

Chapter 46

Sumerian Morphology

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1. Introduction¹

1.1. Sumerian was spoken in southern Mesopotamia and is first attested in the archaic texts from Uruk and Jemdet Našr (from the end of the 4th millennium to the middle of the 3rd). By the end of the 3rd millennium, Sumerian had probably died out for the most part as a spoken language. However, it was still used in a wide variety of literary, scholarly, and religious genres, and was preserved in writing until the Mesopotamian civilization vanished during the first centuries of the Christian era. Sumerian is an *isolate*, that is, it is not related to any other language or language family. Our knowledge of Sumerian, therefore, is mostly based on a large number of bilingual texts (in Sumerian and Akkadian), as well as a stream of scribal and scholastic traditions represented by a sizable corpus of lexical lists and grammatical texts.

1.2. Sumerian is an *agglutinative* language—that is, a word consists of a linear sequence of distinct morphemes, and the lexeme to which the morphemes are attached does not undergo *Ablaut* (also called apophony, as in English *sing*, *sang*, *sung*, *song*) or infixation.² Moreover, Sumerian is an *ergative* language: the subject of an intransitive verb possesses the same marker as the object of a transitive verb (the absolutive case), while the subject of a transitive verb exhibits a marker (the ergative case) that is different from that of the intransitive verb (Gragg 1968: 87, 107; Foxvog 1975; Michałowski 1980, 2004; van Aaldereen 1982; Gong 1987; Yoshikawa 1991).³ In English, it would be similar to saying ***him sleeps* and ***me sleep*, but *I saw him* and *he saw me*. Sumerian uses /-e/ as the ergative suffix, and /-Ø/ as the marker of absolutive case:

1. For comprehensive approaches to Sumerian grammar, see Lambert 1972–78; Thomsen 1984; Attinger 1993; Kaneva 1996; Edzard 2003a. The classic references (Poebel 1923 and Falkenstein 1949, 1950) are still frequently useful. For shorter overviews, see Römer 1999: 43–141, 170–76; Michałowski 2004; Rubio 2004, 2005b. For the editions of Sumerian texts and compositions cited here, we follow the standard Assyriological abbreviations, as in Sjöberg 1984–. Regarding the transliteration of Sumerian and the cuneiform writing interface, see, for instance, Civil 1973; Edzard 2003a: 7–11; Michałowski 2004: 24–27.

2. *Ablaut* might have played a limited role in some early stages of Sumerian (e.g., *aga* ‘back’, *ugu* ‘top’, *igi* ‘front, eye’), but it is not a productive morphophonological device.

3. Diakonoff (1967) was probably the first to realize Sumerian was ergative, but he did not notice the split ergativity. For an interesting speculation about the origin of ergativity in Sumerian, see Coghill and Deutscher 2002.

lugal-e e₂ mu-un-du₃
 king-ERG temple-ABS CNJG.PREF-PRO.PREF-build
 'the king built the temple'

lugal i₃-tuš
 king-ABS CNJG.PREF-sit
 'the king sat down'

nin-e in-tud-en
 queen-ERG CNJG.PREF-bear-PRO.SUFF
 'the queen bore me'

nin i₃-tuš
 queen-ABS CNJG.PREF-sit
 'the queen sat down'

In fact, Sumerian exhibits split ergativity in its morphology. The ergative alignment is strictly followed only in the nominal system. Independent personal pronouns, imperatives, cohortative verbal forms, and a few non-finite verbal constructions exhibit an accusative alignment (see 3.5.6, 3.16, and 5). The system of verbal agreement shows a similar split (see 3.12.3). The *ḥamṭu* forms (perfective) follow an ergative agreement pattern, but in the cohortative and the imperative this stem exhibits accusative alignment (see 3.5.6 and 3.16). The *marû* forms (imperfective) show an eminently accusative pattern. The *ḥamṭu* stem is the basic, unmarked verbal stem, which takes pronominal prefixes to agree with the ergative, and suffixes with the absolutive, except in the cohortative and the imperative. The *marû* stem is the marked stem, which takes pronominal suffixes to agree with the subject of both transitive and intransitive verbs (although the 3rd person suffixes are different for transitive and intransitive verbs) and prefixes in concord with the object of transitive verbs. Thus, intransitive verbs take pronominal suffixes for both *ḥamṭu* and *marû* stems. Sumerian is, therefore, a morphologically ergative language only in the nominal system and in the transitive versus intransitive *ḥamṭu* forms with most verbal moods. However, Sumerian has an accusative syntactic alignment in the pronominal system, in two verbal moods (cohortative and imperative), in a few non-finite verbal forms, and, for the most part, in the *marû* forms.

1.3. Morphosyntactic ergativity should be distinguished from true syntactic ergativity. Languages exhibiting the latter have "syntactic constraints on clause combination, or on the omission of coreferential constituents in clause combinations" (Dixon 1994: 143). Thus, in English, following Dixon's example, one can say *father returned and saw mother*, but not ***father returned and mother saw*. This is because English has a S/A pivot, while syntactically ergative languages (for instance, Dyirbal in Australia) have a S/O pivot. Furthermore, there are pivotless languages, in which "any types of clauses may be joined in a coordinate or subordinate construction so long as this is semantically acceptable" (Dixon 1994: 154). Even in syntactic ergativity there are degrees. As Zólyomi (1996a) pointed out, Sumer-

ian is a pivotless language, that is, the syntactic functions (Agent, Subject, and Object) do not play an important role in inter-clausal syntax:

ama tuku dumu-ni-ir ninda mu-na-ab-tum₂

nin₉ tuku šeš-a-ni-ir a mu-na-de₂-e

‘The son who had a mother, she brought him bread,

The brother who had a sister, she poured him water’.

Gilgameš, Enkidu, and the netherworld 156–57

2. Nominal morphology

2.1. Nominal classes and cases

2.1.1. Grammatical gender is based on an opposition between animate and inanimate nouns, but this only surfaces in the concord between pronouns and their antecedents. Grammatical number (plural vs. singular) does not need to be marked in writing (*lugal* ‘king’ or ‘kings’), but can be made explicit through suffixation (*lugal-e-ne* /*lugal-ene*/ ‘kings’) or reduplication (*lugal-lugal* ‘kings’). The absence of marker and the lexematic reduplication are probably simple orthographic conventions to write the plural, as may be indicated by the writing of plurals with reduplication of the adjective (*dingir gal-gal* = god great-great ‘great gods’) or with reduplication and an additional suffix (*dingir gal-gal-e-ne* = god great-great-PL ‘great gods’). In the pronominal system, number is more specifically marked. Nonetheless, in the verbal pronominal suffixes, orthographic conventions may sometimes blur the distinction (see 3.11).

2.1.2. In the nominal system there are ten cases, which are marked by attaching suffixes to noun phrases (NP’s). Moreover, cases can also be indicated by prefixes in verbal forms:⁴

	Nominal suffixes	Prefixes in verbal chain
Ergative (ERG)	/-e/	
Absolutive (ABS)	/-Ø/	
Genitive (GEN)	/-ak/	
Dative (DAT)	/-ra/	/-na-/
Locative (LOC)	/-a/	/-ni-/
Comitative (COM)	/-da/	/-da-/
Terminative (TRM)	/-eše/ (-še ₃)	/-ši-/
Ablative-instrumental	/-ta/	/-ta-/ or /-ra-/
Locative-terminative	/-e/	/-e-/ or /-i-/
Equative (EQU)	/-gin/ (-gin ₇ = GIM)	

2.1.3. The ergative ending /-e/ marks the subject of a transitive verb, as well as the agent of the so-called *Mesanepada* construction: VERBAL. STEM(*hamtu*)-a → *mes an-ne₂ pad₃-da* (/mes an-e pad₃-a/ lad AN-ERG call-NFIN.SUFF) ‘the lad called by An’ (see 2.4). Although both ergative and locative-terminative cases share the same marker /-e/, they are easy to

4. For a typological approach to the Sumerian case system, see Balke 1999. In general, see Balke 2006.

distinguish. In addition to context, the locative-terminative occurs only with inanimate nouns, whereas both animate and inanimate nouns can appear in the ergative case. As mentioned above, the pronominal system does not follow an ergative alignment, which is especially clear with the independent pronouns: *ga₂-e* ‘I’, *za-e* ‘you’, etc., can be subjects of both transitive and intransitive verbs. The absolutive case is not marked with a suffix—or rather it is marked with a zero suffix (/–Ø/). Thus, both the subject of an intransitive verb and the object of a transitive verb present no case suffix.

2.1.4. The genitive case ending is /-ak/, but is never written with the AK sign. The genitive (*rectum*) usually follows the *regens*, but examples of anticipatory or proleptic genitive are not uncommon:

<i>e₂ lugal-la</i>	/e ₂ lugal-ak/	‘the king’s palace’
<i>lugal-la e₂-a-ni</i>	/lugal-ak e ₂ -ani/	‘the king’s palace’
		(lit., of the king, his palace)

Sometimes, genitives may occur without a *regens*: *geštu₂ dagal-la-ke₄* (/geš-tu₂ dagal-ak-e/ ear wide-GEN-ERG) ‘of wide ear’ (‘the wise one’). Moreover, in some instances, the agent of a non-finite verbal form is in the genitive, but in these instances the use of genitive could be understood also as a marker of relation between NP’s (see 2.2): *inim dug₄-ga an-na* (/inim dug₄-a an-ak/ word speak-NFIN.SUFF An-GEN) ‘the word spoken by An’ = ‘An’s spoken word’.

2.1.5. The dative marker is /-ra/ (normally written RA), and becomes /-r/ when following a vowel, especially after the possessive /-ani/ and the plural ending /-ene/: *lugal-a-ni-ir* /lugal-ani-r/ ‘to his king’. In general, it marks the indirect object. Many 3rd-millennium Sumerian texts (especially the very formulaic royal inscriptions) omit the dative ending after a vowel, but not always after a consonant. The dative case suffix occurs only with animate nouns. Verbs of motion, giving, speaking, emotion, “doing for,” and “action-towards,” take the dative (Gragg 1973a: 89–90). In most cases, there is a cross-reference between the dative nominal case ending /-ra/ and the dative case prefix in the verbal chain /-na-/.

2.1.6. The locative case is marked with /-a/ (written -a or -Ca), and occurs only with inanimate nouns. It indicates (a) the place where the event denoted by the verb happens, and (b) the time at which it happens (‘when’ *u₄-ba* /u₄-bi-a/ lit., ‘at that day’). Moreover, it occurs in adverbial expressions, such as *he₂-gal₂-la* ‘in abundance, abundantly’: /he₂-gal₂-a/ MOD.PREF-EXIST-NFIN.SUFF, a “nominalization” of *he₂-gal₂* ‘may it exist’. The so-called second object of many compound verbs takes the locative (see 6): *za-gin₃-na šu u₃-ma-ni-tag* (lapis-LOC 1st.OBJ-ACC VERB) ‘when you have decorated it with lapis’ (Gudea Cyl. A vi 19).⁵

2.1.7. The comitative marker is /-da/ (in earlier texts, also written -da₅ = URUDU). It seems to be the result of the grammaticalization of the noun

5. The compound verb *šu — tag* ‘to cover, decorate’ has a nominal element (its first object, *šu* ‘hand’) and a verbal nucleus (*tag* ‘to touch’). See 6.

da 'side', which explains its function: it expresses both accompaniment and mutual action, with both animate and inanimate nouns. The comitative function is marked in verbal forms (with the prefix /-da-/) more frequently than in nominal forms. The frozen expression NOUN-*da nu-me-a* means 'without' (lit., 'NOUN-with not-being'): *kur gal* ^d*en-lil₂-da nu-me-a uru nu-du₃* (mountain great Enlil-COM NEG-be-NFIN.SUFF city NEG-build) 'without the great mountain, Enlil, no city is built' (Enlil hymn 108); see Gragg 1968: 100, 109.

2.1.8. The terminative morpheme is /-eše/, but its most common spelling is -še₃. In the Gudea corpus and later on, it can be abbreviated as /-š/ after a vowel, especially after suffixes, such as in *šu-mu-uš* (hand-my-TRM) 'into my hand'. Its most basic function is to denote motion toward something or someone, and it is used with animate and inanimate nouns. It can be translated as 'to', 'toward', 'concerning', 'regarding', 'because of', 'for the sake of'. In temporal constructions, it means 'to, until', as in the formula *u₄ ul-li₂-a-aš* 'forever' (lit., 'until remote days'). Furthermore, there are several idiomatic expressions with the terminative: *nam-bi-še₃* 'therefore, for that reason', /mu-...-ak-eše/ 'because of, for, instead of', /igi-...-ak-eše/ 'before', *a-na-aš₂-am₃* 'why'. In Old Babylonian inscriptions, the terminative case occurs instead of the dative, probably because of the interference of Akkadian *ana*, consistently equated with -še₃ in bilinguals.

2.1.9. The ablative-instrumental is marked with /-ta/. In some cases, -*da* is found instead of -*ta*, but this should probably be regarded merely as a phonetic phenomenon. Nonetheless, some syntactical confusion between the ablative-instrumental and the comitative cases may have taken place. The ablative-instrumental is used with inanimate nouns, and it denotes (a) motion away from something, (b) instrument or means (*zu₂-ni-ta* 'with his teeth'), (c) state in expressions of emotion (*lipiš-ta* 'in anger'), and (d) distributive 'each'. In temporal constructions, it can be translated as 'since, after'. In strictly idiomatic terms, some of the ablative uses of /-ta/ in Sumerian may resemble the locative function in other languages. For instance, *sahar-ta* (lit., 'from the dust') is used with the verb *tuš* in the stock phrase *sahar-ta tuš* (dust-ABL.INS sit) 'to sit in the dust'.

2.1.10. The locative-terminative marker is /-e/ (like the ergative) and occurs with inanimate nouns only. It means 'near to, toward, to' and is used especially with compound verbs that take this case with inanimate nouns, but dative with animate ones: *ki* — *ag₂* 'to love'; *gu₃* — *de₂* 'to call', etc. For instance, *e₂-e lugal-bi gu₃ ba-de₂* 'its king spoke to the house (*e₂-e* house-LOC-TRM)' (Gudea Cyl. A i 10). By contrast, the equative is not properly a case, but a clitic element. It is normally spelled -*gin₇* (= GIM) and is translated as 'like, as': *e₂ hur-sag-gin₇ im-mu₂-mu₂-ne* 'they made the house grow like a mountain (*hur-sag-gin₇*)' (Gudea Cyl. A xxi 19).

2.1.11. Nominal compounds fall under different patterns (Kienast 1975; Edzard 1975b; Schretter 2000). The compounds NOUN + NOUN are determinative compounds. They seem to be frozen genitival constructions, in which the *rectum* (modifier) preceded the *regens* (modified), with no trace of case ending: *an-ša₃* 'the midst of heaven' (heaven-heart); *an-ur₂* 'the base

of heaven' (heaven-base); *kur-ša₃* 'the midst of the mountain' (mountain-heart), etc.⁶ These compounds may be understood in the context of the Sumerian capability establishing morphemeless grammatical relationships (Krecher 1987). The compounds NOUN+NON-FINITE-VERB are dependent determinative compounds, such as *di-kud* 'judge' (claim-decide); *nig₂-ba* 'gift' (thing-give); *dub-sar* 'scribe' (tablet-write). Furthermore, the most common compounds seem generated by derivation from three basic elements: *nu* (probably a variant of *lu₂* 'man');⁷ *nam* (most likely a noun derived from the verb *me* 'to be'); and *nig₂* (perhaps originally a noun meaning 'thing'): *nu-gi^škiri₆* 'gardener' (*gi^škiri₆* 'garden'); *nam-dingir* 'divinity' (*dingir* 'god'); *nam-mah* 'might' (*mah* 'great'); *nig₂-šam₂* 'price' (*šam₂* 'to trade').⁸ These three elements may have been nouns in origin, but for all practical purposes they behave as derivational morphemes.

2.2. The noun phrase

2.2.1. Noun phrases (NP's) are usually called *nominal chains* by Sumerologists, because all the suffixes are heaped at the very end of the last syntagm:⁹

dumu lugal kalam-ma-ka-ke₄-ne-ra /dumu lugal kalam-ak-ak-ene-ra/
son king nation-GEN-GEN-PL-DAT
'for the sons of the king of the nation'

Nonetheless, the syntagmatic structure is not so much that of a chain as a series of Chinese boxes, like Russian *matryoshka* or *babushka* dolls (Zólyomi 1996b):

[*dumu* [*lugal kalam-ak*]_α-ak-ene]_β-ra

Therefore, this morphosyntactic feature has nothing to do with agglutination, but pertains to the order of NP constituents, in which the *rectum* or modifier (an NP itself) and the possessive pronoun occupy the same position. For instance, hierarchically, the possessive pronoun is not a mere suffix but a clitic, so in *lugal gal* ('big king') and in *lugal-ani* ('his king'),

6. The word order in these frozen NOUN+NOUN compounds may represent the remains of an earlier situation. In the archaic texts from Uruk and Jemdet Našr, one finds many instances of a word order that is uncommon in later Sumerian: the modifier preceding the modified (both in the case of adjectives and with genitival constructions); see Rubio 2005a: 321–23.

7. On *nu*, see Edzard 1963 and Jestin 1973. This /nu-/ element alternates with *lu₂*, as in the case of *nu-banda₃* ('foreman'), borrowed into Akkadian as *laputtû*, *luputtû*. A similar phonetic alternation occurs in the negative verbal prefix /nu-/, which becomes [la-] or [li-] before /ba-/ or /bi-/, as a sort of dissimilation (see Thomsen 1984: §§32, 360). Furthermore, in Ebla there are instances of *nu-gal* instead of *lugal*; see Attinger 1993: 156 n. 211a; Rubio 1999: 5.

