases (§1.2); nor does scholarly transliteration or transcription make this distinction explicit. In some cases, this change does not apply, in conditions that are not yet fully understood (note closed and open syllables):

- (93) <š*i*-i-ir> *š*i*:r* flesh(\neq) 'flesh' (AhA:215)

- <š*i*-i-ra> *š*i*:ra* flesh+ CMP 'flesh' (EtnS:4')

⁶The vowel *e*: in the parentheses has nothing to do with this rule. While reflecting a historical change of **ay* > *e*: in pre-consonantal environment, in synchronic perspective it must be viewed as an allomorph of the negative modal marker (§3.3.5.5).

2.4.1.3 Open questions regarding variation between *e* and *i*

There seems to be further variation between *i* and *e* at a sub-phonemic level. Of course, each dialect may have had a different set of variants. While scantiness of data, the deficiency of cuneiform writing in representing differences between *Ce/Ci* and *eC/iC* syllables (§1.2), and traditional spelling conceal most of the synchronic allophonic variation, the following examples may illustrate the point, even if not allowing serious analyses of the data.

- (94) <el-ti-[?]i> *elti[?]i* 1SG+can~PC 'I could' (GlgP:9)
 (95) <lu-uš-te-e> *lušte[?]e* (AhC1:14)
 <lu-uš-te-i> *lušte[?]i* MOD+1SG+seek√š[?]e~TN~PV 'let me seek' (AhC1:17)
 (96) <ši-mi-a> *šimīa*: hear√šme~IMP+PL 'hear!' (AgA4:23)
 <i-ni-iš-me> *i:nišme* MOD+1PL+hear√šme~PV 'we shall hear' (AhA:214)
 (97) <'ne'-la-ku-šum> *nellaku:šum* 1PL+gOv:l_k~IPV+SUB+3SGM_{DAT}
 '(that) we are going to him' (GlgHA:10)
 Cf. <ni-il-la-ku-šum> *nillakušum* (GlgSB:14)
 <'i-ni-iš'-ku-un> *i:niškun* MOD+1PL+set√škn~PV 'let us set' (GlgHB:017)

Ex. 94 may represent the assimilation of a pattern vowel to the final vowel of the verbal form, a derivative root with a final radical *e*: *alta[?]ie* → *elte[?]ie* → *elte[?]i* → *elti[?]i*. The two forms in ex. 95, which occur, interestingly, in the same text two lines apart from each other, seem to be just two variant spellings of the same form. However, one may think of some difference in function between the two that may have triggered a change in stress and in pronunciation, and consequently, in spelling as well. Ex. 96 shows an interesting recurring variation of *i* and *e* in forms of the same verb in different environments (*e*→*i*/₋+a vs. *e*#). This change is not attested in the following form, which either reflects a different dialect or, perhaps, a morphological spelling:

- (98) <ši-me-a> *šimea*: hear√šme~IMP+PL 'hear!' (AhC8:19)

Lastly, ex. 97 represents what seems to be a dialectal variant. Similar occurrences from this (GlgHA) and other texts from the Diyala region (GlgHB, GlgIS) tend to exhibit *e* in the surface structure in a variety of environments (cf. also ex. 108 in §2.4.2.1). As the form *iniškun* suggests, this alternation is confined to some environments. However, scantiness of data does not allow us to determine the exact conditions for such alternations.

2.4.2 Contact between two adjacent vowels; issues concerning vowel length

2.4.2.1 $V_1+V_2 \rightarrow V_2$: (excluding {*i*, *e*}+a)

In general, whenever two or more vowels appear in sequence, the vowels coalesce into a long vowel, with the timbre of the last one overriding. The sequences *i+a* and *e+a* (where no other vowel comes before *i* or *e*) are usually not affected by this rule. The following are examples of nouns with final vocalic radical followed by case endings (ex. 99), of predicative forms (verbal or nominal; §3.3.5) with vocalic final radicals that override pattern vowels (and their timbre is therefore irremediable) (ex. 100), and of predicative forms with final vocalic final radicals that are overridden themselves by affix vowels (ex. 101):

- (99) *šadu:m* ← *šadi+um* mountain+NOM (GlgSB:6)
šadimma ← *šadi+im+ma* mountain+ATT+FOC (GlgSB:12)
šadi'am ← *šadiam* ← *šadi+am* mountain+CMP (GlgSB:5) 'mountain'
 (100) *liḥdu* ← *liḥdu*: ← *liḥdVu* MOD+3+glad√ḥdu~PV 'let her rejoice' (AhA:290; for the vowel shortening see §2.4.2.5.3)
naṭu ← *naṭu*: ← *naṭVu+Ø* suitable√nṭu~PTC+3SGM_s 'it is appropriate' (GilgX3:24)

- (101) *liḫtadda:m* ← *liḫtandVu+am* MOD+3+glad/ḫdu~TN+DIR 'let her constantly rejoice' (GlgX3:13)
tuhaddi: ← *tuḫaddVu+i:* 2+glad/ḫdu~D~IPV+SGF 'you_{SGF} made happy' (AgB5:10)

Morphologically distinctive vowels may override their adjacent vowels, as is the case with some predicative forms, e.g.:

- (102) *ušapta* ← *ušaptae* 3+open/pte~š~IPV 'he reveals' (AhC6:15)
 (103) *ḫadi* ← *ḫadiu* glad/ḫdu~PTC_A+3SGM_{SI} 'the one who/he is happy' (Er:66)
 (104) *šurpu:* ← *šuurpu* appear/upi~š~PTC_A+3SGM_{SI} 'is apparent' (AgA1:9)

Ex. 103 may be compared to the second form in ex. 100, where the rule operates regularly, probably due to root (lexical) constraints.

In the set of independent personal pronouns (§3.3.4.1), not only the sequence *ia*, but also the sequence *ua*, exists in the non-nominative third person pronouns, as do contracted forms:

- (105) *šua:šim* (GlgX4:20) ~ *ša:šim* (GlgP:232) 3SGM_{DAT} '(to) him'

The change *i/e+a* → *a*: is mostly attested in later periods. Still, variation between contracted and non-contracted forms is attested also in the LOB corpus, which may point to the conclusion that the non-contracted forms were already obsolete in the vernacular-by the time our texts were written down:

- (106) *pi:šū* (AhA:47) ~ *pa:šū* (AhA:85) mouth+CMP+3SGM_{ATT} 'his mouth'
mud:e:at (GlgP:15) ~ *mu:da:t* (GlgP:37) knowing+P(≠) 'she who knows'

Finally, a third root radical *e* may override a final *i*(:):

- (107) <*ši-me-e*> *šime:* ← *šimVe+i:* hear/šme~IMP+SGF 'hear!' (AgA6:19')

Lastly, there is what seems to be dialectal-specific rule of *i+a*: → *e*: in the following form:

- (108) *išbata[n]ne:ti* 3+seize/šbt~PV+DIR+IPL_{COMP} 'he held us' (GlgIS:004')

Cf. the end of §2.4.1.3 for other occurrences of *e* in texts from the Diyala region.

2.4.2.2 *V*: → *V*/_ *V*:

When two long vowels come in sequence, the first is usually interpreted as short, indicating the existence of a rule for the shortening of the first vowel. This procedure seems to be supported by spelling practices and by historical considerations.

- (109) *ibšia:* ← *ibšia:*; ← *ibšVi+a:* 3+be/bsi~PV+PLF 'they_e never existed' (GlgX1:3')

2.4.2.3 *a*:{*V*,?}+i(i) → *e*:

Long *a* followed by a vowel or a glottal stop, when the latter is followed by the vowel *i* of an external bound morpheme (when the vowel is the attributive case or the oblique case; see §3.3.2.3), results in *e*:

- (110) *šate:m* ← *šata:i+im* drink~INF+ATT '(to) drink' (GlgP:8)

This rule is not operative in similar strings within a stem:

- (111) *da:iška* ← *da:iška* ← *d?š~a:i+ka* tread/diš~PTC_A+2SGM_{ATT} 'your destroyer' (AnzB:9')

Archaic (ex. 112) or dialectal (ex. 113) forms may ignore this rule, e.g.:

- (112) *aga:?'i* ← *aga:?'i* crown+ATT 'crown' (Nw:7)

(113) *hata'rim* ← *hata:ri+im* strike √*hti*~INF+ATT '(to) strike' (GlgHB:38)

Cf. also the variation between the forms for 'sky' *šama:'i* ~ *šama:yū* ~ *šame*: (exx. 57 and 81).

2.4.2.4 The person prefixes of the verb

One of the most characteristic environments in which morphologically distinct markers override the general rule of vowel assimilation is the vocalic component of the person prefixes of the verb. There are two environments in which changes in the vocalic components can be discerned: (1) word-initial position of the prefixes; (2) the modal particle *lu* preceding a vocalic verbal prefix.

2.4.2.4.1 Word-initial position

As will be seen below (§3.3.5.4), the person prefixes of the verb are added to a verbal stem that consists of a root, optional stem augments, and a pattern. As all four prefixes (*a-*, *ta-*, *i-*, *ni-*; §3.3.5.3.2) have vowels at their affixation junction, when the first segment of a stem is a vowel, be it a vocalic root radical or the first segment of a pattern, some morphophonemic rules may apply. These rules are not the same for verbal stems beginning with an *u* and for verbal stems opening with any other vowel (*a*, *e*, or *i*). In the latter case, the rule of vowel assimilation operates as usual where the vowel of the person prefix is *a*, and the following vocalic element is realized as length so that the resulting vowel is long:

(114) *atamar* ← *a+atamar* 1SG+see √*amr*~PC 'I have seen' (GlgSB:33)

te:tenepušu ← *ta+etenepušu* 2+do √*epš*~TN~IPV+SUB 'you_{SGM} do' (GlgY:192)

ide ← *a+ide* 1SG+know √*ide*~PV 'I know' (GlgY:231)

When the vowel of the person prefix is *i*, i.e., in the 1PL and third person, the vocalic first root radical changes to length, giving priority to the segment *i*:

(115) *ipulam* ← *iapulam* 3+answer √*apl*~PV+DIR 'he answered' (AnzB:7')

When the initial segment of the verbal pattern is *u*, the vowel of the person prefix is deleted, whether it is a root radical (ex. 116) or a pattern vowel (ex. 117):

(116) *uta* ← *a+uta* 1SG+find √*uta*~PV 'I found' (GlgX2:10')

(117) *ušaklil* ← *a+ušaklil* 1SG+complete √*klil*~š~PV 'I made it perfect' (AhA:238)

That this rule has its exceptions in the OB space-time continuum can be discerned from the following rare forms:

(118) (*i*)*ni:šib* (GlgIM:8)

(*i*)*niušib* (GlgIM:6) ← (*i*+) *ni+ušib* (MOD+) 1PL+sit √*ušb*~PV 'let us sit'

The first form seems to be a naturally occurring form, where the initial root radical *u* did not have the expected effect on the vowel of the person prefix (*nušib*). The second form may represent a clash between the LOB (and general OB) standard and the linguistic standard at that specific site, especially when compared to the following third person form in this very same text, structured according to the LOB standard:

(119) *u:bbalu:nim* ← *i+u:bbal+u:+nim* 3+carry √*ubl*~IPV+PLM+DIR 'they_M bring'
(GlgIM:2)

Verbal inflection, as it seems to have been operative in this dialect, took the regular course of standard Akkadian 1PL and third person inflection with the vowels *a*, *e* and *i*.

2.4.2.4.2 Following the modal particle *lu*

When the modal particle *lu* (§3.3.5.5) comes in contact with a verbal prefix consisting of only a vowel (the third person prefix *i* and the 1SG prefix *a*), the third person prefix *i* overrides both the preceding vowel of the modal particle and any following vowel, while the 1SG *a* is deleted:

- (120) *liddinamma* ← *lu:+i+ndin+am+ma* MOD+3+give\ndn~PV+DIR+CONN
 ‘let him give me’ (AhA:203)
luddinma ← *lu:+a+ndin+ma* MOD+1SG+give\ndn~PV+CONN
 ‘let me give’ (Nw:R16)

This procedure holds also with stems opening with a vowel:

- (121) *limuram* ← *lu:+i+amur+am* MOD+3+see\amr+DIR ‘he can see’ (GlgX1:15’)
lumur ← *lu:+a+amur* MOD+1SG+see\amr~PV ‘I wish to see’ (GlgY:182)

Thus, whereas the vowel *u* overrides the prefix vowel in indicative forms (§2.4.2.4.1), this is not so in forms with preceding *lu*, where *i* prevails in all environments and *a* is deleted:

- (122) *lišassik* ← *lu:+i+ušansik* MOD+3+remove\nsk~š~PV ‘let him remove’ (AhA:42)
lišalbiš ← *lu:+a+ušalbiš* MOD+1SG+clothe\lbš~š~PV ‘let me clothe’ (Er:29)

2.4.2.5 Vocalic root radicals

2.4.2.5.1 First radical

When in word-initial position, vowels other than *u* are deleted when followed by the pattern vowel *u* (of the D class; §3.3.5.4.4):

- (123) *uddulu*: ← *euddulu*: lock\vedl~D~PFC_A+3PLM_{SJ} ‘they_M are locked’ (EtnM1:10)

The vowel *u* of the of the D and Š class patterns (§3.3.5.4.4) assimilates the root vowel (ex. 124), as well as the pattern vowel *a* when applicable (ex. 125):

- (124) *šuriḫ* ← *šuariḫ+Ø* consume\arḫ~š~IMP+SGM ‘devour!’ (AnZA:69)
 (125) *wmmidam* ← *ueammidam* 3+lean\emd~D~PV+DIR ‘he leaned’ (GlgSB:29)

In conformity with the regular behavior of *u* as related to other vowels (see also §2.4.2.4.1), *u* is preserved in the environment of other vowels and, in accordance with §2.2.1, surfaces as *w*:

- (126) *wuttia*: ← *uuttia+a*: find\uta~D~IMP+PL ‘find!’ (Nw:R16)

The semi-consonantal nature of *u* is shown even more clearly when it is assimilated to the infix *i* (cf. §2.4.8). In contrast, *u* as first root radical is deleted in the IMP of the unmarked verb-class (ex. 127), while other vowels are preserved and thus eliminate the need for a supporting vowel that forms part of the pattern in IMP forms of the unmarked class (ex. 128; cf. §3.3.5.4.4):

- (127) *ši*: ← *ušiVi+i*: go-out\uši~IMP+SGF ‘go out!’ (Ad1:6)
 (128) *akul* ← *akul+Ø* eat\akl~IMP+SGM ‘eat!’ (GlgP:96)

Cf. *šukun* ← *šukun+Ø* set\škn~IMP+SGM ‘set!’ (GlgY:221)

In the course of time, *w* in word-initial position, being the semi-consonantal allophone of *u*, is deleted before a vowel. Some late texts from our corpus exhibit this change:

- (129) *ala:dam* ← *wala:dam* give-birth\uld~INF+CMP ‘giving birth’ (AhC7:9)

This rule is described here as synchronic, as it effects variation between forms of the

same root: alongside forms with no overt representation of the initial *u* (*w*), there are other forms in which the root radical *u* remains unchanged when preceding a consonant:

- (130) *ulda* 3+give-birth√*uld*~PV+DIR 'she gave birth' (AhC4:5)

This rule further affects lexical or morphological variation, in that it may affect individual lexemes or forms differently, e.g., while forms of √*uld* exhibit the deletion of *w* (ex. 129), forms of √*ušb* attested in the very same text, do not:

- (131) *wašbaku* sit√*ušb*~PTC_A+ISG_{SI} 'I sit' (AhC3:49)

Lastly, it has its effect on variation in the space-time continuum of LOB:

- (132) *warḥam* (EtnM6:2) ~ *arḥa* (AhA:280) month+CMP 'month' (for the final *m* see §2.4.4.6)

The systemic effect of this change is clear when one compares the following homonym to the last lexeme cited, where *w* has never been part of its root:

- (133) *arḥim* cow+ATT 'cow' (Nw:R12)

For contact between the first root radical and the person prefixes of the verb, see §2.4.2.4.1.

2.4.2.5.2 Medial radical

For the behavior of vocalic medial radicals see §2.4.8.

2.4.2.5.3 Final radical

A vocalic final radical of the root, when it comes in contact with a preceding vocalic pattern element, assimilates it according to §2.4.2.1. If the resulting vowel is followed by yet another vowel, it is assimilated to it (§2.4.2.1). If it is followed by *a*, it is shortened according to §2.4.2.2.

When the resulting long vowel is in final position, a shortening rule is applied. Compare the following forms:

- (134) <*ab-ki*> *abki* ←*abki*: ←*abkVi* 1SG+cry√*bki*~PV 'I cried' (AhC4:10)
<*ib-ki-i-ma*> *ibki:ma* 3+cry√*bki*~PV+CONN 'she cried and' (AhC4:12)

It may well be that this rule did not operate throughout the entire OB space-time continuum, since one finds (admittedly, rarely) forms like the following, which has been taken from a text where other similar forms are present:

- (135) <*i-kā-bi-i*> *iḳabbi*: 3+say√*kbi*~IPV 'she said' (Nw:R13)

Other long vowels are not affected by this rule:

- (136) <*tu-šu-še-ri-i*> *tušu:šeri*: ←*ta+ušu:šer+i*: 2+straight√*šr*~S~PV+SGF
'you_{SGF} did not put in order' (Sin3:6)

- (137) <*ši-i*> *ši*: 3SGF_{NOM} 'she' (passim)

2.4.2.6 Open questions regarding vocalic length

2.4.2.6.1 Shortening of (C)V:C syllables

As mentioned above (§2.3), views differ regarding the existence of CV:C syllables in Akkadian. It has been shown that there are indications that CV:C syllables do occur in our corpus. There is, however, contradictory evidence regarding the shortening of long vowels in closed syllables. The most prominent environment is the verbal prefixes, where most of

the data point towards a conclusion that *CV:C* did become *CVC*, i.e., their vowel shortened:

- (138) <[t]e-ep-pi-ra-nim> *teppira:nim* ← *te:ppira:nim* ← *ta+eappür+a:nim*
 2+provide√epri~IPV+2PL+DIR 'you_{PL} provide' (AhB6:14)
- (139) <lu-uh-sú-us-sú> *lušussu* ← *lu:šussu* ← *lu+ašus+šü*
 MOD+1SG+think√šss~PV+3SGM_{CMP} 'I may think it over' (AhC6:4)

CV-VC being the normative spelling of such forms,⁷ vowels in closed syllables are commonly interpreted as short in this environment. However, the existence of *CV-V-VC* spellings in other environments as shown above (§2.3) may require that we interpret those as reflecting long vowels in closed syllables. Evidence for vowel shortening of *CV:C* syllables in such other environments has been adduced from the rule of vowel deletion, which is inhibited if it may result in the formation of (C)V:C syllables (§2.4.3.1). While such indirect evidence may reflect some constraints on the formation of forms with *CV:C* syllables, it does not seem to allow any firm conclusions regarding the phonemic structure of the language, where *CV:C* syllables seem to be permitted, as is indicated by plene spelling. In short, LOB does not seem to possess a general rule of vowel shortening in closed syllables. As for the verbal domain, morphophonemic rules of vowel shortening in prefixal environments seem valid nevertheless.

2.4.2.6.2 The vowel of the combined modal-person prefix of the verb

It is common practice to transcribe the modal-prefix morphemic complex (§2.4.2.4.2) as having a short vowel, in spite of its being the result of contact between two vowels, of which the first, i.e., the vowel of the modal morpheme, is long. This can be explained as a result of its position as an unstressed syllable or as a closed one. Spelling practices seem to support this claim, since plene writings do not usually occur in this position. Still, plene spelling is very rarely attested in OB texts:

- (140) <lu-ú-ša-aš-te_A-ra-ak-kum> *lu:šašterakkum*
 MOD+1SG+write√štr~š~PV+DIR+2SGM_{DAT} 'that I will write to you' (AbB 3, 88:6)

Contradictory evidence may be adduced from modal forms of roots with *u* as their first radical, where the rule of vowel deletion (§2.4.3.1) is operative, and therefore suggests a short syllable in this position:

- (141) *liblaku* ← *libilaku* ← *li:bilaku* ← *lu:+i+ubilaku* MOD+3+carry√ubl~PV+DIR
 'may he help you' (GlgY:263)

This inflection is standard in OB. By implication, we tend to see all vowels of the combined modal-prefix syllable as short when they occur in closed syllables. When it occurs in an open syllable, we interpret this vowel as long. One piece of evidence can be adduced from the following form, which, despite its fragmentary context, seems to suggest a long vowel for the combined prefix in a verb derived from a root with first radical *u*:

- (142) <lu-ú-ši> *lu:ši* MOD+1SG+go-out~PV 'let me go out' (AhC5:52)

2.4.2.6.3 The modal allomorph *i*:

The modal allomorph *i*: (§3.3.5.5) is commonly transcribed as short. Given the spelling constraint, no plene spelling is possible for vocalic syllables, length for this morph

⁷A highly exceptional form of a root with vocalic first radical is nevertheless attested:

teṛrišanni ← *ta+errišanni* 2+request√erš~IPV+1SG_{CMP} 'you_{SGM} ask of me' (EtmM6:7)

As we are unable to pinpoint the exact nature of this spelling (cf. §2.3), we prefer not to rely on a single form for further deductions regarding general rules of syllable shortening.

remains unknown. We tend to adhere to the common practice:⁸

(143) *inešte*??i MOD+1PL+seek\š'e~TN~IPV 'let us seek' (GlgIS:016')

2.4.3 Vowel deletion

2.4.3.1 $V \rightarrow \text{null} / \{C, \#\} VC_CV$

A short vowel is deleted when preceded by either the string *CVC* or, if at word-initial position, also by the string *VC*:

(144) *šaknu* ←-*šakin+u*: set\škn~PTC_A+3PLM_{SJ} 'they_M are set' (EtnM1:12)

This means that when a long vowel or another consonant comes before the preceding consonant, the vowel will not be deleted. Compare, for example, the following active participle form with the stative participle in ex. 144:

(145) *ša:kinu*: ←-*ša:kin+u*: set\škn~PTC_A+PL+NOM 'those who set' (EtnM1:3)

This rule is not operative on proclitic elements, notably syntactic heads in their common, longer form (cf. §3.1):

(146) *ina puḫri* in≠assembly+ATT in the assembly' (AnzA:33)

For nouns in this status, see §2.4.3.2. Suffixes or enclitic particles tend to lengthen the preceding vowel, and therefore it is not deleted (§2.5.1):

(147) *tukallamu:šunu:ti* {*tukallam+u+šunu:ti*} 3+show\klm~D~IPV+SUB+PLM_{CMP}
'you_{SGM} show them' (Gir:32)

Finally, loanwords or proper names seem to inhibit the operation of this rule:

(148) *šumirum* Sumer+ADI+NOM 'Sumerian' (Bel8:3')

2.4.3.2 Case vowel deletion at construct-state boundary

At a word boundary within an attributive construction (§3.3.2.4), the vowel of the case marker is usually deleted when it is short:⁹

(149) *il ma:tim* god≠land+ATT 'the god of the land' (Ns2:3')

When the deletion of the case vowel results in a cluster, epenthesis takes place (§2.3). The case vowel is not deleted when long, notably in plural masculine or dual nouns:

(150) *ilu: ma:tim* god+PL+NOM≠land+ATT 'the gods of the land' (AnzA:6)
[o:ina: enk]idu eye+PL+DU_{NOM}≠Enkidu 'the eyes of Enkidu' (GlgY:74)

Nouns with vocalic final radicals show two different behaviors: they either end with a long vowel resulting from the contraction of the vocalic radical and the case vowel (§2.4.2.1; ex. 151), or they may have no case vowel at all (ex. 152):

(151) *ba:nu: bi:ti:[ka]* create\bni~PTC_A+NOM≠house+ATT+2SGM_{ATT}
'the builder of [your] house' (Er:66)

(152) *ba:ni kaḫkadika* create\bni~PTC_A≠head+ATT+2SGM_{ATT}
'your begetter' (literally: 'the builder of your head'; GlgN:8)

At a morphemic boundary, i.e., when the noun in the construct state is bound to a pronominal suffix, short *u* or *a* are deleted, whereas *i* is lengthened (cf. §2.5.1):

⁸For its transcription as a clitic see §3.3.5.5, note 18.

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This means that when a long vowel or another consonant comes before the preceding consonant, the vowel will not be deleted. Compare, for example, the following active participle form with the stative participle in ex. 144:

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This rule is not operative on proclitic elements, notably syntactic heads in their common, longer form (cf. §3.1):

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For nouns in this status, see §2.4.3.2. Suffixes or enclitic particles tend to lengthen the preceding vowel, and therefore it is not deleted (§2.5.1):

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When the deletion of the case vowel results in a cluster, epenthesis takes place (§2.3). The case vowel is not deleted when long, notably in plural masculine or dual nouns:

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Nouns with vocalic final radicals show two different behaviors: they either end with a long vowel resulting from the contraction of the vocalic radical and the case vowel (§2.4.2.1; ex. 151), or they may have no case vowel at all (ex. 152):

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'your begetter' (literally: 'the builder of your head'; GlgN:8)

At a morphemic boundary, i.e., when the noun in the construct state is bound to a pronominal suffix, short *u* or *a* are deleted, whereas *i* is lengthened (cf. §2.5.1):

⁸For its transcription as a clitic see §3.3.5.5, note 18.

⁹Rather than deleting the case vowel, nouns in the construct state may rarely take a nominative case ending (§3.3.2.4).

- (153) *ilšu* god+3SGM_{ATT} (←*il+a+šu*) 'his god' (AhA:365; completive)
ili:šu ←*il+i+šu* god+ATT+3SGM_{ATT} 'his god' (AhB3:11; attributive)

When long, the vowel is not deleted in masculine plural or dual nouns, unlike the case at the boundary between two nouns:

- (154) *marušu* son+PL+NOM+3SGM_{ATT} 'his sons' (AhC3:26)
di:ma:šu tear+DU_{NOM}+3SGM_{ATT} 'his tears' (AhA:167)

This is also the case with the feminine plural, where a secondary, tautological length element is admitted:

- (155) *šuna:tu:ka* dream+PL+F+NOM+2SGM_{ATT} 'your dreams' (GlgSB:52)

As is the case at the boundary between nouns, nouns with vocalic final radical vary between keeping the vowel and — rarely — eliminating it:

- (156) *pi:šu* (AhA:47)
pa:šu ←*pi:a+šu* (AhA:85)
pi:šu ←*pi:+šu* (GlgP:147) mouth+CMP+3SGM_{ATT} 'his mouth'

As one can see from the first two examples, contraction may or may not take place, even in one and the same text (cf. §2.4.2.1).

2.4.4 Changes involving nasals and nasalization

2.4.4.1 $n \rightarrow C_1 / _ C_1$

In many environments, *n* is assimilated to the following contiguous consonant:

- (157) *šatum* ←*šantum* year+F+NOM 'year' (AhB4:11)
 Cf. *šuna:tim* year+PL+F+OBL 'years' (GlgX1:12')
 (158) *iššik* ←*inšik* 3+kiss+*nšk*~PV 'he kissed' (Gir:18)
 Cf. *unaššaku:* 3+kiss+*nšk*~D~IPV+PLM 'they_M were kissing' (GlgP:11)

Except for a few instances, *n* is not assimilated to suffixes or enclitic particles:

- (159) *inaddanši* 3+give+*ndn*~IPV+3SGF_{DAT} 'he gives her' (AgA7:13')
 (160) *luššumma* MOD+1SG+set+*škn*~PV+CONN 'let me set' (GlgY:187)

In some cases, the assimilation of *n* is found also across that boundary, notably with forms of *ndn* 'give' (ex. 161), but elsewhere as well (ex. 162):

- (161) *iddišši* ←*indin+ši* 3+give+*ndn*~PV+3SGF_{CMP} 'he gave her' (AgA4:3)
 (162) *šakiššum* ←*šakin+šum* ←*šakin*+Ø+*šum* set+*škn*~PTC_A+3SGM_{SJ}+3SGM_{DAT}
 'he is set' (GlgP:195)

As both assimilated and non-assimilated forms may appear in one and the same text (cf. ex. 159 with 161, and ex. 160 with 162), the former may be considered a morphologically transparent spelling, whereas the latter case reflects the application of an actual morphophonemic rule.

Whenever the syntactic heads *ana* 'to' and *ina* 'in' appear in their short proclitic forms (§3.1), assimilation of *n* to a following consonant is manifest:

- (163) *ammagra:ti* ←*an+magra:ti* to+insult+PL+F+OBL 'to insults' (AgA7:8')
 (164) *ikkarši* ←*in+karši* in+stomach+ATT 'in the womb' (Sin2:2)
 Cf. *inili:* ←*in+ili:* in+god+PL+OBL 'among the gods' (AgA1:2)

The assimilation of *n* is not a surface level phenomenon, as it does not seem to be

operative following the application of some structural rules, such as vowel deletion (ex. 165; cf. §2.4.3.1), dissimilation of double consonants (ex. 166; cf. §2.4.4.2), or partial assimilation to another consonant, whether on the lexical, or any other, level (ex. 167).

- (165) *oi:tanḫu*: ← *itanīḫu*: 3+tire/anh~PC+PLM 'they_M have become tired' (BWL 155:2; OB literature, *The Tamarisk and the Palm*)
 Cf. *liriahḫūša* ← *lirtanḫūša* MOD+3+MOVE/ḫš~TN~PV+DIR 'may it agitate' (AnzA:58)
 (166) *itnandaru* ← *itnaddaru* 3+fear/adr~TN~IPV+SUB 'it is afraid' (GlgN:4)
 (167) *tukūnti* ← *tukūnti*- war+F+ATT 'war' (AgA3:16)

Assimilation of *n* may further be avoided in the formation of compounds, as the dialectal variant *manman* 'someone' (AgA5:41'), for the more common *mammen* (e.g., AgA7:22') suggests. There are other cases of non-assimilated *n*, notably words of foreign origin, proper names, or their derivatives:

- (168) *anšani:tam* Anshan+ADI+F+COMP 'Anshanite' (GlgY:242)

2.4.4.2 $C_1C_1 \rightarrow nC_1$ ($C_1 =$ voiced); $bb \rightarrow mb$

In certain cases, a double voiced consonant is dissimilated so that the first component is nasalized. This is especially notable where a nasal consonant is present:

- (169) [*uʃr*] *andanu:nišsu* ← *uštaddanu:nišsu* 3+give/ndn~S~T~IPV+DIR+3SGM_{DAT} 'they_M were conferring about him' (GlgP:204)
 (170) *itanambala*: ← *itanabbala*: 3+carry/ubl~TN~IPV+3PLF 'they_F constantly carry' (GlgY:183)

Similar forms may not attest this change:

- (171) *uštaddanu*: 3+give/ndn~S~T~IPV+PLM 'they_M were conferring' (GlgY:164)

Since variant forms may occur in one and the same text (as in exx. 169, 171), the latter case may reflect a morphologically transparent spelling, whereas actual pronunciation may be reflected by the former examples.

2.4.4.3 $\{a, e\} \rightarrow n/n_{STEM AUGMENT}$

In the N verbal class, i.e., where the augment *n* is added to the root (§3.3.5.4.1.1), *a* or *e* as the first radical of the root changes to *n*:

- (172) *itanmar* ← *intanmar* ← *intanamar* ← *i*+{*n*+*tn*+*amr*}~***a*(*)***a*
 3+see/amar~N~PV 'he appeared' (AnzA:80)
 (173) *enniši* ← *eneiši* ← *aneaiši* ← *a*+{*n*+*eši*}~***a*•*i* 1SG+confuse/eši~N~PV
 'I became confused' (CIA3:8)

2.4.4.4 Deletion of *n* in verbal forms

n as first radical (ex. 174) or when constituting a stem augment (§3.3.5.4.1.1; ex. 175) is deleted at word-initial position when followed by *i*:

- (174) *idin* ← *nidin*+∅ give/ndn~IMP+SGM 'give!' (Er:65)
 (175) *itešgw* ← *nitešgw* rage/šge~N~TN~INF+NOM 'to be enraged' (AgA3:15)

2.4.4.5 $m \rightarrow C_1/_ + PRON$

At the boundary between the directional or the locative-adverbial affix and the following pronominal affix, *m* of the former affix is assimilated to the first consonant of the pronoun:

- (176) *ušaznanakku* ← *ušaznan+am+ku* 1SG+rain√znn~š-1PV+DIR+2SGM_{DAT}
 'I will shower upon you' (AhC1:34)
še:puššu ← *še:p+um+šu* foot+LADV+3SGM 'at his feet' (Ad2:19)

If the first element of the pronoun is a vowel (i.e. *i/y* of the 1SG_{ATT}), the *m* of the locative-adverbial affix is replaced by vocalic length:

- (177) *elemu:ya* ← *ele:n+um+ya* above+ADV+LADV+1SG_{ATT} 'over me' (AhC3:44)

There are no such occurrences of the directional affix, as there is no overt manifestation of the 1SG suffix (§3.3.4.1).

2.4.4.6 *m_{amx}~null/_#*

In a historical process, *m* forming part of a suffix ('mimation'; see §§1.1, 2, 2.4.4.5, 3.3.2.3, 3.3.4.1) is deleted at word-end position:

- (178) <*i-lu*> *ilu* <*ilum* god+NOM (AhA:555)
 <*i-lu-um-ma*> *ilumma* god+NOM+TOP (AhA:212) 'god'

In the space-time continuum of our LOB corpus, this process must be seen as synchronic variation, with a great deal of fluctuation between the texts included in this corpus. Some texts, notably earlier ones, tend to preserve mimation to a large extent; others show only sporadic forms with mimation overtly spelled (for the use of *CVm* signs with *CV* values, see §1.1). As seen in ex. 31 above (cf. also ex. 24), fluctuation between forms with and without overtly-spelled mimation can also be seen in a single text. Occasionally, mimated and non-mimated forms are found side by side, as in the following line, where two out of three forms are non-mimated:

- (179) <*a-ḥa-za i-ni-ib-lu-la* *ká-ab-la-am*>
ta:ḥa:za i:niblula *kablam*
 battle+CMP MOD+1PL+mix+DIR battle+CMP
 'Let us mix battle and warfare.' (AhA:62)

While in most cases fluctuation between mimated and non-mimated forms seems haphazard, in some cases linguistic rules can be isolated. For example, in the oldest version of the Etana narrative, mimation seems to be preserved except for in verse-final position, probably constrained by prosodic patterns:

- (180) <*ḥa-aṭ-ṭū-um me-a-nu-um ku-ub-šum* *ù ši-bi-ir-ru*>
ḥaṭṭum me:anum kubšum *u šibirru*
 staff+NOM crown+NOM headdress+NOM and scepter+NOM
 'Staff, crown, headdress and scepter.' (EtnM1:11)

Exhaustive, in-depth research is needed for other texts.

2.4.4.7 **m_{case}→null/_{≠,+PRON}*

As with other affixes (§2.4.4.6), LOB shows the preservation of final *m* on case markers as well. Historically, this *m* might have assumed the function of an autonomy marker in this environment. As such, it would indicate that the noun to which it was annexed was a free form, i.e., not in the construct state (§3.3.2.4). Mimation would thus follow the case marker in nouns (substantives and adjectives alike), with the exception of *PLM* substantives, where morphological length may have inhibited the application of *m* (ex. 182 and the first form, viz., the substantive, in ex. 183; long vowels resulting from vowel contraction are not be affected by this rule, as represented by ex. 184). In some of the LOB texts there are set of forms remnant of this system, at least in writing.

- (181) <ta-ḥa-zu-um> ta:ḥa:zum battle+NOM 'battle' (Er:50)
 (182) <ta-ḥa-zi> ta:ḥa:zi: battle+PL+OBL 'battles' (Er:45)
 (183) <i-li ra-bu-tim> ili: rabu:tim god+PL+OBL big+PL+ADJ+OBL
 'the great gods' (AnzA:13)
 (184) <ša-te-e-em> šate:m ←šata:i+im (§2.4.2.3) drink√šti~INF+ATT
 'drink' (GlgP:92)

As suggested by the LOB corpus, mimation has become unstable or totally lacking during the OB period, and has been preserved only in some few environments (§2.4.4.6). Therefore, from the synchronic point of view, mimation can no longer be regarded as a significant morphological unit. Still, it must be pointed out that mimation (in all texts and in all periods) is absent from nouns in the construct state, i.e., when it governs another noun (ex. 185) or a pronoun (ex. 186):

- (185) <šar-ru mi-iš-lam-mi-im> šarru=mišlammim king+NOM+Mishlam+ATT
 'King of Mishlam' (Er:63)
 (186) pika mouth+ATT+2SGM_{ATT} 'your mouth' (Ns5:3)

In the DU, 'nutation' takes the place of 'mimation' (§3.3.2.3). However, the scantiness of the form inventory does not allow for solid conclusions regarding its preservation, given that the DU itself is rather sparse in the OB period. From the extant data (§3.3.2.1 exx. 290, 293), as well as from comparison with other OB corpora, it may be suggested that (1) nutation is not deleted in the environment of vocalic length (as against the case of PLM) and that (2) in conformity with mimation, it does not appear in construct-state nouns.

2.4.4.8 b→m/ m

Sporadically, *b* changes to *m* when preceding it:

- (187) tušamma ←tušabma ←tušab+ma 3SGF+sit/√šb~PV+CONN 'she sat and' (Er:60)

2.4.4.9 m→n/ š

m may be realized as *n* before *š*, a change that seems to be confined to some varieties:

- (188) išt:anšim ←iši:amšim ←iši:am+šim 3+decree√šim~IPV+3SGF_{DAT}
 'he is bestowing her' (AgA7:4')

2.4.4.10 w~m

As mentioned in §2.4.2.5.1, there is a diachronic process in which *w* in word-initial position is deleted progressively. Another historical change involving *w* is its change to *m* (i.e., nasalization) between vowels. This change may result in the emergence of secondary roots. For example, older √wšr (√ušr) has already become, by the time of the writing of the following text, √mšr:

- (189) [nm]aššer ... mišertam
 2+release√mšr~D~PV ... release+FF+CMP
 '[you_{SGM}] released produce ...' (AhB6:29)

This diachronic change is attested also as synchronic allomorphy in the form of root variation:

- (190) lawi encircle√lwi~PTC_A+3SGM_{SI} 'it_M is surrounded' (AhA:71)
 imu: 3+encircle√lmi~PV+PLM 'they_M surrounded' (AhA:114)

It is further attested as a dialectal variation, as in the following example, where two identical verbal forms derived of each of the respective cognate roots occur in two manuscripts of the same text:

- (191) *ušte:wi* 3+become√*ewi*~*s*~PC 'he transformed' (CIB1:2)
ušte:mi 3+become√*emi*~*s*~PC 'it transformed' (CIA4:7')

Finally, a late text may exhibit old spellings throughout, and may also reveal the actual vernacular pronunciation of a single form, possibly as a *lapsus calami*:

- (192) *amat* speech+F(≠) 'speech (of)' (AgA6:13')
 Cf. *awat*- (AgA2:14; AgA6:39; AgA6:45'; AgA7:11')

As synchronic variation is manifest in spelling, spelling pronunciation is not to be excluded when reconstructing the performative aspect of the text.

