Grammatical texts have been used in various ways in the reconstruction of the Sumerian language. At the same time, there is a general awareness that grammatical texts may not be trusted at face value. It is useful, therefore, to take a closer look at this corpus, to see what kind of knowledge we may expect to be represented there. The questions that I will investigate in this paper are: in what intellectual context did grammatical texts appear?, what does this tell us about the character of the grammatical texts?, and how are the changes in the grammatical texts related to changes in scholarly texts in general?

The earliest examples of grammatical texts appear in the Old Babylonian period. Old Babylonian grammatical texts are usually divided into three groups: verbal paradigms, grammatical vocabularies, and phrase lists. I will be mainly concerned with the first category, the verbal paradigms.

1. Old Babylonian paradigms: modes of standardization

What kind of knowledge is contained in a grammatical text? What is the relation between knowledge and text? In order to answer these questions I will discuss a hitherto unpublished verbal paradigm from Old Babylonian Nippur and compare it to known exemplars from the same period. BT 12 is part of the Brockmon Collection, now located in Haifa. It once belonged to the Babylonian Collection of the University of Pennsylvania Museum where it was numbered CBS 11089.

The reconstructions in the transliteration of BT 12 (Appendix 1) are based upon the regularities observed by Thorkild Jacobsen, Jeremy Black, and others in previously published paradigms. Thus, Akkadian forms with -t- infix are always associated with Sumerian forms beginning with ba- or im-ma-; the precative corresponds to ḫē₂-; and the ventive is related to an m- prefix. Where both the Sumerian and the Akkadian are extant it appears that the horizontal relations between

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1. There are examples of paradigmatic sequences in earlier lexical texts, in particular from Ebla (D’Agostino 1991), but they do not represent full-grown grammatical lists.
2. Grammatical texts are mainly published in MSL 4; MSL SS 1; and Black 1991: Chapter 5. The most recent studies of grammatical texts — including earlier bibliography — are Cavigneaux 1990; Black 1991; and Civil 1998.
3. The text was studied from a cast in the University of Pennsylvania Museum. Jacob Klein will publish a copy of the text.
forms in this list are traditional and comply with what is known about such texts. The vertical arrangement of the paradigm, however, is not easily related to the structure of either the Akkadian or the Sumerian verb. The paradigm for sa₂ — dug₄ begins with the imperative, followed by the cohortative, and this again is followed by a third person form. To begin a paradigm with the imperative is standard practice in the grammatical corpus. Thereafter, however, no strict guidelines seem to be followed, so that the simple third person singular is third in the paradigm of kas₄ — dug₄, whereas it is the penultimate in sa₂ — dug₄.

At places the vertical arrangement seems to be dictated by the desire to make pairs of Sumerian forms. Thus obv. 18' and 19' use the same signs in a different order (similarly in 24'–25'):

\[
\begin{align*}
\text{[kas₄ du]g₄-ga-am₃} \\
\text{[kas₄ ga]-am₃-dug₄}
\end{align*}
\]

Other pairs are formed by adding or changing just one sign (obv. 20'–23'):

\[
\begin{align*}
\text{[kas₄] bi₂-in-dug₄} \\
\text{[kas₄] li-bi₂-in-dug₄} \\
\text{[kas₄] im-ma-an-dug₄} \\
\text{[kas₄] im-ma-ra-an-dug₄}
\end{align*}
\]

Verbal paradigms from Nippur are not too numerous. The best comparison we have is CBS 15213, better known as OBG IV. This tablet has paradigms for the verbs zi and sa₂ — dug₄. If we look at the first few lines of this text we see a kind of organization similar to the text discussed above (1–4):

\[
\begin{align*}
\text{zi-ga} & \quad \text{ti-bi} \\
\text{ga-zi} & \quad \text{lu-ut-bi} \\
\text{i₃-zi-ge-en} & \quad \text{e-et-bi} \\
\text{nu-zi-ge-en} & \quad \text{u₂-ul e-et-bi}
\end{align*}
\]

The paradigm begins with the imperative and the cohortative, as the paradigm for sa₂ — dug₄ above, but after that the two texts differ in organization. The paradigm for sa₂ — dug₄ on the reverse of CBS 15213 has two forms in common with BT 12: ikaššadam and ul(a) ikaššadam. Unfortunately, in both paradigms the Sumerian is largely broken. The forms appear in entirely different contexts. In BT 12 ikaššadam is followed by takaššadam; akaššadam; ula akaššadam; ula ikaššadam. CBS 15213 has ikaššadam; ul ikaššadam; kašid (end of text). As far as preserved BT 12 does not include plural forms. Several plural forms appear in CBS 15213. The two Nippur

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4. The reconstruction of the Sumerian is based upon OBG IV 98 (unprovenanced): ₇sa₂⁻ᵃᵐ₃-e = i-ka-aš-ša-dam.
paradigms for sa₂ — dug₄ thus follow different schemes.

Similar cases could be made for other paradigm texts. Each paradigm seems to have its own organization. There is only one exception to this rule. OBG T VII, an unprovenanced paradigm for the verb gen, is duplicated by several tablets from Ur (UET VII 101 etc.).⁵ The two Old Babylonian paradigms for gen from Nippur, however, are different from OBG T VII and parallels, and presumably differ among themselves.⁶

An overview over the known paradigms shows that they use a limited number of verbs that were thought fit for this use. A group of five grammatical tablets now in the Oriental Institute in Chicago was published as OBG T VI–X. These so-called Crozer tablets are of unknown provenance.⁷ They form a coherent set and it is extremely probable that they come from the same site. This set includes paradigms for gar; gen; kas₂ — dug₄; sa₂ — dug₄ and gub.⁸ Most of these verbs are attested in other paradigms as well. Apparently, gen is the most popular. Several copies from Old Babylonian Ur and Nippur are known, as well as a Neo-Babylonian fragment.⁹ In addition there are paradigms for other verbs written with the DU sign (de₆ UET VII 102; gub OBG T X). Given the complexity of these verbs, this is remarkable.

