The Earliest Comparative Linguists

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The Old Babylonian bilingual verbal paradigms (OBGT VI-X) are the earliest serious grammatical documents in existence, and as such they deserve a publicity going beyond Sumerological circles. They date to a time (the early second millennium BC) when Sumerian was dead or dying as a spoken language, and the underlying implied grammatical theory admittedly may be over-systematized. But irrespective of this, the richness of these texts is fascinating, and they are of unique importance for the early history of linguistics. They provide a surprisingly detailed analysis of Sumerian verbal morpho-syntax – probably as sophisticated as is possible within a paradigmatic, non-discursive presentation. By juxtaposing Sumerian and Akkadian conjugation patterns the paradigms for example show that the Sumerian verbal system is split ergative. The grids of the paradigms are based on the Akkadian language, but they are complemented by inserts illustrating Sumerian features that do not fit into the straitjacket of the Akkadian grid. Overall, the paradigms concentrate on difficult aspects that still are disputed in modern Sumerian grammars, and there are some non-negligible differences between the ancient and modern views. In particular, the paradigms take pains to separate the ventive /m/, the prefix /mu/, and the first person pronoun /mu/, and they give an admirably clear analysis of the so-called 'conjugation prefixes', which according to modern authors "constitute the most controversial part of Sumerian grammar".

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 lexical lists, collections of stock phrases, and, most remarkably, a number of sophisticated bilingual verbal paradigms. These 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: Sumerian is an agglutinating language without known cognates, Akkadian is an inflecting Semitic language.

In addition, the paradigms make possible a second type of comparison, namely between modern and ancient grammars, formalizing (supposedly) the same languages. Grammars are extrapolations of structures gleaned from often sparse data. In the case of modern grammars of Sumerian – with the exception of the monumental but limited work of Falkenstein (1949) – those data consist of a synchronic and diachronic hodge-podge of original unilingual documents. In the case of the Old Babylonian grammatical texts we do not know on what data they were based. Did the OB grammarians still have access to native speakers of Sumerian, or did they rely on a scholarly oral tradition, or did they lean on original written sources like their modern colleagues? Modern Sumerologists tend to reject contrary evidence from the Old Babylonian grammatical texts out of hand. But there is a tantalizing question: where do the sometimes considerable differences originate? From extrapolation errors (on either side) or from differences in the underlying languages?

I shall discuss only such features as can be inferred from the paradigms, but I shall try to put them into the context of modern grammars, and I shall concentrate on the features about which their views diverge. I should emphasize that structural features were extracted from the paradigms alone, consciously ignoring modern grammars of Sumerian. For semantic information, however, I felt free to look beyond, if necessary.

The structure of the paradigms.

The relevant paradigms are published in MSL IV (1956) as OBGT VI-X. These five texts form a closely knit group and have been treated by Black (1991) and most recently by Huber (2007). They are arranged in parallel columns, with Sumerian forms on the left and Akkadian ones on the right, but it would be a gross oversimplification to consider either the Sumerian or the Akkadian column as a translation of the other. The relationship is more complicated, and it is necessary to treat the two columns as a composite whole. We note first that the grids of the paradigms are constructed on the basis of the Akkadian two-case system, not on the much richer Sumerian system. Thus, both the Sumerian and the Akkadian forms are 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 didactic inserts that highlight Sumerian features not fitting into the Akkadian straitjacket of the grids. For such inserts, the translation would go in the opposite direction. I have called those inserts “didactic”, but this

is speculation, derived from the plausible assumption that the paradigms originate out of the Sumero-Babylonian school system.[1]

Given that the grids are based on Akkadian, it seems appropriate to refer to the tenses by the names "present" and "preterite" customary in Akkadian grammars, and to avoid the approximately coextensive Akkadian(!) terms *marû* ("fat", "slow") and *hamṭu* ("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. It should suffice to note that in OBGT VII, covering the verb "to go", the Akkadian present tense corresponds to the *marû* bases du (sg.) and súb (pl.), the preterite to the *hamṭu* bases gen (sg.) and re_7 (pl.). But the complexity of the situation is illustrated by the fact that the volitive uses the *hamṭu* bases, the precative the *marû* bases, and the imperative uses the single base gen both for singular and plural.

