Chapter 10: Errors, mistakes, and other deviations

The present chapter deals with the various types of linguistic deviations that can be found in the manuscripts of the Ḫattuša corpus. The mere length of the list of errors and mistakes in sect. 4. demonstrates that linguistic deviations are an integral characteristic of the Ḫattuša lexical lists. Linguistic errors and mistakes slip into a text when its (re-)production fails in one way or another. In this respect, they can provide indicative data for the reconstruction, in particular of the short-distance transmission of the texts, and of the psycho-linguistic processes accompanying it.

For three main reasons, the investigation concentrates on the main corpus of the present study, i.e., the lists from Ḫattuša, and excludes the parallel corpora from Emar and Ugarit: (1) The duplication rate within these parallel corpora is significantly higher than in the Ḫattuša corpus; deviations among duplicates form evidence which is very similar to that of errors and mistakes, but which is – theoretically and practically – more easily accessible (further see chapter 12, sect. 3.). (2) As will be seen, the Ḫattuša lists provide a particularly rich set of data due to the trilingual linguistic format in which they are preserved in their majority; it enables the detection of a good deal of errors which would remain undetected in bilingual and unilingual formats, which are the standard linguistic formats in Emar and Ugarit. (3) With regard to the long-distance transmission of the texts within the broader chronological and geographical framework, evidence from errors and mistakes is of little relevance.

The most profound and systematic exploration of linguistic error has been undertaken in the field of Second Language Acquisition (SLA), where 'error analysis' is still one of the most important and best developed instruments, having been worked with continuously since the early 1970s.[1] Learners naturally produce errors in the process of acquiring a second language (2L, also labeled 'target language' [TL], as opposed to 'native' or 'first language' [1L]). By studying these errors, researchers aim at both practical and theoretical goals. In theory, it can elucidate the psychological and cognitive procedures involved in 2L learning. In practice it provides some indicative data for the improvement of 2L training, hence helping the learners to overcome their learning difficulties.

The theoretical framework presented in sect. 1, is mainly based on the findings of SLA research. The individual aspects – needless to say – must be adjusted to requirements of the present study. SLA deals with modern languages, which are entirely accessible, and it primarily focuses on oral language in free language production, with speakers principally available further upon request. The lexical tablets are written documents reproduced from existing, more or less fixed sources; there is almost nothing known about the scribes who produced them, the scribes who wrote them are not available for inquiry, and they were written in languages which are now extinct.

1 For a short, but balanced introduction to the subject, cf. Ellis 1997.

Resulting from the adjustment, a descriptive and explicative typology of the errors and mistakes identified in the present-corpus manuscripts is given in sect. 2. Sect. 3. further surveys the material with regard to those aspects that are of particular relevance for the transmissional context of the lists.

Errors and mistakes in Hittite texts have already been investigated by Ch. Rüster (1988) and P. Cotticelli-Kurras (2007), whereby Rüster limits her study to mere graphical errors ('*Verschreibungen*'). The investigation of errors and mistakes in lexical lists, in contrast, can build on the rich inner-textual context that the lexical lists, with their mostly trilingual format, provide. M. Weeden (2011) detects and cursorily discusses quite a number of errors within the present-corpus texts on this basis, also taking into account transmissional aspects. The present chapter expands this list of deviations and furthermore, also provides an elaborate theoretical and typological substantiation.

1.1. [Theoretical framework – interlanguage] The basic theoretical concept by which all analysis of error recurs has been formulated by J. Selinker (1973). It is called 'interlanguage' and is based on the observation that

> "[a specific set of utterances which a learner produces in attempting to formulate sentences of the 2L] for most learners of a second language is not identical to the hypothesized corresponding set of utterances which would have been produced by a native speaker of the TL had he attempted to express the same meaning as the learner. Since we can observe that these two sets of utterances are not identical, then in the making of constructs relevant to a theory of second-language learning, one would be completely justified in hypothesizing, perhaps even compelled to hypothesize, the existence of a separate linguistic system based on the observable output which results from a learner's attempted production of a TL norm. This linguistic system we will call 'interlanguage' (IL)." (214)

The IL system constitutes an intermediary stage between the 1L and the 2L, a kind of transitional dialect of the 2L, which more or less deviates from the 2L. The final state aimed at in 2L acquisition is that IL and 2L levels match each other. In most cases, however, both layers remain dissociated,[2] as is the case of the lexical texts of the present study. Selinker emphasizes IL to be a separate linguistic system, which implies that a specific interlanguage is in fact normative in and of itself – as is any other natural language – displaying its own rules and having its own systematics. Field research was in fact able to show that an individual learner's errors expose a certain regularity and are predictable to some extent.

2 Again, as Selinker (1973) points out, "absolute success [i.e. totally matching of IL and 2L] in a second language affects, as we know from observation, a small percentage of learners - perhaps a mere 5%." (212) The decision as to whether a specific idiom constitutes a dialect of a 2L in its own right or are mere IL variant of it, is in many cases deliberate and normative. Selinker e.g., regards Indian English or West African English to be ILs.

Following S.P. Corder (1974), the analysis of errors and mistakes is commonly structured into three stages: recognition, description, and explanation. The following sections provide an outline and discussion of the relevant theoretical problems encountered in each of those stages:[3]

1.2.1.1. [Theoretical framework – recognizing error – the referential context – basic concepts] According to the terminology exposed above, one can define an error as the departure of a given IL item or structure from the expected item or structure in the TL. Recognizing errors thus means comparing extant items/structures of the IL with the expected items/structures in the TL. The formulation of an expected item/structure is dependent on its individual context. In the case of free-language production this context is three-fold, involving the inner-textual syntagmatic level, the paradigmatic level of the grammar of the TL, and the pragmatic level of the shared extra-linguistic context of the producer and the observer.

The contexts available for detecting errors in cuneiform lexical lists are entirely different from this schema: One can distinguish: (1) an inner-textual context, provided by the mutual horizontal reference of the individual linguistic columns and by the meaningful vertical organization of the lists; (2) an inter-textual context, provided by duplicates and parallels that exist to a given manuscript; and (3) a linguistic context, provided by the grammar of the individual languages used. All three contexts are not free from ambiguities and require further discussion; due to the different roles that the Sumerian, Akkadian, and Hittite columns play within the texts, the three contexts need to be specified for each of these three languages.

1.2.1.2. [Theoretical framework – recognizing error – the referential context – the linguistic context] The linguistic contexts to which the individual items of the lists are compared – mostly at the phonological and grammatical level – are the grammar of the individual languages. In modern error analysis, it is usually the standard dialect which is adduced to provide the lexicon and grammar of reference. The Hittite language, as preserved within the lexical lists, can be related to a more or less coherent linguistic context for it seems to represent the standard Neo-Hittite variety that can also be found in the historical and religious literature of that period (cf. chapter 9, sect. 1.5.).[4] With regard to the Akkadian and the Sumerian, the linguistic context is however, more complicated.

3 R. Ellis (2000) adds a preliminary stage 'collection of samples' and a final stage 'evaluation of errors'. Since the 'language samples' are well defined in the present study, there is no need to discuss the first stage. An evaluation of the most interesting characteristics of the attested mistakes and errors is given in sect. 3.

4 Also note that even if Hittite had already ceased to be a spoken language over the course of the 13th century (cf. most recently van den Hout 2006), the scribes writing the tablets apparently knew well how to operate with it as a written language.

It was already during the OB period when Sumerian was made an *object* of transmission and was compiled into and handed down through the lists; it already represented a mélange of inter-languages as it had undergone serious transformations and corruptions and had lost any coherent grammar of note. In the course of the MB period, Sumerian and its writing system moreover became the object of philological study and linguistic/semiotic speculation. To be sure, the orthographic and grammatical re-formations and derivations that result from these processes, like all phenomena of interlanguage, follow certain rules. Yet, it must be doubted that the Sumerian of the lists and the deviations found in it can be dealt with in terms of a regular, natural language. Rather, it has a kind of 'paralinguistic' character, and the reproducing of the Sumerian part of the lists as achieved by the scribes of that period can hardly be conceived of as a purely linguistic activity (in this respect cf. the characterization of Sumerian as a graphically determined language in chapter 3, sect. 5.4.; also see the difficulties touched upon in chapter 9 sect. 5).

In contrast, the Akkadian of that time was still practiced as a spoken and written language, (at least as a second language), in vast regions of the ANE, with numerous (interlanguage) varieties. This strong diffusion makes it difficult – if not impossible – to define a uniform and coherent grammar of reference. Moreover, as it is clear from the addition of the Hittite column, which serves a as a kind of commentary to the Akkadian column (cf. chapter 11, sect. 2.6.1. & chapter 3, sect. 4.1.), the Akkadian column is – like the Sumerian column – already a part of the fixed tradition in the Ḫattuša lists, having turned from a means of interpretation into an object of transmission itself. It contains written language, and as a consequence the texts may not represent one variety of Akkadian but a mix of – possibly several – varieties of the various Akkadian dialectal environments through which the lists passed (geographically and chronologically) during their transmission.

Thus, in using linguistic contexts for detecting error in Sumerian or in Akkadian items/structures, the observer has to make him/herself aware of the fact that these are not coherent, uniform, or authoritative in any strict sense; each case has to be observed independendtly in its specific textual context.

1.2.1.3. [Theoretical framework – recognizing error – the referential context – the inner-textual context] The inner-textual context emerges from the mutual reference of the individual columns within the lists and partially from their meaningful vertical organization. The latter, as demonstrated in chapter 2, sect. 3.2.3., is not free of ambiguities, so its use as a context of reference is limited. The specific reference among the individual linguistic columns, as demonstrated in chapter 2, sect. 3.3.2. & chapter 11, sect. 2.6.1., is unidirectional, at least for a large selection of the lexical compositions. Akkadian and Syllabic-Sumerian columns unilaterally refer to the Sumerian column, and the Hittite column unilaterally refers to the Akkadian column.

Being the last member of the referential chain – i.e., since there is no fourth column referring to it – the Hittite column is practically without exploitable inner-textual context. And as for the Sumerian column, the same characteristics that lead to the ambiguity of its linguistic context (see above, sect. 1.2.1.2.) more or less apply to the level of the inner-textual context as well. Divergences from the expected standard pronunciations or meanings arising from a comparison with the corresponding items in the Syllabic-Sumerian and Akkadian column in many cases are on account of the 'creativity' by which cuneiform scribes aimed at preserving and using to interpret the cultural heritage of Sumerian texts and of the Sumerian language.

In this respect, the inner-textual context principally is available for the Akkadian column only. It is moreover limited to the grammatical and semantic level, since the Hittite column refers to it solely in terms of meaning. However, as will be seen later, the number of errors disclosed by the inner-textual context despite these general structural restrictions is considerable.

1.2.1.4. [Theoretical framework – recognizing error – the referential context – the inter-textual context] The inter-textual context is formed by duplicates and parallel recensions. It is generally of limited dimensions as the number of duplicates and parallel versions available for the Ḫattuša lists is low (cf. chapter 12, sect. 2.1.), and as differences between the recensions of two (geographically distinct) parallel corpora can also be interpreted as differences between the two textual traditions that the corpora represent. The latter point specifically concerns the Sumerian column. Deviations between two duplicating sources must be read with caution. They do not necessarily point to errors, but may simply represent contrasting philological interpretations by two equal-value textual traditions.

To the Akkadian column, this applies to a lesser degree. In spite of the fixed, incorporated character of the Akkadian column within the Ḫattuša lists, Akkadian was still broadly used at the time that the texts were produced. Inter-textual comparison of Akkadian items can thus be used for the detection of errors at the grammatical or lexical level only. As for the Hittite column, the inter-textual context is strongly limited since the manuscripts of the parallel corpora lack a Hittite column and duplicates within the Ḫattuša corpus are rare.

1.2.1.5. [Theoretical framework – recognizing error – the referential context – summary] The three individual referential contexts thus apply in different ways to the individual linguistic columns: The relations can be summarized as in the following table, which distinguishes between the three statuses: 'full availability', 'limited availability', and 'unavailability'

	Sumerian col.	Akkadian col.	Hittite col.
Linguistic context	**limited** due to 'para-linguistic' status of post-OB Sumerian	**limited** due to dialectal variety	**available** at the phonological and the grammatical level
Inner-textual context	**limited** due to 'creative tolerance'	**available** through Hittite translations	**unavailable** due to lack of additional column
Inter-textual context	**limited** due to 'creative tolerance'	**available** at the grammatical and the lexical level	**unavailable** due to almost total lack of duplicates

Thus, sufficiently transparent contexts within which errors and mistakes can be recognized are mostly available for the Akkadian column only. For the Sumerian column, they are generally limited; for the Hittite column they are practically unavailable. Not surprisingly thus, the largest portion of errors and mistakes detected concerns Akkadian items.

