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Abstract.

This article was written to draw attention to some very remarkable linguistic documents: a set of five bilingual Sumerian-Akkadian paradigms dating to the early 2nd millennium BC, when Sumerian was dead or dying as a spoken language. These sophisticated texts, whose structure I shall here discuss in detail, are by far the earliest serious grammatical documents in existence. Regrettably, they are hardly known outside of Sumerological circles and deserve wider publicity. The relevance of this fascinating linguistic material to the history of science is comparable to, or even surpassing, that of the mathematical texts of the same period.

1 Introduction.

Modern science – more precisely: the modern presentation of science – follows the discursive style inspired by Greek role models such as Aristotle, Euclid and Ptolemy. Pre-Greek learning does not know this style; it relies on lists, examples and recipes. In early philosophy (“wisdom literature”) the principal vehicles of communication were proverbs and parables, in mathematics exemplary solutions of selected problems, and in astronomy the so-called procedure texts. In the Sumerian and Old Babylonian philology of the late third and early second millennium BC we have a pile of descriptive materials, such as lexical lists and collections of stock phrases.

In addition to such lists the tablet collection of the Oriental Institute of the University of Chicago contains a remarkable set of five closely knit Old Babylonian bilingual Sumerian-Akkadian verbal paradigms, totalling almost 900 lines. They date to the early second millennium BC, when Akkadian was the common spoken language and when Sumerian was dead or dying as a spoken language.

While lexical lists and collections of stock phrases demonstrate knowledge of the languages, these paradigms go beyond: they demonstrate active linguistic interest in the grammatical structure of the two languages. The paradigms come about as close to comparative linguistics as is possible within a non-discursive approach. In distinction to traditional comparative linguistics, which operates within a family of related languages, we have here a structural comparison of unrelated languages: Akkadian is an inflecting Semitic language, while Sumerian is an agglutinating language with no known ancient or modern relatives; for a conceivable relation to Uralic languages see Parpola (2016)^[20].

Four thousand years ago, an Akkadian speaking student, learning Sumerian grammar assisted by such bilingual paradigms, would have enjoyed the benefit of oral comments from his teacher. We are at a clear disadvantage. I shall try to present the difficult, somewhat recalcitrant material in a form digestible by a modern reader even if he is not familiar with Sumerian and Akkadian. But it is notoriously difficult for us to internalize any topic if it is originally presented in an unfamiliar non-discursive form.

It is not the place here to elaborate on Akkadian grammar. Two recent works, both now in the third edition, are von Soden’s standard reference GAG (1995)^[10] and Huehnergard (2011)^[15]. Both provide extensive verbal paradigms. For “true” Sumerian, that is for the language spoken and written in the later part of the 3rd millennium BC, see the grammars by Thomsen (1984)^[23], Edzard (2003)^[7] and Jagersma (2010)^[16]; these are primarily based on written documents from that period. For peculiarities of Old Babylonian Sumerian see Zólyomi (2000)^[25] and the literature cited there, but it does not seem to yield more than what the grammatical texts can tell us about the thinking of the OB grammarians.

2 The texts.

The paradigms relevant for the present study are published in MSL IV (1956)^[18] as OBG T VI-X. Thorkild Jacobsen began his Introduction to MSL IV with the words:

The Chicago grammatical texts published in this volume as Old Bab[ylonian] Grammatical texts nos. VI-X constitute without question the most important single group of sources both for the history of grammatical studies generally and for our understanding of Sumerian grammar specifically so far known.

These five texts are preserved in the tablet collection of the Oriental Institute of the University of Chicago and form a closely knit group. They date from the Old Babylonian period but are of unknown provenience. They are of relevance not only for Sumerian, but also for Akkadian grammar. Thus, in his study of the irregular Akkadian verb *uzuzzum* Arno Poebel (1939: 75-196)^[21] had made extensive use of them.

They throw a sharp spotlight on a narrowly focused aspect of Sumerian grammar: verbal morphology. Their concern is not entirely accidental: the analysis of verbal structure is regarded as the most difficult and controversial part also of modern Sumerian grammatical study. Closely related material can be found in the Ur Excavation Texts UET 7, which in particular offer another recension of OBG T VII, and in a unilingual OB paradigm (N3513+N3592) from Nippur. All these texts have been treated extensively by Black (1991)^[2], and more recently by Huber (2007)^[12], (2008)^[13], (2018)^[14]. My last-mentioned monograph contains the full text of the above paradigms, together with analyses and English translations. Regrettably, both the edition MSL IV and Black had refrained from offering such translations, making it difficult for non-Assyriologists to access these important texts.

On the tablets, the paradigms are arranged in parallel columns, with Sumerian forms on the left and corresponding Akkadian ones on the right. The paradigms are subdivided into paragraphs, that is, into groups of a few consecutive lines of text, separated by a horizontal dividing line. The internal structure of these paragraphs is based on Akkadian conjugation and cases. Most paragraphs have three lines, in the order: 3rd, 1st, 2nd person subject. With non-indicative forms, the order is reversed: imperative(2nd), volitive(1st), precativ(3rd).

My treatment focuses on the Oriental Institute texts OBG T VI-X, but of course it also pays attention to the incompletely preserved recension of OBG T VII from Ur, which covers about two thirds of that paradigm. It goes beyond this limited corpus only in Section 10, where I draw from the closely related unilingual Old Babylonian Nippur text N3513+N3592, supplemented by a few snippets from OBG T III. My self-contained approach necessitated paying close attention to the design underlying the paradigms, and it revealed an astonishing amount of systematic, sophisticated grammatical information the Old Babylonian scholars had packed both into the systematic grids, as well as into their complementation by inserts.

It is remarkable that the paradigms seem to put special emphasis on precisely those aspects that still are controversial in modern Sumerian grammars. This emphasis concerns in particular the so-called conjugation prefixes (see Section 8.2). Apparently, they were regarded as difficult 4000 years ago. Were these issues controversial already then?

Three of the paradigms (OBGT VI, VII and X) exhibit strictly organized grid structures, the other two are somewhat less disciplined. It would be a gross oversimplification to consider either the Sumerian or the Akkadian column of these paradigms as a translation of the other. The relationship is more complicated, and it is necessary to treat the two columns as a composite whole. It is clear from

OBT VI (see Section 8.1) that the grids are constructed on the basis of the Akkadian two-case dative-accusative system (the genitive occurs exclusively in nominal phrases), not on the much richer Sumerian system. Thus, both the Sumerian and the Akkadian forms appear to be filled into an Akkadian-based template. This would seem to imply that the translation is from Akkadian to Sumerian. However, the grids are supplemented by occasional inserts, highlighting features that did not fit into the straitjacket of an Akkadian-based grid. For such inserts the translation would appear to go in the opposite direction.

As a rule it is not easy to surmise what motivated the OB grammarians to add a particular insert, and the inserts may be quite tricky to interpret. To complicate matters even further, the inserts often resort (or have to resort?) to unusual constructions on either the Sumerian or the Akkadian side – so that Sumerologists sometimes have been tempted to discard them as “errors of a careless scribe”. Despite these difficulties I hope that most of my interpretations are correct, but of course I cannot guarantee it.

3 Goals of this paper.

To avoid potential misunderstandings I should emphasize that the focus of this paper is not on the Sumerian language flourishing in the third millennium BC, but on its streamlined grammatical understanding developed by ancient scholars at a time when it was dying as a spoken language. We are primarily concerned with the Old Babylonians' linguistic methods, namely with their use of bilingual paradigms supplemented by inserts, rather than with the objects they described by these methods, namely the languages and their grammar. Specifically, the present paper focuses on the structure of the paradigmatic grids, and is striving to improve our understanding of the inserts that complement those grids. But in order to discern the achievements and limitations of those methods, it will be necessary to dig fairly deep into details of the grammatical structure of the languages involved and of the Old Babylonian grammarians' understanding of Sumerian verbal morpho-syntax.

I have made a considerable effort to extract the grammatical structure, *as it was understood by the Babylonians*, from these texts alone. Thereby, I have hoped to steer clear of unwarranted modern preconceptions, of whose dangerously misleading influence I had become aware during my early work with Babylonian mathematics. Otto Neugebauer in his *Mathematische Keilschrift-Texte* (1935)^[19] quite appropriately had described the sophisticated mathematics behind those texts in modern algebraic terminology, but this had led to the implicit but mistaken impression that the Babylonians had thought in modern algebraic categories throughout. Modern terminology had helped us to understand the mathematical content of the ancient texts. But it does not help us to understand the thinking of the Old Babylonian mathematicians. For that it is necessary to read and disentangle the original texts. As a young student I had been one of the first to recognize an instance of a text with a clear underlying geometric argumentation (Huber 1955)^[11]. A few years later, when I was assisting van der Waerden writing his book *Anfänge der Astronomie* (1965)^[24], through an inside approach I had managed to disentangle the stenographic notation and the structure of the Late Babylonian eclipse reports.

Now, much later, I was tempted to try once more an inside approach to the case of the sophisticated grammatical texts, in the hope of getting some insight into the thinking of the ancient scholars. Methodologically, the initial steps of this analysis relied on mechanically matching Akkadian grammatical features with Sumerian graphemes, and these were then followed by efforts to identify and interpret mismatches and exceptions. Linguists may criticize my description of linguistic matters as simplistic and naïve, and perhaps as irritatingly unprofessional (I am not a linguist). But I think this is the price we have to pay if we are to stay close to the presumed thinking of our Old Babylonian predecessors rather than to inculcate modernisms into our interpretations.

In order to give an impression both of the depths and of the limitations of a carefully designed paradigmatic approach I shall discuss selected extracts from the paradigms. To assist the modern reader I have complemented the quoted passages by indicating the grammatical structure of the Akkadian forms and have added English translations. Ordinarily my translation stays close to the Sumerian version. The Sumerian and Akkadian forms as a rule are carefully matched, but the former sometimes offer more details by resolving Akkadian ambiguities. I have added selected comments on the supposed Sumerian morphology (as far as that morphology could be derived from the paradigms), but have refrained from adding systematic interlinear glosses, since these might distract the intended focus from the methods (the paradigmatic approach) to the object (the language).

The closer one looks, the more astonishing it is into what details a sophisticated non-discursive paradigmatic approach can advance, despite the intrinsic limitations caused by the structural differences between Sumerian and Akkadian. The systematic thinking of the Old Babylonian linguists and the sophisticated construction underlying the paradigms are worthy of our admiration.

3.1 A note for non-Assyriologists on cuneiform spelling.

This note applies only to the spelling conventions used in the paradigms under consideration. One should be aware that cuneiform writing was in use for well over 2000 years, and that there were historical developments and historical spellings just as in modern languages. I have adjusted the transliterations of MSL IV (1956)^[18] to current fashions but have eschewed typographically awkward characters, such as \hat{g} for a nasalized g. How closely the transliterations approximate the pronunciation preferred by the OB grammarians of course is an open question. I was more reluctant than Black to emend the texts, but have corrected some improper restorations proposed in MSL IV. In this paper, as a rule I do not mark signs as restored when those restorations in view of the grid are certain. If not so, square brackets indicate restored signs, and square half-brackets enclose damaged signs whose remains could be read with high confidence,

The Akkadian side of the paradigms uses syllabic spellings. There are vowel signs for a, e, i and u. With regard to consonant-vowel combinations there are syllabic signs for CV and VC, and a very incomplete set for CVC. The latter ones equivalently can be written CV-VC. Such a system clearly has problems with consonant clusters, a problem particularly severe on the Sumerian side. The coverage of the vowel e is incomplete, and then signs with i are substituted. In final positions some consonants, in particular g, k and q, are not distinguished in writing. There are homophonous signs which in modern transliteration are distinguished by numerical subscripts. But there are also some signs that have several, entirely different multiple meanings. Though, at a given time and place, usually only one is in common use. I should mention that for the purposes of the present paper I tend to prefer connected transcription of Akkadian words to transliteration (*šuknam* to *šu-uk-nam*).

The Sumerian side of the paradigms also uses syllabic spellings, except for the verbal bases, which usually are written logographically. For example, the sign DU (originally the picture of a foot), which has the common syllabic meaning du, in the paradigms is used logographically both for the present tense base /du/ of the verb “to go”, and for its preterite tense base /gen/. The distinction must be inferred from the context and from occasional phonetic complements.

In a few cases a verbal base is written phonetically, for example the Oriental Institute recension of OBGT VII in a few instances writes phonetically ga_2 -nam- in places where the Ur recension has the morphological gen-am₃-, see the remark at the end of Section 6. Here the differentiation between ga and ga_2 goes beyond homophony. The g of gen appears to be nasalized in these paradigms, compare the remark on in-gen in Section 5.3. Hence ga_2 apparently stands for a nasalized $\hat{g}a$, differentiating it from the ga used in the next line and confirming what we know from “true” Sumerian. The grammatical complements are written phonetically. For that the Sumerian side appears to use a syllabary slightly different from the Akkadian one. This may be due to historical heritage, but also to slightly different pronunciations (e.g. between the nominally homophonous signs ga and ga_2).

4 The place of the paradigms in the OB schools.

How should we classify these bilingual paradigms? Should we regard them as learned speculations of an ancient scholar, or did they also have a place in the Old Babylonian school system? The available evidence points toward the second alternative, but we do not know what role they might have played in the schools and at which level they might have been used in teaching. The inserts mentioned in Section 2 differ between the two recensions of OBGT VII, and also between the otherwise identically structured grids of OBGT VI and X. I surmise that they had been added to the grids by teachers to assist them with a discussion of Sumerian and Akkadian grammatical subtleties, and therefore I am inclined to designate them as “didactic”. In my opinion the fact that such texts shared common grid structures, but seem to come from different places and were used with variable supplements, suggests that the texts went beyond mere learned speculation of an individual scholar, but that they were used in teaching on an advanced “graduate” level at more than one place.

An external reference to these paradigms linking them to schools is contained in an Old Babylonian letter to the *ummiānum* (“scholar”, “teacher”) whose author writes (in Akkadian) that he will go to the school and read and correct a tablet, which by its first word is identified as the paradigm we shall discuss in the next section; see Huber (2018: 9)^[14].

A persuasive argument that the paradigms were used in teaching is furnished by the last 27 lines of OBGT IX, appended there after the regular part of the paradigm (which covers the two-part verb $sa_2 \dots du_{11} = kašādum =$ to reach). The appendage is unrelated and gives non-indicative forms of 9 different verbs, in the usual order (imperative, volitive, precative). Black (1991: 12)^[2] writes: “It is impossible not to feel that the selection of verbs used here, especially $be_5 [= tešûm$ “to shit”] and $dur_2 [= šarātum$ “to fart”], reflects a schoolboyish humour on the part of the compiler.”

An impression of the style of Old Babylonian language teaching is given by the unusual text BM 54764, originally published by Miguel Civil in 1998 under the title “Bilingual Teaching”, here cited from Civil (2017: 605-611)^[4]. Civil describes it as a “rare glimpse into the didactic methods of the Old Babylonian schools”. It is a dialogue in which one person, presumably a teacher, asks another, presumably a pupil, to translate from Akkadian to Sumerian, and vice versa. All of the text is in Sumerian, with the exception of the italicized lines 5’-10’, which are in Akkadian. These lines contain imperatives, referring to the making of tablets. The text is fragmentary, square brackets indicate gaps in the text, dots ... correspond to untranslated words, and round parentheses contain comments of the modern translator.

Teacher: 2’-3’ I want to ask you [...] in Akkadian, [say] it in Sumerian!