Recognition of the underlying grid structure, combined with the subsequent analytic separation of the inserts from the systematic grid, was the crucial ingredient for the understanding of these paradigms. What made such a separation possible was the discovery that the paradigms OBGT VI and X share the same underlying grid, while VI has additional inserts. The existence of an underlying strict grid structure had escaped Black (1991: 12-13), who had described the two paradigms as "diffuse". Similarly, one recension of OBGT VII has several inserts that are absent in another. In the absence of oral comments by a teacher, the non-discursive presentation would have otherwise made it rather difficult to discern the grammatical structure intended by the Old Babylonian grammarians.

It seems that the paradigms were designed to illustrate specific, sticky issues of Sumerian verbal morpho-syntax (as understood by OB grammarians) – most of them controversial in modern grammars based on unilingual "true" Sumerian texts (Thomsen (1984), Attinger (1993), Edzard (2003), Michalowski (2004)).

I must stress that it is not clear whether these paradigms represent any "true" Sumerian of that time or rather a synthetic, overly systematized Old Babylonian conception of Sumerian, which then was dying out as a spoken language. A possible argument in favor of systematization (also on

1 A persuasive argument in favor of such an origin is furnished by the last 27 lines of OBGT IX. These give non-indicative forms of 9 different verbs, in the usual order (imperative, volitive, precative). Black (1991: 12) writes: "It is impossible not to feel that the selection of verbs used here, especially be_5 [= *teṣûm* "to shit"] and dúr-dúr [= *ṣarātum* "to fart"], reflects a schoolboyish humour on the part of the compiler."

the Akkadian side!) is that the paradigms seem to favor "theoretical" interpretations over "lexical" ones. For example, the Akkadian t-infix theoretically expresses a change of direction, but the precise meaning is lexical and depends on the verb; it ranges from separative and reciprocal to reflexive and others. We cannot expect that the mechanical matching of Akkadian Gt-stems with the Sumerian /ba/-prefix, as used in the paradigms, matches the lexical details of the two languages. On the other hand, a possible argument against over-systematization in the paradigms under scrutiny (OBGT VI-X) is that there are other grammatical texts that are even more schematic. Specifically, OBGT VII writes the terminative /ši/ only with singular indirect objects, while another text, N3513+N3595 (Black 1991: 155-158), has it also in the plural; both paradigms are concerned with the same verb gen/du = *alākum* = "to go". Of course, this might also represent dialectal differences. Note that Thomsen (1984) does not know of instances of /ši/ in the plural, while Attinger (1993) and Edzard (2003) do.

But possible concerns about artificiality and over-systematization do not really matter. These paradigms are the earliest serious grammatical documents, and their richness is absolutely fascinating. They are hardly known outside of Sumerological circles, and they deserve some wider publicity. The closer one looks, the more astonishing it is into what details a sophisticated non-discursive approach can advance, despite its intrinsic limitations (namely, difficulties when dealing with grosser discrepancies of grammatical structures between the two languages).

Morphology and deficient spelling.

Sumerian morphology is often obscured by assimilation and elision, and by inadequacies of the cuneiform writing system. Fortunately, the paradigms clarify it by the position on the grid. For example, the paradigm OBGT VII is extant in two recensions, one of unknown provenance, now in the Chicago Oriental Institute, the other from the Ur excavations, with sometimes rather divergent spellings:

VII § 35: gá-a-mu-un-še-en-zé-en
(Oriental Institute recension),

gen-àm-ši-zé-en
(Ur recension)

We cannot know whether the differences are dialectal or in spelling, and gá-a- could be the phonetic rendering of a morphological gen- when

it precedes m. But the grid and the Akkadian translation make it clear that the underlying common morphology must be: /gen/-/m/-/n/-/ši/-/enzen/ = *alkaniššum* = "come(pl.) to him!". Here, /gen/ is the verbal base "to go", /m/ the ventive prefix, /n/ the 3rd person pronoun, /ši/ the terminative case morpheme, and /enzen/ the 2nd person plural pronoun. 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.