1.2.2. [Theoretical framework – recognizing error – 'overt' and 'covert' deviations] An important distinction regarding the recognition of deviant structures concerns that between 'overt' and 'covert' deviations. As noted by S.P. Corder (1974),

> "an apparently well-formed utterance may nevertheless be erroneous. It may be right by chance. The learner may not know all the rules, yet, by random guessing, hit on a well-formed utterance. [...] On the other hand, a learner may produce an utterance which is well-formed and such as a native speaker would produce on some appropriate occasion, but which, when taken in its context is not plausibly interpretable at all." (127)

The majority of deviations can be made overt in trilingual manuscripts, since this format provides two differing contexts for the Akkadian column: The inner-textual context of the Sumerian column and the inter-textual context determine the item as is to be expected, whereas the inner-textual context of the Hittite column demonstrates how it was actually understood by the scribes. The high number of deviations detectable through such comparisons gives an impression of how many errors may be left 'covert' in simple bilingual texts, which lack this indicative overlap of contexts.

That the majority of covert deviations cannot be identified is due to the lack of the joined pragmatic context between the speaker or writer and the researcher on the one hand and the reproductive character of the lists on the other. It is possible to reproduce phonetic sequences nearly exactly without even having an idea of their grammatical or lexical meaning as is exemplified beautifully by the Vedic tradition in Ancient India (cf. chapter 3, sect. 3.1.).

1.2.3. [Theoretical framework – recognizing error – errors vs. mistakes] Producing a language utterance involves two levels of competence and performance, i.e., linguistic knowledge and the transposition of this knowledge into acoustic (or visual) signs. Consequently, deviant utterances may be on account of either a lack of competence or a lapse in performance. Deviations provoked

by fatigue or by otherwise lowered concentration, accordingly, do not show evidence of the actual language competence; rather, the speaker may be in possession of the knowledge, but in certain circumstances is not able to perform it. Deviant utterances of this sort are considered less serious: they are referred to by the term mistake in SLA; while a deviant structure caused by a lack of competence, i.e., the structure is deviant because the concept developed in the IL does not match the TL, is called error.

Since it is practically impossible to grasp the language competence of an individual scribe beyond mere general evaluations, i.e., due to the missing shared pragmatic context of producer and observer and due to the reproductive character of the lists, it is practically impossible to categorize deviations according to errors and mistakes.

1.3.1. [Theoretical framework – describing error – taxonomies developed in SLA] The second stage of analyzing error, following its recognition, is its description. In the general theoretical framework employed, the description of an error is identical with the description of the difference between the (deviant) item in the IL and the respective item as it is expected to be in the TL. In SLA there are two – more complementary than mutually exclusive – taxonomies used for this purpose.[5] The surface-strategy taxonomy has been developed by H. Dulay / M. Burt / St. Krashen (1982: 150-163), who introduce four categories of error: (1) *omissions*, marked by the "absence of an item that must appear in a well-formed utterance" (e.g., **he going*); (2) *additions*, involving the "presence of an item that must not appear in a well formed utterance" (e.g., **he wented*); (3) *misunderstandings*, manifest as the "use of the wrong form of the morpheme or structure" (e.g., **he has build the house*); and (4) *misorderings*, referring to "incorrect placement of a morpheme or group of morphemes in an utterance" (e.g., **where he is going?*). In the following, instead of the vague label 'misunderstandings' the more appropriate term '*commutations*' will be used.

The second descriptive classification used is the linguistic-environment taxonomy. Describing errors in terms of the linguistic level at which they occur is actually a self-evident procedure. Yet, categories like phonology or morphology – however well defined they appear in theory – cannot usually be kept apart so easily in practice. E.g., the confusion between Akk. *darîtu* "long-lasting" and Akk. *tārītu* "nurse" (see No. 189 on the list in sect. 4.) involves both the phonological and the semantic level. Confusion in the realm of smaller units (i.e., graphemes, phonemes) can easily lead to confusion in the larger units (i.e., the morphemes and lexemes) and vice versa. This is especially true with regard to cuneiform, which in its multi-dimensionality interweaves orthographic,

5 Actually, there is a third model of error analysis, provided by S.P. Corder (1974: 131): It is based on changes in the systematicity of errors, which in their turn mark individual developmental stages a learner passes through. The purpose of the model rather focuses on the question of how exactly learners of a 2L make progress, and it can thus be ignored here.

phonological, morphological, and lexical levels into one and the same item. Also, deviations may be overt at the orthographic level, but covert at the lexical level. In the example given, it is only by the presence of the referential context of the Hittite translation that the lexical dimension of the error becomes overt. Without this context, the error would be evident at the superficial orthographic or phonetic level only.[6]

1.3.2. [Theoretical framework – describing error – the taxonomy used] Due to the sometimes very different status of the individual languages preserved in the lexical lists, it is useful as a main distinction to classify the deviations according to the respective columns in which they occur. An exception is formed by graphic or phonetic deviations concerning single signs, i.e., by deviations that concern the 'superficial' level of writing, which is common to all three columns. These will be described irrespective of the languages examined.

As for the Sumerian column, more or less customary unorthographic spellings, morphological reanalysis, and derivative readings will not be dealt with here as deviations since these belong to the regular transformation Sumerian has undergone since its extinction as a spoken language; they are treated in more detail in chapter 9, sect. 5. The inventory given here only involves those cases that cannot be explained in terms of these paralinguistic, philological-exegetic phenomena; thereby, the cases registered are of an entirely graphic or phonetic nature. As explained in sect. 1.2., the number of errors detected in the Hittite column is even lower than in the Sumerian column due to the almost complete lack of inner- and inter-textual contexts; deviations can moreover be identified at the graphic-phonetic and the grammatical-morphosyntactic level only and not at the lexical level. The Akkadian column is the only column in which errors within all possible linguistic environments can be detected.

In case a given deviation simultaneously concerns two or more linguistic environments, it will be categorized according to the highest level (in a hierarchy from the graphic-phonetic, morphological, morphosyntactic levels up to the lexical-semantic level) with specifications made on the lower levels involved: The typology resulting from these presets is as follows:

Type I. Graphic/phonetic deviations (irrespective of linguistic column)

1. omission of a single sign
2. addition of a single sign
3. misordering of two signs
4. commutation of two signs
   a. with graphic similarity
   b. with phonetic similarity
   c. with neither graphic nor phonetic similarity

6 Regarding the indistinctness of voice in the Hittite syllabary, it would actually remain completely unobserved.

Type II: Deviations in Sumerian column
only phonetic level and only involving phonetic commutations of larger structures

Type III: Deviations in the Akkadian column
1. graphemic level: commutation of concurring readings of the same sign
2. orthographic level
   a. hyper-plene spelling (addition) and word-internal plene shift (misordering)
   b. hyper-geminated spelling (addition) and word-internal gemination shift (misordering)
   c. hyper-contraction (omission)
3. morphological level
   a. commutation of word-formation patterns that are related distinct root types
   b. commutation of homo(io)nymous word-formation patterns
   c. functional commutation of word-formation patterns
4. morphosyntactic level
   a. word-internal (commutation of status or casus)
   b. word-external (coordination of words)
   c. erroneous sign segmentation
   d. literal interpretation
5. lexica/semantic level
   a. related with commutation of homoionymous root consonants
   b. related with commutation of larger homo(io)nymous structures
   c. related with misordering of root consonants or commutation of root patterns
   d. commutation of concurring meanings of the same logogram
   e. commutation of sub-meanings

Type IV: Deviations in the Hittite column
1. phonetic level: commutation of larger structures
2. morphosyntactic level: word-internal commutation of grammatical categories

The individual categories will be exemplified and described in more detail in sect. 2. An inventory of all deviations detected can be found in sect. 4.

1.4.1. [Theoretical framework – explaining error – basic concepts and the cycle of textual reproduction] As is partially evident from the typology listed above, the stages of error description and error explanation inevitably show a certain overlap; e.g., confusion of signs with similar phonetic value will naturally be perceived as a confusion *rooting in* the similarity between the phonetic values. Yet, as pointed out by S.P. Corder, "description of errors is largely a linguistic activity, explanation is the field of psycholinguistics" (1974: 128), and the distinction will therefore be maintained here.

Concepts of error explanation in SLA have been developed in close reference to free-language production which enables a joint pragmatic context of speaker and observer. As this setting is completely different from the present research situation, large parts of these concepts must remain

inapplicable. Although one may claim a certain universality of psycho-linguistic procedures – i.e., that they apply equally to the ANE scribe as to the modern speaker – explanatory models also have to take into account the specific reproductive and text-bound character of the lists.

A cognition-based model of textual reproduction has been introduced in chapter 3, sect. 5 (including an operational sketch). It differentiates the reproductional cycle from the individual successive mental activities perception, processing, and production. Perception therein involves all of those mental activities necessary until a given item or structure is identified in its meaning from a written or oral source. Vice versa, production denotes all those mental activities that are necessary to transpose a mentally present item or structure back into writing or into spoken words. Processing, which is the phase located between the reception and production stage, may involve various activities, the most prominent of which is the memorizing of items or structures and their retrieval, but also their contextual integration, their translation, and or their conscious transformation.

Perception, processing, production, and the specific mental activities associated with them, form the mental section of the reproductional process. It corresponds to an object-world section that involves the acoustic and graphic representations of the texts. Errors and mistakes can slip into a text both in the object-world section and in the mental section. If they are not corrected there is a high probability that they also affect the subsequent reproductional activities and finally become an integrated part of the text. In the following is a short analysis of the possible error sources within the two sections.

1.4.2. [Theoretical framework – explaining error – error sources in the object-world section] Errors and mistakes may simply derive from a triggering of the phonetic or graphic signals from which a given text is perceived. Practically, this triggering is manifest as obliterated or broken-off inscription surfaces, but also as drowned phonetic signals. It does not involve the erroneous production or perception of a source, but the physical destruction or garbling of sources that were (presumably) produced correctly and which otherwise could also be perceived correctly.

The irrecoverable physical destruction of written *vorlagen* definitely existed; it is usually indicated by Hittite scribes through specific textual marks, the so-called PAP-marks (also see chapter 8, sect. 3.5.); yet, as the manuscript SaV Bo. C = HT 42 (see introductory remarks in part D) shows, scribes also tried to restore lost portions of text and did not explicitly mark the (sometimes erroneous) results. The triggering of phonetic signals – needless to say – simply cannot be traced back within written sources.

1.4.3. [Theoretical framework – explaining error – error sources in mental-area section][7] In a psycholinguistic perspective, linguistic or text-bound errors result from failed mental rooting of the representations of linguistic units to the corresponding units in the semantic or episodic memory (cf. chapter 3, sect. 5.5.) which they actually refer to – be it in the process of identification, retrieval, language production, etc. Conceiving of these representations as items stored in a mental network with multiple interrelations, the means of accessing a given item may also vary. For specific reasons, individual representations may not be accessible on the route followed, and if the mental rooting fails – either totally in that the item accessed is Ø, or partially in that the to-be-accessed item is replaced by an alternative, perhaps similar item – the result is an error.

The reasons for failed access are manifold, and the mechanisms behind it are still not exactly understood. On principle it seems that the items to be accessed are actually overridden by less marked items, i.e., by items that are better accessible, with a position perhaps close to the to-be-accessed item in the semantic-episodic network, however still more prominent. This supposed lower markedness in mental accessibility is not necessarily identical with a lower structural-linguistic markedness, although for most errors detected, linguistically less marked items replace linguistically marked items. Markedness here also includes pragmatic or text-bound aspects; the standard lexicon found in written lexical lists is different from the standard lexicon of the spoken vernacular; i.e., individual items may appear more marked in one context than in another. Generally, the substitution of marked items by less marked items may be termed *overgeneralization*.

There are a number of special cases of overgeneralization, which are also of importance for the present study. Probably the most prominent group researchers deal with in this respect is formed by the so-called *transfer errors*. Transfer errors (formerly also called 'interference errors') originate in the use of elements from the 1L while perceiving, processing, or producing the 2L. A revealing example for this type is Engl. **he goes* not inferred by Germ. *er geht nicht*. The lower grade of markedness of the substituting item simply roots in its affiliation to the 1L, which presumably is better accessible than the 2L. Regarding the lexical lists, this type of error is very important, since large parts of these compositions were written in languages foreign to the scribes of the LBA western periphery, i.e., in their second (or third) language.

Epistemic errors are due to a specific lack of world knowledge that would be necessary to properly use an item and which increases its markedness in contrast to items that are properly linked to the object world. A good deal of the vocabulary treated in the lexical lists is concerned with objects or concepts that are innately Babylonian and that possibly lacked a proper counterpart in the object world of western peripheral scribes.

7 The model presented in the following is an eclectic model derived from the SLA studies Ellis 2000: 58ff., Corder 1974, and Richards 1974, as well as from the neurolinguistic readers by Ahlsén 2006 and Ashcraft 2009.

Finally, *textual-interference errors* result from confusion with an item that has been processed shortly before and that overrides the actual item itself. This type of error seems to be related to short-term working memory (also see chapter 3, sect. 5.5.), which in the case of textual interference, must be conceived of as still occupied within an item, while the reading (or writing) scribe has already proceeded on to the next item.

Not all errors detected in the extant corpus are assignable to one of these three particular categories. Most of them do not show traces of a 2L, they do not refer to meanings that require such a specialized world knowledge, nor can they be shown to be inferred from an adjacent item or structure. Many of these unassignable cases indeed show a lowering of the grade of markedness, but still in numerous other cases there is no evidence of a difference in markedness – at least not to the modern observer.

