Orality, Literacy, and the Psychology of Babylonian-Assyrian Orthography[1]

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1. Introduction

What happens at the interface of Orality and Literacy? The societies of Ancient Mesopotamia (modern Iraq and environs) provide abundant evidence for exploring this question. The present paper argues that the system of spelling used for Babylonian and Assyrian ("Akkadian"), in the second and first millennia BCE, reflects the circumstance that the lived experience at the time was—even for literate people—a prevalently oral one.[2] This created a climate where there was little pressure to standardize spellings, explaining why the spelling system of Babylonian and Assyrian retained a large element of variability. Their situation is of wider ethnographic relevance to research about societies with limited literacy (both ancient and modern), and the paper furnishes a new lens through which to consider the manifestations and effects of Orality in Mesopotamian societies.

Mesopotamia's exceptional abundance of written evidence has, for understandable reasons, led to Orality receiving comparatively little attention. Compared to written sources, published and intensely analyzed in the hundreds of thousands, Orality can end up looking like a strange and faraway beast, of limited interest to modern researchers.

The paradox is that Ancient Mesopotamia was, even for literate people, a world in which most information went unwritten, most transactions went unrecorded, documents were rarely addressed to people one did not know, there was very little written record of subjective experience (Cancik-Kirschbaum 2012:105) or individual thinking,[3] and people did not read for

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[2] For pithy statements to this effect see, for example, Contenau (1940:162) and Taylor (2007:434).

[3] Finkel (2010:11): "Individual thinking, and written proof of it, is […] rare in cuneiform."

pleasure.[4] Writing was of course hugely *important* in the workings of Mesopotamian societies:[5] many documents will have meant the difference between life and death for individuals and communities.[6] But writing was, by later standards,[7] not very *present* in people's lives;[8] even literate ones.[9] Thus the same written sources which mean so much to us were rather marginal presences in the lived experience of people at large, sometimes even including those who inscribed them.

For example, Mesopotamians could not expect written material to provide much help with how to live. How to bake a cake, how to wage a war, how to build a wall, how to conduct a negotiation, how to fashion a clay tablet, how to play a musical instrument, how people dressed, what fashions came and went: these (and countless others) are topics we may or may not be able to learn about by piecing together lots of incidental mentions, but they are not subjects to which Babylonians or Assyrians seem to have devoted sustained written exposition. Indeed, sustained written exposition of *anything* was rare in Cuneiform, most information being left to the oral realm. Just as in Greece "textbooks" did not emerge until the mid-5th Century (Havelock 1952:100), Mesopotamian skills and professions were taught for generations, but usually in the

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[4] See, for example, Driver (1964:94): "Modern readers must never forget that ancient texts were not written down to be read at sight, for amusement or relaxation."

[5] As Leick (2003:18) notes, the use of writing "affected every member of society. This does not imply that the majority of people were able to read and write themselves but that they were embedded in an administrative system which permeated society."

[6] See van der Mieroop (2000:61): scribes "worked in a non-literate society where the majority of people did not understand what was written on clay. But people must have realized how important documents were, how they protected them against accusations of theft and carless loss." Compare also Janssen (1992:81) on New Kingdom Egypt: "The low degree of literacy should not lead to an underrating of its enormous influence, even on the peasant population."

[7] Against the backdrop of traditional assumptions that literacy levels were very low, Parpola (1997:315-324), Wilcke (2000: *passim*, but especially 48-49), Charpin (2008:31-60) and Veldhuis (2011:68-89) have argued that literacy was more widespread than has been traditionally thought. While their arguments are both important and legitimate, the point above is a different one. Even if significant numbers of people in, say, the Old Babylonian period *could* read and write, this does not mean that they engaged in the activity with anything like the intensity we do today. See Tanret (2004:3 and 21), who calculates that at Old Babylonian Sippar-Amnānum, for one archive, a "scribe" wrote about two tablets every five days—significant, but, as Tanret points out, "hardly a full-time occupation." A similar point is made, in more general terms, by George (2003b:404a) (a reference I owe to Enrique Jiménez).

[8] Compare the remark by Michalowski (1996:191): "the world of Mesopotamian writing is [...] far removed from the everyday world of the streets." Postgate (1992:69 and 309) observes that, in the Old Babylonian period, written tags were placed around the neck of (probably illiterate) reed-workers, builders, brickyard workers and harvesters. While fascinating as an infiltration of the administrative sphere into the private sphere, this does not substantially alter the contention above.

[9] Compare van Egmond (2012:80): "As academics we have a natural tendency to relate to other people who have been trained over a long time and expensively in the use of the written word. So we should not forget that ancient scribes lived in a society that operated almost exclusively by non-literate means."

oral sphere alone (see, for example, Scurlock and Andersen 2005:3). Most exceptions—the so called "procedural texts"[10]—are few and sparse, requiring oral elaboration.

Even in those contexts where writing is plentiful—such as divination, with its endless lists of omens—the written component only accounts for *part* of the relevant knowledge. For example, if one goes back to the city of Mari in the early second millennium BCE, divination seems to have been a largely oral practice, without backup of written omens at all (Charpin 2011:256-257). By the first millennium, written omens are extant by the thousand. However, the essential skill of *interpreting* them, which letters and reports by scholars show to have been complicated and sometimes contested (Koch 2015:193), remained in the oral sphere. Thus, as Mogens Trolle Larsen observes (1987:219), even the "written tradition" of works copied and recopied "must be understood in the light of an oral tradition which existed alongside the texts" (a point which is well recognized, but has yet to be developed further).

This largely oral character of Mesopotamian culture and society has not escaped Mesopotamianists:[11] they are aware of the oral dimension of the Mesopotamian world;[12] they recognize the importance sometimes given to it by the Mesopotamians themselves (Elman 1975); and they note *en passant* that its role in the lived experience must have been considerable (for example, Michalowski 1989:23). The problem is rather how to *access* Orality, how to bring it into dialogue with the abundant written evidence, how to make it something that can productively be studied—in other words, how to say something more specific, more useful, than a perfunctory acknowledgment that Orality was "out there."

The main way to date in which Orality has been linked to cuneiform sources is to ask, in the tradition of Milman Parry (1928 and 1930) and Albert Lord (1960), whether particular passages of *belles lettres* have features which point to an oral background.[13] This approach, given high profile in Mesopotamian studies by Vogelzang and Vanstiphout's 1992 volume, *Mesopotamian Epic Literature: Oral or Aural?*, has even been extended to Babylonian medical texts by Marten Stol (2007).

But—how to enrich this approach? How to bring it into dialogue with other perspectives on Mesopotamian Orality? So far, not much is available: outside of the Parry/Lord line of enquiry, Mesopotamian Orality tends to be viewed as "unrecoverable" (Cooper 1992:105), and so to be deprioritized on the research agenda. This is, perhaps, not surprising: Mesopotamianists are (rightly) accustomed to celebrating both the invention and the abundance of writing in Mesopotamia. With so much written matter in circulation, to concentrate on shimmery-seeming Orality might seem counterintuitive—particularly since, in some contexts, one can legitimately

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[10] These include some instructions for glassmaking (recently discussed by Thavapalan (2020)), some culinary recipes, and some instructions for horse training. A list of them is found in Oppenheim (1978). An addendum to Oppenheim's list is Leichty (1979).

[11] Nor indeed has it escaped students of Orality. See, for example, the ample references to Mesopotamia in Goody (1968:11-24), section entitled "restricted literacy."

[12] For example, Civil and Biggs (1966:2). See also fn. 8 above.

[13] See, for example, Alster (1972) (on oral features of Sumerian poetry) and more recently Hess (2023:3-20). The approach is criticized by Michalowski (1992:227-245), esp. 244.

argue for an expansion in the uses of writing over time, creating the impression of a "progress" to be celebrated.[14]

The purpose of the present paper is to make Mesopotamian Orality slightly less shimmery-seeming by arguing that there is a domain where it has, so to speak, left a detectable footprint—a domain in which the oral character of the Mesopotamian world can productively be brought into dialogue with our surviving written sources. That domain is Babylonian/Assyrian spelling.[15]

The paper observes that Babylonian/Assyrian spelling, with its systemic inclusion of "licensed variation," is closer to what we would expect from a largely oral culture than from an intensely literate one. Ethnographic parallels with Medieval England and Modern Liberia suggest that this correlation is significant, and that the spelling system used by literate Mesopotamians was influenced by the (limited) extent to which they engaged with written material. The paper thus both contributes a case study to the phenomenon of "licensed variation" in spelling and, within the Mesopotamian context, gives an example of how to study Orality and its effects in a new way. Though the evidence used largely consists in written sources, we will be combing them for traces of the oral background in which they were immersed and which, we will argue, underpins them. And though some of the topics we will have to delve into, to get a good handle of Babylonian and Assyrian spelling, may seem to take us quite far away from the subject of Orality, the reader will hopefully see that they all contribute in the end.

2. Background

In the modern world, writers' choices in mainstream spelling are usually so limited as hardly to warrant investigation. Certainly, one can enquire into the history of spelling, or into how and why people deviate from it (for example, in text messages or for humorous purposes), or what happens when people try to reform it. But, synchronically, how mature writers spell words is largely automated: each word has one way of being spelled, and in mainstream writing we simply follow these conventions, with very little room for choice.[16] There is very little of what Mark Sebba (2007:30) calls "licensed variation."