2.4.5 Effect of a root radical on infixed *t*

Infixed *t*, whether an augment in itself (§3.3.5.4.2.1), a constituent of the augment *tn* (§3.3.5.4.2.2), or a segment in the PC pattern (§3.3.5.4.4), is assimilated to dental (*d*, *t*; ex. 193) or alveolar (*s*, *z*, *š*; ex. 195) consonants:

- (193) *iddeki* ← *idteki* 3+raise√*dke*~PC 'he aroused' (Aha:76)
 (194) *issakpu* ← *istakpu*: 3+rest√*skp*~PC+PLM 'they_M rested' (GlgP:114)

Infixed *t* becomes voiced as a result of partial assimilation when the first radical of the root that precedes it is *g*:

- (195) *igdapuš* ← *igtapuš* 3+swell√*gpdš*~PC 'has been swollen' (AnzA:74)

2.4.6 Contact between dentals and sibilants and *š* of third person pronouns

At the boundary between a nominal base ending in a dental (*d*, *t*, *ṭ*) or a sibilant (*z*, *s*, *š*, *š*) and *š* of the third person suffixed pronouns (§3.3.4.1), both consonants are affected. By 'base' we mean a bare stem or a stem plus the feminine morpheme; this excludes the TADV marker *iš* (§3.3.1.4). There is areal variation between northern Babylonian and Southern Babylonian schools in this respect.

In texts from southern schools, there is a difference in spelling between the string resulting from the contact between a dental and the pronoun (ex. 196) and the string resulting from the contact between a sibilant and the pronoun (ex. 197):

- (196) <*iš-pa-AZ-ZU*> *išpassu* ← *išpat+š*u quiver+FF+3SGM_{ATT} 'his quiver' (GlgY:241)
 (197) <*na-pi-IŠ-SU*> *napišsu* ← *napiš+š*u breath+3SGM_{ATT} 'his breath' (GlgY:112)

That the second form is not to be interpreted as *šs* is indicated by curtailed spellings like <*na-pi-su*> (GlgY:198), where the sign IŠ is omitted so that the load of both consonants is put on the sign SU, of which the consonant component stands for a double *s*.

It is customary to transcribe both forms by the sequence *ss*. However, it seems plausible that the different spelling reflects a difference in pronunciation. These distinct spellings at morphemic boundaries are identical to spellings of similar strings within stems:

- (198) <*li-iš-ta-ZI-iḫ*> *lištassiḫ* MOD+3+choose√*nsk*~*š*~TN~PV 'may he make ready'
 (GlgY:261)
 (199) <*IŠ-SI-ma*> *issi:ma* ← *išsi:ma* 3+call√*šsi*~PV+CONN 'he called' (GlgY:222)

Given the difference between the allophones *s* and *z* in different environments as explained in §2.1.1, one may tentatively suggest that the sign sequence VZ-ZV be interpreted as

standing for an affricate pronunciation, whereas the sequence VŠ-SV be interpreted as indicating a fricative one.

In texts from northern schools, both strings are spelled with VS-SV syllabograms:

(200) <bi-is-su> bi:ssu ← bit+šū house+3SGM_{ATT} 'his house' (Ahb2:20)

(201) <šs-su-ú> issu: ← išsu: 3+call-šši~PV+PLM 'they_M called' (Ahb2:21)

In conclusion, one may posit two different rules for the contact between the two groups of phonemes in the south:

{d,t,f}+š_{PRON} → <ZZ> ss with affricate pronunciation¹⁰

{z,s,š,š}+š_{PRON} → <SS> ss with fricative pronunciation

For the northern varieties, there will be one single rule for both sets of phonemes:

{d,t,f,z,s,š,š}+š_{PRON} → <SS> ss with fricative pronunciation

2.4.7 Ejectivity constraint

Two ejective consonants do not co-occur in a word, unless they are identical. However, different dialectal varieties exhibit dissimilation by glottalization loss in words with identical ejective consonants:

(202) <ka'-ká-ra-am> kaḫkaram (GlgIS:26')

<ka'-ká-ra-am> kaḫkaram (Er:5) ground+CMP 'ground'

2.4.8 Alternation between vocalic length and consonantal doubling

The length phoneme (§2.1.3) can be realized either as vocalic length or as consonantal doubling. It is usually realized as vocalic when following a vowel; following a consonant, it is usually realized as consonantal:

(203) *ili:ma* 3+ascend√eli~PV+CONN 'he went up' (GlgSB:27)

illi ← *ili* 3+ascend√eli~IPV 'he will go up' (GlgSB:51)

In some cases, morphemic boundaries may change this expected realization. This is notably the case with the plural morpheme {r} (§3.3.2.1), where the morphemic boundary between the stem and the length segment inhibits its attachment to the final consonant of the stem and it is attached instead to the following vowel:

(204) *šanati im* ← *šan+:+at+im* year+PL+F+OBL 'years' (GlgX1:12')

The morphemic function of the length segment lends further support to the view that it be regarded as a segmental phoneme. While morphemic analysis (§3.3.2.1) supports the order of the plural morpheme as listed above, the phonemic realization supports the above transcription, where segmental length is attached to the following vowel.

In some morphological environments, notably when serving as a stem augment (§3.3.5.4.1.3) or in the IPV pattern (§3.3.5.4.4), r usually is realized as a consonant. In such cases, alternation between vocalic length and consonantal doubling may be constrained by morphemic structure. Such is the behavior of roots with vocalic medial radical, where a morphemic z, which is added at its slot following the second (vocalic) radical, is realized as consonantal when the stem is followed by a vowel):

¹⁰In order to keep with the accepted transcription, in order to overcome dialectal distinctions, and for the sake of consistency, we keep the accepted transcription of all such occurrences as in the northern school, viz., ss.

(205) *terranni* turn√tur~D~IMP+1SG_{CMP} 'return me' (GlgY:220)

Cf. *teršunuti* turn√tur~D~IMP+3PLM_{CMP} 'make them return' (GlgY:277)

This is an especially interesting case, because the length/doubling element in its vocalic length variant joins the second root radical, as expected in the first case, but when the syllable opens, it is regarded as consonantal doubling while joining the *third* root radical.

An opposite case in the 3SGM PTC_A of the unmarked class of roots with identical second and third root radicals (with stative meaning), where an expected consonantal doubling is realized as vocalic length when not followed by a vowel:

(206) *dann* ←*dann*+∅ strong√dnn~PTC_A+3SGM_{SI} 'it is strong' (AhC1:33)

Cf. *dannu* strong√dnn~PTC_A+NOM 'strong' (GlgN:R6')

A root radical *u* shows different behavior in its conjunction with either vowels or consonants in apparently similar environments:

(207) *utekki* ←*utekki* 3+wait√uke~D~T~PV 'he noticed' (AhA:74)

muttabilšu ←*mutanbilšu* carry√ubl~TN~PTC_A+3SGM_{ATT} 'his servant'
(GlgS:18')

While the respective phonological environments seem indeed to be similar, the morphological ones are not. Whereas in the first case the verbal form is from the D class, the second one belongs to the unmarked class, of which all forms show the same consonantal behavior of the radical *u* (for verbal classes see §3.3.5.4.), e.g.:

(208) *itanambala*: ←*itanambala*: 3+carry√ubl~TN~IPV+PLF 'they constantly carry'
(GlgY:183)

Lastly, note the realization of *m* of the LADV marker *um* as vocalic length when followed by the 1SG_{ATT} pronominal suffix (§2.4.4.5, ex. 177).

2.5 Prosody

Prosody is, of course, extra-systemic to a written language, especially when there is no punctuation. There are, however, some reflexes of prosodic features that can give us a few clues regarding the oral aspect of the language. These are: (1) vowel lengthening, an element of word stress or sentence accent, which can be indicated in spelling by plene writing (§1.1); (2) the rule of vowel deletion (§2.4.3.1), which is not applied to a stressed syllable; (3) verse structure, which can suggest the location of stress by two diagnostics: (a) poetic lines (verses) have a strong tendency to end with a trochee (' '); (b) metrical structure is based on counting syntactic units that are defined as carrying a single (main) stress each ('metremes'; cf. §3.1).

2.5.1 Word stress

According to the most common view, stress falls on the last syllable if it is a four-segment syllable (CV:C; ex. 209) or if it includes a vowel which is the historical outcome of long vowel contraction ('circumflexed vowels', see §2.1.3; ex. 210). Otherwise, stress falls on the long syllable (i.e., one with more than two segments) that is closest to the end of the word (ex. 211), or on the first syllable if the word does not contain any such long syllable (ex. 212).

(209) *ušašim* 3+decree√šim~S~PV 'he established' (AgB6:22)

(210) *ibbašuw* (←*ibbaššiuu*) 3+be√bši~N~PV 'it has become into being' (CIA4:8')

(211) *taḥarzum* battle+NOM 'battle' (Er:50)

(212) *ilu*: god+PL+NOM 'gods' (EtnM1:4)

Nouns in the construct state (§3.3.2.4) are not stressed and constitute, together with the following word, a single stress unit, of which the main stress falls on the second word:

(213) *ḥaṭṭi šarruti* scepter+king+ABS+F+ATT 'the kingship's scepter' (AgA4:1)

It seems that upon annexation of a suffix or an enclitic particle, stress moves to the penultimate syllable, which results in vowel lengthening:

(214) <er-ni-ti-i-ša> *ernittiša* ← *ernitti+ša* battle+F+ATT+3SGF_{ATT} 'her battle' (Er:13)

<ta-mu-ur-šu-ú-ma> *ta:muršuma* ← *tamur+šuma*

3SGF+see\amr~PV+3SGM_{COMP}+CONN 'she saw him and' (Sin3:7)

<a-na-a-ma> *ana:ma* ← *ana+ma* to+FOC 'regarding' (Bel8:6')

Lengthening does not apply to epenthetic vowels (§2.3).

In this study, we make no distinction between allegedly distinct types of vocalic length (§2.1.3). Those who claim that syllables containing 'circumflexed' vowels differ in their behavior from syllables containing 'macronized' vowels, might object. However, this objection can be refuted on the premise that different stress patterns may have been the outcome of historical change in syllabic patterns and need not be interpreted as involving synchronic difference in length. Established traditions in poetic versification would not necessarily reflect synchronic distinction between two alleged types of vocalic length. Furthermore, observed circumflexed vowels in verse-final position in place of trochees, which may be the result of such historical change and traditional versification norms, are scanty in our corpus and are outweighed by other, non-trochaic forms at verse end. Therefore, one cannot draw any solid conclusions that rely on alleged verse-final trochees.

2.5.2 Sentence accent

2.5.2.1 Questions and exclamations

Interrogative (ex. 215) or exclamative intonation (ex. 216) may be indicated by plene spelling, which reflects prosodic vowel lengthening:

(215) <ia-a-ši-im-ma-a it-te-né-e [p-pu-uš]>

ya:šimma: ittene[ppuš]

ISG_{DAT}+ENC it-is-done

'Is it against me that it is being done?' (Aha:107)

(216) <[l]u taḥ-bi-i ni-iš-ši-ki⁴ é-a>

lu taḥbi: niššiki ea

MOD 2+say\kbi~PV prince Ea

'You_{SGM} indeed commanded, Prince Ea!' (Gir:8)

2.5.2.2 Pragmatic and poetic prominence

Plene writing marking prosodic length can also be found in places where it may be taken as the reflection of accented syllable indicating pragmatic (ex. 217) or poetic prominence (ex. 218):

(217) <pu-ur-šu-mu-um ša ta-mu-ru-ú il-ka we-ru>

puršumum ša tamuru: ilka werru

old-man that 2+see\amr~PV+SUB god-your mighty⁷

The old man that you_{SGM} saw is your mighty⁷ god. (GlgN:7)

- (218) <i-mi-ta-am ù šu-we-la-a-am ká-ar-na-am ká-ar-na-a-am>
imittam u šuwe:la:m karnam karnam
 right+F+CMP and left+CMP horn+CMP horn+CMP
 right and left, horn by horn. (Ns2:7')

Research is needed to determine the nature and conditions of such indications.

3 Morphology

3.1 The word unit

As mentioned in §1.1, words are not separated in the cuneiform writing system. Some clues for the identification of words can be found in the use of semantic denominators, which are located at the beginning or end of a content word (ex. 219), although they may come between the stem and affixes (ex. 220):

- (219) <G^{IS}su¹-pa-lam>^{tree} juniper(CMP) 'Juniper' (GlgHB:46)
 (220) <DINGIR^{MEŠ}-ka> god^{plurality}-2SGM_{ATT} 'your gods' (GlgIS:7')

In LOB, a word can be identified, not only by morphophonological, but also by poetic-metrical criteria. As mentioned (§1.1), poetic lines usually coincide with graphic lines. The poetic line usually consists of a small definable number of minimal metrical units, which we call 'metremes'. The number of metremes in a poetic line (or a verse) usually ranges between one and four. A common structure is 2+2, i.e., two metremes in a colon and four in a verse. The following example has verses of either three or four metremes, the latter further divided into two cola with two metremes each. In this passage, metreme boundaries are marked by a single vertical line, cola are separated by two vertical lines, and each verse is written in a separate line.

- (221) *enlil | pa:šu | i:pušamma*
 Enlil his-mouth he-made-and Enlil opened his mouth and 3
ana šukkalli | nusku | issakkar
 to≠ vizier Nusku he-spoke spoke to the vizier, Nusku: 3
nusku | edil | ba:bka
 Nusku lock gate-your 'Nusku, lock your gate; 3
kakki:ka | leke || iziz | maḥriya
 weapon-your take stand before-me Take your weapons; stand before me.' 2+2
nusku | idil | ba:bšu
 Nusku he-locked gate-his Nusku locked his gate, 3
kakki:šu | ilke || ittiziz | maḥar enlil
 weapon-his he-took he-stood before≠Enlil took his weapons, stood before Enlil. 2+2
 (AhA:85-90)

As seen in the cuneiform line above (§1.2), a word may be singled out by a preceding space when it is inscribed towards the end of the tablet to fill the graphic line. Single-metreme lines or enjambment serve as further indicators of word-boundaries, e.g.:

- (222) *šizba | ša nammašte:*
 milk of≠herd
i:tennik
 he-was-sucking
 'He used to suck milk of animals.' (GlgP:85-86)

As can be seen from the examples above, function words do not constitute a distinct metreme. These include syntactic heads (§3.3.6), negative particles (§4.1.4.5), the conjunction

u (§4.1.4.6), and the full form of the modal particle *lu*: (§3.3.5.5). They can therefore be regarded as clitics. For this matter, it makes no difference whether the word to which the particle is cliticized is an independent word (ex. 223) or part of a larger unit (ex. 224):

(223) *ša šupri:šu of≠nail+ATT+3SGM_{ATT}* 'of his nail' (AgA5:024')

(224) *ša arammušu danniš*
 that≠1SG+love/ram~IPV+SUB+3SGM_{COMP} strongly
 'whom I loved very much' (GlgX2:002')

In some varieties, syntactic heads like *ina* 'in' and *ana* 'to' may assume shorter forms (*in* and *an* respectively) and exhibit closer annexation to the following word than their longer form (note assimilation of *n* in ex. 226; §2.4.4.1):

(225) <*i-né-ep-ri*> *inepri in+dust+ATT* 'with dust' (Nw:11)

(226) <*am-ma-ti-šu*> *amma:tišu ←an+mattišu to+land+ATT+3SGM_{ATT}*
 'to his land' (Ad2:14)

In some cases, they may be separated from the content word by the enclitic focusing particle *-ma* (§4.3.1.3.1):

(227) *inama na:ri in+FOC river+ATT* 'in the river' (Sin2:5)

Our transcription follows the accepted norm in that it separates function words from the following word whenever there is no evidence for their affixation, as in exx. 225 and 226.

Two independent words may form a compound, which we term 'attributive construction' (§§3.2.2.4, 4.1.3). In this case, the two words are regarded as carrying a single word stress and therefore together constitute a single metreme. In fact, a function word is syntactically identical with a noun in the construct state, as both govern the following constituent (§4.1.3). For rules of conjunction, see §2.4.3.2.

Three levels of boundaries can be discerned:

- (1) A high-level boundary separating discrete words.
- (2) A medium-level boundary following function words or nouns in the construct state.
- (3) A low-level, or morphemic boundary.

In general, phonological alternations are dependent on and constrained by their occurrence between any of the boundaries, following this hierarchy. The textual sample cited above (ex. 221) illustrates the types of boundaries: in the gloss line, a high-level boundary is marked by a space, a mid-level boundary is marked by ≠ and a morphemic boundary is marked by +.

3.2 Word types

One can classify words in Akkadian according to their morphological structure, relying mainly on morphological marking and on constraints imposed on the attachment of bound morphemes. One possible distinction is between variable and invariable words, where invariables include word types like some syntactic heads (§3.3.6), conjunctions, some adverbs, interjections and other particles. Another distinction can be made between words consisting of stems with or without internal complexity (§3.3). Yet another distinction can be made according to the type of inflection, mainly between nominal forms and verbal forms, with prototypical nouns at one extreme and prototypical verbs on the other. At this level, personal pronouns will be distinguished according to their additional dative marking beyond the basic morphosyntactic case markers (§3.3.4.1).

Between the prototypical noun and the prototypical verb, there are several types of word form that can be classified with either nouns or verbs: the active participle, the stative participle and the infinitive. All three categories are inflected for case and take attributive personal pronouns. The gender and number markers of the participles are those of nouns, and when forming a predicative complex, they have their subject morpheme suffixed rather than prefixed (§3.3.5.3.1). As is the case with nouns, their formation by patterns is derivational (§3.3.1.3, exx. 264-6). Like verbs, participial predicative complexes are marked by the subordinative marker when in attributive position (§3.3.5.7), as well as, rarely, non-nominative pronominal suffixes (§§3.3, 3.3.4.1). Finally, stems of participles and of the infinitive employ the same augments as their corresponding verbal forms (§3.3.1.2).

3.3 Word structure

Most of the content words in Akkadian consist of morphemic complexes, of which a stem, consisting of a root, optional augments, and a pattern, forms the kernel. Further derivation is optional. Inflectional affixation may be attached to content words and to some of the function words. Gender and number are marked by affixation and are found in the majority of classes of content words, as well as in frozen forms among function words. Affixation is further employed to mark morphosyntactic or semantic features: declension, mood, subordination, and the directional morpheme. Lastly, there is cliticization.

The structure of the nominal chain is as follows:

(clitic $\left\{ \begin{smallmatrix} + \\ \neq \end{smallmatrix} \right\}$) stem (+derivational-affix)(+number)(+gender)(+case)(+pronoun)(+clitic)

Examples:

- (228) *in+mar+i+ya* → *imma:ti:ya* in+land+ATT+ISG_{ATT} 'in my land' (Ad2:5)
 (229) *mar+:+u+ya+mi* → *ma:ru:ami* child+PL+OBL+ISG_{ATT}+FOC 'my children' (EtnS:15)
 (230) *ina#šn~*u*+at+i* → *ina šuna:ti* in+dream+PL+FF+OBL 'in the dreams' (GlgN:10)

The structure of the nominal predicative chain is as follows:

(clitic≠)stem+subject($\left\{ \begin{smallmatrix} \text{directional} \\ \text{subordinative} \end{smallmatrix} \right\}$)(+ $\left\{ \begin{smallmatrix} \text{dative-pronoun} \\ \text{completive-pronoun} \end{smallmatrix} \right\}$)(+clitic)

(It is unknown whether it is possible for both the completive and the dative pronoun to occur in one and the same nominal predicative syntagm; it stands to reason that both categories occupy the same paradigmatic slot.)

Examples:

- (231) *šmḥ~*a*i+*a*ku+ma* → *šamḥa:ku:ma* flourish√šmḥ~PTC_A+ISG_{SI}+CONN
 'I am flourishing' (GlgP:4)
 (232) *lu~*ilm~š~*u*~*u*+Ø+šū* → *lu šutlumšū*
 MOD≠grant√ilm~š~PTC_A+3SGM_{SI}+3SGM_{CMP} 'may it be granted to him' (AgB5:29)
 (233) *uld~*a*i+Ø+u* → *waldu* give-birth√uld~PTC_A+3SGM_{SI}+SUB 'that has been born'
 (Sin7:7)

The structure of the verbal chain is as follows:

(clitic $\left\{ \begin{smallmatrix} + \\ \neq \end{smallmatrix} \right\}$)subject+stem($\left\{ \begin{smallmatrix} \text{directional} \\ \text{subordinative} \end{smallmatrix} \right\}$)(+dative-pronoun+completive-pronoun)(+clitic)

Examples:

- (234) *ta+ne:r+u+ši+ma* → *tene:ruš:ma* 2+strike√ner~PV+SUB+3SGF_{CMP}+TOP
 'that you_{SGM} killed her' (Gir:36)

- (235) *lu+a+rbi-~a~i~+am+ku* → *lurabi:akku*
 MOD+1SG+grow/rbi-~D~PV+DIR+2SGM_{DAT} 'let me grow for you' (GlgHB:46)

In Babylonian, there are very few attestations of forms including both the dative and the completive pronominal suffixes in a single verbal predicative syntagm. See §3.3.4.1, ex. 343, for a discussion of related forms.

Function words are constituted by either an invariable bare stem (ex. 236), by a historically derivational morphological complex (ex. 237), by a derived noun (ex. 238), or by some combination of the above means (ex. 239):

- (236) *inw* 'when' (Ad2:17)
 (237) *inuma* 'when' (AhA:1) < *inw+ma* when+NOMINALIZER
 (238) *maḥar* 'before' (GlgP:45) < 'front'
 (239) *aššum* 'concerning' (GlgSA:5') < *an+šum* to+name

Function words, notably syntactic heads, can also be formed by compounding of an invariable particle procliticized to a nominal form, which is usually invariable in form, although its cognate noun may be used at the same time as a content word:

- (240) *ana pa:ni:šu* to=face+ATT+3SGM_{ATT} 'towards him' (GlgP:213)
 Cf. *pa:nu:šu ittamru:* face+PL+NOM+3SGM_{ATT} 3+shine/vnmr~PC+PLM 'his face shone'
 (GlgSB:24)

3.3.1 The stem

In general, the stem of a content word consists of an inconsecutive root, optionally augmented by a consonantal infix, interdigitated into a vocalic pattern, derivational in nouns, inflectional in verbs. Interdigitation is a typically Semitic mechanism of word formation, in which each radical of the inconsecutive root is inserted into an equally inconsecutive pattern, which has a strong tendency to keep a tripartite slot structure, notably in the verb. In the following example, each of the three radicals of the root *lbš* 'clothe' occupies a different position within a pattern structure when forming distinct stems, nominal (lines 1, 3) and verbal (lines 2, 4) alike. Each pattern has its preset slot structure, into which the respective root segments are inserted. This occurs for both dimoprphic (lines 1, 3) and multimorphic (lines 2, 4) stems. In a multimorphic stem, i.e., when a stem includes, in addition to the root and the pattern, augments as well, the augments and the root now form a single unit, which is constructed in a similar way. Note the structure of the respective forms of *√lbš*:

- (241) *išhuṭ* *lbšam* (*lbš*~[\square \square \square]+*am*)
 she-removed clothes/*lbš*~NOMINAL-STEM+CMP
ište:mam ulabbissu (←*i+lbš*~:~*u* [\square \square \square]+*šu*)
 one 3+clothe/*lbš*~D~PV+3SGM_{cmp}
lbšam *šani:am*
 clothe/*lbš*~NOMINAL-STEM+CMP second
ši: ittalbaš (←*i+n+lbš*~[\square \square \square]+*a*)
 she 3+clothe/*lbš*~N~PC
 'She took off (her) clothing; she put one (cloth) on him; a second cloth she put on herself.' (GlgP:69-72)

There are constraints on the number of segments that can be admitted into each of the three slots: two segments in the first slot, one in the third, and the others in the middle slot, to be resolved later as to include one or more slots with no more than two segments in

each, either by reduction of the number of segments or by enlarging the number of slots by epenthesis (cf. §3.3.5.4.4).

Stems of primary function words are usually unanalyzable, as are stems of some content words, usually primitive nouns (ex. 242) or borrowed ones (ex. 243):

(242) *idi*: ←*id+i*: arm+1SG_{ATT} 'my arm' (GlgN:017)

(243) *hurša:nim* ←*hurša:n+im* mountain+ATT 'mountain' (GlgIS:33')

A few words are the result of a true fusion between two words, e.g.:

(244) *u:makkal* ← *u:m+am* (day+CMP) + *kal* (all) 'for a day', 'for the length of one day' (Ns6:4)

Stems with a reduplicated syllable are also attested:

(245) *birbirri*: luminosity+PL+OBL 'luminosity' (AgA4:5)

3.3.1.1 The inconsecutive root

The root morpheme realizes the etymon and thus forms the link between the grammar and the lexicon. Sometimes, different roots can be related to the same etymon. In other words, the root is not a fixed entity, and can show allomorphic alternation, or suppletion, in divergent morphological environments. In the following examples, the etymon 'sit' is related, in most cases, to the root *ušb* (exx. 246 and 247), to the root *tšb* in the imperative (ex. 248), and to a bi-radical root *šp* (or, perhaps, *šup*?) in the noun meaning 'seat, residence' (ex. 249):

(246) *uššab* ← *a+ušb~*a*a* 1SG+sit√*ušb*~IPV 'I dwell' (AhC1:47)

(247) *wašib* ← *ušb~*a*i+∅* sit√*ušb*~PTC_A+3SGM_{SI} 'he is seated' (AhA:101)

(248) *tašab* ← *išb~*a*a+∅* sit√*tšb*~IMP+SGM 'dwell!' (Er:27)

(249) *šupat* ← *šp~*u+a#* sit√*šp*~(nominal-pattern)+F# 'dwelling (of)' (GlgY:200)

The inconsecutive root morpheme consists of three radicals (exx. 246-8) or, rarely, two or four (exx. 249, 250):

(250) *ayy+i+n+√pršd~*a*i+ka* → *ayyi* pršd a rš i d ka
 MOD_{NEG}+3+flee~N~FV+2SGM_{COMP} 'let him not escape from you' (AnZA:66)

Roots can be purely consonantal (ex. 245), can consist of both consonants and vowels (exx. 246-8, 251-3) or, in rare cases, of only vocalic radicals (ex. 254):

(251) *i+√štu~*a:V* → *i* š t u a t i V u → *išattu* 3+entwine~IPV 'she entangles' (AgA3:9)

(252) *i+√šti~*a:V* → *i* š t i a t i V i → *išatti* 3+drink~IPV 'he drinks' (AhC2:44)

(253) *√lwi~*a:i+∅* → l w i a w i i → *lawi* encircle~PTC_A+3SGM_{SI} 'it is surrounded' (AhA:71)

(254) *i+√eue~*i:* → *i* e u e i e → *iwe* 3SG+become~PV 'he became' (EtnS:16')

3.3.1.2 Stem augmentments

Only a small, closed set of consonants are employed in the formation of augments: *m*, *n*, *š*, *t*. Segmental length in the form of consonantal doubling (§2.4.8) can also serve as an augment. Meanings carried by augments, while basically regarded as derivational, can nevertheless find themselves located far from the derivational extreme on a derivational-inflectional continuum (see §§3.3.5.4.1-2).

Infinitives and participles construe their stems productively with augments used in the verbal system, and are thus included with related verbs in a coherent paradigm. In ex. 255, the augment is length (§3.3.5.4.1.3); in ex. 256, it is the augment *tn* (§3.3.5.4.2.2).

- (255) *ušallim* 3+well√šlm~D~PV 'he took care' (GlgY:255)
mušallim well√šlm~D~PTC_A 'caretaker' (CIA3:11)
šullumu well√šlm~D~INF+NOM 'taking care' (GlgY:136)
- (256) *itnambala*: 3+carry√ubl~TN~IPV+PLF 'they constantly carry' (GlgY:183)
muttabbilšu ← *muutanbilšu* carry√ubl~TN~PTC_A+3SGM_{ATT} 'his servant' (GlgIS:18')

As seen from the second example, semantic shifts may operate on the participle, which can thus be regarded as detached from the original paradigm. In such cases one may be more reluctant to detach augments from the pattern even in a deep structure analysis. In other nouns, it is best to take a pattern as a whole, along with apparent consonantal augments, because further morphemic detachment would not lead to further analytical coherence. For example, a similar vocalic pattern with different consonants may result in different derivational meanings (ex. 257). Thus, the vocalic template itself cannot be seen as carrying a meaning of its own, and it is therefore best to see the pattern as including both the vocalic template and the consonantal element, rather than regard the consonantal segment as a derivational augment and assign it a meaning on its own (cf. also §3.3.1.3).

- (257) *narbiša* ← √rbi~na•i•+:+i+ša
 grow~(nominal-pattern₁)+PL+OBL+3SGF_{ATT} 'her great deeds' (AgB2:19)
tarbi:taša ← √rbi~ta•i•+:+at+ša
 grow~(nominal-pattern₂)+PL+P+3SGF_{ATT} 'her glorification' (AgB6:20)

3.3.1.3 Patterns

Patterns may be purely vocalic (ex. 258, nominal; ex. 259, verbal) or they may consist of both vowels and consonants (exx. 260, nominal; 261, verbal):

- (258) *špr~i••+u* → *špru* mission+NOM 'mission' (Aha:201)
 (259) *i+špr~••u* → *išpur* 3+send√špr~PV 'he sent' (Aha:99)
 (260) *nšr~ma••a* → *manšar* → *maššar* 'guard' (GlgSB:58)
 (261) *ta+škn~ta••a* → *taštakan* 2+set√škn~PC 'you_{SGM} have established' (AgB5:1)

Verbal patterns are inflectional and carry aspectual meanings:

- (262) *imliku* ← *i+mlk~•i•+u*: 3+advise√mlk~PV+PLM 'they_M advised' (EtnM1:2)
 (263) *imalliku*: ← *i+mlk~•a•:i•+u*: 3+advise√mlk~IPV+PLM 'they_M were advising' (GlgY:248)

Nominal patterns are derivational:

- (264) *milkam* ← √mlk~i••+am advise~(pattern)+CMP 'counsel' (Anza:29)
 (265) *maḥlikam* ← √mlk~•a•:i•+am advise~PTC_A+CMP 'counsellor' (GlgSA:2')
 (266) *mitlukam* ← √mlk~t~i••u+am advise~T~INF+CMP 'to advise' (GlgHB:47)

Specific meanings are rather hard to assign to nominal patterns. While the patterns found in exx. 265-6 mark the infinitive and the active participle, there is no specific semantic meaning that can be assigned to the pattern in ex. 264 (see also ex. 257). Nevertheless, some tendencies are noticeable in the form-meaning relations in nominal patterns other than the infinitive and the participles, including some purely substantival patterns. For example, the pattern *ma••a* tends to indicate 'place' (ex. 267), and the pattern *•a•:a•* tends to indicate an occupation (ex. 268):

- (267) *mušabi* √ušt~ma••a+i seat+ATT 'dwelling' (GlgP:58)
 (268) *šarraḫi* √šrk~•a•:a• thief+ATT 'thief' (AhaB2:19)

That these are only tendencies can be seen by comparing nouns with similar patterns where the respective meanings are not the same:

(269) *markasa* √*rks*~*ma**+*a*+*a* rope+*CMF* 'cable' (AhC2:55)

(270) *šappara* √*špr*~**a**+*a*:+*a* wild-sheep+*CMF* 'wild sheep' (EtnS:8)

3.3.1.4 External derivational morphemes and category conversion

Besides those derivational morphemes that are affixed to the root before or at the stem-formation level and affect all types of words, viz., stem augments (§3.3.1.2), there are a few external derivational morphemes that are affixed to nominal stems, of which the most important and widely used is the abstract noun marker *u*, e.g.:

(271) *ba*:*ʔerut* *im* ← √*bar*~**a**+*u*+*t*+*im* catch~*PTC*_A+*ABS*+*F*+*ATT* 'fishing'
(*<* catching) (Sin2:6)

In this example, the derivational morpheme *u*, followed by the gender marker *t* (§3.3.2.2), is added to the dimorphic stem *ba*:*ʔer* to form an abstract noun. Of course, external affixation is the only way derivation can be carried out on unimorphic, invariable stems.

In the next set of examples, the external derivational morpheme *a:n* is attached to the dimorphic stem *šulm* (ex. 272), which carries the meaning 'well-being', 'safety' (ex. 273):

(272) *šulmani*: ← *šlm*~**u**+*a:n*+*i*: gift+*PL*+*OBL* 'gifts' (EtnS:12')

(273) *šulmat* well-being+*3SGF*_S, 'she is well' (AgB1:25)

The feminine gender marker can be regarded as a derivational marker when attached to substantives, and in some cases, only it makes a change in meaning between two forms (§3.3.2.2 with ex. 310).

External derivational morphemes are used in category conversion. One such morpheme is the adjectival marker *i*: (ex. 274), indicating also a gentilic relation (ex. 275):

(274) *maḥriati* ← *maḥr*+*i*:+*t*+*at*+*i* front+*ADJ*+*PL*+*F*+*OBL* 'first' (CIA4:9')

(275) *šumiru:m* ← *šumir*+*i*:+*um* Sumer+*ADJ*+*NOM* 'Sumerian' (Be18:3')

A category conversion from noun to adverb can be made by using the adverbial marker *a:n*, usually followed by another adverbial marker:

(276) *šuprain uššu* ← *šupr*+*a:n*+*um*+*šu* nail+*ADV*+*LADV*+*3SGM*_{ATT} 'by his talons'
(EtnS:7')

The morpheme *u(m)* is usually termed the 'locative adverbial' (for the final *m* see §2.4.4.6). This marker may indicate locativity (ex. 277) or related semantic notions (ex. 276, 278), with a conversion of category to adverb:

(277) *šepuššu* ← *šep*+*um*+*šu* foot+*LADV*+*3SGM* 'at his feet' (Ad2:19)

(278) *zikruṭušša* ← *zkr*+*w*+*t*+*um*+*ša* male+*ABS*+*F*+*LADV*+*3SGF*_{ATT} 'by her maleness',
'virilely' (AgA2:2)

Another adverbial marker of the same kind is *iš*, usually called the 'terminative adverbial', as it may carry a directional or a dative function (ex. 279). The basic function of *iš*, at least synchronically, is in its adverbial marking (ex. 280).

(279) *ia*:*ʔišša* ← *ia*:+*iš*+*ša* chamber+*TADV*+*3SGF*_{ATT} 'to her chamber' (AgA6:35')

(280) *šaḫummiš* ← *šaḫumm*+*iš* silence+*TADV* 'silently' (Nw:10)

Derivational adverbs like these are usually bare of case marking. Still, *iš* can rarely be followed by the completive case marker *a(m)* (§3.3.2.3):

- (281) *katam i:huzu: ka:tiša (ka:tiš+a)*
 hand+**CMP** they-held hand+**TADV+**CMP****
 'They held hands.' (AhA:11)

The combination of *iš* and *a(m)* may carry distributive meaning, notably in temporal phrases, e.g.:

- (282) *u:mišam ← u:m+iš+am* day+**TADV+**CMP**** 'daily' (GilgX3:8)

Some adverbs exhibit a frozen **CMP** case, which is here void of its syntactic function, which is also the case when in attributive position, e.g.:

- (283) *eli ša pana on≠of≠before+**CMP*** '(even) more than before' (CIA3:5)

A special case where an adjectival phrase carry a **CMP** notation with no syntactic value is discussed in §4.1.4.1.1.

Category conversion may also be indicated by using the bare stem of a noun (usually termed 'absolute state'; §3.3.2.5).

3.3.1.5 Inflectional morphemes

As mentioned above (§3.3.1.3), aspect is marked by patterns. Other types of inflectional morphemes are external:

- (284) *hubu:ri:šina ← hubu:r+i+šina* noise+**ATT+3PLF_{ATT}** 'their noise' (AhB1:4)
 (285) *šamḥarku:ma ← šmḥ~*a+i+arku+ma* flourish+**šmḥ~PTC_A+1SG_{SI}+CONN**
 'I was flourishing and' (GlgP:4)
 (286) *tuḥteppi:šunuti ← ta+hpe~u*ta*:i+šunuti 2+break\hpe~D~PC+PLM_{CMP}*
 'you_{SGM} have broken them' (GilgX4:24)

Inflectional morphemes can be either prefixes (personal morphemes of verbal predicatives, ex. 284) or suffixes, e.g., personal morphemes of nominal predicatives (ex. 285), personal non-predicative pronouns (exx. 284, 286), case (ex. 284), number, and gender markers (§§3.3.2.1-3).

3.3.2 The noun

Nouns can be marked for number, gender and case.