Conjugation patterns, and split ergativity.

On the tablets, the paradigms are subdivided into paragraphs, that is, into groups of a few consecutive lines of text, separated by a horizontal dividing line. The structure of these paragraphs is based on Akkadian conjugation. Most paragraphs have 3 lines, in the order: 3rd, 1st, 2nd person subject. With non-indicative forms, the order is reversed: imperative(2nd), volitive(1st), precative(3rd). This paragraph structure divides the Sumerian forms into two conjugation types:

Suffix conjugation:	Sumerian	Akkadian	
	ì-du	*illak*	he goes
	ì-du-un	*allak*	I go
	ì-du-un	*tallak*	you go

Infix conjugation:	Sumerian	Akkadian	
	mu-un-gar	*iškun*	he placed it
	mu-gar	*(aškun)*	I placed it
	mu-gar	*(taškun)*	you placed it

Here and elsewhere, parenthesized forms correspond to blanks in the Akkadian column; they can be filled in easily and unambiguously, once one understands the construction of the grid.

The suffixed pronouns are

3rd sg.	/ø/,	3rd pl.	/eš/,
1st sg.	/en/,	1st pl.	/enden/,
2nd sg.	/e-en/,	2nd pl.	/enzen/.

The infixed pronouns are

3rd sg. person (or: definite)	/n/,
3rd non-person (or: indefinite)	/b/,
1st sg.	/ø/,
2nd sg.	/e/.

Very often, the pronominal morphemes are distorted or hidden by assimilation. One text (OBGT V) distinguishes the suffixed 1st and 2nd person by writing e-en for the latter. But as this is the only paradigm doing so, the differentiation may very well be synthetic. The e of the 1st and 2nd pronoun is usually assimilated to a neighboring vowel. It is not clear whether the infixed 1st and the suffixed 3rd person pronouns really are supposed to be void (unlikely in the former case, but likely in the latter), but they are invisible anyway.

The paradigms OBGT VI-X do not have any plural subjects with infix conjugation. According to the unilingual texts plural forms are formed by *infixing* the singular pronouns /n/, /ø/, /e/ immediately before the verbal base and *suffixing* the plural pronouns /eš/, /enden/, /enzen/ after it.

With intransitive constructions, the suffix conjugation is used. Transitive constructions show a split: the suffix conjugation is used in the present tense, the infix conjugation in the preterite. There is a kind of duality: in transitive constructions, the position before or after the base not used for the transitive subject is used for the direct object. The pattern displayed by the paragraph structure shows that Sumerian in the preterite tense behaves as an ergative language (the telltale symptom is that intransitive subjects and direct objects are treated alike). But in the present tense it uses the nominative-accusative pattern. Hence, like in most ergative languages, we have split ergativity. The paradigms do not suffice to establish further particulars of the split. For detailed modern views of Sumerian ergativity, based on the unilingual material, see Michalowski (1980) and Attinger (1993: 150-152). Curiously, Edzard (2003: 90-91) doubted the existence of split ergativity and reaches the surprising conclusion: "Either way, the question of 'split ergativity' does not seem to be of any importance in Sumerian."

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 the two genders, while Sumerian does not. But Sumerian has a two-way split, variously analyzed by modern authors as animate – inanimate, or as person – non-person. The 3rd person morphemes are /n/ for person and /b/ for non-person. The paradigms approach this as follows. First, they simply omit feminine pronouns. Second, they use a surrogate split: definite – indefinite, choosing the 3rd singular suffixed Akkadian pronoun (accusative *-šu*, dative *-šum*) for rendering the personal /n/, and no pronoun for rendering /b/. In actual language use, this comes quite close to a person – non-person split: in an Akkadian sentence context a personal pronoun is almost inevitably definite, since it refers to a person mentioned beforehand. The paradigms never render the Sumerian morpheme /b/ by an Akkadian pronoun. On the other hand, they consistently use *-šu*, *-šum*, if the personal morpheme /n/ is the leading element in the pronominal chain. The seeming exceptions are cases where the morpheme /bí/ (=bi_2) has been changed to ni by dissimilation after labial + vowel, see below.