1.4.4. [Theoretical framework – explaining error – error chains] Errors occurring at a given level within the reproductional cycle will also afflict the following levels if they are not corrected. I.e., an item or structure affected by error on the perception stage will, if not corrected at the processing stage, also appear erroneous on the production stage. Error chains of this sort are not limited in length to a single cycle of reproduction, but may continue over several reproductional cycles, so that the error they transport may eventually become a part of the authoritative version of the text. Reinterpretation of the erroneous item or structure may lead to additional error. A given item or structure identified as erroneous can be the result of a chain of several, not rarely interrelated misinterpretations.

The manuscripts of the Ḫattuša corpus must be the results of numerous reproductional cycles. The scribe who wrote the final manuscript did not necessarily create the error; it may have crept into the text during an earlier stage. Determining the reproductional cycle during which a given error was committed, is for the most part a difficult procedure. Duplicates, sometimes also parallel recensions from other sites, i.e., inter-textual context can provide (vaguely) clarifying evidence; if a given erroneous item or structure is duplicated it must have become a part of the tradition, handed down through a number of cycles already. Also, errors that have affected inner-textual contexts, e.g., erroneous Akkadian items or structures that have affected the Hittite translation can be regarded as more established and integrated into the tradition than errors that stand in contrast to a still correct and unchanged inner-textual context.

Also, determining the specific cognitive operation, which caused the error, i.e., whether it was committed during the perception, processing, or production of the item proves impossible in most contexts. In theory, the specific characteristics of the cognitive operations individually color the errors, e.g., perception and production errors are expectedly more source related than processing

errors. However, since the cognitive operations in textual reproduction are investigated and understood only in parts, an exact identification of the reproductional stage on which a given error occurred is possible only in very specific environments.

1.4.5. [Theoretical framework – explaining error – phonetic and graphic induction] Investigating errors and mistakes that come up in texts during their reproduction is of particular relevance for the reconstruction of the short-distance transmissional context of these texts. The fundamental methodological problems connected to this approach have already been touched upon in chapter 3., sect. 5.3., 5.4., and 6.2. In phonetically-determined linguistic contexts as provided by the Akkadian and the Hittite columns, literate modes of perception, processing, and production basically deal with language as a graphic *and* as a phonetic phenomenon. Phonetically motivated errors may therefore occur not only in oral, but also in literate environments, whereas graphically motivated errors unambiguously point to literate modes of transmission in these contexts.

In the rare cases of graphically-determined linguistic contexts, the situation seems to be the exact inverse. In contexts like those of the Orthographic-Sumerian column, in which the language reproduced seems to be strongly bound to its written form, phonetically induced errors appear to be the marked member; i.e., it is rather unlikely that they appear in literate modes of transmission and so they point to oral modes. Conversely, graphically motivated errors may occur in both literate and oral modes of storage and transmission and cannot be taken as indicative for literate modes. Cf. the following summary:

	graphically-determined l. (Sumerian)	**phonetically-determined l.** (Akkadian & Hittite)
characteristics	written logographically, extinct, written language, representing core-text	written phonetically, spoken languages, representing meta-text
focus in reproduction	signs	sounds, meanings
phonetically induced errors	pointing to oral modes of transmission	indifferent as to modes of transmission
graphically induced errors	indifferent as to modes of transmission	pointing to literate modes of transmission

Using graphically induced errors as evidence for literate modes of transmission requires taking into account a further problem: The eventually preserved manuscript on which a given error has been detected is a product of writing. That a manuscript has been written down is nothing that must be proven by an analysis of the errors it contains; it is proven by its mere existence. The crucial question in reconstructing literate modes of transmission from a written manuscript is whether or not literate techniques were also involved *before* this eventual manuscript was produced. Thus, in using graphically induced errors as evidence for literate transmission one has to make sure that this

error was not committed during the production of the (final) manuscripts, but during the reception, processing, or production of a manuscript that antecedes the final manuscript in the transmissional chain. As will be seen, this is unfortunately impossible for a good deal of errors detected in the present corpus.

2. [Concise description of deviation types] The following section contains a concise description of the most important types of deviations as established in the typology of sect. 1.3.2., as well as the possible explanations by which they can be made transparent. When they are of special importance, individual instances are treated in greater detail (as to the others cases, cf. the respective notes in the text edition in part E). A list of all detected deviations, organized according to the various types treated in the following, can be found in sect. 4.

Type.I.1. [Omission of signs] An erroneous omission of signs is attested to in ten instances. With the exception of those cases which occur in the Syllabic-Sumerian column, Nos. (009)+(010), the omissions notably affect the initial or the final member of the item only. In most instances, the resulting, supposedly erroneous item is linguistically meaningful in its own right, as e.g., in No. (005), with Sum. íd(A-ENGUR) "river" instead of the expected Sum. a-íd(A-A-ENGUR) "water of the river". In most instances, as exemplified as well by No. (005), there is a decrease in the linguistic markedness from the expected to the extant, supposedly erroneous item.

Type.I.2. [Addition of signs] Sign additions form a very small group, with only three instances attested. No. (011) SyllSum. šu-u-um instead of expected šu-u and No. (012) Sum. é-AN-dumu-nun-na instead of expected é-dumu-nun-na, are classical textual-interference errors. In No. (011) the addition is inferred from the item in the right-hand column (Akk. šu-u-um) and therefore strongly points to the existence of a written *vorlage*. No. (013) Akk. *mu-u-pé-et-tù*-DU rendering expected *mupettû* involves the erroneous reduplication of a sign.

Type.I.3. [Misordering of two signs] The group of sign misorderings involves three instances, which strikingly, all occur in the Akkadian column (possibly due to the morphological structure of Akkadian, in which root consonants can easily be switched). The misordering invariably affects the last two signs of the item.

In No. (014) Akk. *isiq ni*-ŠI replaces expected isiq *lem*(ŠI)-*ni*. Whether the second member was semantically reinterpreted as Akk. *nišī* "people" cannot be assured due to the missing Hittite translation; but it seems likely, and it would not only prove that the error is graphically induced, but that it must have entered the text before the production of the eventual manuscript.

In No. (016) Akk. *šu-tar*-ḪU-RU rendering correct *šutarruḫu (šu-tar*-RU-ḪU) the prosodically less marked form [arruḫu] is replaced by a relatively marked form [arḫuru], which moreover does not represent a meaningful expression. The error is graphically induced, it is yet impossible to prove that it was not induced during the production of the eventual manuscript.

By contrast, No (015) Akk. *šu-te*-IB-ZU as opposed to the expected *šu-te*-EZ-BU, as preserved by the duplicate (both additionally erroneous for *šutēṣû*), must be phonetically induced, since the misordering cannot be explained on graphical grounds as in the previous instances (<NI>-<ŠI> > <ŠI>-<NI>; <RU>-<ḪU> > <ḪU>-<RU> as opposed to <IZ>-<BU> > <IB>-<ZU>).

Type.I.4. [Commutation of two signs] By far the largest group within the category of graphical deviations is formed by the commutation of two signs. One can distinguish three groups, comprising commutations: (a) of signs with graphical similarity, e.g., No. (037) <ŠUR> instead of the correct <BUR>, with the initial horizontal wedge replaced by an oblique stroke;[8] (b) of signs with phonetic similarity, e.g., No. (083) <KA = dug_4> instead of the correct <TUKU>; and (c) of signs without apparent phonetic or graphic links, e.g., No. (096) <DU> for the correct <NU>. The proportional quantities are as follows:

	Total number	**No. of assured cases**
a	60	53
c	4	2

Taking into account that the only two assured confusions between signs without detectable connections (group c, involving Nos. 095 and 096) can be explained by textual interference – e.g., (095) Akk. TA-AŠ *kar-ṣí* instead of the correct *ākil karṣi*, inferred from *tašlimtu* in the preceding entry – there is no example among the assured cases that lacks a psycholinguistic explanation. The example quoted herein is of particular relevance, since the textual interference from the preceding entry very likely suggests the presence of a written *vorlage*, from which the item has been ill-perceived

The number of graphically motivated commutations largely surpasses that of the phonetically motivated ones. The sign group most prominently concerned herein is <KU>-<LU>-<Ú>, with the strong tendency to replace marked by unmarked items, here: complex sings by less-complex signs. Generally, none of the instances can be shown to have a longer textual tradition; i.e., they may all have been committed during the production of the final manuscript, and are therefore not indicative

8 Generally, the detection of graphical deviations is imposed the problem of the – sometimes not very high – reliability of the published copies. Wherever available, the supposed commutations have been collated according to the original or according to the photo; misinterpretations; however, still remain possible.

of the transmissional context (see sect. 1.4.5.). Another interesting factor is the paleographic relations between the confused signs. Due to the specific differences between the Hittite, Syrian, and Mesopotamian sign forms, some confusion is possible in only one of these traditions at a time, while virtually excluded in the others, or they presuppose certain paleographic developments within an individual tradition. Most of the cases that are notable in this respect are particularly plausible in a Hittite paleographic environment and therefore were very probably caused by Hittite scribes, such as <KU>/<ŠU> (044), <GAR>/<RU> (042), <IGI>/<ŠUB> (046); others, like <TE>/<LI> (031) and <KI>/<KU> (040/052), presuppose respective diachronic developments of <LI> and both <KI>/<KU>, which are supported by the paleographic date of the respective manuscripts.

The number of graphically induced commutations allows for assessing their relative frequency rate according to the individual linguistic columns:

	OrthSum.	**SyllSum.**	**Akk.**	**Hitt.**	**total**
Mistakes total	21	6	23	9	59
Relative frequency	0.89 %	0.52 %	0.67 %	0.25 %	0.69 %

Apparently, mistakes occur to a significantly less degree in the Hittite column than in the Akkadian and in the Sumerian columns, which very likely is to be interpreted as the result of varying degrees of language competence the scribes had within the individual languages. The low mistake rate in the Syllabic-Sumerian column therefore explains itself by its (almost) phonetic character (cf. chapter 9, sect. 4.2.).

Phonetically induced commutations are of particular interest in the Sumerian column, since the Sumerian of the lists must be regarded as a graphically-determined language (see sect. 1.4.5). The altogether nine cases, which cannot properly be interpreted as unorthographic spellings or derivative entries (cf. chapter 9, sect. 5.2. & 5.3.), such as No. (079) replacing <GÁN = GÁ> by <GAL>, thus point to oral and/or memory-based modes of transmission in the transmissional history of the texts.

No. (036/085) is double, involving both graphically and phonetically motivated commutations. Reconstructed <BAR> in the manuscript appears as <ŠU>; this change very likely must include intermediate <ŠÚ>, which is graphically similar to <BAR> and phonetically convergent with <ŠU>. Within the error chain, thus the graphical confusion (<BAR> to <ŠU>) must have preceded the phonetic one (<ŠÚ> to <ŠU>).

Type.II.1. [Phonetic commutation of larger structures (Sumerian column)] The Sumerian column contains a small number of phonetic deviations that concern larger structures and that cannot be properly explained in terms of unorthographical or derivative spellings (cf. chapter 9,

sect. 5.2. & 5.3.). The modifications they display with regard to the original structure are so serious – cf. No. (100) with Sum. zà-lam-ĝar spelled AL-KAR – that they almost inevitably must be due to imprecise oral- or memory-based transmission.

Type.III.1. [Commutation of concurring readings of the same sign (Akkadian column)] Commutation brought about by the confusion between two concurring readings of a sign are rare with a mere two cases attested. They presuppose this respective sign to have been at least virtually, or more likely physically present – since all cases occur in the phonetically determined language of Akkadian. Such is the case e.g., with No. (103) Akk. *ur-pí-it* instead of expected *urpat* "cella" (construct state), which is probably due to a misinterpretation of the sign <BAD>, which has both the readings [pit] and [pat]. Thus the group very likely represents errors in the reception or processing of written sources.

Type.III.2.a. [Hyper-plene spelling and word-internal plene shift (Akkadian column)] Hyper-plene spelling refers to the marking of short vowels as long vowels, which can also be described as the erroneous addition of vowel length. This type of inconsistency is often combined with a word-internal shift of the plene spelling from the expected position to an originally short vowel, as is indicated in the descriptive terminology of 1.3.1., it is to be conceived of as a misordering of vowel length.

It mainly concerns the appearance of verbal roots with weak consonants, as these make up the majority of cases with plene spelling. In the great part of all instances, II-weak roots appear like III-weak roots, i.e., the long vowel has 'moved' from the middle to the final position (in 9 out of 11 instances), e.g., in No. (107), where Akk. *kâdu* is spelled *ka*$_4$*-du-u*.[9] In contrast to the pattern errors of type.III.3.b., these shifts do not affect the Hittite translation, so it is unclear whether or not they really represent a grammatical or just an orthographic phenomenon.

The specific frequency of II-III shifts notably coincides with the fact that in non-erroneous environments long vowels are consistently indicated by plene writing only in *auslaut* position. A possible psycho-linguistic motivation for hyper-plene writing could be an overgeneralization of the use of final plene-written vowels to indicate all weak roots regardless of the position of the weak consonant.[10]

Also note that for the most part, instances (6 cases) are confined to one text only (Erim Bo. Aa = KBo. 1,44+).