In summary, the standardization of verbal paradigms may be evaluated in three dimensions. First, the relation between Sumerian and Akkadian forms is standardized to a high degree. Jeremy Black has suggested that the relation between the Sumerian and Akkadian forms is, in fact, a relation between series of morphemes, so that sa₂ ḫa-ba-na-ni-ib-dug₄ = lištašissum should be understood as:

<table>
<thead>
<tr>
<th>Sumerian</th>
<th>Akkadian</th>
</tr>
</thead>
<tbody>
<tr>
<td>ḫa</td>
<td>li</td>
</tr>
<tr>
<td>ba</td>
<td>-t-</td>
</tr>
<tr>
<td>na</td>
<td>-šum</td>
</tr>
<tr>
<td>ni</td>
<td>Š-stem</td>
</tr>
<tr>
<td>sa₂-b-dug₄</td>
<td>kašānum¹⁰</td>
</tr>
</tbody>
</table>

Second, the choice of verbs is mainly traditional. The same verbs are used in paradigms from different scribal centres. There is no reason to believe, however, that these verbs formed a closed

---

⁶. N 3321 and N 3513 + N 3592 were edited by Black 1991:155–158. Only a small portion of N 3321 is preserved, so that the comparison between the two sources is possible only in a restricted way.
⁷. Jacobsen suggested that they come from a southern site, perhaps Larsa (MSL 4 16)
⁸. OBG T VIII and IX have appendices with shorter treatments of other verbs.
⁹. N 3371 (Nippur); edited in Appendix 2.
¹⁰. The example is taken from Black 1991:129.
set. Indeed we have paradigms for a variety of other verbs, such as ku₄, ta₂₄, and gi₂₂. The order of the items, finally, is not standardized at all. With the exception of the ĝen paradigms, noted above, each tablet seems to have its own organization, and even two paradigms on a single tablet may differ in that respect (see BT 12, Appendix 1). As for ĝen, the two paradigms known from Nippur use a different organization. In so far as these texts contain or transmit traditional knowledge this knowledge is to be found in the horizontal matching of Sumerian and Akkadian forms. In fact, the very term paradigm may be misleading. We may have to think about these texts as improvised collections of forms with their Akkadian translations. They are not productive in the sense that one paradigm would enable you to predict the next.

2. The intellectual contexts

We may further investigate the character of the grammatical corpus by relating it to other types of scholarly texts. This part of our investigation has to start with the observation that grammatical texts are lists. How far do these texts resemble other Old Babylonian lists? In which respects do they differ? In order to answer such questions we may briefly investigate the corpus of Old Babylonian lexical texts and the structure of this corpus. We may then consider the question: how do the grammatical texts fit in?

2.1. The structure of the Old Babylonian lexical corpus

To describe the structure of the Old Babylonian lexical corpus we need to restrict ourselves to a single site: Nippur. Lexical texts differ slightly from site to site and Nippur is the only place that has yielded enough evidence for a coherent picture. Presumably, differences with other sites are relatively small and the general picture has a wider validity.

Old Babylonian lexical lists from Nippur may be described as a systematic corpus. The system behind the corpus is educational. As I have argued elsewhere, the various Old Babylonian lists may be understood as different approaches to the Sumerian writing system, bringing the pupil to a deeper and deeper understanding of this system.¹¹ The main elements of this educational corpus were studied in the following order.¹²

Syllable Alphabet B
TU-TA-TI
Name Lists

¹¹ The order of the exercises has been established by a statistical analysis of the corpus of exercise tablets. See Veldhuis 1996:17-21.

¹² Various other lists and exercises were used less frequently, including for instance Ugu-mu (a list of human body-parts) and a list of business expressions (Proto-Ki-ultûn-bi-3e₂).
Proto-Ur₅-ra
Proto-Ea
Proto-Lu
Acrographic Lists
Proto-Diri
Mathematical and Metrological Tables
Model Contracts and Proverbs

The very first exercise, Syllable Alphabet B, is an exercise in the correct execution of a number of important and frequent signs. Most entries have no meaning. The exercise is usually copied in oversized writing, so that every detail may be given due attention. At the other end of the elementary phase of their education the students copied Model Contracts and Proverbs. Here for the first time pupils studied Sumerian sentences, rather than isolated signs or words. The Proverbs, in literary Sumerian, provided a suitable transition to literary education.

Between Syllable Alphabet B and the Model Contracts and Proverbs a variety of lexical texts were copied. Each of these exercises has its own characteristics, corresponding to a specific educational end. TU-TA-TI deals with the syllabic values. The Name Lists for the first time introduce meaningful items. Proto-Ur₅-ra is a thematic list of Sumerian words, comprising several thousand words and aiming at building a Sumerian vocabulary. The acrographic lists deal with incongruence between Sumerian writing and Akkadian translation. Thus Nigga collects numerous words which begin with the sign NIĜ₂. In the Akkadian translation there is not one single element that consistently corresponds to NIĜ₂. This, in a sense, is a counterpart to Ur₅-ra where within one passage the same sign usually does have the same function. Thus, in the Ur₅-ra passage 𒗐apot, the sign APIN always represents the Sumerian word apin (plough). The acrographic lists demonstrate that such one-to-one correspondences between Sumerian writing and Akkadian translation are not the rule. Proto-Ea deals with polyvalency. For each cuneiform sign the possible Sumerian readings are listed. Proto-Diri provides sign values and Akkadian translations for compound signs. Finally in the mathematical and metrological tables the pupils learned multiplication and division and the system of weights and measures. By the same token they were made familiar with number writing. Details aside, what this overview is meant to show is that the various lists in their curricular order go over more or less the same material — Sumerian writing — from different points of view, providing different perspectives on the same complex subject of study. The same sign or sign combination may be treated various times, in Syllable Alphabet B, in Ur₅-ra, in Ea, but from different perspectives and with a different educational aim. A student trained this way had a multi-dimensional understanding of the system. In Höyrup’s

13. This is argued in some detail in Veldhuis 1998.
felicitous words: he was a scribal virtuoso, or on his way to becoming one (Høyrup 1994:66).