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[14] For accounts of such "progress," see Lambert (1968:109): "In the third millennium B.C., despite the existence of writing, knowledge of various rituals was passed on by experience and orally. There was no written 'order of service'. In the second millennium detailed prescriptions for rites were committed to writing. In the first millennium commentaries expounding the meaning of the various acts were compiled." Cooper (2004:83), Veldhuis (2012), and Scott (2021:395) offer a similar outlook.

[15] A different link between Mesopotamian spelling and orality was briefly made by Civil and Biggs (1966:13), observing that the highly defective character of early (Fara period) Sumerian spelling, in which many grammatical morphemes were left unwritten, probably reflects the circumstance that writing at the time was only an *aide memoire* in a largely oral world.

[16] In modern American English one can (within limits) capitalize, abbreviate, archaize, and use symbols (+, %, &, $) instead of normal spellings. Stubbs (1992:225) estimates that symbols number "certainly dozens, and possibly hundreds." A few words admit more than one spelling (judgment vs judgement; -ise vs -ize). But, generally, the spelling of each English word is set in stone according to standards which are deemed normative. For more, see discussion of "fixed word images" below.

Not so in ancient Mesopotamia. When using the cuneiform ("wedge shaped") script, writers of Akkadian (umbrella term for Babylonian and Assyrian, written circa 2000 BCE to the early years of the Common Era)[17] enjoyed considerable latitude in how to spell words (see § 2.2 below). The "psychology" of Akkadian spelling choices therefore offers us a fascinating window onto how writers (and speakers) of Akkadian thought about language, writing, and personalization of the same. It was also, we will suggest, heavily influenced by the largely oral character of the world they inhabited.

What is more, since—as we shall see—a significant degree of choice is built into the system, *all* Akkadian spellings lend themselves to such analyses, whereas for modern languages (and their writing systems) they can usually only be undertaken for *re*spellings (that is, conscious departures from standard orthography) or misunderstandings. Akkadian therefore has a major contribution to make to the emerging field which, in his 2007 book *Spelling and Society*, Mark Sebba called the "sociolinguistics of orthography."[18] Since this field has so far largely been concerned with modern languages, it misses out the large swathes in the history of writing applying to largely oral societies, where spelling was much freer than today, and where it can be hard to work out what counts as "standard" and what does not. Such situations have yet to be theorized,[19] and Akkadian is a useful laboratory in which to attempt this, putting other scholars' focus on modern respellings into a larger conceptual framework. In return, some of what has been written on the sociocultural aspects of modern orthographies can help Assyriologists approach Akkadian spellings from unfamiliar angles.

The idea of talking about Akkadian spellings in terms of "psychology" goes back at least to Benno Landsberger, who maintained that modern scholars need "psychologisches Verständnis" ("psychological understanding") in analyzing ancient spellings and commented of a putative error that "die psychologische Motivierung für einen solchen Fehler gleich Null [...] ist" ("the psychological motivation for such an error is nil").[20] As thus used, "psychology" has little to do with the modern academic discipline of the same name: it is rather a term of convenience for the motivations (conscious or unconscious) behind spelling choices. The term also has the advantage of putting emphasis on individual agency, an aspect of Akkadian spelling which deserves to be highlighted.

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[17] For a survey of Babylonian and Assyrian and the sources written in them, the reader is referred to George (2007). There were also varieties of Akkadian in the third millennium BCE ("Old Akkadian"). They are not studied here, though much of the discussion applies also to them.

[18] Sociolinguistics being the study of speaker's choices, "the sociolinguistics of orthography" (more properly something like "sociogrammatics") means "the study of writer's choices."

[19] Sebba (2007:33) actually hints that, where free variation in spelling is permissible, spellings carry no social meaning. I take this to be a thought experiment establishing a point of principle rather than a comment directed concretely at scripts such as Cuneiform, which allow their writers much latitude. Yet, Sebba also remarks that "there is a natural tendency for all human activities which involve choice to take on social meaning" (160).

[20] Landsberger (1965:369 n.142). Compare also Deller (1966:311): "Die Verwendung der Abkürzung *bat* in roll-call-Protokollen, wo es auf fixes Notieren ankam, ist psychologisch hingegen leichter erklärbar als der Gebrauch mancher anderer nA Abkürzungen (z.B. *tin* für *etinnu*)" ("The use of the abbreviation *bat* in roll-call protocols, where fixed note taking was at issue, is psychologically easier to explain than the use of many other Neo-Assyrian abbreviations (such as *tin* for *etinnu*)").

We thus need to distinguish at least two levels of analysis: the spelling choices, decisions, and instincts of individuals working within the system of Babylonian/Assyrian spelling; and the broader forces—most notably, in the present connection, the largely oral character of the Mesopotamian world —which fashioned the system itself.

The paper will begin by reviewing previous scholarship on Akkadian spelling (§ 2). It will then pinpoint the choices which writers faced (§ 2), discuss the notable absence of "fixed word images" in Akkadian spelling, and explain this with reference to the largely oral character of the Mesopotamian world (§ 3). Finally, it will analyze the factors which might have led a writer to one choice over another (§ 4).

2.1 Previous scholarship on Akkadian spelling

Aside from the light they can shed on pronunciation,[21] there has been surprisingly little study of Akkadian spellings. One reason for this is perhaps the circumstance that modern academia is dominated by users of writing systems (such as the Roman script) where, in mainstream contexts, no or almost no choice is allowed. This may have exercised a subliminal influence on researchers, disinclining them from ancient writers' spelling choices as an object of enquiry.[22]

An extreme example of deprecation of spelling variation is offered by Assyriologist Ignace Gelb in his celebrated book *A Study of Writing*. The passage is worth quoting *in extenso*:

> Many of our modern spellings are left-overs from a period in which a word could be spelled in several different ways, depending on the whim of the writer. There is no rhyme or reason for the English spelling of "height" as against "high," "speak" as against "speech," "proceed" as against "precede" or "attorneys" as against "stories." The preservation of these irrational spellings in modern English writing seems to be due to an old and inborn individualistic tendency, averse to accepting any bounds imposed by systematization. This attitude is well exemplified by the learned Dr. Crown who, in the various books he published in the latter half of the seventeenth century, spelled his name indifferently as Cron, Croon, Croun, Crone, Croone, Croune; or, in more modern times, by the famous Lawrence of Arabia who, when asked by his perplexed publisher to try to spell his foreign words and names more uniformly, answered: "I spell my names anyhow, to show what rot the systems are" (1952:224).

Gelb is aware that some times and places have allowed writers great latitude in their choice of spellings, but in writing about such situations he betrays the prejudices of one who was

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[21] Assyriology's focus on spellings as a source of information about pronunciation is typical of many disciplines. See Sebba (2007:11), generally: "orthography has mainly been seen as concerned with the representation in writing of *sounds* of a spoken language and so related almost exclusively to phonology or 'phonemics'"; and Stenroos and Smith (2016:135), on Middle English: "Traditionally, Middle English spelling was studied wholly or mainly as a means of reconstructing spoken variation and identifying geographical dialect areas."

[22] Compare Stenroos and Smith (2016:136) on Middle English: "It has often been difficult for scholars to accept the variability of earlier stages of the written language."

educated in a post-oral (intensely literate) society, and brought up to believe that spelling should be consistent and systematic, with no choice allowed. He employs derogatory terms—"whim," "no rhyme or reason," "irrational"—where neutral ones would have sufficed. Above all he fails to follow up lines of enquiry which his own examples suggest: since names are closely linked to personal identity, Dr Crown's case raises the question of how he thought about the different spellings of his own name (which were older, which newer? which Latinate, which more Saxon? which longer, which shorter? which more impressive, which less so?), and whether they can be correlated with anything (such as the dedicatee of the work; the subject matter; neighboring letters and words; his spellings of other words; different habits at different times of his life). There might be mere whim, or there might not. One needs to look.

T. E. Lawrence's case is especially interesting because here was have a deliberate challenge to the prevailing systems. It would be fascinating in terms of the history of ideas if we could uncover a case such as this in ancient Mesopotamia, but it is not by dismissing spelling variation as "irrational" that we will find it.

An extreme example of what consequences could attend a change in spelling is provided by the writing of the divine name Assur (the national god of Assyria) as an.šár[23] in official Assyrian sources. This change probably has its origin in religious reforms carried out under Sennacherib, and had the effect of syncretizing Assur with the age-old Babylonian god Anshar (Beaulieu 2003:331).

Indeed, it transpires from their philological notes that many Assyriologists have thought deeply about Akkadian spelling, in ways more creative and less judgmental than Gelb. So far, however, these remain tips of submerged icebergs: there is, as far as I know, no extended discussion of how and why Akkadian spellings might be studied over and above what they can tell us about pronunciation. The present paper will, therefore, attempt to systematize a number of questions we should routinely be asking about Akkadian spellings, and offer examples of how we can investigate these questions; and further argue for a link between spelling practices and Orality.

2.2 The basic choices available to writers of Akkadian

Writers of Akkadian had much more latitude in spelling than we are used to today.[24] Some of the choices available to them applied throughout the history of Akkadian, some only in certain contexts. Here I discuss the former type. For the latter, see § 2.3.