9 The exceptions are Nos. (114), Akk. *šebû* spelled *še-e-bu*, which shows the opposite movement (III to II), and (111), Akk. *mupettû* rendered *mu-u-pé-tù*-DU, with the long vowel moving from position III to I.

10 As for two studies of abnormal plene writing, cf. Knudsen 1980 and Aro 1954, which is however outdated in part.

Type.III.2.b. [Hyper-geminate spelling and word-internal gemination shift (Akkadian column)] In the same way items may show short vowels erroneously marked as long vowels, single consonants can appear erroneously geminated. Apart from instances in which consonant gemination substitutes for the lengthening of an adjacent vowel, which is the case for the penultimate syllable in Assyrian, there are also cases which appear quite unmotivated. These latter hyper-geminate spellings can – at least partially – be described as erroneous overgeneralizations of regular spellings as in the aforementioned group, since in both groups the majority of cases concerns the final consonant, e.g., No. (120) Akk. *gitallutu* (/pitarrus/) spelled *gi*$_5$*-ta-al-lu-ut-tu*$_4$. Word-internal shifts, i.e., cases of gemination misordering (as opposed to hyper-gemination) are limited, with altogether two cases, Nos. (115) and (121).

A special group is formed by those instances which show the hyper-geminated consonant additionally dissimilated (hyper-dissimilation), e.g., No. (129) Akk. *umṣatu* spelled *um-ṣa-am-tù*. Such instances strongly suggest that the hyper-gemination – be it a regular development or not – is not just a phenomenon of orthography but one of phonetics/phonology.

Type.III.2.c. [Hyper-contraction (Akkadian column)] Opposed to the erroneous/mistaken lengthening of actually short vowels, there is also the phenomenon of dropped vowels or consonants, i.e., of vowels or consonants omitted in unexpected positions. This phenomenon notably involves specific root patterns, i.e., the Gtn stem. Approximately 40% of all verbal forms attested to in Gtn-stem inflection appear as Gt stems, i.e., they show the second vowel omitted and consequently the reduplication of the middle root consonant lost, e.g., No. (133) Akk. *ḫi-it-nu-qú* rendering the Gtn-formation *ḫitannuqu*. That actually a durative form would be required can be deduced from reduplication in the corresponding Sumerian term and/or from the *-šķe-* suffix in the Hittite translation. There are eight cases detectable. Another deviation, No. (140) Akk. *na-aš-lu-lu* spelling quadriliteral *našallulu*) probably also belongs to this group, as it shows the same phonotactic pattern (/$C_1VC_2aC_3C_3uC_4u$/ > /$C_1VC_2C_3uC_4u$/) and occurs in the same texts as most of the other cases (Erim Bo. Aa = KBo. 1,44+).

It is generally unclear whether these deviations are an orthographic or a grammatical phenomenon. Preferring the grammatical description, one may adduce a transfer from West Semitic as explanation, since the West Semitic languages do not know a formation similar to the Akkadian *-tan-* infix. In this case, the errors had to be registered below type III.3.b. (/pitrus/ for /pitarrus/).

Type.III.3.a. [Commutation of word-formation patterns that belong to distinct root types (Akkadian column)] There are only two cases preserved of this type of deviation. They involve the irregular transfer of nominal patterns from one root type to another, e.g., in No (141) Akk. *aḫurrītu* instead of expected *aḫurtu*, with the I-weak root *'hr* treated according to a III-weak root pattern.

Type.III.3.b. [Commutation of homo(io)nymous morphological patterns ('homo(io)morphy'; Akkadian column)] The group involves those cases in which items are erroneously reinterpreted according to alternative root patterns, e.g., No. (153) with expected Akk. *re'û* "to pasture" (pattern /parās/) interpreted as *rē'û* "shepherd" (pattern /pāris/). The homo(io)nymy of the root patterns, as in the example, evolve from the contraction of vowels and the contrasting origins of the vowel /e/ (/e/ > /a/ vs. /e/ > /i/) in most cases. Whether or not graphemic ambiguities in the representation of /e/ and /i/ played a role, i.e., whether they also demonstrate the presence of written *vorlagen*, unfortunately cannot be said.

Altogether there are 13 instances (also note that there are additional cases grouped under III.2.c., which can equally be interpreted as grammatical errors). The most important word-formation patterns involve:

(i)	/parās/ reinterpreted as	/pāris/	in v. III = y	e.g., (152) Akk. *re'û* > *rē'û*	5 cases
(ii)	/pirist/	/pa|ārist/	in v. III = '3-5	e.g., (148) Akk. *līmu* > *lêmu*	3 cases
(iii)	/parās/	/parrās/	in general	e.g., (143) Akk. *ḫâlu* > *ḫayyālu*	2 cases

Type.III.3.c. [Functional commutation of word-formation patterns (Akkadian column)] Contrary to the preceding type, deviations of the present type cannot be explained by a (partial) merger of morphological patterns. They must involve a general misinterpretation, i.e., a commutation, of the grammatical function of specific patterns or morphemes.

Among the 10 cases preserved (also note the potential additional cases booked under III.2.b.), only one group stands out; the cases it contains are characterized by the interpretation of the *m*-prefixed patterns /maprast/ (three cases) and /muparris/ (two cases) as infinitives, e.g., No. (160) Akk. *mešṭû* "drying place/process" translated as Hitt. *išpariyauwar* "to spread out (for drying)" or No. (155) Akk. *mundaḫṣu* "fighter" translated as Hitt. *ḫulḫuliyawar* "to fight".

All instances preserved stem from only two manuscripts (Izi Bo. A = KBo. 1,42 and SaV Bo. C = HT 42), so one must assume a certain regularity behind the phenomenon. This regularity can hardly be explained by language-internal criteria, since *m*-prefixes invariably form nomina auctoris (*mu-*) or nomina loci (*ma-*) in Akkadian. When not presuming that the error derives from an accidental and unmotivated interlanguage hypothesis, there must be some language transfer involved. In this respect, note that the only known Semitic language which makes use of the *m*-prefix as an infinitive formative is Aramaic.[11]

11 Also see chapter 9, sect. 2.3.4. This situation is at least evident with regard to Syriac and with regard to the later dialects of Old Aramaic; the earlier dialects of Old Aramaic; however, apparently do not provide (as yet) attestations for /miqtal/ patterns in infinitive use.

Type.III.4.a. [Word-internal morphosyntactic commutation (Akkadian column)] Akkadian word-internal morphological deviations are confined to a single text. Akkadian status-rectus nominative forms are erroneously extended to status-constructus nominative and to status-rectus accusative, e.g., No. (166) Akk. *imtu* (as opposed to correct *imta*) *nadû* "to spit/throw poison". In fact typical for 1st-millennium Akkadian, the aberrations are notably confined to one manuscript, to Sag Bo. E = KBo. 1,49. They reflect typical 'list errors'; cf. the following section (Sag Bo. E = KBo. 1,49 7'-10', with reconstructed/expected items given in parentheses):

Sum./Akk.	[uš$_{11}$]	*im-tù*	(*imtu*)
	[uš$_{11}$-muš]	*im-tù* MUŠ	(*imat ṣēri*)
	[uš$_{11}$-ĝír-tab]	*im-tù* GÍR.TA[B]	(*imat zuqāqīpi*)
	[uš$_{11}$-šub-ba]	*im-tù na-du*-[*u*]	(*imta nadû*)

The errors, thus, can be explained as results of a modular approach, which focuses on words as relatively isolated units and disregards the morpho-syntactic relations between them. In this respect, they may also be interpreted as textual-interference errors.

Type.III.4.b. [Word-external morphosyntactic commutation (Akkadian column)] Errors in word coordination exclusively involve the commutation of possessive and non-possessive relations, e.g., No. (167) Akk. *idān raqāti* "empty arms" translated by NÍ.TE$^{HI.A}$-*uš kuedani dannara* "who has empty limbs".

Type.III.4.c. [Incorrect sign segmentation (Akkadian column)] There are only two errors verifiable within the corpus which are due to an incorrect segmentation of signs. Nonetheless they are very important, because they unambiguously represent graphic reception errors, thus pointing to a written *vorlage*. Therefore, No. (170) Akk. *ar-ka-a-tú*(UD) "descendants" reinterpreted as *arka ūmi* "future days", presupposes the confusion of logographic <UD = U$_4$> for syllabographic <UD = tú>, which is only possible during the interpretation of a written source. Equally, No. (171) Akk. *sūqu lā aṣû*(=*ma*) (<ZU-KU LA A-ZU>), interpreted as *sūqu lā sūqu* (<ZU-KU LA ZU-KU>) requires the presence of a *vorlage*. Taking into account the additional commutation of <MA> and <KU>, this *vorlage* was most likely inscribed in Hittite paleography.

Type.III.4.d. [Literal translations (Akkadian column)] Literal translations can be described as hyper-segmentations of idiomatic expressions. They are typical for any kind of translation literature and betray the limited idiomatic knowledge of the translator. The present corpus attests to a mere two cases of this sort.

Type.III.5.a. [Lexical/semantic deviations related with commutation of homoiophonic root consonants (Akkadian column)] Errors of this type form quite a sizable and important group. There have been 28 potential instances detected. In 8 cases, one item even contains two commuted consonants. Altogether then, there are 36 cases.

The largest part of these instances is due to a commutation of voice. There are 32 cases attested to, with: 16 cases involving a dental, seven a palatal, six a labial stop, and three involving a sibilant. Changes occur between all extant voices and in all possible directions, but notably not in equal lots, as can be seen in the following chart:

Changes	from voiced to voiceless	(M - T)	17 (11 sure)
	from voiceless to voiced	(T - M)	4 (3 sure)
	from voiced to emphatic	(M - E)	2 (2 sure)
	from emphatic to voiced	(E - M)	2 (1 sure)
	from voiceless to emphatic	(T - E)	6 (6 sure)
	from emphatic to voiceless	(E - T)	1 (1 sure)

While commutations involving emphatic consonants are altogether rare (due to the generally low frequency of emphatic voice) and relatively balanced as to the direction of change; the number of commutations between voiced and voiceless consonants is significantly higher, and there is a clear preference for voiced consonants misconceived as voiceless consonants. Excluded are those cases that are probably semantically motivated, i.e., Nos. (183)/(184)/(201), (with Akk. *būdu* "shoulder" reinterpreted as less-marked *pūtu* "forehead"), where the number of ascertained changes from voiceless to voiced is nil.

This strongly points to a phonological regularity, which in turn may root in language transfer. Thus, the two-fold Hittite and Hurrian voice systems, which probably did not contrast [± voiced] but perhaps [± lenited] or [± aspirated],[12] may have beset the identification of Akkadian voice contrasts for native-speaking scribes. The deviations may also have been provoked by the ambiguities within the syllabary of the Ḫattuša lists, in which the syllabograms rendering stops are generally not fixed regarding voice (cf. chapter 9, sect.2.1.2.). There are as of yet no specific regularities detectable in this respect, and a graphically induced origin of the errors thus cannot be proven.[13]

12 As for a short summary with regard to Hittite, cf. Melchert 1994:16f. As for Hurrian, cf. I. Wegner 2000:40.

13 An explanation purely in terms of orthography, referring to the privative use within many sign series (cf. chapter 9, sect. 2.1.2.), which seems short-at-hand, is in fact invalid: In most privative pairs, the tenues signs are used to spell both mediae and tenues, whereas the media sign only spells the media (e.g., <PA> is used for /pa/ and /ba/, <BA> for /ba/ only) Consequently, one may assume that the strong tendency to replace M by T in the present group of errors may be due to the general preference of T-signs. However the distinction between T-signs and M-signs is made on the basis of the 'etic' OB syllabary, which is not congruent with the 'emic' syllabary used in Khattuša. For a Ḫattuša scribe the opposition between <PA> and <BA> is one between an M and an M/T-sign. To assume that /ba/ may be spelled <PA> and that <PA> then entails a reinterpretation as /pa/ means mixing the two systems.

There are four further instances that involve sibilants, and thus do not constitute a confusion between voices, but between contrasting places of articulation. They all involve /š/, which is presumably a palatal sibilant, and which appears confused with the supposed dental, affricate, or interdental sibilants /s/, /ṣ/, and /t̲/. Changes are also multidirectional (/š/ - /s/, /š/ - /ṣ/, /s./ - /š/, /š/ - /t̲/). An evaluation is beset by the low number of instances and by the still not exactly understood phonological background of the 2nd-millennium (peripheral) Akkadian sibilants.

Type.III.5.b. [Lexical/semantic deviations related to the commutation of larger homo(io)nymous structures (Akkadian column)] Apart from lexical confusions which can be traced back to changes in the voice or in the place of articulation of individual root consonants, there is also a considerable group of errors caused by homo(io)nymy in larger units. They can be assigned to the following three subgroups:

Confusions caused by	(i)	Intra-Akkadian homonymy	3
	(ii)	Intra-Akkadian homoionymy	7
	(iii)	Akkadian-West Semitic homoionymy with one unsure case (either group (ii) or (iii))	3

Group (iii) includes classical transfer errors, e.g., No. (212) Akk. *addû* “work quota” interpreted as WSem. *aḥd*. “one”. Among the intralingual ones (groups i and ii), there is an obvious tendency to substitute linguistically marked forms (in this specific case semantically marked forms) by more customary, less marked forms, e.g., in No. (202) Akk. *abāru* “strength” interpreted as *abāru* “lead”.