8. The verb *šam₂* means 'to buy' with the terminative verbal prefix (/š-i-/), but 'to sell' with the ablative-instrumental prefix (/ta-/), but sometimes /-ra-/—cf. German *kaufen* ('to buy') and *verkaufen* ('to sell'). On the alternation between /-ra-/ and /-ta-/, see 3.9.4.

9. See Poebel 1923: §98 (*Wortkette* 'word chain'); Falkenstein 1950: §91 et passim (*nominale Kette* 'nominal chain' and *Kettenbildung* 'chain construction'); Thomsen 1984: §46. The same traditional approach can be found in Hayes 1991.

both *gal* and *-ani* appear in complementary (albeit not mutually exclusive) distribution and syntactically both should be regarded as words, with *-ani* having undergone a process of cliticization. Thus, the Chinese-box model seems more appropriate than a linear string.

2.2.2. There are genitival constructions that would seem to challenge both the traditional and the new understanding of the structure of NP's in Sumerian, for instance (Zólyomi 1996b: 37 [VAS 27: 77 vi 1]):

sag apin-na dumu-dumu-ke₄-ne /*sag apin-ak dumu-dumu-ak-ene*/
 [[chief plow-GEN] [child-PL]-GEN-PL]
 '(for) the chief plowmen of the children'

In this sentence, *sag apin-na* (/sag apin-ak/) probably constitutes a lexicalized compound ('the chief plowman/plowmen'), which can explain why the genitive does not appear at the very end of the NP. However, Zólyomi (1996b: 36–38) has labeled such constructions as indefinite genitives (see also Alster 2002: 24–25; Selz 2002: 132; Zólyomi 2003). Indefinite genitives would be non-possessive genitives and would belong to the word-level category (as nouns) instead of the noun-phrase category (as is the case of the definite genitive). Furthermore, Zólyomi (1996b: 39–45) has offered a formalized analysis of the so-called anticipatory or proleptic genitive (*lugal-la e₂-a-ni* /*lugal-ak e₂-ani*/ 'of the king, his palace' = 'the king's palace') as a (syntactic) left dislocation that predictably topicalizes the *rec-tum*, as proleptic genitives do in all languages.

2.3. Adjectives

2.3.1. Perhaps the most neglected category in Sumerian grammar is the adjective (see now Schretter 1996; Black 2000, 2002; and Balke 2002). Sumerian does not have a wealth of words that can be categorized exclusively as adjectives. The paucity of unambiguously adjectival lexemes in Sumerian goes beyond the use of the suffix */-a/* to generate ("nominalize") substantives out of verbs (see 4). The lack of the inherent morphological markers proper of inflectional languages leaves such a grammatical distinction to the realm of syntax: an adjective can be defined as such only if it can fulfill the syntactic function of nominal modifier.¹⁰

2.3.2. This problem of grammatically distinctive categorization is not exclusive to Sumerian. In other languages, the grammatical categories that seem the most difficult to distinguish from each other are the noun and the verb, as is the case in English.¹¹ Furthermore, within his typology of languages based on parts-of-speech systems, Rijkhoff (2000: 221) classified Sumerian as a type-3 language, which exhibits three different categories of lexemes (verbs, nouns, and adjectives). Other languages have two (like Quechua, with only verbs and nominal-adjectival lexemes) or only one (like Samoan, with only one kind of lexeme that combines all the functions

10. On a syntactic approach to the distinction between parts of speech, see Bhat 2000.

11. Within the languages of the ancient Near East, compare an equally intricate situation concerning adjectives in Coptic; see Shisha-Halevy 1986: 129–39.

of verbs, nouns, and adjectives). Nevertheless, the lexematic ambiguities might point to a type-2 system in early Sumerian, in which nominal-adjectival lexemes were conjoined in *composita* rather than in attributive constructions. In fact, Black (2002) proposed a generous taxonomy of Sumerian word classes for lexicographic purposes: two ‘major classes’ (nouns and verbs) and six ‘minor classes’ (pronouns, adjectives, conjunctions, interjections, adverbs, and ideophones). However, most of Black’s minor classes are morphologically derived from one of the two major classes (e.g., conjunctions and adverbs are usually nouns or frozen NP’s). Whatever the situation may be in Sumerian, the adjectival category poses a wide variety of morphological and syntactical problems in many languages and its demarcation is frequently plagued with difficulties (see Dixon 1982; Bhat 1994).

2.4. Cases of the agentive non-finite constructions

The genitive does not play any role in establishing a syntactic link between a substantive and a finite verbal form, since it is not an adverbial but an adnominal case. However, it does fulfill such a function in a specific construction with a non-finite verbal form. In the agentive construction, the pattern VERB-*a* AGENT-*ak* is most commonly used in pre-Sargonic and Gudea texts (Civil 1996: 165): *gu₃-de₂-a unu₆ mah-a tu-da* ^d*ga₂-tum₃-du₁₀-ga-kam* ‘Gudea, born (/tud-a/) of Gatumdu (/gatumduga-ak-COP/) in the great sanctuary’ (Gudea Cyl. A xvii 13–14). However, the pattern AGENT-*e* VERB-*a*—the so-called *Mesanepada* construction (*mes an-ne₂ pad₃-da* /*mes an-e pad₃-a*/ ‘the lad called by An’)—is the most common in the inscriptions of kings of the Ur III dynasty, as in an Ur III literary text about Ur-Namma (Civil 1996: 163 iii 2): *lugal* ^d*en-lil₂-le a₂ sum-ma* (/lugal enlil-e sum-a/) ‘the king given strength by Enlil’.

3. Verbal morphology

3.1. Tense and aspect

3.1.1. Verbal stems are usually divided into two major categories, for which Akkadian labels are used: *ḥamṭu* (‘quick, sudden’; perfective) and *marû* (‘slow, fat’; imperfective). The literature on the opposition between *ḥamṭu* and *marû* stems in the Sumerian verbal system is extensive (see Steiner 1981a; Thomsen 1984: §§231–40; Black 1991: 99–119; 1990a; Lambert 1991; Attinger 1993: 185–87; Krecher 1995; Streck 1998; Civil 2002). However, these two labels, rather than being native Sumerian grammatical categories, reflect the understanding of the Sumerian verb by Akkadian-speaking scribes. Moreover, in an Old Babylonian grammatical text (Civil 2002), *lugud* (LAGAB) ‘short’ occurs instead of *ḥamṭu*, and *gid₂* (BU) ‘long’ instead of *marû*. These two Sumerian terms (*lugud* and *gid₂*) are also used in sign names as a way of describing the shape of the signs; for instance, SA as ‘the long SA-sign’ and DI as ‘the short SA-sign’. Thus, the same labels, when used to designate verbal stems, refer to the shape of the stems. The so-called *marû* stem would be regarded as ‘long’ (*gid₂*) or ‘fat’ (*marû*) because of the affixation of /-e/, reduplication, or other possible changes. In

the case of suppletive verbs (like *dug*₄ ‘to say’), these labels would be used by functional analogy: a “long *dug*₄” (i.e., its *marû* stem *e*) would be long because it behaves morphosyntactically like the “long stems” of non-suppletive verbs.

3.1.2. The problem of the marking of the so-called *marû* stem has been the center of a substantial part of the discussion of the Sumerian verb. Yoshikawa argued that all verbs have two morphologically different stems (see Yoshikawa 1968a; 1968b; 1974; 1989; 1993b):

1. Affixation verbs mark the *marû* stem with an affix /-e/.
2. Reduplication verbs (such as *gi*₄ ‘to return’, *gar* ‘to place’) mark the *marû* stem with partial reduplication (*ga*₂-*ga*₂), as opposed to complete or *hamû* reduplication (*gar*-*gar*).¹²
3. Alternating verbs (such as *e*₃ ‘to go out, bring out’, *te* ‘to approach’) exhibit an ‘expanded form’ (/e₃-d/, /te-g/).
4. Suppletive or complementary verbs (such as *dug*₄ ‘to say’, *gen* ‘to go’) have completely different lexemes as *marû* stems (*e* in the case of *dug*₄, and *du* and *su*₈ in the case of *gen*).¹³

However, others believe that most verbs do not have two different stems, i.e., that there is no affixation class at all. Thus, the only way to distinguish *hamû* from *marû* in those verbs would be through agreement (i.e., through pronominal affixes; see Thomsen 1984: §§275–94). According to this, the suffix /-e/ would not mark the *marû* stem itself, but agreement with the 3rd sg. subjects of transitive *marû* forms (see 3.12; see Edzard 1976a: 47–53; Thomsen 1984: §§232–33; Attinger 1993: 185–86; Michałowski 2004: 40).

3.1.3. Thomsen (1984: §233) argues that Yoshikawa’s theory on the existence of an affixation class with /-e/ marking *marû* can actually be neither proven nor refuted. Attinger (1993: 185) supports Edzard’s idea that there was no affixation class and that *marû* is marked through agreement. Among Attinger’s objections to Yoshikawa’s theory, a particularly strong one pertains to the suffixes for the 1st and 2nd sg. and pl. subjects of intransitive *hamû* forms, whose subjects are marked with the absolutive in the noun phrase. These suffixes all have an /-e-/ (the *marû* marker in Yoshikawa’s theory): /-en/, /-enden/, /-enzen/. However, one could object

12. In most verbs with *marû* reduplication, the evidence for these partially reduplicated readings comes from syllabic (or “unorthographic”), lexical, and *eme-sal* texts (see 7). In standard orthographies, one cannot really distinguish between *hamû* (complete) and *marû* (partial) reduplication in most verbs. The existence of this morphophonological opposition is based, for the most part, on the case of the verb *gar* (/ġar/), whose reduplicated *hamû* is *gar-gar* (GAR-GAR) but whose reduplicated *marû* is *ga*₂-*ga*₂ (GA₂-GA₂). Nonetheless, phonetic spellings are sufficiently well attested to confirm that *marû* reduplication was partial, whereas *hamû* reduplication was complete. See Thomsen 1984: §243.

13. On Yoshikawa’s idea that Thomsen’s class III (alternating) and IV (“complementary”) verbs are the same (Yoshikawa’s class III or alternation class), see Thomsen 1984: §229. Jacobsen (1988a: 180–84) believed that /-e/ could be attached to all verbs in order to mark *marû* forms, whereas Krecher (1987: 82–83; 1995) thinks that all verbs can form a *marû* stem by attaching “the *marû* suffixes” /-e/ or /-ed/.

that, because cuneiform is limited to writing consonantal clusters, this /-e/, originally a *marû* marker, was reinterpreted as belonging to the pronominal suffixes. For some, it seems overly troublesome that the same element /-e/ could mark *marû* and also be something else. Morphologies of natural languages, however, are rich with regard to irregularities in paradigms, homonymic morphemes with completely different functions, reinterpretations, and ambiguities.¹⁴

3.1.4. From a typological and structural point of view, Yoshikawa's theory is preferable to the theory of exclusively agreement-grounded marking of the *ḥamṭu* and *marû* forms. The existence of a number of verbs that mark the *marû* (or "long") stem—either with reduplication, consonantal lengthening, or lexematic suppletion—is essential to this argument. Their existence makes less likely that the rest (and vast majority) of Sumerian verbs do not have two different stems ("short" and "long") marked by the affixation of /-e/, and that, therefore, these "regular" verbs can be effectively marked for aspect-tense only in finite verbal forms. By observing the behavior of the non-finite forms of the minority of verbs that do exhibit two clearly differentiated stems, it becomes evident that, at least in active forms, they show a stem-driven pattern when they attach /-a/ (with *ḥamṭu*) and /-ed/ (with *marû*).¹⁵ If "regular" verbs did not have stems differentiated by means other than agreement, that is, if they had only one stem indifferent to any aspect-tense opposition in the absence of agreement pronominal affixes, then one would expect that some stem-differentiating marker be added to their non-finite verbal forms, for the suffixes /-a/ and /-ed/ demand such differentiation in verbs with different stems. If the answer is that the suffix /-ed/ marks the *marû* in the non-finite forms of regular verbs, this would add additional support to the consideration of /-e/ as *marû* marker (/-e-d/).¹⁶ Nevertheless, perhaps a truly comprehensive solution to this problem may be offered only when the whole Sumerian corpus is conveniently edited and studied in detail within a typological and cross-linguistic framework.

3.1.5. Instead of the traditional and exclusively formal labels *ḥamṭu* and *marû*, functional terms would be preferable. The question would be—which functional terms? The main axis of a verbal system is defined by the TAM system: tense, aspect, and modality. In Sumerian, verbal modality is marked with modal prefixes. Thus, one is left with tense and aspect as the

14. For instance, the English suffix *s* marks both plural nouns and the 3rd sg person in the present tense of most verbs, both morphemes exhibiting the same allomorphs: [s], [z], and [ɪz].

15. On both suffixes, see 3.14 and 4. In the passive forms with /-a/, the *ḥamṭu*/*marû* opposition is neutralized (see 4.4).

16. In his objections to Yoshikawa's theory, Attinger (1993: 185 n. 339) points out that there exist pairs such as *ku₄-ku₄* and *ku₄-re* (/ku₄.r-e/), from *ku₄* (= *kur₉* 'to enter'), in which both forms would be *marû* if Yoshikawa is right. If one keeps in mind that the *ḥamṭu*/*marû* opposition is mostly a matter of Akkadian labeling by scribes who were not native speakers of Sumerian, it appears perfectly possible that, in certain contexts, the same verb could be marked for aspect-tense in more than one way.

categories that can be represented with the *ḥamṭu* and *marû* stems. One of the ways such categories—whatever they may be—are marked is reduplication, whether complete (*ḥamṭu*) or partial (*marû*). Thus, Michałowski (2004: 39) argues that typologically reduplication is unlikely to mark tense and that, therefore, aspect must be the category marked with reduplication and, by extension, with the different stems (*ḥamṭu* and *marû*). Nevertheless, aspect and tense do not constitute two completely unrelated categories; no language marks aspectuality exclusively and ignores temporality. In fact, both aspect and tense include several complex subcategories that overlap with other variables of the TAM system. For instance, the *perfect* involves both tense elements (reference to the time-axis, sequentiality, anteriority or precedence) and aspectual ones (*perfectivity* itself, lingering or current relevance, completion, accomplishment).¹⁷ Depending on the language, some of these categories and subcategories may be explicitly marked in the morphology. However, their marking may also be the result of a confluence of strictly grammatical elements with semantic and lexically grounded variables—such as *Aktionsart*, i.e., lexical aspect based on the semantics of individual verbs—as well as phenomena belonging to the realm of pragmatics.¹⁸ In the light of their contextual occurrences, their interactions with the epistemic and deontic modalities, and the grammatical texts, one can conclude that most likely the so-called *ḥamṭu* or ‘short’ stem marks perfective while the *marû* or long stem marks imperfective.¹⁹

3.1.6. Whereas the *marû* (partial) reduplication seems to exclusively mark imperfectivity in those verbs that exhibit it, the *ḥamṭu* (complete) reduplication is neither temporal nor aspectual. In fact, both *ḥamṭu* and *marû* forms can exhibit *ḥamṭu* (complete) reduplication. The complete reduplication marks plurality of the patient (i.e., both the object and the non-agentive subject) or plurality of the action itself. Moreover, there are instances in which partial reduplication does not indicate the *marû* stem, but it marks the same categories denoted with complete reduplication (the so-called free *marû*, as in *ga₂-ga₂-ga₂*; Attinger 1993: 188, 190). Both completely and partially reduplicated forms in which the stem itself marks no aspectual or temporal opposition—that is, all instances of *ḥamṭu* reduplication and the limited number of “free *marû*” reduplicated forms—are said to exhibit free reduplication (see Edzard 1971: 226–33; 1976a: 60; 2003a: 79; Yoshikawa 1979b; Steinkeller 1979a: 63–64; Thomsen 1984: §§242–49; Attinger 1993: 183, 187–90). In essence this kind of reduplication is functionally similar to the plural stems of those verbs that have special stems in the plural (see 3.2).

17. A distinction must be drawn between *perfect* and *perfective*. The former is retrospective (anterior) and does *not* always represent an event as complete (*I have been speaking*), whereas the perfective does indicate completion of the action or event (*I have spoken*); see Bybee, Perkins, and Pagliuca 1994: 54–55; Givón 2001: 1.296, 348.

18. For instance, this is especially true of the Russian verb, as Jakobson (1973) observed in his seminal study.

19. As all languages, Sumerian also has other aspects and *Aktionsarten* (lexical aspects); see Yoshikawa 1988.

3.2. Verbal plurality

Most Sumerian verbs mark the plurality of the agent through bound pronouns (e.g., pronominal suffixes with *marû*) and the plurality of the patient through so-called free reduplication (see 3.1.6) or through bound pronouns (see 3.12.3). However, some verbs have different, suppletive stems in the singular and in the plural (see Krecher 1968; Steinkeller 1979; Yoshikawa 1981; Thomsen 1984: §§260–71; Attinger 1993: 190). Plural verbal stems mark plurality of the patient: with intransitive verbs, they show concord with a plural (non-agentive) subject; with transitive verbs, these stems indicate plurality of the object. An exception to this is the plural stem *e* of *dug₄*, which marks a plural ergative subject. These verbs may have suppletive stems in the singular too (*hamtu* versus *marû*), and even in the plural itself:²⁰

		<i>hamtu</i>	<i>marû</i>
'to stand'	SG	gub (= DU)	gub (= DU)
	PL	su ₈ = sug ₂ (= DU/DU)	su ₈ = sug ₂ // su ₈ -su ₈
'to go'	SG	gen (/ġen/ = DU)	du
	PL	re ₇ (= DU/DU), re ₆ (= DU)	su ₈ = sub ₂ (= DU/DU)
		er _x (= DU.DU), etc.	
'to bring'	SG	de ₆ (= DU)	tum ₂ (= DU) / tum ₃
	PL	lah ₄ (= DU/DU)	lah ₄ (= DU/DU)
'to sit'	SG	tuš	dur ₂ (= TUŠ)
	PL	durun = dur ₂ (= TUŠ)	durun = dur ₂ (= TUŠ)
		durun _x (= TUŠ.TUŠ)	durun _x (= TUŠ.TUŠ)
'to say'	SG	dug ₄	e
	PL	e	e

3.4. Verbal modality

3.4.1. In dealing with Sumerian verbal modality, one should stress the opposition between the deontic and the epistemic categories (Civil 2000a).²¹ Epistemic modality expresses the knowledge (Greek *epistēmē*),

20. The different readings of DU, DU.DU and DU/DU for the stems of 'to stand', 'to go', and 'to bring', are established on the basis of Akkadian translations, grammatical labels (DIŠ for singular stems and MEŠ for plural), and phonetic spellings attested in grammatical and lexical texts; see Black 1991: 63, 99–101, 128. Concerning DU 'to bring', see also Sallaberger 2005. The non-finite *marû* forms of 'to say' show a stem *di* (*di*, *di-da*, *di-dam*, *di-de₃*); see Attinger 1993.