Pupil: 4’ Ask!

Teacher: 5’-10’ “[quick], come here, take the clay, knead it, flatten it, [mix(?) it], roll it (like a ball), make it thick, make (the tablet). ... bring me the ...-clay, cut it!”

11’ [... (now)] say it in Sumerian!

Pupil: 12’ I will say it to you!

13’-20’ “[qu]ick, [come here], take the clay, knead it, flatten it, [mix(?) it], roll it (like a ball), make it thick, make (the tablet), ... hurry, ... bring me [the ...-clay], [cut it]!”

Teacher: 21’ [...] beautifully said!

22’ I want to ask you [...] in Sumerian, say it in Akkadian:

Pupil: 23’ Ask!

(break)

5 OBGT VII: An intransitive verb.

I begin the discussion with the largest text OBGT VII, which on 318 lines treats an intransitive verb: Sumerian *gen/du*, Akkadian *alākum* = “to go”. For a photograph of this text see Huber (2018)^[14]. Its grid is very systematically organized and gives a good view of intransitive verbal morpho-syntax. Its coverage is quite comprehensive, except that it omits causative and negative constructions.

There are some interesting inserts. One points out that Sumerian – in distinction to Akkadian – permits stative constructions of non-resultative verbs like “to go”. I conjecture that the intent of this insert is to draw attention to a peculiarity of Akkadian. Furthermore, the regular grid of this paradigm shows that in the view of the OB grammarians – in distinction to that of their modern colleagues – the Sumerian ventive *m* is to be kept syntactically separate from the *m* of the 1st person pronouns. An insert confirms that view by going beyond and emphasizing that the ventive is *not* implied by the *m* of the 1st person pronouns and is *not* used when the motion is *away* from a 1st person.

5.1 The first 30 lines of OBGT VII.

Table 1 should give an impression of the layout of such a paradigm. It is quoted here from the Ur recension, the first four paragraphs of the Oriental Institute version are broken off. The text of the tablet is highlighted. Already this small excerpt of 30 lines illustrates several relevant points. I believe that already working in a superficial fashion with the original texts will let you gain an intuitive feeling of the Old Babylonian paradigmatic approach, and it will give a better impression of the likely thoughts of the ancient authors than any secondary modern narrative. Therefore I invite the modern reader to make an effort to disentangle the grammatical content of Table 1 on his or her own before reading further on.

OBGT VII. Non-indicative forms: imperative, volitive, precative				Akk. structure	
§1	1	gen-am ₃	<i>al-kam</i>	come!	– G V NI
	2	ga-am ₃ -gen	<i>lu-ul-li-kam</i>	may I come!	
	3	ḥe ₂ -em-du	<i>li-il-li-kam</i>	may he come!	
§2	4	gen-am ₃ -še	<i>al-ka-aš-šum</i>	come to him!	3D G V NI
	5	ga-am ₃ -ši-gen	<i>lu-ul-li-ka-aš-šum</i>	may I come to him!	
	6	ḥe ₂ -em-ši-du	<i>li-li-ka-aš-šum</i>	may he come to him!	
§3	7	gen-am ₃ -mu-še	<i>al-kam a-na še-ri-ya</i>	come to me!	1D G V NI 2D 2D
	8	ga-mu-e-ši-gen	<i>lu-ul-li-ka-ak-kum</i>	may I come to you!	
	9	ḥe ₂ -mu-e-ši-du	<i>li-li-ka-kum</i>	may he come to you!	
§4	10	gen-am ₃ -ma	<i>at-la-kam</i>	come away!	– Gt V NI
	11	ga-am ₃ -ma-gen	<i>lu-ut-ta-al-kam</i>	may I come away!	
	12	ḥe ₂ -em-ma-du	<i>li-it-ta-al-kam</i>	may he come away!	
§5	13	gen-am ₃ -ma-še	<i>at-la-ka-aš-šum</i>	come away to him!	3D Gt V NI
	14	ga-am ₃ -ma-ši-gen	<i>lu-ut-ta-al-ka-aš-šum</i>	may I come away to him!	
	15	ḥe ₂ -em-ma-ši-du	<i>li-it-ta-al-ka-aš-šum</i>	may he come away to him!	
§6	16	gen-am ₃ -ma-mu-še	<i>at-la-kam a-na še-ri-ya</i>	come away to me!	1D Gt V NI 2D 2D
	17	ga-am ₃ -mu-e-ši-gen	<i>lu-ut-ta-al-ka-ak-kum</i>	may I come away to you!	
	18	ḥe ₂ -em-mu-e-ši-du	<i>li-it-ta-al-ka-ak-kum</i>	may he come away to you!	
§7	19	gen-ni	<i>a-lik</i>	go!	– G – NI
	20	ga-gen	<i>lu-ul-lik</i>	may I go!	
	21	ḥe ₂ «-en»-du	<i>li-il-lik</i>	may he go!	
§8	22	gen-en-ši	<i>a-lik-šum</i>	go to him!	3D G – NI
	23	ga-en-ši-gen	<i>lu-ul-lik-šum</i>	may I go to him!	
	24	ḥe ₂ -en-ši-du	<i>li-lik-šum</i>	may he go to him!	
§9	25	gen-ba	<i>at-la-ak</i>	go away!	– Gt – NI
	26	ga-ba-gen	<i>lu-ut-ta-la-ak</i>	may I go away!	
	27	ḥa-ba-du	<i>li-it-ta-la-ak</i>	may he go away!	
§10	28	gen-ba-ši	<i>at-la-ak-šum</i>	go away to him!	3D Gt – NI
	29	ga-ba-ši-gen	<i>lu-ut-ta-la-ak-šum</i>	may I go away to him!	
	30	ḥa-ba-ši-du	<i>li-it-ta-la-ak-šum</i>	may he go away to him!	

Table 1. The first ten paragraphs of OBGT VII (taken from the Ur recension, UET 7, 100). They cover Non-Indicative forms (NI): imperative, volitive, precative. An analysis of the Akkadian structure is given on the right: Person and case of the object, Akkadian stem (G or Gt), ventive or non-ventive. Line 21 contains a scribal error, the expected ḥe₂-du is given in the parallel texts. I use hyphens to connect transliterated cuneiform signs when they form part of a word.

The verbal root of Akkadian verbs usually consists of three consonants. However, *alākum* is a so-called weak verb, whose first consonant ^ʾ of the three-consonant root ^ʾ*lk* has become invisible. The consonants carry the basic meaning of the verb, to be modified by vowels, prefixes, infixes and suffixes.

Both languages possess a so-called ventive construction, in Akkadian involving the elements /am/ (sg.) and /nim/ (pl.), and in Sumerian the marker /m/, all expressing a direction towards “me”, “here”. Thus, in Table 1 the ventive gen-am₃ = *al-kam* = “come!” of §1 (literally: “go here!”) corresponds to the non-ventive gen-ni = *a-lik* = “go!” of §7.

In §2 and §8 a 3rd person indirect object is added to the ventive and non-ventive constructions of §1 and §7. The Akkadian side suffixes the dative pronoun *šum*, in §2 assimilating the *m* of the ventive to *š*. The Sumerian side adds the compound element /n/-/ši/, consisting of the 3rd person pronoun /n/ and the terminative case marker /ši/; the latter sometimes is written /še/. Thus the morphology of line 4 is /gen/-/m/-/n/-/ši/, where /gen/ is the verbal base “to go”, /m/ the ventive marker, /n/ the 3rd person pronoun, and /ši/ the terminative case marker. In §2 /n/ is elided, but note that in §8 it is spelled out. See the discussion of spelling problems in Section 6. In §3 and §6 in similar fashion 1st and 2nd person pronouns are added.

Paragraphs §1-3 and §7-8 use the Akkadian “Grundstamm” G, while the other paragraphs employ the derived Gt-stem, which inserts a -t- (or -ta-) infix after the first of the three radical consonants; according to GAG (1995: §92)^[10] it generally expresses a change of direction. The precise meaning is lexical and depends on the particular verbal root, see Huehnergard (2011: 393)^[15]. The paragraphs §9 and §10 show that in non-ventive constructions it is matched by the Sumerian prefix /ba/; we shall denote it as “separative” and schematically render it by “away” in our translations. A comparison of ventive and non-ventive forms shows that the ventive /m/ and the separative /ba/ in §4 to §6 combine to /m/-/ba/ > /mma/.

Note the vowel harmony in lines 27 and 30: before /ba/ the precativ particle *he*₂ becomes *ha*.

Incidentally, we note that the OI recension, which is preserved from §5 on, in §5 and §6 offers a phonetically written *ga*₂-nam- instead of the logographic gen-am₃-. Interestingly, it distinguishes the sign *ga*₂ from the *ga*- used in the immediately following lines. It appears that the *g* of *ga*₂ and *gen* is nasalized, see the remark on the spelling in-gen in Section 5.3.

5.2 Ventive, first person pronoun and first person dative.

A comparison of the first six imperatives (lines 1, 4, 7, 10, 13 and 16) shows that the Sumerian form in line 16 should be analyzed as /gen/-/m/-/ba/-/mu/-/ši/, where /gen/ is the verbal base “to go”, /m/ the ventive, /ba/ the separative, /mu/ the 1st person pronoun and /ši/ the terminative case “to”. Interestingly, by using a double *m* in line 7, and through separating the ventive and the 1st person pronoun by the (assimilated) separative /ba/ in line 16, the Old Babylonian grammarians in this paradigm clearly treat various usages of *m*-morphemes very systematically and syntactically different from modern Sumerian grammars, see in particular also the insert VII§71 treated in Section 5.5. The modern grammars do not separate the ventive-*m* from the *m* of the 1st person pronouns /mu/ (sg.) and /me/ (pl.), nor from that of the conjugation prefix /mu/. The paradigms in Section 8.2, rather pointedly, demonstrate non-ventive use of the conjugation prefix /mu/, but see Section 11.2 for an

example of ventive use of /mu/. By the way, the other Ur text 101 offers a telescoped form of line 16, duplicating that of line 7, and also the OI recension in line 16 apparently has a telescoped form. I believe that here we may have a contrast between theoretical and spoken versions.

In principle the above-mentioned differences between ancient and modern grammars may be due to errors (on either side), or more likely to differences between the underlying language material – the modern grammars are based on a diachronic and synchronic hodgepodge of unilingual written documents, the ancient paradigms perhaps on a scholarly oral tradition. But possible concerns about artificiality and normative over-systematization of the grammar under scrutiny do not really matter for us, who are not concerned with the language spoken by native Sumerians, but with the theoretical edifice built by the ancient grammarians.

Furthermore, the Akkadian language does not distinguish between the 1st person singular dative and the ventive, while the Sumerian language apparently does. In OBG VII the OB grammarian distinguishes the Akkadian datives of lines 7 and 16 from the mere ventive forms in lines 1 and 10 by emphasizing the 1st person goal by adding “*ana šēriya*” (literally: “to my back”); “*ana šēri*” is a standard idiom for “towards”. But this device is used only with imperatives. With analogous indicative (i.e. present or preterite tense) constructions the line with the 1st person terminative is omitted and only the ventive version is shown.

In OBG VI a closely related problem surfaces even more pointedly. There, a pair of paragraphs contain Sumerian and Akkadian non-ventive and ventive 1st and 2nd person singular dative constructions. The three lines of the *non-ventive* VI§13 offer: gar-ma-ra = *šuknam* = “place (it) for me!”, ga-ra-ab-gar = (*luškukku*) = “may I place it for you!”, ḥa-ra-ab-gar = (*liškukku*) = “may he place it for you!”. The parallel *ventive* paragraph VI§15 omits the line with the 1st person dative object (where the Akkadian column would have to contain an impossible dative + ventive combination) and offers only the ventive versions of the second and third lines: ga-mu-ra-ab-gar = *luškunakkum* = “may I place it for you here!”, ḥu-mu-ra-ab-gar = (*liškunakkum*) = “may he place it for you here!”.

Parenthesized forms such as the above (*luškukku*) correspond to blanks in the Akkadian column (where often only the first entry of each paragraph is spelled out); in most cases they can be filled in easily and unambiguously. The texts studied here are well-preserved. Thanks to the grids in most cases damaged signs can be restored unambiguously, and then I shall not indicate the presence of damage.

5.3 Present and preterite tense, and plural forms.

I do not intend to go into too many details of this intransitive paradigm. But here is a summary account of present and preterite forms, as well as of plural forms. All the peculiar grammatical features mentioned here are easy to elicit from the paradigms.

OBGT VII. Present and preterite forms				Akk. structure
§12	i ₃ -du	<i>illak</i>	he goes	– G – Ps
	i ₃ -du-un	<i>allak</i>	I go	
	i ₃ -du-un	<i>tallak</i>	you go	
§45	i ₃ -su ₈ -be ₂ -eš	<i>illaku</i>	they go	– G – Ps
	i ₃ -su ₈ -be ₂ -en-de ₃ -en	<i>nillak</i>	we go	
	i ₃ -su ₈ -be ₂ -en-ze ₂ -en	<i>tallaka</i>	you(pl.) go	
§24	i ₃ -gen	<i>illik</i>	he went	– G – Pt
	i ₃ -gen-en	<i>allik</i>	I went	
	i ₃ -gen-en	<i>tallik</i>	you went	
§57	i ₃ -re ₇ -eš	<i>illiku</i>	they went	– G – Pt
	i ₃ -re ₇ -en-de ₃ -en	<i>nillik</i>	we went	
	i ₃ -re ₇ -en-ze ₂ -en	<i>tallika</i>	you(pl.) went	

The suffixed 3rd, 1st and 2nd person subject pronouns thus are in the singular /ø/, /en/ and /en/, in the plural /eš/, /enden/ and /enzen/. As a rule, the suffixed 1st and 2nd person singular are not distinguished in writing, apart from one text (OBGT V 2ff.) which writes en for the 1st and e-en for the 2nd person. This may indicate a phonetic distinction. But as this is the only paradigm doing so, the differentiation may very well be synthetic.

In present and preterite tense forms a so-called conjugation prefix is mandatory. See Section 8.2 for these prefixes. Here /i₃/ is used as a kind of default conjugation prefix. The above Sumerian spellings were taken from the Ur recension. They agree with that of the OI recension, with the exception of §24, where OI spells in-gen. The n here is excessive and suggests a nasalized pronunciation ġen of gen (as is known from “true” Sumerian). The logogram for “to go (pl.)” is sub₂, but since its final b stays silent except before vowels, it customarily is transcribed su₈. In §45 the presence of a final b is explicitly indicated by the phonetic complement be₂.

Note the use of different verbal bases: du(sg.) and su₈(pl.) in the present tense, gen(sg.) and re₇(pl.) in the preterite.

Indirect objects are inserted between the conjugation prefix and the base. Here is an example:

§77	am ₃ -me-su ₈ -be ₂ -eš	<i>illakunim niaši</i>	they come to us	1D G V Ps
	am ₃ -me-su ₈ -be ₂ -en-ze ₂ -en	<i>tallakanim niaši</i>	you(pl.) come to us	1D
	mu-e-ne-su ₈ -be ₂ -eš	<i>illakunim kunuši</i>	they come to you(pl.)	2D
	mu-e-ne-su ₈ -be ₂ -en-de ₃ -en	<i>nillakam kunuši</i>	we come to you(pl.)	2D

The verbal forms begin with a conjugation prefix, here the ventive /m/, followed by the plural pronouns /me/ of the 1st person or /ene/ of the 2nd person, followed by an (elided) locative case marker /a/. If the ventive /m/ is followed by a consonant, as in the first two lines, it is spelled with a prosthetic vowel, here a-.