Type.III.5.c. [Lexical/semantic deviations related to the misordering of root consonants or commutation of root structure (Akkadian column)] Lexical deviations are not necessarily caused by homo(io)nymy as in the two previously explained error types. As the lexical meaning of the Semitic root builds on three root consonants, errors may also occur through a misordering of the consonants, or – in the case of 'weak' roots – by a general misconception of the root structure.

The following groups can be established (while 'y' generally denotes a weak consonant; 'G' denotes the basic stem, 'D' the geminated stem):

Changes	from I-II-II	to I-II-y D	4
	from I-II-y G	to I-II-II	2
	from I-II-y	to I-y-II	2
	from I-II-y	to y-I-II	1
	from I-II-III	to I-III-II	1

Nine out of the altogether ten instances involve a weak root, and six of these nine instances are marked by the commutation of roots mediae geminatae and roots tertiae infirmae (in both directions, however with respectively alternating stems). Confusions of this sort, e.g., No. (219) Akk. *kadādu* interpreted as *quttû* or No. (222) *šeṭû* interpreted as *šadādu*, are only transparently explainable if the verba mediae geminatae show a weak inflection (as to the aforementioned examples; thus, there must be transitional forms: **kad*(*d*)*u* and **šad*(*d*)*u*). Akkadian invariably treats verba mediae geminatae as strong verbs. A weak inflection of verba geminata is only found in West Semitic, it is there; however, in high regularity (also cf. chapter 9, sect. 2.3.4.). Thus the most transparent explanation for the bulk of instances of the present type is a linguistic transfer from a West Semitic idiom.

With regard to the mode of short-distance transmission, a revealing error is No. (224) Akk. *bīšu* / *b-š-y* "propriety", according to the Hittite translation misinterpreted as *epēšu* / *y-p-š* "to make", but written I-BI-*šu*. The spelling inevitably proves (Akk. *epēšu* is never spelled with an initial <I> – without evidence of a single recorded instance) that the error must be due to a misordering of the signs <BI>-<I>, and is thus based on a written *vorlage*.

Type.III.5.d. [Lexical / semantic deviations related with differences in logogram use (Akkadian column)] Due to the stability and the long duration of its tradition, the Hittite writing system has gained a relative autonomy from the Mesopotamian system. Among other phenomena, this can be seen in the use of specific logograms. Some are used in meanings that are peripheral to the Mesopotamian system, while some others represent meanings that are completely unknown.

The lexical texts from Ḫattuša often make use of logographic spellings – especially in the Hittite column – and it appears that entries sometimes repeat the same logogram in all three columns (most are accompanied by different phonetic complements in the Akkadian and Hittite columns). In cases of logograms that differ as to their meaning in Akkadian and Hittite writing, this naturally leads to error. There are altogether five cases, e.g., No. (230) Sum./Akk. gú / GÚ-du_4 "neck, river bank" as opposed to Hitt. GÚ-*tar* "shoulder".

Type.III.5.e. [Lexical / semantic deviations related with commutation of sub-meaning (Akkadian column)] A particular class of semantic deviations involves the confusion between two different submeanings of the same word. Altogether eight instances can be identified; the actual number may be higher, however many misunderstandings escape observation as the lexical meanings of many words still cannot be determined with necessary accurateness (especially in the case of lexical lists, which lack the usual syntagmatic context).

The cases in which the erroneous submeanings show a higher semantic markedness expectedly outnumber those in which the semantic markedness is lowered by the error. No. (234)+(240) Akk.

aḫāzu "to take, hold" (rel. unmarked) opposed to Hitt. MUNUS-*aš dāuwar* "to marry" (rel. marked) is particularly notable since it occurs twice and in two unrelated manuscripts.

Type.IV.1. [Phonetic deviations concerning larger structures (Hittite column)] Phonetic deviations within larger units in the Hittite column involve a single instance only, which in itself is quite remarkable: In No. (242), the expected item Hitt. *išalliš* appears as <YA-Ú?-I-IŠ>. The spelling with initial <YA> and the plene-writing with <I> is extremely atypical compared to the usual Hittite orthography. Altogether it evokes the impression that the term was copied from a – in this section poorly preserved – *vorlage* by a scribe who was unable to reconstruct the original item.

Type.IV.2. [Word-internal morphosyntactic commutation (Hittite column)] Word-internal morphosyntactic errors in the Hittite column involve different grammatical categories such as: case, gender, or pronominal categories. No. (243) apparently reflects the reinterpretation of the verbal ending *-zi* as the syntactic particle *=za*. This is not the only deviation that appears on quite a basic level of language competence. Together with Nos. (244/245), which involve confusions between the relative pronouns Hitt. *kuiš* (c.) and *kuit* (n.), they raise the question of whether the vernacular(s) spoken by the scribes who wrote the manuscripts did not already show considerable difference from the language that was used in the manuscripts (in this respect, also see chapter 9, sect. 1.4. & 1.5.).

3.1. [Summary – phonetically motivated and graphically motivated errors] As explained in sect. 1.4.5., the distinction between graphically motivated and phonetically motivated errors is of considerable interest, since the graphic and phonetic character of deviations hint at the transmissional background of the manuscripts in which they occur. As explained in the same section, there are some additional premises the individual cases have to comply with in order to be usable as evidence in this respect: (1) Graphically induced errors are only usable in phonetically-determined linguistic environments (i.e., in the Akkadian and Hittite columns), whereas phonetically induced errors are only usable in graphically-determined linguistic contexts (i.e., in the Sumerian column). (2) Graphically induced errors can only be used if they were clearly not committed during the production of the (eventual) manuscript on which they are preserved.

According to these premises, the following errors quite evidently point to literate modes of transmission:

(011) commutation of SyllSum. šu-u-um and šu-u due to textual interference with the following column
(036) commutation of <ŠÚ> and <BAR> resulting in a reinterpretation as <ŠU>
(095) commutation of the sequences <TA-AŠ> and <A-KÍL> due to textual interference with the preceding entry

(103) commutation of the readings [pit] and [pat] of the sign <BAD>
(170) commutation of the logographic reading U_4 and the syllabographic reading [tu] of <UD> (occurring in two duplicating sources)
(171) incorrect sign segmentation (Akk. *sūqu lā aṣû=ma* vs. *sūqu lā sūqu*)
(198) misordering of <I> and <BI> (Akk. *bīšu* vs. *epēšu*)

The following cases may be interpreted equally in this direction, but remain somewhat uncertain:

(014) commutation of Akk. *isiq ni*-ŠI and *isiq lem*(ŠI)-*ni*, based on the misordering of <NI>-<IGI> with a possible reinterpretation of the phonetic value of <IGI = ši = lim>,
(102) commutation of the readings [num] and [lum] of the sign <LUM>,
(242) representation of Hitt. *išalliš* as YA-Ú-I-IŠ, which probably is due to the deciphering of a badly preserved *vorlage.*

An oral transmissional background, accordingly, can be demonstrated by the phonetic commutations of Sumerian items subsumed under types I.4.b. and I.4.c. They involve ten cases with commutation of single items,

(079) <GÁ> to <GAL> / (080) <KÚR> to <TUR> / (081) <KÚR> to <GAR> / (085) <ŠÚ> to <ŠU> / (086) <SU> to <ŠU> / (087) <UD> to <DU> / (090) <U> to <Ú> / (093) <UDU> to <DU> / (094) <PA> to <BA>,

as well as three cases with the commutation of larger structures:

(099) Sum. NÍG-AL instead of igi-kal
(100) Sum. AL-KAR instead of zà-lam-ĝar
(101) Sum. ZAG-GU-LA-NÚ instead of saĝ-an-dul-nú

None of those instances that point to oral transmission can be dated. Note that No. (036)/(085) is doubled, involving a phonetically motivated and a graphically motivated commutation, whereby the latter must have preceded the former. Notably, the instances almost exclusively stem from manuscripts of the series *Erim* and *Urra*. In contrast to sign-list compositions – which deal exclusively with comparably short Sumerian items (often single-sign items) and which have a strong focus on the 'correct' phonetic rendering of those logograms – thematic lists like *Urra* or group vocabularies like *Erim*, include more complex linguistic structures in the Sumerian column and are more likely to be affected by phonetic deviations.

3.2. [Summary – transfer errors] Errors caused by language transfer involve West Semitic and Hittite/Hurrian adstrata. The latter solely manifests itself at the phonetic/phonological level, which is not very surprising, since the languages that supposedly form the background of the stratum are morphologically and lexically different from Akkadian. The influence is detectable in errors of type

III.5.a, which comprises commutations between homoionymous Akkadian phonemes. The changes are not fully, but to a high degree unidirectional: from voiced to voiceless, thus making a language with different phonetic/phonological systems shine through. As both Hurrian and Hittite had a two-fold instead of a three-fold voice opposition, and as the distinctive feature within this opposition very likely was not voice, it is quite plausible that the adstratum causing these errors was one of the two languages.

Apart from the primary and secondary influence of West Semitic on the Akkadian lexicon and morphology, as treated in chapter 9, sect. 2.3.2. & 2.3.3., West Semitic influence is reflected by several types of errors, both grammatical (III.5.c., possibly also III.2.c. and III.3.c.) and lexical (III.5.b.). Their absolute number is not very high. Note however, that due to the close similarity between West Semitic and Akkadian, particularly regarding the lexicon, many instances of transfer may in fact not be identifiable (as for a summary of all West Semitic features found in the texts, equally cf. chapter 9, sect. 2.3.).

3.3. [Summary – textual-interference errors] Textual interference, the influence of a specific item on an item adjacent to it, can serve as explanation for several deviations. It is not limited to specific types.

Interfering items are in most cases directly adjacent, e.g., No. (026) Sum. gu-GU instead of the correct gu-GÌR, or (042) Akk. *iš-kà*-GAR instead of the correct *iš-ka-ru* (inferred by Sum. á-iz-GAR). They may be located within the same or adjacent subcolumns (see previous examples), and within the same or within adjacent lines as in No. (095) Akk. TA-AŠ *kar-ṣí* for the correct version, *a-kíl kar-ṣi* as inferred by *ta-aš-lim-tù* of the preceding entry. The direction of interference is mostly from left to right and from up to down; only No. (011) shows interference from right to left.

If the items of interference are not directly adjacent, the probability increases that the interference was due to the interpretation of a written *vorlage* (see sect. 3.1.). Textual-interference errors also play an important role in the reconstruction of the direction of the inscription of the tablets (see chapter 8, sect. 3.1.1.).

3.4. [Summary – epistemic errors] Epistemic errors are altogether difficult to detect with certainty. Manuscripts containing several potential instances are Urra Bo. 4A = KBo. 1,57+, which addresses various kinds of birds and flying insects, as well as SSgL Bo. E = KUB 3,94 ii 18-26, with a passage dealing with locusts and other grain pests. Many of the animals listed by these texts were probably unknown in Anatolia, and strikingly the texts show the highest rate of spelling mistakes and phonetic deformations.

3.5. [Summary – the grade of markedness and the severity of the errors] As revealed in 1.4.1., errors usually involve a decrease in (mostly, but not invariably linguistic) markedness from the replaced to the replacing item. This presumption is invariably confirmed by the extant material. Scribes tend to replace items by less complicated signs, less specific grammatical forms, and more general lexical meanings.

The grade of severity of the individual deviations is altogether difficult to assess, for doing so presumes the definition of exact criteria. The general impression is that most errors do not presuppose a very high degree of language competence, as is shown by No. (183)/(184)/(201) Akk. *pūtu* "forehead" instead of the expected *būdu* "shoulder" and despite corresponding Sum. gú, No. (186) Akk. *ṣabātu* "to seize" instead of the expected *šabāšu* "to be angry", No. (212) WSem . *'h.d* "one" instead of Akk. *addû* "work quota", despite corresponding Sum. á-dù, or No. (224) *epēšu* "to make" for *bīšu* "property".

The error rate is moreover comparably high. 13% of the 430 fully preserved Sumerian-Akkadian-Hittite equations show errors at the lexical level, 8% do so at the grammatical level; excluded are those cases that combine lexical and grammatical errors, and almost every fifth entry is affected by error. Most errors yield sensible Akkadian-Hittite equations (with the Akkadian having been reinterpreted); yet, the Hittite and the Sumerian items are not related anymore within these entries. As a consequence, the original semantic relations in the vertical succession from one Sumerian item to the next are, when approached from the meaning of the Hittite item, often seriously disturbed. Texts that have lost their semantic coherence in this way were certainly more difficult to memorize than those that showed the vertical relations intact.

Although, as shown in the summary of Type.I., the number of sign commutations is by far lower in the Hittite than in the Akkadian and Sumerian column – i.e., the scribes' competence in (written) Hittite was much higher than that in (written) Sumerian and Akkadian –, quite basic grammatical deviations also occur in the Hittite column; which, if not being simple lapsus, demonstrate that some scribes also had problems in (written) classical literary Hittite (cf. type IV.2.).