This corpus is an educational corpus, designed to teach something. The cultural knowledge that is being transmitted is not the lexical text in or by itself. It is the writing system that is its subject. It is suitable, therefore, that the lists are flexible. Even though in its outlines this curriculum is standardized, the lists display various degrees of freedom. Variants between Nippur exercise tablets are more rule than exception. The amount of variability among the lexical compositions differs from case to case and from passage to passage. The Nippur lexical series did not have one rigidly fixed text. Comparing the Nippur texts with those from Isin or other Old Babylonian centres reveals that on a regional scale the degree of freedom was much larger. We find more or less the same set of texts, organized in approximately the same way, but in different recensions.

2.2. The Origin of the OB lexical corpus
All this is in stark contrast with the lexical corpus of the third millennium.14 The Early Dynastic lexical tradition is much more uniform. First, nearly all traditional lexical texts from this period are thematic word lists. Sign lists and acrographic lists do occur, but do not seem to have had a significant reception or transmission. Second, as is well known, third millennium lexical texts are extremely conservative. They were faithfully copied, line by line, sometimes even preserving signs that otherwise had fallen out of use. To be sure, changes occurred. Lists were slightly adapted in spelling or writing conventions. New lists were added. The most spectacular adaptations, however, are found in far-away Ebba.15 There we find traditional lists in unorthographic syllabic spelling, as well as the first bilingual lists known to us. Far from the homeland of Sumerian the need for more intelligible teaching tools may have been felt more urgently, and the weight of the tradition may have been less forbidding. In the mainstream of Babylonian lexicography the Ebba innovations were not consequential. In southern Mesopotamia the idea of bilingual lists or lists in syllabic orthography was forgotten — perhaps not even noticed — to re-appear only centuries later.

The lexical corpus of the Ur III period is still badly known. The pieces that have been found so far — mainly in Nippur and Girsu — either belong to the Early Dynastic tradition or cannot be connected with anything at all.16 No traces of the new lexical series such as Proto-Ur₃-ra,

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15. For the Ebba bilinguals and the syllabically written lists see Waetzoldt 1986:42–47 with previous literature.
16. A text like TCTH I 834 (Ur III exercise; lentil-shaped) may well belong to an acrographic series. However, it does not duplicate a known sequence, and may therefore as well be an ad hoc exercise. The text is too short to draw any conclusions. The Nippur lentils which according to Zettler (1991) are to be dated to the Ur III period equally cannot be assigned with certainty to known compositions.
Proto-Ea, or Proto-Diri from this period have been identified.17

The Old Babylonian lexical lists represent a novelty. This novelty, however, is connected to an age-old tradition by its very format: the list. The Old Babylonian lists differ from the earlier ones in three ways. First, there are new textual types. In addition to the thematic type we now have specialized lists such as TU-TA-TI, Proto-Ea and Proto-Diri. Second, the flexible mode of existence is new. Third, the intricate relations between the lists turn them into a coherent corpus.

The Old Babylonian corpus probably goes back to the Isin period. The kings of the Isin dynasty were keen to express the continuity between their rule and the Ur III empire.18 One way of expressing this continuity was the use of the Sumerian language. Yoffee (1993:302) has argued that the Sumerian language was an element in the construction of a Mesopotamian (or rather Babylonian) culture that represented the idea of unity in a politically fragmented area. Sumerian, therefore, may have been a symbolic necessity for a dynasty that claimed legitimate hegemony over the whole of Sumer. The destruction of the Ur III cities may have deprived the country of some of the important centres of learning — the schools that Šulgi allegedly founded in Ur and Nippur. I would argue that the innovation of the lexical tradition was born from a mixture of the ideological uses of Sumerian and the threat of discontinuity in the transmission of the language. The interest taken by Isin kings in educational innovation may be illustrated by the contents of the so-called ‘tetrad’. Steve Tinney, expanding a thesis by Herman Vanstiphout (1979), coined this term for a group of four hymns that were probably used in the earliest stages of literary education.19 The hymns are: Lipit-Èstar B; Iddin-Dagan B, Enlil-Bani A, and Nisaba A. Three of the four praise kings of the Isin dynasty. All three include passages referring to scribal education in the Eduba. The Nisaba hymn is no doubt included because of the relation between this goddess and scribal training.

Yet the third millennium lexical tradition was not entirely abandoned. There are numerous Old Babylonian copies of ED Lu A, the third millennium lexical text par excellence. The bird list and the fish list are both known in three copies. A rare list, sometimes labelled Geography B, is known in one Old Babylonian copy from Nippur, and so is the list Officials. Several other third millennium lists are attested in single Old Babylonian copies. The tablets in question derive from Nippur, Ur, and Kisurra. Some of the unprovenanced pieces may come from Sippar. Compared

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17. The only Ur III exercise that may be related to an Old Babylonian school text is MVN 6 4 (ITT 4:7004); a copy of Syllable Alphabet A (see Landsberger 1959). According to the catalogue of MVN 6 it is an early Ur III or late Akkadian period text, but no copy or photograph is available.
18. For the history of the Isin dynasty see Tinney 1996:2–6; and Sallabeger 1997, in particular 156–163.
19. Tinney 1999. I wish to thank Steve Tinney for giving me a print-out of his article before it was published.
to the regular lexical lists these Old Babylonian copies of ED texts are relatively rare. They are important, however, because they shed some light on the historical awareness of the scribes. Even though a new era in lexicography had taken off, the old corpus was still worth being transmitted. The Early Dynastic corpus was not used as an educational corpus. An Old Babylonian scribe who copied an Early Dynastic list hardly learned anything useful beyond the list itself. These texts are tokens of knowledge of the highest antiquity, worth copying for their own sake.