Non-indicative plural forms are construed in a similar fashion:

§95	gen-ne-a-en-ze ₂ -en ga-ne-re ₇ -en-de ₃ -en ḥe ₂ -ne-su ₈ -be ₂ -eš	<i>alka šunuši</i> <i>i nillik šunuši</i> <i>lilliku šunuši</i>	go(pl.) to them! may we go to them! may they go to them!	3D G – NI
-----	----------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------	----------------------------------------------------------------	-----------

In the imperative the verbal base /gen/ is put in front of the indirect object (here the 3rd person plural /ne/), and the locative case marker /a/ is spelled out (only in the imperative). In the volitive and precativ the prefixes /ga/ and /ḥe₂/ are put in front. Curiously three different verbal bases /gen/, /re₇/ and /sub₂/ = /su₈/ are used in the plural, and two in the singular: /gen/, /gen/ and /du/, see Table 1.

5.4 Grid structure.

As a rule grammatical subtleties become visible in a paradigm only when the grid is complete, or at least reasonably so. With a total of 292 lines the regular part of OBG VII systematically covers all combinations: singular and plural subjects (all three persons), no object and dative objects (all three persons, singular and plural), ventive and non-ventive, separative and non-separative constructions, and among the aspects non-indicative (imperative, volitive, precative), present and preterite tense. For details see Huber (2018)^[14]. It is complete subject to the following three restrictions: it omits semantically impossible self-references, it requires the ventive when the motion is toward a 1st or 2nd person, and it avoids 1st person singular objects, except with imperatives.

These restrictions, a not very systematic ordering of the paragraphs, and the presence of some inserts (see Section 5.5), at first made it rather difficult to recognize the strict grid structure underlying this paradigm. The Oriental Institute and the Ur recensions up to §10 follow the same ordering principles, but then diverge somewhat. Apart from a few minor damages the Oriental Institute version is complete, while the preserved part of the Ur version ends at §69, with a catch line to a subsequent tablet.

The more systematic Ur ordering rules, which are strictly applied up to the end of the singular object section in §66, can be described as follows: The person of the subject is varied inside each single paragraph. Indicative forms are listed in the order 3rd, 1st, 2nd person subject, non-indicative (NI) forms in the opposite order: imperative(2nd), volitive(1st), precative(3rd). The person of the object is covered by triples of adjacent paragraphs, the first of which has no object, the second 3rd person objects, and the third 1st + 2nd person objects. A pair of such triples then covers G and Gt stems respectively, the next group is concerned with ventive and non-ventive, and so on, with ever larger groupings. The Akkadian structural indications in Table 1 show the effects of the beginning of this scheme. The largest groups are formed by the number of the objects: singular objects are dealt with in §1-66, plural objects in §67-104.

In other words, the grammatical topics are arranged according to a system that varies

- | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fastest: | - person of subject |
| then: | - person of object (no object, 3 rd person, 1 st + 2 nd person)
- Akkadian G, Gt stem (“go” vs. “go away”)
- ventive, non-ventive (“come” vs. “go”)
- tense or aspect (non-indicative, present, preterite)
- number of subject (singular, plural) |
| slowest: | - number of object (singular, plural) |

A straightforward computer program duplicating the ordering system of the Ur recension was used to generate the Akkadian-based abstract grid structure and then to translate it into synthetic Sumerian morphology. Apart from the different ordering of the paragraphs the latter agreed well with all 292 regular lines of the cuneiform text, see Huber (2018)^[14], Appendix B. Obvious differences were of the kind encountered as spelling differences between the Oriental Institute recension, the Ur recension and the morphology, see Section 6.

A comparison between the synthetic morphology and the cuneiform text is instructive. The treatment of the ventive /m/ is curious. If a word-initial morphological /m/ is followed by a vowel, a word-initial m- is written, both in the present and the preterite tense, as in

VII§21: mu-e-ši-du = *i-il-la-ka-ak-kum* = “he comes to you”,

VII§31: mu-e-ši-gen = *il-li-ka-ak-kum* = “he came to you”,

where /m/ is followed by the 2nd person pronoun /e/. By the way, the writing mu- with the vowel u here possibly suggests that the 2nd person pronoun originally was /*we/.

If /m/ is followed by a consonant, then a prosthetic vowel is added, a- in the present tense, i- in the preterite tense, as in

VII§16: am₃-du = *i-il-la-kam* = “he comes”,

VII§26: i-im-gen = *il-li-kam* = “he came”,

where /m/ is followed by the verbal base /du/ or /gen/, or in

VII§69: am₃-me-du = *i-il-la-kam ni-a-ši* = “he comes to us”,

VII§72: i-im-me-gen = *il-li-kam ni-a-ši* = “he came to us”,

where /m/ is followed by the 1st person plural pronoun /me/, or in

VII§18: am₃-ma-du-un = *at-tal₂-la-kam* = “I come away”,

VII§28: im-ma-gen-en = *at-tal₂-kam* = “I came away”,

where /m/ is followed by the separative /ba/.

Thus, the differentiation seems to be connected with the tense.

Another curiosity is that the Akkadian dative is mirrored by a Sumerian terminative /ši/ in the singular, but by a mostly elided locative /a/ in the plural (/a/ is spelled out only in imperative forms). This applies both in the Oriental Institute and in the Ur recension, but /ši/ is used throughout in the unilingual Nippur paradigm N3513+N3592. Thus we have VII§72: mu-e-ne-gen-en = *al-li-kam ku-nu-ši* = “I came to you(pl.)”, but i 11: mu-e-ne-ši-gen-en, where /ene/ is the 2nd person plural pronoun.

In the Akkadian columns of the paradigms the tenses – present and preterite – are straightforward. The encoding of their Sumerian counterparts is more complicated. For the moment it suffices to mention that in the intransitive OBG VII the tenses are distinguished by the verbal bases: du (sg.) and su₈ (pl.) for the present, gen (sg.) and re₇ (pl.) for the preterite. The transitive OBG VI uses only a single verbal base /gar/, but distinguishes tenses by the position of the subject marker (before or after the base), while OBG VIII and IX utilize both devices. For more on these issues see Sections 10 and 11.

5.5 Inserts.

In addition to the regular part of OBG T VII the Oriental Institute recension (but not the Ur recension) has 26 lines of inserts. These inserts are of particular interest since they throw light on subtle aspects not only of Sumerian but also of Akkadian grammar.

A six-paragraph insert (VII§11, 14, 15 singular, VII§44, 47, 48 plural) covers stative constructions, highlighting a difference between Sumerian and Akkadian, see the listing below. Before and after the regular present tense entries VII§12 *i₃-du* = *illak* = “he goes”, VII§13 *in-ši-du* = *illakšum* = “he goes to him” the insert adds Sumerian stative constructions characterized by the prefixes /al/ or /an/ (the latter sometimes also written /a/), but renders all of them by an Akkadian present tense. That these prefixes correspond to statives is demonstrated elsewhere in the paradigms. Section 8.1 has some good examples in VI§29-35, pairing the Sumerian prefix /an/ with Akkadian statives. Stative forms with /al/ are rare in the paradigms considered here (there is just one more instance in VIII§35), but there are several occurrences in OBG T III that are paired with Akkadian statives.

VII§11	al-du al-du-un al-du-un	<i>illak</i> <i>allak</i> <i>tallak</i>	he goes I go you go	– G – St
VII§12	<i>i₃-du</i> <i>i₃-du-un</i> <i>i₃-du-un</i>	<i>illak</i> <i>allak</i> <i>tallak</i>	he goes I go you go	– G – Ps
VII§13	in-ši-du in-ši-du-un in-ši-du-un	<i>illakšum</i> <i>allakšum</i> <i>tallakšum</i>	he goes to him I go to him you go to him	3D G – Ps
VII§14	an-du an-du-un an-du-un	<i>illak</i> <i>allak</i> <i>tallak</i>	he goes I go you go	– G – St
VII§15	an-ši-du an-ši-du-un an-ši- ^r du ¹ -un	<i>illakšum</i> <i>allakšum</i> <i>tallakšum</i>	he goes to him I go to him you go to him	3D G – St

What is the purpose of this insert? I believe that it is concerned not merely with Sumerian, but also specifically with a subtle aspect of Akkadian grammar, and that its purpose is to emphasize that the verb *alākum* does not admit a stative. Ordinarily, the Akkadian stative denotes the state resulting from the action of a transitive verb (“he/it is placed” resulting from “to place”). According to modern grammars the Akkadian stative is avoided with non-resultative verbs like “to go”. How should we then analyze the passage *alik harrāna* “he has been going the route” in the OB Gilgameš (Y, vi 24)? Von Soden in GAG^[10] §77f takes *alik* to be a rare stative of *alākum* and regards the passage as a poetic exception (as a transitive construction of *alākum* with the route being the accusative object?). Alternatively, *alik* might be the construct state of the verbal noun *alikum* (“a walker”, i.e. “a person who is or has been going”). The well-attested genitive construct *alik harrānim* denotes a traveler. If we accept the viewpoint of the OB grammarians (whose judgment of Akkadian grammar I hope we can trust), the Gilgameš passage might be a *constructio ad sensum*, with an improperly linked accusative object *harrāna*. — In another insert (VI§35, see Section 8.1) the OB grammarians take care to point out that transitive use of the stative of a transitive verb is possible in both languages. In Akkadian attested occurrences are rare, but note for example *a-kil-a-ti* = “you(fem.) are devouring” (AHw^[1] p. 26).

I suspect that this stative insert also may serve to point out that /an/ permits to use indirect objects, thus VII§13 in-ši-du, VII§15 an-ši-du, both translated as *illakšum* “he goes to him”, in distinction to /al/, which does not.

Another pair of inserts (VII§71 present tense, VII§74 preterite tense) illustrates that Sumerian does *not* use the ventive when the motion is *away from* a 1st or 2nd person:

VII§71	ba-me-du	<i>ittallak niāti</i>	he goes away from us	1A Gt – Ps
	ba-me-du-un	<i>tattallak niāti</i>	you go away from us	1A
	ba-e-ne-du	<i>ittallak kunūti</i>	he goes away from you(pl.)	2A
	ba-e-ne-du-un	<i>attallak kunūti</i>	I go away from you(pl.)	2A

These non-ventive inserts exceptionally use the Akkadian accusative and must be contrasted with the preceding regular ventive entries: VII§70: am₃-ma-me-du = *ittallakam niāši* = “he comes away to us”, am₃-mu-e-ne-du = *ittallakam kunūši* = “he comes away to you(pl.)”, with the Akkadian dative. It follows that here the views of the Old Babylonian grammarians pointedly disagree with those of their modern colleagues. The latter identify the m of the 1st person pronouns (sg. /mu/ and pl. /me/) with the ventive and therefore claim that 1st person automatically requires ventive, see Edzard (2003: 93)^[7]. Note that Black (1991: 17)^[2] had failed to understand the purpose of these inserts by stating: “In view of the otherwise exemplary regularity of this text, it seems highly likely that these forms are to be regarded as the errors of a careless scribe.”

6 Phonology and dialectal(?) variability.

The material accessible through the paradigms does not allow us to dig into the Sumerian phonology assumed by the Old Babylonians. The cuneiform writing system is deficient and in particular cannot express consonant clusters. In the transliterations of cuneiform texts the numerical subscripts in Akkadian serve to separate homophonous signs, but in Sumerian occasionally have a phonetic significance. There are a few sparse glimpses. In Sumerian the sign /ga₂/, in distinction to /ga/, apparently has a nasalized \hat{g} , see the remarks at the end of Section 3.1. The paradigms give the impression that the cuneiform sign /am₃/ sometimes is used to express a syllabic m (like the m in English “bottom”). The stative prefix alternatively is written /a/ or /an/; this may suggest nasalization, and therefore I normalize it as /ã/. Furthermore, the paradigms show that a morphological /bi₂/ after labial + vowel is dissimilated to /ni/, see Huber (2018: 44)^[14]. Incidentally, this dissimilation, which does not apply to /bi/, once had been claimed by Falkenstein (1949: 205-207)^[9], but later was negated by other Sumerologists.

There sometimes are substantial differences of spelling between the recensions. For example, the two recensions of VII§35 mirror the Akkadian *alkaniššum* = “come(pl.) to him!” with:

ga₂-a-mu-un-še-en-ze₂-en (Oriental Institute recension, line 99),

gen-am₃-ši-ze₂-en (Ur recension, UET 7,101, ii 42).

The grid and the Akkadian translation make it clear that the underlying common Sumerian morphology must be: /gen/-/m/-/n/-/ši/-/enzen/. Here, /gen/ is the verbal base “to go”, /m/ the ventive prefix, /n/ the 3rd person pronoun, /ši/ the terminative case marker, and /enzen/ the 2nd person plural pronoun. We cannot know for sure whether the differences are dialectal or merely in deficient spelling, or between theoretical (logographical/morphological) and phonetic writings. As a rule verbal bases are written logographically (so that phonetic variations mostly remain invisible), while for prefixes and suffixes syllabic writings are used. But for example, ga₂-a- appears to be the phonetic rendering of a morphological gen- when it precedes m, compare also the ga₂-nam- of the OI recension VII§5-6 with the gen-am₃- of the Ur recension (see Section 5.1, the g of gen is nasalized). Elision of /n/ is very common. The conclusion is that we can rarely distinguish whether a seemingly absent morpheme really is absent, or invisible because it has been assimilated or elided, or omitted because of inadequacies of the cuneiform representation.

7 Comparing widely different languages.

A side effect of the non-discursive, paradigmatic nature of the presentation is that only such structural features can be dealt with effectively as have approximate correspondences in both languages. It is interesting to see how the OB grammarians cope with this problem, and the subterfuges they use.

For example, Akkadian distinguishes two genders, male—female, and assigns grammatical gender to inanimate things somewhat arbitrarily. Sumerian has a different two-way split between characteristic themes /n/ and /b/, which variously, but inaccurately, is described by modern authors as animate—inanimate, or as human—non-human, or as person—non-person.

The paradigms approach this as follows. First, they simply omit female pronouns. Second, they use a surrogate split: definite—indefinite, choosing the 3rd person suffixed Akkadian pronoun (accusative *-šu*, dative *-šum*) for rendering /n/, and no pronoun for rendering /b/.

For example, in VI§2 and VI§4 we encounter the constructions

ga-bi₂-ib₂-gar = *lušaškin* = “let me make someone(bi₂) place it(ib₂)!”

ga-ni-ib₂-gar = *lušaškiššu* = “let me make him(ni) place it(ib₂)!”

exemplifying the pairing of the Sumerian b-theme with no Akkadian pronoun, and the n-theme with the Akkadian *-šu*.

In actual language use, this comes quite close to a person—non-person split: in an Akkadian sentence context a human personal pronoun almost inevitably is definite, since it refers to a person mentioned beforehand. Moreover, we note that in “true” Sumerian /b/ also can be used when referring to a group of human beings, especially when its members not are important as separate individuals. One should keep in mind that there is a fundamental difference between how Akkadian and Sumerian verbal pronouns are used in the sentence context. At least in principle, the Akkadian pronomial suffixes are true *pro-nouns*, used as substitutes for the nouns to which they refer, while the Sumerian pronomial prefixes pick up and recapitulate relationships expressed in the nominal part of the sentence.

In my English translations of these paradigms I approximate the split by rendering /n/ with “he”, “him”, and /b/ with “someone”, “it”, or the indefinite English “they”.