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[23] In the transliteration of Akkadian and Sumerian, acute and grave accents are no reflection of pronunciation. They distinguish homophone cuneiform signs. Thus *la*, *lá*, and *là* indicate "*la*" written with three different signs.

[24] Though within limits, as we shall see. As Sebba (2007:31, 33) points out, even non-standardized spelling can only happen within certain margins, or it becomes incomprehensible.

Writers of Akkadian had to choose whether to spell words syllabically (spelling out an Akkadian word syllable by syllable) or sumerographically (writing Sumerian words to represent Akkadian ones).[25] Cuneiform signs could (at least in principle) be used in both ways.

In syllabic spellings, the writer could choose which signs to use for which syllables (such as ⸰[26] *še* or ⸰ *še₂₀* for the syllable /še/)—the repertoire of options (the "syllabary") being subject to change across time and place.[27] Writers could further decide whether to write double consonants double; whether to use *plene* spellings ("extra" vowels, like *la-a* instead of just *la*);[28] and whether to write syllables of the form CVC (consonant+vowel+consonant) into CV-VC.

In sumerographic spellings, the writer had to choose whether to add a phonetic complement (turning the spelling into a mixed sumerographic-syllabic spelling).

The simple Akkadian noun *bītum* ("house") could hence be written no fewer than six ways:

𒂍	É (sumerogram only)[29]
𒂍 𒌈	É-*tum* (sumerogram + phonetic complement)
𒁉 𒌈	*bi-tum* (syllabic spelling)
𒁉 𒌅 𒌝	*bi-tu-um* (syllabic spelling with CV-VC for CVC)
𒁉 𒄿 𒌈	*bi-i-tum* (syllabic spelling with *plene -i-*)
𒁉 𒄿 𒌅 𒌝	*bi-i-tu-um* (syllabic spelling with *plene -i-* and CV-VC for CVC)

All these options are, in principle, equally valid (though not equally common).

In longer words, possibilities multiply, so that a form such as *ipaqqid* "s/he entrusts" ends up with six options in syllabic spelling alone (before sumerograms even enter the picture):

i-pa-aq-qi-id	𒄿 𒉺 𒀝 𒆠 𒀉
i-pa-aq-qid	𒄿 𒉺 𒀝 𒂍
i-pa-qi-id	𒄿 𒉺 𒆠 𒀉
i-pa-qid	𒄿 𒉺 𒂍
i-paq-qi-id	𒄿 𒅁 𒆠 𒀉

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[25] Many instances of sumerography can be described as logograms.

[26] All signs reproduced in the present paper use the shapes of the Neo-Assyrian period, employing Sylvie Vanséveren's invaluable "Assurbanipal" font.

[27] Walter Sommerfeld (2006) cautions that detailed analysis of spellings in discrete sub-corpora may reveal apparent variation in spelling to reflect variation in pronunciation.

[28] *Plene* spellings usually marked long and/or stressed vowels, or interrogative intonation. Sometimes, they served purposes of disambiguation (see § 4.1). Sometimes, their rationale remains opaque. Thus two Old Babylonian letters from the same sender end with the same phrase *bēlī lū īde* "may my lord be aware," with *īde* once spelled *i-de* and once *i-de-e* (Letters 144 and 145, from Sangara in Tillā, as in Eidem 2011:220f). To judge from the scale drawings in the same volume, there would have been enough space for the *plene* spelling in both. It is possible that Sangara employed two different scribes for the two letters.

[29] By modern convention, syllabic spellings are transliterated in italics, sumerograms in non-italics. I follow the widespread (but not universal) convention of representing sumerograms through capital letters.

i-paq-qid   𒄿 𒅘 𒄀

There is the added twist that some of these syllables can, in certain periods, be spelled with more than one sign: for example, 𒄀 *qi* and 𒅅 *qí* for the syllable /qi/. This depends on the syllabary (repertoire of accepted spellings), which varied across time and place.[30]

The above examples may seem unimpressive when set against, for example, the proliferation of spellings in Middle English. The *Linguistic Atlas of Late Medieval English*, which charts spellings in a largely oral world, lists 55 different ways to spell "about," including *abot*, *oboute*, *abowt* and *abouth*; 140 spellings for "strength," including *strenket*, *streyngh*, *stregth* and *streng*; and over fifteen columns for "through," including *durwe*, *thorwh*, *yrogh* and *thruth*.[31]

However, the astonishing variability of Middle English spelling results from the interpenetration of many spelling systems and dialectal variants, as well as individual writers' agency—most of the variants are attested only once. One could say that their diversity suggests the *absence* of a system. By contrast, the six Akkadian ways of spelling *bītum* are (as far as we can tell) produced by a single system, and fully regular within it.

The above scheme, which is the backbone of Akkadian syllabic spelling throughout its history, can undergo further refinements, which presented writers with further options. Before we review those, we will briefly look at variability in the syllabary (that is, in which signs were used with which syllabic values).

2.3 Variability in the syllabary

Not all writers of Akkadian faced exactly the same range of spelling options. A crucial difference lies in the syllabary (the repertoire of syllabic readings in use), which changed across time and place: if one's syllabary did not include, say, the value *rab*, then one wrote *ra-ab* instead; whereas another writer, to whom *rab* was "available," might use it directly.

Some syllabaries seem to have been quite simple. For example, many writers of non-scholarly documents would in practice represent a particular syllable (say, /ba/ or /ul/) with only one sign. With these syllabary-specific constraints applied, many a spelling in Old Babylonian letters (which usually use CVC signs only for the word-final *m* known as mimation), for example, is more or less automatic.

Syllabaries were a bit blurry round the edges, in the sense that writers always had the option of disregarding usual practice. Some writers may even have felt license to invent new sign values *ad hoc*, like using SILA to write the syllable *suq* on the basis that SILA is a sumerogram (logogram) for the Akkadian word *sūqu* "street" (Finkel *apud* Geller 2005:150 n.7). In such cases it is hard to know whether these really are *ad hoc* innovations, or whether they were

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[30] Non-routine spellings would further complicate the picture. For example, the syllable *i* can—rarely, and mostly in the word *inūma* ("when")—be represented with *ì* (the sign NI).

[31] See McIntosh et al. 1986:115 ("about"), 78-79 ("strength"), and 96-101 ("through").

normal in particular circles (and we simply happen not to have found more examples), or even whether the writer assumed they already existed, on the basis that they fit into a pattern of usage.

In principle, sign values were codified by lexical lists, which people absorbed as part of their education.[32] But it is doubtful whether most learners or teachers had access to a complete set of lexical lists, and were made privy to *all* the sign values being used in the world around them. Rather, it is more likely that most writers of Akkadian would have thought in terms of "concentric pools" of sign values: those which they used regularly; those which they knew, but used sporadically or not at all;[33] those which they were more or less hazy about, perhaps only knowing them passively; and the mysterious pool of values they didn't know, but whose existence they were broadly aware of. In modern contexts, such varying knowledge and sense of control over sign values is found more readily in relation to vocabulary than orthography.[34]

2.4 "Balkanization" of writing practices

"Balkanization" is my way of referring to independent scriptoria existing (at least to some extent) in parallel without mutual interference.

Printing technology and, even more so, the internet, have created a world in which writings are produced with the aim of reaching as broad an audience as possible. Newspapers aim to reach "the general public." By editing Akkadian manuscripts in books, journals and websites, by blending their words together into modern dictionary entries and scholarly articles, we bring them into our world of "open discourse." It easy to forget that the situation was quite different in Ancient Mesopotamia. Not only did people (even literate people) very probably read and write less than we do today, but most people's experience of writing was probably that it was transmitted "vertically" within individual scriptoria or other specific contexts, rather than "horizontally" across Mesopotamia as a whole.

There must have been *some* measure of horizontal transmission, because, on the macro level, orthographic conventions can spread across the entirety of Babylonia and/or Assyria. Indeed, colophons imply that tablets travelled long distances, and Frahm (2012: esp.17-19) has shown that that scholars could too.

On the micro-level, however, it is likely that individual scriptoria or institutions retained and perpetuated their own conventions, or indeed created new ones. Godefroy Goossens (1942:81-84) showed that different spelling conventions were used by different scribal families

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[32] Compare the standardization of Indonesian (1901) and Malay (1904) spelling by medium of word lists, referred to by Sebba 2007:91-92.

[33] Veenhof (1982:370) suggests that "every scribe with reasonable training knew many more syllabograms than he normally used." How long this non-practical learning was retained after the completion of training is an open question. Also, the point perhaps has the greatest relevance to scribal training in the Old Babylonian period, which was largely conducted in Sumerian (and thus involved many sign values not used in writing Akkadian). In the same vein, Veldhuis (1997-1998:125) held that Old Babylonian scribal education aimed for a knowledge of syllabary variability that extended "far beyond what may be used in the practice of day-to-day writing."

[34] Except perhaps emoticons, though these are still a fairly marginal entity in mainstream contexts, and they are arguably not orthography in the straightforward sense.

in the same city of Hellenistic Uruk,[35] matching the comment by Antoine Cavigneaux (2012:11) that Mesopotamia was "une société où le savoir se transmet surtout dans le cadre familial" ("a society where knowledge is transmitted above all in the context of the family").

All this was only possible in a largely oral society.