3.6. [Summary - the role of specific manuscripts] Not all of the manuscripts were affected by error to the same degree, nor do they show the same types of error. There are a number of manuscripts that are of primary importance for the detection of errors, since they produce numerous deviations. Some of those also show a preference for specific types of error. These error preferences can in fact be analyzed as the 'personal idiosyncrasies' of individual scribes, teachers, or translators.

The most relevant texts and their specific characteristics are the following:

Text	Format	Characteristics
Urra Bo. 4A	2 -1 - 4	Many spelling mistakes in all columns, many phonetic misinterpretations in the Akkadian column
Izi Bo. A	2 - 4 - 5	Many commutations influenced by West Semitic (particularly. confusions of *m*-prefixed forms, type III.3.c.); main source for errors rooting in homo(io)nomy of root consonants (type III.5.a.)
Sag Bo. E	2 - 4	Misinterpretations in Akkadian case and nominal state endings (cf. type III.4.a.) due to modularized translation (actually typical for 1st-millennium texts)
Diri Bo. Ac	2 1 3 - 4 - 5	Notably many confusions in the Hittite column; also written by a sketchy hand
Erim Bo. Aa	2 - 4 – 5	Main source for hyper-plene writing/plene shifting (type III.2.a)

3.7. [A chronological hierarchy of errors?] The deviations identified certainly did not spread into the texts at the same point in time. Some may have been committed by the scribe who wrote the final copy that is now preserved, others may have slipped into the texts at a much earlier stage. As most (types of) errors show very few and sometimes a complete lack of interrelation with each other, it is impossible to fit all of the material into a coherent chronological framework. Nonetheless the material does allow for some tentative conclusions regarding chronology:

(1) Many lexical and grammatical misinterpretations that concern the Akkadian column must have entered the texts at an earlier stage than is marked by the preserved copy. This is clear from the fact that: (i) identical errors occur in duplicate;[14] (ii) erroneous items are affected by additional mistakes, which must have occurred later since they do not affect the meaning, (as evidenced by the horizontal context);[15] (iii) errors occur in texts which contain PAB/*ḫarran*-marks, i.e., which are identified as copies of earlier material,[16] and that (iv) some errors reflect a paleography or syllabary which is not reflected by the respective manuscript itself.[17] Moreover, (v) many errors display a West Semitic background, therefore they likely belong to an earlier transmissional stage.

(2) From argument (v) it appears quite likely that some errors were already a part of the texts before they arrived in Ḫattuša, since they reflect a Non-Hittite linguistic environment. Argument (iv) equally points in this direction as it refers to errors that are only explainable on the basis of a Mesopotamian syllabary and of a Non-Hittite paleographic tradition. However, the errors could theoretically have been committed in Ḫattuša as well, through the copying from a *vorlage* that displayed a kind of paleography or syllabary that the copying Hittite scribes were not familiar with.

14 Cf. the errors marked by 'D' in the list in sect. 4.

15 E.g., No. (102/191) Akk. PA-*ṭa*-NU with the change from /b/ to /p/ affecting the meaning (thus earlier), but the change from <LU> to <NU> leaving it unchanged (thus later).

16 SaV Bo. C = HT 42 with No. (163) and Erim Bo. Aa = KBo. 1,44+ with various errors.

17 No. (170), as for which see type.III.4.c.

(3) As some graphically motivated errors in the Akkadian column affect the Hittite translation, particularly No. (224), they must predate – or be at least simultaneous with – the addition of these translations.

4. [Full list of all deviations detected] Errors occurring more than once in the same text are counted as a single instance only. The meaning of the symbols used in the listing is as follows:

Context:	'ling'	linguistic;
	'inn'	inner-textual'
	'int'	inter-textual (see sect. 1.2.1.)
Remarks:	'trans'	transfer error
	'int'	textual-interference error
	'phon'/'graph'	phonetically/graphically induced and usable as evidence for reconstruction of short-distance transmissional context
	'D'	duplicated
	'd'	not paralleled by duplicate
	'?'	uncertain case

In a contrast between an underlined term and a non-underlined term, the underlining indicates the representation of the item as it is found in the respective manuscript.

As to further information in individual cases, cf. the respective notes in the text edition in part E.

Type I.1. Omission of signs

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(001)	An Bo. A rev. r. 8'	Sum. nin-...	Sum. ^{d}nin-...	int/ling	
(002)	Izi Bo. A i 20'	Akk. *še-ri*	Akk. *i-na še-ri*	ling	
(003)	Izi Bo. A iv 8'	Hitt. *lu-u-ri*	Hitt. *luriš*	ling	
(004)	Kagal Bo. B sect. A 5'	Akk. *ru-uk-ku*	Akk. *rukkušu*	int/ling	
(005)	Kagal Bo. C ii 5'	Sum. íd(A-ENGUR)	Sum. a-íd(A-A-ENGUR)	inn/int	
(006)	OBLu Bo. A ii 2'f. (2x)	Akk. *ša-ni-na*$_7$ ...	Akk. *ša ša-ni-na*$_7$ ...	ling	
(007)	SSgL Bo. D ii 20	Akk. *ṣi-ir-ru*	Akk. *ṣaṣirru*	ling	
(008)	Urra Bo. 1A C i 15'	Sum. ĝeššà-an-tuku	Sum. ĝešnú-šà-an-tuku	inn	
(009)	Urra Bo. 4A i 11'	SyllS. qa-am-am-ma	SyllS. qa-am-qa-am-ma	inn	
(010)	Urra Bo. 4A ii 23'	SyllS. am-mar-ut-tin	SyllS. am-mar-šu-ut-tin	inn	

Type I.2. Additions to signs

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(011)	Diri Bo. J 2'	SyllSum. šu-u-um	SyllSum. šu-u	inn	int / graph
(012)	Kagal Bo. A obv. 3'	Sum. abul-AN-dumu-nun-na	Sum. abul-dumu-nun-na	int	int
(013/111)	Kagal Bo. B sect. A 6'	Akk. *mu-u-pé-tù*-DU	Akk. *mupettû*	ling	

Type I.3. Misorderings of two signs

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(014)	Erim Bo. Aa 153	Akk. *isiq ni-ši*	Akk. *isiq lem-ni*	int/inn	graph?
(015/032)	Erim Bo. Ab 232	Akk. *šu-te*-IB-ZU	Akk. *šuteṣbu*	int/inn	d
(016)	Erim Bo. B r. 15'	Akk. *šu-tar*-ḪU-RU	Akk. *šutarruḫu*	inn/ling	

Type I.4.a. Commutation of two signs with graphical similarity

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(017)	An Bo. A rev. m. 2b'	Sum. MAḪ	Sum. DINGIR+EN	ling	
(018)	An Bo. A rev. m. 4b'	Sum. RU	Sum. KI	ling	
(019)	Diri Bo. Ab i 4'	Hitt. KU	Hitt. LU	ling	
(020)	Diri Bo. Ab i 7'	Akk. UD	Akk. ŠI	ling	
(021)	Diri Bo. Ab i 9'	Akk. PA	Akk. NI	ling	
(022)	Diri Bo. Ab i 11'	Akk. MA	Akk. Ú	ling	
(023)	Diri Bo. Ac iv 12'	Hitt. AŠ	Hitt. BAD	ling	
(024)	Diri Bo. I r. 2'	SgnN. KUR	SgnN. TAR	inn	
(025)	Erim Bo. Aa 19	Akk. LU	Akk. Ú	ling	
(026)	Erim Bo. Aa 49	Sum. GU	Sum. GÌR	ling/int	int
(027)	Erim Bo. Aa 153	Sum. ERÍN	Sum. GIŠ	ling	
(028)	Erim Bo. Aa 220	Akk. UZ	Akk. IK	ling	?
(029)	Erim Bo. Aa 232	Akk. UD	Akk. TE	ling	
(030)	Erim Bo. Aa 234	Sum. KA	Sum. SAG	ling	
(031)	Erim Bo. Aaf 215	Akk. TE	Akk. LI	ling	
(032)	Erim Bo. Aaf 220	Akk. NA	Akk. ŠA	ling	?
(033/128)	Erim Bo. Ab 232	Akk. IB	Akk. E	ling	?
(034)	Erim Bo. Ab 233	SyllSum Ú	SyllSum. LU	inn	
(035)	Erim Bo. Ab 235	Sum. ŠA	Sum Á	ling/int	
(036/085)	Erim Bo. Ab 269	Sum. ŠÚ	Sum. BAR	ling	graph / phon
(037)	Erim Bo. Ab 269	Akk. ŠUR	Akk. BUR	ling	int?
(038)	Erim Bo. Abc 270	Sum. DU	Sum. MA/UD	ling	
(039)	Erim Bo. Abc 303	Akk. ZU	Akk. MU	ling	
(040)	Erim Bo. C r. 5'	Sum. KU	Sum. KI	ling	
(041)	Erim Bo. C r. 17'	Sum. NI	Sum. UD	ling	?
(042)	Izi Bo. A i 18'	Akk. GAR	Akk. RU	ling	int
(043)	Izi Bo. A ii 38'	Sum. SI	Sum. ŠUB	inn/ling	?
(044)	Izi Bo. A iii 51	Hitt. KU	Hitt. ŠU	ling	
(045)	Izi Bo. A iii 53	Akk. KAR	Akk. ?	ling	?
(046)	Izi Bo. A iv 44'f. (2x)	Sum. IGI	Sum. ŠUB	ling	
(047)	Izi Bo. B rev. 18'	Akk. TA	Akk. GA	ling	
(048)	Izi Bo. D 4'	SyllSum. PA	SyllSum. AN	inn	
(049)	Kagal Bo. B sect C 3'	Akk. MAŠ	Akk. AŠ	ling	int
(050)	Lu Bo. A 3'	SyllSum. BA	SyllSum. DA	inn	
(051)	Lu Bo. A 4'-6'	SyllSum. Ú	SyllSum. UDU	inn	
(052)	Lu Bo. Ba i 7'	Akk. KU	Akk. KI	ling	
(053)	SaV Bo. A i 4'	Hitt. ḪU	Hitt. RI	ling	int
(054)	SaV Bo. A i 11'	Hitt. MAŠ	Hitt. AN	ling	
(055)	SaV Bo. A ii 13f. (4x)	SyllSum. KU	SyllSum. LU	inn	
(056)	SaV Bo. A iv 7'	Akk. NAB	Akk. ERIM	ling	? / int
(057)	SaV Bo. G 8'	Akk. BA	Akk. DA	ling	
(058)	SaV Bo. H l. 5'	Hitt. LA	Hitt. KAR	ling	
(059)	SaV Bo. H r. 12'	SyllSum. KA	SyllSum. AL	inn	

(060)	SaV Bo. J obv. 1	Akk. I	Akk. ŠE	ling	int
(061)	SaV Bo. L 4'	Hitt. MIN	Hitt. A	ling	
(062)	SSgL Bo. D i 21'f. (2x)	Hitt. MÍN	Hitt. EŠ	ling	
(063)	SSgL Bo. D i 28	Hitt. BA	Hitt. NA	ling	
(064)	SSgL Bo. D ii 4	Sum. GA	Sum. AM	ling	
(065)	SSgL Bo. D ii 4	Sum. MAŠ	Sum. SÌLA	ling	
(066)	SSgL Bo. D ii 12	Akk. A	Akk. ZA	ling	
(067)	SSgL Bo. D ii 26	Akk. RA	Akk. AB	ling	
	Reference	**Mistaken item**	**Reconstructed item**	**Context**	**Remarks**
(068)	Urra Bo. 1A B i 28'	Sum. GADA	Sum. SI	ling	
(069)	Urra Bo. 1A B i 29'	Sum. DU	Sum. UŠ/KASKAL	int	
(070)	Urra Bo. 1A B ii 5'	Sum. PA	Sum. ÁŠ	ling	?
(071)	Urra Bo. 1A C i 13'	Sum. AN	Sum. ŠÀ	ling	int
(072)	Urra Bo. 1A C i 17'	Sum. DA	Sum. MA	ling	
(073)	Urra Bo. 4A i 8'	Akk. TA	Akk. ŠA	ling	
(074)	Urra Bo. 4A ii 23'	Akk. ERIM	Akk. UD	ling	
(075)	Urra Bo. 4A ii 27ff.	Sum. U-DAR	Sum. DAR	ling	
(076)	Urra Bo. 6B i' 7'	Sum. TAB	Sum. GIŠ	ling	

Type I.4.b. Commutation of two signs with phonetical similarity

	Reference	**Mistaken item**	**Reconstructed item**	**Context**	**Remarks**
(077)	Diri Bo. D 4'	Akk. NI	Akk. I	ling/int	
(078)	Diri Bo. D 6'f. (2x)	Akk. NAM	Akk. IM	ling/int	
(079)	Erim Bo. Aa 155	Sum. GAL	Sum. GÁ	ling/inn	phon
(080)	Erim Bo. Aa 156	Sum. TUR	Sum. KÚR	ling/inn	phon
(081)	Erim Bo. Aa 157	Sum. GAR	Sum. KÚR	ling/inn	phon
(082)	Erim Bo. Aa/Aaf 209	Akk. I	Akk. KI	ling	D
(083)	Erim Bo. Aa 233	Sum. KA=DUG_4	Sum. TUKU	ling	phon
(084/210)	Erim Bo. Aa/Ab 234	Hitt. IŠ	Hitt. UŠ	ling	D
(085/036)	Erim Bo. Ab 269	Sum. ŠU	Sum. ŠÚ	ling	graph / phon
(086)	Erim Bo. Aac 143	Sum. ŠU	Sum. SU	ling	phon
(087)	Erim Bo. Abc 270	Sum. DU	Sum. UD	ling/inn	? / phon
(088)	SaV Bo. A ii 13'f.	SyllSum. UB	SyllSum. UM	inn	
(089)	SaV Bo. A ii 15'	SyllSum. UB	SyllSum. UM	inn	
(090)	SSgL Bo. C 7'	Sum. Ú	Sum. U	inn	phon
(091) -	SSgL Bo. D ii 18	Akk. RU	Akk. Ḫ̨U	int/ling	?
(092)	Urra Bo. 4A i 9'	Akk. UN	Akk. NU	ling	
(093)	Urra Bo. 6B i' 8'	Sum. DU	Sum. UDU	int	phon
(094)	Urra Bo. 6B ii 2'ff. (3x)	Sum. BA	Sum. PA	int	phon

Type I.4.c. Commutation of two signs without graphic or phonetic similarity

	Reference	**Mistaken item**	**Reconstructed item**	**Context**	**Remarks**
(095)	Erim Bo. A 214	Akk. TA-AŠ	Akk. A-KÍL	ling/inn	int / graph
(096)	Erim Bo. B r. 13'	Akk. DU	Akk. NU	ling	int
(097)	Kagal Bo. B sect. A 6'	Akk. DU	Akk. Ú/U	ling	?
(098)	SSgL Bo. D ii 19	Akk. DU	Akk. LU	ling	?