We may invoke here the concepts ‘classical’ and ‘canonical’. Loprieno used these concepts to discuss the history of Egyptian literature. The classical is a tradition from the past that is handed down faithfully. There is a perceived break in the cultural tradition. The classical period is an ideal period. But there is no hope that the present can live up to that ideal. The ancient values, therefore, are preserved by keeping the text as it is. This, paradoxically creates room for all kinds of innovations. The impossibility of matching the classical example leaves room for experiment, for new textual forms. The canonical, in this definition, is the ideal from the past that still serves as the measuring rod against which the present is measured. It represents an unbroken cultural continuity.

I will explore the potential of this conceptual pair elsewhere. For the time being we may apply them loosely to the corpus of Old Babylonian lexical texts. The Old Babylonian copies of Early Dynastic lexical texts form a classical corpus. Some of the Early Dynastic lists, in particular ED Lu A, must have been perceived as outdated and archaic very early on, long before the Old Babylonian period. In the Old Babylonian period, however, the special character of the ED texts is emphasized, or perhaps even created, by the presence of the new educational corpus. The contrast between the Early Dynastic texts and the new lexical corpus turns the former into a witness of a cultural discontinuity. These texts belong to a time that is irretrievably lost. They contain knowledge of a Sumerian — or of a writing system — that is lost, except for its remnants in this frozen corpus. The innovative traditions of the Old Babylonian period almost instantly create a canonical tradition: a tradition that is transmitted as an important asset, but which is still a living thing, a fluent body. The two traditions belong together as two halves of a pair. The novelty of the educational corpus is apparent only in contrast to the ED corpus. The archaic character of the ED lists is made all the more manifest by the ever changing nature of the educational texts. Whatever the differences are, the new lists are clearly lists. They use the format of the old tradition to usurp some of its prestige.

20. An inventory of Old Babylonian copies of ED lexical texts was published in Veldhuis 1997/1998:125. Several additional pieces have been identified since, most of them unpublished. I hope to study these texts elsewhere.
2.3. The textual format of knowledge

The Old Babylonian period witnesses a proliferation of the uses of writing for various areas of knowledge. Arithmetic is of course not new in this period. The novelty of multiplication tables is that this knowledge is entrusted to writing. The same can be said for divination. Divinatory knowledge was presumably known by heart. Only in the Old Babylonian period this knowledge is at least partly given a written form. The format of both multiplication tables and divinatory handbooks is related to lexical lists. Similarly, Eleanor Robson (1999:138–166) has shown that the administrative knowledge laid down in lists of coefficients goes back at least to the Ur III period. The lists themselves, however, are Old Babylonian. The list, therefore, is expanded to a multi-functional device with a variety of uses, corresponding to a variety of formats. By their very format the lists relate themselves to the age-old tradition of thematic lexical lists. This tradition identifies the list as a carrier of esteemed knowledge. It provides a weight and authority that other text types cannot muster.

In addition to the prestige factor the list format provides another, more substantial characteristic to the representation of knowledge in Old Babylonian texts. Old Babylonian lists (in contrast to their earlier counterparts) are expandable. Their format invites the invention of new items by speculation, or (re)combination of existing items. The knowledge thus represented is accumulative. Knowledge is expanded not by further abstraction, but by adding more items.

2.4. Grammatical lists

The intellectual context of the Old Babylonian grammatical lists may be defined in three dimensions, all of them briefly discussed above. First, although grammatical texts share many formal features with lexical texts, they belong neither with the ‘classical’ ED corpus, nor with the ‘canonical’ educational corpus. They are a category of their own. Grammatical texts are found on tablet types associated with literary texts. The exercise tablets characteristic for Nippur lexical texts were not used for grammatical lists.22 Grammatical lists, therefore, were not used to introduce Sumerian grammar in an elementary phase of education. They were copied by pupils or scribes who already had a considerable knowledge of Sumerian. The grammatical texts do not fit into the system of Old Babylonian lexical texts, the educational corpus described above. They do fit, however, in the general trend of committing to writing all kinds of knowledge in list format. They are part of the wave of new textual formats — somehow related to the list — that characterizes Old Babylonian learned literacy. The particular mode of standardization of the verbal paradigms confirms this analysis. The horizontal dimension is well standardized, and may represent part of the common lore of teachers of Sumerian, consisting of rules of thumb about the correspondences between Sumerian and Akkadian morphemes. In their vertical ar-

22. For the typology of Nippur exercise tablets see M. Civil in MSL 12:27f.
rangement most of the paradigms look like ad hoc compilations. In this they resemble, for instance, lists of coefficients and other mathematical texts. Old Babylonian mathematics is characterized by a broad homogeneity in the kinds of problems, the approaches to these problems, and the coefficients involved. In the actual texts, however, this homogeneity does not correspond to word-for-word duplicates of problem texts or coefficient lists. The only text types that are well-standardized are multiplication tables, tables of reciprocals, and metrological tables. Not coincidentally, these are the text types that are found on regular exercise tablets together with lexical lists, proverbs, and model contracts. The knowledge included in problem texts and coefficient lists is not located in their actual wording, but in the mathematical concepts behind them. Their textual format is ad hoc and accidental.23 Similarly, verbal paradigms — and, presumably, grammatical texts in general — represent ad hoc compilations of acquired knowledge. They are not grammatical introductions. They are neither classical nor canonical. They represent crystallizations of knowledge that may have been relatively widespread — at least under scribes — but that was not regularly put into writing. As such they resemble mathematical texts and omen compendia more than lexical lists.