The noun-class comprises both substantives and adjectives. Apart from a small class of adjectives with external marking (§3.3.1.4) and participles, of which the stem structure is highly predictable (§3.3.5.4), adjectives are not usually distinguished from substantives in their stem structure (for ordinal numbers see §3.3.3.2). In the masculine plural, adjectives assume a special morpheme, *ut*, that is annexed to the nominal base when affixed by the plural morpheme {;} (§3.3.2.1), e.g.:

- (287) *ilu rabutu ← il+i+u rbi~*a*i+i+ut+u*
 god+**PL+NOM** great+**PL+ADJ+NOM**
 'the great gods' (AhA:233)

Furthermore, adjectives are always marked for gender, while gender may be implicit in substantives and realized only by morphosyntactic agreement:

- (288) *urḥam re:ke:tam* way+**CMP** far+**F+**CMP**** 'distant road' (GilgMe4:11)

3.3.2.1 Number

LOB has three classes of number: singular (**SG**), dual (**DU**), and plural (**PL**). **SG** is unmarked. The **DU** and the **PL** are marked by the length element {;}. The **DU** is further marked by the

vowel *a* (overt only in the NOM case; §3.3.2.3, also for the final *n*):

- (289) SG: *dimtam* ← *dim+t+am* tear+F+CMP tears' (GlgY:80)
 (290) DU: *dimāšū* ← *dim+t+a+šū* tear+PL+DU_{NOM}+3SGM_{ATT} 'tears' (Cow:6)
reti:tan ← *reti:t+i+an* fix+F+PL+DU_{NOM} 'fixed' (Er:49)
 (291) PL: *dimati* ← *dim+t+at+i* tear+PL+F+OBL 'tears' (Nw:R10)

The length morpheme comes immediately following the stem (exx. 287, 290 first form, 291), the gender marker in the DU (290 second form), or a derivational affix:

- (292) *maḥriati* ← *maḥr+i:l+i+at+i* front+ADJ+PL+F+OBL 'first' (CIA4:9')

Being blocked by a preceding morphemic boundary, the length element always coalesces with the following vowel to form a long vowel, be it the dual marker *a* (ex. 290) or the vocalic segment of the feminine marker (exx. 291, 292), of a case marker, or of the adjective marker *ut* (both in ex. 287 in §3.3.2).

In most of LOB varieties the DU is marked chiefly for natural duals, such as body members. It may spread — in some varieties — to other lexemes by analogy, as is the case with tears, probably by analogy to eyes. In the following example, a pair of doors and a pair of doors are marked as DU, with agreement in the respective appositional and predicative adjectives:

- (293) *šakna: bašma:n siparra: reti:tan*
 setⁿškn~PTC_A+3DU_{SJ} viper+PL+DU_{NOM} bronze+3DU_{SJ} fix+F+PL+DU_{NOM}
dalta:n
 door+F+PL+DU_{NOM}
 'Two vipers are placed (and) the two fixed doors are of bronze.' (Er:49)

Dual agreement to a non-integral pair may be carried as PL (§3.3.5.3.2).

In the construct state (§3.3.2.4), either governing another noun (ex. 294) or an affixed pronoun (ex. 295), the adjective marker does not surface:

- (294) *pa:kidu: ši:mati*
 entrustⁿpkd~PTC_A+PL+NOM+decree+PL+F+OBL
 'those who charge decrees' (AhA:220)
 (295) *muše:biru:ya* ← *muše:bir+:+u+ya*
 cross^vebr~š~PTC_A+PL+NOM+1SG_{ATT}
 'the ones who make me cross' (GlgX4:22)

Some substantives designating human *signifiés* are inflected as adjectives. These carry the ADJ morpheme both in independent position (ex. 296) and in the construct state (ex. 297):

- (296) *eḥlu:tum* 'young men' (GlgP:11)
 (297) *eḥlu:t erra* 'the young men of Erra' (Er:52)

Some substantival stems are augmented by the morph *a:n* when inflected in the PL:

- (298) *a:lani:* ← city+PL+OBL 'cities' (CIA4:6')
 Cf. *a:li* city+ATT 'city' (AhB2:20)

Since there is no extra meaning appended to the stem in these cases, it is best to regard them as stem suppletion. Stem suppletion in the PL is attested also in some other cases, e.g.:

- (299) SG: *aḫa:šu* ← *aḫi+a+šu* brother+CMP+3SGM_{ATT} 'his brother' (AhC3:13)
 PL: *aḫḫi:šu* ← *aḫḫ(i)+:i+šu* brother+PL+OBL+3SGM_{ATT} 'his brothers' (Gir:20)

Some nouns occur only in the plural ('*pluralia tantum*'), thus attracting plural agreement; e.g.:

- (300) *kašutum me:* ← *kaši+:+ut+im ma:²+:+i*
 cold+PL+ADJ+OBL water+PL+OBL
 'cold water' (GlgY:270)

3.3.2.2 Gender

There are two genders: feminine (F), which is either marked morphologically or via agreement, and masculine, which is unmarked. The feminine gender marker is at:

- (301) *wa:lidatim* ← *wa:lid+at+im* give-birth√*uld*-PTC_A+F+ATT
 'giving-birth' (Cow:10)

In some SG forms the F marker surfaces as *t*: (1) being the result of vowel deletion (§2.4.3.1, ex. 302); (2) in nouns where the root's final radical is a vowel (ex. 303); (3) when following a vocalic derivational morpheme (ex. 304); (4) or lexically determined (ex. 305):

- (302) *nawirtum* ← *nawir+at+um* light+F+NOM 'light' (GlgX1:14')
 (303) *ḫibitum* ← *ḫibi:t+um* ← √*ḫbi-·i·i*+*t+um* speech+F+NOM 'message' (Ns5:9)
 (304) *šapli:ta* ← *šapl+i:t+a* low+ADJ+F+CMP 'below' (AhB6:26)
 (305) *tukulti* ← *tukult* ← √*tkl-·u·u*+*t* trust+F 'trust' (Er:62)
 Cf. the variant *tuklat* ← *tukulat* ← √*tkl-·u·u*+*at* trust+F 'trust' (AnzB:14')

Adjectives are always marked for gender. Substantives can be morphologically unmarked for gender, mostly in the SG, but also in the DU or, in rare cases, in the PL. In the following pairs of examples, the first displays a substantive marked for gender, whereas the second displays an unmarked one.

- (306) SG: *li?ti ili: gašertum*
 power+F#god+PL+OBL strong+F+NOM
 'the powerful power of the gods' (AgB2:12)
pada:n a peḫita
 path+CMP shut+F+CMP
 'a closed path' (GlgY:259)
- (307) DU: *reti:tan daltan*
 fix+F+PL+DU_{NOM} door+F+PL+DU_{NOM}
 'two fixed doors' (Er:49)
dimaš u
 tear+PL+DU_{NOM}+3SGM_{ATT}
 'his tears' (Cow:6); cf. exx. 289-291 above
- (308) PL: *uklat bi:t emi: sayyaḫatim*
 food+PL+F#house#father-in-law+ATT enjoyable+PL+F+OBL
 'delightful foods for my father-in-law's house' (GlgP:153)
niši: maḫriati
 people+PL+OBL front+ADJ+PL+F+OBL
 'the first people' (CIA4:9')

For animate substantives, gender indicates difference in sex:

- (309) *šarrim* ← *šarr+im* king+ATT 'king' (Er:6)
šarrati ← *šarr+at+i* king+F+ATT 'queen' (AgA7:13')

This is not the case with inanimate nouns, where gender is in the majority of cases obligatory and lexically constrained. This is especially clear in the case of abstract nouns, which are marked by the ABS morpheme *u*, to which the F marker is always attached (exx. 271).

As seen from many of the examples above, the gender marker is basically of a derivational nature. In some cases it is the only derivational marker, thus making the distinction between two lexical items of the same root:

- (310) *ki:šim* 'thicket' (GlgIS:12')
ki:štim 'forest' (GlgIS:30')

In other cases, substantives can be either masculine or feminine, with no overt difference between them:

- (311) *mu:ši:ya* night+ATT+1SG_{ATT} 'my night' (GlgHB:43)
mu:ši:tkā night+F+2SGM_{ATT} 'your night' (GlgY:262)

3.3.2.3 Case

LOB nouns, as ancient Semitic languages in general, exhibit a case system that is related to the basic syntactic relations on the sentence level (§4.1).¹¹ The case system is tripartite in the SG and bipartite in the PL and DU:

	SG	PL	DU	
attributive	<i>i</i>	<i>i</i>		oblique
completive	<i>a</i>			
nominative	<i>u</i>		\emptyset	

Examples:

- (312) SG: *ili* ← *il+i* god+ATT (AhA:215)
ila ← *il+a* god+CMP (AhC2:50)
ilu ← *il+u* god+NOM (AhA:355)
 PL: *ili:* ← *il+:i* god+PL+OBL (AhA:3)
ilu: ← *il+:u* god+PL+NOM (AhA:233)
 DU: *i:ni:šu* ← *il+:i+a+i:šu* eye+PL+DU+OBL+3SGM_{ATT} 'his eyes' (GlgP:137)
i:naka ← *il+:i+a+ \emptyset +ka* eye+PL+DU_{NOM}+2SGM_{ATT} 'your eyes' (GlgY:258)¹²

The case vowels in free forms may be augmented by *m* ('mimation'), or, in the DU, by *n*. For the distribution of forms, see §§2.2.4.6-7.

¹¹Like other Akkadian varieties, LOB further exhibits a distinct dative marking, which is confined to pronouns (§3.3.4.2). Traditionally, Akkadian studies also treat the morphemes *-iš* and *-u(m)* as case markers. In this study, we regard these as adverbial derivational morphemes (§3.3.1.4).

¹²It might be possible to take *u* as the NOM marker also in the DU, which would be deleted when in contact with the DU marker *a*. This is, however, less likely, due to both synchronic and diachronic considerations.

When in the oblique case, the DU marker *a* (§3.3.2.1) is deleted during the morphophonological operation. In some dialects, the DU oblique may have been *e*. If so, this would be explainable as the result of the contraction of the DU marker *a* with the oblique case marker *i* (cf. §2.4.2.3). Except for one occurrence, where plene writing with *-i-* suggests an *i* pronunciation, our data is ambiguous due to the inability of the writing system to differentiate between the vowels *i* and *e* (§1.2).

The attributive case (ATT; 'genitive' in traditional terminology) marks the attribution, or subordination of a noun to a preceding noun or syntactic head (§4.1.3):

(313) *šir ili* flesh+god+ATT 'the flesh of the god' (AhA:215)

When the second element is a PL or DU noun, it is marked by the oblique case (OBL):

(314) *šupšik ili*: ←*-il+*:+*i* toil+god+PL+OBL 'the toil of the gods' (AhA:3)

The completive case (CMP; 'accusative' in traditional terminology) marks a noun as in complete relation to predication, either as a direct object (*maššaram* 'guardian') or as an adverb (*kaqqaram* 'ground') (§4.1.2.2; see also end of §3.3.1.4):

(315) *huwawa maššaram inē:irma kaqqaram*
 Huwawa guard+CMF he-stroke-and ground+CMF
 'He hit Huwawa the guardian on the ground.' (GlgIS:26')

Nouns in the PL or DU will be marked by the OBL case in this position:

(316) *issi anunna ili: rabu:ti*
 she-called Anunna god+PL+OBL great+PL+ADJ+OBL
 'She summoned the Anunna, the great gods.' (AhA:232)

The nominative case is syntactically neutral, i.e., it is the default case. Usually, it indicates the subject or the predicate of the nominal predication:

(317) *eṭlum ša ta:muru šamaš dannu*
 young-man+NOM that+you-saw Shamash strong+NOM
 'The young man that you_{SGM} saw is mighty Shamash.' (GlgN:R6')

Since a predicative complex is a self-contained sentence (§§3.3.5, 4.1.1.2), any subject marked by the NOM case is, in fact, extraposed to the sentential core. The NOM case can also be found in nouns extraposed to the sentence when its subject is different, in which case it may be regarded as signalling the topic (§4.3.2):

(318) *u:mu išnu: pa:nu:šu*
 day+NOM they-changed face+PL+NOM+3SGM_{ATT}
 'The day — its look changed.' (i.e., the weather has changed; AhC2:48)

In some cases, extraposed elements may bear syntactic case marking relative to the inner-sentence structure. In the following example, the extraposed substantive, which is co-referential with the resumptive pronoun *-šu*, is marked as the completive element:

(319) *ila išmu: rigimšu*
 god+CMF they-heard voice-his
 'They_M heard the god's uproar' or: 'The god — they_M heard his uproar.'
 (AhC2:50; cf. §4.1.4.1.1)

Another environment in which the nominative may be seen as syntactically unmarked is construct-state nouns in the in all syntactic positions, whether attributive (ex. 320) or completive (ex. 321):

- (320) *ina aškula:lu šamši*
 in≠whirlwind+NOM≠SUN+ATT
 in the whirlwind of the sun (AhB6:30)
- (321) *ine:r ḥarḥaram maššaru kištim*
 he-hit ogre+CMF guard+NOM≠forest+P+ATT
 'He hit the ogre, the guardian of the forest.' (GlgIS:30')

Furthermore, NOM occurs in vocatives, which can otherwise be indicated by a \emptyset ending (§3.3.2.5):

- (322) *igaru šitammi:anni*
 wall+NOM listen-me
 'Wall, listen to me!' (AhC1:20)

In the PL, vocatives are never apocopated, and the vowel of the NOM is obligatory, in order to keep the PL marking [:]:

- (323) *ibru: uššira: kuradū šimea:*
 friend+PL+NOM listen hero+PL+NOM hear
 'Friends, listen! Heroes, hear!' (Bell:2)

Furthermore, it may be recalled at this juncture that nouns in ancient Mesopotamian lexical and grammatical lists are listed in the nominative case; this is an additional indication that even the ancient scribes considered the nominative to be syntactically neutral, and therefore the default case.

3.3.2.4 Nouns in the construct state

Two inner-sentential elements may form together an attributive construction (§§3.1, 4.1.3). When the first element is a noun, it is said to be in the construct state. Similarly, a noun to which a pronominal element is suffixed is said to be in the construct state.

Nouns in the construct state are marked for case in conformity with their syntactic position within the sentence. Ex. 324 represents a noun in the NOM governing another noun; ex. 325 represents the same noun in the OBL case governing a pronoun:

- (324) *iḥdu ilu martim*
 they-rejoiced god+PL+NOM≠land+ATT
 'The gods of the land rejoiced.' (AnzA:42)
- (325) *etaplaḥa: ilirkun*
 do-not-fear god+PL+OBL+2PL_{ATT}
 'Do not revere your gods.' (AhA:378)

In many sg nouns, however, the case vowel is not overt, due to morphophonological operations (§2.4.32). In some cases, one finds neutralization in favor of the NOM, at the expense of the expected case (§2.4.4.7). Whenever mimation overtly plays part in a text (§2.4.4.7), a noun in the construct state is never mimated (or, if DU, nunated).

3.3.2.5 Nouns in the absolute state

The absolute state is a term used for the form of nouns when they are not inflected for case. Bare stems that are not the result of morphophonemic deletion of the annexed vowels as is the case, e.g., in the construct state (§§3.3.2.4, 2.4.3.2) and in the predicative complex (§3.3.5.1) may indicate the vocative (ex. 326) or a category conversion from a noun or another nominal element to an adverb (ex. 327):

- (326) *eṭel e:š taḫiššam*
 young-man where you-hurry
 'Young man, where are you_{SGM} hurrying to?' (GlgP:145)
- (327) *ilumma u awiṭum libtallilu: puḫur ina tiṭti*
 god and man let-them-be-mixed gathering in clay
 'Let god and man be mixed together in clay.' (AhA:212-3)

Notably, cardinal numbers (§3.3.3.1), measures (ex. 330) and other quantifiers (ex. 331) may appear in the absolute state:

- (328) *ana šina bitr [...] ru:kiš*
 to two league ... far
 'for two leagues [] afar' (GlgIS:27')
- (329) *naphar i:ru: naphar uldu:*
 total they-conceived total they-give-birth
 'All conceived, all bore.' (EtnS:5)

Lastly, some proper names are not inflected for case.

3.3.3 Numbers

Akkadian has two sets of numeral nouns: cardinal numbers and ordinal numbers. It also has a paradigm for multiplicatives. A reconstruction of the whole set of numbers is difficult due to their usual writing by numeral signs.

3.3.3.1 Cardinal numbers

Most of the numbers in the first ten are construed on either the pattern *a*a* (e.g., *šala:š* 'three') or the pattern *a*i* (e.g., *ḫamiš* 'five') (with morphophonemic changes where vocalic radicals are present, e.g., *sebe* 'seven'). Only a few of the higher numbers are represented in our corpus. From other Akkadian varieties, one may suggest that the second ten will be structured on the pattern *šala:ššer* 'thirteen' ← *šala:š* 'three' + *šer* (< *ešer*) 'ten'. The round numbers between thirty and ninety will be structured on the pattern of *šala:ša:* 'thirty' ← *šala:š* 'three' + *a:*, while 'twenty' will be *ešra:* 'ten' + *a:*. Other numbers are *me'at* 'hundred', *lim* 'thousand'. In agreement with a mathematical system based on 60, LOB also attests, *inter alia*, the following:

- (330) *6 šu:ši li:mi:*
 6 sixty thousand+PL+OBL
 'three hundred and sixty thousand' (CIA3:6)

Cardinal numbers inflect for gender in agreement with their heads. As in other Semitic languages, gender marking is reversed in the cardinal numbers between three and ten. In the following example, 'day' is masculine and 'night' feminine:

- (331) *sebet umim u sebe mušiatim*
 seven+GENDER day+ATT and seven night+PL+F+OBL
 'seven days and seven nights' (GilgX2:8')

Cardinal numbers are usually found attested in the absolute state (§3.3.2.5). Still, they sometimes show case inflection, notably when substantivized, i.e., when they come with no head. In the following example, both options are used in comparable environments, possibly constrained by the number lexeme.

- (332) *ma:lak u:makkal šina u šala:šim*
 walk[≠] for-a-day two and three+ATT
 'a walk of one whole day, two and three' (GlgSB:25)

3.3.3.2 Ordinal numbers

Ordinal number are usually formed by the interdigitation of the root radicals of the cardinal number with the pattern *au* (ex. 333, line 3). The ordinal number 'first' is either expressed by the cardinal number *ište:n* (or its variants, ex. 333, line 1) or by another lexical item (ex. 334):

- (333) *išūtta šattam i:kula: la[]*
 one+FF+CMP year they-ate ...
šanita šattam unakkima: nakkamta
 second+FF+CMP year they-heaped storage
šaluštu šattu illik[amma]
 third+FF+NOM year camel[-and]
 'In the first year, they ate [...]. In the second year, they piled up stores. The third year came, [and] ...' (AhB4:9-11)
- (334) *niši: mahriati*
 people front+ADJ+PL+FF+OBL
 'among the first people' (CIA4:9')

The second ten can be reconstructed, after other Akkadian varieties, as consisting of a cardinal number + adjectival *i:* (§3.3.1.4), e.g.:

- (335) *šala:šeru(m) ← šala:šer+i+u(m)* thirteen+ADJ+NOM 'thirteenth'.

Ordinal numbers are inflected for gender and case, either in agreement with their head (ex. 336) or when substantivized (ex. 337):

- (336) *ešru arḫu* tenth+NOM month+NOM 'the tenth month' (AhA:281)
 (337) *a:tamar rebu:tam* 1SG+see√amr~PC fourth+FF+CMP 'I have seen a fourth (one)'
 (GlgN:9)

3.3.3.3 Multiplicatives

Multiplicatives are formed by the suffixation of the string *i:šu* to a numeric nominal base, a combination of what may be regarded as adjectival *i:* (§3.3.1.4) and a non-referential 3SGM attributive suffix *šu* (cf. §3.3.4.1). It is usually preceded by *adi* 'until':

- (338) *adi sebi:šu* until≠seven+3SGM_{ATT} 'seven times' (AgA5:025')

3.3.4 The pronominal system

3.3.4.1 Personal pronouns

Personal pronouns can be free or bound morphemes. Gender and number are distinguished in the second and third persons. In addition to the bipartite or tripartite case distinction operative in nouns (§3.3.2.3), personal pronouns possess a set with dative marking. Of the bound morphemes, the ATT morphs are suffixed to nouns and the CMP or the DAT to predicative complexes (§3.3.5).

	free			bound		
	NOM	OBL	DAT	to nouns	to predicatives	
				ATT	CMP	DAT
SG 1	<i>anaku-ana?</i>	<i>yati</i>	<i>ya:ši(m)</i>	<i>-i~-ya</i>	<i>-DIR+ni</i>	<i>-DIR+∅</i>
2 M	<i>atta</i>	<i>katali</i>	<i>ka:šim</i>	<i>-ka~-k</i>	<i>-ka</i>	<i>-ku(m)</i>
F	<i>atti</i>	<i>karti</i>	<i>ka:šim</i>	<i>-ki~-k</i>	<i>-ki~-k</i>	<i>-ki(m)</i>
3 M	<i>šu:</i>	<i>šuati~ša:ti</i> <i>~šatu</i>	<i>ša:ši~ša:šim</i> <i>~ša:šum~šuašim</i>	<i>-šu</i>	<i>-šu~-š</i>	<i>-šu(m)</i>
F	<i>ši:</i>	<i>ša:~ša:ti</i> <i>~šuati</i>	<i>ša:šim~ša:šim</i> <i>~šuašim</i> <i>~ša:šu(m)~šaš?</i>	<i>-ša~-š</i>	<i>-ši</i>	<i>-ši(m)</i>
PL 1	<i>oni:nu</i>	<i>onia:xi</i>	<i>onia:ši(m)</i>	<i>-ni</i>	<i>-nia:ti~-ne:ti</i>	<i>o-nia:ši(m)</i>
2 M	<i>attunu</i>	<i>okunuti</i>	<i>okunu:ši(m)</i>	<i>-kunu~-kun</i>	<i>o-kunu:ti</i>	<i>-kunu:šim</i>
F	<i>attina</i>	<i>okina:xi</i>	<i>okina:ši(m)</i>	<i>o-kina</i>	<i>okina:xi</i>	<i>okina:ši(m)</i>
3 M	<i>šunu</i>	<i>šunuti</i>	<i>ošunu:ši(m)</i>	<i>-šunu</i>	<i>-šunuti</i>	<i>-šunu:ši</i>
F	<i>šina</i>	<i>ošina:ti</i>	<i>ošina:ši(m)</i>	<i>-šina~-šin</i>	<i>-šina:ti</i>	<i>-šina:ši</i>

In all free forms and in the PL bound morphemes, OBL forms are indicated by an infixed *t*, DAT forms are indicated by an infixed *š*, and person marking bases are virtually identical to the cognate bound morphemes. Wherever mimation is dominant (cf. §2.4.4.6), the bound DAT forms may be distinguished from their similar OBL forms by their final *m*:¹³

- (339) *uwa?eršu issakkaršum*
 3+instruct~D~PV+3SGM_{CMP} 3+speak~T~IPV+3SGM_{DAT}
 'She instructed him, she said to him:' ... (AnzA:44)

A single occurrence of the short free variant of the 1SG, *ana:*, may perhaps be attested in the following example:

- (340) *ibri: lu: iiba:ra:nu: ana: u atta*
 friend-my let us-be-associates 1SG_{NOM} and 2SGM_{NOM}
 'My friend, let us be friends, I and you_{SGM}' (EtnM6:6')

The ATT allomorphs of the 1SG are dependent on the environment: *-i:* occurs after consonants (ex. 341), *-ya* after vowels (ex. 342):

- (341) *katir* hand+1SG_{ATT} 'my hand' (AhB7:43)
 (342) *kata:ya* hand+DU+NOM+1SG_{ATT} 'my (two) hands' (AhA:289)

The 1SG bound CMP and DAT morphemes both require a preceding DIR allomorph (§3.3.5.6). All other markers may or (more commonly) may not follow a DIR allomorph. The 1SG DAT {∅} can only be indicated in the text by an obligatory DIR morpheme:

- (343) *be:let ili: libbuku:nim* { *libbuku:+nim+∅* }
 Belet=ili MOD+3+lead-away\abk~PV+PLM+DIR+1SG_{DAT}
li:še:ribu:nišši ana mahriya
 MOD+3+enter\erb~š~PV+PLM+DIR+3SGM_{CMP} to≠ front+ATT+1SG_{ATT}

¹³Wherever *m* is indicated in parentheses, it means that the LOB corpus attests both mimated and non-mimated forms. In other cases, the actual attested forms are listed.

belet ili: ibbuku:šumma

Belet=ili 3+head-away√*abk*~PV+PLM+3SGM_{DAT}+CONN

'Let them bring Belet-ili to me and have her enter into my presence. Belet-ili was brought to him and' ... (Ad1:10-11)

Note the parallelism between the first and the third person suffixed to the verbs from √*abk*, as well as the DIR marker preceding the CMP 3SGF pronominal suffix with the verb *li:šerribu:nišši* (←*li:še:ribu:nišši*; §2.4.4.5), where the phrase *ana mahri:ya* is needed, since in the second verb the DIR morph seems not to have the force of implying the 1SG dative.

For the 3SG variants with vocalic contraction, see §2.4.2.1. The apocopated variants of the second and third persons require further research regarding their distribution and meaning. As they are especially widespread in the literary registers of Babylonian, they may be the outcome of some poetic constraints.

While CMP or DAT suffixes are usually attached to verbs, there are still a few instances where they combine with nominal predicatives (§4.1.1.3), e.g.:

(344) *ši:massum* ←*ši:mat+šum* (§2.4.6) decree+F(3SGF_{SJ}; §3.3.5.3.1)+3SGM_{DAT}
'it is the destiny for him' (GlgP:164)

(345) *libbaka naš:ka* ←*naš:it+Ø+ka* heart+2SGM_{ATT} lift√*nš*~PTC_A+3SGM_{SJ}+2SGM_{CMP}
'your heart carries you away' (GlgY:191)

3.3.4.2 Possessive pronouns

Other than the paradigmatic sets presented in §3.3.4.1, Akkadian further attests a possessive set of pronouns, or rather, pronominal adjectives, that show gender and number inflection similar to that of adjectives, including gender inflection in the first person as well (§§3.3.2-3.3.2.2). LOB attests only one possessive pronoun:

(346) *yattum* 'mine_F' (AhC5:48)

3.3.4.3 Other pronominal lexemes

Other pronominal lexemes are nominal in their morphosyntactic behavior, as they are inflected for gender, number and case in conformity with the type of the pronominal lexeme. For example, the lexemic base for 'what' *mann-* is inflected for case, whereas the demonstrative pronoun *anni-* 'this' is inflected also for gender and number; e.g.:

(347) *mannu annita ša la: enki ippuš*
who+NOM this+F+CMF that NEG Enki he-does
'Who could have done this but Enki?' (AhC6:13-4)

3.3.5 Predicatives

Predicatives are morphological complexes that form complete sentences. As such, they consist of both a subject and a predicate, and imply a nexus (i.e., predicative relation) between the two.

There are two main types of predicatives: nominal and verbal, which differ in the order of nexal constituents. In the nominal predicative complex, the subject marker follows the predicate base, while the verbal predicative complex has either prefixed or split subject markers, both prefixed and suffixed (§3.3.5.3). They can further be distinguished by their respective morphological complexity, as verbal bases include — beside derivational morphemes — inflectional morphemes as well (§3.3.1.3). The nominal predicatives are also of two types, substantival and adjectival (=participial), which differ in their derivational regularity (§3.3.5.4.4); this feature is shared with verbal predicatives. In all types of

predicatives, the subject morphemes are annexed to a bare stem, i.e., with no external inflection (§3.3.1).

3.3.5.1 Nominal predicatives

Nominal predicatives are constituted by a nominal stem and a suffixed subject personal marker (§3.3.5.3.1):

(348) *siparra:* ←*-siparr+a:* bronze+3DU_{SI} 'the two are (of) bronze' (Er:49)

(349) *zikar* ←*-zikar+∅* male+3SGM_{SI} 'it is a male' (Cow:16)

The 3SGF, 3DU, and 3PLM markers are the same as the nominal gender (3SGF) and case-number markers (3DU, 3PLM), so that the predicative complexes formed with these personal markers are not distinct from their non-predicative NOM forms (only the construct state forms in the case of 3SGF, 3DU):

(350) *mude:at kala:ma* knowing+*F≠*all 'she who knows everything'

Or: knowing+3SGF_{SI} all 'she knows everything' (GlgP:15)

Nominal predicatives can be substantival or adjectival. The adjectival predicatives are actually participial, and their stem is built on the participial derivational patterns, which are either active (ex. 351) or stative (ex. 352):

(351) *ra:ša:ku* smite/raš~*PTC_A*+1SG_{SI} 'I am a killer' (Er:20)

(352) *wašba:ku* sit/wšb~*PTC_A*+1SG_{SI} 'I sit' (AhC3:49)

Active participles are very rare as predicatives, while stative ones are common. The stem structure of participles is highly predictable, sharing some structural features with verbs (§3.3.5.4.4). It includes a root, a vocalic derivational pattern, and optional stem augments (§§3.3.5.4-3.3.5.4.4).

3.3.5.2 Verbal predicatives

Verbal predicatives, or, simply, verbs, are constituted by a verbal stem and person-gender-number markers attached on both sides of the stem (§3.3.5.3.2):

(353) *iškunū:* ←*-i+škun+u* 3+set/škn~*PV+PLM* 'they set' (AhCv:042)

The only exception is the imperative, in which the second person is implied (§3.3.5.3.2):

(354) *šukni:* ←*-škun+i* set/škn~*IPV+SGF* 'set!' (AgA6:17')

The verbal stem includes a root, an inflectional pattern (§3.3.5.4.4) and optional stem augments (§§3.3.5.4-3.3.5.4.3).

3.3.5.3 Subject markers

3.3.5.3.1 Subject markers of nominal predicatives

Subject markers of nominal predicatives are suffixal. They are marked for person, gender and number in the second and third person, and for person and number in the first person.

		SG	DU		PL	
1		- <i>aku</i>			1	- <i>anu</i>
2	M	- <i>ata--ati</i>			2	M <i>o-atunu</i>
	F	- <i>ati</i>				F <i>o-atina</i>
3	M	-∅	3	- <i>a:</i>	3	M <i>-u</i>
	F	- <i>at</i>				F <i>-a:</i>

While the first and second person markers are etymologically related to the independent personal pronouns, the third person markers are related to the nominal inflectional morphemes: the SG forms are similar to the respective M or F nominal forms as they would appear without case markers; the PLM is identical to the NOM form of M substantives. The only difference is the marker of the 3PLF, the PLF noun having the *t* F marker in addition to the *a*: that marks the 3PLF person morpheme of the participle. From the paradigmatic point of view, all forms are to be regarded as person markers.

Examples:

- (355) *wašbaku* ← *wašib+aku* sit/√*ušb*~PTC_A+1SG_{SJ} 'I am seated' (AhC3:49)
wašib ← *wašib+∅* sit/√*ušb*~PTC_A+3SGM_{SJ} 'he is seated' (AhA:101)
wašbat ← *wašib+at* sit/√*ušb*~PTC_A+3SGF_{SJ} 'she is present' (AhA:189)

The variant *-a:ti* for the 2SGM (=2SGF) is rarely attested, and may be regarded as reflecting a spoken, dialectal reality:

- (356) *šeḫretti:ma* ← *šeḫer+ati+ma* small/√*šhr*~PTC_A+2SG_{SJ}+CONN
 'you_{SG} are young and' (GlgY:191)

3.3.5.3.2 Subject markers of verbal predicatives

The subject markers of verbs include both prefixes and suffixes:

SG		DU		PL	
1	<i>a</i> +stem			1	<i>ni</i> +stem
2 M	<i>ta</i> +stem			2	<i>ta</i> +stem+ <i>a</i> :
F	<i>ta</i> +stem+ <i>i</i> :				
3 M	<i>i</i> +stem	3	<i>i</i> +stem+ <i>a</i> :	3 M	<i>i</i> +stem+ <i>u</i> :
F	<i>i</i> +stem~ <i>ta</i> +stem			F	<i>i</i> +stem+ <i>a</i> :

The prefixes are genuine person markers, and include marking for the 1SG, 1PL, second person and third person:

1	<i>a</i> - (SG)	<i>ni</i> - (PL)
2		<i>ta</i> -
3		<i>i</i> -

The suffixes include a gender marker for the 2SGF (*-i*), a number marker for the 2PL and the 3DU (*-a*), and a combined number and gender marker for the 3PL (*-u*: for M; *-a*: for F).

The 3SGF variant *ta*- is rather uncommon in LOB, and occurs side by side with the standard Babylonian third person marker *i*-, which is unmarked for gender:

- (357) *ši: tešme:* *tabakki:šum*
 she 3SGF+hear/√*šme*~PV 3SGF+cry/√*bki*~IPV+3SGM_{DAT}
ninsiskura išappu kima arhim
 Ninsiskura 3+dense/√*špu*~IPV like cow
 'She heard ... as she was weeping for him, Ninsiskura was bellowing like a cow.' (Nw:R11-12)

The *ta*- prefix is an inheritance from Proto-Semitic that has been preserved as the standard 3SGF marker in Assyrian. Its occasional surfacing in LOB texts may be the reflection of a local feature.

A dual subject or two subjects can take either a DU (ex. 358) or a PL agreement (ex. 359):

- (358) *ištar u ilaba li:ramaka*
 Ištar and Ilaba MOD+3+love\ram~PV+DU+2SGM_{ATT}
 'Ishtar (a female goddess) and Ilaba (a male god) love you.' (Ns5:6)
- (359) *uštaddanu kilalla:n*
 3+love\ram~D~T~IPV+PLM both+DU+NOM
 'The two were conferring.' (GlgP:46)

The imperative, for which the second person is implied, has only gender or number marking (see ex. 354):

	SG	PL
M	-∅	-a:
F	-i:	

3.3.5.4 Stem structure

The following discussion will use the term 'verbal domain' to include finite verbs, the active and passive participles, and the infinitive (§3.2). Morphological entities of the verbal domain share primary and secondary augments (§§3.3.5.4.1-2). As primary augments condition pattern structure (§3.3.5.4.4), entities of the verbal domain share structural affinities relative to the augments they include. Accordingly, the primary stem augments can be seen as class markers.

Augments are added to the root. The primary augment {*n*} or {*š*} is added as a prefix to the root, i.e., just before the first root radical; the doubling augment {*i*:} is added following the second root radical. A secondary augment is inserted as an affix following the first element of the root, or, if the root has been augmented by {*n*} or {*š*}, following the primary augment. A rank-1 (or, primary) augment is added first; then a secondary augment is added. The pattern is interdigitated to the root following augment affixation. The next stage in the formation of the morphological complex of the verbal domain is the affixation of external morphemes, which is followed by the application of morphophonological rules. The following two set of rules demonstrate the formation of a finite verb (1) and of an active participle (2).

- | | | |
|----------------------------|--------------------------------------|-------------------------------|
| (1) Choose root | NDN | 'give' |
| Add rank-1 augment | šNDN | +š |
| Add rank-2 augment | ššNDN | +š |
| Add (aspectual) pattern | <i>uštandin</i> | ~PFV |
| Add external affixes | <i>i+uštandin+u:</i> | 3+...+PLM |
| Apply morphophonemic rules | <i>uštaddinu:</i> | 'they _M conferred' |
| | 3+give\ndn~š~T~PFV+PLM ¹⁵ | (GlgY:20) |

¹⁴These classes are termed in Akkadian studies as G, D, Š and N. These stand for German *Grundstamm* (basic stem), *Doppelstamm* (a stem marked by doubling), and stems marked by š and n, respectively. The concept behind these terms takes the stem structure as a single entity, thus including both consonantal augments (of both the primary and secondary ranks) and patterns. In this study, patterns and augments are strictly separated as carriers of distinct meanings, i.e., as distinct morphemes.

¹⁵The order of elements combined in a stem may be different in the gloss line than their order in the actual stem, and follow, rather, their order of application as explained here. This is needed due to the inconsecutive nature of stem formation.