21. Strictly speaking, mood and modality are two different things. Mood is a morpho-syntactic category marked with different verbal forms (indicative, subjunctive, imperative, conditional, optative) that vary from language to language. Modality is a semantic domain whose elements add an overlay of meaning to the strictly neutral semantic value of the proposition of an utterance (factual and declarative). Modalities can be jussive, desiderative, hypothetical, obligative, dubitative, and so forth. See Bybee and Fleischman 1995: 2.

beliefs, and opinions of the speaker, whereas deontic modality expresses the necessity (Greek *déon* ‘that which is needful’) or possibility of an act. Epistemic modality covers all the categories that establish a relation between the speaker and the truth of the proposition: assertive, dubitative, potential, concessional, and so forth. Deontic modality covers all the agent-oriented and speaker-oriented categories, such as imperative, prohibitive, optative, hortative, precative.²² However, although very productive in modal logic, the deontic modality has proven to be more difficult to translate into linguistic categories than the epistemic one. Thus, many linguists prefer to distinguish three general modal categories instead of two: (a) agent-oriented modality, which expresses the conditions of an agent with regard to the completion of an action (obligative, desiderative, potential, etc); (b) speaker-oriented modality, in which the speaker tries to cause the addressee to do something (as expressed with the imperative and optative moods); and (c) epistemic modality. Nevertheless, for practical reasons the label deontic—as a conceptual and logical umbrella for agent-oriented and speaker-oriented modalities—is kept here.

3.4.2. In Sumerian, modality is marked by modal prefixes. Whereas some modal prefixes always pertain to the same modality (*ga-*, *nu-*, *ša-*), others can mark either deontic or epistemic modality, depending on their interaction with the other elements (mostly aspect) within the TAM system. The indicative mood (marked with the prefix /Ø-/ , i.e., the absence of any prefix) corresponds to the most neutral category of epistemic modality, which pertains exclusively to the possibility or necessity of the truth of a proposition and is completely alien to all agent- and speaker-oriented categories. In fact, the zero marking (/Ø-/) of the Sumerian indicative, as opposed to the prefixes that mark other eminently epistemic categories (/he-/ , /bara-/ , and /na-/ with the perfective), implies that the Sumerian indicative mood is rather indifferent to the opposition between epistemic and deontic. Thus, the indicative is intended to establish a direct link between the utterance and its reality or truth. Nevertheless, speaker-oriented and agent-oriented categories can still be expressed in the indicative through the pragmatics of discourse and not through morphological markers. In Sumerian, the affirmation of the indicative is marked with the absence of any modal prefix (Ø-) and its negation with the negative prefix *nu-*.²³

22. Besides the different moods that mark deontic (both agent-oriented and speaker-oriented) and epistemic modalities, there is a subordinating mood, the subjunctive.

23. This analysis of the Sumerian indicative (Ø-prefix) does not bear any implications for the general understanding of *indicative* as a descriptive morphosyntactic label assigned to a concrete verbal form within a modal system that usually includes other categories. As has been pointed out above, these labels (indicative, subjunctive, optative, etc.) refer to *forms*, whereas the general categories of epistemic and deontic modalities have to do with *functions* and *semantics*. Thus, in a specific language, an indicative form may fulfill both deontic and epistemic functions depending on other syntactic parameters. For instance, in English the modal verb *must* (originally the past tense of *mote*) can be deontic (‘you must go home now’) and epistemic (‘there must be two or three apples in the fridge’). In Sumerian, modal functions are marked with specific verbal prefixes.

3.5. Modal prefixes

3.5.1. The prefix /he-/ can occur with perfective and imperfective verbal forms. This prefix exhibits diverse allomorphs in different periods (see Civil and Biggs 1966: 14–15; Rubio 2000: 218–20):

ED IIIa	<i>he</i> ₂ - before <i>e/i</i> , <i>a</i> , and <i>u</i>		
ED IIIb and Ur III	<i>he</i> ₂ - before <i>e/i</i>	<i>ha</i> - before <i>a</i> and <i>u</i>	
Old Babylonian	<i>he</i> ₂ - before <i>e/i</i>	<i>ha</i> - before <i>a</i>	<i>hu</i> - before <i>u</i>

In Early Dynastic texts and the Gudea corpus, *ha-ni*- occurs instead of the expected *he*₂-*ni*-. These allomorphs are due to vocalic harmony, whose explicit spelling evolved through time. In terms of function, with perfective (*ḥamṭu*), /he-/ marks epistemic modality of contextually affirmative verbal forms in predicates that depend logically (if not grammatically) on a condition contained in another clause. When a *he*-clause precedes a clause in the indicative or with another modal, /he-/ usually marks a conditional.²⁴ Moreover, the *he*-clause follows the other clause when the latter describes “a state or event that by its existence or by its degree makes the state or event of the following *he*-clause possible” (Civil 2000a: 33). In terms of mood, /he-/ is affirmative with the *ḥamṭu* stem, and precative with the *marû*: *nam he*₂-*ma-kud-e* /he-(m)ma-kud-e/ (*marû*) ‘may she curse him’ (Gudea Statue C iv 12); *uru-mu ki ma-al-ba he*₂-*en-ga-mu-da-gul* /he-nga-mu-da-gul/ (*ḥamṭu*) ‘my city was indeed destroyed on its foundation’ (*Ur Lament* 108). This prefix can also occur with the verb ‘to be’, without a finite verb, and even without a verb (like /nu-/): *he*₂-*me-en* (/he-me-en/) ‘let me be(come)’; ^d*en-lil*₂ *he*₂-*ha-lam-me* (/he-halam-e/) ‘may Enlil destroy him’ (Ent. 28 vi 32). The prefix /he-/ is much more frequent in deontic usages. The negation of the epistemic /he-/ is /bara-/ with perfective (*ḥamṭu*). With imperfective (*marû*), /he-/ marks deontic modality, normally a precative or a logical imperative; this is negated with the deontic *na*- (*na*- + imperfective). Because all the occurrences of /he-/ , both with perfective and with imperfective, indicate either the speaker’s attitude or inter-clausal dependence (logical subordination), this prefix covers the subjunctive and optative modalities. The structure of affirmations and negations of /he-/ is as follows:

/he-/ + <i>ḥamṭu</i> (epistemic)	NEGATIVE: /bara-/ + <i>ḥamṭu</i> (epistemic)
/he-/ + <i>marû</i> (deontic)	NEGATIVE: /na-/ + <i>marû</i> (deontic)

3.5.2. The prefix /bara-/ occurs in all periods except in the Gudea corpus. It is attested before the conjugation prefixes /mu-/ , /ba-/ , and /bi-/ , but never before the sequences *im-ma*- and *im-mi*-. Although /bara-/ occurs with all the verbal persons, it is especially frequent with the 1st sg. One can argue that the prefix /bara-/ is vetitive with the *marû* (imperfective) stem (deontic function), and negative affirmative with the *ḥamṭu*

24. On conditional clauses, see Black 1995. On the syntax of the prefixes /he-/ , /ga-/ , /na-/ , and /u-/ , see Kaneva 2000.

(perfective) stem (epistemic function; see Edzard 1971: 216–19; Thomsen 1984: §§366–70). However, the vetitive (deontic) attestations of /bara-/ are rare. Its function seems mostly epistemic with both perfective and imperfective (see Kienast 1980a: 8; Attinger 1993: 289; Civil 2000a). Since /bara-/ is the logical and grammatical negation of the epistemic /he-/ , it may be called negative subjunctive, as long as one is aware of the actual syntactical implication of subjunctive as the mood of subordination—in this case, logical subordination in the articulation of sequential hinges between clauses, rather than actual syntactic subordination.²⁵

3.5.3. The prefix /na-/ is written *na-*, but *nam-* when followed by certain conjugation prefixes: *nam-ta-e₃* /na-m-ta-e₃/ ‘he went out’ (Gudea Cyl. A vii 1); *nam-mi-gul-e* /na-mm-LOC.TRM.-gul-e/ ‘nobody shall destroy’ (Gudea Statue B vii 57). In Old Babylonian literary texts, one can sometimes find the sequences *nam-ba-*, *nam-bi₂-*, and *nam-bi-*, which some have analyzed as /na(-i)-ba(-bi)-/. This analysis has found further support in the existence of sequences such as *na-ba-* and *na-bi₂-* (along with *nam-ba-*, *nam-bi₂-*, *na-an-ba-*, *na-an-bi₂-*) in non-literary Ur III texts (see Attinger 1993: 277–78). Nonetheless, Ur III literary texts exhibit only the most common sequences: *dam e₂ nam-mi-gi₄* (/na-mm-LOC.TRM.-gi₄/) ‘the wife does not come back home’ (Ur III *Ninimma lament ii*’ 3’); *si nam-ma-ni-sa₂* (/na-mm(a)-ni-sa₂/) ‘she (Nidaba) put in order’ (Ur III Nidaba hymn 12).²⁶ Moreover, the prefixes /-m-/ and /ba-/ (or /bi-/ < /ba-/ + LOC.TRM) cannot occur together (see 3.6.6). Therefore, the sequences *nam-ba-*, *nam-bi₂-*, and *nam-bi-* should be regarded either as the result of phonetic dissimilation from the sequences /namma-/ (/na(-i)mma-/) and /nammi-/ (/na(-i)mmi-/), or as instances of erroneous grammatical reanalysis. The latter may explain why they are so rare in Ur III (when Sumerian was probably still spoken), but became more common in the Old Babylonian period (after Sumerian had practically died out as a spoken language). The Ur III sequences *na-ba-* and *na-bi₂-*, which are also very rare, should be analyzed simply as /na-ba-/ and /na-bi-/. When /na-/ is followed by /-inga-/ (also analyzed as /-nga-/ or /-i-ḡa-/), the spelling of the sequence is *na-an-ga-* or *nam-ga-*, but in Early Dynastic it appears simply as *na-ga-*: *gal na-ga-mu-zu* /na(-i)nga-mu-(n-)zu/ ‘he knows also great things’ (Ean. 1 rev. i 31–32); *ki nam-ga-bi₂-ib-gul-en* /na(-i)nga-bi-b-gul-en/ ‘I shall indeed destroy it too’ (*Enmerkar and the Lord of Aratta* 120).

3.5.4. With the perfective (*ḥamṭu*), *na-* fulfills an epistemic function: it introduces reported speech, “marking a statement as either belonging to traditional orally transmitted knowledge (mythological lore, formulaic diction, etc.) or simply being a report of someone else’s words” (Civil

25. In oaths and solemn statements, /he-/ appears in affirmations and /bara-/ in negations. As Civil (2000a: 36) points out, “in promissory oaths and the like, the oath taker does not attest to his already presumed inner disposition (deontic modality) but to how things are going to be objectively (epistemic modality).” On these oaths, see Edzard 1975a (esp. pp. 78–79 and 82–88).

26. On the conjugation prefix /imma-/ or /-mm-/ (gemination of the prefix /mu-/), see 3.6. Concerning the corpus of Ur III literary texts, see Rubio forthcoming.

2000a: 37). This epistemic /na-/ is not a quotative, since it does not properly reproduce direct speech. Sumerian did have a quotative particle to indicate direct speech: the suffix (or rather enclitic particle) *-eše/* (see 3.15). With the imperfective (*marû*), *na-* is deontic and constitutes the negation of the deontic */he-/*. Thus, the deontic */na-/* covers the roles of a negative subjunctive and optative marker (negative commands, desires, advice, and so forth), whereas the epistemic */na-/* simply marks quoted speech of one kind or another. In its prohibitive function (with *marû*), */na-/* is especially used with 2nd and 3rd persons, while */bara-/* (vetitive with *marû*) would correspond to the 1st person, although the latter is rare. Nevertheless, there are many cases of prohibitive */na-/* with 1st person, and vetitive */bara-/* especially with 3rd person. It should be noted that */na-/* with *marû* occurs in the introductory formulas of letters, instances in which it cannot be prohibitive, but affirmative: *sender na(ab)-be₂-a addressee-ra u₃-na-a-dug₄* ‘this is what the sender says (*/na-b-e-[PRO.SUFF]-a/*, *marû*), after you (the messenger) have said (*/u-na-PRO.PREF-dug₄/*, *hamtu*) it to the addressee’; e.g., *lugal-e na-ab-be₂-a Ur^dLi₉-si₄-na-ra u₃-na-a-dug₄* ‘this is what the king says: when you have said it to Ur-Lisina’ (TCS 1: 1, 1–4). The */na-/* prefix that occurs with the verb ‘to be’ (*me*) may not be this modal prefix, since it follows the modal prefixes */ga-/* and */he-/*, which never occur with the modal */na-/*. In this respect, *nam-me* is the prohibitive form of the verb *me*: *sipa engar nam-me* ‘the shepherd shall not be a farmer’ (Sumerian Proverbs 1, 100).

3.5.5. In these three prefixes, */he-/*, */bara-/*, and */na-/*, the opposition *hamtu/marû* becomes especially evident in the contrast between *epistemic* (with *hamtu*) and *deontic* (with *marû*) functions. This points to the close ties between categories within the Sumerian TAM system:

<i>/he-/ + hamtu</i>	contextually affirmative	<i>ha-na-sum</i> ‘I have indeed given’
<i>/he-/ + marû</i>	precative	<i>hu-mu-hul₂-le-en</i> ‘may you rejoice’
<i>/na-/ + hamtu</i>	affirmative (reported speech)	<i>nam-mi-gub</i> ‘he set indeed’
<i>/na-/ + marû</i>	negative subjunctive-optative	<i>na-ab-pad₃-de₃</i> ‘do not tell’
<i>/bara-/ + hamtu</i>	negative affirmative	<i>ba-ra-ra-dug₄</i> ‘I have never said to you’
<i>/bara-/ + marû</i>	vetitive (rare)	<i>ba-ra-pad-re₆</i> ‘he shall not destroy’

3.5.6. The prefix */ga-/* is usually written *ga-*, but exhibits vowel harmony in some instances.²⁷ In *eme-sal* texts (see 7), */ga-/* appears as *da-* or *du₅-*: *du₅-mu-ri-ib-dug₄ /ga-mu-ri-b-dug₄* ‘let me say (it) to/for you’, ‘I want to say (it) to you’ (*Inanna and Bilulu* 165). Since in *eme-sal*, *da-*, *de₃-*, and *du₅-* occur instead of the precative */he-/*, cohortative and precative can be

27. For example, in Ur III texts (NG 132: 5) and in Šulgi hymn D (176, 210), a hymn that presents some Ur III features (as most Šulgi hymns); see Thomsen 1984: §384; Klein 1981: 69; Rubio 2000: 215–16.

morphologically identical in *eme-sal* texts. The modal function of /ga-/ is cohortative, and it is used only with the 1st person, both singular and plural. This prefix normally takes the *hamtu* stem, although there are some examples of /ga-/ with *marû* (see Edzard 1971: 223–25; Attinger 1993: 292). With verbs that have a special plural stem (see 3.2), the suffix /-enden/ is optional in the cohortative (Cavigneaux 1987; Attinger 1993: 223). The singular cohortative forms with /ga-/ tend to have no 1st sg. subject marker, although there are some exceptions. Cohortative forms exhibit an accusative pattern in pronominal agreement (see 3.12.3). The *hamtu* stem in the cohortative takes suffixes to mark the subject of both transitive and intransitive verbs, and prefixes to mark the object (Michałowski 1980: 97–98): *ku-li-ni-ir ga-an-ši-re₇-eb-de₃-en* /ga-n-ši-(e)re-enden/ ‘let us go to his friend (/kuli-ani-r[a]/)’, ‘we want to go to his friend’ (*Dumuzi’s dream* 140); *egir dub-me-ka a-na-am₃ ga-ab-sar-en-de₃-en* /ga-b-sar-enden/ ‘what is it that we want to write on the reverse of our tablets?’ (*Dialogue between Enkimansum and Girniisag* 1); *ga-na-ab-dug₄* /ga-na-b-dug₄/ ‘I want to tell it to her’ (Gudea Cyl. A i 24). Reduplicated forms with the cohortative prefix normally indicate the plurality of the object: *ma-mu-zu ga₂ ga-mu-ra-bur₂-bur₂* /ga-mu-ra(DAT.2.SG)-bur₂-bur₂/ ‘let me interpret your dreams’ (Gudea Cyl. A v 12). In some rare cases, /he-/ can occur where /ga-/ is expected, such as in *ha-a-tuku* ‘I will marry her’ (NG 16: 6).