Second, the subject of the knowledge conveyed in these texts is the Sumerian language. Part of the intellectual context, therefore, is the particular situation of Sumerian in this period. On the one hand Sumerian is a tool for the maintenance of power and ideology. It is one element in the Isin effort to implement ideologically the political continuity from the Ur III state. Knowledge of Sumerian is no doubt prestigious, and therefore grammatical texts confer or display prestige. In Bourdieu’s terminology knowledge of Sumerian is ‘cultural capital’, allowing entrance to circles of power and administrative control.24 On the other hand the Old Babylonian copies of the Early Dynastic lexical lists witness a historical consciousness by the scribes that Sumerian is something of the past. The combination of historical distance and high prestige may be responsible for the apparent indifference to actual relevance for Sumerian as a language. This indifference is most clearly visible in the so-called grammatical vocabularies. One of the vocabularies from Nippur makes a systematic distinction between the deictic elements -ne; -še; and -ri for ‘these’; ‘the aforementioned’; and ‘those (far away)’. All these elements are attested in Sumerian, although -še appears only in Gilgamesš and Agga, and -ri seem to be used mainly for temporal expressions (see Tinney 1996:130f. with previous literature). In this particular vocabulary they are treated as an active paradigm (OBGT I/2 ii10'-15‘):25

\[ lù₂-ne-me-eš-g[ın₇] = (kín₇ ammûtim) \]
\[ lù₂-še₇-me-eš-g[ın₇] = (kím₇ ammûtim) \]

23. This has been argued in detail by Robson 1999:172–174.
Grammatical Texts in their Intellectual Contexts

lu₂-tiği₄-me-e[s]gi[n₇] = (ki₃ma ulla₃tim)
lu₂-ne-am₃ = an-n₃-šu
lu₂-še-na-am₃ = a-na-m₃-šu
lu₂-ri-na-am₃ = ul-la-šu

Similarly, the text widely employs the plural -me-e[s]. We may have serious doubts about the appropriateness of this morpheme in the forms above. Even more striking are the following ones (OBGT I 309–310):

lu₂-ne-da-me-e[s] = it-ti an-nu₂-tim
lu₂-ne-me-e[s]-da = it-ti an-nu₂-tim

Rather then explaining these forms out of ignorance on the side of the scribe in question I would argue that actual correctness or relevance of the forms listed is not the major concern.

This brings us to the third point: the accumulative nature of knowledge. We have seen that this is a novelty of Old Babylonian literacy. The ED lexical lists, the main representatives of third-millennium knowledge-texts, are frozen, archaic compositions. In the Old Babylonian period the accumulative character of knowledge is not only exemplified in the new lexical series, but also, for instance, in omen compendia. Unlike ancient Greek grammar, Old Babylonian grammatical texts are descriptive, rather than prescriptive, apparently listing forms from different sources without judging their correctness. They are not, however, descriptive in the modern sense of the word. They combine their descriptive character with a speculative approach. They use isolated forms like the deictic -še to produce paradigms and generate forms that are either theoretical or plainly impossible. There is a clear parallel here with omen compendia. These texts collect protases of varying degrees of plausibility (including the absolutely impossible) by using paradigmatic patterns of variation. Similarly, grammatical texts collect correct forms, possible forms, and utterly implausible ones without distinction. They comply with an accumulative concept of knowledge: more is better. The relevance of this knowledge and its reduction to writing may be relatively minor for understanding Sumerian texts and language. Its main relevance may have been located in the prestige related to both Sumerian and lexical lists. They may have functioned as cabinets of wonders — the precursors of our museums — in early modern Europe.

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26. The morpheme -me-eš is also used in the Old Babylonian Nippur version of ana ṭāṭu (Proto-ki-ulutin-bi-šē₃). This text is unpublished, but see Veldhuis 1996:20. The composition was used infrequently in Nippur. A related text, however, was widely used in a variety of versions in northern centres (the so-called forerunner to Ur₃-ra = ḫubullu I-II). The -me-eš plural may reflect northern influence in Proto-ki-ulutin-bi-šē₃.
3. Later developments

In the post-Old Babylonian period grammatical texts are created on a much higher level of abstraction. Middle Babylonian grammatical texts basically inherit the tradition of the grammatical vocabularies. However, the Middle Babylonian examples do include isolated Sumerian morphemes, something that is absent from the Old Babylonian grammatical texts. The abstraction is pushed to an extreme in the first millennium lists. An example from one of these first millennium grammatical lists runs as follows (NBGT I 78ff.):

un    šu-a-ti ma-lu-u₂ AN.TA MURUB₄.TA ‘full writing for “him” as prefix or infix’
an    an
en    en
ub    ub
ab    ab
ib₂    ib₂

The Akkadian is supposed to be valid for the whole section. The -n and -b prefixes are listed here with all possible vowel combinations. Presumably, this is a function of the inability of cuneiform to write an isolated consonant. It may also indicate that grammatical analysis was performed on the level of writing.

Both the abstract presentation and the presence of technical vocabulary are new. We are far removed here from the Old Babylonian examples. However, the textual format is still a list. We may have our doubts about the educational value of the Old Babylonian lists. In this case such doubt is unnecessary. These lists are definitely of no use at all unless you know Sumerian.