2.5 Other choices available to writers

Akkadian syllabic spelling traditionally follows the boundaries of spoken syllables: *iš-ku-nu* for /iš-ku-nū/ ("they placed"). However, first millennium writers also had the option of following *morpheme* boundaries (so called "morpho-phonological" spellings). This would not affect *ipaqqid*, but it would affect the masculine plural equivalent, *ipaqqidū* ("they entrust"): one would expect it to be spelled *i-pa(q)-qí-du* as per the spoken syllabification /i–paq–qi–dū/, but *i-pa(q)-qid-u₂* with isolation of the plural ending *-ū* was also possible. Examples of such spellings have been collected by Michael Streck (2001:84-87).[36]

Another choice involving syllable boundaries available to writers was whether to run word ends and beginnings together to reflect the rearrangement of syllable boundaries in speech: for example, *ú-li-le-qè* for *ul ileqqe* ("he will not take"). These are so called "sandhi spellings," rare but nonetheless well documented overall.[37]

In the first millennium, one could represent a CVC (consonant-vowel-consonant) syllable as CV-CV: for example, *ba-la* to represent /bal/.[38]

Another feature of the first millennium (possibly facilitated by the erosion of vernacular case endings) was the introduction of Akkadograms: that is, fossilized syllabic spellings used as a quasi-logogram. An example is KI-ṢIR, used to represent any form of the word *kiṣru* "group (of people)." Use of these seems to have been optional.

In a similar vein, some Neo-Babylonian literary manuscripts use *-tum* as an all purpose ending for singular nouns with stem-final *t*, regardless of the actual ending: for example, *ma-li-ku*-TUM for genitive *malikūti* (Worthington 2012:280-282). However, this was a minority phenomenon, and presumably a matter of choice.

Further choices which seem to have inhered in the system are that in stem-final position one had to choose whether or not to adopt purely graphic gemination (lengthening) of consonants at morpheme boundaries (especially after CVC signs): for example, 𒅖 𒆪𒌦 𒉡 *iš-kun-nu* rather

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[35] See also the comment in Worthington 2012:166 n.551.

[36] For Old Babylonian examples, see also Streck (2003).

[37] For discussion of sandhi spellings, see Worthington (2012:174-88).

[38] On Neo-Assyrian, see George (2003a:439 *sub* (g)), although I would dispute that the phenomenon needs to happen in *Auslaut* position, or involve a heavy/stressed vowel. The origin of this phenomenon is no doubt that it allowed greater transparency in the representation of syllable-final consonants (compare Streck 1993:269): for example, 𒀜 𒍪 𒆪 *at-bu-ku* for *atbuk* ("I poured") shows the final consonant is a *k* (because a different cuneiform sign would normally be used for *gu* or *qu*), whereas 𒀜 𒍪 𒊌 *at-bu-uk* is (in cuneiform) less clear, since the same sign 𒊌 can represent *uk*, *ug* or *uq*. The principle of CV-CV for CVC would subsequently have spread to cases where there was no such disambiguation. The principle applied already in the third millennium, but Neo-Assyrian probably represents polygenesis rather than revival.

than 𒅖𒆪 𒉡 *iš-ku-nu* for *iškunū* ("they placed").[39] In some cases, the writer also had the option to use some signs as "determinatives" (also called "classifiers"), to identify the semantic sphere—"wood," "place," "person"—a word belonged to.[40]

In sum, the *types* of choice available to writers of Akkadian were different from those available to writers of most modern languages. For example, Norwegian allows writers to choose between *Nynorsk* and *Bokmál* spellings, while in Brazilian Portuguese one can choose between Portuguese and Brazilian spellings (Sebba 2007:107-109). In both these cases, the writer is like a restaurant customer choosing between items A and B on the menu. In Akkadian cuneiform, it is not a matter of having to choose between two preexisting systems, but of using *one* system which has large measures of choice inbuilt: the writer, as it were, becomes the cook!

Finally, writers could further choose to abbreviate, both for sumerograms and for syllabic spellings. Thus for example one finds *ma* for *mana* ("mina" = weight measure), or gú for gú.è.a, a sumerogram representing *nahlaptum* ("garment").[41] Though the phenomenon of abbreviation is attested (to varying degrees of frequency) across all varieties of Akkadian, the specific abbreviations used often seem to have been specific to particular contexts (Worthington 2020:173-207).

3. (The absence of) "fixed word images"

With the caveat that detailed study might reveal more standardized spelling in particular settings, the foregoing will have made it clear that Akkadian did not only ever spell a word in one particular way: it did not have what students of writing call "fixed word images."[42]

I suggest that this absence of "fixed word images" relates to the fact that, even for literate people, life in Mesopotamia was a largely oral one, where writing was not very *present* (even though, as we saw above, it was *important*). The situation would mirror that of Middle English, for which Merja Stenroos and Jeremy Smith (2016:137) suspect that the non-standardization of spelling reflected "intensive rather than extensive" reading practices at the time.[43] Interestingly, something similar transpires from Michael Scribner and Sylvia Cole's ethnographic study of

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[39] Mayer (2010:530) points out that many examples involve dentals, but does not envisage phonological reasons for this. He makes reference to Borger (1956:92): "Verdoppelungen des Schlussradikals sind [...] bei den Verben *ultimae d* nicht selten" ("doublings of the final root letter are not rare in the case of verbs whose final root letter is *d*").

[40] Though note the observation of Landsberger (1960:3 n.12) that determinatives are avoided when the relevant cuneiform sign is the same as that which begins the word. Landsberger dubbed this a "Schreibregel" ("writing rule"). Frank Simons has alerted me to some exceptions in god names, such as "Ilu-Amurru," which can be preceded by the divine determinative.

[41] The former is Old Assyrian, the latter Old Babylonian. See Worthington (2020:187 and 189-190).

[42] The use of fixed word images is sometimes referred to as "lexical constancy" (see for example Kessler and Treiman 2015:13).

[43] See also Stenroos and Smith (2016:138): "One might assume that a large proportion of the literate community might not [yet] have developed the routines of sight-reading based on outline and context rather than decoding, making reading much faster and more efficient."

literacy among the Vai of Liberia, conducted during the 1970s. Like Mesopotamians, the Vai present a situation where writing existed, and was used, but only in restricted ways. Scribner and Cole (1981:239) mention that "writers differ […] in the way they spell."

A wide ranging study of how spelling standardization correlates with the spread and uses of literacy exceeds the scope of this paper, but it would be a fruitful exercise. For now, let us return to our Mesopotamian case study.

3.1 "Fixed word images" and the benefits of standardization

For societies with intensive reading practices, the standardization of spelling offers advantages in the efficiency of reading. Ferdinand de Saussure (1916:58) was reported as remarking that "le mot usuel et familier s'embrasse d'un seul coup d'oeil, indépendamment des lettres qui le composent: l'image de ce mot acquiert pour nous une valeur idéographique" ("usual and familiar words are taken in with a single glance, independently of the letters which make them up: the image of such a word acquire for use the value of an ideogram").[44] This observation arguably applies to most modern writing systems, and the idea of recognizing a word *en bloc* as if it were a picture, rather than decoding it phonetically, has given rise to the expressions "sight vocabulary" (the repertoire of words one can recognize on sight) and indeed "fixed word image" which readers recognize *d'emblée* rather than by decoding them phonetically.

A point which was probably already implicit in De Saussure's reasoning has since been made explicit: that mature readers' recognition of "fixed word images" makes the process of reading quicker and more efficient than the "slow and arduous procedure" of decoding words phonetically, "symbol by symbol" (Mattingly 1992:134). Richard Venezky (1970:260) observes that "advanced" readers can read rapidly thanks to recognizing "whole words or groups of words, rather than individual letters." In this connection, he points to the necessity of acquiring a "sight vocabulary" in order to read "connected discourse smoothly" (262). Other scholars have gone on to stress the importance of "fixed word images" in fluent reading,[45] even suggesting that recognizing them is a "precondition" for reading "acceptably" (Røsstad 1995:120).[46]

The notion of a "fixed word image" is of course intimately bound up with orthography, and standardization of the same. If one wants to have fixed word images, one has to standardize one's orthography. Eugene Nida (1954:38), discussing the phenomenon in terms of "unity of

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[44] "Reported" because the book was in fact put together by De Saussure's students.

[45] See, among others, Bird (1999:103): "the 'fixed word images' which are so important for fluent reading …"; Snider (2001:324): "Mature readers read by sight […], and do not take the time to sound out the words they read. For this reason, a good orthography maintains a constant word-image"; Sebba (2007:23): fixed word images "help the fully-fledged reader"; and Share (2008:588): "This ability to automatize word identification […] is probably the quintessence of reading skill". Compare also Stenroos and Smith (2016:138) on fixed spelling and fast reading techniques in Medieval Latin. And see Perfetti (1985:215-18, with references) on the value of "fixed word images" for *learning* to read.

[46] The literature review by Carney (1994:31) results in the following cautious comment: "For fluent readers, recognition [of the written word] may well be direct and purely visual, without the mediation of the spoken form. That seems to be a consensus view of what the skilled reader does." Sebba (2007:160) notes that it has "not been shown that [fixed word images] are *necessary* for fluent reading."

visual impression," points out that this in turn means writing words in pausal (or "ideal") form, without reflecting the phonetic changes that words undergo through contact with neighboring words.[47]

Where standardization in spelling does not apply, and words cannot be recognized like pictures, reading becomes more complicated.[48] Erica Reiner (1973:15) notes that "the reading of a cuneiform text is based on information which includes […] syllabary, grammar, and dictionary, [… and] the three components are interrelated." For largely oral societies, where there was less matter to read, and it needed to be done less quickly, there is less of an impetus towards standardization. This very likely explains the absence of "fixed word images" in Akkadian spelling.