Curiously, in the paradigms the Akkadian accusative pronouns never are used for referring to a direct object. Instead they are used in a comitative or in an ablative sense (“with him” or “away from us”), or to refer to a subordinate subject (“make him do it”). It appears that in our paradigms the Akkadian personal pronouns by convention exclusively refer to actual persons, while all direct objects are assumed to be indefinite/impersonal, and as such are not referred to by Akkadian personal pronouns. The paradigms contain two somewhat questionable exceptions, where direct objects seem to refer to live persons. One occurs in the two-line exceptional paragraph VI§21: *gar-bi* = *šu-ku-un* = “place it(bi)”, *gar-ni* = (*šukuššu?*) = “place him(ni)”. The other occurs in VI§34, see Section 8.1.

Some features cannot be properly handled by bilingual paradigms. In our paradigms Akkadian forms can include at most two indirect objects, and the second one only if it refers to a subordinate subject, as in the complex example

VI§61: *im-ma-di-ni-ib₂-gar* = *uš-ta-aš-ki-na-aš-šu* = someone(b) caused him₁(ni) to put(gar) it(∅)
away(ba) here(m) with him₂(di)

On the Sumerian side these two prefixes here are encoded as a comitative object (n)di and a subordinate subject ni. “True” Sumerian can handle more prefixes, see Zólyomi (2017)^[26], Lesson 6,

but such constructions cannot possibly be exemplified in the paradigms. From left to right, the above Akkadian form encodes the subject (*u-*, 3rd person), causativity (*-š-*), separativity (*-ta-*), verbal stem (*-š-k-n-*), preterite (*-i-*), ventive (*-am-*) and accusative object (*-šu*, mirroring *him*₂). Note that the Akkadian form explicitly references only one of the two indirect objects – if the subordinate subject is the only indirect object, it is referenced by an accusative pronoun, otherwise it is implied.

As another unanswerable question we noticed in Section 5.4 that OBGT VII uses different prosthetic vowels before word-initial consonant clusters: *a-* in the present, *i-* in the preterite. The paradigms cannot answer whether the reason behind such a differentiation is morphological or phonetic.

8 OBGT VI and X: Transitive verbs.

OBGT VI treats the transitive Sumerian verb *gar* = Akkadian *šakānum* = “to place, to put”, while OBGT X is concerned with Sumerian *gub* = Akkadian *izuzzum*, *uzuzzum* = “to stand”. Curiously, also *gub* is treated like a transitive verb, apparently as “to stand with someone or something” = “to watch (to guard or to tend) someone or something”, see Poebel (1939: 192-196)^[21]. Actually, in two of its one line paragraphs (OBGT X §3 and §6) it uses the Akkadian verb *qu’ûm* = “to wait on” instead of *uzuzzum*. The regular grids of the two paradigms agree, except that OBGT X only gives the first line of each paragraph. But VI offers more inserts. A comparison of the two paradigms was the crucial ingredient that helped to recognize the common underlying grid structure and to separate the inserts from the grid.

The grid design common to these two tablets is reasonably comprehensive, except that its coverage of 1st and 2nd person objects is sparse and that it omits present tense constructions. Of particular interest is that it provides a clear account of the OB view of the co-called conjugation prefixes, a controversial topic in modern grammars of “true” Sumerian of the late 3rd millennium.

There are several intriguing inserts, and I readily admit that some of my interpretations are conjectural. One insert takes recourse to a highly unusual Akkadian construction in order to illustrate a Sumerian agent-less stative-passive. Of particular interest is one that is concerned with differentiating in Sumerian the sentence focus between expressions of the type “I had them place it” vs. “I had it placed by them”, a differentiation that is not available in Akkadian.

OBGT VI demonstrates that transitive constructions in the preterite tense use “infix” conjugation (that is, the Sumerian pronoun mirroring the Akkadian subject is placed in “infix” position immediately before the verbal base), while the intransitive constructions of OBGT VII use “suffix” conjugation in both the present and the preterite tense (that is, the subject pronoun is placed immediately after the base). Infixes in the proper sense, that is, affixes inserted into the base, do not exist in Sumerian, but following an old Sumerological convention, I shall use the term “infix” to denote the innermost prefix that immediately precedes the base.

The grid of OBGT VI does not cover present tense forms, but a few examples in OBGT VIII and IX illustrate that in the present tense suffix conjugation is used both by transitive and by intransitive constructions, while the preterite tense splits: infix conjugation for transitive, suffix conjugation for intransitive constructions. See Section 11.2 for a comparison of the two types of conjugation.

8.1 Grid structure and Akkadian cases.

OBGT VI is carefully designed, beginning with NI-forms (§1-28), stative forms (§29-35) and then a long section covering preterite tense forms without, or with 3rd person indirect objects (§36-71). The remaining parts are less well organized and may have been added as afterthoughts. They comprise a stative paragraph (§72), four preterite tense paragraphs with 2nd person objects (§73-76), and seven lines with present tense forms. There are more inserts in OBGT VI than in OBGT VII or OBGT X, and they generally are harder to interpret than those of OBGT VII.

The forms without, or with 3rd person indirect objects obey a strictly disciplined Akkadian-based organization. The paragraphs alternate between non-causative (G) and causative (Š) forms, and three such pairs, construed without objects (–), with accusative objects (3A) and with dative objects (3D) are grouped together in a six-tuplet. The paragraphs VI§13-20 with 1st and 2nd person indirect objects show a different arrangement, putting the paragraphs with dative objects first.

A few selected six-tuplets shall be shown here as illustrations. Mostly I shall quote only the first line of the paragraphs. First, some non-indicative paragraphs:

VI§1	gar-ra ga-gar ḥe ₂ -gar	<i>šukun</i> <i>luškun</i> <i>liškun</i>	place (it, or yourself?)! let me place (it, or myself?)! let him place (it, or himself?)!	NI G – –
VI§2	gar-bi ₂ -ib ₂	<i>šuškin</i>	make someone(bi ₂) place it(b)!	NI Š – –
VI§3	gar-ra-an-da	<i>šukuššu</i>	place (it, or yourself?) with him(n-da)!	NI G – 3A
VI§4	gar-ra-ni-ib ₂	<i>šuškiššu</i>	make him(ni) place it(b)!	NI Š – 3A
VI§5	gar-ra-na-ab	<i>šukuššum</i>	place it(b) for him(na)!	NI G – 3D
VI§6	gar-ra-na-ni-ib ₂ ga-na-ni-ib ₂ -gar ḥe ₂ -na-ni-ib ₂ -gar	<i>šuškiššum</i> <i>(lušaškiššum)</i> <i>(lišaškiššum)</i>	make him(ni) place it(b) for him(na)! let me make him(ni) place it(b) for him(na)! let him make him(ni) place it(b) for him(na)!	NI Š – 3D

Note that some of the above paragraphs explicitly mention a direct object /b/, while others (VI§1 and §3) do not. I must leave it open whether the latter constructions are meant to be reflexive. Note the position of the direct object: in imperative forms at the very end, in volitive and precativ forms immediately before the verbal base. Parenthesized forms correspond to blanks in the Akkadian column; in most cases they can be filled in easily and unambiguously.

The next six paragraphs VI§7-12 cover the corresponding ventive forms. Paragraphs VI§13-20 cover 1st and 2nd person indirect objects. The exceptional 2-line paragraph VI§21 has briefly been mentioned in Section 7, it may furnish a unique example of an animate 3rd person direct object. VI§22-28 are curious inserts whose discussion we shall postpone to Section 8.3.

As with the intransitive constructions discussed in Section 5.1, the imperative moves the verbal base in front. Particularly in volitive and precativ constructions the base can be preceded by long prefix chains. Here is an example with five prefixes:

VI§16	ga-mu-ra-ni-ib ₂ -gar	<i>lušaškinakkum</i>	let me make him place it here for you!	Ni Š V 2D
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Here /ga/ expresses the volitive “let me”, /m/ the ventive “here”, /ra/ the 2nd person dative, /ni/ the subordinate subject made to perform the action, and /b/ the direct object. Note that the direct object is placed immediately before the base.

The next section of the paradigm has stative paragraphs:

VI§29	an-gar an-gar-re-en an-gar-re-en	<i>šakin</i> (<i>šaknaku</i>) (<i>šaknata</i>)	he(ø) is placed I(en) am placed you(en) are placed	St G – –
VI§30	ba-ab-gar ba-ab-gar-re-en ba-ab-gar-re-en	<i>šuškun</i> (<i>šuškunaku</i>) (<i>šuškunata</i>)	he(ø) was placed by someone(b) I(en) was placed by someone(b) you(en) were placed by someone(b)	St Š – –
VI§31	an-da-gar	<i>šakiššu</i>	he(ø) is placed with(da) him(n)	St G – 3A
VI§32	ba-da-ab-gar	<i>šuškunšu</i>	he(ø) was placed with(da) him by someone(b)	St Š – 3A
VI§33	an-na-gar	<i>šakiššum</i>	he(ø) is placed for him(n)	St G – 3D
VI§34	an-na-ni-ib ₂ -gar an-na-ni-ib ₂ -gar-re-en an-na-ni-ib ₂ -gar-re-en	<i>šuškunšum</i> (<i>šuškunakšum</i>) (<i>šuškunassum</i>)	he was placed for him by someone I was placed for him by someone you were placed for him by someone	St Š – 3D

In distinction to the other groups the stative paragraphs (with the possible exception of §34) show intransitive constructions and correspondingly use Sumerian suffix conjugation.

In the anomalous VI§34 one would have expected the (intransitive) Sumerian form *ba-na-ab-gar* “he(ø) was placed for him(na) by someone(b)”, analogous to VI§32. The Sumerian forms presented in VI§34 have a participant too many for an intransitive construction (my above translations render the Akkadian). Therefore, I am under the impression that here a semantically equivalent Sumerian transitive(!) construction is used instead, literally: “someone(b) made him(ni) place him/me/you(ø/en/en) for him(na)”. While the person being placed is the primary logical subject as in VI§29-33, it appears to be construed here as a suffixed direct object, spelled out like the subject in the intransitive paragraphs (3rd person -ø, 1st and 2nd -en).

The systematic construction of the underlying grid with the Akkadian causative Š-stem has the slightly awkward effect that the stative-passive is bound to have an implied agent “by someone(b)”, as in VI§30: *ba-ab-gar*. The more natural agent-less stative-passive form *ba-gar* in fact occurs in the curious inserts VI§56-57, VI§64-65, which display highly unusual Akkadian Nt-stems and are omitted in the parallel OBG T X. They cover non-ventive and ventive constructions, without and with dative objects. They pair *ba-gar* with the Akkadian *ittaškan*:

VI§56	ba-gar Γ ba-gar ¹ -re-en Γ ba ¹ -gar-re-en	Γ <i>it-ta¹ -aš-ka-[an]</i> Γ <i>at-ta¹ -aš-ka-[an]</i> Γ <i>ta¹ -at-ta-aš-[ka-an]</i>	he/it was put away I was put away you were put away	Pt Nt – –
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Note that the Akkadian conjugation exceptionally is spelled out for all three persons. The Akkadian *ittaškan* is a clear Nt-form, combining the passive N-stem with the separative t-infix: “he/it was put away”. What is remarkable about these Nt-inserts is that the modern grammarians doubt the existence of the Nt-stem in standard Akkadian. I suspect that the ancient grammarians took recourse to these highly unusual forms in order to mirror a Sumerian agent-less stative-passive. To complete the insert, VI§57 adds a beneficiary in the form of a dative object (*ba-na-gar* = *ittaškanšum* = “he/it was put away for him”), and VI§64-65 has corresponding ventive versions (*im-ma-na-gar* = *ittaškanaššum* = “he/it was put away here for him”).

After the intransitive stative group with suffix conjugation the paradigm inserts a single stative paragraph (VI§35) with Sumerian infix conjugation. The other sections of OBG VI show that in Sumerian infix conjugation serves for preterite tense transitive constructions. This paragraph thus illustrates that in both languages statives can have transitive use.

VI§35	ab-gar a-gar e-gar	<i>ša-ki-in</i> (<i>šaknaku</i>) (<i>šaknata</i>)	someone(b) was placing (it) I(ø) was placing (it) you(a-e>e) were placing (it)	St G - -
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Properly speaking, the Akkadian stative is a conjugated noun (more precisely: a conjugated verbal adjective), and it disregards tense, while the Sumerian stative is a regularly conjugated verbal form.

The stative constructions are followed by preterite tense indicative paragraphs from VI§36 to VI§71. As examples I quote two selected six-tuplets. First t-stem forms (VI§50-55):

VI§50	ba-an-gar ba-gar ba-gar	<i>ištakan</i> (<i>aštakan</i>) (<i>taštakan</i>)	he(n) put it away I(ø) put it away you(e, elided) put it away	Pt Gt - -
VI§51	ba-ni-in-gar	<i>uštaškin</i>	he(n) made someone(bi ₂ >ni) put it away	Pt Št - -
VI§52	ba-da-an-gar	<i>ištakanšu</i>	he(n) put it away with him(da)	Pt Gt - 3A
VI§53	ba-di-ni-ib ₂ -gar ba-di-ni-gar ba-di-ni-gar	<i>uštaškinšu</i> (<i>uštaškinšu</i>) (<i>tuštaškinšu</i>)	someone(b) made him(ni) put it away with him(di) I(ø) made him(ni) put it away with him(di) you(e) made him(ni) put it away with him(di)	Pt Št - 3A
VI§54	ba-na-an-gar	<i>ištakanšum</i>	he(n) put it away for him(na)	Pt Gt - 3D
VI§55	ba-na-ni-in-gar	<i>uštaškinšum</i>	he(n) made him(ni) put it away for him(na)	Pt Št - 3D

Note that the subject (/n/ 3rd, /ø/ 1st, /e/ 2nd person) is placed in “infix” position, immediately before the verbal base. These pronouns only rarely are spelled out in full, for an example see VIII§19 in Section 11.2. Occasionally, especially in causative constructions with a Sumerian comitative, as in §53, an impersonal/indefinite 3rd person /b/ is used.

Then I quote a six-tuplet with ventive forms (VI§66-71):

VI§66	ma-an-gar ma-gar ma-gar	<i>iškunam</i> (<i>aškunam</i>) (<i>taškunam</i>)	he(n) put it here I(ø) put it here you(e, elided) put it here	Pt G V -
VI§67	ma-ni-in-gar	<i>ušaškinam</i>	he(n) made someone(bi ₂ >ni) put it here	Pt Š V -
VI§68	ma-da-an-gar	<i>iškunaššu</i>	he(n) put it with him(da) here	Pt G V 3A
VI§69	ma-di-ni-ib ₂ -gar	<i>ušaškinaššu</i>	someone(b) made him(ni) put it with him(di) here	Pt Š V 3A
VI§70	ma-ši-in-gar	<i>iškunaššum</i>	he(n) put it to him(ši) here	Pt G V 3D
VI§71	ma-ši-ni-in-gar	<i>ušaškinaššum</i>	he(n) made him(ni) put it to him(ši) here	Pt Š V 3D

Note that the Akkadian accusative sometimes is rendered by a Sumerian comitative (da, di), as in VI§52 and §53, sometimes by a subordinative (ni), as in VI§4, and the Akkadian dative sometimes by a Sumerian dative (na), as in VI§54, sometimes by a terminative (ši), as in VI§70. The Akkadian causative Š-stem is mirrored by a Sumerian subordinate subject, here either an impersonal /bi₂/ or a personal /ni/. If both an indirect object and a subordinate subject occur together, the former is put first and is referenced by the Akkadian suffixed pronoun, as in VI§6, §32, §34, §69 and §71. If there is no indirect object, the Akkadian -šu references the subordinate subject, as in VI§4. Note that in VI§68 to 71 the /n/ of the 3rd person indirect object is elided.