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 pronominal suffixes are true *pro-nouns*, used as substitutes for the nouns to which they refer, while the Sumerian pronominal infixes pick up and recapitulate relationships expressed in the nominal part of the sentence (cf. Sollberger 1952: 61-62). Regrettably, modern grammars are deficient with regard to syntax. In any case, the languages involved are so much different that a translation of isolated verbal forms is, strictly speaking, impossible outside of a sentence context.

In the following I shall discuss three loosely connected topics: (1) the directional prefixes and the 1st person pronoun; (2) the causative pronominal infixes; (3) the non-directional conjugation prefixes. They were chosen because they provide interesting contrasts to the modern grammars.

(1) The directional prefixes and the 1st person pronoun.

The long paradigm OBGT VII (104 paragraphs with a total of 318 lines) covers the intransitive verb gen/du = *alākum* = "to go" and exercises the interplay between pronouns, Akkadian verbal stems and ventive.

The paragraphs of the Ur recension are ordered rigidly (the Oriental Institute recension is less systematic), with a structure that can be described as follows: The person of the subject is varied inside each single paragraph. 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, and so on, with ever larger groupings. The largest groups are formed by 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 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)

The grid of OBGT VII is complete, apart from the following systematic restrictions:

- no self-references (1st - 1st, 2nd - 2nd person: semantic problem);
- no 1st person singular objects, except with four imperative forms (Akkadian problem: ventive coincides with 1st singular dative);
- motion toward 1st or 2nd person requires ventive (Sumerian and/or Akkadian restriction).

The Oriental Institute recension (but not that from Ur) contains eight paragraphs going beyond the complete grid; they must be inserts, illustrating some exceptional features. Six of them cover stative prefixes (here rendered in Akkadian by ordinary present tense constructions), and the remaining two have a curious ablative construction; for the latter see below.

Here are four paragraphs offering all combinations of the Akkadian G- and Gt-stems, without and with ventive:

VII § 13	in-ši-du = *illakšum* = "he goes to him",	G
§ 17	àm-ši-du = *illakaššum* = "he comes to him",	G + ventive
§ 23	ba-ši-du = *ittallakšum* = "he goes away to him",	Gt
§ 19	àm-ma-ši-du = *ittallakaššum* = "he comes away to him"	Gt + ventive

With motion toward a 2nd person object the ventive is mandatory, so the quadruplet reduces to a pair

VII § 21	mu-e-ši-du = *illakakkum* = "he comes to you",	G + ventive
§ 20	àm-mu-e-ši-du = *ittallakakkum* = "he comes away to you",	Gt + ventive

The examples make it abundantly clear that in these paradigms Akkadian ventives are mirrored by Sumerian forms containing a morpheme /m/. Sumerian /ba/ matches the Akkadian t-stem, and /mma/ a combination of Akkadian ventive and t-stem. This leads to the inescapable conclusion that /mma/ < /m/-/ba/. Evidently, both /m/ and /ba/ can be word-initial, so the morpheme should be set up as /mma/. But as cuneiform writing has problems with consonant clusters, auxiliary vowels must be inserted before word-initial double consonants. Then, the vowel a is preferred in the present tense and in non-indicative forms, the vowel i in the preterite. The rationale behind the choice of the vowel is not fully understood; it may depend on phonetic issues, such as vowel harmony and stress or pitch, rather than on morphemic ones. Variations in spelling: àm, ma, im (before consonants), mu (before the e of the 2nd person) may suggest that the Sumerian ventive /m/ is a vocalic m.

Pronominal infixes.