3.2 "Fixed word images" and "autopilot" spelling

The ways in which people spell depend both on the nature of the script they are using, and on their degree of experience with it. For modern languages whose spelling is phonetically transparent, such as Italian and Turkish, there is a simple algorithm which converts a spoken word into its written form: give or take special cases such as Standard Italian /k/ and /č/, one simply maps phonemes onto graphemes on a one-to-one basis. Learners of such languages therefore only need to learn the spelling *system* rather than the spellings of individual words. But even they quickly go on to recognize words as individual units,[49] through repeated exposure.

For English, the equivalent algorithm is much more complex, as it is bedeviled by an idiosyncratic hodgepodge of micro patterns grounded in linguistic history (for example, that /f/ can be represented by "gh" only at the end of a word-like morpheme). Indeed, it is too complex for most people to understand and absorb, so that, effectively, learners of English have to memorize the spellings of individual words. For this reason, modern English has been described as having "revert[ed] to a partially logographic state" (Joseph 1987:66). Writers of English thus perforce "automate" their spellings (as opposed to spelling phonetically).

Some readers and writers of English go on to infer bits of the algorithm from spellings they encounter, but others do not, and can remain surprisingly unaware of even simple linguistic/ orthographic patterns. For example, Paul Mitchell and his colleagues (2011:119) found that many writers of English live their lives unaware of the pattern which governs the spelling of the plural

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[47] Compare also Mattingly (1992:134): "why is a narrow phonetic transcription an unlikely orthography? The reason must be that the shapes of words in such a transcription are context-sensitive and thus difficult to recognize."

[48] Mogens Trolle Larsen (1989:134) comments for Old Assyrian that "I know of no statement in any text which complains that a message was hard to understand," but a) Old Assyrian is, as we shall see, one of the cases where Mesopotamia comes closest to "fixed word images"; b) easy or hard, the script could well have been viewed as part of "the way things are," so the absence of complaints does not preclude difficulty in reading.

[49] Though eye movements and other indicators suggest that even fluent users of languages with "shallow" (transparent) orthographies engage in more "letter-by-letter decoding" than users of English (Share 2008:586).

morpheme, and simply rely on "an acquired pool of memorized spellings" of individual plural forms,[50] which fail them when they are asked to pluralize *imaginary* words.

Thus for modern languages, where—by and large—the spelling of each word is fixed, and mature users of the script have ample experience in both reading and writing, writers tend to converge to "automatic" spelling. This is promoted by the environment of (by the standards of largely oral societies) intense engagement with written material.

Akkadian raises the question of whether writers who are licensed by the writing system to vary their spellings of the same word, even within short stretches of text, *can* spell on "autopilot," or whether they are constantly required to make *ad hoc* choices. Perhaps we should envisage a mixed system, whereby most writers operated with a "base line" of habitual spellings which they were free to vary.

A further complexity is that, since so many Akkadian words (indeed: virtually all frequently used ones) are constructed according to standard morphological patterns, there is the possibility of writers developing an "autopilot" for spelling *patterns* rather than for individual *words*. Such a way of mentally organizing spelling might, for example, have led writers to spell the double consonant as such more often in present-future forms of third-weak verbs, such as *ibašši* ("it exists"), than in present forms of strong ones, such as *ibattiq* ("s/he will chop"), on the basis that the former derived recognizability from added orthographic bulk. On the other hand, even if such a distribution were found, it would be difficult to exclude the possibility that writers had memorized (tendencies in) the spelling of individual words, which were subliminally influenced by linguistic traits (such as, perhaps, differences in pronunciation), without being aware of the underlying pattern. We have a long way to go in understanding the rationales of individual Akkadian spelling choices.

In reviewing the cases below where Akkadian spelling came close to "fixed word images," it is useful to bear in mind that this concept is two-directional: a particular word should (always) be represented by the same set of symbols, and a given set of symbols should (always) represent the same word. The Akkadian cases meet the latter criterion better than the former.

3.3 Recognizability of "function words"

Given the element of choice built into Akkadian spelling, it might be thought that there are no "fixed word images" at all, and that writers always wrote *ad hoc*.[51] But there are a limited range of cases in which "fixed word images" do seem to have existed. One of these are "function words."

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[50] See also 121: "some people never learn this particular morphemic spelling rule and continue to rely instead on word-specific knowledge when spelling plural words throughout their lives."

[51] A separate question is whether writers of Akkadian *inscribed wedges* on "autopilot" once they had decided which signs to write. Interesting observations on this are found in Taylor (2015), who identifies trends to inscribe wedges in a particular sequence, but also occasional cases where the order of inscription changes for a given sign within the same manuscript: for example, the Ur III tablet BM 12998 in cuneiform script and Sumerian language (ibid:14).

Some scholars believe that it promotes efficiency of reading if "function words" (such as prepositions and pronouns) are easy to recognize.[52] A strategy adopted to this end in English is to normally spell "lexical words" (or "content words": nouns, verbs) with a minimum of three letters, but to compress most "function words" (or "grammar words": prepositions, pronouns, auxiliary verbs) into two letters.[53]

Akkadian may well also have adopted a range of such strategies, particularly in the first millennium: the word *libbu* ("heart, middle"), often used prepositionally—*ina libbi* ("in the middle of…," "in…"), is usually written with the sumerogram ⸢ŠÀ, a sign not used with any other readings. It is thus easy to recognize, and effectively acts as a fixed word image.

The preposition *eli* ("upon"), and the word *muḫḫu* ("top"), frequently used in the compound preposition *ina/ana muḫḫi* ("in/to the top of" and thus "onto"), are usually written with the sign ⸢ UGU, which for writers of Babylonian and Assyrian again had no other readings.

The preposition *ina* ("in, from") is usually, in the first millennium, written with the easily recognized single horizontal wedge: ⸢. Though this can in principle have other readings (the syllables *aš*, *rum*), the only one of these which is used frequently in syllabic Akkadian is *aš*, and it is perhaps no accident that in the first millennium this is often written *áš*: if the reader can expect /aš/ to be written with the sign ⸢ ÁŠ, then the single horizontal wedge is likeliest to represent the preposition *ina*.

In Neo-Assyrian script (first half of the first millennium BCE), the preposition *ana* ("to" or "for") is usually written with two signs rather than one (⸢ ⸢ *a-na* not ⸢ *ana*). This is probably to give it visual bulk—the one-sign version is a single vertical wedge, which the reader might miss.

On many Neo-Assyrian manuscripts, the preposition *ša* ("of") is written with the sign ⸢ ŠA₁, to distinguish it from the syllable /ša/ within a larger word (written ⸢ ŠÁ).[54]

Thus in many varieties of written Akkadian the commonest function words are made easy to recognize, practically as "fixed word images." Whether this suggests that Akkadian readers and writers mentally processed prepositions differently from other parts of speech must be left open for further investigation.

3.4 Other cases similar to "fixed word images" in Akkadian

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[52] For example, Venezia (1970:262): for "high-speed word recognition, *especially of function words which aid in establishing relationships among words* and in defining syntactic/semantic boundaries […] it is important […] that these forms [=function words] be short and rapidly distinguishable" (emphasis added).

[53] See Albrow (1972, reissued 1981:16, 21). Albrow also gives the contrastive examples of functional "be, me, we, he" vs lexical "bee, wee, see" (25). Compare Venezky (1970:262): "Throughout the history of English spelling there has been a tendency to restrict the shorter spellings—especially the two letter ones—to function words. This led, for example, to the addition of the final e to words like doe, toe, and roe, as well as the doubling of the final consonants in ebb, add, odd, and egg."

[54] See Worthington (2012:277-279), with bibliography, who did not realize this should be seen in the wider context of making "function words" easier to recognize.

Beyond the function words discussed above, the closest matches to "fixed word images" in Akkadian are the signs used only (or almost only) as sumerograms: such as 𒈗 LUGAL ("king"), 𒂍 É ("house"), 𒆬� KÙ.BABBAR ("silver"),[55] and 𒀲 ANŠE ("donkey") (though phonetic complements might or might not be present). These make up a small proportion of words or spellings in most document types, however.

The densest concentrations of sumerograms are found in ancient scholarly writings (such as omens and medical recipes). Modern scholars have realized that, for one who is initiated into recognizing them, their fixed shapes make the reading process quicker and more efficient than more variable syllabic spellings.[56] The process was never driven to completion, however: sumerographic spellings were regularly interspersed with syllabic ones.[57]

As for syllabically written Akkadian, the context in which "fixed word images" were closest to emerging on a large scale is Old Assyrian (see Larsen's comment above): by reducing the syllabary to a bare minimum, not usually writing double consonants, and making sparing use of *plene* spellings, the Old Assyrian merchants employed a system where many words were spelled in one particular way. Because the syllabary maintained a degree of redundancy (for example, the sign pairs AB/ÁB, DA/TA, IŠ/EŠ, LA/LÁ, and ZA/SÁ were used to write the same syllables) the transition to "fixed word images" was never absolutely complete.[58] Nonetheless, because their trade was conducted over long distances, the Old Assyrian merchants seem to have relied on writing to a considerable degree. Even if the quantity of written matter they processed is small by modern standards, regularly sending and receiving letters is still a nontrivial exercise, and it is perhaps no accident that it is in their use of cuneiform that we come very close to "fixed word images": intensity of use bred efficiency of recognition. This sits well with their use of the vertical wedge used as a "word divider": intensity in the use of writing, and concomitant detachment from the oral sphere, again triggered greater "efficiency."