(2) Choose root	RPD	'dance'
Add rank-1 augment	RPD	—
Add rank-2 augment	<i>rn</i> RPD	+ <i>rn</i>
Add (derivational) pattern	<i>murtan</i> PD	~PTC _A
Add external affixes	<i>murtan</i> PD+ <i>u</i>	+NOM
Apply morphophonemic rules	<i>murtappidu</i>	'roaming'
	roam√ <i>rpd</i> ~TN~PTC _A +NOM	(EtnS:3)

There is also an unmarked class, where no root augmentation of any rank-1 element is present. The unmarked class, like other classes, can take secondary augments:

(360) *ibtanakki* 3+cry√*bki*~TN~IPV 'he would cry' (AhB3:4)

Roots with four radicals always take an augment, either *n* or *š*:

(361) *ayyipparšidka* ← *ayy+i+n+√pršd*~***a*~**+*ka*
 MOD_{NEG}+3+flee~N~PV+2SGM_{CMP} 'let him not escape from you' (AnzA:66)

3.3.5.4.1 Primary stem augments

Stem augments of the first rank include the consonants *n* and *š*, as well as the length segment *i*, which is regularly present as consonantal doubling (for cases of alternation between doubling and vocalic length, see §2.4.8). Of marginal significance are the very rare attestations of detached reduplication, i.e., where a duplicate radical (the second and possibly also the third) is repeated in a separate syllable.¹⁶ Stem augments are usually taken to carry meanings; however, this perception must be regarded only as a tendency. In the LOB corpus, the following tendencies have been traced:

3.3.5.4.1.1 {*n*}

n tends to indicate non-active voice, usually the passive counterpart of a root derived in the unmarked class:

(362) *liššakin* ← *lu:+i+n+škn*~***a*~** MOD+3+set√*škn*~N~PV 'let it be set' (AgB5:16)

Cf. *iškun* 3+set√*škn*~PV 'he set' (AhB3:3)

It may carry an inchoative force, notably with √*bši* 'be':

(363) *kirma abub me: ša ibbašu:* (← *inbašu:*)

like≠ flood≠water+PL+OBL that≠3+be√*bši*~N~PV

'Like the water-flood that had been come into being.' (CIA4:8')

Cf. *ibašši ištata kura:du*

3+be√*bši*~IPV one+P+CMP hero+NOM

'Once there was a hero.' (AgA3:004)

Some roots are limited to the N class, where no added value can therefore be assigned:

(364) *nāplis* look√*pls*~N~IMP+SGM 'look!' (GlgHA:1)

3.3.5.4.1.2 {*š*}

š tends to indicate the causative:

(365) *ušteřib* 3+enter√*erb*~š~PC 'he brought in' (AhC2:42)

Cf. *irrub* 3+enter√*erb*~IPV 'he comes in' (AhC2:45)

In some cases, as is common in roots with stative meaning, the *š* morpheme has a

¹⁶Gloss marking for these augments are those used for the respective class symbols: N, Š, D, and R, respectively. Cf. note 14 above.

factive force:

- (366) *lu:šarrik* *elik* *lu:šarpiš*
 MOD+1SG+long\ark~š~PV on-you MOD+1SG+wide\vpš~š~PV
 'Let me lengthen and widen (the house) over you.' (Er:28)

Cf. *ma:tum irtapiš* land+NOM 3+wide\vpš~PC 'the land has expanded' (AhB1:2)

In still other cases, the *š* morpheme indicates the elative, notably in its adjectival form:

- (367) *šutukušu* *narbu:ša*
 pass\etk~š~PTC_A+3PLM_{SI} great-deeds-her
 'Her great deeds are supreme.' (AgA6:23)

Cf. *etket* *eli šala:štin šunatiya*
 pass\etk~PTC_A+3SGF_{SI} on three dreams-my
 '(The fourth dream) surpasses my three dreams.' (GlgN:10)

Other instances of the stative participle of the Š class do not have the same function:

- (368) *sapnat* *matum šušhurat* *kalu:ša*
 she-is-flat land encircle\šhr~š~PTC_A+3SGF_{SI} all-her
 'The land is leveled, subverted in its entirety.' (CIA4:13')

š can also be used as a derivational marker, altering the basic meaning of a root:

- (369) *šubrik* (←*šubrik*+Ø) *anzam*
 flash\brk~š~IMP+SGM Anzu+CMF
 'Strike Anzu!' (AnZA:12)

Cf. *ibrık* *birkušum*
 3+flash\brk~PV flash+NOM
 'lightning flashed' (GlgSB:36)

There are cases in which the morph *š* has no value. In the following example, the root *√nšr* 'guard' is used with similar meanings, first in its common unmarked derivation, then with an added *š*, where collocations may constrain the choice in each case:

- (370) *ušur* (←*ušur*+Ø) *rama:nka*
 guard\√nšr~IMP+SGM self+2SGM_{ATT}
 'Watch yourself!' (GlgY:250)
šipra *ša akabbu:ku šuššir* (←*šuššir*+Ø) *atta*
 message that≠I-say-to-you guard\√nšr~š~IMP+SGM you
 'Observe the message that I tell you.' (AhC1:18)

3.3.5.4.1.3 {r}

The length morpheme *r* is usually said to mark the factitive. This is true in some cases:

- (371) *tuhteppišunurti* 2+break\hpe~D~PC+3PLM_{CMF} 'you_{SGM} broke them' (GlgX4:24)
 Cf. *išpi* 3+break\hpe~PV 'it broke' (AhC3:10)

Many forms of the D-class do not have counterparts in the unmarked class. A great many of them are transitive, though:

- (372) *kullimi*: show~D~IMP+SCF 'show!' (GlgX3:23)

Forms in the D class may carry meanings different from their corresponding forms in the unmarked class:

- (373) *ituktabbit* MOD+3SGF+heavy\kbt~D~T~PV 'let her be honored' (AhA:295)
 Cf. *iktabit* 3+heavy\kbt~PC 'it was heavy' (GlgP:8)

Furthermore, forms in either the unmarked class or the D class do occur in similar contexts with no difference in meaning:

(374) *unaššiku: še:pi:ša* 3+kiss√nš_k~D~PV+PLM feet-her 'they_M kissed her feet' (AhA:245)

Cf. *iššiku* (←*inšiku*; §2.4.4.1) *še:pi:šu* 3+kiss√nš_k~PV+PLM feet-his 'they_M kissed his feet' (Gir:13)

3.3.5.4.1.4 Detached reduplication

Detached reduplication is extremely rare in Akkadian, all the more so in our LOB corpus. Its meaning, or value, is hard to assign:

(375) *uttamammū* 3+swear√tma~R~T~PV+PLM 'they_M swore to each other' (EtnS:4)¹⁷

Cf. *lutma* MOD+1SG+swear√tma~PV 'let me swear' (Ns5:7)

3.3.5.4.2 Secondary stem augments

3.3.5.4.2.1 {t}

Forms with the *t* augment are hard to detect in some inflectional patterns, as they are similar to forms of the perfect pattern (which includes the consonant *t* as part of the pattern) on one hand, and to perfective forms with augmented *tn*, on the other (§3.3.5.4.4). The LOB data that lend themselves to structural analysis, whether morphological, syntactical, or contextual, exhibit the following picture: the array of stems with the *t* augment makes a continuum between forms indicating voice and purely lexically-derived forms. The basic meaning of the *t* augment seems to be non-active voice, with general implications of passive, medial, reflexive, and, especially, reciprocal.

(376) *nintu liballil* *tiṭṭa*
Nintu MOD+3+mix√bll~D~PV clay+CMP
ilumma u awilum libtallilū:
god+NOM+TOP and man+NOM MOD+3+mix√bll~D~T~PV+PLM
'Nintu should mix clay so that god and man be mixed.' (AhA:211-2)

(377) *itašku:ma* *i:pušu: ru:ʹu:tam*
3+kiss√nš_k~T~PV+PLM+CONN they-made friendship
'They_M kissed each other and formed a friendship.' (GlgY:18-9)

Cf. *iššiku: še:pi:šu* 3+kiss√nš_k~PV+PLM feet-his 'they_M kissed his feet' (Gir:13)

Other notions that seem to be indicated by the use of the *t* augment are, inter alia, separative (with predicates of motion; ex. 378, √akš); inchoative (ex. 378, √nzz), or immanence (ex. 379):

(378) *it akšamma* *ittazi[z]* *ina su:ki*
3+move√akš~T~PV+DIR+CONN 3+stand√nzz~T~PV in street
'He went off and stood in the street.' (GlgP:200-1)

Cf. *ik ussumma* (←*i:kuš+šum+ma*; §2.4.6) *i:tawwa:ššu*
3+move√akš~PV+3SGM_{DAT} they-spoke-to-him
'She approached him and spoke to him.' (GlgP:144)

izzamma *ina su:kim ... paḫra:ma* *nišu:*
3+stand√nzz~PV+DIR+CONN in street ... they-are-gathered-and people
'He stood there in the street ...; people were assembled, and ...' (GlgP:179-81)

¹⁷The reciprocity is not signalled by *R*, but is rather signalled by the morpheme *t* (§3.3.5.4.2.1).

- (379) *šunatum kitrubā*
 dreams approach √*krb*~T~PTC_A+3PLF_{BJ}
 'The dreams are imminent.' (GlgN:2)

Cf. *šarrum ikrab*
 king 3+approach √*krb*~PV
 'The king drew near.' (Er:46)

At the other end of the continuum, one finds lexicalized forms, e.g.:

- (380) *aššute:ši*: ←*an*+*šute:ši*: to+go-out √*uši*~S~T~INF 'to fight' (AgA5:33)
 <'make go out with'

Some roots are derived with an infix *t* either exclusively or in variation with unmarked forms, so that the morph *t* seems to carry no additional meaning. This is especially noticeable in the semantic field of speech:

- (381) *itawwam* 3+speaking √*auu*~T~IPV+DIR 'he spoke' (GlgP:25)

Similarly, the frequent formulaic form *issakkar(am)* (←*istakkar*; §2.4.5) '(s)he spoke' is, likewise, always derived with an infix *t*.

3.3.5.4.2.2 {*tn*}

The basic meaning of the *tn* morpheme is best viewed as continuous or progressive (ex. 382), with occasional implications of habitualness (ex. 383), permanence (ex. 384), iteration (ex. 385), and concentration or insistence (ex. 386):

- (382) *nablu: imtakktutu*: (←*imtanqutu*) *ituru*: *la'miš*
 flames 3+fall √*mkt*~TN~PV+PLM they-turned like-ashes
 'The flames were falling down, they_M turned to ashes.' (GlgSB:41)

Cf. *šerum ša anim imktut ana šerriya*
 morning-star of Anu 3+fall √*mkt*~PV to me
 'A morning star of Anu fell in front of me.' (GlgP:7)

- (383) *mimma ša iteneppušu šarumma*
 any that*3+do √*epš*~TN~IPV+SUB wind
 'Anything he does is but wind.' (GlgY:142-3)

Cf. *išti:at teppuš*
 one 2+do √*epš*~IPV
 'You_{SGM} will do something unique.' (GlgSB:17)

- (384) *šitakkan* (←*šitankan*) *maḥazi:ka*
 set √*škn*~TN~IMP shrines-your
 'Set your shrines forever.' (AnzB:71")

Cf. *šukun* (←*šukun*+∅) *ada:nam*
 set √*škn*~IMP time
 'Set the time.' (AnZA:052)

- (385) *šattišamma šumirum liktazzassi* (←*liktanzassi*)
 year+P+TADV+CMF+FOC Sumer+ADJ+_{NOM} MOD+3+shear √*kzz*~TN~PV+3SGF_{CMF}
 'Let the Sumerian shear it yearly.' (Bel8:3')

- (386) *igaru šitammianni* (←*šitanmi:anni*)
 wall hear √*šme*~TN~IMP+SGF+1SG_{CMF}
 'Wall, listen to me!' (AhC1:20)

Cf. *šimer* *sikri:ya*
 hear√šme~IMP+SCF speeches-my
 'Hear my words!' (AgA6:19)

In some cases, forms with the *tn* augment are lexicalized:

(387) *mutabbilšu* (←*mutanbilšu*; §2.4.8) carry√ubl~TN~PTC_A+3SGM_{ATT} 'his servant'
 (GlgIS:18) < 'he who constantly carries'

3.3.5.4.3 Compatibility of augments

Augments of a similar rank are, as a rule, mutually exclusive. One exception to this rule is the group of rare forms, confined to literary registers, where both *š* and *t* are found to be compatible. The few attested forms in the LOB corpus seem to be derivational, where the original factitive-causative can still be felt, e.g.:

(388) *ušweddi* ←*ušwedti* 1SG+know√ude~š~D~PV 'I assigned' (AnZA:49)
 < 'I made known'

Due to notional constraints, the rank-1 augment *n* and the rank-2 augment *t* seem to be incompatible, unless *n* can be assigned a derivational meaning (§3.3.5.4.1.1). Forms analyzable as containing the two are extremely rare in Akkadian, and are therefore negligible. Our corpus may attest one such form, which can, however, be interpreted as either a *PC* form of the unmarked class or (less likely) a *PV* form of the unmarked class with a *tn* augment (§3.3.5.4.2.1):

(389) *ittamharu* ←*i+n+t+mhṛ~*a*a+u* 3face√mhr~N~T~PV+PLM
 'they_M confronted each other' (GlgP:214)

3.3.5.4.4 Patterns

As mentioned (§3.3.5.4), the verbal domain includes both (finite) verbs and nominal forms. Patterns are inflectional in the verb and derivational in nouns. All patterns are regulated by class markers, i.e., the rank-1 augments or their absence (in the unmarked class). In other words, each pattern has environmentally-conditioned allomorphs. The secondary augments effect pattern modification, mainly to accommodate syllable structure. This may be done on either the morphological or on the morphophonological level. For example, at the morphophonological level, the commonly used *a*-epenthesis will be added. In contrast, one may find an *i* vowel inserted at the morphological level in forms such as

(390) *mitlukam* ←*mtlk~*i*•u*+am* advise√mlk~T~INF+CMP 'counsel' (GlgHB:47)
 Cf. *atlukni* ←*atlk~*•••u*+ni* go~T~INF+1PL_{ATT} 'our departure' (Ns1:2')

in which the first radical *a* suppresses the need to insert a supporting vowel (cf. §2.4.2.5.1).

The following marked meanings can be assigned to each pattern (or, rather, set of allomorphic patterns):

- Nominal: Substantival: Infinitive (INF)
 Adjectival: Active participle (PTC_A)
 Stative participle (PTC_{ST})
- Verbal: Imperative (IMPV)
 Perfective (PFV)
 Imperfective (IMPFV)
 Perfect (PFC)

Basically, verbal forms differ from nominal ones in their additional marking of aspectual

and temporal features. As the terms given to them suggest, PV and IPV mark aspect, while PC may also suggest temporality. The IMP is modal. The PV is used with the modal morphemes to form a modal morphological complex (§3.3.5.5). A detailed discussion of the uses of each of the nominal and verbal forms will be found in the relevant sections on syntax.

The following table represents surface-structure forms of stems as they are realized after the application of all morphophonological rules. The root used is the three-consonantal root *√prs* 'cut', 'decide', which is commonly employed for this purpose in Akkadian studies. For morphophonological rules operative in forms with vocalic radicals, see §2.4.2.5. The infinitive and the participles are shown in their absolute (or construct) form, which — for the participles — is also their 3SGM predicative form (§3.3.5.3.1). The imperative is shown in the 3GM form. Prefixed verbs and the stative participle are presented in the 3SC. The table lists all allomorphic patterns operative in the unmarked class and in the main three classes governed by primary augments. Patterning with detached reduplication (§3.3.5.4.1.4) is similar to the patterning of the D class; so are forms with both *š* and *i* (§3.3.5.4.3). Patterning of forms with four-radical roots also conform in its principles to the patterning of forms with three-radical roots, with some expected modifications in syllable structure (cf. ex. 250 in §3.3.1.1).

pattern	Rank-1		unmarked	{n} (N)	{:} (D)	{š} (Š)
	Rank-2					
INF	unmarked		<i>paras</i>	<i>naprus</i>	<i>purrus</i>	<i>šuprus</i>
PTC _A			<i>pa.ris</i>	<i>mupparis</i>	<i>muparrisum</i>	<i>mušapris</i>
PTC _{ST}			<i>paris</i>	<i>naprus</i>	<i>purrus</i>	<i>šuprus</i>
IMPV			<i>pvrvs</i>	<i>naprus</i>	<i>purris</i>	<i>šupris</i>
PFV			<i>iprvs</i>	<i>ipparis</i>	<i>uparris</i>	<i>ušapris</i>
IMPFV			<i>iparrvs</i>	<i>ipparras</i>	<i>uparras</i>	<i>ušapras</i>
PFC			<i>iptarvs</i>	<i>ittapras</i>	<i>uptarris</i>	<i>uštapris</i>
INF	{t}		<i>pitrus</i>		<i>putarrus</i>	<i>šutaprus</i>
PTC _A			<i>muptaris</i>		<i>muptarris</i>	<i>muštapris</i>
PTC _{ST}			<i>pitrus</i>		—	<i>šutaprus</i>
IMPV			<i>pitrvs</i>	*	<i>putarris</i>	<i>šutapris</i>
PFV			<i>iptarvs</i>		<i>uptarris</i>	<i>uštapris</i>
IMPFV			<i>iptarrvs</i>		<i>uptarras</i>	<i>uštapras~uštaparras</i>
PFC			<i>iptatrvs</i>		<i>uptatarri</i>	<i>uštatarri</i>
INF	{tn}		<i>pitarrus</i>	<i>ittanprus</i>	<i>putarrus</i>	<i>šutaprus</i>
PTC _A			<i>muptarris</i>	<i>mutanpris</i>	<i>muptarris</i>	<i>muštapris</i>
PTC _{ST}			<i>pitarrus</i>	<i>itanprus</i>	<i>putarrus</i>	<i>šutaprus</i>
IMPV			<i>pitarrvs</i>	<i>itaprvs</i>	<i>putarris</i>	<i>šutapris</i>
PFV			<i>iptarrvs</i>	<i>itaprvs</i>	<i>uptarris</i>	<i>uštapris</i>
IMPFV			<i>iptanarrvs</i>	<i>ittanaprvs</i>	<i>uptanarras</i>	<i>uštanapras</i>
PFC			<i>iptatarvvs</i>	<i>ittatarvvs</i>	<i>uptatarri</i>	<i>uštatarri</i>

**n* and *t* are notationally incompatible (see §3.3.5.4.3); so, presumably, is the combination of the PTC_A of the D class with a *t* augment.

Comments:

In the unmarked class, and, with lesser rigidity, in the N class, the vowel that follows the second root radical is governed by the root. In general, finite verbs may have *a*, *u* or *i* in all

inflectional forms (exx. 391, 392, 393 respectively), or have *u* in the PV and IMP, but *a* in the IPV and PC (where no secondary augments are present) (ex. 394):

- (391) *išbat(ma)* 3+seize/šbt~PV(+CONN) 'he seized' (GlgSB:11)
išabbat 3+seize/šbt~IPV 'he will hold' (GlgHA:13)
- (392) *išgum* 3+shout/šgm~PV 'he shouted' (AnzB:11')
išaggum 3+shout/šgm~IPV 'he was roaring' (AhC2:53)
- (393) *ikmis(ma)* 3+kneel/kms~PV(+CONN) 'he knelt' (GlgP:227)
ikammis 3+kneel/kms~IPV 'he would not kneel' (AhC2:46)
- (394) *ipšur* 3+release/pšr~PV 'he made clear' (AhA:135)
ipaššar 3+release/pšr~IPV 'he makes clear' (GlgP:1)

In most cases, the PTC_A exhibits the pattern **a·i*·. In only a few cases, the second vowel may be a vowel other than *i*:

- (395) *watar* ← *watar*+∅ exceed/utr~PTC_A+3SGM_{SI} 'he exceeds' (Sin2:3)

The N class tends to follow the D and Š forms in their ablaut marking of inflectional patterns, where *i* marks the PV and *a* the IPV. In the D and Š classes, *i* vs. *a* ablaut indicates this inflectional distinction due to the absence in the surface structure — in most cases — of the inflectional doubling marker of the IPV. Still, wherever syllable structure does not condition its suppression, doubling in the IPV is present. This is the case with forms of the Š class of *primae vocalis* roots, as against the more common case of forms derived from other roots. In the latter case, morphological or morphophonological processes shorten the phonemic string (for the slot structure cf. §3.3.1; in the D class doubling coalesces with the derivational one):

- (396) [tuša]kkala:nim ← *ta*+uša [k]al+a:+nim ← *ta*+šakl~u·a [e]·a·a:+nim
 ← *ta*+š+akl~u·a [e]·a·a:+nim 2+eat/akl~š~IPV+2PL+DIR 'you_{PL} feed'
 (AhB6:13)

Cf. *tušabrakušu* ← *ta*+uša [br]ak+šu ← *ta*+šbrk~u·a [e]·a·a+šu
 ← *ta*+š+brk~u·a [e]·a·a+šu 2+flash/brk~š~IPV+3SGM_{COMP} 'you will strike him'
 (GlgN:5)

IPV forms of the Š class with the augment *t* are usually said to be of two patterns: short (*uštpras*) and long (*uštaparras*), corresponding to their meaning; forms indicating voice are short, derivational forms are long. The data in the LOB corpus are too scanty to confirm or disprove this claim.

Finite verbs of the Š class from *primae vocalis* roots show two alternative patterns (only PV forms are attested), *ušaV·i*· and *ušuV·i*·:

- (397) *uše:li* ← *uša*eli 3+ascend/eli~š~PV 'he raised' (Er:17)
- (398) *tuštu:li:ma* ← *tuštu*eli 2+ascend/eli~š~PV+SGF+CONN 'you_{SGF} raised up'
 (Nw:R8)

As is the case with the Š class, forms with the *tn* augment also tend to shorten, and many of them are similar to the corresponding forms with *t*. One also finds dialectal variation of *tn* forms of roots with a weak first radical (a vowel, a length element, or *n*), where the first radical is deleted, with further repercussions for syllable structure:

- (399) *itnallak* 3+goV/lk~TN~IPV 'he was going' (Er:36)
 Cf. *atanallak* 1SG+goV/lk~TN~IPV 'I was walking' (GlgP:4)

3.3.5.4.1 Constraints on pattern alternation

A few verbs, of which the roots are lexically stative in nature, tend not to be inflected in the unmarked class, and may assume a single pattern in all contexts. Thus *vide* 'know' or *višu* 'have' are always attested as if in the PV (ex. 400), *vbši* as if IPV (ex. 401):

- (400) *mimma ša tettenepušu la: tšde*
 any that you-do NEG 2+know/*vide*-PV
 'You_{SGM} do not know what you do.' (GlgY:192)
- (401) *ul ibašši mitluku niši:ša*
 NEG 3+be/*vbši*-IPV advise people-her
 'There was no deliberation for her people.' (EtnM1:13)

The meaning is the one usually conveyed by the PTC_A, which is unattested for these roots. In conjunction with the modal prefix or when negated, *vbši* may take the PV form (§4.1.1.4).

3.3.5.5 Modal markers

Modality can be marked for nominal and verbal predicates alike. The principal modal marker is *lu:*, which is found without any morphophonemic changes (cf. below and §3.1) under the following conditions: (1) always, when used with an asseverative force (ex. 402; §4.5.2.2.1.2); (2) with nominal predicates, either independently (ex. 403) or in a predicative complex (ex. 404), when used with a directive force (§4.5.2.2.2.1):

- (402) *lu takbi:* MOD 2+say/*kbi*-PV 'you_{SGM} indeed commanded' (Gir:8)
 (403) *lu ikkibu* MOD taboo+NOM 'let them be taboo' (AhC7:8)
 (404) *lu akšat* MOD dangerous/*ukš*-PTC_A+3SGF_{SI} 'she should be dangerous' (AgA5:6')

As for verbs, the IMP is the directive form par excellence. However, it serves only for the second person. For the first and third persons, LOB uses the morpheme *lu:* prefixed to the PV form of the verb (§2.4.2.4.2; ex. 405), with its allomorph *i* for the 1PL (ex. 406)¹⁸ and — with the personal morpheme *ta-* (§3.3.5.3.2) — for the 3SGF as well (ex. 407).

- (405) *lirši* ← *lu:+i+rši*-*V MOD+3+possess~PV 'let her have' (AgA5:4')
 (406) *i niškun* ← *i:+ni+škun* MOD+1PL+set/*škn*-PV 'let us set' (GlgHB:17)
 (407) *itaḥdu* MOD+3SGF+glad 'let her rejoice' (AhA:302)

The negative modal has two allomorphs: *ayy* before a vocalic personal prefix (ex. 408), *e:* before a consonantal one (ex. 409):

- (408) *ayyirši* ← *ayy+i+rši* MOD_{NEG}+3+possess/*rši*-PV 'may it not have' (GlgIM:24)
 (409) *etarši* ← *e:+ta+rši* MOD_{NEG}+2+possess/*rši*-PV 'may you_{SGM} not have' (Gir:47)

3.3.5.6 The directional morph

The directional morph (DIR)¹⁹ is a verbal suffix. It has three allomorphs, depending on the person of the verb:

-a(m): 1SG, 2SGM, 3SG, 1PL ~ -(m): 2SGF ~ -ni(m): 2PL, 3PL

It shows a marked tendency to join verbs of motion (ex. 410) or verbs with (potential) dative complementation, notably verbs of speech (ex. 411):

¹⁸Against the common practice, we transcribe the allomorph *i:* as a clitic rather than as a separate word, to conform with the allomorph *lu:*, which coalesces with the person prefixes of the verb.

¹⁹Usually termed 'ventive' in Akkadian studies.

- (410) *urdamma* *i:takal li:dani:ya*
 3+descend√*urd*~PV+DIR+CONN he-ate brood-my
 'He came down here and ate my broods.' (EtnS:18')
- (411) *kibi:amma* *ša te:rrišanni luddikku*
 say√*kbi*~IMP+DIR+CONN that you-ask-me I-shall-give-you
 'Tell me and I shall give you what(ever) you_{SGM} ask of me.' (EtnM6:7')

In some cases, notably with the verb √*lk* 'go', DIR may indicate direction towards the speaker. In such cases, a 1SG dative pronoun may be understood (§3.3.4.1):

- (412) *lumna illika* (←*illik*+*a*+∅)
 badness 3+go√*lk*~PV+DIR+1SG_{DAT}
 'He came to me with evil.' (EtnS:19')

In other cases, DIR may suggest the notion of 'for me', 'as far as I am concerned':

- (413) *iktabta* (←*iktabit*+*a*+∅) *rigim awi:lu:ti*
 3+heavy√*kbt*~PC+DIR+1SG_{DAT} voice humanity
 'The noise of humanity has become heavy for me.' (AhB1:7)

The DIR morph may be attached to other dative personal suffixes well (§3.3.4.1):

- (414) *atkalakkumma* (←*atkalammumma*; §2.4.4.5)
 1SG+trust√*tkl*~PV+DIR+2SGM_{DAT}+CONN 'I trusted you' (EtnS:11')

These tendencies are, however, far from general. Moreover, DIR can be found with other verbs without any real clue to its meaning, e.g.:

- (415) *ištuma iblula* *tišta ša:ti*
 since 3+mix√*bl*~PV+DIR clay that
 'When she mixed that clay.' (AhA:231)

Finally, the DIR morph seems to have no function and follow poetic needs, as in the following example, where the final *-am* on *išti:am* 'he drank' may have been required by the poetic structure. Note that no DIR morph is added to *ikul* 'he ate' within the narrative passage, nor is it added in the IMP form *šiti* 'drink' that parallels to *išti:am* in direct speech:

- (416) *akul* (←*akul*+∅) *aklam enkidu / simat bala:tim*
 eat√*akl*~IMP+SGM bread Enkidu / fitting life
šikaram šiti (←*šiti*+∅) *šimti marti*
 beer drink√*šti*~IMP+SGM decree land
ik ul *aklam enkidu / adi šeber:šu*
 3+eat√*akl*~PV bread Enkidu / until satiety-his
šikaram išti:am / *sebet assammim*
 beer 3+drink√*šti*~PV+DIR / seven jug
 'Eat the bread, Enkidu, appropriate for life; drink beer, the custom of the land.'
 He ate the bread, Enkidu, / until he was satiated; he drank beer / seven jugs.'
 (GlgP:96-102)

3.3.5.7 The subordination marker

The subordination marker *-u* (SUB)²⁰ can be attached either to verbs (ex. 417) or to the predicative stative (ex. 418).²¹ It is found attached directly to the stem (ex. 417, 418), and

²⁰Usually termed 'subjunctive' in Akkadian studies.

²¹The data on other nominal predicatives are too scanty to draw any conclusions regarding a possible wider scope for SUB marking.

is incompatible with either a person/gender/number suffix or the directional morph (exx. 419, 420 respectively). It marks the entire clause as dependent, being the equivalent of the ATT case in nouns (§§3.3.2.3, 4.1.3.1):

- (417) *ali a:littum ulladuma*
 where giving-birth 3+give-birth√*uld*~IPV+SUB+CONN
 'Where a bearing-mother delivers.' (AhA:291)
- (418) *aḫi: ša ana aḫi:ya waldū* (←*walid*+Ø+u)
 brother-my that to brother-my give-birth√*uld*~PTC_A+3SGM_{SJ}+SUB
 'My brother who was born to my brother.' (Sin7:4')
- (419) *ša šumšu ittanambala: ma:ta:tum*
 that name-his 3+carry√*ubl*~TN~IPV+PLF lands
 '(The one) whose name all the lands constantly carry.' (GlgY:183)
- (420) *ša allikam ištu uruk eanni*
 that 1SG+GOV:lk~PV+DIR from Uruk Eanni
 '(The one) who came from Uruk-Eanna.' (GlgX4:9)

3.3.6 Syntactic heads

'Syntactic head' are elements used to subordinate syntactic units like nouns or clauses: prepositions, subordinating conjunctions, and relative pronouns or particles.

There are two types of syntactic heads: inflected and non-inflected (e.g., *ana* 'to', *ina* 'in'). The inflected heads are also of two types: simple and compound. The first component of a compound head is usually one of the non-inflected type, while the second carries inflectional morphemes:

- (421) *ina pa:nika* in≠face+ATT+2SGM_{ATT} 'in front of you' (GlgY:251)

In order to inflect an invariable head, a void element is added:

- (422) *ana šeri:mi* to≠VOID+1PL_{ATT} 'towards us' (GlgHB:20)

The inflected elements, whether or not they carry any meaning, are usually historical nouns, which in most cases still have lexical homonyms in the contemporary language (cf. §3.3): *pa:n-* (ex. 421) means face, *šer-* (ex. 422) means 'back', 'upperside'.

Syntactic heads can be adverbial or nominal in nature (§4.1.3.1-4.1.3.3.2), as illustrated by the first and second components of the following example (*ina* and *ša* [twice], respectively):

- (423) *ina nari ša huwawa ša tušammaru*
 in≠ river+ATT of≠Huwawa that≠2+wish√*šmr*~IPV+SUB
 'In the river of Huwawa that you_{SGM} strive for.' (GlgY:266)

The following examples illustrate a syntactic head (*ki:ma*) functioning either nominally (ex. 424) or adverbially (ex. 425):

- (424) *ki:ma dannu per'um ša uruk*
 that≠{strong}√*dnn*~PTC_A+3SGM_{SJ}+SUB offspring+NOM of≠uruk
lušešmi ma:tam
 let-me-make-hear land
 'Let me announce in the land (lit. make the land hear) that the offspring of Uruk is strong.' (GlgY:185-6)
- (425) *ki:ma šehri ernittaka kušda*
 like≠ small+ATT victory-your reach
 'Win your victory as a little child.' (GlgY:265)

4 Syntax

4.0 Introduction

This syntactic description is divided according to the two major domains of syntax: microsyntax and macrosyntax. The former has to do with relationships within the clause, or at the clause level (i.e., including substantive, adjective and adverbial clauses which are part of this clause), whereas the other involves issues which may be described only by extracting information from blocks of text larger than the clause, or above the clause level. Macrosyntax encompasses any type of phenomenon whose complete description requires looking beyond the clause: conditional structures, functional sentence perspective-related phenomena, and, beyond any doubt, the verbal system, whose description absolutely requires taking into consideration more than just the clause. This partition is used to differentiate the entirely different inter-relationships among the entities of each level, to the point that one needs a whole new set of terms to describe macrosyntax. Both levels are nevertheless interdependent and influence each other.

The syntax of LOB (as any syntax) is characterized by the structure and functions overriding the morphology. A list of morphemes is not enough to get by in any language — one needs to know the principles according to which elements join each other and what such combination stands for.

LOB is not easily described: it is truly ancient (only ancient Egyptian and Sumerian are attested earlier) and given to interpretations, which we try, in this framework, to make on sound linguistic analysis. This task of description is easier when the corpus is large enough. For this reason, we often conduct comparisons between LOB and everyday Old Babylonian (EOB), where many syntactic issues are generally easier to formulate. EOB is attested in a considerable number of letters, law codices and court documents.

The present syntactic description is not meant to be comprehensive. Some issues are described more fully than others, but there is no doubt that much more could be said about this corpus, subject to further investigation. Moreover, the space at our disposal does not allow us to consider each and every point previously discussed in both Akkadian studies and general linguistics.

The methodology employed here is that of European structuralism: linguistic information is gathered by opposing syntactic minimal pairs, i.e., two syntactically identical stretches with only one difference between them are opposed and semantic values are thus arrived at. Therefore, whenever there is no opposition, no value can be proposed. The basic idea is to find and formulate consistent correlations between exponents (*signifiants*) and value (*signifiés*).

4.1 Microsyntax: the basic syntactic relationships

At the clause level, one finds three types of basic syntactic relationships: the predicative relationship, the attributive relationship and the completive (or objective) relationship. These basic syntactic relationships are given formal expression by the three cases, which in this language reflect nothing but **syntactic functions**: nominative, attributive and completive (see above, §3.3.2.3). Moreover, although theoretically applicable to Indo-European languages (this framework was originally devised by non-Semiticists), in Akkadian these basic relationships are formally expressed.

4.1.1 The predicative relationship

This relationship is the relationship between the **theme** (the 'logical subject') and the **rheme** (the 'logical predicate'). The use of the terms theme and rheme, rather than subject and

predicate (which are more appropriate in the morphological realm), is more precise regarding the issue raised in §4.0, namely, of syntax overriding morphology. In certain domains (e.g., existentials and interrogatives), what looks morphologically like *subject* is in fact the *rheme* (e.g., both the existant element and the interrogative pronoun)²². In other words, the actual functional scheme, reflected by the theme—rheme dichotomy, is given supremacy in this description. Both the theme and the rheme are marked by the nominative case in non-verbal clauses. The verbal form, being an inseparable complex (for which see §§3.3.5 and 4.1.1.2), tends to obscure the nominative nature of its components. This relationship is represented in any manifestation thereof by the *nexus*, that is, the predicative link.

4.1.1.1 Non-verbal predication

Non-verbal clauses are clauses in which an element, or a syntagm, is the **rheme** of another (pro)nominal element (the **theme**) without the intermediacy of a copula of any kind (for which see the end of §4.1.2.1; copula clauses are clearly **verbal clauses**). This group does not include the participial predicative (§3.3.5.1), whose syntactic behavior as a predicative complex is more like that of the verb. In LOB, non-verbal predication is effected by juxtaposition. However, juxtaposition of two (pro)nominal elements may at times be interpreted as apposition, rather than as a *nexus*²³. Nevertheless, the phenomenon as a whole is regular and a part of the system.

The order of the elements in non-verbal clauses, in contrast with that found in EOB, is more flexible²⁴. Therefore, it is difficult to analyse and determine precisely which constituent is the rheme and which is the theme. Relative definiteness and givenness play important roles. Nevertheless, non-verbal clauses can be characterized as basically having a **theme—rheme** order. Exceptions occur under certain conditions; see below. We find a (pro)nominal element as theme (in non-bold script, whereas the rheme is in bold); a personal pronoun:

(426) *ana:ku sursunabu*
 1SG.NOM sursunabu
 'I am Sursunabu' (GlgX4:6)

Apposition (proper noun and appositive substantive):

(427) {*Anu abu:šunu* *ša[rr]u*
 anu.NOM father.NOM.3PLM_{ATT} king.NOM
 'Anu their father is king' (Aha:7)

This example shows why the nominative is associated with the predicative relationship: both theme and rheme of the non-verbal clause are marked, when possible, by this case.

A substantive as rheme:

²² E.g., in the question *gilgameš e:š tada:l* 'Gilgameš, whither are you wandering?' (GlgX1:7), the interrogative *e:š* is the **rheme**, whereas the verbal form *tada:l* is the (complex) **theme**. See the following section.

²³ Cf. *ana:ku šarrum la: mušallim ma:tišu*
 1SG.NOM king.NOM NEG.keep-well.PTC_{A,C} land.ATT.3SGM.ATT
 'I am a king (OR: I, king) who does not take care of his country' (CIA3:11-12)

This example is interpretable either as a clause or as an apposition.

²⁴ Non-verbal clauses in EOB show a regular order (theme—rheme) and the opposite when the theme is a personal pronoun (rheme—theme).

- (428) *napissu* ***mu:tum***
 breath.N-ATT.3SGM_{ATT} death.NOM
 'His breath is death' (GlgY:112, 198)

The theme in [428] is marked as more definite by the possessive suffix.

An entire clause as rheme (occasionally referred to as **comment**):

- (429) *huwawa* {*rigmašu* ***abu:bu***}
huwawa cry.N-ATT.3SGM_{ATT} flood.NOM
 'As to Huwawa, [his cry is **flood**]' (GlgY:110, 197)

Ex. 429 is best analyzed as follows:

topic	comment	
	theme	rheme
<i>huwawa</i>	<i>rigmašu</i>	<i>abu:bu</i>

The boldtype marks the rheme of the comment (marked above by {}).

This kind of clause contains an extraposition which is further described in §4.3.2.

A nominalized clause as theme:

- (430) {*ša me:* *na:dišu* ***išku:ka***}
 N_C water.OBL waterskin.ATT.3SGM_{ATT} let-drink.PV.3SG.2SGM_{CMF}
ilka *mukabbīt* ***kaḫḫadika*** ***lugalbanda***
 god.2SGM_{ATT} honor.PTC_{A,C} head.ATT.2SGM_{ATT} lugalbanda
 'The one who let you drink the water of his waterskin is your god, the one who honors you, Lugalbanda' (GlgHA:14-15)

Incidentally, *ilka* 'your god' is followed by two appositions, together forming the rheme. The following example is similarly constructed:

- (431) *ša nillakušum* ***ul šadum-ma***²⁵
 N_C go.IPV.1SG.SUB.3SGM_{DAT} NEG mountain.NOM.FOC.RQ
 'The one to whom we go, is he not the mountain?' (GlgSB:14-15)

Negation in non-subordinate non-verbal clauses is here marked by *ul*. Such occurrences are very rare in LOB. It should be noted that in EOB the negative particle regularly functions as a **rheme marker** in non-verbal clauses. In addition, the particle *-ma* together with lengthening might indeed signal a **rhetorical question**²⁶.

The opposite order (**rheme—theme**) occurs mostly when the rheme is more pronounced than usual, i.e., when it denotes some **contrast**: in pronominal questions, answers, cleft constructions, and overruling of the clitics *-ma* or *-mi*. Only in two cases this order occurs without any contrast: first, when the rheme is a measure unit and secondly, when a clause involving the substantive *šumum* 'name' is preceded by the particle *lu*.

Interrogative pronouns generally occur initially:

- (432) *mannum šumka*
 who.NOM name.2SGM_{ATT}
 'What is your name?' (GlgX4:5)

This order is observed even when the theme is a nominalized clause. The only exception is the

²⁵ All occurrences of the particles *-ma* (regardless of its particular function) and *-mi* are separated from the preceding syntagm by a dash.

²⁶ See §§2.5 and 4.5.2.3.3.

following example:

- (433) *ša ki:ka mannum*
 N_c like.2SGM_{ATT} who.NOM
 'Who is like you?' (Ns5:5)

This is not quite a question, and should rather be analyzed as a dialogic adjectival syntagm (the equivalent of 'no one is like you', that is, 'you are the best')²⁷.

The following is a non-verbal clause which constitutes an answer to a preceding question:

- (434) *gilgameš šumi:*
 gilgameš name.N-ATT.1SG_{ATT}
 'My name is **Gilgamesh**' (GlgX4:8)

The following example is very similar to ex. 430, but with the opposite order:

- (435) *anaku {ša allikam ištu uruk eanni}*
 1SG.NOM N_c come.PV.1SG from uruk eanni
 '(It is) I (who came from Uruk Eanni)' (GlgX4:8-9)

Order is pertinent here, and we actually have a focussing cleft construction (§4.3.1.2 below). The difference is that here the rheme is further marked as contrastive focus, unlike ex. 430, where *ilka* is an informational rheme only.