The late texts have a context in a typical first millennium development. Information of all kinds is more and more written down, in endless series. The whole concept of what a text is has fundamentally changed. The great majority of Old Babylonian knowledge texts were written down as exercises. We have no ‘master copies’ of the Old Babylonian lexical texts, and they probably never existed. Teachers knew the school texts by heart. Some of the lexical lists are still used as exercises in the first millennium, but they are also recorded on library tablets, carefully copied. Colophons tell us who the copyist was, where his original came from and whether it has been collated or not. In the text itself we may find indications that a certain line in the original was damaged and illegible (hepi) or even that the copyist made a new break

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27. Isolated morphemes are found occasionally in some versions of Proto-Ea and Proto-Diri.
28. The patterns of variation in Nippur lexical lists are consistent with the idea that the master text did not exist on clay, but rather in the head of the master.
(hepi eššu). These paratextual features indicate that faithful transmission of the lists had become an important issue. Not surprisingly, first millennium lists are standardized and have lost the fluidity of their Old Babylonian predecessors. The main concern of first millennium scholarly texts seems to be hermeneutics and hermeneutical speculation. The interpretation of signs in the skies, in sacrificial animals, or in writing on clay is based on written texts.

Old Babylonian schoolmasters were the main authoritative sources of knowledge about language and writing. In the first millennium schoolmasters probably still had something to say but a really authoritative source of knowledge had become a text on clay. Old Babylonian grammatical lists are mainly ad hoc recordings of acquired knowledge. First millennium grammatical texts are standardized, very abstract analyses of Sumerian forms in an authoritative written form. They may have been envisaged as still another tool in dissecting and reinterpreting traditional texts.

Appendix 1: BT 12 (formerly CBS 11089)

BT 12 is a single-column tablet or imidda from Nippur. On the obverse three or four lines at top and bottom may be missing.

The restorations are based on other paradigms of lasānum and kašādum, and on the regularities in verbal paradigms in general. The numbers between brackets refer to parallel lines in the Old Babylonian Grammatical Texts published in MSL 4.

In some cases the restoration must remain conjectural, even where we have parallels (see below the commentary on obverse 12').

1'  [...] = traces
2'  [...] = [x a] l-su-um
3'  [...] = [x]-i-su-um
4'  [kas₄ na-ab-be₂] = [la] ḫa-la-su-um
5'  [kas₄ na-ab-be₂-en] = ḫa-la-su-um
6'  [kas₄ nu-ub-be₂-en] = u₂-la-a-la-su-um
7'  [kas₄ ba-ab-be₂-en] = ḫa-l₄-su-um
8'  [kas₄ ba-ab-be₂] = i-ta-su-um
9'  [kas₄ am₃]-e = i-la-su-ma-am  
10'  [kas₄ ḫe₂-im-mu-e-ši-ib₂]-be₂ = li-il-su-ma-ku-um
11'  [kas₄ am₃-mu-e-ši-ib₂-be₂] = i-la-su-ma-ku-um  
12'  [kas₄ ...] = i-ta-as₂-ma-ku-[um] 

(VIII 43)  
(VIII 49)
13' [kas₄ ḫe₂-im]-e = li-il-su-ma-[am]  
14' [kas₄ ḫe₂-ma-ni-ib₂]-be₂ = li-ša-al-si₂-ma-[šu]  
15' [kas₄ ma-ra-ni-ib₂]-be₂ = u₂-ša-al-sa₃-ma-ku-[um]  
16' [kas₄ na-an]-e = la i-ša-su-[um]  
17' [kas₄ ba-an]-e = il-ta-su-[um]  
18' [kas₄ du]g₄-ga-am₃ = lu-us-ša-am  
19' [kas₄ ga]-am₃-dug₄ = lu-ul-su-ma-am  
20' [kas₄] bi₂-in-dug₄ = il-su-um  
21' [kas₄] li-bi₂-in-dug₄ = u₂-la ii-su-um  
22' [kas₄] i-ma-an-dug₄ = il-ta-as₂-ša-am  
23' [kas₄] i-ma-ra-an-dug₄ = il-ta-as₂-ma-ku-um  
24' [sa₂ dug₄-g]-a-ab = ku-šu-ud  
25' [sa₂ g]-a-ab-dug₄ = lu-uk-šu-ud  
26' [sa₂ b]-ji₂-in-dug₄ = iš-šu-[ud]  
27' [sa₂ ba-ni]-in-dug₄ = it-[ta-ak-ša-ad]  

Reverse  
1' [sa₂ an-ni-in-e-en] = [a²]-ka-ša-a[d-su]  
2' [sa₂ ba-ni-e] = ik-ta-ša-ad-[su]  
3' [sa₂ ba-ni-in-e-en] = ak-ta-ša-ad-s[u?]  
4' [sa₂ am₃-e] = i-ka-ša-dam  
5' [sa₂ am₃-e-en] = ta-ka-ša-dam  
6' [sa₂ am₃-e-en] = a-ka-ša-dam  
7' [sa₂ nu-um-me-en] = u₂-la a-ka-ša-dam  
8' [sa₂ nu-um]-me = u₂-la i-ka-ša-dam  
9' [sa₂ mu]-e = i-ka-ša-da-ni  
10' [sa₂ nu-mu]-e = u₂-la i-ka-ša-da-ni  
11' [sa₂ im-ma-ni]-dug₄ = ik-ta-aš-da-šu  
12' [sa₂ im-ma-ri]-dug₄ = ik-ta-aš-da-ka  
13' [sa₂ im-ri-dug₄] = ak-ta-aš-da-ka  
14' [sa₂ ḫu-mu-un]-e = [iš]-iš-šu-da-ni  
15' [sa₂ ma-ni-dug₄] = ak₂-šu-da-šu  
16' [sa₂ ḫe₂-ma-ri]-e = [iš]-iš-šu-da-ka  
17' [...] = uš₃-ta₃-ak-ši-da-[...]  
18' [...] = [...]-aš-ši-da-ku-[um]  
19'-end: isolated signs.
Commentary

Obv. 12. Akkadian *iltasnakkuum* corresponds to *kas₄ im-ri-ma-in-dug₄* in OBGT VIII 60. This form, however, would seem rather out of context in the present passage. Moreover, the same Akkadian form is found in obv. 23', where it corresponds to [*kas₄ im-ma-ra-an-dug₄*]. For line 12' we expect an -eši- form to represent the -kum suffix. Since the Akkadian form is a preterite, it should correspond to a -dug₄ form, which is unexpected since the adjacent forms have -e.