The fact that the paragraphs follow a strict Akkadian order (as mentioned before, they alternate between non-causative (G) and causative (Š) forms, and three such pairs, without objects (-), accusative objects (3A) and dative objects (3D) are grouped together), but are matched with variable Sumerian cases and forms, proves that the grid was constructed on the basis of Akkadian grammar.

8.2 Conjugation prefixes

The most remarkable feature of the two paradigms VI and X is that they provide a clear account of the Old Babylonian view of the so-called conjugation prefixes. These constitute the most controversial part of modern Sumerian grammars. No two Sumerologists appear to agree fully on their form, meaning, etymology and identity; the number of ranks that they occupy is equally disputed.

But the central part of the grid, ranging from VI§29-71, provides an admirably clear segmentation of these “conjugation prefixes”. This part of the grid treats the indicative forms in six separate groups of six paragraphs each.

From the point of view of the Akkadian grid structure each group covers the six possible combinations of non-causative and causative, no object, accusative object and dative object in regular alternation: G, Š, G-3A, Š-3A, G-3D, Š-3D, as illustrated above. The six groups themselves are concerned with, in this order:

	Akkadian:	Sumerian:	first line
§29-34:	Stative	prefixes /ã/, /ba/	an-gar = <i>šakin</i>
§36-43:	Preterite	prefix /i ₃ /	i ₃ -gar = <i>iškun</i>
§44-49:	Preterite	prefix /mu/	mu-un-gar = <i>iškun</i>
§50-55:	Preterite + t-stem	prefix /ba/	ba-an-gar = <i>ištakan</i>
§58-63:	Preterite + t-stem + ventive	prefix /mma/ (written im-ma-)	im-ma-an-gar = <i>ištaknam</i>
§66-71:	Preterite + ventive	prefix /m/ (written ma-)	ma-an-gar = <i>iškunam</i>

Apart from an insert inside of the /i₃-group (§37-39), there are some inserts between the groups (§35, §56-57, §64-65). The Sumerian conjugation of the preterite groups is of the infix type: it places the subject marker immediately before the base /gar/, while the stative group uses suffix conjugation: it places the marker immediately after it. For more on the two types of conjugation see Section 11.2.

Selections from two preterite groups (§50-55, §66-71) have been printed above, the other groups use different prefixes, but otherwise are basically the same.

This gives a total of nine conjugation prefixes in three triples:

stative (/ã/, (/al/), /ba/), main (/i₃/, /bi₂/, /mu/), directional (/m/, /ba/, /mma/).

In the stative triple, /ã/ indicates a straight stative and /ba/ a stative/passive, mirrored by an Akkadian causative; /al/ does not occur in OBGT VI (but in VII and VIII) and therefore has been put in parentheses.

In the main triple /bi₂/ occurs in a subtle insert inside the /i₃-group (§37-39), see Section 9.3.

The directional triple /m/, /ba/, /m-/ba/ > /mma/ has been discussed in Section 5. It is curious that the intransitive verb “to go” in the present tense uses the prefix /mma/ in the form amma-, whereas in the preterite tense imma- is used (like here). The paradigms cannot elucidate the reason behind the use of different prosthetic vowels with different tenses.

Seemingly the nine prefixes are considered to be mutually exclusive – at least they are treated as such in the paradigms. In the paradigms, NI-forms either use no conjugation prefix, or a directional one, while with indicative forms the use of a conjugation prefix appears to be mandatory.

An open question is whether the OB grammarians interpreted /ba/ as two separate, homophonous morphemes, one with passive and the other with separative function, or as a single morpheme encompassing both scopes. Conceivably, the curious inserts VI§56-57, VI§64-65 with the Nt-constructs, discussed in the preceding subsection, might be used as an argument in favor of the second interpretation, since they combine the passive function of the N-stem with the separative function of the t-infix. Therefore these inserts would bridge the gap between seemingly disjoint scopes. Note that the two uses of /ba/ have the common feature that they indicate a move out of the area of immediate control, either spatial or conceptual, roughly comparable to the English “off”.

The Akkadian renderings do not distinguish between the Sumerian stative prefixes /ã/ and /al/, nor between the main prefixes /i₃/, /bi₂/ and /mu/. Clearly, there must be some semantic differences lacking parallels in Akkadian, and there are differences in usage. Thus, in the paradigms /al/ apparently avoids indirect objects, so that in distinction to /ã/ it always is directly followed by the verbal base. Among the main prefixes /i₃/ is used both with transitive and intransitive constructions and serves as a kind of default prefix, while /mu/ apparently is restricted to transitive constructions. Therefore I am tempted to speculate that /mu/ may indicate a personal relation of the subject to the direct object, while /bi₂/ stresses that the relation is impersonal, and /i₃/ leaves the relation unspecified.

In OBGT VI and X the spellings mu- and ma- pointedly mirror non-ventive and ventive Akkadian forms: VI§44: mu-un-gar = *iškun* = “he placed it”, VI§66: ma-an-gar = *iškunam* = “he placed it here”. The situation with regard to the spelling of these prefixes is delicate. We posit the underlying morphemes as /mu/ and /m/ respectively, with and without an adjoining vowel, for the following reason. In our paradigms the morpheme /mu/ reflects an Akkadian non-ventive transitive construction and always is spelled mu-. On the other hand, the morpheme /m/ corresponds to an Akkadian ventive, but it admits a variety of Sumerian spellings: am, im, ma or mu, all containing an m; see Section 11.2 for an explicit example where it is spelled mu-. This suggests that the vowel is not part of the ventive morpheme. Possibly the vowel represents nuances that are lost in the Akkadian rendering – here we are reaching the limitations of an approach to grammar through bilingual paradigms.

8.3 On the Akkadian t-infix and the Sumerian /ba/.

The preterite tense section of the regular grid of OBGT VI includes both Akkadian Gt- and Št-stems and pairs them with the Sumerian /ba/ prefix (VI§50-55, VI§58-63). Curiously the NI-part (VI§1-21) of the regular grid does not offer Sumerian /ba/ prefixes nor Akkadian forms with a t-infix. Instead, the paradigm deals with them in inserts (VI§22-28, omitted in OBGT X).

In the preterite tense section of the grid the Sumerian /ba/ and the Akkadian Gt stem are paired. Thus we have in VI§50: ba-an-gar = *ištakan* = “he(n) put it away”, ba-gar = *aštakan* = “I put it away”, ba-gar = *taštakan* = “you put it away”. Standard Sumerian and Akkadian grammatical transformations allow us to derive from these forms the expected regular NI-forms: gar-ba = *šitkan* = “put away!”, ga-ba-gar = *luštakan* = “let me put away!”, ḥa-ba-gar = *lištakan* “let him put away!”.

In two inserts (which are omitted in OBGT X) the expected Sumerian and Akkadian regular NI-forms each occur, but they are paired differently. In the first insert VI§22-26 the Sumerian side throughout contains the expected /ba/-forms, but they are paired with the Akkadian passive N-stem, instead of with the expected Gt-stem:

VI§22	gar-ba ga-ba-gar ḥa-ba-gar	<i>na-aš-ki-in</i> (<i>lunnaškin</i>) (<i>linnaškin</i>)	keep (it) put!; or: stay put!, hide! let me be put!; or: let me hide! let him be put!; or: let him hide!	NI N - -
VI§23	gar-ba-na-ab ga-ba-na-gar ḥa-ba-na-gar	<i>na-aš-ki-in-šum</i> (<i>lunnaškinšum</i>) (<i>linnaškinšum</i>)	have it(b) hidden for him! let me hide for him! let him hide for him!	NI N - 3D
VI§24	gar- ^r am ₃ ¹ -ma [ga-a] _m 3-ma-gar [ḥe ₂ -e] _m 3-ma-gar	<i>na-aš-ki-nam</i> (<i>lunnaškinam</i>) (<i>linnaškinam</i>)	hide here! let me hide here! let him hide here!	NI N V -
VI§25	gar-am ₃ -ma-še-[eb ₂] ga-am ₃ -ma-še-eb ₂ -gar ḥe ₂ -em-ma-še-eb ₂ -gar	<i>na-aš-ki-na-aš-šu[m]</i> (<i>lunnaškinaššum</i>) (<i>linnaškinaššum</i>)	have it(b) hidden here near him! let me have it(b) hidden here near him! let him have it(b) hidden here near him!	NI N V 3D
VI§26	gar-am ₃ -ma-še ga-am ₃ -ma-še-gar ḥe ₂ -em-ma-še-gar	<i>na-aš-ki-na-aš-šu</i> (<i>lunnaškinaššu</i>) (<i>linnaškinaššu</i>)	hide here near him! let me hide here near him! let him hide here near him!	NI N V 3A

The unusual passive imperative *naškin* in the first line of VI§22 is awkward to translate. It leaves open whether the object or the subject suffers the action: “keep (it) put!” or “stay put!”. Since on the Sumerian side a direct object is not explicitly mentioned, both alternatives are possible. Given that the English “hide” has an equally ambiguous meaning, I shall (ab)use it here for my (very tentative) translations.

The next paragraph VI§23 adds a dative object: gar-ba-na-ab = *naškinšum* = “have it(b) put for him(na)!”, this time with an explicit direct object. VI§24-26 offer ventive constructions. The contrast between VI§25 and VI§26 is interesting: the first has an explicit impersonal direct object /b/, the second lacks it and presumably implies an intransitive self-reference to myself/yourself/himself. The accusative -*šu* in the first line of VI§26 may be a scribal error for -*šum*, but it also may be an accusative with comitative meaning “with him”.

In the second insert VI§27-28 the Akkadian side contains the expected Gt-forms, but they are paired with curious Sumerian constructions containing the exceptional marker /ta/ in addition to /ba/. Paragraph VI§28 adds a dative object /na/; note the order /na/-/ta/.

VI§27	gar-ba-ta ga-ba-ta-ga[r] r ḥa-ba-ta-gar ¹	ši-r it ¹ -[k]a-an (luštakan) (lištakan)	put away! let me put away! let him put away!	NI Gt - -
VI§28	gar-r ba-na ¹ -ta ga-ba-na-ta-gar ḥa-ba-na-ta-gar	ši-it-ka-[aš-š]um (luštakaššum) (lištakaššum)	put away for him(na)! let me put away for him! let him put away for him!	NI Gt - 3D

In our paradigms the Sumerian particle /ta/ occurs only once more, again paired with the Akkadian Gt-stem, in the imperative line of IX§11:

IX§11	sa ₂ r du ₁₁ ¹ -ga-ab-ta r sa ₂ ¹ ga-ba-ab- du ₁₁ sa ₂ ḥa-ba-ab-du ₁₁	ki-iš-ša-ad (luktašad) (liktašad)	reach away! let me reach away! let him reach away!	NI Gt - -
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Remarkably the Sumerian imperative here does not contain the prefix /ba/, while the volitive and precativative contain /ba/ but omit /ta/. According to Thomsen (1984: 230f.)^[23] /ta/ is an ablative case marker with inanimate/impersonal reference only. Thomsen writes: “gar with /ta/ means ‘to remove’, without /ta/ it means simply ‘to place’”. Thus /ta/ in VI§27-28 seems to emphasize the separative function of /ba/, and in the first line of IX§11 /ta/ actually is used instead of /ba/. This may be relevant with regard to Akkadian grammar, since some Assyriologists, in particular N.J.C. Kouwenberg, have doubted the separative function of the Akkadian t-infix and have argued for an inchoative function.

There are open questions: Why does the preterite section of the grid pair the Sumerian /ba/ prefix and the Akkadian t-infix in the expected fashion, while the NI section of the grid omits this pairing? And why there are inserts with NI-forms, in which the expected pairing is emphatically split in such a curious fashion?

Presumably the paradigms here take time out to elaborate on some subtleties of the lexical meanings of the /ba/-prefix and the t-infix, which appear to differ in indicative and non-indicative constructions. The Sumerian imperative gar-ba (= *naškin*, without the t-infix) may have a weak, non-separative meaning, “keep it put!” or the like. On the other hand, *šitkan* (= gar-ba-ta) may mean “put away!”, and on the Sumerian side therefore would have to be emphasized with the ablative /ta/. For comments on the lexical meaning of the Gt-stem of *šakānum* see AHW^[1] p. 1137, where von Soden suggests that it merely intensifies the meaning of the G-stem, e.g. from “put” to “put to stay” (*für die Dauer hinstellen*). See also Huehnergard (2011: 393)^[15].

9 Causative constructions.

Languages use various devices to express causativity. Some, like English, use auxiliary verbs, such as “to make”. Akkadian uses particular verbal stems (*Š*-stems), and Sumerian selected pronouns. In Section 8.1 we have discussed the Sumerian use of verbal cases, illustrated by the paradigms of OBGT VI. Both the case that I have called subordinative and which is used to express transitive causativity, as well as the method to express intransitive causativity deserve a detailed discussion.

9.1 Transitive and intransitive causativity.

The clearest correspondence between Sumerian and Akkadian **transitive causative** constructions is obtainable from the Ni section of OBGT VI, as follows:

- VI§2: gar-**bi**₂-ib₂ = *šuškin* = make **someone** place it!
 VI§4: gar-ra-**ni**-ib₂ = *šuškiššu* = make **him** place it!
 VI§19: gar-**mu**-ub = *šuškinanni* = make **me** place it!
 ga-**ri**-ib₂-gar = (*lušašikka*) = let me make **you** place it!

The four pronouns used in causative function by the paradigms thus are: /bi₂/ (3rd non-human), /ni/ (3rd human), /mu/ (1st), /ri/ (2nd). The situation is confused by the dissimilation of bi₂ > ni after labial + vowel.

According to my interpretation, these four pronominal markers refer to a subordinate subject, that is, to the person to whom the primary subject delegates the execution of the action implied by a transitive verb. I therefore denote this as the *subordinative* case. In practice, this yields causative constructions. A plethora of NI and preterite tense examples occur in OBGT VI and have been shown in Section 8.1.

With **intransitive** verbs a different construction is used. There, we do not have a subordinate subject to whom the action is delegated, and causativity is expressed by placing the causee in infix position. Our paradigms do not deal with genuinely intransitive verbs, instead they occasionally treat transitive verbs intransitively.

Examples are distributed across various paradigms. Here are typical illustrations for the two types of construction, first for a common transitive causative construction:

VI§45	mu-ni-in-gar	<i>ušaškin</i>	he(n, infixed) made someone(ni<bi ₂) place it(∅, suffixed)
	mu-ni-gar	(<i>ušaškin</i>)	I(∅, infixed) made someone(ni<bi ₂) place it(∅, suffixed)

Then for a rare intransitive causative construction using the same verb. Intransitivity is implied by preterite tense suffix conjugation, and the reference to the causee is infixed:

VI§38	bi ₂ -ib ₂ -gar	<i>ušaškin</i>	he(∅) had it(b) placed
	bi ₂ -ib ₂ -gar-re-en	(<i>ušaškin</i>)	I(en) had it(b) placed

Note that the Akkadian version does not discriminate between the two constructions. This does not facilitate the interpretation of intransitive causatives. But a complex passage to be discussed in Section 9.2 below provides crucial clarifying support.