A pronominal adjective as rheme:

- (436) *yattum nissassu*
 mine.NOM wailing.N-ATT.3SGM_{ATT}
 'Its wailing is **mine**' (AhC5:48)

In this order, the rheme is more pronounced, in this case as contrastive.

As the result of an occasional difficulty in determining which constituent is the theme and which is the rheme, the enclitic *-ma* (used in similar conditions to mark contrast, see §4.3.1.3.1) is possibly used only for the sake of marking the rheme, i.e., denoting no contrast:

- (437) *šut abnim-ma gilgameš muše:biruya*
 N.PL_M stone.ATT.FOC gilgameš transfer.PTC_A.PL_M.NOM.1SG_{ATT}
 'My transferers are **the stone objects**, Gilgamesh' (GlgX4:22)

But on other occasions these occurrences do seem to reflect contrast, in addition:

- (438) *šimāš nišī-ma hīar kalla:im*
 fate.PL_F people.PL.OBL.FOC choose.INF_C bride.PL_F.OBL
 'Choosing brides is **the destiny of the people**' (GlgP:150-151)

Here 'the people' is possibly contrasted with Gilgamesh, as the one having, unjustly, *droit du seigneur*. As we show below (§4.4), another enclitic *-ma* is used to interconnect clauses. This is not the case here: the particle *-ma* found here is more like the contrastive *-ma*, which is appended to nominal or adverbial elements. There are a few exceptions with *-ma* for the order rheme—theme in non-verbal clauses:

- (439) *na:širša wer-[ma]*
 guard.PTC_A.3SGF_{ATT} Wer.FOC
 'Its guard is **Wer**' (GlgY:131)

²⁷ Compare the Biblical Hebrew *mi: kamo:ka* 'who is like you' which is the equivalent of ʔeʔn *kamo:ka* 'there is no one like you'.

Both *-ma* and *-mi* (§4.3.1.1), when occurring in non-verbal clauses, always follow the **rheme**, overruling the functions of the basic order. This may be the reason for the order flexibility in these cases.

Another particle which identifies the rheme is *lu*;, a particle participating in two modal functions (§3.3.5.5 above, §§4.5.2.2.1.2 and 4.5.2.2.2.1 below), which always precedes the rheme:

- (440) *atta lu nuṛ tenešezim*
 2SGM.NOM PREC light_C humankind.PL.OBL
 '(You should) be the light of humankind' (Gir:25)

lu; occurs in the following example as well, which is analytically more complex:

- (441) *lu: ikkibu šina-ma*
 PREC taboo.NOM 3PLF.NOM.FOC
 Let **them** be taboo (AhC7:8)

Although what would normally be the rheme is accordingly identified by *lu*;(*ikkibu* 'taboo'), the intervention of *-ma* overrules. This superimposition marks the *pronoun* as focus. In this respect, the particles *-ma* and *-mi* are at the top of the hierarchy, overruling basic, pattern-related functions as well as this function of the particle *lu*;

There is one prominent exception to this function of *lu*; — the substantive *šumum*, 'name':

- (442) *girra lu: šumka*
 girra PREC name.N-ATT.2SGM_{ATT}
 'Let your name be Girra' (Gir:27)
- (443) *belet kala ili: lu: šumki*
 lady_C all god.PL.OBL PREC name.N-ATT.2SGF_{ATT}
 'Let your name be 'Mistress of all the gods'' (AhA:247-8)

Only in this case does *lu*; precede the **theme**. This may be attributed to the special syntax of naming constructions in many languages.

Both theme and rheme are generally necessary in an independent utterance. However, non-verbal clauses sometimes exhibit only the rheme, and no theme. This may happen in dependent functions, e.g., in attributive function:

- (444) *mannum annitam ša la: enki ippuš*
 who.NOM this.SGF.CMP N_C NEG enki do.IPV.3SG
 'Who but Enki (lit. who (is) **not** Enki) can do this?' (AhC4:14)

Other examples for clauses constituted by rheme alone occur with the particle *lu*;((e.g., exx. 442–443 above), which is generally a rheme identifier or marker in LOB and in EOB alike²⁸. The following is an example of an non-verbal directive existential clause:

- (445) *lu: šimti:*
 PREC fate.1SG_{ATT}
 'Let (it) be **my** fate!' (AhC5:49)

As is clear by now from the preceding examples with *lu*;, non-verbal predication takes part in the modal system. This is noteworthy because modality is often described exclusively with regard to the verbal system. The modal system in OB (§4.5.2.2) has to do with the predicative relationship, that is, with any manifestation of nexus.

²⁸ In EOB it is also used as marker of alternative, much like *soit ... soit* in French.

Another type of rheme-only clause is the non-verbal locative existential clause (§4.1.1.4):

- (446) *ina niši: a:littum-ma la: a:littum*
 in people.PL.OBL bear.PTC_A.SGF.NOM.FOC NEG.bear.PTC_A.SGF.NOM
 '(There are) amongst the people fertile women (and) barren women' (AhC7:4)

The existant is a nominal syntagm, here occurring with the particle *-ma* (in the middle of the syntagm) which, as already seen above, may mark the rheme. In existential expressions, the existant is the rheme, and in non-verbal existentials, this is sometimes effected by *-ma*. The adverbial part of the clause is analyzed as locative support for the existence (as one finds, e.g., in English 'in the garden is a tree'), rather than a rheme for the nominal group ('...are among the people'). The negative particle *la:* here serves as lexeme negator ('non-fertile'='barren'), rather than *ul* which is always used to negate a nexus, i.e., the existence of a relationship between theme and rheme.

The last category to occur in the order rheme—theme are measurement units:

- (447) *amat le:ta:ša kana: rupussa*
 cubit_{AB} side.DU.NOM.3SGF_{ATT} reed_{AB} width.N-ATT.3SGF_{ATT}
 'Its both sides will be a cubit, its width a reed length' (GlgB:25)

In EOB, measured units in non-verbal clauses occur in this very order.

4.1.1.2 Verbal predication (verbal components)

The verbal form (see §3.3.5.2) is a morphologically inseparable complex containing: 1. subject index; 2. verbal lexeme and 3. nexus, i.e., the predicative link. That is, a finite form such as *aparras* (imperfective 1sg) contains 1. a person index (marked by the preformative *a-*); 2. a verbal lexeme (marked by a combination of \sqrt{prs} and the unmarked verbal class pattern, having together the value of 'cut, decide') and 3. the built-in nexus between them. Such a verbal form is functionally equivalent to an independent non-verbal clause which has the same components (but which are joined syntactically, rather than morphologically). The acknowledgment of these components of the verb comes in handy when analyzing various linguistic issues such as the predicative and completive relationships (both having to do with nexus), topicalization and focalization of the various verbal components, etc.

Verbal forms play a role in the aspectual-temporal and modal system. These issues are treated under texteme types (§4.5), since textemes of narrative and dialogue show different characteristics and different values in, e.g., verbal forms.

4.1.1.3 The nominal predicative conjugation

Akkadian has, in addition to its verbal forms, which indisputably constitute part of its verbal system, a predicative conjugation (see §§3.3.5.1 and 3.3.5.3.1). This predicative has the same components as those found in the verbal form (it constitutes a 'built-in sentence')²⁹ but has never been completely incorporated (when participial)³⁰ in the verbal system, as it participates only partially in the aspectual-temporal system³¹. Nevertheless, its syntactic behavior is exactly

²⁹ This form is at times superficially identical to nominal forms (§3.3.5.1), but being a predicative complex, it has a different syntactic behavior, and different constitution. In this part, the term 'predicative form' refers only to participial and substantival predicatives (traditionally termed 'stative' or 'permanisive').

³⁰ Only then is it comparable to a verbal form. When it is substantival (e.g., *Si:massum* 'it is destiny for him'), it displays the syntactic behavior of a non-verbal clause.

³¹ The predicative is very much like a non-verbal clause in its aspectual-temporal values (§§4.5.1.2

that of a finite verbal form regarding connection, compatibility with an object, etc.

The following examples show the participial predicative with an object:

- (448) *eru: mahir ukultam*
 eagle.NOM receive.PRED.3SGM food.CMP
 'The eagle receives the food' (EtnM6:3)
- (449) [*urh*]am amer alik harranam
 path.CMP look.PRED.3SGM walk.PRED.3SGM road.CMP
 'He knows the [path] (and) walks the road' (GlgY:252)

This is not very frequent, since this form is mostly passive when it contains a participle of a transitive lexeme. Nevertheless, this compatibility with an object equates syntactically the participial predicative with a verbal form. However, the participial predicative differs in showing occasional ambiguity with regard to diathesis:

- (450) *išten eplum labiš [pa]lam*
 one.AB young-man.SGM.NOM wear.PRED.3SGM royal-mantle.CMP
 'A young man was wearing/was dressed (in) [royal ma]ntle' (GlgSB:9)

For the second interpretation see §4.1.2.2.

The next example shows another characteristic of the participial predicative:

- (451) *šamhaku-ma attanallak ina biri:ṣ etlu:ṣim*
 flourish.PRED.1SGM.CONN walk.IPV.1SG in middle_c young-man.PL.OBL
 'Flourishing I was continuously walking among the guys' (GlgP:4-5)

The participial predicative connects forwards via the asymmetric connective *-ma* (§4.4), which is another point of similarity with verbal forms. Next, we have a participial predicative interconnected with a substantival predicative:

- (452) *ina milki ša ili kabi:ma*
 in advice.ATT N_c god.ATT be-said.PRED.3SGM.CONN
ina bitik abunnatišu šimassum
 in cut_c umbilical-cord.ATT.3SGM_{ATT} fate.PRED.3SG.3SGM_{DAT}
 'By the god's advice, it was decreed that (lit. and) since cutting his umbilical cord it is destiny for him' (GlgP:162-164)

The substantival predicative here cannot constitute the first unit of the asymmetric chain: whereas the participial predicative *kabi* behaves, by and large, like a verbal form, the substantival predicative *šimassum* 'it is destiny for him' is analogous to a non-verbal clause, except for the fact that it can occur with dative suffixes, as it does here (these suffixes do not occur with a non-verbal clause). The following predicative is in a possessive existential construction:

- (453) *šakiššum mehrum*
 be-put.PRED.3SGM.3SGM_{DAT} opponent.NOM
 'Opponents est ei' 'He has an opponent' (GlgP:195)

The dative suffix is obligatory, i.e., it is part of the valency of this construction, meant to denote one kind of possession (see the following section). The treatment of predicatives is resumed below, in §4.5, in the treatment of the values of the verbal forms in different textemes.

4.1.1.4 Existentials

In addition to the existential expressions discussed above (exx. 445 and 446), existential expressions in this corpus are mainly manifested by the verbal lexeme *bašum* 'be, exist', used both as verb of existence and of being. When used in the former function, the existant is the element marked by the nominative. In general, it is different from other allegedly similar verbal clauses in that the existant is here viewed as the **rheme** of the construction, rather than the theme. The verbal lexeme *bašum*, when denoting existence, serves as such only in the 3rd person, showing only partial temporal and aspectual distinctions, but it does show a directive³²/non-directive distinction. The verb agrees with the existant (in a similar manner to the English *there is/are* and Latin *est/sunt*). In the negative indicative place we find in addition the suppletive form *laššu* (=there isn't):

aspect/tense	directive		independent		relative	
	—	imperfective	perfective	imperfective	perfective	
affirmative	<i>libši</i>	<i>ibašši</i>	—	—	—	
negative	<i>ayyibši</i>	<i>ul ibašši</i>	<i>laššu</i>	<i>ul ibši</i>	<i>ša la: ibaššu: ša la: ibšū:</i>	

In the negative domain, the distinctions are optimal, and there is even another form, *laššu*, which is hard to classify functionally. However, the affirmative domain is represented by one independent form only, viz., there are no aspectual or temporal oppositions. This domain is not attested in relatives at all. However, as it is shown below, some kind of lexical suppletion takes place whereby other expressions compensate for this systemic gap.

Affirmative existence:

- (454) *mišil maššarti mušum ibašši*
 middle_C night-watch.ATT night.NOM exist.IPV.3SG
 'It was night, the middle watch' (AhA:70)

Negative existence:

- (455) *ul ibši gilgameš ša la:ma kaša [ibiru tia:mtam]*
 NEG.exist.PV.3SG gilgameš N_C before_C 2SGM.OBL cross.PV.3SG.SUB sea.CMP
 'There was no (one) who [crossed the sea] before you, Gilgamesh' (GlgX3:26)
- (456) *ul ibašši mitluku niši:ša*
 NEG.exist.IPV.3SG advice.INF_C people.OBL.3SGF_{ATT}
 'There was no advice for her people' (EtnM1:13)

These two examples, however, come from different textemes (§§4.5.1.2 and 4.5.2.1), and are hence not really opposed temporally or aspectually. Another related occurrence is the expression *laššu*, which is impossible to oppose to anything, and is therefore regarded as neutral:

- (457) *laššu: mašrua*
 NEG.EXIST.PL SON.PL.NOM.1SG_{ATT}
 'My sons are no (more)' (EtnS:17')

The following opposition is found within a relative clause (the existant being the antecedent):

- (458) *[uħarr]i buratim gilgameš ša la: ibšia: matima*
 dig.PV.3SG well.PLF.OBL gilgameš N_C NEG.EXIST.PV.3PLF ever
 'Gilgamesh [dug] wells which had never existed' (GlgX1:3')
- (459) *šipram ša la: ibaššu: ina matim*
 feat.CMP N_C NEG.EXIST.IPV.3SG.SUB in land.ATT
 'a feat that does not exist in the land' (GlgY:17, H1:17)

³² The directive function expresses various degrees of volition, §§4.5.2.2.2–4.5.2.2.2.

It seems that the difference is temporal, ex. 458 being retrospective, whereas ex. 459 refers to the present.

Affirmative directive existence:

- (460) *ina šir ili ešemmu libši*
 in flesh_c god.ATT spirit.NOM exist.PREC.3SG
 'Let there be a spirit in the flesh of the god' (AhA:215)

Negative directive existence:

- (461) *ayyibšišinaši riš[um]*
 exist.NEG.PREC.3SG.3PLF_{DAT} joy.NOM
 'Let there be no joy for them' or 'let them have no joy' (AhB1:20)

The function of this dative suffix is discussed further below in this section.

Other exponents are occasionally used for expressing existence with a non-neutral value, thus compensating for various distinctions lacking in the realm of affirmative existence expressed by *ibašši*:

- (462) *kayyama: ina uruk niqia:tum*
 exist.PRED.3PLF in uruk sacrifice.PLF.NOM
 'There were habitually sacrifices in Uruk' (GlgP:190)

The adjective *kayyatum* denotes continuous existence. It is found also as directive (*lu: kayyamu: 'let there be habitually' GlgY:269*). The valency is identical to that of the existential *bašum* — there is no opposition of person, just number.

The participial predicative *šakin* denotes ingressive existence:

- (463) *šakin lušamu*
 be-put.PRED.3SGM hero.NOM
 'There is (now) a hero' (GlgP:192)

There are two linguistic models of possession. The first consists of an existential expression with a dative exponent (the '*est mihi*' type), and the second with a verb such as 'have' (the '*habeo*' type). In LOB we find both: existence is sometimes construed with dative exponents to denote such possession. One example for this is ex. 461 above, where the combination of existence and dative pronoun signals existential-possession. The following example combines *šakin* and dative pronoun:

- (464) *ana gilgameš ... šakiššum meḥrum*
 to gilgameš be-put.PRED.3SGM.3SGM_{DAT} opponent.NOM
 'There is (now) an equal to Gilgamesh ...' (GlgP:194-195)

This kind of possession is viewed here still as existential. In the other model, expressed in LOB by the lexeme *išum*, 'have', the *possessum* is the object. The verbal lexeme *bašum*, discussed above as an existential verb, denotes being as well. As such, it is no different from other verbs, as it occurs with a complement. For both issues see §4.1.2.1.

4.1.2 The completive relationship

Akkadian, like Semitic languages in general, clearly shows one syntactic function for the relationship between the object or adverbial complements and the nexus (the predicative link). This relationship is, to various degrees, marked by the completive case (§3.3.2.3). The existence of one such relationship need not deter us from trying to differentiate between the object and an adverb as related yet disparate functions, both of which represent different actualizations of this relationship. In some cases there is hardly a difference, in other cases it is perfectly clear

(e.g., when the completive suffix occurs, it represents only the object). Both these functions have something in common: they are both related to a relationship, i.e., to the nexus (or a reduced expression thereof — an infinitive, perhaps an adjective as well).

A good example of this double nature of the completive relationship and marking is the interrogative pronoun *mi:nu:m* 'what'. When marked as completive, it can represent either the object ('what') or the adverbial *why* (i.e., 'for what'):

- (465) *mi:nu:m sabi:ti: tatawwi:*
 what.CMP tavern-keeper.1SG_{ATT} speak.IPV.2SGF
 'Why, my tavern keeper, do you speak?' (GlgX3:17)
- (466) *i:ni: mi:na: a:mu:ru ana:ku*
 eye.PL.OBL what.CMP see.PV.1SG 1SG.NOM
 'As for me, what did I see with my eyes?' (AhA:109)

This can be shown with a substantive as well:

- (467) *ammi:ni:m ... tattanallak še:ram*
 to.what.ATT wander.IPV.2SGM steppe.CMP
 'Why should/do you wander in the steppe ...' (GlgP:54-55)
- (468) *še:ram imta:ši a:šar iwwaldu*
 steppe.CMP forget.PC.3SG place_C be born.PV.3SG.SUB
 'He forgot the steppe, the place (where) he was born' (GlgP:47)

The difference here is due to the nature of each verbal lexeme: a verb of motion such as *ala:kum*, 'go, walk', typically has different complements than does a verb like 'forget'. The former example is comparable to the following:

- (469) *attanallak ina biriz e:lu:zi:m*
 walk.IPV.1SG in between_C young-man.PLM.OBL
 'I was walking among the guys' (GlgP:4-5)

Complements introduced by *ina* are often (but not means always) adverbial, rather than objective. In comparing *exx.* 467 and 469, we learn that adverbial complements are marked either by the completive case or by a preposition. It is not always easy to determine what the exact nature of this completive element is:

- (470) *i:ta:mar ša:ni:ta:m*
 see.PC.3SG second.SGF.CMP
 'He saw a second (dream)' or: 'He saw a second (time, i.e., 'again')' (GlgP:26)

In the first interpretation, the adjective *šani:ta:m* refers back to the dream mentioned before (*ša:z mu:šiti:ya*, which is feminine and the more plausible interpretation in this case), whereas in the second interpretation, it refers to the internal object of the verb (i.e., 'seeing'), implying another seeing, or in other words, seeing *again* (cf. the recurrent *šani:ta:m* 'secondly' in EOB). The following sections discuss both functions in general.

4.1.2.1 Verbal valency

Whereas in Indo-European languages, many cases may occur with the object (e.g., Lat. *meminisse* which governs the genitive, the nominative marking the predicate in copular sentences, as in *homo hominem lupus est*, etc.), and there is actually no formal exponent to show that this in fact is but one function, in Akkadian (and Semitic) the object is marked by the completive case, indicating (much like the other cases) a distinct but fixed relationship with the nexus. Even when the object is a prepositional syntagm, the nucleus, or head, of the syntagm (which as a whole is a manifestation of the attributive relationship, see §4.1.3), i.e.,

the preposition itself, is in this completive status. This statement is arrived at negatively, based upon the fact that neither the nominative nor the attributive case ever designates the object, or the adverbial syntagm, as such.

There are various complementation schemes: completive marking, double completive (where one object may be dative or a prepositional syntagm) and adverbial marking. It is important to state that the various types (completive marking, dative, adverbial endings or prepositional syntagms) all have the same syntactic status, namely, **completive status**.

Completive:

- (471) *ilbaš libšam*
 put-on.PV.3SG garment.CMP
 'He put on a garment' (GlgP:110)
- (472) *uni:ssu-ma nuššašu ul elte²i*
 shift.IPV.1SG.3SG_{CMP}.CONN shift.INF.N-ATT.3SG_{ATT} NEG.be-able.PC.1CS
 'I (tried to) shift it but I could not shift it' (GlgP:9)

Ex. 472 shows the completive suffix bound to a finite verbal form (*uni:ssu*), and an infinitive, *nuššašu* (*nuššam+šu*), with a non-attributive indication (the nominative vs. completive distinction is often neutralized when a substantive occurs with bound attributive personal pronouns, §3.3.4.2). The infinitive is the object of *le²um* 'be able'. The particle which generally occurs with indicative forms in declarative clauses is the negative particle *ul*.

An infinitive, functioning as object, is marked as completive:

- (473) *amminim taḥših anniam epešam*
 to.what.ATT want.PV.2SGM this.SGM.CMP do.INF.CMP
 'Why do you want to do this?' (GlgY:113-114)

Here, one can see two important points: 1. the overt completive marking on the infinitive, which designates it as object of the verbal lexeme *ḥaša:šum* 'want'; 2. the infinitive's compatibility with an object of its own (*anniam* 'this.CMP')³³.

Double completive:

- (474) *ište:mam ulabbissu*
 one.CMP dress.PV.3SG.3SG_{CMP}
 'One (garment) she put on him' (GlgP:70)

In comparing ex. 474 with ex. 471 above, one can see the original difference between the unmarked class and the D or Š classes: the latter stems allow relatively more arguments. In ex. 471 above, *laba:šum* ('put on a garment') takes one object. *lubbušum* ('dress someone') in ex. 474, on the other hand, takes two: the garment and the person who is being dressed. The following example similarly takes two objects:

- (475) *šupšikkakunu awi:lam e:mid*
 toil.N-ATT.2PL_{ATT} man.CMP impose.PV.1SG
 'I imposed your toil on man' (AhA:241)

Another important point regarding these examples is that the two objects are not identical syntactically; in passive constructions, only one may occur as nominative:

³³ However, when a bound pronoun is appended to an infinitive it is not a completive but rather an attributive pronoun, e.g., in *nuššašu* lit. 'his shifting' (ex. 472) *-šu* is attributive, here referring to the complement. On the other hand, in *šebe:šu* 'his satiation' (ex. 488 below), the attributive *-šu* refers to the agent.

- (476) *šittam ša ili: ana:ku ekme:ku*
 sleep.CMP N_C god.PL.OBL 1SG.NOM deprive.PRED.1SG
 'I was deprived of the gods' sleep' (GlgHA:2)

The verbal lexeme *ekemum* 'deprive someone of something' takes, when active, two complements, both regularly marked as completive. Here, the lexeme is used in the passive, and the *someone* is now marked as nominative. In this respect, the second completive is similar to an adverbial complement, remaining unchanged in passive constructions.

Completive and dative-suffixes:

- (477) *tištam liddinam-ma*
 clay.CMP give.PREC.3CS.1SG_{DAT}.CONN
 'Let him give me clay...' (AhA:203)

In some cases there is some hesitation between dative marking and the completive case:

- (478) *gilgameš ere:ban ul iddin*
 gilgameš enter.INF.CMP NEG.give.PV.3SG
 'He did not let Gilgamesh enter' (GlgP:217)

Indeed 'allow/let' and 'give' are not the same notion, but the valency is almost the same. This construction, when 'allow' is meant, can occur with the infinitive preceded by the preposition *ana* ('to'). The following example shows another kind of variation, having to do with the fluctuation in mimation. The dative and the completive pronominal suffixes differ from each other (2SG_F, 3SG) by mimation, so *-šum* (3SG_{DAT}) at times occurs identical to *-šu* (3SG_{COMP}):

- (479) *ba:ʾ abu:bi ... iḫbi:šu*
 come.INF_C flood.ATT tell.PV.3SG.3SGM_{DAT}
 'He told him of the coming of the flood...' (AhC2:37)

Here, the bound suffix is dative (being the normal valency of the second complement of *kaḫum* 'tell, say'), for dative pronouns, see §4.1.4.2.

The object may be adverbial:

- (480) *ki:ma ilim tabašši*
 like_C god.ATT be.IPV.2SGM
 'you are (like) a god' (GlgP:53)

The verbal lexeme *bašum* has been described above as a verb of existence. However, when it occurs with a complement, it serves as a verb of **being**, that is, a verbal copula. This *ki:ma* syntagm is an obligatory complement, without which the verb would have remained an existential expression. The salient point here is that even in copular or equational sentences with a verbal form, the 'predicate' is always in the completive status in Akkadian as well as in Semitic³⁴.

Similarly, the verbal lexeme *ewum* 'become' always occurs with an obligatory adverbial complement:

- (481) *awidiš i:we*
 man.LADV become.PV.3SG
 'He became a man' (GlgP:109)

³⁴ This phenomenon is so basic that in Arabic the verb *ka:na* 'be', when denoting **being**, always has an accusative object, like any other verb, whereas in ancient Indo-European languages, the nominative appears in this slot.

- (482) *kima zubbi: i:wu: lillidu:*
 like_c fly.SGM.OBL become.PV.3PLM offspring.PLM.NOM
 'The offsprings became (like) flies' (AhC3:44-45)

With this verbal lexeme, one encounters the adverbial object explicitly marked with the completive case as well:

- (483) *u:mu namrum da'ummatam li:wi:šum*
 day.SGM.NOM bright.SGM.NOM darkness.SGF.CMP become.PREC.3SG.3SGM_{DAT}
 'May the bright day become darkness for him' (AnZA:68)

There is variation between the adverbial objects, whether marked by adverbial ending or by the completive case. This slot is hence interpreted as an obligatory adverbial complement.

In addition to the 'est mihi' model of possession discussed above, one encounters the *habeo* type:

- (484) *emu:kam i:šu*
 power.SGM.CMP have.PV.3SG
 'He had strength' (EtnM6:4')

Other issues pertaining to the object function of complex units are resumed below, following the explanation of the attributive relationship (§4.1.3.3.2).

4.1.2.2 Adverbial function

The adverbial function, although essentially having the same basic relationship with the nexus as the object, is signaled by a greater number of exponents (for adverbial endings, §4.1.4.3). Besides the basic relationship with the nexus (or a reduced manifestation thereof — adjectives, infinitives, etc.), the adverb often refers specifically to one component of the predicative complex. There are three adverbial function types (referring each to a different clausal component — theme, rheme and nexus), in addition to other types which are not easily classifiable:

1. **Applying to the nexus:** circumstantial adverb(ial)s: temporal, local, causal, final, comparative, etc.:

- (485) *urri: u mu:ši: eli:šu abki*
 day.PL.OBL CONN night.PL.OBL OI.3SGM_{ATT} weep.PB.1SG
 'I wept over him **days and nights**' (GlgX2:5')
- (486) *huwawa maššaram iner-ma kakšaram*
 huwawa guard.CMP smite.PV.3SG.CONN ground.CMP
 'He smote Huwawa the **guard on the ground...**' (GlgIS:26')

Some of the examples are prepositional syntagms with an adverbial function (on the exact relationship between prepositions and adverbs see §4.1.3.3 below):

- (487) *aramšu-ma kima aššatim*
 love.IPV.1SG.3SGM_{CMP}CONN like_c wife.ATT
 'I loved him **like a wife...**' (GlgP:33)
- (488) *adi šebe:šu šikaram ištisam*
 until satiate.INF.ATT.3SGM_{ATT} ale.CMP drink.PV.3SG
 'He drank beer **to his satiation**' (GlgP:100-101)
- (489) *bala:am ina ka:ti:šunu ištibtu:*
 live.INF.CMP in hand.PLM.OBL.3PLM_{ATT} hold.PC.3PLM
 'Life they kept **in their hand**' (GlgX3:5)

2. **Applying to the lexeme:** qualitative adverb(ial)s which are in fact attributes to the verbal lexeme (represented by the combination of root and class pattern):

(490) *madiš palha[ti]*
 very frightening.PRED.3SGF
 'It was very frightening' (GlgSB:4) (the equivalent of a **great fear**).

(491) *enkidu ša arammušu danniš*
 enkidu N_C love.IPV.1SG.SUB.3SGM_{CMP} greatly.LADV
 'Enkidu whom I love **greatly**' (GlgX2:2') (the equivalent of a **great love**).

3. **Applying to the person:** adverbial complements of this kind, called *ḥal* in Arabic, are circumstantial qualifiers which may apply to any argument in the sentence, including the agent, which is a component of the verbal complex. Of this type we have but few examples:

(492) *ikmis-ma gilgameš ina kaḫḫari šeḫḫu*
 kneel.IV.3SG.CONN gilgameš in ground.ATT fool.N-ATT.3SGM_{ATT}
 'Gilgamesh kneeled, **his foot on the ground...**' (GlgP:227-228)

(493) *illak [enkidu] u šamkat[um] warkišu*
 go.IPV.3SG enkidu CONN šamkat behind.3SGM_{ATT}
 '[Enkidu] was going [first] **and Shamkat behind him**' (GlgP:175-176)

In both examples, we have what looks like a non-verbal clause with an adverbial rheme. However, such impeccably independent clauses are not found in this corpus. These syntagms are a kind of down-graded, dependent predication which serves as circumstantial qualifier of the nexus and specifically refers to the thematic argument (*šeḫḫu* 'his foot', *warkišu* 'after him', etc.).

Another interesting adverbial phenomenon is the so-called **accusative of relation** (or **specification**), or *tamyiz* in Arabic. The adverbial element seems to add information to the participial predicative expression:

(494) *mašil padattam la-nam šapil eše[mta]m pukkul*
 similar.PRED.3SGM form.CMP body.CMP short.PRED.3SGM bone.CMP strong.PRED.3SGM
 'He is like (Gilgamesh in) **form**, short (of) **body**, strong (of) **bone**' (GlgP:183-185)

What is marked in ex. 494 by the completive case can be marked by an adverbial ending, reflecting its adverbial value:

(495) *nukkurat amariš*
 strange.PRED.3SGF look.INF.LADV
 'She is strange (for) looking' (AgA6:9)

Further issues pertaining to the adverbial function of complex units are resumed below, after the attributive relationship has been explained and exemplified (§4.1.3.3.1).

4.1.3 The attributive relationship

The **attributive relationship** in Semitic is syntactically actualized in a syntagm termed here the **attributive construction** (Heb. *smikhut*, Arab. ³*idaḫfa*), where an element serving as nucleus, or head, is expanded by a nominal syntagm, which can be either simple, namely, a nominal explicitly marked by the **attributive case**, or complex, i.e., a clause marked as such. The nucleus in the construct state (i.e., an occasional indication of boundedness on the nucleus of the syntagm) always determines the syntactic status of the entire syntagm. The following examples show typical attributive constructions, the syntactic expression of the attributive relationship:

- (496) *maš re:im*
 bed_c shepherd.SGM.ATT
 'bed of the shepherd' (GlgP:65)
- (497) *šimat balašim*
 symbol_c life.INF.ATT
 'symbol of life' (GlgP:97)

The attributive construction is also realized when the attributive substantive slot is occupied by an attributive bound pronoun (substantive + attributive pronoun); compare the following:

- (498) *šikir mašikišu*
 word_c counsel.PTC_A.PLM.ATT.3SGM_{ATT}
 'the word of his counsellors' (GlgY:201)
- (499) *šikiršu*
 word.N-ATT.3SGM_{ATT}
 'his word (=what he has to say)' (GlgP:142)

šikir 'word' is expanded in ex. 498 by another substantive (counsellors), whereas in ex. 499, it is expanded by an attributive pronoun. The same relationship is realized in the case of a substantive governed by a composite preposition:

- (500) *ana libbi uruk*
 to heart.ATT uruk
 'into (lit. to the heart of) Uruk' (GlgP:177)
- (501) *ana libbiša*
 to heart.ATT.3SGF_{ATT}
 'into it' (GlgY:109)

Again, both the city name Uruk and the suffix pronoun occupy the attributive slot following the preposition. The same relationship is manifested when a simple preposition joins a substantive:

- (502) *eli muti*
 on husband.ATT
 'on the husband' (GlgP:238)
- (503) *elišu*
 on.3SGM_{ATT}
 'on him' (GlgP:10)

The syntactic relationship between a substantival nucleus and its nominal attribute is thus identical to that between a preposition and its nominal attribute. The difference, however, is that the preposition often serves as an **adverbial** nucleus.

The same attributive relationship is found when the construct substantive is represented by a construct **pronominal** nucleus; compare the following pair:

- (504) *biš su (bi:š+šu)*
 temple.N-ATT.3SGM_{ATT}
 'his temple'
- (505) *ša adad*
 N_c adad
 'that (of) Adad' (both from AhB2:20)

In ex. 505, the construct pronoun *ša* represent a substantive (see below). Both syntagms are fully appositive: *ša* in ex. 505 represents *bi:šum* 'temple' in 504, whereas *-šu* 'his' in ex. 504

represents *Adad* in ex. 505.

The construct pronominal nucleus *ša* represents a substantive, and is hence appositive to one. This analysis is supported by diachronic information and rare relics; in Old Akkadian this *ša* used to show the case of the substantive it represented. By OB times, it no longer shows case, and only in very few cases does it show number and gender:

- (506) *ningišzida šarrum ša aga:ḫi*
 ningišzida king.SGM.NOM N_C crown.SGM.ATT
 'Ningišzida, king of crown (lit. king, **that** of crown)' (Nw:7)
- (507) *anunna ilu: ma:im šarru: šut aga:ḫi:*
 Anunna god.PL.M.NOM landATT king.PL.M.NOM N.PL.M_C crown.PL.M.OBL
 'the Anunna, gods of the land, kings of crowns (lit. kings, **those** of crowns)' (Nw:11)

The construct pronominal nuclei here show masculine singular and plural in agreement with their respective referent (*šarrum* 'king' and *šarru:* 'kings'). This agreement is our best indication for the apposition between construct pronominal nuclei and their substantival referents. The issue of case is more pronounced in the following example:

- (508) *šut abnim-ma ... muše:biru:ya*
 N.PL.M_C stone.ATT.FOC transfer.PTC_A.PL.M.NOM.ISG_{ATT}
 'My transferers ... are the stone objects (lit. **those** of stone)' (GlgX4:22)

šut clearly agrees with the participle. In the following example, the rare construct pronoun *šut* represents the feminine (regardless of case):

- (509) *ina šut mu:širi:ya*
 in N.SGF_C night.SGF.ATT.ISG_{ATT}
 'in my dream (lit. **that**, of my night)' (GlgP:3)

This pronominal nature of *ša* is demonstrated in the following pair of examples:

- (510) *ina kaḫkari maḫ re:ḫim*
 from ground.ATT bed_C shepherd.SGM.ATT
 '...from the ground, (=) bed of the shepherd' (Glg P:64-65)
- (511) *ana gubri ša re:ḫim*
 to hut.LATT N_C shepherd.SGM.ATT
 '...to the hut of the shepherd (lit. to the hut, (=) that of the shepherd)' (Glg P:74-75)

Both preceding examples have the very same structure, the only difference being that a construct substantive in ex. 510 is substituted by *ša* in ex. 511. We can see that 1. both *maḫ* and *ša* have the **same relationships** with the following attributive substantive *re:ḫim* and 2. both *maḫ* and *ša* are **appositive** to the preceding attributive substantive. *ša*, as a pronoun, can represent any substantive.

4.1.3.1 Attributive clauses

Denominal prepositions (or conjunctions; they are essentially the same; see §3.3.6) occasionally maintain a synchronic relationship with the substantive of which they are the construct state. For instance, *ašrum* means 'place'. Its construct state *ašar* means 'place of':

- (512) *aš[a]r [ḫ]arbašim*
 place_C lair.ATT
 'a pla[c]e of lair' (GlgP:76)

A substantive in construct state can also precede a clause:

- (513) *ašar iwwaldu*
 place_c be-born.PV.3SG.SUB.
 'the place he was born', 'where he was born' (GlgP:47)

In ex. 513, however, this construct state of 'place' is actually used as a locative relative, i.e., with the value of the relative 'where'. Note, in addition, that the attributive substantive *tarbašim* syntactically corresponds to the finite clause *iwwaldu*. The latter is marked as attributive by the **subordinative morpheme**, which is the corresponding attributive marker on a verbal form (§3.3.5.7). The substantive in ex. 512 and the verbal form in ex. 513 both occupy the same attributive slot. The following examples, 514 and 515, are not unusual or idiosyncratic; any substantive can occur in an analogous construction:

- (514) *awāt ikabb[u]*
 word.SGF_c say.IPV.3SG.SUB
 'the word (which) he says' (GlgY:217)

We have shown above (at the end of the previous section) that a construct substantive may be represented by the construct pronominal nucleus *ša*:

- (515) *ša ikabbu:*
 N_c say.IPV.3PLM.SUB
 'that (which) they say' (GlgY:182)

There is a perfect functional syntactic correspondence between the two examples: the same verbal form (except for the number) in the attributive slot, and in the construct nucleus slot one finds once a substantive and once a pronoun.

The attributive relationship lies at the heart of subordination in Akkadian, since converted clauses (i.e., nominalized or adverbialized clauses) are converted exactly by this syntactic relationship with their nuclei³⁵. Clauses occurring in the attributive slot are syntactically equivalent to a substantive marked as attributive.

4.1.3.2 Appositive construct nuclei or relative clauses

The relative clause is, in fact, an attributive construction, where *ša* is a pronominal construct nucleus, whose attribute is a clause. This pronominal construct nucleus represents, via apposition, the substantive it qualifies, hence

- (516) *šipra ša aqabbu:ku*
 task.CMP N_c tell.IPV.1SG.2SGM_{DAT} (AhC1:18)

actually means 'the task, (=) that (which) I will tell you'.

Relative clauses in our corpus are generally concrete relatives ('the one who...') which are syntactically analogous to a participle, or to other adjectives:

- (517) *enkidu ša arammušu*
 enkidu N_c love.IPV.1SG.SUB.3SGM_{COMP}
 'Enkidu whom I love' (GlgX2:2')
- (518) *marāša nara:m libbiša*
 SON.CMP.3SGF_{ATT} loved.PTC_{ST}.SGM_c heart.ATT.3SGF_{ATT}
 'Her son, the beloved of her heart' (AnZA:44)

The relative clause ('whom I love') in ex. 517 functions exactly like the participle ('(be)loved') in ex. 518; both being appositive to the substantive to which they refer, occupying the same

³⁵ Not the conditional particle *šumma*, however — a conditional is not an ordinary adverbial clause.

syntactic slot. Compare the following pair:

- (519) [e]leppu ša tabannu[š]i
 boat.SGF.NOM N_c build.IPV.2SGM.SUB.3SGF_{CMP}
 'The boat which you will build' (AhC1:25)
- (520) atti-ma šassuru bamizat awi:lu:tim
 2SGF.FOC birth-godess.NOM builder.PTC_A.SGF_C humanity.ATT
 'You are the birth-godess, creatress (lit. 'builder') of humanity' (Aha:194)

The participle *bamizat awi:lu:tim* ('creatress of humanity') has the same function of *ša tabannu*: ('which you will build') — both qualify the preceding substantive by way of apposition³⁶. Moreover, unlike a substantive, which can occur appositively as well, these syntagms actually contain a nucleus which represents the qualified substantive by way of agreement (which is not necessarily expected when two substantives are appositive).