The beginning of the Oriental Institute recension of OBGT VII is broken off. The Ur recension (UET 7 100) offers the following six ventive paragraphs:

VII § 1	gen-àm = *alkam* = "come!"	G, ventive
§ 2	gen-àm-še = *alkaššum* = "come to him!",	G, ventive, 3rd
§ 3	gen-àm-mu-še = *alkam ana ṣēriya* = "come to me!"	G, ventive, 1st
§ 4	gen-àm-ma = *atlakam* = "come away!"	Gt, ventive

§ 5 gen-àm-ma-še = *atlakaššum* = "come away to him!" Gt, ventive, 3rd
§ 6 gen-àm-ma-mu-še = *atlakam ana ṣēriya* = "come away to me!" Gt, ventive, 1st

Note the Akkadian idiom (literally: "to my back") that is used to distinguish the 1st person from the mere ventive. Morphologically, the Sumerian form in § 6 must be analyzed /gen/-/m/-/ba/-/mu/-/še/. The first m corresponds to the ventive, the second to an assimilated /ba/, indicating a change of direction ("away"), and the third to a 1st person pronoun /mu/. This shows that the OB grammarian makes a pointed syntactic distinction between the ventive and the 1st person, in § 6 separating them by the morpheme /ba/.

Here, the structural differences between OBGT VII and modern grammars are considerable. According to Edzard (2003: 93), 1st person (sg. or pl.) automatically requires ventive. In OBGT VII this is true for motion *toward* the 1st person (as well as for motion toward the 2nd person), but *not* for motion away from. The latter point is made explicit in curious ablative inserts (VII § 71 present, § 74 preterite). The regular paragraphs of the grid combine the Akkadian dative with the Akkadian and Sumerian ventive:

VII § 69	àm-me-du	*illakam niāši*	he comes to us,
§ 70	àm-ma-me-du	*ittallakam niāši*	he comes away to us,

while the insert offers non-ventive forms combined with an exceptional Akkadian accusative:

§ 71	ba-me-du	*ittallak niāti*	he goes away from us.

The correct interpretation of the accusative is due to Jacobsen (1960), (1963).

According to Edzard (*l.c.*), the 1st singular terminative is muši(*sic*), where m is the mandatory ventive. This is clearly at variance with the placement of the ventive-m in several of the above examples from OBGT VII. The mu of mu-še there must be the 1st singular pronoun. Genetically, the m of the 1st person might be identical to the ventive-m, but syntactically, it is kept separate by the OB grammarians.

(2) The causative pronominal infixes.

As already mentioned, the Akkadian verbal case system knows only two cases: accusative and dative (the genitive occurs exclusively in nominal phrases). In the paradigms, these cases each split into several Sumerian cases, often in a somewhat haphazard fashion. Somewhat unexpectedly, the Akkadian accusative never refers to the direct object; the apparent reason is that the Sumerian direct object is almost always an impersonal/indefinite /b/. It also can render a Sumerian comitative ("with"), and in particular, it refers to the subordinate subject (or underlying agent) of a transitive causative construction. The Sumerian correspondence is as follows:

VI § 2: gar-**bí**-íb = *šuškin* = make **someone** place it!
VI § 4: gar-ra-**ni**-íb = *šuškiššu* = make **him** place it!
VI § 19: gar-**mu**-ub = *šuškinanni* = make **me** place it
ga-**ri**-íb-gar = *lušaškikka* = let me make **you** place it!

The four pronouns used in causative function by the paradigms are thus: /bí/ (3rd non-person), /ni/ (3rd person), /mu/ (1st), /ri/ (2nd). There is a complication: in the paradigms, /ni/ is sometimes mirrored by an Akkadian *-šu*, sometimes not. The seeming exceptions are cases where the writing bí (=bi_2) has been changed to ni by dissimilation after labial + vowel, see the discussion in Huber (2007: 13-14). This dissimilation was first claimed by Falkenstein (1949: 206-207) for unilingual texts, but negated by later authors (e.g., Edzard 2003: 102, to quote the most recent discussion).

These pronouns, when used in causative function, are placed between the indirect object and the direct object or subject. Here are three examples. The first is with the Sumerian comitative:

VI § 41 in-di-ni-íb-gar = *ušaškiššu* = someone(b) made him(ni) put it(ø, suffixed) with him(di).