3.5.7. The prefix /ša-/ is attested mostly in Old Babylonian texts, written *ša-*, and only in a few instances in earlier texts, in which it is written *še₃-* or *ši-*. /ša-/ undergoes vowel harmony, and therefore has three allomorphs: *ša-* before a prefix with /a/ (such as *ba-* and *-ra-*) and before *mu-*; *ši-* before the prefixes /i-/ and /bi-/; and, very rarely, *šu-* before *mu-*. The spelling *ša₃-* is attested in late texts. It is possible that the underlying form of this prefix is /ši-/ (see Attinger 1993: 294–95). This modal prefix seems to be compatible with all the conjugation prefixes. Falkenstein argued that /ša-/ was an affirmative prefix, while it was regarded by Jacobsen as “contrapunctive” (meaning ‘correspondingly’, ‘he on his part’, etc.; Falkenstein 1944; Jacobsen 1965: 73).

3.5.8. The prefix /u-/ is usually written *u₃-*, but *u-* in Early Dynastic texts. When followed by the conjugation prefix /-m-/ or by pronominal prefixes (/n-/ or /b-/), it is written *un-*, *ub-*, or *um-*. In Early Dynastic, Sargonic, and Gudea texts, it underwent vowel harmony, so /u-/ changed to /a-/ or to /i-/ depending on the vowel in the following syllable: /u-ba-/ > *a-ba-*; /u-bi-/ > *i₃-bi₂-*. This prefix occurs with *hamtu* only, but the verbal form in the following clause tends to be *marû*. It has a prospective sense: ‘the basic function of *u₃-* is to designate the first of a succession of events, without a great deal of precision’ (Gragg 1973a: 131). In languages with SOV order (like Sumerian), a subordinate clause tends to precede the main clause. This prefix occurs in introductory sections of letters (see 3.5.4). Thus, *u₃-* is not properly a modal prefix, but rather a proclitic syntactical particle (Kaneva 2000: 524–30).

3.5.9. The prefix /nu-/ is negative. It is usually written NU = *nu*. However, before the conjugation prefixes /ba-/ and /bi-/ , it occurs as *la-* and *li-*

(see 2.1.11): *la-ba-ta-e₃ /nu-ba-ta-e₃* ‘he shall not escape’ (Gudea Cyl. A ix 26); *ki-bi li-bi₂-gi₄ /nu-bi-gi₄* ‘they have not restored’ (Sîn-iddinam 2: 11). This prefix negates finite and non-finite verbal forms in the indicative (see 3.4.2). Moreover, /nu-/ and, probably, /he-/ are the only modal prefixes that can occur alone without a verb. In this case, *nu-* is the negation of the copula (*me* ‘to be’), and may occur with additional prefixes, as if /nu-/ were a verb on its own: *uru nu* ‘it is not a city’ (Sumerian Proverbs 2, 118); *šu peš-da-bi ba-nu* ‘there was no fishing’ (Sumerian Proverbs 1, 109).

3.5.10. The prefix /iri-/ is not widely attested, and it occurs almost solely in Old Babylonian texts. However, there are two instances of *iri-/ere-* in Pre-Sargonic Lagaš (on this prefix, see Römer 1975; Thomsen 1984: §§415–17; Attinger 1993: 286–97). It is written *i-ri-*, *i-ri₂-*, and *iri-* or *ere-* (the last two are readings of URU). The occurrences of /iri-/ are mostly restricted to a single lexical item, the compound verb *mi₂ — dug₄* ‘to praise’. Therefore, the function of this prefix is very difficult to define. Nevertheless, Schramm (1998) has pointed out that /iri-/ also occurs in incantations (already in Old Babylonian) instead of /he-/ in the formula *zi . . . he₂-pad₂* ‘I curse you; I adjure you’. Thus, Schramm argues that /iri-/ would have two functions: (a) in direct speech and with perfective (*hamṭu*) forms, it would mark a formulaic remark in the 1st person as explicitly performative; and (b) in indirect speech and with imperfective (*marû*) forms, it would mark a quoted remark as implicit performative.²⁸ However, one could and probably should regard these attestations of /iri-/ as a peculiar development of a specific idiom most likely due to a sort of antiphrastic displacement (a conscious or unconscious grammatical malapropism). Thus, /iri-/ normally used only with ‘to praise’, would have been extended to its antonym, ‘to curse’. Furthermore, this prefix probably comes from a wrong segmentation or false isolation of an /iri/ element in hypothetical sequences such as *mi₂ ar₂ in-ga-am₃-me* (*ar₂* = UB), from which /iringa/ (← /i-ar-inga-/) would have been reinterpreted as /iri + nga/ (*ar₂* is frequently spelled *a-ar* and *i-ri* in literary texts).²⁹

3.5.11. The prefix /nuš-/ is normally written *nu-uš-*, but sometimes also *ni-iš-* or *ni-iš₃-*. It is attested only in literary texts and from the Old Babylonian period on. It can occur with both *hamṭu* and *marû*, and, apparently, only in direct speech. In essence, it is not really a modal prefix, but a proclitic syntactical particle marking rhetorical interrogation (*erotema*), frequently translated as ‘if only’ or ‘were it but that’ (Römer 1976).

3.6. The system of conjugation prefixes

3.6.1. The rank and compatibility of the conjugation prefixes are as problematic as their grammatical functions and their morphophonemic

28. The label used by Schramm (*performative Verbalform*) is equivalent to *Koinzidensfall* or simply performative, a kind of illocutionary speech act consisting of a predicate whose utterance and the action indicated by it are one and the same, such as *I bless you* and *I curse you*.

29. See Civil 2000a. On *ar₂-dug₄* ‘to praise’, see Attinger 1993: 438–40. An explanation of /iri-/ similar to Civil’s was also proposed by van Dijk (1978: 195 n. 14).

shape.³⁰ Even their number can be a matter of discussion. Most scholars list seven prefixes, whereas others have proposed an analysis of these prefixes that reduces their number to four, for instance, /i/, /m/, /ba/, and /bi/ (/mu/ being an allomorph of the so-called ventive prefix /m/; for this four-prefix model, see Foxvog 1975: 400–401 n. 17; Jagersma 1993: 422–25). Nevertheless, the key problem is that of the functions fulfilled by these prefixes.

3.6.2. As is explicit in the table given by Thomsen (1984: §274), her understanding of the ranking of conjugation prefixes is as follows:

ĩ	ga	m
		mu
ã		ba
		bi

The idea that the prefixes /i-/ and /a-/ contained nasal vowels comes from Falkenstein (1959: 46–48). However, this would make these two prefixes the only nasal vowels in Sumerian, which is clearly an impossible scenario. This nasal vowels theory explains Falkenstein’s analysis of sequences such as *im-ma-* and *im-mi-* as /i-ba-/ (or /ĩ-ba-/) and /i-bi-/ (or /ĩ-bi-/; against Falkenstein’s analysis, see Gragg 1973a: 68–72; van Dijk 1983: 32 n. 3). However, these sequences most likely correspond to the same prefix: gemination of the prefix /mu-/ or /m-/. Moreover, the prefix /inga-/ can be disregarded because of its special status (see 3.7.6).

3.6.3. Other rankings of these prefixes have been proposed. The following by Black (1986: 79) also considers /-mi-/ an allomorph of /bi-/:

(-)mu/mi-	
-m-/(-)ma-/(-)mu-	ba-/ma- bi-/mi-

Although Black’s table mixes graphemes and morphemes in an unnecessary way, it may seem to underscore better the question of the prefix /-m-/. It has been argued that /-m-/ and /mu-/ fulfill similar functions but that they should be distinguished as two independent prefixes (see Thomsen 1984: §§329–35; Krecher 1985; Attinger 1993: 270). However, /-m-/ should be regarded as the non-initial allomorph of /mu-/, which occurs normally in the geminated (emphatic) version of /mu-/: /imma-/.

3.6.4. It seems that a *minimalist* approach to the conjugation prefixes, with different nuances and many advantages, is beginning to emerge (see Gragg 1973a: 93; Civil and Karahashi in Karahashi 2000a; Michałowski 2004; Rubio 2004 and 2005b). In fact, one can argue for a more simple system of conjugation prefixes with only four morphemes: /ba-/, /imma-/, /i-/, and /mu-/. The prefixes /a-/, /inga-/, /al-/, and /iri-/ must be disregarded here, since most of them occur in completely different distribu-

30. The label *conjugation* for these prefixes is a complete misnomer: if they had anything to do with conjugations, their occurrence would be predictable depending on verbs or stems. The term *topicalizing prefixes* (or “focus markers”) seems more adequate. Nevertheless, the term conjugation is kept here exclusively to avoid confusion.

tions and are not, therefore, true conjugation prefixes. Likewise, the prefix /bi-/ is not a separate conjugation prefix but a combination of the prefix /ba-/ followed by the locative-terminative prefix, and /imma-/ is a geminated version of /mu-/. Moreover, /i-/ (or /V-/) is not the ubiquitous prefix some Sumerologists reconstruct for almost all verbal forms. The /i-/ probably does not occur after modal prefixes and its occurrence may be linked to a rule concerning ranks of prefixes in verbal forms. According to this rule (Michałowski 2004: 44), a finite verbal form cannot begin with any of the three slots immediately before the verbal stem—i.e., dative, dimensional prefixes, and pronominal prefixes (slots 4, 5, and 6; see table in 3.3). This analysis of the verbal chain avoids the typical sesquipedalian “reconstructed verbal chains,” in which an element has to be supplied by the grammarian to fill in every slot in the chain, in spite of the fact that such an element may not have been written in that form, or, perhaps, may not even be attested with that verb.

3.6.5. The functions of the conjugation prefixes may seem particularly obscure. The first Sumerian grammars already observed that, while /mu-/ is used when there is an emphasized relation to a directionally defined personal noun, /i-/ occurs if such a relation is absent or not emphasized (see Poebel 1923: 213–30; Falkenstein 1949: 179–84; 1950: 158–81; Sollberger 1952: 107–63).³¹ Yoshikawa (1979a) pointed to the existence of an opposition between /mu-/ as topical and /i-/ as non-topical. In essence, this opposition stems from the sociolinguistic analysis of the distribution high versus low status, linked to the spatial movement (action) from below to above (/mu-/) or vice versa (/i-/).³² Gragg (1973a: 93–94) noticed that the opposition is actually between /mu-/ and /b-/, on the one hand, and /i-/ on the other. Because of the apparent lack of markedness of the prefix /i-/, some argued that /i-/ is not a morpheme but a prosthetic vowel used as a sort of finite marker (see Foxvog 1975: 400–401 n. 17; Heimpel 1974: 30–31). In the light of the rather weak role played by /i-/, Thomsen (1984: §311) calls it “the most neutral prefix.”³³

3.6.6. All verbal forms seem to start with an obligatory conjugation prefix (/mu-/, /ba-/, or /i-/). This rule loses its obligatoriness when a modal prefix occurs, since the prefix /i-/ is not necessarily subsumed under preceding modal prefixes (Michałowski 2004: 44). Moreover, the choice of prefix seems governed by focus (Vanstiphout 1985). The prefixes /mu-/

31. Jacobsen (1965: 76) defined /i-/ as a “mark of transitory, nonconditional aspect.”

32. On the sociolinguistics of these prefixes, see Jestin 1943–54: 2.27–84; Yoshikawa 1957. Steiner (1994) argued that /mu-/ is “centripetal” while /e-/ (or /i-/) is “centrifugal.” Steiner’s approach is based on typological parallels (especially Kartvelian languages, such as Georgian) and on the Akkadian ventive, which is centripetal by definition. In Akkadian, the ventive suffix is identical (in all its allomorphs) to the 1st sg. dative suffix, the same way that /mu-/ would be related to the 1st person possessive pronominal suffix /-mu/ in Sumerian. On the possible relationship between the Akkadian verbal ventive suffix (-am, -nim, -m) and the Sumerian verbal prefix /mu-/ or /m-/, see von Soden 1965: 105; Pedersén 1989: 434; Edzard 2003a: 175.

33. The idea of /i-/ (or /e-/) as the neutral prefix had been suggested by others (e.g., Gragg 1973a: 93).

and /ba-/ are mutually exclusive and complementary: /mu-/ is focused for person but not for locus, while /ba-/ is focused for locus but not for person. The prefix /i-/ is not focused, so it is indifferent to the opposition between /mu-/ and /ba-/.³⁴ In discourse, the prefix /i-/ is preferred for supportive, non-substantial material (background), but the foreground of regular narrative discourse is marked by /mu-/ or /ba-/ according to focus.³⁵

+ FOCUS			- FOCUS
/mu/	+ PERSON	- LOCUS	/i/
/ba-/	- PERSON	+ LOCUS	

As seen above, there is no co-occurrence of the prefixes /i-/ and /b-/ (or /bi-/ and /ba-/) in *im-mi-* and *im-ma-*: *im-ma-* has to be regarded as a conjugation prefix in its own right (a geminated form of /m-/ or *mu-*), and *im-mi-* is simply *im-ma-* followed by the locative-terminative verbal prefix /i-/ or /-e-/ (Karahashi 2000a).

3.6.7. This marking system corresponds to the occurrences of these prefixes with and without verbal case prefixes (Thomsen 1984: §§341–46). Before case prefixes (dative and “dimensional prefixes”), /mu-/ is preferred with cases referring to animate arguments. However, when the case prefix is preceded by a modal prefix, /mu-/ is frequently omitted: *ga-ra-ab-sum* /ga-ra(DAT.)-b-sum/ ‘I will give it to you’ instead of **ga-ma-ra-ab-sum*. The prefix /ba-/ occurs before cases referring to inanimate arguments (places, objects, etc.). The Gudea corpus follows this rule closely. However, roughly contemporary texts (Ur III documents and letters) present frequent exceptions, as also do Old Babylonian literary texts. Furthermore, in Ur III documents and Old Babylonian literary texts, /ba/ alone is attested as a pseudo-case-prefix, equivalent to *mu-na-* or *mu-ne-* in concord with an animate in the dative case. When no case prefixes occur, /mu-/ is preferred with animate and agentive (active voice) subjects (i.e., it occurs mostly with transitive verbs), whereas /ba-/ is more frequent with inanimate and/or non-agentive (patient) subjects. The contrast can be seen in the formulas for the year names:

34. According to Yoshikawa (1992a), /b-/ would mark a valency-reduction or decrease of the dative/beneficiary relation marked with /mu-/ (topical) and /i-/ (non-topical). The valency of a verb is defined by the number and type of arguments that the verb can take: intransitive verbs (both active and non-active) are univalent; transitive verbs can be bivalent (subject and object) or trivalent (subject, DO, and IO).

35. As Vanstiphout points out (1985: 12–13), any language system distinguishes between the actual story elements or the main information, and supportive material (foregrounding or backgrounding). In written French, the *passé simple* is used for foreground in narration. Old English presents SV and OV order for background, but VS for foreground. In Russian, the perfective aspect denotes foreground, while the imperfective is used for backgrounding. Some languages (such as Tagalog and Swahili) exhibit special elements in their verbal morphology for foregrounding and backgrounding; see also Levinson 1983: 219–22; Givón 1984: 32, 240–51, 287–90. Moreover, the passive fulfills a foregrounding function (see Zólyomi 1996b: 41), which could be connected to the tendency to use /ba-/ as a pseudo-marker of passive (see 3.13).

mu^d*Amar-d*^d*Suen-ke*₄ *Ur-bi-lum*^{ki} *mu-hul* /mu-(n-)hul(-a)/
 ‘the year in which Amar-Suen destroyed Urbilum’

mu *Ur-bi-lum*^{ki} *ba-hul* /ba-hul(-a)/
 ‘the year in which Urbilum was destroyed’

Nevertheless, both /mu-/ and /ba-/ can be replaced by the neuter prefix /i-/ in this kind of formula.

3.6.8. There are some finite verbal forms with no prefixes whatsoever: *a-re-eš dug₄-ge-eš* ‘they praise’ (Ur-Ninurta B 28); *me-a tuš-u₃-de₃-en me-a gub-bu-de₃-en* ‘where shall I sit (/tuš-ed-en/), where shall I stand (/gub-ed-en/)’ (Ur Lament 294; see Thomsen 1984: §273; Attinger 1993: 194; Römer 2000; Edzard 2003a: 80). These forms seem morphologically unmarked for modality and voice—which must be contextually defined—but not for aspect and tense.

3.7. The conjugation prefixes and the prefixes

/a-/, /inga-/, and /al-/

3.7.1. The prefix /i-/ is usually written NI = *i*₃₋, although in Isin-Larsa and Old Babylonian texts it may occur as *i-* (= I). Early Dynastic and Sargonic texts from Lagaš, Uruk, Umma, and Ur (but not from Adab, Fāra, Nippur, and Isin) exhibit a variant /e-/ (written *e-*). Sollberger (1952: 107–63) argued that *i*₃₋ (= NI) and *e-* were two different prefixes. However, the form /e-/ is a simple allomorph of /i-/ attested in those specific corpora. It is the result of vowel harmony before verbal stems containing the vowel [a] or [e], as well as before the case prefixes /-da-/, /-na-/, /-ne-/, /-še₃-/, and /-ta-/. When /i-/ occurs before pronominal prefixes, the orthography is *ib*₂₋ (/i-b/) and *in-* (/i-n/). As already noted, this is the most neutral of all the conjugation prefixes and occurs mostly with verbal forms that contain backgrounding information.

3.7.2. The prefix /ba-/ is written BA. It has been argued that this prefix contains the pronominal element /b/ followed by the locative /a/, which would explain why it marks locus. However, this may be just a case of the typical hyperanalysis in which Sumerologists tend to indulge, according to which all morphemes have to be broken into minimal morphological units (usually single segments).³⁶ According to Attinger (1993: 281–84), the main functions of the prefix /ba-/ are:

- It never marks a “peripheral” complement, so *e₂-a i-lu ba-ab-be₂* would not mean ‘he has said an *ilu* in the house’ but ‘he has said an *ilu* on the house’.
- It can have a case-like value and refer to a locative-terminative, a locative, or an absolutive subject, explicit or implicit in the sentence.
- It occurs instead of /bi/ in the “passive” voice and before all the case prefixes other than /-ni-/ (locative).
- It is extremely frequent in “passive” verbal forms.