Both syntagms function as adjectives. The first (in exx. 517 and 519) is a syntactic adjective, the second (in exx. 518 and 520) a morphological adjective — the participle. Such relatives are in fact adjective clauses, which are used appositively (as in ex. 519) but also independently. The following example shows an independent adjective clause functioning as the theme:

- (521) ša kima kata ina še:ri iwwalid-ma
 N_c like_c 2SGM.OBL in steppe.ATT be-born.PV.3SG.CONN
 urabbi:šu šadu:
 raise.PV.3SG.3SGM_{CMP} mountain.NOM
 'One like you was born in the steppe and the mountain raised him' (GlgP:17-19)

kima kata ('like you') is a prepositional syntagm, predominantly used as an adverbial complement. It is used here, nominalized, as the theme. *ša* marks the syntagm as nominal and thus could be analyzed as a nominalizing converter. The affinity of the *ša* syntagm to a nominal entity is shown by the recurring representation, or resumption, of the theme in the verbal form *iwwalid* ('one like you' is resumed by the 3sg index in the verbal form) and its further resumption as object in *urabbi:šu* ('raised him', resuming *ša kima ka ta*). The agreement of *šu* and *ša* with their referent mentioned above (exx. 507-509) is another facet of this affinity.

An adjective, just like the adjective clause in ex. 521, has the prerogative of occurring without a substantive:

- (522) eflutum unašša:ku: še:pi:šu
 young-man.PLM.NOM kiss.IPV.3PLM foot.PL.OBL.3SGM_{ATT}
 'The young (ones) were kissing its feet' (GlgP:11)
- (523) šibuzi upaššir ana babi:šu
 old.PLM.CMP assemble.3SG to gate.ATT.3SGM_{ATT}
 'He assembled the elders to his gate' (Aha:386; C1:39)
- (524) ali a:littum ulladu-ma
 where give-birth.PTC_A.SGF.NOM give-birth.IPV.3SG.SUB.CONN
 'Where the birth-giver gives birth...' (Aha:291)

This is possible due to the fact that each adjective contains a nucleus capable of representing a substantive, whose actual exponents are the gender-number-case morphemes. This nucleus is

³⁶ The difference here is one of diathesis; whereas the relative in ex. 519 is the equivalent of a passive participle ('the built one'), the actual example has an active participle ('the builder').

analogous to the construct pronoun *ša* in adjective clauses. Thus, what is viewed elsewhere as 'substantivization' of the adjective, is here regarded as the most regular function of the adjective — **representing substantives**.

4.1.3.3 Completive construct nuclei

Completive construct nuclei function mainly as adverbial complements, more rarely as objects. In contrast to *ša*, which is appositive to the entity it represents, i.e., it may occur in any syntactic relationship (e.g., in ex. 511 in attributive position, in 516 as completive, etc.), completive construct nuclei are generally in a completive syntactic relationship with the nexus.

4.1.3.3.1 Adverbial construct nuclei

The following examples show the connection between the uses of *ištu*:

- (525) *ištu irassu ine'ʔu ... issaḫkaram ana gilgameš*
 since chest.L.CMP.3SGM_{ATT} turn.PV.3SG.SUB say.IPV.3SG to gilgameš
 'As he disengaged, ... he was saying to Gilgamesh' (GlgP231-233)
- (526) *anaku ša allikam ištu uruk eanni*
 1SG.NOM N_C come.PV.1SG from uruk eannu
 '(It is) I who came from Uruk Eannu' (GlgX4:8-9)

The construct adverbial nucleus *ištu* (which is in fact an adverbial converter) may join (as do *ša* and *ašar* above) either a substantive (and is then analogous to a preposition) or a clause (like an adverbializing conjunction). *ištu* is functionally identical to any adverb, except for the fact that it must have an attribute.

The same can be seen with *aššu(m)*. *aššum* is historically composed of the preposition *ana* 'to' and the substantive *šumum* 'name'. The construct state of the latter is still apparent in the following example:

- (527) *šur abnim-ma ... muše:biru:ya*
 N_{PLM}_C stone.ATT.FOC transfer.PTC_A.PLM.NOM.1SG_{ATT}
aššum la: alappatu me: mušim
 in order NEG.touch.IPV.1SG.SUB water.PLM.OBL die.INF.ATT
 'My transferers ... are the stone objects, in order (that) I do not touch the water of death' (GlgX4:22-23)
- (528) *aššu la: mušši: ešemmu libši*
 in order NEG.make-forget.INF.ATT spirit.SGM.NOM exist.PREC.3SG
 'Let there be a spirit in order not to cause sinking into oblivion' (AhA:217)

The first *aššu(m)* (ex. 527) has a clause as its attribute, while the second (ex. 528) has an infinitive. Only once in our corpus we come across a construct adverbial nucleus which joins a clause which is nominalized via *ša*:

- (529) *ša ba:šti uṭa:bši*
 N_C dignity.ATT improve.IPV.3SG.3SGF_{CMP}
annu:m-ma aššu ša la: ippattaru arka:mum
 this.NOM.FOC in order N_C NEG.discontinue.IPV.3SG.SUB later.TADV
 'He improved her as regards dignity, in order that this is not discontinued later'
 (AgA7:17-19)

This is noteworthy because this *ša* clause in ex. 529, unlike any we have seen so far, is an **abstract relative clause**, and this is made apparent by the special slot it occupies, the same as the infinitive in ex. 528. Unlike above, where relative clauses were regarded as the syntactic

equivalents of an adjective, in this unique case the *ša* clause is the syntactic equivalent of the infinitive, viz., an abstract noun (=‘the fact/idea that...’), not of an adjective (=‘the one who...’).

The functions of verbal forms inside these clauses is almost identical to their function in independent clauses, except for the perfect (*iptaras*), which is not attested in attributive clauses³⁷ and precatives, which do not occur in the attributive slot (§4.5.2.2.2). A curious phenomenon occurs at times with adverbial clauses (found in ex. 529 as well):

(530) ši: ašar ušbu ina bikiti ušbu:-ma
 3SGF.NOM place_c sit.PV.3SG.SUB in weeping.ATT sit.PV.3SG.CONN
 ‘Where she sat, they sat in weeping...’ (AhC4:18-19)

(531) ide:-ma ibri:
 know.IPV.1SG.CONN friend.N-ATT.1SG.ATT
ina šadi: inuuma attallaku itti bušim
 in mountain.ATT when wander.PV.1SG.SUB with cattle.ATT
 ‘I know, my friend, since I was roaming in the mountain with the cattle...’ (GlgY:106-107)

Both underlined entities (*ši*: ‘she’ and *ina šadi*: ‘in the mountain’) belong inside the adverbial clause, but nevertheless occur outside it.

4.1.3.3.2 Object construct nuclei and related syntagms

The following example is the only occurrence in the corpus of a substantivized clause³⁸ functioning as object:

(532) kima dannu per²um ša uruk lušešmi matam
 that_c strong.PRED.3SGM.SUB descendant.NOM N_c uruk announce.PREC.1SG land.CMP
 ‘Let me announce to the land that the descendant of Uruk is strong’ (GlgY:185-186)

In this example, *kima* joins the clause attached to it just like any other construct state nucleus, via the attributive relationship. Here, however, the nucleus itself functions as object and is not appositive as *ša*. It is analogous, in its relation to the nexus, to the adverbial nuclei treated in §4.1.3.3.1 above. Another example is the following:

(533) itu:-ma umu emi allaku ul ide
 be-dark.PV.3SG.CONN day.NOM where_c go.IPV.1SG.SUB NEG.know.PV.1SG
 ‘The day became dark and I knew not where I was going’ (GlgSB:39)

emi (unique form, usually *em(a)*) is mostly in use as an adverbial nucleus ‘where(ever)...’. However, exactly as English ‘where’ is used in object clause (‘I forgot where he lives’), so is *emi* here used as an objective nucleus, in paradigm with any nominal complement of the verb ‘know’:

(534) ul ide enkidu aklam ana akalim
 NEG.know.PV.3SG enkidu bread.CMP to eat.INF.ATT
 ‘Enkidu did not know (how) to eat bread’ (GlgP:90-91)

³⁷ This is worth mentioning, because in EOB a perfect form inside a temporal adverbial clause has the value of a real perfect (e.g., *ištu tagdamru* ‘when you have finished’, etc.), which justifies its name.

³⁸ In some translations this *kima* is taken to mean ‘...how strong are ...’. With a verb of hearing, however, it makes sense to interpret it as a substantivizing converter, i.e., ‘(the fact/idea) that’. Such examples are amply attested in EOB.

- (535) *dapa:na* *ti:de*
 hurtle.INF.CMP know.PV.3SGF
 'She knows (how) to hurtle' (AgA3:5)

Both infinitive constructions are equivalent in this slot: we have explained above that the adverbial construct nucleus (*ana* in this case) is in the same relationship with the nexus like an adverb, or, for that matter, like an object³⁹. The function of both infinitive objects and the *emi* clause in ex. 534 is identical, both occurring as objects of the same verbal lexeme (the exact position with regard to the verb is not very important, as is explained below, §4.2.1). The polarity of the verbal form, especially of a verb of this kind, probably has some importance, but makes no great difference in OB. The point is the syntactic equivalence of object clauses and infinitives.

Apart from these means used to reflect the contents of an object clause, we also find juxtaposition (for which see §§4.4.4.2 and 4.4.4.4).

4.1.4 Related issues

Several phenomena which need comment manifest one (or more) of the syntactic relationships discussed above. These issues are apposition, the dative pronouns and the adverbial endings. The following sections explain their relationship with the three basic syntactic relationships. Other related issues discussed hereunder, more general in nature, are infinitive behavior, negations and coordination.

4.1.4.1 Apposition

Apposition is not a distinct relationship, and may occur with any of the participants of the three basic relationships. Apposition is an equal syntactic status between two syntagms:

- (536) *ma:likšunu* *ku:ra:du enlil*
 counselor.PTC_A-N-ATT.3PLM_{ATT} hero.NOM enlil
 'Their counselor, (=) Enlil, (=) the hero' (AhA:8)

The appositive elements are occasionally separated:

- (537) *š(er)am* *imaši* *ašar* *iwwaldu*
 steppe.CMP forget.PC.3SG place_C be-born.PV.3SG.SUB
 'He forgot the steppe, (=) the place (where) he was born' (GlgP:47)

In ex. 537 there is a substantive functioning as object (*še:ram* 'steppe') and its apposition — an otherwise adverbial clause 'where ...'. This is, in fact, rather rare, since adverbial clauses are generally not appositive⁴⁰.

Apposition is not considered a relationship in its own right. What it does is syntactic reduplication, or addition, of either an element in a relationship, or of the entire relationship. As such it is co-occurs with any relationship: the preceding example reduplicates the complete unit. In other cases, it expands an element of the attributive relationship:

³⁹ In EOB, it is impossible, in certain cases, to distinguish. When the matrix verb is a verb of order, the content could be communicated with either the completive infinitive or *ana*-infinitive, with no appreciable difference in value.

⁴⁰ However, *ašar* is a substantive ('place'), which makes it eligible to be in apposition with another substantive.

- (538) *išat libbi muti napištum ibli*
 fire_C heart_C man.ATT kindled.PTC_{ST}-SGF.NOM be-extinguished.PV.3SG
 'The kindled (= fire within the man's heart is extinguished' (Ns5:11)

In ex. 538, *išat* 'fire' is in nominative status (unmarked, neutralized by the construct state) which participates at the same time in both the predicative (with the verbal form *ibli* 'is extinguished') and the attributive relationships (with *libbi muti* 'a man's heart'). *išat* is further expanded by an adjectival apposition (for which see the following section) which testifies to the nominative status of *išat*.

4.1.4.1.1 Adjectives and adjective clauses

Perhaps the most common manifestation of apposition are the adjective and the adjective clause (§§4.1.3–4.1.3.2). Both are appositive to the substantive they refer to (when present). This apposition to a substantive can be deduced from the adjective's agreement with it.

The order of the adjectival apposition varies, as the does order of elements in this language generally (see §4.2). The appositive syntagm can either follow (see, e.g., *napištum* 'kindled' in ex. 538 above) or precede the substantive.

Preceding adjective:

- (539) [*k*]*ašušim me: ana šamšim tanaqqi*
 cold.PLM.OBL water.PLM.OBL to šamaš.ATT pour.IPV.2SGM
 'You will pour cool water (in libation) to Shamash' (GlgY:270)

Preceding adjective syntagm (*ša*+attribute):

- (540) [*i*]*dje ša kištim nerebešim*
 know.PV.3SG N_C forest.ATT entrance.PLF.OBL
 '[He knows] the entrances of the forest' (GlgY:253)

Separation of the appositive elements by the verbal form is quite common:

- (541) *šalmušum ipšu: ugaru:*
 dark.PLM.NOM become-white.IPV.3PLM wall.PLM.NOM
 'The dark walls became white' (AhB4:7)
- (542) *ša adad ina a:li ibnu: bišsu*
 N_C adad in city build.PV.3PLM temple.N-ATT.3SGM_{ATT}
 'They built the temple of Adad in the city' (lit. 'his temple (=) of Adad') (AhB2:20)

All preceding examples show adjective-first order. The adjective may be separated by a verbal form from its qualified substantive, forming a **split apposition**. Both phenomena of adjective-first order and split apposition are characteristic of LOB and absent in EOB.

The elative encountered in LOB is either morphologically constructed, with a pattern similar to that of the causative (§3.3.5.4.1.2), or syntactically, whereby an adjective is regularly modified by a prepositional syntagm:

- (543) *luna²id šurbuša inili: karatta*
 praise.PREC.1SG greatest.SGF.CMP in.god.PL.OBL heroine.CMP
 'Let me praise the greatest, the (most) heroic among the gods,' (AgA1:1-2)

A curious phenomenon, having to do semantically with the accusative of relation (see end of §4.1.2.2), is a syntagm in which a qualificative adjective is modified via an attributive substantive. This rare construct adjective takes the ending *-am*, which is not otherwise found in construct nouns:

- (544) *waldam* *šerim* *mitlukam* *ile²²i*
 born.PTC_{ST,(C)} steppe.ATT reflect.INF.CMP be-able.IPV.3SG
 'The wild-born was able to reflect' (lit. 'native of the wild') (GlgB:19)

It should be emphasized that here, as in any other attributive construction, the nucleus of the construction is the first unit (here *waldam* 'native') and it is this nucleus (albeit an adjective) which is described by the attributive syntagm. Note again that the adjective is perfectly capable of being an independent referent, in this case of the subject index in the finite verb, namely, representing the one who can reflect.

The relationship between this phenomenon and the accusative of relationship is not only semantic: it is an established fact that unqualified adjectival rhemes are practically non-existent in OB. This stems from the fact that whenever an adjective is needed as rheme, the corresponding participial predicative form occurs instead. This form, being a built-in clause (i.e., which is composed of a subject index, the [adjectival] lexeme and the nexus between both), can no longer take an attributive substantive as a modifier; in this case it has to be an adverb(ial), and is accordingly marked. E.g., when **damqam_c la:nim.ATT* (lit. 'beautiful of body') is needed as rheme, the result is *(X) *damiq.PRED.3SGM la:nam.CMP* ('x, he is beautiful [with regard to] body').

4.1.4.2 Dative suffixes and pronouns

The occurrence of the dative in Akkadian is represented by a special pronominal set, never by substantival endings. The dative has no syntactic status of its own, and its representatives occupy slots already discussed, always belonging to one of the basic syntactic relationships with another entity. The following example shows the dative pronoun in the attributive status:

- (545) *gilgameš ana šašim issakkar ana kurašim šamši*
 gilgameš to 3SG.DAT speak.IPV.3SG to hero.ATT šamaš.ATT
 'Gilgamesh spoke to him, to the hero Shamash' (GlgX1:9')

ana šašim 'to him' is syntactically identical to *ana kurašim šamši* 'to Shamash the hero'. Both the dative pronoun and the qualified deity name are in attributive status (the adjective *kurašim* is explicitly marked as attributive). Thus, the dative is but a semantic category, not a distinct syntactic status.

šašim ('to him') is in the same syntactic group as *yašim* ('to me'). These forms are used in both attributive and completive status:

- (546) *mannum šumka kibiam yašim*
 who.NOM name.N-ATT.2SGM_{ATT} tell.PREC.2SGM.1SG_{DAT} 1SG.DAT
 'What is your name? Tell me!' (GlgX4:5)

Here, we see *yašim* in apposition to *-am*, the 1sg dative suffix. Both are equally in completive relationship with the nexus.

4.1.4.3 Adverbial endings

There is a limited set of adverbial endings (traditionally termed terminative-adverbial *-iš*, locative-adverbial *-um*, and distributive *-išam*, see §3.3.1.4), which morphologically override case endings and construct state indication. These endings are productive to a certain extent (chiefly *-iš*), and always denote adverbial value regardless of syntactic status. They occur mainly in completive status (as adverbial qualification, more rarely as object complement), and only marginally in attributive status.

The following examples show the adverbial endings in completive status:

- (547) *ma:ta:tim* *šuknišam* *še:piššu*
 land.PL.OBL submit.PREC.2SGM foot.TADV.3SGM_{ATT} (Ad2:16)
- (548) *še:puššu* *šuknišam* *ma:tam*
 foot.LADV.3SGM_{ATT} submit.PREC.2SGM land.CMP (Ad2:19)

Both examples have the same meaning: 'Make the land(s) bow at his feet'. There is no semantic difference between both endings here.

As construct nucleus:

- (549) *ilmu:* *ba:biška*
 surround.PV.2PLM door.TADV.2SGM_{ATT}
 'They surrounded **your gate**' (lit. 'to your gate') (AhA:114)
- (550) *bi:tiš* *emu:tim* *ikru:ninni*
 house.TADV in-law.PL.M.OBL call.PV.3PLM.1SG_{CMP}
 'They summoned me **to the house** of (my) in-laws' (GlgP:149)

As adverbial nucleus (analogical to a preposition):

- (551) *ele:nuya* *kima zubbī:* *i:wu:* *lillidu:*
 above.1SG_{ATT} like_C fly.PL.M.ATT become.PV.3PLM offspring.PL.M.NOM
 'Over me, the offsprings became (like) flies' (AhC3:44-45)
- (552) *ku:dmīš* *anim* *ina šama:²i:* *šaknu:*
 before.TADV anum.ATT in heaven.PL.M.OBL be-put.PRED.3PLM
 'They were set **before** Anum in heaven' (EtmM1:12)

The occurrence of these endings in attributive status seems to be the token of their non-productivity:

- (553) *ina libbu* *eršetim*
 in heart.LADV land.ATT
 'to the heart of the land' (GlgX1:11')

libbu eršetim (having the same value — 'to the heart of the land'), the basic construction, is here preceded by the preposition *ina*, which denotes synchronically the same locative idea. This double locative hints that the original locative idea, expressed by the locative-adverbial, has become worn out.

4.1.4.4 Syntax of the infinitive

The infinitive is a substantive which is compatible with completive arguments, just like a finite verb (§4.1.2.1); sometimes it is used just as a *nomen actionis*. In addition, it shows a few peculiarities which are worth mentioning. The infinitive can occur in the construct state when expanded attributively by (pro)nominal elements:

- (554) *minu* *ala:ku* *ma:naht[ik]a*
 what.NOM go.INF_C toil.ATT.2SGM_{ATT}
 'What is your toilsome **journey?**' (lit. 'walk of your toil') (GlgP:146)

The infinitive is attested in all three syntactic relationships. In the completive relationship, either as object or as adverbial modification:

- (555) *aladam* *pursi:*
 give-birth.INF.CMP cut.PREC.2SGF
 'Limit birth' (AhC7:9)

- (556) [ilu]-*ma itašuš ašabam*
 god.NOM.TOP grow-weary.PV.3SG sit.INF.CMP
 'As to [the god], he grew weary (of) sitting' (AhB6:15)

In the predicative relationship, it functions both as theme and as rheme:

- (557) *sakapum maṭu:*
 rest.INF.NOM be-little.PRED.3SGM
 'Rest is scarce' (GlgX1:11')

- (558) *kaḅal la: maḥar [š]upat huwawa*
 battle_C NEG.OPPOSE.INF.PRED.3SGM dwelling-place_C huwawa
 'The dwelling place of *Huwawa* is an unwinnable battle' (lit. 'battle which is not to oppose') (GlgY:115-116)

Ex. 558 is a special and complex occurrence; the construct substantive *kaḅal* 'battle' is modified by an attribute which is made up of a negated infinitive form. However, with an infinitive in the attributive position we expect a corresponding marking, as we in fact usually get:

- (559) *aššuru la: alakim*
 place_C NEG.GO.INF.ATT
 'a place (where one should) not go' (GlgHB:16)

But in *kaḅal la: maḥar* we do not have the expected attributive marking *-im*. This absence is explained as a special manifestation of the 3SGM of the predicative form which is exceptionally (only in this type of syntagm) found on an infinitive. In ex. 558, the infinitive is the rheme (whereas the virtual \emptyset ⁴¹ is the theme, in analogy with 3SGM participial and substantival predicatives). Another example of infinitival rheme is the infinitive as existant:

- (560) *ul ibašši mitluku niši ša*
 NEG.EXIST.IPV.3SG counsel.INF_C people.PL.OBL.3SGF_{ATT}
 'There was no counsel for its people' (EtnM1:13)

The syntagm represented in ex. 559, occurring mainly in LOB, is sometimes compared with another syntagm in EOB (unique in LOB), a *ša* syntagm with an infinitive attribute:

- (561) *ša nuppuš libbi*
 N_C relax.INF_C heart.ATT
 'which can relax the heart', 'heart relaxing' (AgA6:044')

4.1.4.5 Negation

Negations are treated under the relevant sections. However, a general note is due. We are dealing with basically two kinds — nominal, when it negates nominal (e.g., *la: petiṭim* 'unmated' Cow:9), always with the negative particle *la:*, and nexal, which negates the relationship between theme and rheme. The latter type occurs with all types of clauses. In the verbal domain, it seems that *ul* is the current unmarked negation of a declarative, indicative clause. *la:* occurs in subordination (e.g., in attributive clauses), in pronominal interrogative clauses (§4.5.2.3.1, ex. 661) and in a number of occurrences in independent clauses where its value is hard to specify⁴². The negation *ay-e:* occurs in negative precatives only.

⁴¹ It is virtual because it is not really opposed to other entities as is the case in the predicative (e.g., \emptyset : *-aku*) — there is no attestation of the infinitive with other predicative endings.

⁴² In EOB, the distribution of *ul* vs. *la:*, it is easier to formulate. *la:* is never part of indicative syntagms in independent clauses, but rather participates in various modal syntagms such as the

4.1.4.6 Coordination

Coordination of entities **at the clause level** is marked by the particle *u*. It connects entities of equal syntactic status, or category: two substantives (*aššatum u mussa* 'a wife and her husband' (AhA:276), two adverbs (*eliš u šapliš* 'above and below' (AhC1:31), two pronouns (*ana<ku> u ata* 'I and you' EtnM6:6'), two prepositional syntagms (*[an]a ahi:ya u ana anim* 'to my brother and to Anum', (AnzA:49), etc. It is also used, as in modern languages, in marking a list of items of the same syntactic standing, preceding only the last element:

(562) *ma:lak u makkal šina u šala:šim*
 walk_c whole-day.AB two CONN three.ATT
 'a walk of one whole day, two and three' (GlgSB:25)

As *u* is relatively rare, some connection in this level goes unmarked, or does not exist at all (*ammagra:tim kullulim taršia:tim* 'to insults, despise, misbehavior', AgA7:8-9). For interclausal connection, see §§4.4.1–4.4.4 below.

4.2 Clause patterns at the clause level

Another facet of microsyntax, or of sentence level, is the (syntactic) **pattern**, or what is traditionally referred to as **word order** in linguistic typology. A pattern should concern us as long as it is linguistically (other than stylistically) pertinent; in other words, as long as a given pattern is consistently, in its entirety, a signal, or an exponent, of some function. The following sections show a limited inventory of patterns in LOB. Since most of the marked patterns have to do with functional sentence perspective, discussion of the function of these patterns is resumed below under §4.3.

4.2.1 Verbal clause patterns or order of the elements

The typological denomination and classification of language type according to the order of elements (SOV etc.) is problematic in more than one respect, especially when no such basic, unmarked order can be singled out. An SOV pattern might have worked in EOB to a point, but not in LOB. Here we seem to have several unmarked orders, all of which are normal and vary due to stylistic reasons.

A verbal form in itself is a clause in its own right (§4.1.1.2)⁴³. For this reason, there is only one possibility of order with respect to a given verbal form, as morphology restricts pattern possibilities⁴⁴. Any pattern variation hence necessarily involves the verbal form (or the participial predicative) and the syntactic expansions of its various components and complements. So the typological notation is used here a little differently: V represents the entire verbal form (or the participial predicative), which is a minimum clause in itself; S represents only the expansion of the subject index in the verbal form (i.e., by an independent pronoun, or a substantive); O represents the object only when not a bound suffix.

At this point of investigation we find the following patterns equally unmarked in LOB: SOV, SVO, VSO. It seems that the important difference between patterns in LOB has to do mainly with the **respective order of the arguments**, whereas the position of V is less

negative directive (*la: iparras*) or the negative asseverative (*la: iprusu; la: iparrasu*). Additionally, when the negative particle *ul* does not precede a verbal form, it is a theme, or focus marker.

⁴³ Especially in the 1st and 2nd persons, deemed automatically present in dialogue; this means that *a:mur* 'I saw' is absolutely independent, whereas *i:mur* 'he saw' needs further specification of the referent of this third person.

⁴⁴ Note, for example, that in a verbal form the subject index is divided between the beginning and the end, whereas in the predicative it is marked only at the end: *išbata:* as against *šabta:* (§§3.3.5.3–3.3.5.3.2).

important. When O precedes S (whether OVS, OSV or VOS), we have a marked order.

4.2.1.1 Object complement preceding

The common denominator between these order variations is the fact that the object precedes the subject. These orders are more marked than the others, where the subject precedes the object:

OSV — theme prominence:

- (563) *libšam šaniam ši: ittalbaš*
 garment.CMP second.SGM.CMP 3SGF.NOM put-on.PC.3SG
 '... another garment *she* put on herself' (GlgP:71-72)
- (564) *šuma ša daru: ana'ku luštakna*
 name.CMP N_C last.PRED.3SGM.SUB 1SG.NOM establish.PREC.1SG
 'Let *me* establish for myself a name that lasts forever' (GlgY:188)
- (565) *šupšik ilim awiḫum lišši*
 toil_C god.ATT man.NOM bear.PREC.3SG
 'Let *man* bear the toil of the god(s)' (Aha:191)

OSV, further discussed under §4.3.1.3.2, is the clearest case we have. The other two possibilities, OVS and VOS, are marked as well, but their exact value cannot be determined at this point of investigation:

OVS:

- (566) *šarrutam ša niši: iši'mkum enlil*
 kingship.CMP N_C people.PL.OBL decree.PV.3CS.2SGM_{DAT} enlil
 'Enlil decreed for you the kingship of people' (GlgP:239-240)

VOS:

- (567) *[liša]kšidka ernittaka šamšu*
 achieve.PREC.3CS.2SGM_{CMP} victory.N-ATT.2SGM_{ATT} šamaš.NOM
 '[May] *Shamash* [let] you achieve your victory' (GlgY:257)

Prominence in itself does not mean much; however, below (§4.3) it will be shown that LOB sometimes does not distinguish between contrastive topic and focus, which results here in a rather general formulation.

4.2.1.2 Other types

Clause types such as OV, VO, SV, VS, etc. may constitute complete utterances, and some of them show markedness as well. The marked clause patterns are mainly SV and VS in the 1st and 2nd persons (see n. 43 above). In these cases, what looks like a repetition of the subject index is actually its syntactic representation for reasons of topicalization (cases where this has to do with meter are, of course, ignored). The ensuing example has two of these orders, OV and the marked SV:

- (568) *tištam liddinam-ma ana'ku lupuš*
 clay.CMP give.PREC.3SG.1SG_{DAT}.CONN 1SG.NOM do.PREC.1SG
 'Let him give me clay so that (lit. and as for me,) I will do it' (Aha:203)

ana'ku is the topic here, for reason of topic shift from 3sg to 1sg.

Two other pertinent patterns are treated under §4.3. The first is the **cleft pattern**, described in §4.3.1.2. The second is the **extrapositive pattern**, which is common in Semitic (and in spoken languages in general), treated in §4.3.2.1.

4.3 Functional sentence perspective

Functional Sentence Perspective (FSP) is the analysis of text with respect to the information it contains: different units of information have various functions within the text and these functions are formally marked. Information can be given or new, contrasted or not, etc. The description of these functions and their correlation to specific linguistic exponents are the domain of FSP. The current terms used in FSP here are theme, rheme, topic and focus. The **theme** and the **rheme** constitute the basic binary dichotomy of simple clauses; the rheme is the new information which is predicated about the theme (which is given, presupposed or otherwise known). These functions cut across morphological categories, and this is the reason they are used in this framework. **Topic** is here defined as a thematic entity beyond the basic structure of theme and rheme in a clause. The topic is in predicative relationship with an entire clause (see further below, §4.3.2). It is still a given, presupposed, etc. entity, but it could show some contrast to another topic or theme (i.e., topic shift) see e.g., ex. 568 above. **Focus** is the most salient entity in a clause, usually for reasons of contrast with another entity (unlike the rheme, which is not contrasted, merely conveying new information). This difference between focus and rheme is not always maintained; however, in describing FSP in OB, the distinction is rather useful.

A note should be added explaining the rationale behind locating the treatment of FSP in this place. Most phenomena dealt with here have to do with the flow of information across clauses — the rationale for topic or focus usually lies in the preceding and ensuing syntagmatic environment. Such considerations make this issue a facet of macrosyntax, beyond the clause, or sentence level. On the other hand, their scope is allegedly microsyntactic, i.e., sentence scope, having to do with different manifestations of the predicative relationship, which is a basic syntactic relationship belonging *par excellence* to the sentence level. That is mainly why it is described here, i.e., in between microsyntax and macrosyntax.

4.3.1 Focus exponents

Focus in LOB is marked by the enclitic particles *-mi* and *-ma*, by special patterns and by the cleft construction. It is a function found exclusively in dialogue and not in narrative.

4.3.1.1 The enclitic particle *-mi*

The particle *-mi* is traditionally deemed associated with direct speech (for which see §4.5.2), occasionally even its exponent. However, in view of the fact that all manifestations of focus occur only in dialogue (that is, in fact, any manifestation of direct speech), the enclitic particle *-mi* is considered in this framework to be the clearest, most consistent exponent of **focus** in LOB, rather than anything else. It occurs at the beginning of the clause, on the first or second element, denoting contrastive focus:

- (569) *pa:na-mi mami nišassi:ki*
 formerly.FOC mami call.IPV.1PL.2SGF_{CMP}
inanna belet kala ili: lu: šumki
 now lady_C all god.PL.OBL PREC name.N-ATT.2SGF_{ATT}
 ‘Formerly we used to call you Mami, now let your name be the “lady of all the gods”’ (AhA:246-8)

The adverb *pa:na*: (‘formerly’) is signaled by *-mi* (in obvious direct speech) to contrast with the following *inanna* (now). The contrast is not always overt:

- (570) *gūgameš-mi itti huwawa dapi:mim taqumtam ištu*
 gilgameš.FOC with huwawa savage.ATT battle.COMP weave.IPV.3SG
 ‘(It is) *Gilgamesh* (who) wove battle with the savage *Huwawa*’ (GlgY:149-150)

This is exclusive focus, which may be rendered by *only*, against any other possibility. In the next example *-mi* occurs in a quotation of what people say about Enkidu. Note that here the particle appears right in the middle of the prepositional syntagm, despite the fact that it refers to the entire syntagm:

- (571) {*ana-mi gilgameš*} *mašil* *padattam*
 to.FOC *gilgameš* similar.PRED.3SGM form.CMP
 '(It is) *to Gilgamesh* (that) he is similar in form' (GlgP:183)

This too is a manifestation of exclusivity, which is a facet of contrast. The particle *-mi*, despite its functional consistency, is quite limited to relatively simple elements and cannot mark complex syntagms as focus. This is effected by *-ma* (§4.3.1.3.1).

4.3.1.2 Cleft constructions

The cleft is another syntactic pattern (§4.2.3) whose aim is to mark an element as the rheme. In LOB, there are but a few clefts (occurring on the whole mainly with interrogatives). Here, as opposed to modern European languages (e.g., '*It is she who did it*', '*c'est elle qui l'a fait*'), there is neither a dummy pronoun nor a copula, only juxtaposition of the rheme with the nominalization of the rest of the clause via *ša*:

- (572) *ana:ku* {*ša allikam ištu uruk eanni*}
 1SG.NOM N_C come.PV.1SG from uruk eanni
 '(It is) *I* {who came from Uruk Eanni}' (GlgX4:8-9)

The result is a non-verbal clause where *ana:ku*, 'I', is the **rheme**, whereas the nominalized clause *ša allikam* 'who have come' functions as the **theme**. In fact, cleft constructions belong with the second type of non-verbal clauses treated above, where the rheme, occurring first, is marked for reasons other than new information, namely contrast. *ana:ku* in ex. 572 means 'I and no one else'. The following example contains an interrogative as rheme:

- (573) *mannum* {*ša im]aḥharu kakkī:šu*}
 who.NOM N_C confront.IPV.3SG.SUB weapon.PLM.OBL.3SGM_{ATT}
 '*Who* (is it) {wh[o] will [co]nfront his weapons}' (GlgY:194)

Interrogatives are natural rhemes (see §4.5.2.2), and are often formally marked as such (as they regularly are in French '*Qui est-ce qui affrontera...*', where the interrogative *qui* is marked as rheme by the cleft construction). Thus, *mannum* 'who' is the rheme (or even focus, see ex. 577 below), whereas the theme is the nominalized clause.

4.3.1.3 Less consistent exponents

Other signals of focus, namely, the particle *-ma* and certain patterns, do signal focus as well — but not exclusively. In both following sections these signals are described and this inconsistency explained.

4.3.1.3.1 The particle *-ma*

The particle *-ma* is another focus exponent. It occurs, unlike *-mi*, on any clause constituent (simple or complex), except the main verbal form. It differs from the connective *-ma* (§4.4.1), appended to verbal forms and participial predicatives. *-ma* often signals contrastive focus:

- (574) *ittiya-ma* *la: natu:* *ana epe:ši*
 with.1SG_{ATT}.FOC NEG.be-proper.PRED.3SGM to do.INF.ATT
itti enki-ma ibašši šipru šu-ma ullal kala-ma
 with enki.FOC exist.IPV.3SG task.NOM 3SGM.NOM.FOC purify.IPV.3SG everything
 'It is not proper for *me* to do, the task is *Enki's*, *he* will purify everything' (AhA:200-202)

The particle occurs twice on prepositional syntagms, and seems to mark the attributive slot, that is, *-ya* (1SG_{ATT}) and *Enki*. The contrast is found between the speaker (represented by *-ya*) and the god Enki. The demonstrative and personal pronoun *šu*: is marked as focus in the end, and is again contrasted with the speaker. The following example shows a slightly different notion:

- (575) *sin ina-ma nari šepšu ki:nat*
 si:n in.FOC river.ATT foot.N-ATT.3SGM_{ATT} firm.PRED.3SGF
 'As to (the god) Sin, even in the river his foot is firm' (Sin2:5)

Ex. 575 shows an extreme, rendered by *even* in English. More importantly, this example contains a rather complex hierarchy:

topic	comment		
	focus/rheme	theme	
		theme	rheme
<i>si:n</i>	<i>ina-ma nari</i>	<i>šepšu</i>	<i>ki:nat</i>

The extrapositive deity name Sin is the **topic** of the entire sentence. Its **comment** is a complex sentence, made up of a syntagm marked by *-ma* and a thematic part, which is yet another sentence, consisting of a substantive and a participial predicative, etc.

The following example has *-ma* in whose scope is an entire adverbial clause:

- (576) *{ašar atta talliku}-ma tapšur ulla...*
 {where 2SGM.NOM go.PV.2SGM.SUB}.FOC free.PV.2SGM bondage.CMP
 'Wherever you went you lifted the bondage...' (AhB5:32/6:27-28)

One of the properties of adverbial clauses is that they are treated by this language as any simple adverb, or prepositional syntagm, and ex. 576 demonstrates this point. The last example in this part shows an interrogative marked for contrast:

- (577) *mannum-[m]a ilam ša:ti iger[r]e[š]ju*
 who.NOM.FOC god.CMP this.SG.OBL attack.IPV.3SG.3SGM_{CMP}
 'Who (is it who) would attack this god?' (GlgSB:71)

The interrogative here is marked as more than just an informational unit (as interrogatives are the syntactic equivalent of an algebraic *x*, they correspond to the answer information-wise). This interrogative implies that absolutely no one dare attack 'this god'.

Another function of the particle *-ma* is topicalization, that is, the conceptual opposite of focalization⁴⁵:

- (578) *haššinnu nadi-ma eli:šu paħru:*
 axe.NOM lie.PRED.3SGM.CONN over.3SGM_{ATT} assemble.PRED.3SGM
haššinnum-ma šani bunu:šu
 axe.NOM.TOP change.PRED.3SGM feature.PL.NOM.3SGM_{ATT}
 'An axe was lying and (people) were assembled around it. As for the axe, its features were strange' (GlgP:29-31)

That *haššinnu* is the topic here is clear from the syntagmatic environment: it occurs before, and therefore it is known, it is not contrasted with anything — except for one thing. In the first clause it is the topic of *nadi* ('it lies'); then *paħru:* ('they assemble') comes with a generic subject. It is plausible to assume that *-ma* here marks a **change of topic**, i.e., a contrast, but

⁴⁵ This phenomenon hardly ever occurs in EOB.

which is not rhematic (and hence **focal**), but rather thematic (and hence **topical**).