Type II.1. Phonetic commutation of larger structures (Sumerian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(099)	Erim Bo. Aa 221	Sum. NÍG-AL	Sum. igi-kal	int/ling	phon
(100)	SSgL Bo. C 6'	Sum. AL-KAR	Sum. zà-lam-ĝar	ling	phon
(101)	Urra Bo. 1A C i 19'	Sum. zag-gu-la-nú	Sum. saĝ-an-dul-nú	int	? / phon

Type.III.1. Commutation of concurring readings of the same sign (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(102/191)	Izi Bo. A iv 45'/49'	Akk. *bá-ṭá*-NU	Akk. *bá-ṭá-lum* (< *núm*)	ling/inn	graph / ?
(103)	Kagal Bo. B s. F 2'f	Akk. *ur*-PÍ-IT	Akk. *ur-pát* (< *pít*)	ling	graph

Type III.2.a. Hyper-plene spelling and word-internal plene shift (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(104)	Erim Bo. A 20	Akk. QA-*šu-ú*	Akk. *kâšu*	inn	
(105)	Erim Bo. A 135	Akk. *pu-qú-u*	Akk. *puqqu*	inn	
(106)	Erim Bo. A 136	Akk. *ku-ud-du-u*	Akk. *kuddu*	inn	
(107)	Erim Bo. A 137	Akk. *ka$_4$-du-u*	Akk. *kâdu*	inn	
(108)	Erim Bo. A 269	Akk. *bur-ru-u*	Akk. *burru*	inn	
(109)	Erim Bo. A 271	Akk. *ku-un-nu-ú*	Akk. *kunnu*	inn	
(110)	Izi Bo. A ii 26f.	Akk. *za-a-ru-ú*	Akk. *zâru*	inn	
(111/013)	Kagal Bo. B sect. A 6'	Akk. *mu-u-pé-tù*	Akk. *mupettû*	ling	
(112)	SaV Bo. B rev. 14'	Akk. *ri-tù-ú*	Akk. *rītu*	inn	
(113)	SaV Bo. F 5'	Akk. *la-bu-ú*	Akk. *lābu*	inn	
(114/229)	Unid Bo. 5-4 2'	Akk. *še-e-bu*	Akk. *šebû*	inn	

Type III.2.b. Hyper-geminate spelling and word-internal gemination shift (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(115)	Diri Bo. Ha 5'	Akk. *ra-bi-iṣ-ṣú*	Akk. *rābiṣu*	ling	
(116)	Erim Bo. Aa 106	Akk. *az-zi-bá-tù*	Akk. *azibatu*	ling	
(117)	Erim Bo. Aa 152f.(2x)	Akk. *is-si-qú* / *is-si-iq*	Akk. *isqu* / *isiq*	ling	
(118)	Izi Bo. A ii 23'	Akk. *gu$_5$-uz-za-al-lu*	Akk. *guzallû*	ling	
(119)	Izi Bo. A iii 56'	Akk. *uḫ-ḫu-uz-zu*	Akk. *uḫḫuzu*	ling	
(120)	Izi Bo. B rev. 10'/13' (2x)	Akk. *gi$_5$-ta-al-lu-ut-tu$_4$*	Akk. *gitallutu*	ling	
(121)	Izi Bo. C 6'	Akk. *mu-uš-šar-ut-tu$_4$*	Akk. *mušarrūtu*	ling	
(122)	SaV Bo. G 4'	Akk. *ša-aq-qú-ú*	Akk. *šaqû*	ling	
(123)	Syn Bo. A 9'	Akk. *na-bal-ku-ut-tù*	Akk. *nabalkutu*	ling	
(124)	Them Bo. B ii 19'	Akk. *mi-is-sí-is-*[*sú*]	Akk. *missisu*	ling	
(125)	Unid Bo. 4-6 4'	Akk. *šu-up-šu-uḫ-ḫu*	Akk. *šupšuḫu*	ling	
(126a)	Unid Bo. 5-2 2'	Akk. *mì-it-ḫu-uṣ-ṣú*	Akk. *mitḫuṣu*	ling	
(126b)	Unid Bo. 5-2 3'	Akk. *ši-it-ku-uṣ-ṣú*	Akk. *šitkuṣu*	ling	
	with hyper-dissimilation:				
(127)	Erim Bo. Aa 205f. (2x)	Akk. *ni-in-gi$_5$-ṣa-at*	Akk. *nigiṣṣat*	ling	
(128/015)	Erim Bo. 232	Akk. *šu-te-eb-ṣú*	Akk. *šutēṣû*	ling	?
(129)	Erim Bo. B r. 12	Akk. *um-ṣa-am-tù*	Akk. *umṣatu*	ling	
(130)	Unid Bo. 4-7 10'/12'	Akk. *šu-u-šu-ul-mu*	Akk. *šūsumû*	ling	?
(131)	Unid Bo. 5-2 4'	Akk. *ki-it-ru-ub-ṣu*	Akk. *kitruṣu*	ling	

Type III.2.c. Hyper-contraction (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(132)	Erim Bo. Aa 4	Akk. *ḫi-it-ru*-ZU	Akk. *ḫitarruṣu*	inn	trans?
(133)	Erim Bo. Aa 5	Akk. *ḫi-it-nu-qú*	Akk. *ḫitannuqu*	inn	trans?
(134)	Erim Bo. Aa 6	Akk. *ši-it-ru-ṣú*	Akk. *šitarruṣu*	inn	trans?
(135)	Erim Bo. Aa 7	Akk. *ši-it*-PU-ZU	Akk. *ši-ta*-AP-PU-ZU	inn	trans?
(136)	Erim Bo. Aa 16	Akk. *iḫ-tam-ṭá-ak-ku*	Akk. *iḫtanamṭâkku*	inn	trans?
	Reference	**Mistaken item**	**Reconstructed item**	**Context**	**Remarks**
(137)	Erim Bo. B r. 4'	Akk. *ši-it-mu-ru*	Akk. *šitammuru*	inn	trans?
(138)	Izi Bo. A ii 41	Akk. *ḫi-it-nu-qú*	Akk. *ḫitannuqu*	inn	trans?
(139)	Izi Bo. A ii 42	Akk. *ḫi-it-nu*-ZU	Akk. *ḫitannuZu*	inn	trans?
(140)	Erim Bo. Aa 101	Akk. *na-aš-lu-lu*	Akk. *našallulu*	ling	

Type III.3.a. Commutation of word-formation patterns that belong to distinct root types (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(141)	Erim Bo. Aa 60	Akk. *aḫurrītu*	Akk. *aḫurtu*	ling	
(142)	Erim Bo. Aa 153	Akk. *issiqu*	Akk. *isqu*	ling	int

Type III.3.b. Commutation of homo(io)nymous word-formation patterns ('homo(io)morphy'; Akkadian column)

	Reference	Spelling	acc. to Sum.	acc. to Hit	Context	Remarks
(143)	Diri Bo. Ab i 6'	ŠI-DU	*šêṭu* (/parās/)	*šittu* (/pirist/)	inn	
(144)	Erim Bo. Aa 40	*ḫa-a-lu*	*ḫâlu* (/parās/)	*ḫayyālu* (/parrās/)	inn	
(145/207)	Erim Bo. Aa 118	*a-mu-u*	*amû* (/parās/)	*āmû* (/pāris/)	inn	
(146)	Erim Bo. Aa 119	*a-mi-it-tù*	*amītu* (/pirist/)	*āmêtu* (/pārisat/)	inn	
(147)	Erim Bo. Aa 121	*ṣú-uḫ-ḫu*	*ṣūḫu* (/purs/)	*ṣuḫḫu* (/purrus/)	inn	
(148a)	Izi Bo. A i 5'	*le-'-ú*	*le'û* (/parās/)	*lē'û* (/pāris/)	inn	
(148b)	Izi Bo. A i 10'	*la-a le-'-ú*	*lā le'û* (/parās/)	*lā lē'û* (/pāris/)	inn	
(149)	Izi Bo. A i 6'	*le-e-tù*	*lītu* (/pirist/)	*lētu* (/pārisat/)	inn	
(150)	Izi Bo. A ii 21'	*ḫi-is-sí-tu*$_4$	*ḫesītu* (/pirist/)	*ḫessêtu* (/parisat/)	inn	?
(151)	Izi Bo. A ii 38' / iii 12	*ša-bá-a-šu*	*šabāšu* (/parās/)	*šabbāšu* (/parrās/)	inn	?
(152)	Izi Bo. A iv 58'	*pé*-DU-*ú*	*padû* (/parās/)	*pādû* (/pāris/)	inn	
(153)	SaV Bo. B rev 13'	*re-'-ú*	*re'û* (/parās/)	*rē'û* (/pāris/)		
(154)	SaV Bo. F 13'	*pal-ḫu*	*palḫu* (/paris/)	*palḫu* (/pars/)		

Type III.3c. Functional commutation of word-formation patterns (Akkadian column)

	Reference	Akkadian item	Hittite interpretation	Context	Remarks
(155)	Izi Bo. A ii 29'	*mundaḫṣu* (*m*-participle)	*ḫulḫuliyawar* (infinitive)	inn	trans?
(156)	Izi Bo. A ii 30'	*mudekkû* (*m*-participle)	*anda ḫapatiyawar* (inf.)	inn	trans?
(157)	Izi Bo. A ii 41'f. (2x)	*ḫitannuqu* (infinitive)	*wešuriškattallaš* (part.)	inn	
(158)	Izi Bo. A iv 24'	*rabâtu* (adj. abstract)	*šallai* (adjective)	inn	
(159/190)	Izi Bo. A iv 44'	*maqqû* (*m*-pref. noun)	*šipanduwar* (infinitive)	inn	trans?
(160)	Izi Bo. A v 4'f.(2x)	*mešṭû* (*m*-pref. noun)	*išpariyauwar* (infinitive)	inn	trans?
(161)	Izi Bo. B rev. 10' / 13'	*gitallutu* (durative)	*weritenumar* (causative)	inn	
(162)	OBLu A ii 12'f. (2x)	*nêrtu* (nomen concretum)	*iššiyaḫḫaškattallaš* (part.)	inn	
(163/200)	SaV Bo. C rev. 14'	*mašḫaṭu* (*m*-pref. noun)	*wekuwar* (infinitive)	inn	trans?

Type III.4.a. Word-internal morphosyntactic commutation (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(164)	Sag Bo. E 3'f.	Akk. *rūtu*$_4$	Akk. *rūt*= (bound state)	ling	int?
(165)	Sag Bo. E 7'f.	Akk. *imtù*	Akk. *imat*= (bound state)	ling	int?
(166)	Sag Bo. E 10'-2'	Akk. *imtù*	Akk. *imta* (acc.)	ling	int?