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[55] Strictly speaking this is a sign group rather than a sign, but it occurs so often one wonders if writers of Akkadian who did not know the meaning of the constituent signs in Sumerian—kù ("metal"), babbar ("white, shiny")—thought of it as a single sign.

[56] See references to Finkel and Leichty in Worthington (2012:246-247). Also Cooper (1996:53): logography in "scientific and technical" writings "resulted in easy-to-scan texts." This is a different issue from whether the use of logograms made scholarly writings "bewußt undurchsichtig" ("purposely opaque"), as suggested by Jaritz (1966:11).

[57] Also, even if sumerograms alone *were* used, they do not have a one-to-one correlation to Akkadian words: a given sumerogram can stand for many different forms of the corresponding Babylonian verb.

[58] Veenhof (1982:369) points out that early (*šakkanakkū* period) writings from Mari use a syllabary with even less redundancy than Old Assyrian, but the corpus of sources is still quite small.

In Akkadian at large there is also a tendency towards "fixed word images" in preserving the orthographic integrity of word beginnings: writers of different periods occasionally go out of their way to add an otherwise unnecessary vowel to achieve this ("enriched sandhi spellings").[59]

Phenomena similar to "fixed word images" arose through conventional spellings of particular words in particular contexts. Examples include the use of 𒇷 *lí* in 𒁁 𒇷 (𒁁𒇷) *be-lí(-ia)* ("my lord"), and the particle *umma* (introducing direct speech) is always being written with the double *m*. A similar phenomenon is the near ubiquity of the sign 𒌓 U₄ in spellings of *ūmu* ("day") (originating from U₄ as a Sumerogram for the same word). Johannes Hackl (2016:84) further sees a "stark ausgeprägte Beziehung zwischen bestimmten Zeichen bzw. Lautwerten und bestimmten Wörtern" ("highly pronounced connection between particular signs/readings, and particular words") in Neo-Babylonian, citing the example of 𒋻 TAR with the values tal_x and til_x chiefly used in forms and derivatives of *baṭālu* ("to cease").

Writers of Middle Assyrian letters used sign values in the greeting formula which were no longer current, and so would be very unlikely to occur in the body of the letter.[60] Since the greeting formula would have been known by heart, and indeed the easiest part of the letter to read, tradition rather than disambiguation would seem to be the explanation here. The situation resembles that of greetings formulae in "Canaanite" Amarna letters, which regularly use the value *bí* in the formulaic 𒆠 𒉈 𒈠 *qí-bí-ma* ("say!"), but elsewhere represent the syllable /bi/ by 𒁉 (Rainey 1996:14-15).

Finally, so called Akkadograms (see above) are "fixed word images," and were presumably introduced precisely for the advantage of easy recognizability. However, they generally seem to have been a rather marginal phenomenon. It would be interesting to study the emergence of Akkadograms in terms of the frequency/recognizability of the signs that compose them. Thus, not being a terribly common sign, 𒈹 ṢIR (=MUŠ) had a good chance of being recognized as one with preceding KI in the Akkadogram 𒆠 𒈹 *KI-ṢIR*. The same would apply to 𒈪 𒈹 *MI-ṢIR* (spelling any form of *miṣru* "boundary")[61] and, *mutatis mutandis*, to 𒎶 𒑲 *MAŠ-KÁN* (spelling any form of *maškanu* "place"),[62] where the rare sign is 𒑲 KÁN. Assuming that a correlation between a sign group's ease of recognition and the likelihood of its becoming an Akkadogram (hence also a fixed word image) exists, it would be interesting to know how far the writers involved were conscious of it.

All of these cases are, however, exceptions rather than the rule. In general, it seems likely that most readers in most contexts would sight read most syllabic spellings phonetically (with all

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[59] Thus for example the two-word expression *nīd aḫi* ("throwing of the arm" and thus "negligence"), would normally be spelled 𒌑 𒄿 𒀀 𒄭 *ni-id a-ḫi*; but one also finds 𒌑 𒁕 𒀀 𒄭 *ni-da-a-ḫi* (MDP II 17 iii.29), reflecting syllabification /nī–da–ḫi/ (hence the sign *da*). The extra -*a*- (an "enriched sandhi spelling") helps the reader see that the word *aḫi* is present, which would not have been obvious with the simpler spelling **ni-da-ḫi. See discussion and further examples in Worthington (2012:§4.4.2). On the importance of word beginnings in readings in English see Perfetti (1985:216) ("especially important is the first letter of a word"), though here readers are learning to recognize words as shapes, which probably did not apply to Akkadian (at least to the same extent).

[60] See Kühne (1995:206a) on 𒆠 𒁉 𒈠 *qí-bi-ma* ("say!") and 𒁾 𒁉 *tup-pí* ("my tablet"), where the typical Middle Assyrian syllabary would have resulted in 𒆠 𒁉 𒈠 *qi-bi-ma* and 𒁾 𒉿 *tup-pi*.

[61] For example, Fuchs (1993:Ann. 200): *e-ke-me MI-ṢIR-ia*.

[62] See Borger (1996) A.i.113 (D10), A.ii.17 (A14), B.v.64 (K3040+): *ina/ana MAŠ-KÁN-šú(-nu)/ka*.

the complications posed by the polysemy of cuneiform signs) rather than by recognizing them as fixed word images, in the same way that Mark Sebba reports for modern Alsatian.[63] The absence of space between words probably made it slower for readers to recognize groups of signs—though Old Assyrian, with its word divider, once again stands out. Akkadian thus stands out as an exception from the notion that a "high-speed, direct retrieval mode" of reading enabled by the recognition of fixed word images "applies to *all* words in *all* orthographies" (Share 2008:588b).

3.5 Fixed word images—implications

Keith Snider (2001:323) remarks that "There will always be a tension between an orthography that is ideal for writers, and one that is ideal for readers." Akkadian orthography, it would seem, was usually less directed at the priorities of readers (though see § 4.1), and more at those of writers.

Interestingly, in other contexts it was *readers'* priorities which could prevail. Vincent Scheil discusses the rare phenomenon on some tablets excavated in Iran, where columns on the same side correspond to each other through a 180 degree rotation (which is to say, each column looks upside down while one reads the other). Scheil suggests that this was for the right-handed writer's convenience, as it meant the surface to be inscribed was always on the right. On the fact that the phenomenon did not become widespread, Scheil (1913:49-50) comments that "La commodité du scribe dut donc, comme de juste, céder a celle du lecteur" ("The convenience of the scribe thus, as is proper, had to give way to the convenience of the reader"). However, our orthographic evidence shows this was not universally the case.

If one holds that "The single most salient and *universal* fact about *skilled* word identification is the remarkable speed and apparent effortlessness of word identification" (Share 2008:590), does one have to conclude that Akkadian readers were not "skilled"? The answer is probably yes and no. If the scholars cited in § 3.1 are correct that fluent reading is facilitated by "fixed word images," the question arises of why Akkadian did not gravitate towards this position. The answer probably lies in the fact that people in ancient Mesopotamia read and wrote much less than members of other societies, and did not feel an impelling need to speed the process up. (As noted at several junctures above, Old Assyrian may well be a special case).

As noted at the start of section 3, parallels can be found in the Modern Vai and Medieval English worlds. Wider investigations are called for.

4. Factors influencing spelling choices

Given the significant element of choice which—as argued here—the largely oral character of the Akkadian-writing world injected into spelling, a basic question to ask is "How/ why did the writer choose this spelling over another?" One cannot hope to establish this question

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[63] Sebba (2007:106): they "have to 'sound out' the words because they do not have recognizable (or conventional) word shapes."

in every case, particularly as many manuscripts are too short or too fragmentary to furnish a well rounded impression of the writer's orthographic habits.[64] Nonetheless, it is possible to identify several variables which might impact on writers' choices.[65]

The spellings we find on manuscripts do not result solely from writer's habits, choices, and decisions: another influence on spelling, which will not receive detailed attention here, is inadvertence.[66] Equally, we will not discuss the special case of stonemasons: many of whom seem to have had a good knowledge of what signs looked like, but not of how to read them, so that visually similar signs were often swapped.[67]

There can be a close relationship between spelling and identity: some writers grow attached to features of their spelling system,[68] and indeed some graphemes can make an impression on neighboring communities.[69] In the present state of knowledge this is very difficult to explore for Akkadian cuneiform, whose scribes generally kept their attitudes to spelling in the oral sphere. It would be fascinating to know how Assyrians, who (except at the start of words) usually used *u* in preference to *ú*, reacted to *ú* when they were copying Babylonian manuscripts.