The following example does not tell us whether the entity which is marked by *-ma* is focus or topic:

- (579) *mannu ibri: e:lu: šam[a:ʔi:]*
 who.NOM friend.1SG_{ATT} ascend.PTC_A-SGM.NOM heaven.PL.OBL
ilu:-ma itti šamši dariš u[ššabu:]
 god.PL.NOM.FOC with šamaš.ATT forever dwell.IPV.3PLM
awiluzum-ma manu: u:mu:ša
 humanity.NOM.FOC/TOP be-counted.PRED.3PLM day.PL.NOM.3SGF_{ATT}
 'Who, my friend, goes up to heav[en]? Only the *gods* [dwell] with Shamash forever.
 As for *humanity*, its days are numbered' OR: '(It is) *humanity* (whose) days are
 numbered' (GlgY:140-142)

There is no doubt that *ilu:-ma* 'the gods' is focal. In addition to it being the answer to a question (which is always the rheme), it is in contrast with *awiluzum* 'humanity'. The latter, however, could equally be interpreted as either focus or topic in light of ex. 578, which shows an uncontested topic marked by *-ma*. It is important to emphasize here that *-mi* never shows this indeterminacy, and always signals contrastive **focus**. Hence the two particles are related, but distinct (note that *-ma*, when denoting focus, does not occur in narrative).

4.3.1.3.2 The focal/topical pattern

The patterns discussed in §4.2.1.1 are resumed here. They can signal focus:

- (580) *šuma ša daru: ana:ku luštakna*
 name.CMP N_C last.PRED.3SGM.SUB 1SG.NOM establish.PREC.1SG
 'Let me establish for myself a name that lasts forever' (GlgY:188)

In this example, the personal pronoun *ana:ku* is given focal prominence (this is clearly not a topic shift). This very pattern, OSV, is found in EOB as well, but only as a focus exponent. Other examples:

- (581) *ana eri: šulma:ni: ana:ku ašruk[am]*
 to eagle.ATT gift.PL.OBL 1SG.NOM give-present.PV.1SG
 '(It was) I (who) gave gifts to the eagle' (EtnS:12')
 (582) *šupšik ilim awilum lišši*
 toil_C god.ATT man.NOM carry.PREC.3SG
 '(It is) *man* (who) should carry...' (Aha:197)

However, the function of this pattern is not only focal; there are some examples which could denote either focus or topic change (which would then belong to topicalization), for which see §4.3.2. The following example, despite the fact that there is no topic change, is not quite focus:

- (583) *ištemam ulabbissu*
 one.CMP dress.PV.3SG.3SGM_{CMP}
libšam šani:am ši: ittalbaš
 garment.CMP secondSGM.CMP 3SGF.NOM put-on.PC.3SG
 'She dressed him one (garment), another garment she put on herself' (GlgP:70-72)

The reason for the pronoun *ši:* 'she' might be the need to specify the agent, since the 3sg verbal form does not differentiate between masculine and feminine.

Here one could add those examples of the OSV pattern which are ambiguous in this respect as well:

- (584) *zunni:šu* *adad* *lišakḫil*
 rain.PL.OBL.3SGM_{ATT} adad withhold.PREC.3SG
 'As for Adad, let him withhold his rain', or 'Let Adad withhold...' (AhB1:11)

It can be concluded that both *-ma* and the OSV pattern signal either focal or topical contrast.

The following example deviates from our formulation:

- (585) *ayyam* *aḥa:ki* *taria:t* *aḥa:ki*
 which.CMP brother.CMP.2SGF_{ATT} lift.PRED.2SGF brother.CMP.2SGF_{ATT}
ša ana aḥi:ki *waldu*
 N_C to brother.ATT.2SGF_{ATT} be-born.PRED.3SGM.SUB
išam *ninlil ana šamaš ulid-ma*
išum.CMP *ninlil* to *šamaš* give-birth.FV.3SG.CONN
 "Which brother of yours are you the nanny of, your brother who was born to your brother?" "Ninlil bore Ishum to Shamash..." (Sin7:7-8')

The completive proper name is here the **rheme**, in contradistinction to the rest of the examples. This is probably due to the fact that here this pattern serves as an **answer**, which might overrule its usual, agent prominence function.

4.3.2 Topicalization

Topic is a function whereby a unit serves as a discursive anchor which both maintains the reference to previous parts of the text and represents what is being discussed. As such its occurrence, unlike that of focus, is widespread in both narrative and dialogue. This makes topic and focus asymmetric with regard to the narrative, where one predominantly finds topic, but not focus.

The **extrapositive pattern** is the most prominent topicalizing signal occurring in both narrative and dialogue. It has one clear functional value — to designate an element as topic. This pattern is characterized by two clauses, one within the other. The smaller clause, formally non-subordinate, functions as the rheme, or comment, of the larger clause. The topical unit (usually marked as nominative, but see ex. 589) is resumed inside the following clause, in which it may assume any function:

- (586) *ḥuwawa* {*šanu:* *bunu:šu*}
ḥuwawa change.PRED.3PLM feature.PLM.NOM.3SGM_{ATT}
 'As to Huwawa, his features are strange' (GlgY:193)

It could be analysed as follows:

topic	comment	
	rheme	theme
	rheme-theme	
<i>ḥuwawa</i>	<i>šanu:</i>	<i>bunu:šu</i>

Huwawa (in nominative status) is topic. It is juxtaposed to a participial predicative clause whose theme, *bunu:* 'features', is nominative as well, with which the predicative form agrees. The link between both parts is made by the attributive suffix *-šu* 'his', which resumes *Huwawa*. What we have literally is 'Huwawa, his features are strange'. What is special in this topicalizing pattern is that there is a clause which functions in its entirety as rheme. This pattern occurs in narrative as well:

- (587) *umu* {*išnu:* *pa:nu:šu*}
 day.SGM.NOM change.FV.PLM face.PL.NOM.3SGM_{ATT}
 'The weather, its appearance has changed' (AhC2:48)

So far, the resumptive element had attributive function inside the rheme clause. In the following example the resumptive element is the subject index (the equivalent of nominative status) in the verbal form:

- (588) *i.ni: mina: amur} ana:ku*
 eye.PL.OBL what.CMP see.PV.1SG 1SG.NOM
 'As for me, what did I see with my eyes?' (AhA:109)

This kind of resumption in ex. 588 is not very different in the way in which the topic and the clause are explicitly related. It is different in its distribution: this 'repeating resumption' (*ana:ku* 'I' follows a 1SG index in the verbal form) is more usual in narrative sequences than the former kind, and accounts indeed for the majority of extrapositive constructions (as seen, e.g., in §§4.2.1.1–2 above).

There is another, related occurrence, where the object is both extraposed and resumed within the rheme clause:

- (589) *huwawa ša:ti nigerre:š[u]*
 huwawa this.N-NOM withstand.IPV.1PL.3SGM_{COMP}
 'This Huwawa, shall we withstand [him]?' (GlgSB:73)

The difference between completive and nominative extraposition is not clear.

4.4 Macrosyntax: beyond the clause level

The basic syntactic relationships (§4.1) are valid in the clause level (including clauses formally functioning as part of this clause, see §4.0). Beyond this level, however, interclausal relationships cannot be classified according to these principles and one has to resort to other classificational principles due to the different nature of interclausal relationships. An example for one common interclausal relationship is chained, or concatenated clauses, the relationship between which does not conform to the basic syntactic relationships treated above and is more difficult to formulate precisely. This chapter treats the various types of interclausal relationships: superordination, macrosyntactic patterns, sentence boundaries and other kinds of less easily analyzed relationships.

4.4.1 Superordination

Superordinative relations were originally attributed to such cases where coordinated clauses in one language were rendered by subordinate structures in a modern European language. This type of clausal interconnection is covered in modern linguistics under clause-chaining. What is special in these types of interconnection is that acknowledging their existence broke a long standing fallacy of the clean dichotomy between coordination and subordination, in that these relations are not subordinative, yet there is a high degree of interdependence between clauses interconnected in this way. The semantic value of this kind of interconnection is not fixed but rather dependent on the nature of the clauses, viz., tense, mood and the semantic nature of the verbal lexeme⁴⁶. This type of interconnection is formulated in Van Valin 1984:546, separating dependence from embeddedness. Whereas neutral coordination is analyzed there as [-dependent, -embedded] and subordination as [+dependent, +embedded], the present type, superordination (under different disguises), termed by Van Valin **cosubordination**, is formulated as [+dependent, -embedded]. A fourth type, [-dependent, +embedded], is mentioned, but not discussed there, but it can represent embedded direct speech (see below, §4.4.4).

⁴⁶ For example, when verbs which take object clauses occur in such constructions, the tendency is to view the interconnected clause as semantically corresponding to the object clause, e.g., *šemu:m* 'hear' in ex. 594 below.

As hinted above, these logical relationships between clauses are neither independent nor subordinate. The basic logical relationship is that of an abstract sequence — one event and then the next:

- (590) *išme:-ma* *gilgameš* *sikir* *ma:liki:šu*
 hear.PV.3SG.CONN *gilgameš* word_C counsel.PTC_A.PLM.ATT.3SGM_{ATT}
ippalsam-ma *iših* *ana* *ibr[iš]u*
 look.PV.3SG.CONN laugh.PV.3SG to friend.ATT.3SGM_{ATT}
 'Gilgamesh heard the utterance of his counsellors and looked and laughed to his friend' (GlgY:201-202)

- (591) *ka:ti:* *luškun-ma* *luksum-ma* *ere:nam*
 hand.N-ATT.1SG_{ATT} put.PREC.1SG.CONN cut.PREC.1SG.CONN cedar.CMP
šumam *ša* *daru:* *ana:ku* *luštaknam*
 name.CMP N_C last.PRED.3SGM.SUB. 1SG.NOM place.PREC.1SG.1SG_{DAT}
 'Let me lay my hand and chop the cedar and place for myself a permanent name'
 (GlgY:187-188)

The examples show two typical types of such chain: the narrative (§4.5.1.1) and the precative (§4.5.2.2.2.3); in both the verbal clauses are interconnected by the connective particle *-ma*.

The connective *-ma* (a homograph of the focal/topical *-ma*; for the difference, see §§4.3.1.3.1 and 4.4.3) interconnects only clauses. However, it is restricted to interconnecting only verbal forms which have the same mood (modal congruence, see §4.5.2.2.2.3; for a few irregularities, which constitute patterns, see §4.4.2). In the majority of cases, it interconnects forms of the same type (e.g., {perfective-*ma* perfective}), as in ex. 590 above), but also the pair {perfective-*ma* perfect} and other combinations, but they are less frequent. This connective is often perceived as a consecutive connector, which marks a sequential relationship between the connected clauses, but in LOB this is not always the case (e.g., when perfective forms interconnect via *-ma* with imperfective or even participial predicative, the forms used for background in narrative (§4.5.1.2), we cannot speak of sequence in the same sense, since the actions are often simultaneous). However, when it is, such sequence neutralizes many semantic relationships: sequence, cause, purpose, content, etc. (see below). It is chiefly this type of connection which is referred to in discussing **superordination**.

The basic value of sequence may have various notions:

- (592) *kibitam-ma* *ša* *te:rrišanni* *luddikku*
 tell.PREC.2SGM.1SG_{DAT}.CONN N_C ask.IPV.1SG_{CMP} give.PREC.1SG.2SGM_{DAT}
 'Tell me that which you ask me (for) and let me give (it) to you' (EtnM6:7')
- (593) *luddin-ma* *kidri:am* *wu:tti:sa:* *napšassu*
 give.PREC.1SG.CONN present.CMP find.PREC.2PL soul.N-ATT.3SGM_{ATT}
 'Let me make a present, but find his soul' (Nw:R16)

Both examples are precative sequences, the first is close to the notion of purpose, while the second is close to a condition. These are called 'notions' because they are not associated each with a fixed, consistent pattern (which is defined here, like any linguistic exponent, as a form having a fixed and consistent link with a specific value; for the discussion of such patterns, see §4.4.2).

There is an occasional semantic affinity between basic syntactic relationships and superordination. In LOB, we do find clearly definable subordination, viz., the attributive construction (shown above to participate in any basic syntactic relationship, §4.1.3). Superordinative relationships hence differ sharply from a structural point of view in that subordination and superordination do not belong to one paradigm, viz., they do not figure in the same syntactic

conditions. Despite this, at times one finds a semantic relationship between the two strategies:

- (594) *nišemme:-ma huwawa šanu: bu:mu:šu*
 hear.IPV.3PL.CONN huwawa change.PRED.3PLM feature.PLM.NOM.3SGM_{ATT}
 'We hear that (lit. and) as to **Huwawa, his features are strange**' (GlgY:193)
- (595) *kima dannu per'um ša uruk lušešmi ma:am*
 that_c strong.PRED.3SGM.SUB descendant.NOM N_c uruk announce.PREC.1SG land.CMP
 'Let me announce to the land **that the descendant(s) of Uruk are strong**' (GlgY:185-186)

In ex. 594, we find the verb *šemum* 'hear', when *what* is heard is appended via *-ma* to the verbal form, whereas in ex. 595, the same lexeme occurs with a substantivized clause functioning as formal object (and compare to ex. 590 above, where the same verb takes a substantive as an object). The semantic content of hearing in both examples is expressed in the first example by superordination and in the second by subordination.

In the second pair, we see the semantic affinity between the superordination of perfective and imperfective and a prepositional phrase:

- (596) *imur-ma iltum ibakk(i)⁴⁷*
 hear.PV.3SG.CONN goddess.NOM weep.IPV.3SG
 'The goddess saw (and she was) **weeping**' ('La déesse vit et pleurait') (AhC3:32)
- (597) *ina bikizi ušbu:-ma*
 in weeping.ATT sit.PV.3PLM.CONN
 'They sat **weeping...**' ('ils s'assirent en pleurant...') (AhC4:18-19)

This semantic affinity is made possible in superordination by the combination between *-ma* and the imperfective, and in subordination by a prepositional syntagm. The former is regularly used this way in narrative (see §4.5.1) as dynamic background.

Consider the following pair of examples:

- (598) *iturram-ma izzaz eli:šu*
 return.IPV.3SG.CONN stand.IPV.3SG over.3SGM_{ATT}
 'He was standing by him **again**⁴⁸ (lit. was returning and standing)' (GlgX4:2)
- (599) *a:amar šani:am*
 see.PC.1SG second.SGF.CMP
 'I saw **again**' (GlgP:26)

The preceding couple shows the semantic affinity between the connected verb *ta:rum* 'return'⁴⁹ when interconnected with a following verbal form (as in ex. 598) and between the adverb *again* (ex. 599), which is comparable syntactically to any adverbial clause).

Despite the occasional semantic affinity, it should be emphasized that the examples in each pair are of a disparate syntactic nature. It becomes obvious when we see both strategies working together, see e.g., ex. 605 below.

⁴⁷ There is a famous couplet *ittašab ibakki* (cf. Streck 1995) but it does not belong to our corpus. In addition, this couplet does not have *-ma* in it.

⁴⁸ This occurrence is moot, since there is not enough context. However, we do find other occurrences, albeit without the connective *-ma* between them: *litur li:ki[I]* 'let it turn dark **again**' (AhC3:35) and *šatu tu:r ner-ma* 'smite him **again...**' (GlgIS:18').

⁴⁹ This use, although rather rare in LOB, is very frequent in EOB as well as in other Semitic languages, such as Biblical Hebrew.

Up to this point, we have shown clauses interconnected by *-ma*. However, marking the connection is often optional, and so we find the same nature of interrelationship unmarked:

- (600) *šu: kinnasū šalim-ma*
 he.NOM nest.N-ATT.3SGM_{ATT} be-sound.PRED.3SGM.CONN
sapih kinni:
 dispersed.PRED.3SGM nest.N-ATT.1SG_{ATT}
 'As for him, his nest is sound **but** my nest is dispersed' (EtnS:15')
- (601) *šalmu: atmu:šu laššu: maruša*
 be well.PRED.3PLM chick.PL.NOM.3SGM_{ATT} NEG.EXIST.PLM son.PL.M.NOM.1SG_{ATT}
 'His chicks are well, (but) my sons are no more' (EtnS:17')

Note that the two examples occur almost together, and the contrastive relationship is clearly repeated in the second example but nevertheless goes unmarked. From such examples, we deduce that non-marking is rather frequent. In general, the connective *-ma* is much rarer in LOB than in EOB, perhaps due to metrical reasons, since this connective (as other clitics in fact) draws the stress to the former *ultima*, making it a *penultima*.

There is, however, some difficulty with non-marking. On the one hand, the very same relationship which is found between clauses interconnected via *-ma* may also be found between clauses with no special marking. On the other hand, this non-marking, being the most usual situation between clauses, may also be found where we do not expect *-ma*, e.g., in textual boundaries which are often marked by shift of tense or mood, where we actually have very little relationship between the clauses. Cohesion between clauses in the first case is overtly marked by deixis and internal consistency; the more the forms are alike, the closer the juncture between them tends to be.

4.4.2 Macrosyntactic patterns

Besides the regular interconnection of similar clauses (as shown in the preceding section), there are some special cases which do not conform to this regularity (to be commented upon further below, under §4.5.2.2.2.3), where clauses of different nature are interconnected. The first case shows the rare sequence precative—imperfective, constituting together a **conditional structure**:

- (602) *iššuram bar-ma e:šam illaku: watmu:šu*
 bird.CMP hunt.PREC.2SGM.CONN where go.IPV3PLM chick.PL.NOM.3SGM_{ATT}
 '(If you) hunt a bird, where would its chicks go?' (GlgIS:15')

This example shows some of the intricacies of superordination. We see a 2nd person precative form (an imperative form) interconnected via *-ma* with an imperfective verbal form. However, this precative form has no directive value, and it actually functions here as a protasis of a conditional construction⁵⁰. This difference in function is attributed here to a special pattern

⁵⁰ This rare pattern exists in EOB as well:

lamassam ... atma iškam šua:ti e:tudannin
 protective-spirit.CMP swear.PV.1SG ditch.CMP this.SG.OBL NEG.strengthen.PREC 2SGM
 [b]it abika ... kala:šu lu: ušmat
 house_C father.ATT.2SGM_{ATT} all.3SGM_{ATT} kill.ASV.IPV.1SG

'I swear by the protective spirit ..., **should you not strengthen** this ditch, I will put to death your entire father's family' (AbB12, 169:20-26).

Note that the example occurs with no explicit interconnection by *-ma*; however, many of the examples in this pattern do (cf. the following example), and hence this non-marking is perceived as being in variation with *-ma*. In EOB, this pattern more commonly denotes concessive-conditional:

comprising more than one clause. This interconnection is characterized by the fixed order of the clauses (which is the rule when *-ma* is used), and the sequence is composed of two interdependent clauses. Another related, more common pattern is a conditional as well:

- (603) *attillam-ma kalu šana:tim*
 sleep.PV.1SG.CONN all_C year.PL.OBL
imaya šamšam liṭṭūla-ma nawirtam lušbi
 eye.DU.NOM.1SG.ATT sun.CMP see.PREC.3DU.CONN light.CMP be-satiated.PREC.1SG
 '(If) I have constantly slept throughout the years then could my eyes see the sun and I be satiated with light?' (GlGX1:12'-13')

Ex. 603 is of a different pattern, quite common in EOB, whose value is condition as well. The first clause is the conditional protasis, whose paradigm (i.e., the possible forms which figure in a designated syntactic slot) is made up of the imperfective, perfective or participial predicative, forms which otherwise denote indicativity, rather than conditionality. In the second clause, the apodosis, the paradigm is made up of the same variety of forms which constitute the apodosis in *šumma* conditionals (rare in LOB, common in EOB, see §4.5.2.2.1.1) as well: the imperfective, perfective, precative, participial predicative and non-verbal clauses⁵¹, to the exclusion of any forms which habitually denote the past, namely, the perfective and the perfect. The ensuing example belongs to this pattern as well:

- (604) *inanna-ma ibr[i: li:]tam nišakkam-ma*
 now.FOC friend.1SG.ATT victory.CMP establish.IPV.1PL.CONN
melemmu: ihalliku: ina ki:šim
 aura.PL.NOM get-lost.IPV.3PLM in wood.ATT
 'Should we, [my] friend, establish [vi]ctory now, the auras will get lost in the wood'
 (GlGS:11'-12')

This example is a reaction to a remark, possibly a question. This reaction brings out the possibility factor subsumed in establishing victory at that moment and the ensuing result.

These two conditional patterns are a special facet of superordination: the otherwise indicative form in the protasis does not, in fact, denote indicativity here, since it clearly represents a possibility, which is a modal notion. This is made possible by the special syntactic conditions effected by this peculiar combination. Modal congruence (§4.5.2.2.2.3) therefore still obtains — for the otherwise indicative-denoting form in the protasis has a modal value here.

4.4.3 Sentence Boundaries

In LOB, it is difficult to state sentence or clause boundaries in precise structural terms. Unlike EOB, where the syntactic order is generally verb-final and the connective *-ma* is appended to the verbal form (or the participial predicative) at the end, here the connective is appended to the verbal form as well, but the latter is not necessarily at the end. This occasionally creates difficulty in locating sentence boundaries. In the following example, we see a compound clause interconnected by the connective *-ma*:

- u:mi: šattim ište:at ina bi:tišu lišim-ma ul aššat*
 day.PL.OBL_C year.ATT one.SGF in house.ATT.3SGM_{ATT} dwell.PREC.3SG.CONN NEG.married-woman.PRED.3SGF
 'Even if she lives in his house for one (whole) year, she is not a married woman' (LE A ii 33-34).

⁵¹ For a full characterization of this pattern see Cohen *forthcoming*, Ch. 6.

- (605) *lušussu-ma* *ina kišti eremim #*
 reach.PREC.1SG.3SGM_{CMP.CONN} in forest_c cedar.ATT
ki:ma dannu *per³um ša uruk lušešmi* *ma:tam #*
 that_c strong.PRED.3SGM.SUB descendant.NOM N_c uruk announce.PREC.1SG land.CMP
 'Let me reach him in the cedar forest and let me announce to the land that the descendants of Uruk are strong' (GlgY:184-186)

The # sign shows the boundaries between the two clauses; neither *-ma* nor the verbal form explicitly indicate them. There is never more than one connective *-ma* in a main verbal clause.

As for the difference between the connective and the topical/focal *-ma* (§4.3.1.3.1), the former is appended to a verbal entity, or a participial predicative, the latter to non-verbal entities (even such which include verbal forms, such as embedded clauses):

- (606) *{ašar atta talliku}-ma* *taptur ulla*
 {where 2SGM.NOM go.PV.2SGM.SUB}.FOC free.PV.2SGM bondage.CMP
 'Wherever you went } you lifted the bondage' (AhB5:32/6:27-28)

The point is that *-ma* here does not interconnect the two verbal forms — the first form (*talliku* 'you went') belongs in the adverbial clause, being attributive (and accordingly marked by *-u*), whereas the second (*taptur* 'you freed') is the matrix clause. *-ma* connects only verbal entities of similar syntactic status, which is not the case here. This *-ma* is therefore the focal *-ma*.

In very few cases only is the connective *-ma* appended to a substantive:

- (607) *iliš libbašu-ma* *pa.nu:šu ittamru:*
 rejoice.PV.3SG heart.N-ATT.3SGM_{ATT.CONN} face.PL.NOM.3SGM_{ATT} shine.PC.3PLM
 'His heart rejoiced and his face shone' (GlgSB:24)

It must be emphasized that there is no reason for focus nor topic marking here. The reason for the different placement of *-ma* is not clear.

4.4.4 Other types of sentence connection

Other, non-superordinative connections occur in LOB as well. The first type is rarely marked in LOB by the symmetric coordinative *u*, connecting two clauses:

- (608) *iptek-ma inaṭṭal u ippallas*
 blink.PV.3SG.CONN look.IPV.3SG CONN observe.IPV.3SG
 'He blinked and was looking and observing' (GlgP:88-89)

u marks verbal forms as equal in OB, rather than sequential.

Besides *u*, we encounter a type of embedding, which involves no subordination, but merely juxtaposition (there is only nucleus-related subordination in OB, always involving the attributive relationship between the nucleus and the attributive syntagm). In the following examples, the 'matrix' verb is a speech verb and the embedded part, what is said, is in the form of direct speech:

- (609) *la: allakam ikb[i]*
 NEG.come.IPV.1SG say.PV.3SG
 'He said "I will not go"' (AnZA:24)
- (610) *pika liššiam tehe eṣa:duṛ*
 mouth.2SGM_{ATT} carry.PREC.3SG-DAT approach.PREC.2SGM NEG.fear.PREC.2SGM
 'Let your mouth tell me "Approach, do not fear!"' (GlgY:147)

The analysis is difficult, since the direct speech clause occupies a slot similar to that which an infinitive, or a *ki:ma* clause would occupy before or after the matrix verb (compare exx. 479

and 605 above). Nevertheless, the 'matrix' verb has no formal objective/adverbial relationships with the direct speech clause. Van Valin 1984:546 briefly refers to this type of relationship, but is reluctant to discuss it. However, he does characterize it, in his terms, as [+embedded -dependent], which is a step forward in understanding this kind of relationship. We find a similar use with direct questions which are being embedded without being marked as indirect, nor as subordinate:

- (611) *mannum šumka kibī:am ya:šim*
 who.NOM name.N-ATT.2SGM_{ATT} tell.PREC.2SGM.1SG_{DAT} 1SG.DAT
 'What (lit. who) is your name? Tell me!' (GlgX4:5)
- (612) *abu:bu ša taqabba:[ninni] mannu šu: ana:ku [ul ide]*
 flood.NOM N_c say.IPV.2SGM.1SG_{COMP} who.NOM 3SGM.NOM 1SG.NOM NEG.KNOW.PV.1SG
 'The flood which you mention to me, what is it? [I do not know]' (AhB7:44-45)

The following example has to do with the verb 'know', occurring with a preceding juxtaposed, seemingly independent clause:

- (613) *bitu lawi ilu ul ide*
 house.NOM surround.PRED.3SGM god.NOM NEG.KNOW.PV.3SG
 'The house is surrounded, the god does not know' (AhA:71)

This example shows two juxtaposed clauses, where the preceding clause semantically represents the object of the other, but the completive relationship is not marked and does not formally exist here. The preceding examples in this section (609–613) all show a different kind of ultrasentential relationship, which is distinctly different from superordination, as in ex. 614:

- (614) *ide:-ma ibri: ina šadi: inu:ma attallaku*
 know.PV.1SG.CONN friend.1SG_{ATT} in mountain.ATT when wander.IPV.1SG.SUB
itti bu:lim ana šu:ši be:ra: nummax kištum
 with animal.ATT to sixty leagues be-deserted.PRED.3SG forest.NOM
 'My friend, I know that (lit. and), when I was wandering in the mountainland with the animals, the forest was deserted for sixty leagues' (GlgY:106-108)

In addition to the special nature of ultrasentential connections, the groups they form have special characteristics which are texteme-specific and are described in the following sections.

4.5 Textemes

The territory beyond the sentence belongs to **macrosyntax** (also termed **text linguistics**). The discussion of many syntactic points specifically at this level is indispensable. The tense system, for instance, is explicable only after dividing the text into texteme types — into narrative and dialogue, and even further, into sub-textemes. This division is necessary since each texteme type constitutes a discreté system, from several perspectives. The characterization of each as regards, e.g., verbal forms (that is, in traditional terms, tense, aspect and mood) is different, not only with respect to the actual occurrence of the different forms, but also (and perhaps mainly) with regard to the semantic **values** of these forms in a given texteme — what seems to be the same verbal form may turn out to have an altogether different functional value in each texteme. This chapter is hence subdivided into two parts, each describing the respective characteristics of the narrative and the dialogue textemes.

4.5.1 Narrative

It has been much discussed whether narrative forms refer to some absolute time in which the story takes place (mainly in order to try and understand why narrative tenses are frequently past tenses). In LOB, despite a temporal reference which may be taken as a concrete point in

the past⁵², it seems that there are no temporal oppositions in the narrative texteme, which means tense plays no part in the system (the *time* referred to might have been the past, but it is not pertinent linguistically). The reason for this statement is that there are no consistently signaled shifts in time inside the narrative (cf. such signals in modern European languages such as the *plusquamperfectum*, or the future-in-the-past which do occur in opposition with the narrative form itself). It all occurs along the same temporal line (perhaps leaving out deviations from strict narrative, such as relatives)⁵³. The narrative line itself is enriched by other forms (these, however, are not tenses, since they do not consistently refer to other times, but rather to various aspects and *Aktionsarten*), by intrusions of dialogue, which is for the most part a digression of the narrative — the dialogue opening signal (for which see §4.5.2) seems to be a part of the narrative.

4.5.1.1 Narrative chains and deviations

The narrative texteme⁵⁴ is the texteme containing the sequence in which the events are related. The verbal forms at play are the perfective forms which generally relate the story itself (the so called 'stream of events'). These narrative forms are surrounded by other forms — the perfect, used for representation of perfective chain-final events, the imperfective form for imperfective representation of the events, i.e., unbounded, dynamic description. Predicatives and non-verbal clauses are used in the same manner for depiction of states. Their precise values in opposition with the perfective form are discussed in the following section. No modal forms are found in the narrative itself: there are no consistently signaled modal oppositions inside the narrative, so there is no point in calling the chain 'indicative'.

As regards the personal sphere, the narrative texteme is devoid of person — there is no opposition between 1st or 2nd persons, on the one hand, and 3rd person, on the other hand, because only the latter is found. This is one of the major differences between narrative and dialogue, in which one does find the entire spectrum of person.

Negation of the perfective form is very rare in narrative and when it occurs, the syntagm functions like a stative (as opposed to dynamic) background, much like a non-verbal clause. Although it contains a perfective form, it is not part of the 'stream of events', but rather its background:

- (615) *ul illik-m[a]* 1200 *šanatu* (sic)
 NEG.GO.PV.3SG.CONN 1200 year.NOM.PL
 '1200 years have not passed' (Ahb1:1)
- (616) *ešru warḫu illikam-ma*
 tenth.NOM month.SG.NOM come.PV.3SG.CONN
 'The tenth month came...' (Aha:281)

The negative perfective form in ex. 615 is peripheral to the chain, functioning as background, whereas the affirmative form in ex. 616 does constitute part of the narrative chain. Another example:

⁵² E.g., *inu:ma ilum awiṭlum* 'when the gods were [like] man' (Aha:1), which supposedly refers to some concrete time in the past.

⁵³ Cf., however, ex. 458 (§1.1.4): *[uḫarr]i bu:ra:tim Gilgameš ša la; iḫša: mati:ma* 'Gilgameš [dug] wells which had never existed' (GlgX1:3'), which is but interpretation, not having a consistent signal in the narrative.

⁵⁴ This texteme does not occur by and large in EOB, where we generally have but dialogue and reporting textemes.

- (617) *enkidu baḅam iptarik ... gilgameš ere:ḅam ul iddin*
 enkidu gate.CMP block.PC.3SG gilgameš enter.INF.CMP NEG.give.PV.3SG
 'Enkidu blocked the gate ... he **did not let** Gilgamesh enter' (GlgP:215-217)

Here the negative perfective ('did not let...') is used as background for the blocking event.

Other occurrence of negation in narrative have to do with the rare **comment mode**, where the narrator interferes the narrative process by adding his comments, explanations, etc.:

- (618) *ul izde enkidu aklam ana aka:lim*
 NEG.know.PV.3SG enkidu bread.CMP to eat.INF.ATT
šikaram ana šate:m la: lummuḍ
 ale.CMP to drink.INF.ATT NEG.taught.PRED.3SGM
 'Enkidu **did not know** (how) to eat bread, **was not taught** (how) to drink ale'
 (GlgP:90-93)

The comment is indeed a kind of background, but not one like found with, e.g., imperfective forms in the narrative ('he sat [and was] crying', see right below), which is an integral part of the narrative chain. The comment is a deviation from the narrative.

The narrative texteme is also characterized by a relatively small number of adverbial and relative clauses, despite the fact that they correspond syntactically (as is amply illustrated in §§4.1.2-1.3 above) to adjectives and simpler adverbial syntagms, all of which do occur normally in the narrative.

As is already mentioned above (§4.3), FSP phenomena in narrative are limited, that is, topical constructions occur, but no contrastive focus is to be found.

4.5.1.2 Narrative aspectual features

The ensuing survey is an attempt to state the respective values of the various nexal forms which participate in the narrative. Value is revealed only by comparing two similar stretches (syntactic minimal pairs). In a relatively small corpus, this turns out to be a handicap because such oppositions are relatively few. Nevertheless, this is a consistent way of arriving at results in any domain of language (phonology is probably the best example).

The following pair of examples illustrates the difference in value/function between the **perfective** and **imperfective** forms in the narrative:

- (619) *išme:-ma gilgameš siḅir ma:liki:šu*
 hear.PV.3SG.CONN gilgameš word_C counsel.PTC_A.PLM.ATT.3SGM_{ATT}
ippalsam-ma iši:h ana ibr{iš}u
 look.PV.3SG.CONN laugh.PV.3SG to friend.ATT.3SGM_{ATT}
 'Gilgamesh heard the utterance of his counsellors and **looked** and laughed to his friend' (GlgY:201-202)
- (620) *ipte:k-ma inaḅtal u ippallas*
 blink.PV.3SG.CONN look.IPV.3SG CONN observe.IPV.3SG
 'He blinked (and was) looking and **observing**' (GlgP:88-89)

The verbal lexeme *naplusum* 'observe' is shown twice in a chain, preceded in both cases by a perfective form. In perfective form (ex. 619), it is part of the foreground, made up of main events which constitute the backbone of the story, or the 'stream of events'. In imperfective form (ex. 620), the same verbal lexeme functions as background to a preceding (or following, in other cases) perfective form(s). This difference is basically analogous to the difference between the French narrative form, the *passé simple*, as opposed to the *imparfait*, both within the narrative.

The following example shows the opposition between a **participial predicative** and a **perfective verbal form**:

- (621) *gilgameš sakip niš ... itbe*
gilgameš rest.PRED.3SGM lie-down.PRED.3SGM rise.PV.3SG
 'Gilgamesh (was) lying asleep ... he arose...'
 (GlgSB:1-3)
- (622) *nubattam iskipu: inišu: it[be]-ma gilgameš*
 night-stop.CMP rest.PV.3PLM lie-down.PV.3PLM rise.PV.3SG.CONN *gilgameš*
 'At night stop they lay down and slept (then) Gilgamesh ro[se]...' (GlgSB:82-83)

The verbal lexemes involved are indeed stative in nature, yet they occur in ex. 622 as perfective, an active part of the narrative chain, whereas in ex. 621 they function as background to a series of narrative events.

The perfect form *iptaras* occurs in various locations and combinations:

1. In narrative chains, mainly preceded by perfective forms. The following example may be compared to ex. 622 right above, where the same verbal lexeme (*sakapum* 'rest') is evaluated:

- (623) *šamnam iptasaš-ma awi:liš i:we ilbaš libšam ...*
 oil.CMP anoint.PV.3SG.CONN man.TADV become.PV.3SG wear.PV.3SG garment.CMP
ilke kakkašu ... issakpu: re:yu: mušiatim
 take.PV.3SG weapon.N-ATT.3SGM_{ATT} rest.PC.3PLM shepherd.PLM.NOM night.PLF.OBL
 'He anointed himself with oil, and became a man, he put on a garment ... he took his weapon ... the shepherds (finally) rested at night' (GlgP:108-114)

This series of chained events culminates in the fact that the shepherds can finally rest. This probably is the most common function of this form in reporting chains in EOB, where the perfect is the culmination point of the chain. Here, it has the same perfective value as the preceding perfective forms, but it signals the end of the chain as well.

2. In pairs with one preceding perfective form, often interconnected by *-ma*:

- (624) *išbat-ma kubur em[u:ḫ]iya*
 seize.PV.3SG.CONN thickness_C strength.ATT.1SG_{ATT}
šaplanu šadim-ma ištalpanni
 below.LADV mountain.ATT.FOC pull.PC.3SG.1SG_{CMP}
 'He seized my upper arm and pulled me right from underneath the mountain'
 (GlgSB:11-12)

The preceding example is taken from the dialogue narrative sub-texteme (discussed below, §4.5.2.1). This sub-texteme is no different from the narrative texteme as regards the aspectual values of the verbal forms, including perfect forms, in chains or in pairs.

- (625) *išši-ma imi:šu itamar awi:lam*
 lift.PV.3SG.CONN eye.DU.OBL.3SGM_{ATT} see.PC.3SG man.CMP
 'He lifted his eyes and saw a man' (GlgP:137-138)
- (626) *iziš libbašu-ma pamu:šu ittamru:*
 rejoice.PV.3SG heart.N-ATT.3SGM_{ATT}.CONN⁵⁵ face.PL.NOM.3SGM_{ATT} shine.PC.3PLM
 'His heart rejoiced and his face shone' (GlgSB:24)

These cases, unlike the former group, does not show culmination of a series of actions, but rather a tight pair of actions, both representing perfective (i.e., bound or punctual) actions, which seem rather cotemporaneous with each other. Here too, the perfect form comes at the end of the chain.

⁵⁵ This *-ma* is not the focal *-ma* but rather the connective occurring after a substantive.

An interesting feature of the narrative chain is its continuity across the dialogue:

- (627) *išmu-ma anni:am qaba:ša*
 hear.PV.3PLM.CONN this.SGM.CMP speak.INF.CMP.3SGF_{ATT}
iddarru-ma unaššiku: še:pi:ša
 be-freed.PV.3PLM.CONN kiss.PV.3PLM foot.PL.OBL.3SGF_{ATT}
 {dialogue}
išerbu: ana bit šimi
 enter.PC.3PLM to house_C fate.ATT
 'They heard this speech of hers, they got free and kissed her feet,
 {dialogue}
 (then) they entered the house of decree' (AhA:244-249)

Ex. 627 reflects a typical behavior of the chain, perfective forms followed by a perfect form, between which three lines of direct speech occur (ex. 569 above). The narrative encloses the dialogue and continues undisturbed. This shows the tight link between the forms in the chain, which resumes in conformity with usual behavior even across the dialogue block.