In the paradigms of OBGT VI-X the prefixed pronoun /ni/ apparently is used exclusively in the subordinative sense: all of its occurrences are mirrored by an Akkadian causative construction. In “true” Sumerian /ni/ is also used in a locative sense.

In the paradigms /ri/ is used in both senses. Curiously Edzard (2003: 93)^[7] lists only ni, but not ri, in the locative-2 column. The paradigms offer about a dozen clear instructive examples with /ri/, see Huber (2018: 23)^[14]. With the exception of two instances we have referred to above (VI§19 and §20), they are concerned with the transitive two-part verbs *sa*₂ ... *du*₁₁ = “to reach” and *ka*₄ ... *du*₁₁ = “to run”. Literally these verbs mean roughly “do a reaching” and “do a run”, respectively. In half of them /ri/ is used for a 2nd person subordinate subject (i.e. for a causative construction), as for example in

IX§45	<i>sa</i> ₂ <i>i-ri-ib</i> ₂ - <i>du</i> ₁₁	<i>u</i> ₂ - <i>ša-ak-ši-id(!)-ka</i>	somebody(b) made you reach
	<i>sa</i> ₂ <i>i-ri-du</i> ₁₁	(<i>ušaššidka</i>)	I made you reach

which displays a transitive construction with infix conjugation.

In the other half /ri/ is used for a 2nd person locative, as for example in

VIII§20	<i>ka</i> ₄ <i>mu-ri-in-du</i> ₁₁	ᵀ <i>il</i> ¹ <i>-su-ma-[kum]</i>	he ran to you here
	<i>ka</i> ₄ <i>mu-ri-d</i> [<i>u</i> ₁₁]	(<i>alsumakkum</i>)	I ran to you here

Also this paragraph displays a transitive construction with infix conjugation. It is followed in VIII§21 by the corresponding separative version (*ka*₄ *im-ma-ri-in-du*₁₁).

The next paragraph is most remarkable. It uses suffix conjugation, and according to all appearances it must be interpreted as a preterite tense intransitive causative construction of a transitive verb using /ri/ as a locative pronoun:

VIII§22	ᵀ <i>ka</i> ₄ ¹ <i>mu-ri-ib</i> ₂ -[<i>du</i> ₁₁]	<i>u</i> ₂ - <i>šal-si</i> ₂ - <i>ma-ku</i> [<i>m</i>]	he(∅) made someone(b) run to you(ri) here
	ᵀ <i>ka</i> ₄ <i>mu-ri-ib</i> ₂ ¹ -[<i>du</i> ₁₁ -en]	(<i>ušalsimakkum</i>)	I(en) made someone(b) run to you(ri) here

Regrettably, the passage is severely damaged. But the traces of *-ib*₂- in the second line suffice to imply suffix conjugation, hence intransitivity, against the infix conjugation in §20. Note that the infixed personal pronoun *n* in §20 refers to the subject, the infixed impersonal *b* in §22 to the causee of the construction. The suffixed Akkadian dative pronoun *-kum* confirms that the Sumerian /ri/ is to be interpreted as a 2nd person locative, not as a subordinate. Otherwise the Akkadian accusative *-ka* would have been used, as in IX§45.

In the above translation I have assumed that infixed *-b* in VIII§22 refers to an indefinite person. Alternatively, and perhaps preferably, *-b* might refer to *ka*₄ as a subordinate intransitive subject, resulting in the semantically equivalent interpretation “he caused a running(b) to you here”.

9.2 Intransitive constructions of transitive verbs and causativity.

The paradigms of OBGT VI-X do not offer examples of causative constructions of genuine intransitive verbs. OBGT VIII and IX, which are concerned with the transitive two-part verbs $sa_2 \dots du_{11}$ = “to reach” and $kas_4 \dots du_{11}$ = “to run”, contain some examples of intransitive constructions of transitive verbs that are crucial for our understanding. They shall be discussed in this section. An isolated example (VIII§22) has already been mentioned at the end of Section 9.1, and some more occur in OBGT VI, to be discussed in Section 9.3.

What is of particular interest here is that in each of OBGT VIII and IX we have four paragraphs, starting with the identical verbal form (du_{11} -ga-na-ab), and subjecting it to the identical causative and ventive transformations, but with different results.

I first list the four transitive constructions from OBGT IX:

IX§4	$sa_2 du_{11}$ -ga-na-ab $sa_2 ga$ -na-ab- du_{11} $sa_2 he_2$ -na-ab- Γdu_{11}	ku - $\acute{s}u$ - Γuz - zum^1 (<i>lukšuzzum</i>) (<i>likšuzzum</i>)	reach for him(na)! let me reach for him! let him reach for him!	Ni G – 3D
IX§5	$sa_2 du_{11}$ -ga-na-ni- Γib_2 $sa_2 ga$ -na-ni- ib_2 - du_{11} $sa_2 he_2$ -na-ni- ib_2 - Γdu_{11}	$\Gamma \acute{s}u$ - uk - $\acute{s}i$ - iz - zum^1 (<i>lušakšizzum</i>) (<i>lišakšizzum</i>)	make him(ni) reach for him(na)! let me make him(ni) reach for him(na)! let him make him(ni) reach for him(na)!	Ni Š – 3D
IX§9	$\Gamma sa_2 du_{11}$ -ga-mu-na Γ -ab [$sa_2 ga$ -mu-na-ab]- du_{11} [$sa_2 hu$ -mu-na-ab-d]- u_{11}	[ku - u] \acute{s} - da - $aš$ - $\acute{s}um$ (<i>lukšudaššum</i>) (<i>likšudaššum</i>)	reach for him(na) here! let me reach for him(na) here! let him reach for him(na) here!	Ni G V 3D
IX§10	[$sa_2 du_{11}$ -ga-mu-na-ni- ib_2] [$sa_2 ga$ -mu-na-ni- ib_2 -d]- u_{11} [$sa_2 hu$ -mu-na-ni- ib_2 -d]- u_{11}	$\Gamma \acute{s}u^1$ - $*uk$ - $\acute{s}i$ - da - $aš$ - $\acute{s}um$ (<i>lušakšidaššum</i>) (<i>lišakšidaššum</i>)	make him(ni) reach for him(na) here! let me make him(ni) reach for him(na) here! let him make him(ni) reach for him(na) here!	Ni Š V 3D

In the first line of IX§10 the Akkadian text erroneously has *-ta-ak-* instead of the expected *-uk-*. The Sumerian side of IX§10 has been restored with the help of IX§18, which contains a corresponding separative version. In these paragraphs the final or infixed -b refers to the direct object (sa_2 or kas_4), -na- is the 3rd person dative, and in §5 and §10 -ni- marks the subordinate transitive subject or agent. Remember that the closing consonant of the morpheme / dug_4 / = / du_{11} / “to do” is expressed only before vowels, resulting in writings with a phonetic complement, such as du_{11} -ga-.

Here are the contrasting paragraphs from OBGT VIII:

VIII§6	$kas_4 du_{11}$ - Γga^1 -na-ab $kas_4 \Gamma ga$ -na Γ -ab- du_{11} $kas_4 h[e_2-n]a$ - Γab - du_{11}	lu - sum_2 - $\acute{s}um$ (<i>lulsumšum</i>) (<i>lilsumšum</i>)	run for him(na)! let me run for him! let him run for him!	Ni G – 3D
VIII§8	$kas_4 \Gamma du_{11}$ -ga Γ -na-ni- ib_2 $kas_4 \Gamma ga$ -na Γ -ni- ib_2 - du_{11} $kas_4 \Gamma he_2$ -na Γ -ni- ib_2 - du_{11}	$\acute{s}u$ - ul - si_2 - im - $\acute{s}um$ (<i>lušalsimšum</i>) (<i>lišalsimšum</i>)	make him(ni) run for him(na)! let me make him run for him! let him make him run for him!	Ni Š – 3D
VIII§7	$\Gamma kas_4 du_{11}$ -ga Γ -am $_3$ -še $kas_4 ga$ -am $_3$ - $\acute{s}i$ - du_{11} $kas_4 he_2$ -em- $\acute{s}i$ - du_{11}	lu - us - ma - $aš$ - $\acute{s}um$ (<i>lulsumaššum</i>) (<i>lilsumaššum</i>)	run toward him(še) here(m)! let me run toward him(š \acute{i}) here(m)! let him run toward him(š \acute{i}) here(m)!	Ni G V 3D
VIII§9	$kas_4 du_{11}$ - Γga -am $_3$ Γ -ma- $\acute{s}i$ - ib_2 $kas_4 ga$ -am $_3$ -ma- $\Gamma \acute{s}i^1$ - ib_2 - du_{11} $kas_4 he_2$ -em-ma- $\acute{s}i$ - ib_2 - du_{11}	$\acute{s}u$ - ul - si_2 - ma - $aš$ - $\acute{s}um$ (<i>lušalsimaššum</i>) (<i>lišalsimaššum</i>)	make them(b) run toward him here! let me make them run toward him here! let him make them run toward him here!	Ni Š V 3D

VIII§6 and §8 show straightforward transitive constructions, with verbal forms identical to those of IX§4 and §5.

The other paragraphs show ventive constructions of the same verbs. These constructions are eye-openers. OBGT VIII with *kas₄ ... du₁₁* is concerned with a verb of motion, and in ventive constructions the Sumerian terminative presumably makes better sense than the dative used in IX. Therefore, we might expect that the dative *-/na/-* of IX would simply be replaced by the terminative *-/n/-/ši/-*. Assuming that */n/* is elided, in the non-causative VIII§7 we thus might expect forms like **du₁₁-ga-am₃-ši-ib₂*, **ga-am₃-ši-ib₂-du₁₁*, and in the causative VIII§9 something like **du₁₁-ga-am₃-ši-ni-ib₂*, **ga-am₃-ši-ni-ib₂-du₁₁*.

But in the text, VIII§7 (in contrast to the parallel IX§9) is construed without the expected reference *-b* to the direct object *kas₄*, that is, it is construed intransitively. I suspect that what happens here is that while *kas₄ ... du₁₁* = “to run” morphologically is a transitive verb, semantically it is intransitive, and it is treated as such. The causative construction in VIII§9 correspondingly is expected to be intransitive too. Not unexpectedly it lacks the *-ni-* which in §8 marks a subordinate *transitive* subject. But in VIII§9 we need a marker for a subordinate *intransitive* subject or causee, and the unique candidate for such a marker is the added *-b*. See also VI§38-39 in Section 9.3 and IX§28 in Section 11.1 for the use of infixes */b/* or */n/* to mark a subordinate intransitive subject.

In the above translation I have assumed that this *-b* refers to indefinite persons. Alternatively, and perhaps preferably, *-b* might refer to *kas₄* not as a direct object, but as a subordinate intransitive subject, resulting in the semantically equivalent interpretation “make a running(b) toward him here!”. The double-*m* in the Sumerian column of VIII§9 seems to be an error (or careless writing), the context requires the plain Akkadian *Š*-stem and a single-*m* for the ventive on the Sumerian side.

The juxtaposition of the four paragraphs §6-§9 within OBGT VIII suggests that the OB grammarian knew exactly what he was doing. It is remarkable that the parallel paragraphs of OBGT IX (§4, §5, §9, §10) that are concerned with the verb *sa₂ ... du₁₁* = “to reach”, which is not a verb of motion, use transitive constructions with the dative case throughout. Possibly the combination of a verb of motion with the ventive favors the optional use of intransitive constructions, but note that VIII§15 and VIII§19 to be discussed in Section 11.2 use transitive constructions.

9.3 Questions of focus: “I had them place it” vs. “I had it placed by them”.

The /bi₂/-insert (VI§37-39) of OBG VI appears to address itself to a problem arising with causative constructions of transitive verbs. Such constructions have three participants: a primary subject, a subordinate subject or agent and a patient. Akkadian is ambiguous and leaves it open whether the focus is on the agent or on the patient, whereas Sumerian apparently makes a distinction. Obviously the bilingual paradigms have difficulties dealing with such issues.

This insert is among the subtlest and therefore most controversial inserts in our paradigms. Several Sumerologists have objected to my interpretations, apparently because they seem to conflict with the modern views of “true” Sumerian. But here I am concerned with the views of the ancient grammarians. I shall present a perhaps excessively involved discussion of the passage in order to illustrate the intrinsic difficulties one encounters when one tries to interpret the meaning and purpose of trickier inserts in the absence of a teacher’s comments. I readily admit that my morphological analyses and English translations of the Sumerian forms must remain somewhat conjectural.

The insert in question follows the regular grid entry VI§36:

VI§36	i ₃ -gar	<i>iš-ku-un</i>	he(n, elided) placed it(ø)	Pt G – –
	i ₃ -gar	<i>(aškun)</i>	I(ø) placed it(ø)	
	i ₃ -gar	<i>(taškun)</i>	you(e, elided) placed it(ø)	
VI§37	bi ₂ -in-gar	<i>iš-ku-un</i>	he(n) placed it(ø)	Pt G – –
	bi ₂ -gar	<i>(aškun)</i>	I(ø) placed it(ø)	
	bi ₂ -gar	<i>(taškun)</i>	you(e, elided) placed it(ø)	
VI§38	bi ₂ -ib ₂ -gar	<i>u₂(!)-ša-aš-ki-in</i>	he(ø) had it(b) placed	Pt Š – –
	bi ₂ -ib ₂ -gar-re-en	<i>(ušaškin)</i>	I(en) had it(b) placed	
	bi ₂ -ib ₂ -gar-re-en	<i>(tušaškin)</i>	you(en) had it(b) placed	
VI§39	mi-ni-in-gar	<i>u₂-ša-aš-ki-in</i>	he(ø) had him(n) placed by someone(ni<bi ₂)	Pt Š – –
	mi-ni-in-gar-re-en	<i>(ušaškin)</i>	I(en) had him(n) placed by someone(ni<bi ₂)	
	mi-ni-in-gar-re-en	<i>(tušaškin)</i>	you(en) had him(n) placed by someone(ni<bi ₂)	

The sign ø here is used to indicate empty (i.e. not merely elided or assimilated) markers; this concerns in particular suffixed 3rd person direct objects and infixes 1st person subjects.

Interestingly, an isolated one-line paragraph offers a present-tense version of VI§38:

VI§83	bi ₂ -ib ₂ -gar-re	<i>u₂-ša-aš-ka-an</i>	he(e) causes it(b) being placed	Ps Š – –
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In the present tense the suffixed 3rd person primary subject is /e/, not /ø/ as in the preterite of VI§38. Otherwise, present tense and preterite tense morphologies seem to be identical.

In order to clarify my reasoning I must begin with a discussion of the Akkadian column. The expression *ušaškin* is ambiguous and can be translated as “he/I had someone place it” as well as “he/I had it placed (by someone)”. The former is a straightforward transitive construction, while the latter switches the focus from the subordinate transitive agent (the person doing the placing) to the intransitive patient (the thing being placed) and hence amounts to an intransitive construction. Morphologically, in the Akkadian expression the leading syllable (*u*) refers to the primary subject (he or I), *ša* indicates causativity, *š-k-n* is the verbal root, and *i* implies the preterite tense (the present would have *a*). The absence of a personal pronoun (*šu*) implies that the agent (the subordinate subject doing the placing) is an indefinite “someone, they”, while the patient (the thing being placed) is not explicitly marked.