Rev. 9'-10'. Both lines have some free space before -e. The prefix-chain, therefore, has to be rather short.

Rev. 15. The traces in the Sumerian column point at -eši-, rather than -dug₄-, although the Akkadian has a preterite form. Too little is preserved, however, to be confident about the reading of the Sumerian.

Appendix 2: N 3371

N 3371 is a fragment from the upper-right corner of a tablet from Nippur. Judging from the curvature this is a one-column tablet. Palaeography and the use of SIKIL = il₃ point to a first millennium origin. The text contains a paradigm for gen = alākum. The Sumerian sub-column is almost completely lost.

```
1  [...] = li-il₅-li-ik-šum
2  [...] = la i-la-ak-šum
3  [...] = a-i il₃-lak-šum
4  [...] = i₃₂-al-la-ak-šum
5  [...] = [...]-ak-šum
6  [...] = [...]-il₃-la-ak-šum
7-12 traces
```

Reverse

```
1' [...] = [...]-šum
2' [...] = [x]-la-ka²-aš-šum
3' [...] = [x]-wa-la-ak-šum
4' [...] = lu-wa-la-ka-aš-šum
5' [...] = i-il₃-la-ak-šum
6' [...] = i-il₃-la-ka-aš-šum
7' [...] = NU i-il₃-la-ka-aš-šum
8' [...] = il₃-li-ik-šum
9' [...] = u₂-id il₃-li-ik-šum
10' [...] = i₃₃-n₃₃-la-[k-šum]
```
Appendix 3: CBS 6509+ = OBGT I/2

CBS 6509 + CBS 6563 + UM 29–16–30 (+) CBS 6568 (+) "N 1761" has three columns on the obverse and two on the reverse. On the reverse the right column ends after line 25, followed by blank space. The present edition assumes that this represents the end of the text, and that the reverse columns run from left to right. This solution was already implied in the presentation of the main piece (OBGT Ia) in MSL 4 where ‘reverse ii’ (here column iv) is edited before ‘reverse i’ (here column v).

Several fragments of this tablet were published at various places in MSL 4. M. Civil recognized that CBS 6568 (OBGT Ib)29 and UM 29–16–30 (OBGT Ia) belong to the same tablet. He identified the fragments CBS 6563 and “N 1761” as further joins (MSL 55 1 72). Unfortunately, the latter number is incorrect, and so far I have not been able to locate this piece. Finally, I was able to join CBS 6509 (=OBGT I text B) to the same tablet. In the edition of OBGT I the tablets CBS 19791 (text A) and CBS 6509 (text B) were treated as duplicates. Because of the confusion in the present nomenclature I propose to indicate CBS 19791 as OBGT I/1 (formerly OBGT I text A), and CBS 6509+ as OBGT I/2 (formerly OBGT I text B; OBGT Ia; OBGT Ib; and additional joins). The two tablets cover similar ground, but do not duplicate.30

The fragments of OBGT I/2 were baked after their publication in MSL 4 which resulted in improved legibility of some passages. The joins and the improved legibility justify a new edition based upon fresh collation. The corresponding line numbers in MSL 4 are indicated after the = sign. The column header indicates on which page in MSL 4 the line is to be found. A slash / in the transliteration means that a line is divided into two physical lines on the tablet.

Column i

1′ […-na-a]n-na = (blank) (see OBGT I 480ff. and 488ff.)
2′ […-n]a-an-na = (blank)
3′ […]-na-an-na = (blank)
4′ [g₂-a₂-da na]-me-a = e-la / ia-ti
5′ [za-a-da] na-me-a = (blank: e-la ka-ti)
6′ [e-ne-da] "na"-me-a = (blank: e-la šu-a-ti)
7′ [… na-ne]-a = (blank)
8′–15′ Sumerian destroyed, Akkadian column blank
16′ [… ] = l-na ba-llu-u₂
17′ [… ] = (blank)

29. Published as N 6568 in MSL 4.
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Column ii (= MSL 4, 62 OBG T Ia obv. i; 65 OBG T Ib obv. i’)

1’ lu₂-re-en₇-[...] = [...]  
2’ ĝa₂-a-[gin₇] = [ki-ma ia-ti]  
3’ za-a-[gin₇] = [ki-ma ka-ti]  
4’ e-ne-gi[n₇] = [ki-ma šu-a-ti]  
5’ lu₂-še-gi[n₇] = [ki-ma a-nu-um-mi-im]  
6’ lu₂-ri-[gin₇] = [ki-ma ul-li-im]  
7’ me-en-de₃-en-[gin₇] = [ki-ma ni-a-ti]  
8’ [me-en-ze₂-en-gin₇] = [ki-ma ku-nu-ti]  
9’=1’ e-ne-ne-[gin₇] = [ki-ma šu-nu-ti]  
10’=2’ lu₂-ne-me-es-š-g[gin₇] = (blank: ki-ma an-nu-tim)  
11’=3’ lu₂-še₇-me-es-g[gin₇] = (blank: ki-ma a-nu-um-mu-tim)  
12’=4’ lu₂-ri₇-me-es-gi[n₇] = (blank: ki-ma ul-li-tim)  
13’=5’ lu₂-ne-na-am₃ = an-na-šu  
14’=6’ lu₂-še-na-am₃ = a-na-nu-šu  
15’=7’ lu₂-ri-na-am₃ = ul-la-šu  
16’=8’ lu₂-a-li-me-es = an-na-šu-nu  
17’=9’ lu₂-a-li-me-es / de₄-en₇-š₁₁₂-še₂-a = an-na-šu-nu / de₄-en-[š₁₁₂] lu₂  
19’=11’ za-e = (blank: at-ta)  
20’=12’ za-a-kam = (blank: ka-tum)  
21’=13’ za-en-ze₂-en = (blank: at-tu-nu)  
22’=14’ za-en-še₇-zₑ₂-en = (blank: at-tu-nu)  
23’=24’ lost  
25’=1’ [...]-ra-kam x x = [...]  
26’=2’ [a]-na-am₃ = mi-nu-um  
27’=3’ [e]-ne-am₃ = mi-iš-šum  
28’=4’ [a]-ba₇-am₃ = mi-nu-um  
29’=5’ [a-ña]-am₃ = mi-in-šum