36. On /ba-/ not containing a locative element, see Civil in Postgate 1974: 20 n. 11.

This list of usages does not conflict with the basic function of /ba-/: to focus for locus but not for person. In fact, one of the most common occurrences of /ba-/ is in passive forms, that is, in forms in which the agent becomes almost irrelevant (see 3.13).

3.7.3. The prefix /bi-/ is usually written NE = bi_2 , but the spelling with PI = bi_3 is attested in the Isin-Larsa period. Because of vowel harmony, in texts prior to the Ur III period, it is written BI = be_2 , especially before verbs containing [a] or [i]. Of course, in these forms one could simply read bi -, instead of be_2 -, as this spelling of the prefix also occurs in contexts that do not point to vowel harmony. This conjugation prefix does not seem to occur with any case prefix, but only with the pronominal prefixes /n-/ and /b-/. In fact, the sequence bi_2-ni - may not contain /bi- + LOC/, but should probably be read bi_2-i_3 - (Karahashi 2000a). The latter reading would be parallel to the sequences $ba-a$ - and $ba-e$ -, which may all contain the locative-terminative prefix (/e-/ or /i-/). According to Attinger (1993: 286–88), the main functions of prefix /bi-/ are:

- a. It may show concord with the so-called “second object” of a compound verb, which normally appears in the locative-terminative or in the locative.
- b. It marks the “second impersonal agent” of a causative construction: 70 gur₇ še e₂ be_2-gu_7 (or $bi-gu_7$) ‘he “made eat” 70 gur of barley in the temple’ = ‘he had 70 gur of barley assigned for consumption in the temple’ (Ur-Nanše 34 iii 9–10).³⁷

3.7.4. The prefix /mu-/ is always written MU. When the 1st sg. dative is marked, it can become ma - /mu-DAT.1.SG./: $ha-ma-an-pa_3-de_3$ /ha-mu-DAT.1.SG.-n-pa₃.d-e/ ‘may he tell me’ (*Lugalbanda II* 26). Forms with ma - preceded by /nu-/ or /na-/ ($nu-ma$ - /nu-mu-DAT.1.SG./, $na-ma$ - /na-mu-DAT.1.SG./, etc.) can be distinguished, in most cases, from forms with /-mm-/: $nu-um-ma$ - (/nu-mm-a-/), $nam-ma$ - (/na-mm-a-/), $he_2-em-ma$ - (/he-mm-a-/), forms in which the /-a-/ following /-mm-/ can simply be a spelling device to write the geminate. When the 2nd sg. dative is marked, the sequence can be spelled either $mu-ra$ - (/mu-2.SG.DAT-/) or $ma-ra$ -, the latter with explicit notation of vowel harmony. Both sequences, $ma-ra$ - and $mu-ra$ -, may coexist even within the same literary composition and their occurrence may obey stylistic and idiolectal variants (Civíl 2000b: 675–76): *lugal-mu dingir-gin₇ mu-ra-an-du₃ a-ba sag ma-ra-ab-us₂-e* ‘My master, like a god it (Asag) has been created against you; who can help you against it?’ (*Lugal-e* 271).³⁸ With the modal prefixes /nu-/ , /ga-/ , /he-/ , and /ša-/ , the conjugation prefix /mu-/ followed by the 2nd dative /-ra-/ is always written mu - and never ma - (Thomsen 1984: §336; Attinger 1993: 275 n. 757). The geminated form of the prefix /mu-/ (/m-/ /mm-/) is written i_3-ma - and $e-ma$ - in Early Dynastic and Sargonic texts, but it appears later as $im-ma$ -. When followed by the locative-terminative prefix, it is spelled i_3-mi -

37. On the occurrence of be_2 preceding verbal stems with /u/ in the Early Dynastic period, see Attinger 1993: 142.

38. For instance, in the *Debates*, $ma-ra$ - usually occurs, although $mu-ra$ - is found twice in *Winter and summer* (Civíl 1994: 23).

in early texts, but *im-mi-* in later periods. This geminated form indicates emphasis on the focus marked by /mu-/.

3.7.5. Regarding the conjugation prefix /a-/, Westenholz (1975: 8) argued that it commonly occurs in non-agentive passive constructions (*an-na-sum* ‘it was given to him’), and it seems to correspond to the Akkadian stative. However, Yoshikawa (1995) has questioned the idea that /a-/ marks an impersonal passive and has proposed that this prefix defocalizes the agent of the sentence, shifting the focus from the agent to any other argument in the sentence (dative, comitative, ablative, and so forth). This prefix is especially frequent with some verbs (*sum* ‘to give’, *gal₂* ‘to be, exist’, *ki* — *ag₂* ‘to love’, *tuku* ‘to have’, *zu* ‘to know’), and in statements and clauses of treaties or contracts (Attinger 1993: 267–69). The occurrence of /a-/, however, seems to correspond to local or diachronic dialects (or even perhaps to scribal idiolects), since in some texts it is extremely rare or completely unattested while in others it is quite frequent (see Civil 1994: 23).

3.7.6. The conjugation prefix /inga-/ has been analyzed as a combination of the conjugation prefix /i-/ and an element /g̃a/ (or /ŋa/ or /nga/). Thus, /ga/ by itself would not be truly considered a conjugation prefix, but a supplement of /i-/ with the meaning ‘also’ or ‘and then’ (see Falkenstein 1949: 218–19; Thomsen 1984: §§322–28; Attinger 1993: 297–98). However, such etymological segmentation of this prefix is quite difficult to prove, since /inga-/ precedes the conjugation prefix /mu-/ and any vocalic prefix would follow it. In fact, both /inga-/ and /al-/ do not fall into the same system within which /mu-/ and /b-/ (and /i-/) seem to oppose each other. The prefix /inga-/ is most likely a grammaticalized proclitic connective particle, which can occupy a slot between the modal and the conjugation prefixes.

3.7.7. The prefix /al-/ does not normally occur with other verbal prefixes, with the exception of *u₃* and *nu-*, the latter exclusively in lexical texts (see Yoshikawa 1982a; Thomsen 1984: §§353–58; Attinger 1993: 269–70; Edzard 2003b). This prefix is usually written AL = *al*, appearing immediately before the verbal stem. /u-al-/ is attested very few times in Ur III texts, and other combinations (*nu-al-*, *al-bi-*) can be found only in lexical texts and seem to be secondary formations. It normally occurs with intransitive verbal forms and its function seems similar to that of the Akkadian stative (an inflected verbal adjective): *e₂ al-du₃ giri₁₇-zal-bi al-dug₃* ‘the temple is built, its splendor is good’ (Keš Temple hymn 118).

3.8. The dative verbal prefix

The dative has different prefixes depending on the person:

1st sg.	-a- (ma- < /mu-a-/)	1st pl.	-me-
2nd sg.	-ra-	2nd. pl.	(-re- [?])
3rd sg. anim.	-na-	3rd pl.	-ne-

The 1st sg. /-a-/ suffix always occurs after the conjugation prefix /mu-/, and is written *ma-*. When this sequence is preceded by a modal prefix, it can be confused with *im-ma-*, so *nu-ma-* can be /nu-mu-a-/ or /nu-mm(a)-/. The 2nd sg. /-ra-/ is preceded by /mu-/ (*ma-ra-* in Gudea) when there is no

modal prefix. After a modal prefix, /mu-/ does not usually occur. In Old Babylonian literary texts, the prefix /-ri-/ might be an analogical formation equivalent to /-ra-/ and based on the locative prefix /-ni-/ , although it can occur parallel to the dative. The 3rd sg. /-na-/ may change to /-ne-/ under vowel harmony in Old Babylonian and later texts. The 1st pl. /-me-/ can be confused with the sequence /mu-e-/ (CNJG.PREF.-2.sg.PRO.SUFF.) > *me-*. The 2nd pl. has not been identified, but Civil has suggested */-re-/. One could also expect */-ene-a/ for the 2nd pl., but this is not attested either (Attinger 1993: 231). The 3rd pl. is /-ne-/ , spelled sometimes {-ne-a-} (*-ne-ab-*) (Attinger 1993: 210, 232–32). The dative occurs with many verbs, generally indicating the indirect object: *sum* ‘to give’; *ba* ‘to give as a ration’; *dug₄* ‘to say’, etc.³⁹ Dative prefixes can refer to animates only. An inanimate indirect object is in the locative or terminative.

3.9. Dimensional prefixes

3.9.1. The comitative verbal prefix is /-da-/ and it can be written *-da-*, *-de₃₋*, *-de₄₋*, *-di₃₋*, or *-di-*, since it undergoes vowel harmony under the influence of the following prefix (Attinger 1993: 250). Less commonly, /-da-/ can harmonize with the vowel of the preceding prefix: /ba-e-da-/ > *ba-e-da-*, *ba-e-de₃₋*, *ba-e-di-*; /mu-e-da-/ > *mu-u₃₋da-* (Gudea), *mu-e/u₈₋da-*, *mu-e/u₈₋de₃₋*. Sometimes the shift /-da-/ > *-de₃₋* seems unmotivated (Gragg 1973a: 46). These examples of harmony show that the comitative prefix can be preceded by a pronominal prefix (usually slot 6; see table in 3.3). In combination with pronominal and conjugation prefixes, this dimensional prefix refers to the different persons:

- 1st sg. /mu-da-/ and, in OB literary texts, sometimes /-e-da-/
- 2nd sg. /-e-da-/
- 3rd sg. anim. /-n-da-/
- 3rd sg. inanim. /-(ba)-da-/ , /-m-da-/ , /-b-da-/
- 1st and 2nd pl. not attested
- 3rd pl. there are a few examples of PI as comitative prefix of 3rd pl. in Pre-Sargonic texts (Thomsen 1984: §446).

In the vast majority of forms, the comitative prefix does not cross-refer to an NP in the comitative case within the sentence. In fact, the comitative occurs more frequently in verbal forms than in NP's. It can occur with both simple and compound verbs, such as *a-da-min₃* — *ak* ‘to compete with’, *du₁₄* — *ak* ‘to quarrel with’, *dug₄* ‘to speak with’, *sa₂* ‘to compete with, to be equal to’. It is also frequent with verbs of emotion, such as *sag-ki* — *gid₂* ‘to be angry with’, *hul₂* ‘to rejoice over’ (see Gragg 1973a: 53–66). The comitative prefix does not necessarily indicate any sort of accompaniment with verbs of motion, especially with *ku₄* ‘to enter’. Thus, *im-ma-da-an-ku₄-ku₄* /imm(a)-da-n-ku₄-ku₄/ (*Sargon Legend* 47) does not mean ‘he came with’ but ‘he came in(to)’ (pace Gragg 1973a: 59–61). In some cases, /-da-/ has a special modal meaning, ‘to be able to’ (i.e., potential or “abilitative”): *e₂ mu-da-ba-e-en* (/mu-da-ba-en/) ‘I can divide the estate’ (*Dialogue*

39. For a list of verbs with the dative prefix and examples, see Gragg 1973a: 81–92.

between *Enkimansum and Girmiisag* 29); *šu nu-mu-un-da-an-gi₄-gi₄* (/nu-mu-n-da-gi₄-gi₄(-e)/) ‘he cannot repeat it’ (*Enmerkar and the Lord of Aratta* 501). The sequences are the following (Gragg 1973a: 53–55):

- 1st sg. /mu-da-/ ‘I am able to . . .’
- 2nd sg. /-e-da-/ ‘you are able to . . .’
- 3rd sg. anim. /-n-da-/ ‘he/she is able to . . .’

3.9.2. The comitative prefix /-da-/ and the ablative-instrumental /-ta-/ seem to be confused or to alternate with each other in many instances. When this happens, the most frequent situation is that /-da-/ occurs when /-ta-/ would be expected. Some phonetic explanations have been suggested, but none of them covers all instances.⁴⁰ As Gragg (1973a: 47–53) has pointed out, *ba-ta-* is very rare in Old Babylonian literary texts, while *ba-da-* is quite frequent, especially when /-ta-/ is expected. Thus, Gragg concludes that *ba-da-* comes from /ba-ta-/, and that /ba-da-/ does not really occur in Old Babylonian literary texts. In Gudea, however, *ba-ta-* is more frequent than *ba-da-*. This would imply that /ba-/ tends not to precede the comitative /-da-/, whereas it is rather common with the ablative-instrumental /-ta-/. Therefore, both *ba-da-* and *ba-ta-* would correspond to /ba-ta-/ (see Thomsen 1984: §449; Attinger 1993: 256–58). Thus, the occurrence of *ba-ta-* instead of *ba-da-* in verbal forms is a diagnostic for Ur III dating (Gragg 1973a: 49).

3.9.3. The terminative (or allative) verbal prefix is *-ši-*. In Early Dynastic texts, it is usually spelled *-še₃-*, although sometimes it is written *-ši-*. After the Sargonic period, *-ši-* is the only spelling of this prefix. It occurs in combination with different pronominal and conjugation prefixes:

- 1st sg. /mu-ši-/
- 2nd sg. /-e-ši-/
- 3rd sg. anim. /-n-ši-/
- 3rd sg. inanim. /ba-ši-/, /-m-ši-/, /-b-ši-/

The terminative seems not to be attested in the plural. As the corresponding nominal suffix, /-ši-/ indicates direction towards something or someone, and it is especially common with verbs of motion. Moreover, it is frequently attested with verbs of attention, mostly compound verbs with *igi* ‘eye’, *geštu₂* ‘ear’, *sag-keš₂* (*sag-keš₂* — *ak* ‘to pay attention’), and *gizzal* (*gizzal* — *ak* ‘to listen to’): *en-e inim ku₃ ^dinanna-ka-še₃ sag-keš₂ ba-ši-in-ak* /ba-ši-n-ak/ ‘the lord paid attention to the holy word of Inanna’ (*Enmerkar and the Lord of Aratta* 105); see Gragg 1973a: 23–26. In a verb such as *igi* — *bar*, there is a contrast between forms with /-ši-/, which mean ‘to look upon in a certain manner’, and forms with the locative prefix /-ni-/ meaning just ‘to see, to look at’: *en Aratta^{ki}-ke₄ im-ma igi i-ni-in-bar* /i-ni-n-bar/ ‘the lord of Aratta looked at the tablet’ (*Enmerkar and the Lord of Aratta* 540).⁴¹ With the verb *šu* — *ti* ‘to take from’ (lit., ‘to approach the hand

40. For a phonetic explanation similar to that for the behavior of intervocalic dentals in English, see Black 1990b: 115–16.

41. The same can be said about *igi* — *il₂* ‘to lift the eyes’ (Gragg 1973a: 21; Karahashi 2000b: 113–18, 125–26). Other verbs that take /-ši-/ are *u₃* — *ku* ‘to sleep’, *ni₂* — *te* ‘to relax’, (*ki* —) *kin* ‘to seek for’.

to'), the person from whom the object is received appears in the terminative, whereas the object is in the locative-terminative. Without /-ši-/ , *šu — ti* means simply 'to take' (Gragg 1973a: 26; Karahashi 2000b: 168–71).

3.9.4. The ablative-instrumental verbal prefix is /-ta-/ (on the spelling *-da-*, see 3.9.2). This prefix can refer to inanimate arguments only. In its instrumental sense, it is rather infrequent. It is much more common in its ablative sense, denoting the direction from or out of something. It is, therefore, used especially with verbs of motion: *e*₁₁(.d) 'to go down/up', *gen* 'to go, to come', *sar* 'to chase away'. Moreover, the verb *gar* has /-ta-/ when it means 'to remove', but without /-ta-/ , it just means 'to place'. The verb *zal* 'to pass' (of time) can have /-ta-/ or the locative prefix /-ni-/ . Another dimensional prefix that occupies the slot of the ablative-instrumental is /-ra-/ (Gragg 1973a: 96–98). Sometimes the variant /-ri-/ occurs in Old Babylonian literary texts, which, like the variant /-ri-/ of the 2nd sg. dative prefix /-ra-/ , may be an analogical formation based on the locative /-ni-/ and its variant /-ri-/ . The prefix /-ra-/ clearly fulfills an ablative function too. Civil (1973: 27) suggested a phonetic explanation: both spellings (*-ta-* and *-ra-*) would point to a realization [dʳ] (or [r̥]) in intervocalic position. The occurrence of *-ti-* may be explained through vowel harmony, so /-ti-/ would be an allomorph of /-ta-/ . However, *-ti-* can also be analyzed as /-ta- + -e-/ . In any event, ablative instrumental *-ti-* corresponds to *-di*₃- , the allomorph of the comitative /-da-/ when followed by /-ni-/ , which is especially common in Gudea and Ur III royal inscriptions as well as Šulgi hymns (see Falkenstein 1949: 212–15; Gragg 1973a: 29, 42–43; Attinger 1993: 243–50; Klein 1990: 97; Karahashi 2000a.).⁴²

3.9.5. Between the locative dimensional prefix and the verbal stem, only the pronominal prefixes /-n-/ and /-b-/ can appear. The pronominal prefix /-e-/ is never written after the locative prefix. The most common locative prefix is *-ni-* , but *-ri-* can also occur with the 2nd person singular. Moreover, the conjugation prefix /bi-/ seems to have a similar function in many instances. Although the prefix /-ni-/ is called locative, it fulfills three different functions: locative; second object of compound verbs; and concord with the third argument in causative constructions. In its locative function, the prefix is always /-ni-/ ; it can occur with any verb and refers to nouns in the locative and in the locative-terminative case within the sentence: *igi-ba šembi ba-ni-gar* /ba-ni-(n-)gar/ 'he placed kohl on their eyes (/igi-bi-a/) ' (Ean. 1 xviii 3). When agreeing with the second object of compound verbs—i.e., an NP in the locative-terminative or in the locative, or in the dative—it may refer to a place, to a person, to animals, or to objects: *igi dug₃ hu-mu-ri-du₈* /ha-mu-ri-(n)-du₈/ 'he has indeed looked kindly at you' (Iddin-Dagan hymn B 63); *igi dug₃ hu-mu-ni-du₈* /ha-mu-ni-du₈-(en)/ 'may you look kindly at him' (Ninurta hymn 24, 25).