After §36 one would have expected i_3 -prefix forms analogous to the mu-prefix forms in §45, which has:

VI§45	mu-ni-in-gar	<i>u₂-ša-aš-ki-in</i>	he(n) made someone(bi_2) place it(\emptyset)	Pt Š – –
	mu-ni-gar	<i>(ušaškin)</i>	I(\emptyset) made someone(bi_2) place it(\emptyset)	
	mu-ni-gar	<i>(tušaškin)</i>	you(e, elided) made someone(bi_2) place it(\emptyset)	

Note that mu-ni-in-gar here stands for a morphological *mu- bi_2 -in-gar, with dissimilation $bi_2 > ni$ after labial + vowel (an original -ni- would have implied an Akkadian *ušaškiššu*). The expected i_3 -prefix form is obtained if we replace mu- by i_3 -:

* i_3 - bi_2 -in-gar = *ušaškin* = he(n) made someone(bi_2) place it(\emptyset)

again with Sumerian infix conjugation (that is, the pronoun /n/ mirroring the 3rd person Akkadian subject is infix). Perhaps a paragraph with this form had been erroneously omitted. Corresponding forms occur in “true” Sumerian; a search through ETCSL^[8] gave several good instances of this construction, for example i_3 - bi_2 -gu₇ “you fed them”, literally: “you(e, elided) made them(bi_2) eat” (c536.D.78).

Note that the Akkadian *iškun* does not distinguish between the Sumerian i_3 -prefix in §36 i_3 -gar, the mu-prefix in §44 mu-un-gar, and the bi_2 -prefix in §37 bi_2 -in-gar. And we also have at least three, perhaps four, different Sumerian interpretations of the Akkadian *ušaškin*: §45 mu-ni-in-gar, the interpolated * i_3 - bi_2 -in-gar, §38 bi_2 - ib_2 -gar, §39 mi-ni-in-gar. All ought to be consonant with some interpretation of the Akkadian expression, since as a rule the expressions in the two languages appear to be carefully matched. That the paradigms pay careful attention to the matching of the two languages is highlighted in particular by the case of the unusual Nt-stems discussed in Section 8.1.

The insert illustrates three contrasts. The first is between §36 and §37, it emphasizes that the Akkadian of the paradigm does not distinguish between the prefixes / i_3 / and / bi_2 /. But the mere fact of the juxtaposition of these two paragraphs indicates that the OB grammarians were aware of some semantic difference.

In the second contrast, between §37 and §38, the deceptive similarity between the two forms bi_2 -in-gar and bi_2 - ib_2 -gar is intriguing. It seems that Sumerian (like some other languages) in simple transitive constructions freely uses personal subjects /n/, but avoids constructions with inanimate/indefinite subjects /b/. Such avoidance may be connected with the ergative aspects of Sumerian, see Section 11.2.

This second contrast remarkably switches not only to the Akkadian causative, but also to the Sumerian suffix conjugation, that is, the Sumerian pronoun mirroring the Akkadian subject is suffixed, and the infix pronoun now refers to the patient. This change is analogous to the one observed from VIII§20 to VIII§22, discussed near the end of Section 9.1. Why this shift to suffix conjugation and intransitivity? I believe that a question of focus is involved, and that the Sumerian text attempts to illustrate the Akkadian ambiguity. While the transitive Sumerian construction mu-ni-in-gar of §45 with infix conjugation corresponds to the transitive interpretation “he/I had someone place it” of the Akkadian *ušaškin*, the intransitive constructions (§38 bi_2 - ib_2 -gar, §39 mi-ni-in-gar) with suffix conjugation correspond to the intransitive Akkadian interpretations “he/I had it placed (by someone)”.

The crux of the morphological interpretation evidently sits in the infix marker /b/. We first note that the Akkadian uses the preterite tense. But in Sumerian, in the preterite tense suffix conjugation indicates intransitivity, see Section 11.2. In view of the Akkadian causative, the Sumerian construction thus ought to be interpreted as an intransitive causative construction. It follows that the

infix /b/ cannot be a direct object, but must be interpreted as rendering a subordinate subject, or causee, that is being placed.

This corresponds to the standard construction of intransitive causatives, of which the paradigms offer a few more isolated instances, such as VIII§9, discussed in Section 9.2. See also the discussion of intransitive causatives in the modern grammar by Jagersma (2010: 430)^[16], according to which in “true” Sumerian the primary subject is placed immediately after the verbal base and the subordinate subject, or causee, immediately before.

In short, it appears that in our paradigms the infix markers have the following typical functions:

- transitive subject in preterite tense transitive constructions
- direct object in present tense or non-indicative transitive constructions
- subordinate active subject in intransitive constructions of intransitive verbs
- subordinate passive subject in intransitive constructions of transitive verbs

The last two correspond to English constructions of the type “have someone run” and “have someone placed”, respectively. Our interpretation of §38 matches the fourth case.

The interpretation of the third contrast between §38 and §39 is even more delicate. In my opinion the morphology of §39 is /bi₂/-/bi₂/-/n/-/gar/-/ø/, with a doubly dissimilated bi₂-bi₂ > bi₂-ni > mi-ni. Note that Postgate (1974)^[22], based on a distribution argument, had made probable that in “true” Sumerian mi-ni stands for bi₂-ni. Thus, we have two(!) subordinate subjects: the infix /n/ is the subordinate subject or patient suffering the action, and /bi₂/ > /ni/ is an impersonal subordinate agent performing the action of placing. The dissimilation bi₂ > ni is required because a morphological /ni/ would have resulted in a human subordinate agent and on the Akkadian side in the suffixed personal pronoun -šu. By the way, the parallel text OBG T X has the form mi-ni-ib₂-gub with an impersonal patient /b/ suffering the action. The paragraphs §38 and §39 thus would correspond to our second interpretation of the Akkadian *ušaškin* as “he had it/him placed (by someone)”, the first without mirroring and the second with mirroring the part put in parentheses in my rendering of the Akkadian. With causative constructions of transitive verbs the subordinate agent is always present, but may have a low priority. In my opinion spelling it out explicitly therefore is optional and depends on one’s taste and on the weight one assigns to it.

Isolated Sumerian forms often permit multiple interpretations. For example, Claus Wilcke (personal communication) would prefer to interpret bi₂-ib₂-gar-re-en as “he had some people place me/you”, and mi-ni-in-gar-re-en as “he had some people place me/you there”, where /ni/ renders the locative “there” (which would constitute the unique occurrence of /ni/ used as a locative in these paradigms). That is, he proposes to interpret the suffixed pronouns not as primary subjects, but as direct objects, suffering the action. I myself had chosen such an interpretation in the case of the anomalous stative/passive VI§34 (see Section 8.1). There this is feasible, because in the Akkadian column of VI§34 the subject denotes the stative/passive patient of the action. But here, in VI§38-39, the suffixed Akkadian subject denotes the primary agent. This creates a conflict between the semantics of the Sumerian and the Akkadian columns: the Sumerian patient would mirror the Akkadian agent. Moreover, the “there” implied by the locative lacks not only motivation but also an Akkadian counterpart. These conflicts violate – in my opinion unacceptably – the otherwise careful matching of the two languages of the paradigms.

Of course I cannot guarantee that my above interpretations are correct. But I hope that, in contrast to the alternatives preferred by Sumerologists, they stay close to the interpretations espoused by the Old Babylonian grammarians – which, after all, are those I want to elucidate.

Paul Delnero (2012)^[5] on the basis of data from “true” Sumerian has argued against a grammatical difference between mi-ni- and mu-ni- and in favor of a purely phonological difference. The OB paradigms do not support this. The two paragraphs VI§39 mi-ni-in-gar and VI§45 mu-ni-in-gar share the Akkadian translation *ušaškin*. But there is a clear grammatical difference: VI§45 with mu-ni- has a transitive construction with infix conjugation, while VI§39 with mi-ni- uses preterite tense suffix conjugation and hence has a grammatically different intransitive construction. I am arguing here that according to the view of the OB grammarians the semantic difference between the two grammatically different constructions amounts to a difference of focus: mu-ni-in-gar = “he made someone place it/him” focuses on the (transitive) agent, while mi-ni-in-gar = “he had him placed by someone” focuses on the (intransitive) patient.

10 Tenses: “present” and “preterite”?

Given that the grids are based on Akkadian, it seems appropriate to refer to the tenses also on the Sumerian side by the names “present” and “preterite” customary in today’s Akkadian grammars, and to avoid the approximately coextensive Akkadian(!) terms *marû* (“fat”, “slow”) and *hamtu* (“quick”, “swift”). These terms are used in some Babylonian grammatical lists to distinguish between different Sumerian verbal bases that translate to the same Akkadian verb. In OBGT VII these Sumerian bases differentiate between the Akkadian present and preterite tenses, but in view of the literal meaning of the terms they may suggest a dichotomy between durative and punctual, rather than between tenses. Possibly the Akkadian rendering by tenses might be a mere subterfuge approximating a semantically different Sumerian split.

However, a unilingual Sumerian paradigm, and therefore not constrained by an Akkadian straitjacket, offers evidence that the “present”, using the *marû* base /du/ of “to go”, relates to an unfinished or future action, and the “preterite”, using the *hamtu* base /gen/, to a finished action. Our main paradigms OBGT VI-X lack negations. But we first note that, as illustrated in several passages of OBGT III, the Sumerian prefixes nu- and na- are mirrored by the Akkadian negative particles *ula* and *la*, respectively. Before verbs *ula* is a straight “not”, while *la* is used in a prohibitive sense. (By the way, the use of *ula*, instead of the common *ul*, is of interest with regard to dating the paradigms, since it may indicate an early-OB origin.) The interesting fact now is that in the unilingual OB paradigm N3513+N3592, which covers the same verb gen/du “to go” as OBGT VII, the prefix na- is used with the “present tense” *marû* base /du/, but is avoided with the “preterite tense” *hamtu* base /gen/, while nu- is used with both. Thus we have iii 6: na-mu-e-ši-du-un “may I not come to you”, iii 8: nu-mu-e-ši-du-un “I do not come to you”, iii 12: nu-mu-e-ši-gen-en “I did not come to you”. Since you cannot prohibit a finished action, the conclusion is that the “present tense” *marû* refers to an unfinished or future action, the “preterite tense” *hamtu* to a finished action. See Huber (2018: 71)^[14] for the whole column iii of the Nippur text.

The usage of the different bases is far from straightforward. The present tense of “to go” consistently uses the *marû* bases du (sg.) and su₈ (pl.), while the preterite tense uses the *hamtu* bases gen (sg.) and re₇ (pl.), see selected examples in Section 5.3. But the complexities go beyond a distinction between present and preterite, and some of them have shown up already in Table 1 of Section 5. Thus, the imperative uses gen (both sg. and pl.), the volitive gen and re₇, the precative du and su₈. Perhaps the Sumerian volitive is punctual (“I would like to go”) and the precative durative (“let him keep going”)? To complicate matters further, du and gen are written logographically with the same cuneiform sign DU, while su₈ and re₇ both are written with the composite sign DU+DU. Fortunately, the distinctions occasionally become visible through phonetic complements.

11 OBGT VIII and IX: Two-part verbs.

The paradigms OBGT VIII and IX are concerned with so-called two-part verbs. We already have made use of selected sections in the discussion of causative constructions. They are among the shortest, most loosely structured, least complete and least disciplined among our five paradigms, and they also contain more scribal errors. Correspondingly they are quite difficult to interpret, see Huber (2018)^[14] for a detailed, but tentative discussion. Since the loose structure of the paradigms VIII and IX renders restorations of damaged text portions somewhat delicate, I shall deviate from my simplifying practice described in Section 3.1, and in this section shall throughout use spelled-out Akkadian transliterations and also enclose restored signs in square brackets or half-brackets.

The first 23 paragraphs of OBGT VIII are concerned with the verb $kas_4 \dots du_{11} = lasāmum =$ to run, literally “do a running”, but only the first 9 paragraphs, which cover NI-forms, are based on a structured grid. The remaining paragraphs §24-38 of the tablet are mostly one-line and offer an unrelated, poorly preserved haphazard collection of forms of the verb $gu_7 = akālum =$ to eat.

Note that the cuneiform sign du_{11} , here used with the approximate meaning “to do”, has the alternative full transliteration dug_4 . The final g is expressed only before vowels. In our paradigms it occasionally shows up as a phonetic complement, for example in the writing du_{11} -ga-na-ab of VIII§6 quoted in Section 9.2, which renders a morphological $/dug_4/-/na/-/b/$.

The first 49 paragraphs of OBGT IX are concerned with the verb $sa_2 \dots du_{11} = kašādum =$ to reach, literally “do an approach”, but only the first 22 paragraphs, which cover NI-forms, show a clear grid. The following part, §23-49, lacks a recognizable structure. The remainder of the tablet, §50-58, covers NI forms of nine different verbs and is unrelated. It has been adduced in Section 4 as an argument for a possible connection to school use.

On the Sumerian side these two-part verbs are mostly construed transitively, with kas_4 and sa_2 treated as direct objects. But some paragraphs, discussed in Section 9.2, illustrate intransitive constructions of the same verbs, including intransitive causatives.

The paradigms discussed in earlier sections – OBGT VII and VI+X – were based on strictly organized grids, supplemented by inserts. The grids demonstrated underlying sophisticated planning, and the inserts illustrated grammatical features that did not fit into the Akkadian straitjacket of the grids. The clear separation between grids and inserts facilitated the interpretation of the purpose of those inserts and the likely OB reasoning behind them.

Regrettably, the organized grids of OBGT VII and VI+X suffer from two major omissions: they lack intransitive causative constructions and they omit present tense constructions of transitive verbs. Perhaps these issues were treated in some lost tablets. OBGT VI offers a few examples in inserts and outside of the grids. In Section 9.3 I had interpreted the curious inserts VI§37 and §38 as intransitive causatives, and the last 7 lines of OBGT VI contain curious one-line examples of present tense constructions. OBGT VIII and IX offer a few more examples, both of intransitive causatives, treated in Section 9.2, and of fully conjugated present tense transitive constructions.

In the following subsections I shall discuss two particularly interesting features of these paradigms. OBGT IX offers summaries (or didactic repetitions?) of some issues treated in detail in the other paradigms. And OBGT VIII contains a few fully conjugated transitive present tense forms, demonstrating split ergativity of the Sumerian verbal structure.

11.1 An informal discussion of peculiar features.

I speculate that parts of OBGT IX might have been created to facilitate an informal discussion of various peculiar features. In support of such a speculation I am quoting and discussing here a lengthy section of OBGT IX containing a motley of Sumerian forms.