The second is with the Sumerian dative:

VI § 43 in-na-ni-in-gar = *ušaškiššum* = he(n) made him(ni) put it(ø) for him(na).

The third is with the Sumerian terminative and the ventive:

VI § 71 ma-ši-ni-in-gar = *ušaškinaššum* = he(n) made him(ni) put it(ø) to him(ši) here(ma).

The Akkadian pronoun always corresponds to the first pronoun in the Sumerian pronominal chain.

In the paradigms, the Sumerian 2nd person pronoun /ri/ is also, very rarely, used in locative sense:

VIII § 20: kas_4 mu-**ri**-in-dug_4 = *ilsuma[kkum]* = he ran to **near you**.

The restoration of the Akkadian dative pronoun is practically certain. The locative seems to have a function very similar to that of the terminative used elsewhere:

VII § 31: mu-**e-ši**-gen = *illikakkum* = he came **to you**,

so it may belong into the same slot as the terminative (which, according to the above example VI § 71, precedes the slot used for the causative subordinate subject). Note also VIII § 12, which has difficult intransitive causative constructions. There the Sumerian case changes inside a single paragraph from 1st person terminative (kas_4 dug_4-ga-àm-mu-še-éb = *šulsimam ana ṣēriya* = "make someone(b) run toward me here") to 2nd person locative (kas_4 ga-àm-ma-ri-íb-dug_4 = "let me make someone(b) run to near you here"). Given that the paradigms render the two /ri/ with different Akkadian cases, it seems advisable to me to treat them as homophonous (or homographic) morphemes belonging to two different cases, "subordinative" and "locative". In the paradigms, /ni/ is only used in the subordinative sense, but locative use occurs in the unilingual texts.

Modern views.

In the modern grammars the treatment of the pronominal infixes ri, ni, bi has not yet settled down (cf. Edzard 2003: 98, who called them "the most difficult in the system of directional indicators"), and the terminology used to refer to these infixes has not done so either. Thomsen (1984: 234-235) distinguishes between three morphologically distinct functions of what she calls the "locative prefix" (ni, ri): "1. Locative. 2. Denoting the second object with compound verbs. 3. Causative." Also Attinger (1993: 234-237) lumps them together in a single case with multiple functions, but under the name of "locatif-terminatif". Edzard (2003: 93) separates between "directive" (ri, ni, bi) and "locative 2" (ni). He tentatively proposes homography (not necessarily homophony) between the "directive" ni and the "locative 2" ni (p. 99) and points out that they may follow each other and do not fall into the same "slot", so that they definitely have to be kept apart (p. 102).

(3) The non-directional conjugation prefixes.

The paradigms OBGT VI and X respectively cover the transitive verbs gar "to place, to put" and gub "to stand, to set up". They share the same grid structure, at least its systematic part, but X lists only the first line of each paragraph. Both have didactic additions, but X has fewer. The grid is organized according to aspect and tense, in the order: Non-indicative (imperative, volitive, precative), stative, preterite, present, the coverage of the present tense being very sketchy. Apparently, these two paradigms were constructed to illustrate and exercise the following two topics:

• "conjugation prefixes":

stative (/ã/, /al/, /ba/), main (/ì/, /bí/, /mu/), directional (/m/, /ba/, /mma/).

• pronominal infix chain:

(indirect object+case) + (subordinate subject) + (direct object or subject).

Modern views.

The conjugation prefixes constitute the most controversial part of modern Sumerian grammars (cf. Michalowski 2004: 44). No two Sumerologists appear to agree fully on their form, meaning, etymology and identity; the number of ranks that they occupy is equally disputed. Michalowski prefers a minimalist position with only four distinct conjugation prefixes: mu-, ba-, i- (or V-) and imma-.