42. As in the case of /-ta-/ and /-da-/ , the use of TI for both the allomorph *-ti-* of ablative-instrumental and the allomorph *-di*₃- of the comitative may be due to a neutralization of the voiced/voiceless opposition in intervocalic position, as happens in many words in American English (see 3.9.2).

3.9.6. The sequences *mi-ni-* and *mi-ri-* have elicited different analyses (Attinger 1993: 273–75). It has been suggested that *mi-ni-* comes from /bi-ni-/ (Postgate 1974: 21–22)—but *mi-ri-* could hardly come from /bi-ri-/. Moreover, neither **bi-ni-* nor **bi-ri-* is attested, a fact that would seem to support an analysis with /bi-/. However, since /bi-/ is nothing but the prefix /ba-/ followed by the locative-terminative prefix, it is logical that /bi-/ does not co-occur with the locative /-ni-/, or with its 2nd person variant, /-ri-/. Thus, an analysis with /mu-/ seems more likely: *mi-ni* < /mu-ni-/ (vowel harmony) or *mi-i₃-* < /mu-LOC.TRM-;/ *mi-ri-* < /mu-ri-/ (vowel harmony). However, it has been suggested that there is an opposition—or at least a contrast—between *mu-ni-* and *mi-ni-* (see Attinger 1993: 273).⁴³ Nonetheless, in view of the few examples in which forms with *mu-ni-* and *mi-ni-* occur in close proximity, the difference seems mostly stylistic: *e₂-kur za-gin₃-na mu-ni-in-ku₄ i₃-sag igi-ni mi-ni-in-de₂* ‘she (Aruru) made her (Nintu) enter (/mu-ni-n-ku₄/) the Ekur of lapis, she poured (/mu-ni-n-de₂/) the best perfume over her face’ (*Enlil and Ninlil: The marriage of Sud* 147); *id₂idigna id₂buranun ni₂ mu-ni-ib-te kur-ra gu₃ mi-ni-ib₂-ra* ‘it (war) shall make the Tigris and Euphrates quaver (/mu-ni-b-te/), it shall make the mountains rumble (/mu-ni-b-ra/)’ (*Uruk lament* 3: 15); *ki-a nir mi-ni-in-gal₂ . . . abzu eridu^{ki}-ga me šu ba-ni-in-ti a-a-ni ^den-ki-ke₄ sag-e-eš mu-ni-in-rig₇* ‘on earth she has authority (/mu-ni-n-gal₂/) . . . in the Abzu, in Eridu she received (/ba-ni-n-ti/) the divine powers; her father, Enki, granted them to her (/mu-ni-n-rig₇/)’ (Iddin-Dagan hymn A 21–23). Thus, it seems that the difference between *mu-ni-* and *mi-ni-* is not necessarily morphological.

3.9.7. There seems to be a relation between /-ri-/ as the locative dimensional prefix of the 2nd person to mark the second object of compound verbs, and the dative 2nd sg. prefix /-ra-/. In fact, in some instances, /-ri-/ occurs when /-ra-ni-/ is expected. Moreover, Gragg (1973a: 105) argues that /-ri-/ derives from /-ra-ni-/. In causative constructions, /-ni-/ seems to refer to the logical agent, but this function is clear only in a series of Old Babylonian grammatical texts. In this series, the locative /-ni-/ corresponds to the Akkadian Š-stem, i.e., the causative (Black 1991: 30–35). However, this function is less consistent in non-grammatical texts. The causative function of this prefix can be derived from its basic locative sense, like ‘by’ in English (see Attinger 1993: 198–99). In compound verbs, it presents the following basic sequences with the different verbal persons (cf. Thomsen 1984: §476):

1st sg.	/mu-a(DAT.)-ni-/ > <i>ma-ni-</i>	1st pl.	?
2nd sg.	/mu-ri-/ > <i>mi-ri</i>	2nd pl.	/-ri-. . .-enzen/?
3rd sg. anim.	/mu-ni-/ > <i>mu-ni-/mi-ni-</i>	3rd pl.	?
3rd sg. inanim.	/ba-ni-/ > <i>ba-ni-</i> (and /mu-ni-/ > <i>mi-ni-</i> ?)		

43. Such an opposition or contrast would be neutralized in the presence of any modal or syntactical prefix that occupies the slots that precede the conjugation prefix slot: *e-ne a-da-min₃ mi-ni-in-tak₄-tak₄-an . . . e-ne in-ga-mu-ni-in-tak₄-tak₄-an* ‘does he refuse me (/mu-ni-n-RED.STEM-en/) this contest . . . does he still refuse it to me (/in-ga-mu-ni-n-RED.STEM-en/)?’ (*Enmerkar and the Lord of Aratta* 259–61).

3.9.8. The existence and shape of the locative-terminative dimensional prefix is linked to the analysis of the conjugation prefixes at the beginning of the verbal chain. In most traditional approaches, such as Thomsen's (1984: §§423–82), the locative-terminative would be the only nominal case without a reflection in the verbal chain—the genitive and the equative should be set aside, since they are not adverbial cases. This would appear to be an asymmetry in the mirroring structure of nominal cases and dimensional prefixes. Nevertheless, it seems increasingly clear that there is a locative-determinative verbal prefix, which consists of a vocalic element whose underlying segment could be symbolized as /-I-/ with two allomorphs [-i-] and [-e-] (see Civil 1976: 90 n. 28; Karahashi 2000a). Furthermore, the conjugation prefix /bi-/ is a variant of the prefix /ba-/ followed by a locative-terminative /-i-/ or /-e-/ (see Civil in Postgate 1974: 20 n. 11).⁴⁴

3.9.9. Yoshikawa argued that a locative-terminative /-i-/ (or /-e-/ in *-e-ni-* and *-e-a-*) occurs in the verbal prefix sequences *i₃-in-*, *i₃-ib-*, and *i₃-im-*, which probably originated by analogy with an alleged locative /-a-/—the latter would have nothing to do with the true locative /-ni-/ (Yoshikawa 1977a: 236; 1977b; 1982b: 167). Moreover, Krecher (1985: 139–57) adapted Falkenstein's old theory to Yoshikawa's idea concerning the verbal prefix strings *i₃-in-*, *i₃-ib-*, and *i₃-im-*, but used the label *directive* (*Diraktivinfix*) instead of locative-terminative. Although disagreeing with Krecher on some essential points, Wilcke (1988) also identified a directive element /-i-/. Furthermore, Attinger (1993: 230–47) followed very closely Falkenstein's reconstructive analysis of /ba-/ and /bi-/ but added a local prefix /-e-/, based in part on Krecher's idea of a directive /-i-/. However, in Attinger's proposal, the directive would be a prefix different from the locative-terminative. Attinger proposed a set of alternations that depend on different readings of the same sign (*be₇-* = *bi₂-* and *-re-* = *-ri-*), which is evidently grounded in Falkenstein's approach to similar problems of writing interface. Zólyomi (1999: 230) has argued that Attinger's directive and the locative-terminative are the same morpheme (realized as /i/ or /y/ depending on the phonemic environment; see also Attinger 1998, 1999, 2000; Zólyomi 2000, 2003).

3.9.10. Civil's proposal, explained in detail by Karahashi (2000a), presents a clear advantage: now the parallel between dimensional prefixes and case markers is not anarchically distributed throughout different slots in the verbal chain, but corresponds to the expected hierarchy of ranks agglutinative and polysynthetic languages normally exhibit.⁴⁵ The terminative-locative prefix can appear immediately after a conjugation prefix (*bi₂-* < /ba-I-/; *im-mi-* < /imma-I-/; *i₃-in-*, *i₃-ib-*, *i₃-im-* < /i-I-/ or /V-I-/; *mu-*

44. Attinger (1993: 204 n. 428) has raised some objections to Civil's theory. Concerning Attinger's points, see Karahashi 2000a.

45. In actuality, the morphematic template, whose slots are filled by different morphemes, is only a descriptive model. The structure of the verb is ultimately syntactical and the order of morphemes seems determined by semantic scope. See, for instance, Rice 2000.

ni-, *mi-ni-* [= *mu-i₃-*, *mi-i₃-*] < /mu-I-/), after a dative prefix (*mu-e-* < /mu-I-/; *-ri-* < /-ra-I-/; *-ni-* < /na-I-/), after the comitative (*-di-*, *-de₃-* < /-da-I-/), and after the ablative (*-ri-* < /-ra-I-/).

3.10. Pronominal prefixes

3.10.1. There are three pronominal prefixes that can follow or precede the case prefixes: /-e-/ , /-n-/ , /-b-/ . The pronominal prefix /-e-/ is very poorly attested before the Old Babylonian period. In the Gudea corpus, it is written *-u₃-* after the conjugation prefix *mu-*, and *-a-* after *ba-*. In Old Babylonian the sequence *mu-u₈-* occurs a few times. This prefix refers to the 2nd person:

- It marks the 2nd sg. subject with transitive *ḥamṭu*: *mu-e-sum* ‘you gave him’ (*Gilgameš* and *Agga* 104).
- Together with the pronominal suffix /-enzen/, /-e-/ can co-mark a 2nd pl. subject with transitive *ḥamṭu*, whereas the 2nd pl. subject of a *marû* form is marked simply with /-enzen/: *nu-mu-e-sum-mu-un-ze₂-en* /nu-mu-e-sum-enzen/ ‘you (pl.) have not given (it to me)’ (Edzard 1976b: 160, 165).
- The /-e-/ marks the 2nd sg. person of any case prefix in the verbal chain: *igi-bi mu-e-ši-gal₂* ‘they look upon you’ (Iddin-Dagan hymn B 59).

3.10.2. The pronominal prefix /-n-/ marks the 3rd animate person. It occurs mostly in four instances (Thomsen 1984: §292; Attinger 1993: 220, 225–27):

- It marks a 3rd sg. animate subject with transitive *ḥamṭu* forms: *mu-na-an-sum* /mu-na-n-sum/ ‘he has given to him’.
- Together with the pronominal suffix /-eš/, it marks a 3rd pl. animate subject of transitive *ḥamṭu* forms: *mu-na-an-sum-mu-uš* /mu-na-n-sum-eš/ ‘they have given to him’.
- It precedes case prefixes that refer to persons: *a₂ mu-un-da-an-ag₂* /mu-n-da-n-ag₂/ ‘he has instructed him’.
- It can mark a 3rd sg. animate object, but only with *marû* forms, which have no pronominal prefix marking the subject: *nu-um-ma-ši-in-gi₄-gi₄* /nu-mm(a)-ši-n-gi₄.gi₄(-e)/ ‘he sends out no other (god)’ (*Angim* 95).

Geller (1998) has argued that /-n-/ also indicates reflexivity, but Attinger (1998) has objected to this analysis (see 3.13.2).

3.10.3. The pronominal prefix /-b-/ marks the 3rd inanimate person. It fulfills four basic functions:

- It marks a 3rd sg. inanimate subject with transitive *ḥamṭu* forms, but this is not a very common function: *amar-bi . . . gu₃ nu-um-ma-ni-ib-gi₄* /nu-mm(a)-ni-b-gi₄/ ‘its young did not answer’ (*Lugal-banda* I 77).

- b. Especially in Ur III legal documents, it marks a 3rd pl. subject with transitive *hamṭu* forms, but it does not need any plural pronominal suffix: *nam erim₂-bi ib₂-kud* /i-b-kud/ 'they have sworn' (NG 40: 8).
- c. Very frequently, it occurs in transitive *marû* forms, and probably marks the inanimate (3rd person, both sg. and pl.) direct object; it is especially frequent with the modal prefix /ga-/: *ensi₂-ra^d nanše mu-na-ni-ib₂-gi₄-gi₄* /mu-na-ni-b-gi₄-gi₄/ 'Nanše answers the ruler' (Gudea Cyl. A v 11); *ga-am₃-mi-ib₂-gu-ul* /ga-mm-i-b-gu-ul/ 'I want to destroy it' (Šulgi hymn D 219).
- d. It marks the inanimate gender of any element referred to by a case prefix, and precedes this case prefix.

3.10.4. Many texts from the Ur III period exhibit a particularly intriguing feature: the frequent absence of pre-stem /-n-/ in verbal forms in which the conjugation prefix /ba-/ occurs. However, in the Gudea corpus, this pronominal prefix is well attested with the conjugation prefix /ba-/. The phenomenon can be observed more clearly when one compares different versions of the same composition from different periods. The *Curse of Akkade* is one of the few Old Babylonian compositions attested in several Ur III witnesses. In this composition, there are many instances in which the Ur III fragments do not have this pre-stem /-n-/, whereas their Old Babylonian parallels do. It has been assumed that the initial sequence *ba-an-* was used to mark passive forms in Ur III (Krecher 1979: 1–3; Cooper 1983: 42–43). However, forms with and without this preradical /-n-/ occur in apparently free distribution both in some Old Babylonian literary texts and in Ur III year names (see, for instance, Attinger 1993: 109). Nevertheless, in Ur III administrative texts the pronominal prefix /-n-/ is much less frequent than in Old Babylonian texts. Thus, the verbal form *šu ba-ti* ('he/she received') is much more frequent than *šu ba-an-ti* in Ur III documents. In contrast, *šu ba-an-ti* is extremely frequent in early Old Babylonian administrative texts from Isin, whereas *šu ba-ti* is rare. In Old Babylonian Sumerian literary texts, pre-stem /-b-/ seems more stable than /-n-/. Thus, perhaps a nasal assimilation took place and the writing of the nasal segment was not necessary in the presence of a nasal feature already in the vowel (see Gragg 1972: 208).⁴⁶ This nasalization could be better seen in the alternations between {-Vn-} and {-V-} in Ur III texts, such as, for instance, *ba-a-gi-in* and *ba-an-gi-in*, both meaning 'it has been approved' (see Heimpel 1974: 24). However, the question of the presence or lack of preradical /-n-/ may be just a phenomenon of the writing interface. In terms of typology of writing systems, the most commonly non-represented consonants are nasals, especially when the nasal is in an 'unreleased position' (a nasal coda followed by the onset of the next syllable), as is the case of pre-stem /-n-/. In the case of Sumerian, what seems to be the historical evolution of orthographic conventions supports the view that the lack of pre-stem /-n-/ is a purely graphic phenomenon.

46. On the absence of preradical /-b-/, see Attinger 1996.

3.11. Pronominal suffixes

3.11.1. Conventionally, one can distinguish between two series of pronominal suffixes, which exhibit different elements only in the 3rd sg. and pl. persons (Thomsen 1984: §§294–301):

	series A	series B
1st sg.	/-en/	/-en/
2nd sg.	/-en/	/-en/
3rd sg.	/-Ø/	/-e/
1st pl.	/-enden/	/-enden/
2nd pl.	/-enzen/	/-enzen/
3rd pl.	/-eš/	/-ene/

The suffixes in series A mark the subject of the intransitive verb and the object of the transitive verb, i.e., they refer to the absolutive case. The /-eš/ suffix, together with the /-n-/ prefix, can mark the 3rd pl. ergative subject (see 3.10.2). All the suffixes in series A can be attached to the enclitic copula: *lugal-me-en* ‘I am (the) king’ or ‘you are (the) king’. Moreover, in the plural, transitive *ḥamṭu* forms take both pronominal prefixes (as in the singular) along with A-series suffixes in order to agree with the plural agent (see 3.10); for example, in the 2nd pl. subjects of transitive *ḥamṭu* forms, /-enzen/ occurs together with the prefix /-e-/ (see 3.10.1). The suffix /-(en)zen/ is attached to the imperative to mark 2nd pl. person (see 3.16): *sum-mu-na-ab-ze₂-en* /sum-mu-na-b-enzen/ ‘give (pl.) it to him’ (*Nanna-Suen’s Journey to Nippur* 320–21). The suffixes in series B mark the subject of the transitive *marû* forms. The spelling of these suffixes deserves some attention:

- The initial /e/ of the suffixes may undergo vowel harmony, and sometimes changes to /u/ before verbal roots that contain /u/ (*šub*, *gub*, *sum*, etc.).
- The initial /e/ is contracted when it follows a verbal stem ending in a vowel.
- The suffix /-en/ can be written *-en₃* and *-en₆* in Ur III texts (in which it is very rare); after a vowel, it can be written *-an* and *-un*; in the Gudea corpus, it is written *-e* or {-Ce}, and appears as *-en* only when it is followed by other suffixes, such as the nominalizer *-a* or the copula *-am₃*.
- /-enden/ is written *-e(n)n-de₃-en* or *-de₃-en*.
- /-enzen/ is normally spelled *-en-ze₂-en*, but before the nominalizing suffix /-a/, sometimes it is written *-(en)-za-na*.
- /-eš/ is written *-eš₂* in early texts, but *-eš* later on; after verbs with /u/, it undergoes vowel harmony and it is written *-uš*.
- The 3rd sg. suffix /-e/ is normally omitted after stems ending in a vowel; when it appears, it is written *-e* or {-Ce}; with vowel harmony, it can be written {-Cu}.
- /-ene/ is written *-e-ne*, {-Ce-ne}, or *-ne*, the latter when following stems ending in a vowel.

3.11.2. The suffix *-en₃* seems to agree with the 3rd sg. person in a few instances. This *-en₃* perhaps should be read *-e_x* when it is a pronominal suffix (Attinger 1993: 144 n. 148). However, the reading should be *-en₃* in the enclitic copula *-me-en₃*, a spelling that can be a diagnostic of Ur III orthography (see Klein 1981: 29, 32 n. 165). In some Ur III legal documents, *-NI* (probably to be read *-e_y*) occurs instead of *-e* (see Attinger 1993: 144, 222, 226–27).