4.1 Personalization and the benefits of variability

Users of modern scripts seem not to *want* orthographic choice. Mark Sebba (2007:153) cites multiple illustrations to the effect that they perceive choice as "highly problematic," and

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[64] On the importance (and rewards) of studying the spellings of individual manuscripts, see Worthington (2012:esp. 165-166), with refs.

[65] *Not* discussed here is the accretion of heterodox spellings through successive copying, as this does not really reflect the choices of a single person. Nor shall the above discussion target spellings chosen to fit the available space. For the latter point see, for example, Veenhof (1982:371) on "rare OB syllabograms" employed to save space on a clay liver model, where the writer "had to squeeze his omens within the narrow limits of his squares"; and Læssøe (1950:187a) on *ú-še-te-eq* (for *ušetteq*) in a "very crowded" column of the Louvre Hammurapi stele (iii.17). (He also comments (cl. b) that the spelling *ú-še-te-eq* "and the entire phrase" may be "due to the influence of the Eshnunna laws on the Code of Hammurabi"). A clear case of sumerography being used for reasons of space is provided by an amulet with lines from *Erra*, which thanks to sumerograms is able to compress the long lines of the poem into its narrow confines (BM 118998; see comments in Reiner (1960:148b)): for example, til-*ta* for *gam-ma-ra-ta*. Additional examples in Worthington (2020:177-178).

[66] For this see Worthington (2012:Chapter 3). For refs on spellings varying with spatial constraints in Medieval Europe and early printing see Tagg (2012:68).

[67] Examples and references in Worthington (2012:§ 3.6). That publication should have referenced a comment by George (1985:70): "If we consider that the stone mason who engraved the boundary stone probably had no more than the barest working knowledge of the script, and perhaps copied from a clay tablet prepared by a scribe, it need come as no surprise that he was prone to errors of orthography."

[68] Bird (2001:148) reports that writers of Bamileke languages in Cameroon "strongly identify" with the "barred *u*" to represent a vowel which other languages represent with a different symbol. Bird comments that the barred *u* "iconifies the cultural unity of the group."

[69] Compare Sebba (2007:162): "While relatively few people who speak English also know Danish, there are many people who have a vague idea that the Danes use the letter <Ø>." From the perspective of British English, one could also point to associations between German and Umlauts, and French and accents.

infers from them that "what people seem to want is not choice, but consistency."[70] The most extreme example he gives is the Polish journalist Zygmund Nowakowski, who protested at an element of choice being made official about whether to spell compounds as one word or two: "I want to obey, to conform absolutely to the Academy's rules."[71]

However, the orthographic choices available to users of modern scripts tend to be, as we have seen, minimal. They do not normally empower users into agency, but simply cause them to swing back and forth between systems (see § 2.2). By contrast, Akkadian writers were presented with a different, and arguably more empowering, set of choices, more similar to those facing writers of text messages today.

How did writers of Akkadian feel about the fact that "personalization" was available to them in spelling—indeed, to some extent, inevitable in the very act of writing? In the absence of statements on this (I know of none), we can only develop models. A useful lead in this direction is offered by studies of modern "text spelling" as used in messages on mobile phones and internet chat rooms (with the difference that the personalizations of "text spelling" are deviations from the norm, whereas—as far as we can tell—in Akkadian they were not necessarily so).

Caroline Tagg (2011:231) views the orthographic choices posed by modern text messaging as giving writers a "sense of control over their writing." It seems likely that writers of Akkadian experienced the same, but even more intensely. In a world where people read and wrote less, and so there was less impetus to quick reading (and so to "fixed word images"), a writer's ability to choose spellings may have brought advantages in terms of self-image and pride in the task. Tagg's analysis of spelling as "performing identity" (2012:169-190) has potential for Akkadian.

We should also not lose sight of the fact that personalization permeated other aspects of writing cuneiform. Colophons on Neo-Babylonian votive tablets assembled by Andrew George show that apprentice scribes collected the clay to fashion the tablets they would go on to inscribe and dedicate to Nabû, god of writing (George 2010:274-275). The fact these are votive tablets may or may not speak for a special situation. Nonetheless, while we can hardly suppose that every single tablet in the history of Mesopotamia was fashioned by the person who inscribed it,[72] it seems sensible to suppose that this happened frequently—it would make sense for the creation of tablets to be one of the skills acquired together with literacy.[73] Dominique Charpin observes that, at Old Babylonian Mari, there is a correlation between individual handwriting and tablet shape, suggesting the tablets were manufactured by the people who inscribed them (2002:496 n. 51).

One can thus envisage a model in which personalization shaped every aspect of writing, from the creation of the object to the inscription of wedges, also embracing calligraphy and

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[70] See also his p. 108: "what users are led to want and expect is a 'set of rules', not a license to choose among different forms."

[71] Sebba (2007:153), who cites from Rothstein (1977:231) (not available to me).

[72] Taylor (2011:8) notes that the existence of blank tablets opens up the possibility they were made by "someone other than the scribe," while commenting that this is not proven.

[73] Thus also, for example, Reade (2017:170): "Scribes must have learnt, as part of their training, where they could conveniently get clay of suitable quality, and how they should prepare it for the manufacture of tablets."

orthography (and, in some cases, wording). If this gave spelling a measure of cultural prestige, one might cite the wry observation by Eugene Nida (1954:37-38): "When efficiency and cultural prestige are pitted against one another, the latter almost always wins out in the end." Quite possibly, variability was for Akkadian cuneiform part of what Christopher Wyrod (2008:41) has called a script's "cultural value and contribution to the social identity of its users." This is particularly likely to have been true of scholarly contexts, but need not have been confined to them.

Whereas users of modern scripts usually create social meaning through deviation from established norms (2007:33), the structural flexibility of the Akkadian spelling system left writers free to carve out "islands of character" for themselves—whether on a single manuscript, or a group of manuscripts, or even a textual typology to which different writers contribute.[74]

4.2 The intent to disambiguate

Cuneiform is rich in pitfalls for the reader: in confronting unseen text, one has to decide how to read signs, and (except when the "word divider" wedge was used, principally in Old Assyrian) where words start and stop. Similar ambiguities exist to different extents in modern languages,[75] though in cuneiform they are especially pronounced, and probably exacerbated by readers' lesser degree of exposure to written matter (and thus less practice in sight reading). Though readers of Akkadian were usually left to their own devices in negotiating these complexities, on other occasions writers adopted spellings calculated to reduce the level of ambiguity.

One type of disambiguation helped readers correctly read polyvalent signs. Several strategies for this are discussed elsewhere (Worthington 2012:§ 5.4). They include inserting otherwise redundant *plene* spellings, and switching to monovalent signs where polyvalent ones would have produced an ambiguity.

Another type of disambiguation was helping the reader to pick out word boundaries. This may well explain variability in the spelling of the word "donkeys" (*ēmārē*) in an Old Assyrian memorandum published by Klaas Veenhof (2010:165-166), which contains the following spellings (cited in some cases with the word that follows):

e-ma-re-e a-na (line 1)
e-ma-re a-na (2)
e-ma-re (11, end of line)
e-ma-re-e i-li-bi (16)

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[74] To what extent such islands were perceived to be contrastive is an open question—many writers may only have engaged with writings produced by themselves and their immediate colleagues.

[75] See Badawi et al. (2004:21) on "the disambiguation strategies practiced unconsciously by the native reader" of Arabic, where the complexity results from the absence of vowels. Compare Lancioni (2011:197): Newspaper texts seldom, if ever, mark short vowels. The relative plausibility of text frames usually helps reduce false readings, but even skilled readers often have doubts about the exact rendition of a given text, for both the interference of spoken varieties—which often differ dramatically from [Modern Standard Arabic] in the pronunciation of short vowels—and the presence of textual ambiguity."

e-ma-re-e i-li-bi (21)

Prima facie, the alternation in the space of just a few lines between spellings with and without *plene -e* is bewildering. But rather than just regard this as whimsical variation or lack of expertise, one can interpret the distribution as having a rationale. In the first line, it makes intuitive sense that the word's first occurrence in the document should have the fuller spelling (*e-ma-re-e*). Equally, it makes sense for the next line to use the more economical spelling: having seen the fuller spelling, and knowing through common sense to expect the word later on, the reader can be relied on to interpret the more economical spelling correctly. But why then, after the first line is the more economical spelling not used throughout? The answer may lie in the fact that *plene -e* is inserted only when the next word starts with the sign ⫤ *i-*. Since the sign ⊢⫨ *re* can be read both *re* and *ri*, there would have been a danger of the reader losing track of where words started and stopped, and reading ⊢⫨ ⫤ as *...-ri-i-....* A disambiguating *plene* ⊨ *e* forestalls such a misreading.[76]

Disambiguation could involve other features of the language. Klaas Veenhof (1982:371) points to a late Old Assyrian deed which spells the middle consonant of G-stem present verbal forms single (they are morphologically double), but spells other double letters double when this saves ambiguity.

4.3 Consistency vs "elegant variation"

The flexibility of the Akkadian cuneiform spelling system allows for two opposing tendencies to coexist: writing the same word (or word pattern) in the same way; and deliberately going out of one's way to spell the same word in different ways.[77] Deciding whether variation is "elegant"—whether there is a deliberate intent to vary or not—is only possible when one has a suggestive distribution.