4.5.2 Dialogue

This *texteme*, which is introduced above as branching from narrative, is one of the basic tools of literary language to expand and enhance the narrative. It shows a prolific gallery of distinctions and categories lacking in narrative itself: person, tense, modality, interrogative and vocative (§4.5.2.4), in addition to a different characterization of verbal values.

The dialogue parts in LOB, although viewed as an expansion of the narrative, sometimes occur with no surrounding narrative (unlike ex. 627). Their existence is signaled by the prominent characteristics of the dialogue, as discussed below (most notably the occurrence of precatives as well as 1st and 2nd persons), and by a special opening formula having a few versions:

- X *pa:šu* *i:pušam(-ma)* *issakkar(am) (ana Y)*
 X mouth.CMP.3SGM_{ATT} make.PV.3SG(CONN) say.IPV.3SG (to Y)
 'X opened his mouth (and) says (to Y)'

However, there are other instances, where simply a *verbum dicendi* is used (e.g., *atwu:m, tišqurum, kabu:m* 'X said'. In addition, dialogue can also begin with no opening signal at all.

4.5.2.1 Indicative: temporal/aspectual distinctions

It has been noted above that only in dialogue do we find modal distinctions, which means that only here is the **indicative** pertinent linguistically (since other forms are found which express modality in opposition to the indicative). Moreover, dialogue sharply differs from narrative (where we do not have modal distinctions) in having a **temporal perspective** — the speakers naturally have past–present–future, and these physical distinctions are expressed in the system. This is prominent in cases where what is referred to in this description as the 'perfective' form in fact denotes the **past** in dialogue, whereas the 'imperfective' form may denote the **future**:

- (628) *ul uta bala:am*
 NEG.find.PV.3SG live.INF.CMP
 'I did not find life' (GlgX2:10)
 (629) *bala:am ... la: tuta*
 life.CMP NEG.find.IPV.3SG
 'You will not find (the) life...' (GlgX1:8)

Both examples come from dialogue, where the present moment is the point of utterance, which is not the case in narrative. The opposition between the perfective and the imperfective forms is here **temporal**. In other terms, viz., staging, the imperfective form no longer constitutes the background. This temporal opposition is encountered in pronominal questions (exx. 630–631) and in relatives (exx. 632–633) as well:

- (630) *ana minim illikam*
to what.ATT come.PV.3SG
'Why did he come?' (GlgP:141)
- (631) *ki: ni[ī]lak i[bri:] ana kišti er[em]*
how GO.IPV.1PL friend.1SG.ATT to forest_C cedar.ATT
'How shall we go, my friend, to the cedar forest?' (GlgY:129-130)
- (632) *ana:ku ... ša ashuram šadi:*
1SG.NOM N_C surround.PV.1SG mountain.PL.OBL
'(it is) I ... who surrounded mountains' (GlgX4:8-10)
- (633) *balaṣam ša tashaḥuru la: tutta*
life.CMP N_C seek.IPV.2SGM.SUB NEG.find.IPV.3SG
'The life you seek you will not find' (GlgX1:8')

In the preceding pairs of examples (each pair dealing with one verbal lexeme), the aspectual distinction prominent in narrative is not tenable, and tense distinctions rule. However, the imperfective form in dialogue does not signal only the future but rather non-past in general. In a similar manner to the same form in EOB, it covers both present and future. This is apparent in the preceding example (633) as well as in the following example:

- (634) *anaṣṭalka enkidu kiṣma ilim tabašši*
look.IPV.1SG.2SGM.CMP enkidu like_C god.ATT be.IPV.2SGM
'I look at you, Enkidu, you are (like) a god' (GlgP:53)

The notion of **futurity** seems to be especially prevalent in dream interpretations, where it is, however, hardly opposable to any past, so we cannot speak of future value in these dream interpretations. Outside of dream interpretation we are sometimes aided by various adverbials:

- (635) *šib[ka:]ika takaššad arhiš*
plan.PL.OBL.2SGM.ATT reach.IPV.2SGM quickly
'You will achieve your pla[ns] promptly' (GlgSB:53)

arhiš is the key, being a prospective adverb, occurring with future actions in LOB.

Aspectual distinctions do occur in dialogue, but only in the **dialogue narrative** sub-texteme. The perfective forms which occur in relating a dream are part of this distinct sub-texteme. This sub-texteme is characterized syntactically by occurrences of 1st person and by focus phenomena, and semantically by maintaining enough distance from the narrated events (despite the personal involvement) in a way that allows aspectual, rather than temporal distinctions. The other forms at play are like the ones found in narrative, and the imperfective form here functions as **dynamic background**:

- (636) *issi adad eršetum irammum*
cry.PV.3SG adad land.NOM rumble.IPV.3SG
'Adad cried aloud and the land was rumbling' (GlgSB:34)

Here narration is in 3rd person, and the personal involvement of the speaker only becomes apparent later:

- (637) *an[a] rigim adad enniš anaku*
 to voice_c adad become-weak.IPV.1SG 1SG.NOM
 'At the voice of Adad I was growing weak' (GlgSB:38)

This personal involvement is never part of the core narrative. Moreover, this involvement is further demonstrable by the occurrence of focus phenomena, absolutely absent in real narrative.

The **perfect form** in dialogue (apart from dialogue narrative, where it works in conformity with what has been said above, §4.5.1.2) occasionally occurs as the first verbal form following some textual boundary, e.g., the beginning of dialogue, the particle *inanna* 'now', conditional particle, etc.:

- (638) *issaqqar ana ili: rabuṣtim*
 say.IPV.3SG to god.PLM.OBL great.PLM.OBL
iktabta rigim awi:luti
 become-heavy.3SG.1SG_{DAT} voice_c humanity.ATT
 'He spoke to the great gods: "The noise of humanity has become heavy for me"'
 (AhB1:7)

It seems that the perfect in these cases is used as 'perfect of recent past'. The forms in this function have a double temporal reference, viz., both to a past event and to its relevant result, in this case (ex. 638), being fed up with humanity.

The **participial predicative**, much like the imperfective form in dialogue, does not signal background, but rather a timeless persistent situation or feature, whose time frame is unspecified. Incidentally, this form has never really entered the Akkadian tense opposition system, i.e., it has never acquired any fixed temporal value and has remained much like a non-verbal clause in this respect:

- (639) *ṣehreti-ma gilgameš libbaka naši-ka*
 be young.PRED.2SGM.CONN gilgameš heart.N-ATT.2SGF_{ATT} carry.PRED.3SGM.2SGM_{CMP}
 'You are young, Gilgamesh, your heart carries you (away)' (GlgY:191)

Both participial predicatives (the first is intransitive, the second active transitive) denote a persistent feature and situation respectively.

4.5.2.2 Modality

Unlike the fairly limited domain of **mood**, which pertains exclusively to the morphology expressing any deviation from factuality, **modality** is the *signifié* of a wide variety of signals. These signals range from **phonemic length** (occasionally marking interrogative), through morphological **patterns** (e.g., the 2nd pers. precative form), various **particles** and finally by **syntactic patterns** (for which see §4.4.2 above). The accepted basic dichotomy for modality types, **epistemic** vs. **deontic**, is somewhat imprecise here and is therefore rephrased as **non-deontic** (which includes both epistemic and asseverative modality) and **deontic** modality, to conform with the existing inventory.

4.5.2.2.1 Non-deontic modality

In general, non-deontic modality pertains to any modality which does not convey the notions of volition. This excludes the directive function from this group, leaving all other types except interrogative, which is treated apart (which is not quite a type of modality in OB).

4.5.2.2.1.1 Epistemic modality

Epistemic modality, having to do with knowledge, is expressed mainly by particles. We know from EOB that these particles have some influence on the clauses involved (by way of certain

restrictions on the verbal forms involved), but in our corpus, due to the scanty attestation, it is impossible to make a similar statement.

Modal particles occur but marginally in the corpus; we encounter *minde*, ('perhaps') *-man* and *tuša* (both denoting irrealis):

- (640) *minde ša ki_Cma kaxa ina se_Cri iwwalid_C-ma*
 perhaps N_C like_C 2SGM.OBL in steppe.ATT be-born.PV.3SG.CONN
 'Perhaps one like you was born in the steppe ...' (GlgP:17-18)

The following example contains the irrealis particle *-man*:

- (641) *ul addiššu ana keberim*
 NEG.give.PV.1SG.3SGM_{CMP} to bury.INF.ATT
ibri_Cman itabbi_Cam ana rigmiya
 friend.1SG_{ATT}IRR rise.IPV.3SG to voice.ATT.1SG_{ATT}
 'I did not give him for burial, as if my friend would rise to my call' (GlgX2:6'-7')

This is not the typical notion of *-man*, which in EOB normally corresponds to a *would have* constructions in EOB. Here it is quite similar to *tuša*:

- (642) *exelli_C-ma ana šama_C:i*
 ascend.IPV.1SG.CONN to heaven.ATT
tuša wašba_Cku ina bi_Ct nakmati
 IRR dwell.PRED.1SG in house.ATT treasure.PL.OBL
 'Shall I go up to heaven as if I were to live in a house of treasures?' (AhC3:48-50)

As comes up most clearly from occurrences of these particles in EOB, they have a certain range, and have an influence on the clause(s) within this range (e.g., various constraints on the occurrence of forms, etc.). Such influence is most clear with the **conditional exponent** *šumma*, of which, however, there are only two examples:

- (643) *šumma amta_Ckut šumi: lušziz*
 if fall.PC.1SG name.1SG_{ATT} erect.PREC.1SG
 'If I (do) fall, let me establish my name' (GlgY:148)
 (644) *šumma na_Ctu: tia_C:mitam [lubir]*
 if be-proper.PRED.3SGM sea.CMP CROSS.PREC.1SG
 'If it is possible, [let me cross] the sea' (GlgX3:24)

It is possible to state, based upon the behavior of *šumma* clauses in EOB, that the relationship between the apodosis and the protasis is **not** the same as the adverbial relationship obtaining between the nexus and an adverb(ial) clause). Although *šumma* conditional clauses behave syntactically as other embedded clauses (e.g., connective *-ma* never connects them with their matrix clause, namely, they constitute a part of the matrix clause), they are different in that they show interdependency with the apodosis, which is paradigmatically (and semantically) restricted by its very association with the protasis. In other words, a conditional structure is construed of two **mutually interdependent** parts, none of which is dispensable.

4.5.2.2.1.2 Asseverative

There is a modal category in OB called **asseverative**⁵⁶, where an array of forms showing various tenses, unlike the directives above, function as **responsive**. These forms are used to express **insistence**, **oath** and **rhetorical concession**. In LOB, we come across this category but rarely, and there are very few certain examples, all in the affirmative, since not one

⁵⁶ For a full characterization of this category see Cohen *forthcoming*, Ch. 2.

convincing case of the negative asseverative was found in LOB:

- (645) *iptahru:* *išta:lu:* *la: natu:šunu:ši*
gather.PV.3PLM reflect.PV.3PLM NEG.be-propet.PRED.3SGM.3PLM_{DAT}
ana niššiki ea uterru: siqam ištika lu: naṭu:
to prince.ATT ea return.PV.3PLM word.CMP with.2SGM_{ATT} be-propet.ASV.PRED.3SGM
‘They assembled, they reflected, it was not appropriate for them (to do). They addressed
their word to Prince Ea: “For you this *is* appropriate” (AgA5:14’-18’)

The example reflects the most prominent characteristic of the asseverative category — a resumption of former parts of the discourse by repeating them (i.e., the idea of *natu: ‘be appropriate’*). Another very common trait is the polar contrast between the parts of discourse and their resumption — when one is negative, the second is affirmative, etc. The translation of these forms is based upon our knowledge of EOB, where the function of this group largely corresponds to nuclear stress of auxiliary and modal verbs in English (‘this *is* appropriate’ in contrast with ‘it is not appropriate’).

4.5.2.2.2 Deontic modality: the directive function

The directive group consists of verbal and non-verbal precative forms whose primary value is the expression of volition. They occur exclusively in dialogue; all persons are attested; there are no temporal or aspectual distinctions, only dynamicity vs. stativity. These forms tend to interconnect (when this interconnection is marked) only among themselves, and so a chain of these forms is quite frequent. Another important point is that these forms never occur in attributive status, which means that in the attributive slot we have no modal distinctions:

- (646) *aššum la: alappatu me: mutim*
in order NEG.touch.IPV.1SG.SUB water.PLM.CMP die.INF.ATT
‘In order that I do not touch the water of death’ (GlgX4:23)

(*la: alappatu* is in this attributive syntactic position neither indicative nor modal (in a similar manner to what we find in the narrative, where we do not find modal oppositions as well).

4.5.2.2.2.1 Non-verbal precatives

Strictly non-verbal precatives and wishes denote a volition of a state. This goes for participial predicative precatives as well (for opposition with verbal precatives, §4.5.2.2.2):

- (647) *be:let kala ili: lu: šumki*
lady_C all god.PL.OBL PREC name.2SGF_{ATT}
‘Let your name be ‘Mistress of all the gods’’ (AhA:247-8)
- (648) *zubbu: a[nnu:tum] lu: ukni kiša:diy[a-ma]*
fly.NOM.PL this.PLM.NOM PREC lapis lazuli_C neck.ATT.1SG_{ATT-FOC}
‘Let [these] flies be the lapis lazuli of [my] neck’ (AhC6:2-3)
- (649) *lu: ikkibu šina-ma*
PREC taboo.NOM 3PLF.NOM.FOC
‘Let them be taboo’ (AhC7:8)

These examples are discussed above under §4.1.1.1. In a similar manner to the way non-verbal clauses take part in the aspectual system in narrative as stative background, in both the directive and the asseverative groups we find them in connection with a state as well; see further in the following section.

4.5.2.2.2.2 Verbal precatives

Precatives do not show temporal distinctions. We do find these forms (*luprus, purus, liprus* etc., §3.3.5.5) instigating action at the time of utterance, but also thereafter:

- (650) *melemmi: warkazam inešte²²ⁱ*
 aura.PL.OBL later search.PREC.1PL
 'Let us look for the auras later' (GlgIS:16')

The distinction closest to aspectual here is the distinction between stative and dynamic action as, as found, e.g., between the imperative and participial predicative forms in narrative:

- (651) *binituš lidnin*
 structure.NOM.3SGF_{ATT} be.strong.PREC.3SG
 'Let her structure be strong' (AgA5:9')
- (652) *lu: dannat*
 be-strong.PREC.PRED.3SGF
 'Let her be strong' (AgA5:10')

One intransitive verbal lexeme occurs in exx. 651–652 as verbal and participial predicative precative respectively. The difference in value between the two examples in this case is negligible, but more pronounced in case of a transitive verbal lexeme.

The directive value is described as expressing the will of the speaker with the intention of bringing about a change of reality in the immediate future beginning at the moment of utterance. This is clear enough when it is about 2SGM and 3SG directive (*alūk* 'go!', GlgY:284 and *lūlik* 'let him go!', 'he should go', AhB1:14). The 1 pers. directive is quite the same, but requires discussion:

- (653) *ibri: lu: itbarānu ana;<ku> u atta*
 friend.1SG_{ATT} become-friends.PREC.PRED.1PL 1SG.NOM CONN 2SGM.NOM
 'My friend, let us be associated, I and you' (EtmM6:6')

As is clear from ex. 653, the explicit makeup of this 1PL is 'I and you'. This is important because 'you' shows that the form refers at the same time to the 2nd pers. much as the 2nd pers. precative (traditionally termed imperative, the directive *par excellence*), which allows us to regard this 1PL form (as well as the synthetic forms, such as *iniškun* 'let us set' GlgHB:17), as having a directive value as well. Along the same line, the 1SG form (*lūlik* 'let me go!', 'I wish to go' or 'I should go' GlgY:146) is also deemed a directive. There are, of course, small differences between the different persons, but they are inherent to the respective persons, not having to do with the directive function itself.

The negative forms of this group are *ayyiprus/estaprus*:

- (654) *šimea: vs. ešašmia:*
 hear.PREC.2PL NEG.hear.PREC.2PL
 'hear!' (AhC8:19) 'do not hear!' (AhB8:33)
- (655) *lušmur vs. ayyamur*
 see.PREC.1SG NEG.see.PREC.1SG
 'let me see', 'I wish to see' (GlgY:182) 'I do not want to see, may I not see' (GlgX2:13')

The negative forms in EOB show greater variety. The default negative precative, unlike LOB, is *la: taparras* (which occurs in LOB but rarely). The form *ayyiprus* is used in EOB for wish, i.e., in greetings. This distinction does not exist in LOB, which is more conservative in this respect than EOB, retaining the historical form in generalized use.

A special slot in which precative forms occur is pronominal questions. We have seen above (§4.5.2.1) the temporal distinction in this environment, which is not different from other environments in the dialogue. However, when precative forms figure in pronominal questions, they no longer directive in value. Compare the following pair of examples:

- (656) *ilu: mannum anzam lineš-^{ma}*
 god.PLM.NOM who.NOM anzu.CMP kill.PREC.3SG.CONN
ina kulla:tim lušarbi šumšu
 in all.PL.F.OBL make-great.PREC.1SG name.3SGM_{ATT}
 'Gods, who should kill Anzu? Let me make his name great everywhere' (AnZA:9-10)
- (657) *mannum annitam ša la: enki ippuš*
 who.NOM this.SGF.CMP N_c NEG enki do.IPV.3SG
 'Who but Enki can do this?' (AhC6:13-14)

Ex. 656 has a precative form (the other precative, *lušarbi*, is deemed outside the realm of the question), whereas ex. 657 has an imperfective form. The precative form *lineš* still reflects will, but not the speaker's; in this case, it is the will of the referent ('who'). The imperfective form in ex. 657 reflects indicative. Another pair:

- (658) *ki: luštakkan-^{ma} pagri: u ramani: lušeši*
 how establish.PREC.1SG.CONN body.1SG_{ATT} CONN self.1SG_{ATT} let-out.PREC.1SG
 'How should I recover and regain myself?' (CIA3:14-15)
- (659) *ki: ni[^l]lak i[bri:] ana kišti er[^{mi}]*
 how go.IPV.1SG friend.1SG_{ATT} to forest_c cedar.ATT
 'How shall we go, my friend, to the cedar forest?' (GlgY:129-130)

In ex. 658, we have no directive value, but rather a non-factual deliberative question. It is opposed to 659, where indicative value is evident.

However, this opposition does not occur evenly. Based upon the distribution of oppositions, in both LOB and EOB, it can be safely said that when it comes to the 2nd pers. in this environment, we do not find any opposition, because it is only the imperfective form, never the 2nd pers. precative form, which figures in this slot:

- (660) *ammi:nim [i]tti nammašte: tata[n]allak še:ram*
 to.wha_{ATT} with herd.ATT wander.IPV.2SGM steppe.CMP
 'Why do/should you wander in the wild with the animals' (GlgP:54-55)

The form *tattanallak*, as is reflected by the translation, can denote either modality or indicativity, for its value (i.e., function reflected by opposition) is neither modal nor indicative.

4.5.2.2.2.3 Precative chains

Precative forms, when in a chain, may have different notions. These notions are discussed under §4.4.1 above. These different notions are ascribed to the difference in syntactic environment. A salient characteristic of chains in OB is **modal congruence**, where forms interconnect with similar forms having the same mood. Such modal congruence is strictly observed in OB. A precative form in a chain is therefore found under a different set of constraints — unlike the independent precative form, which is easily exchangeable for an imperfective form, in a chain this happens much more rarely, and the opposition is not with an indicative, but rather with an imperfective form which denotes a **condition** (see §4.4.2 above).

4.5.2.3 Interrogative

The interrogative is put on a par with indicative and modality. Questions are deemed part of the modal system in some languages, depending upon the type of marking. The semantics of

questions is always close to modality — expressing uncertainty (as epistemic modality) and at the same time instigating a response (like a directive). However, the way in which interrogative interacts with the other types of modality, e.g., deontic modality (see the end of §4.5.2.2.2) as well as with the indicative, designates it as a *sui generis* type, since the other modal groups are not compatible with each other. There are three kinds of questions in LOB: pronominal questions (containing some interrogative particle), nexus questions (with no interrogative particle) and rhetorical questions.

4.5.2.3.1 Pronominal questions

Pronominal questions contain an interrogative exponent (pronominal or adverbial), which serves as rheme (for discussion, see §4.1.1.1), and the nexus exists between it and the rest of the clause, which serves as theme. Focus issues in connection with interrogatives are discussed in §§4.3.1.2–4.3.1.3.1. At any rate, interrogative particles occur in LOB with both clefts and other focus exponents.

The paradigmatic constitution of pronominal questions is discussed above (§§4.5.1.2 and 4.5.2.2.2). It can be added here that negative questions are extremely rare in LOB, there is only one example:

- (661) *ammi:nim la: tedki:anni*
 to.what.ATT NEG.wake.PV.2SGM.1SG_{CMP}
 'Why did you not wake me up?' (GlgSB:4)

From this example we assume that, like EOB, the negative particle in pronominal questions is *la:*.

The interrogative exponent generally occurs first, the exceptions being vocative units (see §4.5.1.4) and extrapositive elements, which may precede the interrogative element:

- (662) *ana:ku ina puhri sa ili:*
 1SG.NOM in assembly.ATT N_C god.PL.OBL
ki: ak[bi] ittišunu gamerta[m]
 how say.PV.1SG with.3PLM_{ATT} annihilation.CMP
 'As for me, how could I or[der] their annihilation in the assembly of the gods?'
 (AhC3:36-38)

It seems that the syntagm *ina puhri...* ('in the assembly') is topical as well as *ana:ku* ('I').

In a pronominal question, we do find topicalization, but rhematization is typical only of the interrogative pronoun or adverb. The following example has a similar extraposition:

- (663) *abu:bu sa taqabba:[ninni] mannu šu: ana:ku [ul izde]*
 flood.NOM N_C say.IPV.2SGM.1SG_{CMP} who.NOM 3SGM.NOM 1SG.NOM NEG.KNOW.PV.1SG
 'The flood which you mention to me, what (lit. who) is it? [I do not know]' (AhB7:44-45)

Note that the flood is resumed by *šu: 'it'* inside the question. This is, in addition, an embedded direct question: the juxtaposition of the direct question and the verb 'know'. A similar embeddedness is seen in the following with the verb 'tell':

- (664) *mannum šumka kibi:am ya:šim*
 who.NOM name.N-ATT.2SGM_{ATT} tell.PREC.2SGM.1SG_{DAT} 1SG.DAT
 'What (lit. who) is your name? Tell me!' (GlgX4:5)

These examples of embedded direct questions are more frequent than the unique example of indirect question (ex. 533, §4.1.3.3.2 above, which is in fact not a question in itself).

The following ‘independent’ embeddedness is conceptually resumed by *sikram* ‘word’:

- (665) *ana mimim illikam (= sikiršu lušme*
 to what.ATT come.IPV.3SG word.N-ATT.3SG_{ATT} hear.PREC.1SG
 ‘Why did he come? Let me hear his word (=what he has to say)’ (GlgP:141-142)

That is, information-wise only, ‘why he came’ equals ‘what he has to say’. Both criteria, independence and embeddedness are discussed above, §4.4.4.

4.5.2.3.2 Nexus questions

Nexus questions are questions without an interrogative particle. They are but occasionally marked in writing by a vocalic lengthening (§2.5.2.1). In this type, it is the nexus itself whose existence is questioned:

- (666) *mursa immidunia.ti a[na dari]*
 sickness.CMP impose.IPV.3PLM.1PL_{CMP} to ever.ATT
 ‘Will they impose sickness on us [or ever]?’ (AhA:371)

The answer to such a question would be yes or no, pertaining to the existence of the nexus. The following example possibly represents such answer:

- (667) *ina puḫri ipulu: ana*
 in assembly.ATT answer.PV.3PLM yes
 ‘At the assembly they answered “yes”’ (AhA:218)

ana in this function actually resumes the nexus. Another particle, which resumes the nexus, but is not used for asserting it, is *kizam* ‘thus, so’:

- (668) *ammīni ... iriqu: pa.nu:k[a] ...*
 to.what.ATT turn-pale.PV.3PLM face.PL.NOM.2SGM_{ATT}
u kizam-ma ibri: ir[i]qu: pa.nu:[a]
 CONN thus.FOC friend.1SG_{ATT} turn-pale.PV.3PLM face.PLM.NOM.1SG_{ATT}
 ‘Why, my friend, your face has turned pale? ... and thus my face turned pale’
 (GlgSB:66, 75)

kizam ‘thus’ in the answer resumes a few lines of reaction which follow the question.

Other examples:

- (669) *ta:ḫa:za eppuš*
 battle.CMP do.IPV.1SG
 ‘Shall I engage in battle?’ (AhA:108)

Unlike pronominal questions, where the interrogative is always the rheme (or focus), here the (pro)nominal units may be marked as focus:

- (670) *yašim-ma ittene[ppuš]*
 1SG.DAT.FOC be-done.IPV.3SG
 ‘Is it being d[one] against me?’ (AhA:107)
- (671) *ana:ku-ma ullada [abu:ba]*
 1SG.NOM.FOC give-birth.IPV.1SG flood.CMP
 ‘Am I to give birth to the [flood]?’ (AhB7:46)

4.5.2.3.3 Rhetorical questions

There are very few examples for this type, possibly marked as such by the particle *-ma* and vocalic lengthening:

- (672) (*huwawa*) *ša* *nillakušum* *ul šadum-ma:*
 N_C go.IPV.1SG.SUB.3SGM_{DAT} NEG mountain.NOM.FOC.RQ
 'The one to whom we go is the mountain, is he not?' lit. 'is (he) not the mountain(?)'
 (GlgSB:14-15)

It is possible that here are more such questions, but no consistent exponent can be singled out.

4.5.2.4 Vocative

The term vocative stands for the **function** of addressing someone in dialogue. The vocative has a strictly communicative function, to maintain, or boost, the communicative relationship between the speakers above the message itself. The vocative is always identified with the addressee who does not necessarily have a function inside the clause. The vocative in LOB is always a substantive, at times a proper name. It is different from the topic in that the topic has a clear predicative relationship with (the rest of) the clause. The occurrence of vocatives in LOB is hard to predict and formulate, but it might have something to do with meter — for it complies perfectly with it. It is quite clear that there is no audience-oriented function in which the vocative identifies the speaker for the sake of clarity, since the most current vocative is *ibri*: 'my friend', which is not readily recognizable as a specific person.

The constraints and tendencies applying to vocatives in LOB are as follows:

1. The vocative always follows the particle *inanna* 'now':

- (673) *inanna sabitum ašamar pa:niki*
 now ale-wife.NOM see.PC.1SG face.PL.OBL.2SG_{ATT}
 'Now, ale-wife, I have seen your face' (GlgX2:12')

2. Bisyllabic (and longer) interrogatives precede the vocative, whereas monosyllabic interrogative particles tend to stick with their verbal form and either follow or precede the vocative:

- (674) *ammimi ibri: iri:ku: pa:nu:ka*
 to.what.ATT friend.1SG_{ATT} turn-pale.PV.3PLM face.PL.NOM.2SGM_{ATT}
 'Why, my friend, did your face turn pale?' (GlgSB:66)

- (675) *ešel eš tašiššam*
 young-man.AB whereto hurry.IPV.2SGM
 'Young man, whereto do you hurry?' (GlgP:145)

This vocative occurs in absolute form, but no distribution is found to exist between this form and the nominative-like ending in the same function.

3. Focal *-ma* precedes the vocative:

- (676) *šut abnim-ma gilgameš muše:biru:ya*
 N.FLM_C stone.ATT.FOC gilgameš transfer.PTC_A.PLM.NOM.1SG_{ATT}
 'My transferers, Gilgamesh, are the stone objects' (GlgX4:22)

4. Topics tend to precede the vocative:

- (677) *tabbiatum ibri: ušta:lipa: daxda:ni:ya*
 sob.PL.NOM friend.1SG_{ATT} interlock.PC.3PLF neck-tendons.PL.OBL.1SG_{ATT}
 'Sobs, my friend, have knotted the sinews of my neck' (GlgY:85-86)

In both preceding examples, there is no syntactic link between the vocative and the clause in which it appears; thus, the vocative does not have a function in the clause.

Otherwise, the vocative can either precede or follow any type of clause; compare the following occurrences:

- (678) *akul aklam enkidu*
 eat.PREC.2SGM bread.CMP enkidu
 'Eat the bread, Enkidu' (GlgP:96)
- (679) *enkidu tibe luruka*
 enkidu rise.PREC.2SGM lead.PREC.1SG.2SG_{CMP}
 'Enkidu, rise, I will take you' (GlgP:59)

Only in two curious examples do we find the vocative as an inanimate substantive:

- (680) *igaru: šitammia:ni*
 wall.PL.NOM hear.PREC.2PL.1SG_{CMP}
 'Walls, listen to me' (AhC1:20)

4.5.2.5 Interjections

Interjections are not quite classifiable, but like the vocative they occur in our corpus in the dialogue. Two types generally occur; one is more like a vocative with some exhortation:

- (681) *alkim harimtum ludammiḳam ka:š[im]*
 come.PREC.2SGF harlot.SGF.NOM do-favor.PREC.1SG 2SG.DAT
 'Come on, harlot, let me do a favor for yo[u]' (GlgSA:4')

This type seems to occur in dialogue in other languages as well.
 The other expresses amazement, or bewilderment:

- (682) *ki: dalḫat*
 how confused.PRED.3SGF
 'How confused it was!' (GlgHA:3)

This type is capable, in principle, of figuring in narrative-dialogue as well.

5 Sample text: from The Epic of Gilgamesh

In his wandering to look for eternity, Gilgamesh arrives at a tavern, where he hears a piece of wisdom from the tavern keeper:

gilgameš eš tada:l
 gilgameš where.TADV wander.IPV.2MSG
balaḫam ša tasahḫuru la: tutta
 life.CMP N_C seek.IPV.2MSG.SUB NEG.find.IPV.3SG
inuma ilu: ibnu: awi:luḫtam
 when god.PL.NOM build.PV.3MPL humanity.CMP
muḫtam iškunu: ana awi:luḫtim
 death.CMP set.PV.3MPL to humanity.ATT
balaḫam ina kaḫiḫunu iḫḫabtu:
 live.INF.CMP in hand.ATT.3MPL_{ATT} seize.PC.3MPL
atta gilgameš lu: mali karaška
 2MSG_{NOM} gilgameš be-full.PREC.PRED.3MSG belly.NOM.2SGM_{ATT}
urri: u mu:ši: hiḫaddu atta
 day.PL.OBL CONN night.PL.OBL enjoy.PREC.2MSG 2MSG_{NOM}
u:miḫam šukun hiḫuḫtam
 daily set.PREC.2MSG feast.CMP
urri: u mu:ši: sur u me:lil
 day.PL.OBL CONN night.PL.OBL totate.PREC.2MSG CONN play.PREC.2MSG

lu: ubbubu: *šuba.tu:ka*
 clean.PREC.PRED.3MPL cloth.PL.OBL+2MSG_{ATT}
kaḳḳadka lu: mesi *me:* *lu: ramka.ta*
 head.2MSG_{ATT} be-washed.PREC.PRED.3MSG water.PL.OBL bathe.PREC.PRED.2MSG
šubbi *šeḫram* *šabitu* *ka.tika*
 observe.PREC.2MSG young.CMP seize.PTC_{A,NOM}C hand.ATT.2SGM_{ATT}
marḫi.tum liḫtaddam *ina su.nika*
 wife.FS.NOM enjoy.PREC.3SG in lap.ATT.2SGM_{ATT}
anna.ma ši{mti awi.lu:tim}
 thus decree.FS_C humanity.ATT

'O, Gilgameš, where are you wandering? / You cannot find the life that you seek: / when the gods created mankind, / for mankind they established death, / life they have kept for themselves. / You, Gilgameš, let your belly be full, / keep enjoying yourself, day and night! / Every day make merry, / dance and play day and night! / Let your clothes be clean! / Let your head be washed, may you be bathed in water! / Gaze on the little one who holds your hand! / Let a wife enjoy your repeated embrace! / Such is the destiny [of mortal man.(?)]'

(GlgX3:1-14; translation by A. R. George [2003: 279])

6 Bibliography

6.1 The corpus

The following is a list of texts used as the corpus for this study. References to citations are organized as follows: (1) The title or appellation of the text comes in two or three letters of which the first is upper case. (2) If a text is known from more than a single tablet, the name abbreviation is followed by a tablet designation in one or two uppercase characters. (3) For multi-column tablets, where the column is referred to by the referred edition (see below), the column number will be followed in Arabic numerals. (4) following a colon, line number(s) are cited, sometimes followed by a single or double quote sign, a s is the accepted designation. Other possible sigla: R(everse); L(ower)E(dge). Example: AhB1:17 means 'The story of Atra-Hasis, the second tablet, column 1, line 17'. At line enumeration the following notation can be used: R(everse); L(ower)E(dge).

The following is a list of the texts comprising the corpus of study, organized according to the abbreviations used. The reference cited are the latest published editions of the respective texts, the line enumeration of which we used as reference.

Ad = Adad

Römer, W. H. Ph. 1967. Studien zu altbabylonischen hymnisch-Epischen Texten: Ein *kummu*-Lied auf Adad (CT 15, 3-4). In: D. O. Edzard (ed.) Heidelberg Studien zum Alten Orient: Adam Falkenstein zum 17. September 1966. Wiesbaden: Harrassowitz. 185-199.

Ag = Agushaya

Groneberg, Brigitte, R. M. 1997. *Lob der Ištar: Gebet un Ritual an die altbabylonische Venusgöttin: Tanatti Ištar*. (Cuneiform Monographs, 8). Groningen: Styx Publications. Chapters III-IV, pp. 55-93.

Ah = Atra Hasis

Lambert, W. G. and A. R. 1969. Millard. *Atra-ḫasis: The Babylonian Story of the Flood* (with the Sumerian Flood Story by M. Civil). Oxford: Clarendon Press. Second printing: Winona Lake: Eisenbrauns, 1999. (AhA = Tablet I; AhB = tablet II; AhC = Tablet III)

Anz = Anzu

Vogelzang, Marianna Egberdina. 1988. *Bin Šar Dadmē: Edition and Analysis of the Akkadian Anzu Poem*. Proefschrift, Rijksuniversiteit Groningen. Groningen: Styx. (ANZA = OB version Aa; ANZB = OB version Ab)

Bel = Belet Ili

Römer, W. H. Ph. 1967-1968. Studien zu altbabylonischen hymnisch-Epischen Texten (3): Ein Lied mit Bezug auf eine Šubartum-Feldzug Ḥammurapis (CT 15, 1-2)? *Die Welt des Orients* 4: 12-28.

Cl = Cuthean Legend

Westenholz, Joan Goodnick. 1997. *Legends of the Kings of Akkade: The Texts*. (Mesopotamian Civilizations, 7.) Winona Lake, Indiana: Eisenbrauns. Text 20, pp. 267-279. (ClA = 20A; ClB = 20B)

Cow = Cow giving Birth

Van Dijk, J. 1972. Une variante du thème de "l'Esclave de la Lune". *Orientalia* 41: 339-348.

Er = Erra and Naram-Sin

Westenholz, Joan Goodnick. 1997. *Legends of the Kings of Akkade: The Texts*. (Mesopotamian Civilizations, 7.) Winona Lake, Indiana: Eisenbrauns. Text 13, pp. 189-201.

Etn = Etana

Haul, Michael. 2000. *Das Etana-Epos: Ein Mythos von der Himmelfahrt des Königs von Kiš*. (Göttinger Arbeitshefte zur Altorientalischen Literatur, 1.) Göttingen: Seminar für Keilschriftforschung. (EtnM = Morgan fragment; EtnS = Susa fragment)

Gir = Girra and Elamatum

Walker, Christopher. 1983. The Myth of Girra and Elamatum. *Anatolian Studies* 33: 145-152

Glg = Gilgamesh

George, A. R. 2003. *The Babylonian Gilgamesh Epic: Introduction, Critical Edition and Cuneiform Texts*. Oxford: Oxford University Press. The Old Babylonian tablets: Volume I, Chapter 5, pp. 159-286. (GlgP = Philadelphia tablet; GlgY = Yale tablet; GlgUM = Philadelphia fragment; GlgSA = Schøyen; GlgSB = Schøyen; GlgN = Nippur; GlgHA = Harmal; GlgHB = Harmal; GlgIS = Ishchali; GlgIM = Baghdad tablet; GlgX = VA+BM)

Lambert, W. G. 190. A New Babylonian Descent to the Netherworld. In: Tzvi Abusch, John Huehnergard and Piotr Steinkeller (eds.). *Lingering Over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran*. Atlanta, Georgia: Scholars Press. 289-300.

Ns = Naram-Sin and the Lord of Apishal

Westenholz, Joan Goodnick. 1997. *Legends of the Kings of Akkade: The Texts*. (Mesopotamian Civilizations, 7.) Winona Lake, Indiana: Eisenbrauns. Text 12, pp. 173-187.

Nw = Decent to the Netherworld

Lambert, W. G. 1990. A New Babylonian Descent to the Netherworld. In: Tzvi Abusch, John Huehnergard and Piotr Steinkeller (eds.). *Lingering Over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran*. Atlanta, Georgia: Scholars Press. 289-300.

Sin = Sin and Ishum

Römer, W. H. Ph. 1966. Studien zu altbabylonischen hymnisch-Epischen Texten (2): Ein Lied über die Jugendjahre der Götter Sin und Išum (CT 15, 5-6)? *JAOS* 4: 138-147.

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AbB 12. Soldt, W. H. van. 1990. *Letters in the British Museum*. (Altbabylonische Briefe in Umschrift und Übersetzung, 12.) Leiden: Brill

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Ungnad, Arthur. 1992. *Akkadian Grammar*. Revised by Lubor Matouš, translated by Harry A. Hoffner, Jr. (SBL Resources for Biblical Study, 30.) Atlanta, Georgia: Scholars Press. — A useful, short description of Akkadian grammar.

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