3.12. Pronominal agreement

3.12.1. The pronominal prefixes normally agree with the subject of transitive *ḥamṭu* forms (ergative) and the suffixes with the subject of intransitive *ḥamṭu*, as well as the subject of both transitive and intransitive *marû* forms—the latter showing an accusative alignment. Furthermore, the pronominal prefixes can also specify that a dimensional prefix (terminative, comitative, etc.) refers to a 2nd or 3rd person, as well as the gender (*/-n-/* for animate and */-b-/* for inanimate) of the verbal object or any syntactical argument marked with a verbal prefix. Moreover, in order to agree with plurals, the pronominal prefixes can occur together with plural pronominal suffixes. The pronominal suffixes are identical for all verbal forms with the exception of the 3rd person singular and plural. A 3rd person in the absolutive case shows concord with */-Ø/* in the singular and with */-eš/* in the plural. An ergative with a *marû* form shows concord with */-e/* in the singular and */-ene/* in the plural. The absolutive case of a transitive *marû* construction (i.e., the accusative case with *marû*) does not agree with the pronominal suffixes but with the pronominal prefixes */-b-/* and */-n-/*.

3.12.2. Wilcke (1988: 9 n. 37; 1990: 481 n. 62) has summarized the agreement patterns in terms of agent (subject of a transitive verb, in the ergative case), patient (patient argument of a transitive verb in the accusative pattern of *marû* forms, i.e., the direct object, marked with the absolutive case), and absolutive (subject of an intransitive verb and direct object in the ergative pattern *ḥamṭu* forms):

	pronom. prefix	STEM	pronom. suffix
(a) intransitive		-marû/ḥamṭu-	-ABSOLUTIVE
(b) transitive <i>ḥamṭu</i>	-AGENT-	-ḥamṭu-	-ABSOLUTIVE
(c) transitive <i>marû</i>	-PATIENT-	-marû-	-AGENT

The agreement markers of (a) and (b) are the same, whereas those of (c) correspond only in part to those of (a) and (b). This agreement system entails rather hypothetical 1st and 2nd sg. as well as 3rd pl. pronominal prefixes, which mark the patient in (c), that is, the direct object with transitive verbs in *marû*. These pronominal prefixes could be slightly different from the pronominal prefixes seen above (3.10):

1st and 2nd sg.	<i>/-en-/</i> ² (see Attinger 1985)
3rd sg.	<i>/-n-/</i> for animates, <i>/-b-/</i> for inanimates
1st pl. and 2nd pl.	? (see Attinger 1993: 227)
3rd pl.	<i>/-(e)ne-/</i> (see Krecher 1985: 151 n. 38; Attinger 1993: 227)

These patient markers from the transitive *marû* would also appear in the cohortative and in passive forms (see Wilcke 1990: 481 n. 62; Attinger 1993: 226–27).⁴⁷ In view of this marking system and the current understanding of Sumerian grammar, Wilcke argues that one should not yet attempt to define typologically the *Präsens-Futur* (i.e., the *marû* forms). This is also because the cohortative—which strongly resembles pattern (c) in the marking of the patient of the transitive verb—leaves mostly unmarked the agent in the singular of transitive and intransitive verbal forms. Nevertheless, this can be explained more simply by saying that the cohortative does not follow an ergative agreement, but an accusative one (see 3.5.6).⁴⁸

3.12.3. In terms of alignment, the distribution of pronominal elements in verbs can be outlined as follows:

	transitive <i>ḥamṭu</i>	intransitive <i>ḥamṭu</i>	transitive <i>marû</i>	intransitive <i>marû</i>
agent (tr.) & subject (intr.)	prefix (+ suffix in pl.)	suffix (3rd -Ø/-eš)	suffix (3rd -e/-ene)	suffix (3rd -Ø/-eš)
object	suffix (3rd -Ø/-eš)		prefix	

In regard to the choice of prefixes versus suffixes, the *ḥamṭu* forms follow an ergative pattern, whereas the *marû* ones show accusativity. Nonetheless, the pronominal suffixes used with the *marû* forms do point to an opposition between ergative subject and absolutive subject for the 3rd singular and plural (i.e., they have ultimately an ergative alignment).

3.13. Voice

3.13.1. The occurrence of the animate pronominal prefix /-n-/ with the conjugation prefix /ba-/ (*ba-an-*) has been regarded as a mark of passive voice. However, the use of /ba- + -n-/ to mark passivity is rather infrequent, and such an interpretation originates in the fact that a similar combination with the inanimate pronominal prefix (/ba- + -b-/) does mark passive forms in many instances (see Wilcke 1988: 9 n. 37; 1990: 488–98; Attinger 1993: 196–97). Furthermore, the category of passive voice is quite fuzzy in Sumerian (see, for instance, Oberhuber 1982; Zólyomi 1996b: 41). Steiner (1976; 1979; 1990: 151–57) has talked about the ‘intransitive-passival conception of the verb’ (*intransitiv-passivische Verbalauffassung*) in Sumerian and other ancient Near Eastern languages (Hurrian, Urartian, Elamite). According to Steiner, verbal stems in these languages would have a primary intransitive or “passival” meaning, which is manifested by the use of intransitive verbs as the passive of transitive verbs and by the use of transitive verbs as the

47. On *marû*-like marking of the object in the cohortative, see Yoshikawa 1991: 501–4.

48. Wilcke points out that the 1st person sg. and pl. absolutive markers in (a) and (b) correspond to those for the agent in (c), but this absolutive regularly uses the so-called *ḥamṭu* basis (see Kienast 1980b: 58–66). Further complication is added by the occurrence of pre-stem /-n-/ and /-b-/ denoting the agent, regardless of the *ḥamṭu*/*marû* opposition in some verbs, which Yoshikawa (1992b) calls ‘agentive oriented verbs’ (*gu*₇ ‘to eat;’ *de*₂ ‘to pour;’ *ku*₄ ‘to enter’).

factive of intransitive verbs. Steiner's approach is quite problematic, as can be seen in the examples he uses:

- *zid-da guba₃-na pirig i₃-na₂-na₂* 'at his right and left sides lions were lying', analyzed as an intransitive verb used as passive; but this would imply that stative or adjectival verbs are passive or pseudo-passive, when *na₂* 'to lie' is an active-intransitive verb (like 'to sit down', 'to live', 'to fall', etc.)
- *ensi₂-ke₄ bara₃ i₃-gul-gul* 'the prince destroyed the shrines', analyzed as a transitive verb used as the factitive of an intransitive; but *gul* 'to destroy' is simply a transitive verb

In spite of the pitfalls and shortcomings exhibited by Steiner's approach, it does underscore the ill-defined status of passive voice in Sumerian. The conjugation prefix /ba-/ is used with some one-participant verbs with non-agentive subjects, but this is neither consistent nor a truly passive marking, since /ba-/ is focused for locus, and not for person (as is the case of /mu-/), and this is the function that is behind its passive or passive-like use (see 3.6; see Thomsen 1984: §343; Attinger 1993: 195–97). The problems posed by passivity as a grammatical category in Sumerian have to be placed in a wider context, that of syntactic alignment. In Sumerian, passive constructions are not consistently marked and this may be the result, in part, of the limited role played by the basic syntactic functions (Agent, Subject, and Object) in *inter-clausal* syntax (pivotlessness), which would undermine the very definition of these functions also in *intra-clausal* syntax (see 1.3).

3.13.2. The *antipassive* voice is characterized by constructions with transitive verbs but without an ergative, that is, it is the diathesis of a transitive non-ergative construction (see Givón 1984: 161–67; 1990: 624–28; 2001: 2.168–73; Cooreman 1994).⁴⁹ In Sumerian there are a few instances of antipassive constructions (Johnson 2000). Probably the best examples of antipassive are some attestations of absolutive subjects with transitive verbs, in which the agent (albeit unmarked as such) is highly topicalized (Attinger 1993: 216). Likewise, it has been argued that the pronominal pre-

49. A typical antipassive tends to show two features: (a) the agent (normally in the ergative case) appears in the absolutive; and (b) the patient or direct object (normally in the absolutive) is marked as an indirect object (dative) or any other oblique case. The lack of clear examples of the second diagnostic has been seen as evidence that Sumerian probably had no antipassive construction (Michałowski 1980: 100–101; Attinger 1993: 152–53). However, what characterizes the antipassive is a decrease in valency, which results in an intransitive-looking verb. Moreover, antipassives in some languages exhibit more than those two typical features. For instance, some Australian languages, such as Dyirbal, add a third feature: the verb itself takes an antipassive derivation suffix (Dixon 1994: 13). By contrast, in other languages, an antipassive construction is simply one in which both the agent and the patient are in the absolutive case, as in Basque (Hualde and Ortiz de Urbina 2003: 431). Thus, the defining feature of an antipassive lies in the marking of the agent as a patient—an expected ergative surfacing in the absolutive case—which may secondarily trigger the deletion of the patient or its marking (or reintroduction) as something else (e.g., an indirect object).

fix /-n-/ would be a marker of *reflexive* voice: *ba-an-mu*₄ ‘I got dressed’ ‘I dressed myself’. This would be linked to the sporadic attestations of /-n-/ with intransitive verbal (especially verbs of motion) forms, indicating middle voice: *e-ne ba-an-tuš* ‘he sat in the dust’ (Geller 1998). Nonetheless, this reflexivity and antipassivization are not easy to define in Sumerian, especially because most Sumerian verbs can be transitivized and detransitivized, as well as turned into causative forms, through agreement (but see Huber 1996). Furthermore, a clear distinction should be made between reflexivity as a kind of middle voice (the agent and the object are the same, ‘I dress myself’) and the middle voice as a general category in which the agent is simply the beneficiary of the action (‘I got myself a gun’). Although the reflexive hypothesis remains unsubstantiated (Attinger 1998), the most likely marker of reflexivity is the prefix /imma-/ or /-mm-/ , since this is a geminated (and emphasized) form of the prefix /mu-/ , which topicalizes person and, by extension, the agent.

3.13.3. The two parameters that define voice are the agent (A) and the patient (P). The latter includes both the non-agentive subject (S) and the object (O). Voice can be so defined by the level of topicality assigned to the agent and the patient (see Givón 2001: 2.122–73). Since in Sumerian topicality is mostly marked with the so-called conjugation prefixes, verbal diathesis is most likely to be linked to the same morphemes. The Sumerian diathetic system would be as follows:

neutral	A = P	/i-/	(A and P have the same rank)
neutral	A = P	/al-/	(A and P have the same rank)
active	A > P	/mu-/	(A is topicalized)
inverse	P > A	/ba-/	(P is topicalized)
passive	P >> A	/ba-/	(P is highly topicalized)
antipassive	A >> P	? (/ba-/?)	(A is highly topicalized)
middle-reflexive	A = P	/imma-/	(A and P are the same)
middle	A = BEN	/imma-/	(A is the beneficiary)

3.14. The suffix /-ed/

The suffix /-ed/ can immediately follow the verbal stem and precede the pronominal suffix (see Edzard 1967; 2003a: 84, 132–37; Yoshikawa 1968a; Steiner 1981b; Thomsen 1984: §§252–59; Attinger 1993: 190–92). This suffix is never written {-ed}. Its /e/ is written almost always only after a consonant (very rarely after a vowel), and the /d/ is written only when followed by a vowel: *tar-re* /tar-ed/, *ag₂-e-de₃* /ag₂-ed-e/, *gi₄-gi₄-da* /gi₄-gi₄-ed-a/, etc. Some consider the /-e-/ in /-ed/ the marker of *marû* (see 3.1). This suffix is much more frequent in non-finite than in finite verbal constructions, with which it indicates future in diverse modalities. With non-finite verbal forms, it can be followed by the suffixes /-e/ (probably the locative-terminative, ‘to’), /-a/ (perhaps the locative), and the enclitic copula: *e₂ du₃-de₃ igi-zu u₃ dug₃-ga nu-ši-ku₄-ku₄* ‘in order to build (/du₃-(e)d-e/) the house you will not let sweet sleep enter your eyes’ (Gudea Cyl. A vi 11); *ur-sag e₂-a-na ku₄-ku₄-da-ni ud me₃-še₃ gu₃ ga₂-gar-am₃* ‘at entering (/ku₄-ku₄-

(e)d-a-ani/ = enter-enter-ED-LOC/NMLZ-his) his house, the warrior was a storm roaring towards battle' (Gudea Cyl. B v 4–5). The forms with /-ed-a/ can take a possessive suffix followed by what seems to be a case marker (probably the comitative /-da/, but frequently spelled *-de₃*): *ku₄-ku₄-da-mu-de₃* /ku₄-ku₄-ed-a-mu-da²/ 'when I was entering' (lit., 'with my entering'). This would imply that the /-a/ after /-ed/ could not be the locative case suffix. However, these sequences were probably grammaticalized very early and no native speaker would have done such an etymological parsing. With truly finite verbal forms (i.e., not followed by pronominal suffixes or the nominalizer), the suffix /-ed/ is infrequent: *e₂-mu lu₂ i₃-buru₃-de₃* 'someone could break (/i-buru₃-[e]d-e/) into my house' (Code of Lipit-Eštar, §11).⁵⁰ The usages of /-ed/ and its specific co-occurrence with the *marû* stem clearly point to a marker of imperfective aspect and essentially future tense: it refers to an event that has not yet taken place, or that is beginning or about to begin (inchoative and ingressive aspects), as well as to the obligatoriness or impossibility of a future event.

3.15. The enclitic particles /-eše/ and /-gišen/

The element /-eše/ is not properly a suffix, but an enclitic particle marking direct speech (Thomsen 1984: §§548–49; Edzard 2003a: 157–58). Thus, it is a quotative, a kind of particle (usually a clitic) found in many other languages, such as Akkadian *-mi*, Hittite *-wa/-war-*, or Sanskrit *īti*. It is always written *-e-še*. The enclitic particle /-gišen/ is very rare. It is spelled *-giš-en* or *-giš-še-en* and seems to indicate the irrealis (like Akkadian *-man*; see Falkenstein 1952; Thomsen 1984 §§551–52; Edzard 2003a: 158). There are other poorly attested particles that seem to occur mostly as clitics attached to verbal forms, normally as enclitics, but sometimes as proclitics, especially in lexical lists (Edzard 2003a: 158–60): /-na-an-na/ (*-na-an-na*) follows pronouns and non-finite verbal forms and means 'without'; /-šuba/ (*-šub-ba*) was perhaps a grammaticalized form of the verb *šub* ('to throw, leave') meaning 'apart from, aside'; /-ri/ (*-ri*) probably fulfilled an ablative function as an alternative to the ablative case ending /-ta/ with the meaning 'after'.

3.16. The imperative

The imperative exhibits a reverse order of verbal constituents: it begins with the stem, which is followed by all the prefixes; e.g., *sum-ma-ab* /sum-mu-a-b/ 'give (sg.) it to me'; *sum-ma-ab-ze₂-en* /sum-mu-a-b-zen/ 'give (pl.) it to me' (see Thomsen 1984: §§495–99; Attinger 1993: 298–99). This phe-

50. It is frequently assumed that this verb is actually /buru₃.d/ (/burut/ or /burt/), so this form would not contain the suffix /-ed/. The main argument is that *buru₃-a* is not attested; one only finds *buru₃-da*. However, there are reasons to think otherwise: (1) in bilinguals, *in-buru₃-de₃* is translated as *ipallaš* in contexts in which the Akkadian durative is inchoative, potential, or the like ('he is going to break into'); (2) finite and non-finite forms ending in *-buru₃-de₂* are far less frequent than forms in *-buru₃-e* (*ma-a-an-ni-buru₃-e*, *na-ab-bi-buru₃-e-en*, etc.); but if the verb were /buru₃.d/, one would expect the opposite; (3) forms in *-buru₃-de₂* and *-buru₃-da* frequently have variants with other verbs with /-ed/, or occur in a parallel sequence with a verb that has this same suffix, as in *Gilgamesh and Agga* (7, 13, 22): *pu₂ buru₃-da eš₂-la₂ til-til-le-da* 'to deepen the wells, to complete the ropes'.

nomenon is similar to the switch from proclisis to enclisis in the imperative in other languages; e.g., Spanish *me lo das* ('you give it to me') vs. *dámelo* ('give it to me'). In the imperative, the 2nd plural pronominal suffix seems to be just /-zen/ or /-nzen/, instead of /-enzen/. The verbal stem used in the imperative forms is *ḥamṭu* (both simple and reduplicated). The imperative follows an accusative agreement pattern (Michałowski 1980: 97): pronominal prefixes (such as /-b-/) mark the object and suffixes mark the subject of both transitive and intransitive verbs (see 3.12.3); e.g., *ge₂₆-nam-ma-an-ze₂-en* /ḡen-a-mm-a-nzen/ 'come (pl.) here' (*Dumuzi's dream* 140).⁵¹ The plural imperative presents a singular stem, even when the verb has a plural stem, such as *e* from *dug₄*: *dug₄-ga-na-ab-ze₂-en* /dug₄-na-b-(n)zen/ 'say (pl.) it to him'. The verbal chain is usually rather short. Many imperatives exhibit an /-a-/ element immediately after the verbal stem (*ge₂₆-nam-ma-an-ze₂-en* /ḡen-a-mm-a-nzen/). One may think that this could be a mere allomorph of /i-/ resulting from a phonetic shift triggered by the enclitic (post-tonic) position of the prefix. Nonetheless, this /-a-/ cannot be the prefix /a-/ replacing the prefix /i-/; nor can it be an allomorph of /i-/: neither /i-/ nor /a-/ could occur together with the prefix /mu-/ (see 3.6.6): *hul₂-hul₂-la-mu-un-da* /hul₂-hul₂-a-mu-n-da/ 'rejoice with him' (Inanna hymn E 17, 19). Yoshikawa believes (1979c) that this /-a-/ marks complete or perfective aspect.