IX§27	sa ₂ bi ₂ -i[n-d]u ₁₁ sa ₂ b[i ₂ -du ₁₁] sa ₂ b[i ₂ -du ₁₁]	<i>ik-šu-ud</i> (<i>akšud</i>) (<i>takšud</i>)	he reached I reached you reached	Pt G – –
IX§28	sa ₂ b[i ₂ -ib ₂ -du ₁₁] sa ₂ bi ₂ -i[b ₂ -du ₁₁ -en] sa ₂ bi ₂ -ib ₂ -[du ₁₁ -en]	[<i>u₂-ša-ak</i>]- <i>ši-id(!)</i> (<i>ušakšid</i>) (<i>tušakšid</i>)	he(ø) made someone reached I made someone reached you made someone reached	Pt Š – –
IX§29	sa ₂ ma-an-du ₁₁ sa ₂ ma-du ₁₁ sa ₂ ma-du ₁₁	<i>ik-^Γ šu¹ -dam</i> (<i>akšudam</i>) (<i>takšudam</i>)	he(n) reached here I reached here you reached here	Pt G V –
IX§30	^Γ sa ₂ ma ¹ -ni-ib ₂ - du ₁₁ sa ₂ ma-ni-du ₁₁ sa ₂ ma-ni-du ₁₁	<i>u₂-ša-ak-ši-dam</i> (<i>ušakšidam</i>) (<i>tušakšidam</i>)	they(b) made someone reach here I made someone reach here you made someone reach here	Pt Š V –
IX§31	sa ₂ ma-ra-an-du ₁₁ sa ₂ ma-ra-du ₁₁	<i>ik-šu-da-ak-ka</i> (<i>akšudakka</i>)	he reached you here I reached you here	Pt G V 2A
IX§32	sa ₂ ma-ra-ni-ib ₂ -du ₁₁ ^Γ sa ₂ ma-ra ¹ -ni- d[u ₁₁]	<i>u₂-[ša]-ak-ši-da-ka</i> (<i>ušakšidakka</i>)	they(b) made him(ni) reach you(ra) here I(ø) made him(ni) reach you(ra) here	Pt Š V 2A
IX§33	sa ₂ an-e ^Γ sa ₂ an ¹ -e-en ^Γ sa ₂ ¹ an-e-en	<i>i-ka-aš-ša-ad</i> <i>a-ka-aš-ša-ad</i> (<i>takaššad</i>)	he reaches I reach you reach	Ps G – –
IX§34	^Γ sa ₂ ¹ am ₃ -e sa ₂ am ₃ -e-en sa ₂ am ₃ -e-en	<i>i-ka-aš-ša-dam</i> (<i>akaššadam</i>) (<i>takaššadam</i>)	he reaches here I reach here you reach here	Ps G V –
IX§35	sa ₂ [m]u-e-a sa ₂ mu-e-a-en	<i>i-ka-aš-ša-da(!)-ka</i> (<i>akaššadakka</i>)	he reaches you here I reach you here	Ps G V 2A
IX§36	^Γ sa ₂ im ¹ -mu-e-a sa ₂ im-mu-e-a-en	<i>ik-ta-aš-da-ak-ka</i> (<i>aktašdakka</i>)	he reaches you away here I reach you away here	Ps Gt V 2A
IX§37	sa ₂ an-du ₁₁ sa ₂ a-du ₁₁ sa ₂ e-du ₁₁	<i>ka-ši-id(!)</i> (<i>kašdaku</i>) (<i>kašdata</i>)	he(an < ā-n) had been reaching it(ø) I(a < ā-ø) had been reaching it you(e < ā-e) had been reaching it	St G – –

A majority of these paragraphs seem to refer to issues that are discussed in more details in other paradigms. Specifically:

IX§27-28 correspond to the insert VI§37-38 discussed in Section 9.3.

IX§29-32 correspond to the writing ma- for the ventive, as in VI§66-71, discussed in Section 8.2. Note that in §31-32 the 2nd person Akkadian accusative *-ka* is rendered by a 2nd person Sumerian dative /ra/, but in §35-36 by a 2nd person pronoun /e/ followed by the locative marker /a/.

IX§33-36 contain exceptional present tense forms (the unique present tense forms in OBGT IX). Note that in the present tense the *marû* base /e/ is used, corresponding to the *hamtu* base /du₁₁/ used in the preterite tense. They lack explicit pronominal markers /b/ referring to the direct object sa₂ and thus appear to exhibit intransitive conjugation of a transitive verb. See the comments in Section 9.2 on the paragraphs VIII§6-9 and in Section 8.3 on the paragraphs VI§25 and VI§26, which make a pointed distinction between constructions with and without /b/. Compare also the contrastive

transitive construction of VIII§15: $kas_4 am_3-me = ilassumam$ = “he runs here”, to be discussed later on in Section 11.2, which offers the spelling expected for a morphological /m/-/b/.

IX§33 pairs a Sumerian stative with an Akkadian present tense, as in the insert of OBG T VII discussed in Section 5.5. Morphology: /an/-/e/-/ø/, /an/-/e/-/en/, where /an/ is the stative marker, /e/ the verbal base, and /ø/, /en/ the suffixed subject pronoun.

IX§34-36 show various remarkable features. The spelling of these three paragraphs is delicate, and my morphological analysis correspondingly is very tentative. The morphology of the first line of IX§34 seems to be /m/-/e/-/ø/, where /m/ is the ventive, /e/ the *marû*-base, and /ø/ the 3rd person subject pronoun. In the next two lines the final /en/ stands for the 1st and 2nd person subject pronouns. The curious spelling am_3-e presumably indicates a bi-syllabic pronunciation with a hiatus, either $am'e$ or possibly $m'e$ with a syllabic m.

The morphology of the first line of IX§35 presumably is /m/-/e/-/a/-/e/-/ø/, where the first /e/ is the 2nd person indirect object pronoun, /a/ is the locative marker, the next /e/ is the *marû* base (here elided or assimilated), and /ø/ is the 3rd person subject pronoun. Note that in IX§35 the vowel u occurs after the ventive /m/, in IX§36 after the separative /ba/, hence it seems to be conditioned by the subsequent 2nd person pronoun /e/, and therefore I conjecture that the latter might go back to an original /*we/.

These paragraphs are furthermore interesting, since they seem to suggest a phonetic difference between the e of §34 (the *marû* base e of du_{11}) and the e of §35-36 (the 2nd person pronoun).

Finally, IX§37 is another example of transitive stative, similar to VI§35 discussed in Section 8.1.

11.2 Split ergativity.

For our present purposes OBGT VIII is of particular interest because it offers some fully conjugated transitive present tense examples. By juxtaposing Akkadian and Sumerian conjugation they make explicit that the Sumerian verbal system is split ergative. Ergativity is a feature quite foreign to us speakers of one of the common Western languages – ergative languages are object oriented, putting the sentence focus on the object and treating the direct object of a transitive sentence like the subject of an intransitive sentence – but it occurs in a minority of completely unrelated languages from every corner of the globe. Among the better known examples are Eskimo and Basque, see Dixon (1979)^[6], and for “true” Sumerian see Michalowski (1980)^[17].

OBGT VII shows that intransitive constructions use suffix conjugation both in the present and preterite tense:

VII§22	ba-du ba-du-un ba-du-un	<i>it-tal₂-lak</i> <i>at-tal₂-lak</i> <i>ta-at-tal₂-lak</i>	he goes away I go away you go away	Ps Gt – –
VII§32	ba-gen ba-gen-en ba-gen-en	<i>it-ta-lak</i> <i>at-ta-lak</i> <i>ta-at-ta-lak</i>	he went away I went away you went away	Pt Gt – –

In the present tense the verb “to go” uses the *marû* base /du/, in the preterite tense the *hamtu* base /gen/. The suffixed pronouns for the 3rd, 1st and 2nd person intransitive subject are /ø/, /en/ and /en/, respectively.

OBGT VIII contains a few fully conjugated present and preterite tense transitive constructions of the two-part verb *kas₄ ... du₁₁ = lasāmum* = “to run”. This verb is construed transitively as “do (du₁₁) a running (kas₄)”. In the present tense it uses suffix conjugation:

VIII§15	kas ₄ am ₃ -me kas ₄ am ₃ -me-en kas ₄ am ₃ -me-en	<i>i-la-su-ma-am</i> (<i>alassumam</i>) (<i>talassumam</i>)	he runs here I run here you run here	Ps G V –
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The morphology is /m/-/b/-/e/-/e/, /m/-/b/-/e/-/en/, /m/-/b/-/e/-/en/, where /m/ is the ventive, /b/ the direct object referring to kas₄, and the first /e/ the present tense *marû* base corresponding to the preterite tense *hamtu* base du₁₁. The suffixed pronouns for the 3rd, 1st and 2nd person transitive subject are /e/, /en/ and /en/, respectively (note that in transitive constructions the suffixed 3rd person pronoun is not /ø/, but /e/).

But in the preterite tense transitive constructions use infix conjugation:

VIII§19	kas ₄ mu-un-du ₁₁ kas ₄ mu-du ₁₁ kas ₄ mu-e-du ₁₁	<i>il-su-ma-am</i> (<i>alsumam</i>) (<i>talsumam</i>)	he ran here I ran here you ran here	Pt G V –
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The infixed pronouns for the 3rd, 1st and 2nd person subject are /n/, /ø/ and /e/, respectively. Rather exceptionally, they are spelled out in this paragraph. The suffixed 3rd person direct object marker /ø/ referring to kas₄ is invisible. Note that the ventive here is written mu-.

The conclusion is that the Sumerian verbal structure exhibits a widespread type of ergative split. Namely: in the present tense, the transitive and the intransitive subject are treated alike and placed in suffix position, but in the preterite tense they are separated: an intransitive subject is placed in the suffix position, but a transitive subject is placed in the infix position and the direct object in the suffix position.

12 Summary and conclusions.

The Old Babylonian bilingual Sumerian-Akkadian paradigms treated here are an isolate in many respects. They date from the early 2nd millennium BC and thus are the earliest serious linguistic documents in existence, and their sophistication is surprising. Other meaningful historical linguistic works are unrelated and date more than a millennium later. The earliest, most interesting and most important among the latter is the Sanskrit grammar of Panini (5th or 4th century BC), see Böhtlingk (1887)^[3].

The paradigms discussed in this paper give a substantial coverage of the Old Babylonian view of Sumerian verbal morpho-syntax. There are major differences between the two unrelated languages (Sumerian is an agglutinating, Akkadian an inflecting language), but the paradigms, with the help of supplementary inserts, are able to manage those differences surprisingly well. The paradigmatic grids are constructed on the basis of the Akkadian two-case dative-accusative system, not on the much richer Sumerian system. But it would be a gross oversimplification to consider either the Sumerian or the Akkadian column of these paradigms as a translation of the other. The relationship is more complicated, and it is necessary to treat the two columns as a composite whole.

The main paradigms OBGT VI and OBGT VII have rather different, but systematic grids. Both are complemented with inserts that cover features that do not fit into an Akkadian straitjacket. Some inserts seem to illustrate subtleties not of the Sumerian, but of the Akkadian grammar.

OBGT VII covers intransitive, OBGT VI transitive constructions in a systematic fashion. While the coverage is substantial, it has some major gaps. In particular the systematic grids omit intransitive causative constructions, transitive present tense constructions and negative forms. Possibly some of the omissions were covered in lost tablets. The less strictly structured OBGT VIII and IX and a unilingual Nippur text at least in part cover some of these omissions.

Very remarkably, the paradigms provide a clear account of the Old Babylonian view of the so-called conjugation prefixes (Section 8.2). These constitute a most controversial part of modern Sumerian grammars.

Occasionally there are substantial differences between the morpho-syntax implied by these paradigms and that described in modern grammars, which are based on unilingual “true” Sumerian texts from the late 3rd millennium. In particular, in pointed distinction to the modern grammars, the Old Babylonian paradigms differentiate syntactically between different /m/-morphemes: the ventive, the 1st person pronouns, and the conjugation prefix /mu/ (Sections 5.2 and 5.5). It is an open question whether such differences are due to errors (on either side) or to a difference between languages (that is: between the 3rd millennium “true” Sumerian and an Old Babylonian scholarly oral tradition).

Bibliography

- [1] AHW = W. von Soden (1965-1981). *Akkadisches Handwörterbuch*. Harrassowitz, Wiesbaden.
- [2] Black, J. A. (1991). *Sumerian Grammar in Babylonian Theory (2nd ed.)*. Rome: Pontificio Istituto Biblico.
- [3] Böhtlingk, O. (1887). *Panini's Grammatik*. Haessel, Leipzig.
- [4] Civil, M. (2017). *Studies in Sumerian civilization, Selected writings of Miguel Civil*, Edited by Lluís Feliu. Universitat de Barcelona. Originally published in Maul, S.M. (ed.), *Festschrift für Rykle Borger zu seinem 65. Geburtstag am 24. Mai 1994*. CM 10, Groningen 1998, pp. 1-7.
- [5] Delnero, P. (2012). The Sumerian verbal prefixes mu-ni and mi-ni-. *Altorientalische Studien zu Ehren von Pascal Attinger*. (eds. C. Mittermayer and S. Ecklin), 139-164. *Orbis Biblicus et Orientalis* 256. Academic Press Fribourg.
- [6] Dixon, R. M. W. (1979). Ergativity. *Language*, Vol. 55, 59-138. A book-length expanded version is R. M. W. Dixon (1994), *Ergativity*. Cambridge University Press.
- [7] Edzard, D. O. (2003). *Sumerian Grammar*. Leiden: Brill.
- [8] ETC SL = *Electronic Text Corpus of Sumerian Literature*. <http://etcsl.orinst.ox.ac.uk/>
- [9] Falkenstein, A. (1949). *Grammatik der Sprache Gudeas von Lagaš*. AnOr 28-29. Pontificium Institutum Biblicum, Roma
- [10] GAG = W. von Soden (1952, 3rd ed. 1995). *Grundriss der Akkadischen Grammatik*. AnOr 33. Rome: Pontificium Institutum Biblicum.
- [11] Huber, P. J. (1955). Zu einem Mathematischen Keilschrifttext (VAT 8512). *Isis* 46 (1955) 104-106.
- [12] Huber, P. J. (2007). On the Old Babylonian Understanding of Grammar: A Reexamination of OBG T VI-X. *Journal of Cuneiform Studies* 59: 1-17.
- [13] Huber, P. J. (2008). The Earliest Comparative Linguists. *Chatreššar 2008*: 47-64. Charles University, Prague.
- [14] Huber, P. J. (2018). *On the Old Babylonian Understanding of Sumerian Grammar*. Lincom Europa, Munich. (For a downloadable final preprint version see the Cuneiform Digital Library Preprint Series <<http://cdli.ucla.edu/?q=cuneiform-digital-library-preprints>>)
- [15] Huehnergard, J. (1997, 3rd ed. 2011). *A Grammar of Akkadian*. Eisenbrauns, Winona Lake, IN.
- [16] Jagersma, A. H. (2010). *A Descriptive Grammar of Sumerian*. <http://hdl.handle.net/1887/16107>
- [17] Michalowski, P. (1980). Sumerian as an ergative language. *Journal of Cuneiform Studies* 32: 86-103.
- [18] MSL IV = B. Landsberger, R. Hallock, Th. Jacobsen and A. Falkenstein (1956). *Materialien zum Sumerischen Lexikon IV*. Pontificium Institutum Biblicum, Roma.
- [19] Neugebauer, O. (1935-1937). *Mathematische Keilschrift-Texte I-III*. Springer Verlag.
- [20] Parpola, S. (2016). *Etymological Dictionary of the Sumerian Language I-II*. Eisenbrauns, Winona Lake, IN.
- [21] Poebel, A. (1939). *Studies in Akkadian Grammar*. Assyriological Studies No. 9, Oriental Institute of the University of Chicago.
- [22] Postgate, J.N. (1974). Two Points of Grammar in Gudea. *Journal of Cuneiform Studies* 26: 16-54.
- [23] Thomsen, M.-L. (1984). *The Sumerian Language*. Copenhagen Akademisk Forlag.
- [24] van der Waerden, B.L. (1965). *Anfänge der Astronomie*. Nordhoff, Groningen.

- [25] Zólyomi, G. (2000). Structural Interference from Akkadian in Old Babylonian Sumerian. *Acta Sumerologica* **22**: 335-360.
- [26] Zólyomi, G. (2017). *An Introduction to the Grammar of Sumerian*. Budapest.