Column iii (= MSL 4, 63 OBG T Ia obv. ii; 56 OBG T I text B)

1’=1’ ki-bi-še₃ x x = [...]  
2’=2’ gu₂-τa₇ = [...]  
3’=3’ gu₂-ta-am₃ = iš-[tu ...]  
4’=4’ gu₂-e-ta = iš-[tu an-na-nu-um]  
5’=5’ gu₂-še-ta = iš-[tu a-na-ma-nu-um]  
6’=6’ gu₂-ri-ta = iš-[š-tu ul-la-nu-um]  
7’=7’ gu₂-še₃ gu₂-ri-es = iš-[š-tu an-na-nu-um ul-li-iš]  
8’=8’ me-zag me-zag-bi-še₃ =  difíc […]

Column iv (= MSL 4, 65 OBG T 1b rev. ii; 63f. OBG T 1a rev. ii)

1=1

[...] U₂ = [...]  

2=2

[...] KA = [...]  

3=3

[...] ū₃₃ = ab₃₃kam₃₃ [...]  

4=4

[...] ġu₁₀ = ab₃₃kam [...]  

5=5

[...] zu = ab₃₃kam [...]  

6=6

[...] ū₃₃ = a[m-m [...]  

7

[...] ġu₁₀ = [...]  

8–10

lost  

11=1’

[...] = [...] a-na <u> ma₃₃-ti  

12=2’

[...] = [a]-num-ma  

13=3’

[...] = [x]-num-ma-ta  

14=4’

[me-še₃ a-tum₃] = [a]-iš ur-ru a-na-ku  

15=5’

[me-še₃ e-tum₃] = [a]-iš tu-ur-ru  

16=6’

[me-še₃ an-tum₃] = a-iš ur-ru  

17=7’

[me-še₃ e]-tum₃ = a-iš tu-ub₃₃-ba-al₃  

18=8’

[me-še₃ an]-tum₃ = a-iš ub₃₃-<<ba>>-al₃  

19=9’

[a]-gin₇ = ki-i  

20=10’

[a-gin₇ x x]-ak-a = ki-i a-la-ak-tum  

21=11’

[...]-ak-a = ki-i  

---

31... The lines 11’–13’ follow Landsberger’s ingenious — but highly speculative — reconstruction.
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22=12' [...]-zi-da = (blank)
23=13' [a-gin7 ...] di-da = ki-i la ga2-bi7-am
24=14' [...]-da7 = ma ni x-tim
25=15' [...] = it1-ti-i[a]
26 [ki] lu2-ta = (blank)
27 [ki] lu2-ne-ta = "it-ti" [an-ni-im]
28 [ki] lu2-še-ta = [it-ti a-nu-um-mi-im]
29 ki lu2-ri-ta = [it-ti ul-li-im]
30 ki me-ta = [it-ti ni-a-ti]
31 ki e-ne-[ta] = [it-ti šu-nu-ti]
32 ki ne-ne-[ta] = [it-ti šu-nu-ti]
33 [ki] lu2-ne-me-e[š-ta] = [it-ti an-nu-tim]
34 [ki] lu2-še-me-e[š-ta] = [it-ti a-nu-um-nu-tim]
35 [ki lu2-ri]-m[e-eš-ta] = [it-ti ul-lu-tim]

Column v (= MSL 4, 60 OBGT I text B; and 64 OBGT Ia rev. i)
1 [...] = [...k]7-a-a[m]
2=871 [urs ginn-nam] = ki-a-am-ma
3=879 [urs i3-me]-a7 = ki-i ki-a-am
4=880 [urs ginn me]-a = ki-i ki-a-am
5=869 [urs ra-a]m3 = ki-a-am
6=876 [urs ra-k]e4 = aš-šum ki-a-am
7=880a [...] = ki-a-am ma-ši-a-am
8=872 [urs še3] = aš-na ki-a-am
9=874 [urs ta] = i-na ki-a-am-ma
10=2' "UR5" [... ] = i-na da-an-na u2-ta
11=3' "UR5" SIG7- en-ta7 = i-na lu-ul-li-im u2-ta
12=4' i3-ne-še3 = i-na-an-na
13=5' i3-ne-še3-ta = iš-tu i-na-a[n-na]
14=6' a-da-al = i-na-an-na
15=7' a-da-lam = i-na-an-na-a-[ma]
16=8' a-da-al-ta = iš-tu i-na-a[n-na]
17=9' a-da-lam-ta = iš-tu i-na-a[n-na-a-ma]
18=10' i-da-al = a-ša-a-a[r]
19=11' i-da-lam = a-ša-a-a[r-ma]
20=12' i-da-al-ta = iš-tu a-ša-[a-ar]
21=13' i-da-lam-ta = iš-tu a-ša-[a-ar-ma]
22=14' u4-da = šum-ma
References