The systematic grid of OBGT VI + X provides a different, admirably clear segmentation of the conjugation prefixes. Apart from a few disturbances by inserts, the central part of the grid, §§ 29-71, treats the indicative forms in six separate groups of six paragraphs each, see Table 4[2] in Huber (2007). Each group covers the six combinations of non-causative and causative, no object, accusative object and dative object. The six groups themselves are concerned with, in this order:

§§ 29-34:	Stative	prefixes /ã/, /ba/
§§ 36-43:	Preterite	prefix /ì/
§§ 44-49:	Preterite	prefix /mu/
§§ 50-55:	Preterite + t-stem	prefix /ba/
§§ 58-63:	Preterite + t-stem + ventive	prefix /mma/ (written im-ma-)
§§ 66-71:	Preterite + ventive	prefix /m/ (written ma-)

2 In Table 4, § 46, 47 and 48, the prefix in- is a printing error, it should be replaced by mu-un-, mu- and mu-, respectively.

In distinction to the other five groups, the stative group uses suffix conjugation. The paradigm distinguishes between the regular stative prefix, written a- or an- (which suggests nasalisation), and the stative/passive ba-, with forms such as § 29 an-gar = *šakin* = "he(ø, suffixed) is placed", and § 30 ba-ab-gar = *šuškun* = "he(ø, suffixed) was placed by someone(b)". There is an interesting insert with infix conjugation, presumably indicating preterite(?) transitivity: §35 ab-gar = *šakin* = "someone(b) was placing it(ø)", a-gar = "I was placing it", e-gar = "you were placing it". The Akkadian stative is indifferent with regard to tense. A further stative prefix /al/ occurs in some other paradigms, but not in OBGT VI.

The /ì/-prefix section (§§ 36-43) contains an insert with /bí/-prefixes. This gives a total of nine conjugation prefixes. Apparently they are considered to be mutually exclusive, but possibly their number should be reduced to six: /al/ may be a mere variant of /ã/ that can optionally be used in the absence of pronominal infixes, /mma/ is a combination of /m/ and /ba/, and the two /ba/ may be identical, despite their seemingly disparate semantics.

The directional prefixes (/m/, /ba/, /mma/ < /m/-/ba/) have already been discussed. The grid of OBGT VI, unlike the modern grammars, clearly distinguishes between the prefix /mu/ and the ventive /m/, and prefers the spelling ma for the latter (§ 66 ma-an-gar = *iškunam* = "he put it here" against § 44 mu-un-gar = *iškun* = "he put it"). Some of the other paradigms are more relaxed and use mu also for the ventive.

The prefix /ba/ occurs in two seemingly very different uses: as a directional prefix with separative meaning, and as a stative prefix, with stative/passive meaning. It is not entirely clear whether the OB grammarian regards them as different homophonous morphemes, or as one and the same. An insert, OBGT VI § 56-57 (non-ventive), § 64-65 (ventive) has highly unusual Akkadian Nt-forms,[3] such as ba-gar = *ittaškan* = "he/it was put away". The Akkadian N-stem has passive function. These inserts may indicate that he favored the second view – perhaps he resorted to these unusual forms in a specific attempt to mimic the semantic range common to the two usages of /ba/. The morpheme /ba/ thus may indicate a move out of the area of immediate control, comparable to the English "off".

3 In GAG §86b, von Soden specifically denied the existence of Nt-stems, see also the discussion by Black (1991: 28-29).

The Akkadian translations do not discriminate between the prefixes /ì/ and /mu/. With indicative forms the use of a prefix seems to be obligatory. This implies that there must be a default prefix, to be used when the basic, unmodified meaning of the verb is intended. Apparently, /ì/ is this default prefix; it is used both with transitive and intransitive constructions. In the paradigms the /mu/ prefix occurs only with transitive constructions. Non-indicative forms do not seem to require an obligatory prefix. With them, the only visible conjugation prefixes are the directional ones (/m/, /ba/, /mma/). The final vowel of imperative forms, mostly a, seems to be phonetic rather than morphemic: gen-ni, gen-na "go!", gar-ra "put!", gu_7-a "eat!".

The insert with the prefix /bí/.