3.17. The verb 'to be'

The verb *me* 'to be' has a basic essential meaning and does not usually indicate existence, for which *gal₂* ('to be there, to exist') is used: *pi-lu₅-da ud-bi-ta e-me-a* 'these were (/i-me-a[m]/) the conventions of old times' (Urukagina 4 vii 26–28). Nonetheless, there are some instances of *me* with an existential meaning: *ga₂-e/za-e al-me-en-na-ta* 'after I/you have existed (/al-me-en-a-ta/)' (*Edu₂ba* 2: 74, 76, 83; see Gragg 1968; Thomsen 1984: §§535–46; Attinger 1993: 312–13). The finite forms of the verb *me* are these:

1st sg.	/-me-en/	1st pl.	/-me-enden/
2nd sg.	/-me-en/	2nd pl.	/-me-enzen/
3rd sg.	/-me/	3rd pl.	/-me-eš/

It occurs more frequently in the form of an enclitic copula: *digir-ra-ni* ^d*šul-utul₁₂-am₆* 'his god is Šulutul' (Enmetena 26, 33–34); *ama-mu ze₂-me* 'you are (/ze₂-me-e(n)/) my mother' (Gudea Cyl. A iii 6). The 3rd sg. form is written *-am₆* (AN) before the Ur III period, but *-am₃* (A.AN) became the standard with Ur III. In Early Dynastic, Sargonic, and Gudea texts, *-me* stands for both /-me-en/ and /-me-eš/ (1st and 2nd plural forms are not attested in early texts). The enclitic copula suffixes are as follows:

51. The imperative of *gen* (/ḡen/) is written *GA₂-na-* = *ge₂₆-na-*. Moreover, the adverb *ga-na*, *ga-nam* 'well, truly', could be a frozen imperative from this verb (Falkenstein 1949: 227), and so perhaps it should be read *ge₂₀-na*, *ge₂₀-nam*. This, however, would be the only instance of such orthography, and this adverb is probably unrelated to the verb (Wilcke 1968: 204–5; Thomsen 1984: §153).

1st sg.	/-me-en/	1st pl.	/-me-enden/
2nd sg.	/-me-en/	2nd pl.	/-me-enzen/
3rd sg.	/-(a)-m/	3rd pl.	/-me-eš/

In descriptions and comparisons, the enclitic copula can sometimes occur instead of the equative suffix *-gin₇* (but never the other way around): *u₄-dam an-ur₂-ra dum-dam mu-ni-ib₂-za* ‘he howled like a storm at the horizon’ (Angim 74); but a later version of this composition has *u₄-gin₇* ‘like a storm’. In appositions and epithets, the enclitic copula occurs instead of the personal pronoun: *sipa-me e₂ mu-du₃* ‘I, the shepherd, built the house’ (Gudea Cyl. B. ii 5); without the apposition, it would be *ga₂-e e₂ mu-du₃* ‘I built the house’. Furthermore, the enclitic copula is attached to a finite verbal form in order to topicalize the verb itself or a syntactical argument with concord in the verbal form: *lugal-ni-ir u₄-de₃ maš-gi₆-ka gu₃-de₂-a en^dnin-gir₂-su-ra igi mu-ni-du₈-am₃* (Gudea Cyl. A i 17–18) ‘on that very day, Gudea (himself) saw his master, the lord Ningirsu, in a dream’.

4. The suffix /-a/

4.1. The nominalizer suffix /-a/ can be attached to both non-finite and finite verbal forms, and can be followed by case endings and pronouns. In most Sumerian grammars, the suffix /-a/ can be said to fulfill two different functions: a marker of subordination (like Akkadian *-u* or the German *Konjunktiv*), especially in relative clauses with or without an explicit antecedent; and a nominalizer that generates passive participles and other non-finite verbal forms. Thus, the general function of /-a/ has been regarded as a marker of subordination, but also as an aspectual morpheme (Attinger) and even a marker of determination (see Gragg 1973b; Thomsen 1984: §§482–93; Attinger 1993: 299–312; Krecher 1993b; Alster 2002: Edzard 2003a: 132–37, 150–55). However, all the functions marked with /-a/ can be subsumed under its basic role as nominalizer.

4.2. In its subjunctive or subordinating function, the suffix /-a/ occurs after the verb of a subordinate clause depending on *verba dicendi*, such as *dug₄* ‘to say’. This function, which generates substantive (nominal) subordinate clauses containing indirect speech is rather uncommon in Sumerian, probably because of the nature of the genres attested in our corpus: *ur-^dlama ensi₂-ke₄ e₂ ha-la-^dba-ba-ka in-na-sum-ma-a ur-id₂-da di-ta ba-tag₄-a uru-in-da-zal maškim-e nam-erim₂-bi in-kud* ‘Uru-indazal has sworn (/nam-erim₂ bi-ABS i-n-kud^r/) that Ur-Lama, the ruler, has given (*in-na-sum-ma-a* /*i-na-sum-a*/) the house to Hala-Baba and that the claim of Ur-idda has been dismissed (*ba-tag₄-a* /*ba-tag₄-a*/)’ (NG 106, 5–9), literally, ‘Uru-indazal has sworn *the-house-giving-by-Ur-Lama-the-ruler-to-Hala-Baba*, (and) *Ur-idda’s-claim-dismissing*’.

4.3. When the nominalized verbal form agrees with an explicit or implicit noun that has an antecedent in another sentence (frequently resumed by the relative-like *lu₂* ‘who’, ‘man’), it constitutes the equivalent to an English relative clause: *ensi₂ lu₂ e₂-ninnu in-du₃-a e₂ ^{uru}gir₂-su^{ki}-ka-ni mu-na-du₃* ‘the ruler that built the Eninnu (*lu₂ . . . in-du₃-a* /*i-du₃-a*/), built her

temple of Girsu'. In Sumerian, due to the explicit marking of a high number of grammatical functions, there is no obvious syntactical opposition between parataxis and true hypotaxis (the latter would correspond entirely to nominalized verbal forms), other than discrete markers of logical subordination (such as the modal prefix /he-/). For instance, the word order tends to be almost always Subject-Object-Verb in all sentences, including those with nominalized verbal forms in /-a/.

4.4. The suffix /-a/ can be attached to a verbal stem with no prefixes. If the suffix /-ed/ appears between the stem and /-a/, the stem is *marû*. If /-ed/ does not occur, the stem is *hamtu*. Nevertheless, as Attinger (1993: 200–201) observes, the opposition *hamtu/marû* seems neutralized when the forms with /-a/ are passive (*dug₄-ga* and *di-da*, both meaning 'said'). This phenomenon would be part of a tendency to neutralize the categories marked by *hamtu* and *marû*, which takes place in the passive voice (Wilcke 1988: 9; 1990: 497; Attinger 1993: 196). Functionally speaking, it is not substantially different from a participle in other languages, in that it is passive with transitive verbs (*inim dug₄-ga* /*inim dug₄-a*/ 'the spoken word') and active with intransitive verbs (*utu e₃-a* 'the rising sun'). On the agentive constructions of /-a/ with transitive verbs, see 2.4; on /-a/ with /-ed/, see 3.15.

5. Pronouns

5.1. The pronominal system follows an accusative alignment. Thus, the pronominal subjects of both transitive and intransitive verbs present the same marker, /-e/:

	1 sg.	2 sg.	3 sg.	3 pl.
subject	ga ₂ -e (me-e)	za-e (ze)	e-ne	e-ne-ne
dative	ga ₂ -a-ra (ma-a-ra)	za-a-ra	e-ne-ra	e-ne-ne-ra
terminative	ga ₂ (-a/e)-še ₃	za(-a/e)-še ₃	e-ne-še ₃	e-ne-ne-še ₃
comitative	ga ₂ (-a/e)-da	za(-a/e)-da	e-ne-da	e-ne-ne-da
equative	ga ₂ (-a/e)-gin ₇	za(-a/e)-gin ₇	e-ne-gin ₇	e-ne-ne-gin ₇

5.2. The possessive suffixes can be attached to NP's as well as to nominalized verbal forms:

1st sg.	-mu (= -gu ₁₀) 'my'	1st pl.	-me 'our'
2nd sg.	-zu 'your'	2nd pl.	-zu-ne-ne, -zu-e-ne-ne, -zu-ne 'your'
3rd sg. anim.	-a-ni 'his, her'	3rd pl.	-a-ne-ne 'their'
3rd sg. inan.	-bi 'its'		-bi 'their' (probably collective)

The two /-e/ suffixes (ergative and locative-terminative) disappear after the vowel of a possessive suffix: /-ani-e/ > -a-ni; /-bi-e/ > -bi. However, the sign NI can be read {ne₂} and BI as {be₂}. Therefore, some Sumerologists prefer the transcriptions -a-ne₂ and -be₂ when the case is clear.

5.3. The reflexive pronouns are formed with *ni₂* followed by a possessive suffix and a case suffix (zero for the subject):

1st sg.	<i>ni₂-mu</i> ‘myself’ (SBJ), <i>ni₂-ga₂</i> ‘by myself’ (LOC), etc.
2nd sg.	<i>ni₂-zu</i> ‘yourself’ (SBJ), <i>ni₂-za</i> ‘by yourself’ (LOC), etc.
3rd sg. anim.	<i>ni₂-te-a-ni</i> (or <i>ni₂</i>) ‘himself, herself’ (SBJ), <i>ni₂-te-na</i> ‘by himself/herself’ (LOC), etc.
3rd sg. inanim.	<i>ni₂-bi</i> ‘itself’ and collective (SBJ), <i>ni₂-ba</i> (or <i>ni₂-bi-a</i>) ‘by itself/themselves’ (LOC), etc.
3 pl.	<i>ni₂-te-a-ne-ne</i> ‘themselves’ (SBJ)

5.4. The most common and identifiable deictic demonstrative pronouns are *ne-en*, *ne(-e)* ‘this’, *ri* ‘that, yonder’, *-bi* ‘this, that’ (*lu₂-bi* ‘this/that man’, etc.). *-bi* can also be regarded a marker of determination in many contexts. The anaphoric pronoun is *ur₅* ‘the aforementioned, this, so much, he’. The interrogative pronouns are *a-ba* ‘who’ and *a-na* ‘what’. Although some analyze the spelling *a-ba-a* as /a-ba-e/ (ergative), versus *a-ba* /a-ba-Ø/ (Thomsen 1984: §113), the pronominal system does not exhibit ergative alignment and the spelling *a-ba-a* occurs in free distribution with *a-ba* (Attinger 1993: 151). The interrogative *a-ba* can occur with the enclitic copula (*a-ba-am₃* ‘who is it?’; *a-ba-me-en* ‘who are you?’) and sometimes with possessive suffixes (*a-ba-zu* ‘who like you . . . ?’). The interrogative *a-na* can take case endings (*a-na-aš*, *a-na-aš-am₃* ‘why?’; *a-na-gin₇*, *a-na-gin₇-nam* ‘how?’), the enclitic copula (*a-na-am₃* ‘what is it, why?’), and other suffixes. The indefinite pronoun is *na-me* (probably from /ana-me/ ‘what is it?’) ‘anything, anybody’ (on pronouns, see Thomsen 1984: §§90–138; Attinger 1993: 174–76).

6. Compound verbs

6.1. Sumerian has a number of compound verbs, that is, combinations of a verb and a direct object that become a syntactic, lexical, and semantic unit, such as *igi — bar* ‘to look at’ (*bar* ‘to open’ + *igi* ‘eye’); *ki — ag₂* ‘to love’ (*ag₂* ‘to measure’ + *ki* ‘place’). The second object of a compound verb is very frequently in the locative-terminative case: *nig₂-dug₃-ge al na-an-ga-am₃-mi-in-dug₄* ‘sweet things (/nig₂-dug₃-e/) she has indeed also wished (/na-nga-mm-LOC.TRM-n-dug₄/, *al — dug₄* ‘to desire, wish’)’ (Nanna-Suen hymn E 6). There are some double compound verbs (in which a whole compound verb becomes the nominal part of a compound verb) whose verbal member is an ‘auxiliary’ verb, such as *ak* (‘to do’) and *dug₄* (‘to say’): *šu tag — dug₄* from *šu — tag* ‘to cover, decorate’ (*šu* ‘hand’ + *tag* ‘to touch’; on compound verbs, see Thomsen 1984: §§528–34; Attinger 1993: 178–82; Krecher 1993a; Zólyomi 1996a; Karahashi 2000a, 2000b).

6.2. Attinger (1993: 179–82, 229–30) regarded Sumerian compound verbs as an instance of noun incorporation. Zólyomi (1996a: 99–104) and Huber (1996), however, pointed out the pitfalls of this approach. Nevertheless, Karahashi (2000b: 19–24; 2004: 100–103) has argued that Sumerian compound verbs fall under the category of lexical compounding (a basic type of noun incorporation), and Michałowski (2004: 39) prefers to consider them a kind of loose incorporation or noun stripping (the nominal element is stripped of morphological markers). It may be simpler to analyze the nominal element as a direct object that has become part of a

lexicalized sequence. Attinger's argument regarding the frequent absence of a pronominal prefix (/b-/) marking the direct object (the nominal element) with *marû* forms carries limited weight, since this happens also with many verbs that are not compound (Zóyomi 1996a: 99–100; Karahashi 2004: 99–100). Sumerian compound verbs do not really pertain to the realm of morphology but to that of syntax. Therefore, they probably should not be compared to noun incorporation in other languages, since this is primarily a morphological mechanism, sometimes productive (as in American Indian languages), sometimes unproductive and frozen in time, e.g., Latin *crēdere* 'to believe', from the root of Latin *cor* 'heart' and the Indo-European root **d^heh₁-* 'to place'. The special productivity of the verb *dug₄* 'to say' to generate compound verbs, might point to an originally more generic meaning for this verb (perhaps 'to do'). It is true that verbs meaning 'to say' generate compounds in other languages, such as Agaw (Cushitic) in Ethiopia (cf. Appleyard 2001). Nonetheless, in these languages the nominal element is frequently an ideophone, whereas in Sumerian *dug₄* takes a wide range of nominal elements in compounds. Moreover, Sumerian compound verbs with ideophones much more frequently have the verb *za*, a verb that does not occur on its own and that may have a generic meaning 'to make noise' (Civil 1966: 119; Black 2003).

7. Sumerian Dialects?

7.1. Sumerian is called *eme-gir₁₅* (perhaps 'native tongue') in native Sumerian sources (*šumeru* in Akkadian). In some Mesopotamian scholarly texts, a few lexical items and grammatical forms are identified as *eme-sal* (perhaps 'fine language'). The fact is that *eme-sal* is attested in compositions of very specific genres: cultic songs performed by the *gala* priests (Akkadian *kalû*); diverse texts containing the goddess Inanna's speech (myths, the Inanna-Dumuzi cycle, etc.); some laments over the destruction of cities, usually uttered by goddesses (those of Ur, Eridu, and Nippur); a lullaby supposedly addressed to a son of Shulgi by his mother; about 30 proverbs or short sayings from the rhetorical collections of Sumerian proverbs; a couple of women's work songs, including *The Song of the Millstone* (Civil 2006); the *Dialogues between Two Women*; and a few lexical lists. No text is entirely written in *eme-sal*, and there is no true consistency in its use, so an otherwise "main-dialect" text may present some scattered *eme-sal* words (see Krecher 1967; Diakonoff 1975; Thomsen 1984: §§559–66; Schretter 1990; Langenmayr 1992; Maul 1997; Rubio 2001; Edzard 2003a: 171–72).

7.2. It has been argued that *eme-sal* was a women's language (*Frauensprache*) or genderlect. Words in *eme-sal* are frequently uttered by goddesses and by *gala* priests. Moreover, the sign SAL can also be read *munus* 'woman'. Concerning the *gala* priests, they were lamentation priests or cultic performers who played the *balag* ('lyre' or 'harp') and recited funerary compositions at funerals, as well as diverse kinds of lamentations. They are thought to have been eunuchs or the like. The word *gala* is written UŠ.KU, the first sign having also the reading GIŠ₃ ('penis'), and the second

one, DUR₂ ('anus'), so perhaps there is some pun involved. Moreover, *gala* is homophonous with *gal₄-la* 'vulva'. However, in spite of all the references to their alleged effeminate character (especially in the Sumerian proverbs), many administrative texts mention *gala*-priests who had children, wives, and large families.

7.3. The *eme-sal* forms are characterized by phonetic substitutions: /z/ corresponds to standard Sumerian /d/ (*udu* 'sheep' *e-ze₂*); /b/ to /g/ (*dug₃* 'good' *ze₂-eb*), etc. Thus, Jacobsen (1988b: 131) argued that *eme-sal* was a style of Sumerian distinguished by a "shift of articulation forward in the mouth" (i.e., palatalization), rather than an actual dialect. However, *eme-sal* also presents some specific words that cannot be explained by phonetic correspondences (such as *gašan* 'lady', instead of *nin*). Likewise, some morphological substitutions seem to go beyond Jacobsen's proposal; e.g., the cohortative /ga-/ appears as *da-* or *du₅-* in *eme-sal*, *da-*, and the precativ /he-/ as *de₃-*, and *du₅-* (see 3.5.6). Thus, other alternatives have been put forward. It has been argued that *eme-sal* was a regional dialect (Bobrova and Militarev 1989). Moreover, it has also been regarded as a literary dialect based on the dialectal features of an area associated with these compositions (Bachvarova 1997), perhaps because its women were well-known performers. In fact, some of the typical *eme-sal* sound shifts may be found sporadically in some texts from 3rd-millennium Lagaš (Bauer 1998: 435–36). In sum, *eme-sal* may have originally stemmed from an actual regional dialect (diatopic variant) or from the particular dialect of a certain group (diastratic variant, genderlect, etc.). However, as we have it attested, in most cases, the occurrence of *eme-sal* forms may be determined mostly by the genre of the text, rather than by the gender of the fictional speaker or even the performer.

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