Type III.4.b. Word-external morphosyntactic commutation (Akkadian column)

	Reference	Akkadian item	Hittite interpretation	Context	Remarks
(167)	Izi Bo. A i 32'	Akk. *idān raqqāti*	Hitt. NÍ.TE$^{HI.A}$-*uš kuedani dannara*	inn	
(168/173)	Izi Bo. A ii	Akk. *aḫū nadû*	Hitt. *paltanuš kuedani awan katta kiyantari*	inn	
(169a)	OBLu Bo. A ii 10'	Akk. *ša rabāti*	Hitt. *šallaeš*	inn	
(169b)	OBLu Bo. A ii 11'	Akk. *ša atrāti*	Hitt. *kallaratteš*	inn	

Type III.4.c. Erroneous sign segmentation (Akkadian column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(170)	Erim Bo. A 208	Akk. *ar-ka-a-tú*(UD)	Akk. *ar-ka* U$_4$(UD)	inn/int	D / graph
(171)	Izi Bo. D 8'/13'	Akk. *la-a sú*(ZU)-*qú*(KU)	Akk. *la a-ṣú*(ZU)-*ú/ma*	inn/int	graph

Type III.4.d. Literal interpretation (Akk. col.)

	Reference	Akkadian item	Hittite interpretation	Context	Remarks
(172)	Erim Bo. A 24	Akk. *mīn=šu*	Hitt. *nu=šši kuit*	inn	?
(173/167)	Izi Bo. A ii	Akk. *aḫū nadû*	Hitt. *paltanuš kuedani awan katta kiyantari*	inn	

Type III.5.a. Lexical/semantic deviation related to commutation of homoiononymous root consonants (Akkadian column)

	Reference	Mist. item	Reconstr. item	Phon. change		Context	Remarks
(174)	Diri Bo. Ab i 6'f.	Akk. *šêṭu*	Akk. *šêtu*	t - ṭ	T - E	inn	trans?
(175/204)	Erim Bo. A 9	Akk. *uṣṣuṣu*	Akk. *azzuzâ*	z - ṣ	M -E	ing/inn	int / trans?
(176)	Erim Bo. A 45	Akk. *gāriru*	Akk. *karriru*	k - g	T - M	ling/inn	trans?
(177)	Erim Bo. A 124	Akk. *šapû*	Akk. *šby*	b - p	M - T	ling/inn	? / trans
(178)	Erim Bo. A 142	Akk. *quttû*	Akk. *kuddudu*	k - q	T - E	inn	trans?
				d - t	M - T		
(179/220)	Erim Bo. A 262-4	Akk. *ḫ-d-y*	Akk. *ḫ-t-t*	t - d	T - M	ling/inn	? / trans
(180)	Erim Bo. A 265	Akk. *ṣītu*	Akk. *ṣiddu*	d - t	M - T	int	trans?
(181)	Erim Bo. C r. 17'	Akk. *itânu*	Akk. *adannu*	d - t	M - T	int	? / int? / trans?
(182)	Izi Bo. A i 33'	Akk. *šaḫātu*	Akk. *šadāḫu*	d - t	M - T	inn	? / trans?
(183)	Izi Bo. A ii 12'	Akk. *pūtu*	Akk. *būdu*	b - p	M - T	inn	
				d - t	M - T		
(184)	Izi Bo. A iv 30'	Akk. *pūtu*	Akk. *būdu*	b - p	M - T	inn	
				d - t	M - T		
(185)	Izi Bo. A ii 30'	Akk. *mūteqqû*	Akk. *mudekkû*	d - t	M - T	inn/int	trans?
				k - q	T - E		

(186)	Izi Bo. A ii 35'	Akk. *ṣabātu*	Akk. *šabāšu*	š - ṣ š - ṯ	P - E P - Tasp	inn	trans?
(187)	Izi Bo. A iii 57'	Akk. *ṣebû*	Akk. *sebû*	s - ṣ	T - E	inn	trans?
(188)	Izi Bo. A iv 25'f.	Akk. *zaqāpu*	Akk. *sakāpu*	s - z k - q	T - M T - E	inn	trans?
(189)	Izi Bo. A iv 41'	Akk. *tārītu*	Akk. *darîtu*	d - t	M - T	inn	trans?
(190/159)	Izi Bo. A iv 44'	Akk. *maqqû*	Akk. *megû*	g - q	M - E	inn	trans?
(191/102)	Izi Bo. A iv 45'	Akk. *paṭālu*	Akk. *baṭālu*	b - p	M - T	inn	trans?
(192)	Izi Bo. A iv 46'	Akk. *šindu*	Akk. *šeṭû*	ṭ - d	E - M	inn	? / trans?
	Reference	**Mist. item**	**Reconstr. item**	**Phon. change**		**Context**	**Remarks**
(193)	Izi Bo. A iv 47'	Akk. *ikû*	Akk. *egû*	g - k	M - T	inn	trans?
(194)	Izi Bo. A. iv 48'	Akk. *padû*	Akk. *peṭû*	ṭ - d	E - M	inn	trans?
(195)	Izi Bo. A v 2'	Akk. *nakāru*	Akk. *naqāru*	q - k	E - T	inn	trans?
(196)	Izi Bo. A v 3'	Akk. *šadādu*	Akk. *šeṭû*	ṭ - d	E - M	inn	trans?
(197)	Izi Bo. B obv. 12'	Akk. *pašāšu*	Akk. *bašû*	b - p	M - T	inn	? / trans?
(198/224)	Izi Bo. B obv. 13'f.	Akk. *epēšu*	Akk. *bīšu*	b - p	M - T	inn	graph / trans?
(199)	SaV Bo. A i 12'	Akk. *parāsu*	Akk. *parāšu*	š - s	P - D	inn	trans?
(200/163)	SaV Bo. C rev 14'	Akk. *mašḫaṭu*	Akk. *maṣḫatu*	ṣ - š t - ṭ	E - P T -E	inn	trans?
(201)	SaV Bo. I 13'	Akk. *pūtu*	Akk. *būdu*	b - p d - t	M -T M -T	inn	?

Type III.5.b. Lexical/semantic deviation related to commutation of larger homo(io)nymous structures (Akkadian column)

	Reference	**Mistaken item**	**Reconstructed item**	**Context**	**Remarks**
(202)	Diri Bo. E rev. 12	Akk. *abāru* (“strength”)	Akk. *abāru* (“lead”)	inn/int	
(203)	Diri Bo. G 5'	Akk. *uruḫḫu*	Akk. *ūru*	inn/int	
(204/175)	Erim Bo. Aa 9	Akk. *uṣṣuṣu*	Akk. *azzuzzâ*	inn/int	int
(205)	Erim Bo. Aa 20	Akk. *kâšu* (“to delay”)	Akk. *kâšu* (“to help”)	inn	
(206)	Erim Bo. Aa 46	Akk. *ennittu*	Akk. *ernittu*	inn	?
(207/145)	Erim Bo. Aa 118f.	WSem. *hmy*	Akk. *amû*	inn	trans
(208)	Erim Bo. Aa 227	WSem. *bnyn*	Akk. *bunnānû*	inn	? / trans
(209)	Erim Bo. Ab 266	Akk. *birtu* (“fortified”)	Akk. *birtu* (“riffraff”)	inn	?
(210/084)	Erim Bo. A 234	Hitt. *parkuiš*	Hitt. *parkuš*	inn/ling	D
(211)	Erim Bo. C r. 16	Akk. *itû*	Akk. *ittu*	inn	
(212)	Izi Bo. A ii 7'	WSem. *aḥd*	Akk. *addû*	inn	
(213)	Izi Bo. A ii 38'	Akk. *šabāšu* (“to hate”)	Akk. *šabāšu* (“to gather”)	inn	int
(214)	Izi Bo. A ii 43'/ et pass (7x)	Akk. *kanāšu* (“to step”)	Akk. *kanāšu* (“to gather”)	inn	trans?
(215)	Kagal B sect B 9'	Sum. ti (“life”)	Sum. ti (“rib”)	inn	
(216a)	SaV Bo. A i 7'	Akk. *arāru* (“to curse”)	Akk. *ararru* (“miller”)	inn	
(216b)	SaV Bo. B obv 2'/7'	Akk. *arāru* (“to curse”)	Akk. *ararru* (“miller”)	inn	
(217)	SaV Bo. H l. 3'	Akk. (*w*)*aklu* (“overseer”)	Akk. *aklu* (“bread”)	inn	?

Type III.5.c Lexical/semantic deviation related to the misordering of root consonants or commutation of root structure (Akkadian column)

	Reference	**Mistaken item**		**Reconstructed item**		**Context**	**Remarks**
(218)	Erim Bo. A 13	Akk. *w-ṣ-y*	III=y D	Akk. *w-ṣ-ṣ*	II=III	int	? / trans
(219)	Erim Bo. A 142	Akk. *q-t-y*	III=y D	Akk. *k-d-d*	II=III	int	trans
(220/179)	Erim Bo. A 262-4 (3x)	Akk. *ḫ-d-y*	III=y D	Akk. *ḫ-t-t*	II=III	int	trans
(221)	Izi Bo. A i 33'	Akk. *š-ḫ-t*	I-II-III	Akk. *š-d-ḫ*	I-III-II	int	
(222)	Izi Bo. A v 3'	Akk. *š-d-d*	II=III	Akk. *š-ṭ-y*	III=y G	int	trans

(223/198)	Izi Bo. B obv. 12'	Akk. *p-š-š*	II=III	Akk. *b-š-y*	III=y G	int	? / trans
(224)	Izi Bo. B obv. 13'f.(2x)	Akk. *y-p-š*	I=y	Akk. *b-š-y*	III=y	int	graph
(225)	Izi Bo. B obv. 11'	Akk. *qātu*	II=y	Akk. *q-t-y*	III=y	int	
(226)	Izi Bo. B obv. 15'	Akk. *nišū*	II=y	Akk. *n-š-y*	III=y	int	
(227)	SaV Bo. I 12'	WSem. *r-q-h*	III=y	Akk. *r-q-q*	II=III	int	? / trans
(228/114)	Unid Bo. 5-4 2'	Akk. *šēbu*	II=y	Akk. *š-b-y*	III=y	int	?

Type III.5.d. Lexical/semantic deviation ivolving the commutation of contrasting meanings of as logogram (Akkadian column)

	Reference	Akk./Sum. item	Hittite interpretation	Context	Remarks
(229)	Erim Bo. A 230	^{d}lama / *lamassu* (“protective spirit”)	LAMA-*aš* (GN)	ling	d
(230)	Izi Bo. A ii 10'	gú / GÚ-du_4 (“neck”)	GÚ-*tar* (“shoulder”)	ling	
(231)	SaV Bo. B rev. 4	- / *ellu* (“holy, noble”)	*arauwaniš* (= *ELLU* “free”)	ling	?
(232)	SaV Bo. C obv 6'	sed / - (“cold”)	SÈD-*anza* (“winter”)	ling	
(233)	Izi. Bo. A vi ĝgh	DAG	^{GIŠ}DAG	ling	

Type III.5.e. Lexical/semantic deviation as commutation of submeanings (Akkadian column)

	Reference	Akkadian item	Hittite interpretation	Context	Remarks
(234/240)	Diri Bo. Ab i 2'	Akk. *aḫāzu* (“to take, hold”)	Hitt. MUNUS-*aš dāuwar* (“to marry”)	inn	
(235)	Izi Bo. A i 12'	Akk. *lā ṣamdu* (“not equipped”)	Hitt. *ŪL turiyanza* (“not harnessed”)	inn	
(236)	Izi Bo. A ii 48'	Akk. *uḫḫuru* (“to reserve“)	Hitt. *istandauwar* (“to delay“)	inn	
(237)	OBLu A ii 20'	Akk. *gullubu* (“put in slavery“)	Hitt. *anannuwanza* (“trained“)	inn	?
(238)	SaV Bo. A iv 8'	Akk. *napāḫu* (“to blow, light up“)	Hitt. *paripariwar* (“to bl. an instrument“)	inn	
(239)	SaV Bo. L 9'	Akk. *rašû* (“to acquire“)	Hitt. *kaniššuwar* (“to recognize“)	inn	
(240/234)	SaV Bo. L 10'	Akk. *aḫāzu* (“to take, hold“)	Hitt. MUNUS-*aš dāuwar* (“to marry“)	inn	
(241)	SaV Bo. L 11'	Akk. *uḫḫuzu* (“to marry“)	Hitt. *ḫališšiyawar* (“to mount an object“)	inn	

Type IV.1. Phonetic commutation of larger structures (Hittite column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(242)	SaV Bo. A i 10'	Hitt. YA-Ú$^{?}$-I-IŠ	Hitt. *i-ša-al-li-iš*	ling/inn	graph$^{?}$

Type IV.2. Word-internal morphosyntactic commuation of grammatical categories (Hittite column)

	Reference	Mistaken item	Reconstructed item	Context	Remarks
(243)	Diri Bo. Ac iv 4'	Hitt. V=*za*=*kan* (particle)	Hitt. V-*zi*=*kan* (pers. end.)	ling/inn	
(244/245)	Diri Bo. Ac iv 4'	Hitt. *kuit* (n.)	Hitt. *kuiš* (c.)	ling/inn	
(245/244)	Erim Bo. Aa 118	Hitt. *kuit* (n.)	Hitt. *kuiš* (gen. c.)	ling/inn	
(246)	Izi Bo. A i 26'-31'	Hitt. *kuššan*= (nom.)	Hitt. *kuššani*= (dat.)	ling/inn	
(247)	OBLu Bo. B 5'	Hitt. *kedani* (demonstr.)	Hitt. *kuedani* (interrog.)	ling/inn	