After the regularly constructed ì-prefix non-causative form

VI § 36: ì-gar = *iškun* = "he placed",

with infix conjugation (the 3rd person pronoun /n/ is elided), one expects the regularly formed causative

*ì-bí-in-gar = *ušaškin* = "he caused someone to place",

also with infix conjugation. Instead, the text has a 3-paragraph insert (also occurring in OBGT X):

§ 37: bí-in-gar = *iškun*,

§ 38: bí-íb-gar = *ušaškin*,

§ 39: mi-ni-in-gar = *ušaškin*.

§ 37 has infix conjugation, but § 38 and § 39 have suffix conjugation. This is surprising, since the insert is in the midst of a section with infix conjugation.

The prefix /bí/ is peculiar. In OBGT VI, apart from an isolated present tense form (§ 83: bí-íb-gar-re = *ušaškan* = "someone causes to place"), it occurs only in the above insert, but there are several occurrences in other paradigms. Apart from having different verbal bases, their structure is identical to that of either VI § 37 or § 38.

Presumably, the suffix conjugation in § 38 indicates that these forms are meant to be intransitive preterites: "he/I/you had it(b) placed", with /b/ denoting the intransitive subordinate subject, that is, the patient of the action. This conjecture is confirmed by intransitive constructions occur-

ring in OBGT VIII and IX. I surmise that the deceptively similar Sumerian forms in VI § 37 and 38 were inserted by the OB grammarian to highlight a peculiarity of the Sumerian ergative construction, namely that the impersonal /b/ cannot function as the subject in a simple transitive verb phrase.

Similarly, in VI § 39 the /n/ before the base would then denote the patient of the action. But how should one interpret mi-ni-? Arguing solely on the basis of the paradigms, one concludes that § 39: mi-ni-in-gar (with suffix conjugation) cannot be a mere phonetic variant of § 44: mu-ni-in-gar (also *ušaškin*, but with infix conjugation). But, given that it occurs in an insert with /bí/-prefix forms, one might have mi-ni < bí-ni. This agrees with the opinion of modern grammarians, which is based on a distributional argument (the occurrences of mi-ni- would serve as the missing *bí-ni- forms); compare Postgate (1974: 21-22) and the discussion in Thomsen (1984: 177). However, /ni/ cannot be a definite personal pronoun here, because then the Akkadian would have to refer to it by a pronoun, and the translation would be *ušaškiššu* or *ušaškiššum*, not *ušaškin*. The conclusion is that mi-ni hides a doubly dissimilated bí-bí > bí-ni > mi-ni. Thus, mi-ni-in-gar with suffix conjugation seems to express a double causative, such as: "he/I/you had him(n) placed by someone(bí)", with /n/ being the subordinate subject suffering the action, and /ni/ < /bí/ referring to the subordinate agent. At the same time, this illustrates that there are two homophonous (or homographic) morphemes /bí/, namely a conjugation prefix and a pronominal infix. Incidentally, this kind of homophony has been considered, but rejected, by Attinger (1993: 272-273).

Summary and conclusions.

The paradigms under discussion give a surprisingly detailed comparison of Akkadian and Sumerian verbal morpho-syntax. Evidently, the OB grammarians considered the aspects and tenses (imperative, volitive, precative, stative, preterite and present tense) of Akkadian and Sumerian to be more or less coextensive. The paradigms nicely show that the Sumerian verbal system is split ergative. They give an admirably clear analysis of the so-called conjugational prefixes; the main difference from the (still controversial) modern analyses lies in the separation between the prefix /mu/, the ventive /m/, and the 1st person pronoun /mu/. With regard to the case system, they manage to separate the Akkadian dative into a Sumerian dative, terminative and locative, and the Akkadian accusative into a Sumerian comitative, ablative and subordinative (the latter concerning the

subordinate subject, or underlying agent, of a transitive causative construction). They almost disentangle the thorny details of what Edzard (2003: 98) has called the "complex of directive and locative 2", covering aspects of the locative and subordinative. It is remarkable that the paradigms seem to put special emphasis on precisely those aspects that still are controversial in modern Sumerian grammars. Apparently, they were regarded as difficult 4000 years ago. Were these questions controversial already then?

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