An example of consistency as applied to particular words is offered by spellings (or two forms) of the word for "sea" in the genitive singular in the inscriptions of Shalmaneser III: ⊣ ⊢⫨ *tam-ti* and ⊣ ⫸⫢ *tam-di* both occur, but usually a given inscription uses only one.[78] It seems very unlikely that the writers who use one spelling of "sea" were unaware of the other, so we probably have a conscious intent to standardize. The exceptions are inscriptions 14 and 16 (as numbered by Grayson (1996)): the so called "Black Obelisk" and a statue. Their spellings are exceptional

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[76] A line of reasoning similar to this was applied by Hilprecht (1906:24 n. 3, continued from previous page) to an Old Babylonian mathematical tablet where the presence of an *e* between numbers was not yet recognized as a Sumerian grammatical ending: taking it as a "*Verlängerungsvokal*" that "can be used or omitted without any apparent modification of the meaning," Hilprecht commented that "this 'E' was more frequently employed than omitted in this class of texts, because it separates two numbers (square and root) very effectively, thereby considerably facilitating their reading in closely written lines."

[77] Lambert (2013:197) comments on elegant variation at the lexical level on manuscripts of the poem *Enūma eliš*: *ešgallu* used as synonym for the Apsû (subterranean cosmic water).

[78] *tam-di*: 15 occurrences in inscription 2; 13 in 6; 11 in 8; 6 in 10; 4 in 12; 2 in 20, 22, 25-27, 39; *tam-ti*: 7 in inscription 3 (four in the portion edited as inscription 3, and three in the portion edited as manuscript 2 of inscription 1); 9 in 28; 3 in 32 and 59; 2 in 30.

in several respects,[79] and they probably include a certain amount of "cut and paste" of different sources.

Mikko Luukko (2004:170) points to three different spellings of the same word (*parriṣu* "criminal") in one and the same Neo-Assyrian letter (SAA V 227) as an illustration of "how important it was for some writers to avoid writing a word always the same way."

The contexts in which elegant variation was favored have yet to be charted. It was not usually adopted in lexical lists.

4.4 Esoteric, learned, and other fancy spellings

Different spellings no doubt projected different impressions to the reader. Just as *Ye olde curiosity shoppe* makes words look old and mysterious, I see great merit in Klaas Veenhof's view that some spellings were considered "more formal" than others,[80] and so more suited to certain textual typologies.

Learned writers in learned contexts sometimes went out of their way to use unusual spellings for the sake of creating extra layers of meaning. Thus an Old Babylonian prayer to Ištar which begins by saying she is a woman (*sinništum*) spells this [ᵈE]N.ZU-*ni-iš-tu-um* (*sîn-ništum*). This, as Andrew George (2009:76) points out, gets both the name of her father (Sîn, the moon god) and her animal (*nēštum*, the lioness) into the spelling (because the signs *ni-iš* can also be read *né-eš₁₅*). Many such first millennium instances have been collected by Stefan Maul (1999 and 2003:72-73).

Sometimes, rare spellings seem to be used not so much for generating extra layers of meaning (see above), as to show off the learning of the writer—what Michael Streck (2003:140a) calls "Orthographie als Ausdruck der Gelehrsamkeit" ("orthography as expression of learnedness"). An example is Neo-Assyrian ˡúGAL–GI.U for standard ˡúGAL–DUB.SAR, both representing *rab tupšarrī* ("chief scribe") (Luukko 2007:227 n. 1). Anson Rainey (1996:14) suggests that the use of BI for the value *bé* counts as "learned" in the Amarna "Canaanite" letters.

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[79] They are alone in including 1) both *ma-da-tu* and *ma-da-tú* for *maddattu* ("tribute"): *ma-da-tu*: 5 in inscription 2; 8 in 6; 4 in 8; 2 in 28; *ma-da-tú*: 2 in inscription 5; 3 in 10. Interestingly, inscription 14 has a preponderance of *ma-da-tú* (10 vs 4 -*tu*), while 16 has a majority of -*tu* (11 vs 3 -*tú*); 2) the unusual spelling *ig-du-ur-ru* (14.136, 16.221'); 3) the third person form *iqṭirib* (14.161, 14.163, 14.165, 14.169, 14.171, 14.177, [16.299'], [16.301'], 16.316', 16.324') in addition to the usual *aqṭirib* (1.22, 1.30, 1.38, 1.54, 1.66, 1.78', 1.84', 1.91', 2.i.16, 2.i.20, 2.i.24, 2.i.30, 2.i.32, 2.i.34, 2.i.38, 2.i.40, 2.i.42, 2.i.52, 2.ii.15, 2.ii.19, 2.ii.45, 2.ii.48, 2.ii.56, 2.ii.61, 2.ii.64, 2.ii.70, 2.ii.76, 2.ii.79, 2.ii.82, 2.ii.86, 2.ii.88, 2.ii.89, 3.95, 5.iv.2, 5.iv.3, 5.iv.4, 5.iv.6, 5.v.1, 5.vi.6(?) (RIMA 3 II has -*tí*-, presumably a typo), 5.vi.7, 6.i.30, 6.i.33, 6.i.50, 6.ii.20, 6.ii.25, 6.ii.27, 6.ii.58, 6.iii.51, 6.iii.55, [8.13'?], 8.15', 8.16', 8.31', 10.i.31, 10.ii.14, 10.ii.48, 14.32, 14.55, 14.86, 16.12, 16.28, [16.69'], [16.177'], 16.191', [16.295' (*aq* contra Grayson's *iq*)])); and 4) the Babylonian preterite *almi* (*al-mi*: 14.78; *al-me*: 14.133, 16.218') as opposed to Assyrian perfect *assibi* (1.31, 1.70', 1.91', 2.i.16, 2.i.24, 2.i.34, 2.ii.2, 2.ii.19, 2.ii.64, 2.ii.67, 5.iii.5, 5.iv.3, 5.iv.6, 5.v.2, 5.vi.6, 6.i.31, 6.ii.7, 6.iii.19, 8.7, 8.42', 10.ii.2, 14.48, 14.118, 14.129, 14.136, 16.22, 16.212', 20.10, 20.16).

[80] Veenhof (2003:12 n. 9) "the writer ... may have preferred a more formal spelling, since he uses determinatives […] where the other manuscripts omit them." Compare also Fadhil and Jiménez (2021:191-230), referring to certain combinations of spellings as "solemn."

Not all unusual spellings need count as "learned." For example, I would be disinclined to apply this label to the use of the sumerogram GÉME (Akk. *amtu, amat*) instead of usual BÀ-*ut* to represent *amūt* ("omen of") (Heeßel 2007:120 r.9'), since *amtu* is the normal value of GÉME, and would have been well known: the writer is not showing off *knowledge* of anything rare. It could however be maintained that the writer is showing off an *ability* to use signs and their values creatively. If GÉME is not a mistake (error of phonetic similarity), perhaps a label such as "playful"[81] or "nimble" would fit best here.

"Playful" might also be a label for ḪA-ḪA-ḪA-*tum* representing *akukūtu* ("celestial red glow"),[82] with the sign ḪA being used with two different readings (a_7 and ku_6), though here the added element of elegance might render "virtuosic repetition" better.

In many cases (especially those involving gods), drawing boundaries between "esoteric," "learned," and "playful" spellings will be difficult.

It is well known that a frequent site for the display of learned spellings was the colophon —a scribal remark appended to a manuscript, usually one which was a copy of an exemplar.[83] It is probably no accident that non-usual spellings arose in an area which was personal to the writer (who no longer had to act as transmitter of the received tradition): writers embraced the opportunity of injecting some individuality into what could otherwise be a slavish task.

4.5 The spelling idiosyncrasies of names

Akkadian names are in many respects idiosyncratic. In the realm of language, they can preserve verb-initial word order (Akkadian departed from earlier Semitic by moving the verb to the end of the clause) and other old features. In the realm of spelling, they employ sign values not normally used elsewhere (von Soden and Röllig 1991:xxx).[84] Marten Stol notes that some sign values are used *only* in particular personal names.[85]

Both these phenomena sit within a broader cross cultural context of names being treated as exceptional. For example, Fred Brengelman (1980:348) reports that the orthography of English names was "little affected by the new rules being adopted for the general vocabulary" in the early seventeenth century, and Edward Carney points out that, even today, "correspondences [*sc*. between graphemes and sounds] turn up in names which are simply not found in non-

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[81] Compare other characterizations of spellings as "spielerisch" ("playful") (Schramm (1973:26) *ad* III 3; and Renger (1971:43) *ad li₈*).

[82] See Weidner (1912:6). It is unclear to me whether Weidner attributes the discovery to himself or Virolleaud).

[83] See, for example, Hunger (1968:4-6).

[84] Compare Veenhof (1982:370) and references in Worthington (2012:n. 575; see also n. 173).

[85] Stol (1991:191): "Reading proper names is not always easy because of the unusual readings of signs. Only in names do signs have these values and even there not in a free context: they are traditional writings in specific names." He goes on to give examples such as *làl* in the name "Adallal." See, especially, his p. 194.

names."[86] Moreover, several scholars believe that, across languages, phonetic laws don't apply to names.[87]

The fact that Akkadian spelling practices for names fit into a wider cross cultural pattern is interesting and no doubt relevant, but it does not *per se* explain the Akkadian situation. The two main lines of explanation are likely to be: honoring the person whose name is being written, by allotting them an unusual sign; and writers using names as a site for display of virtuosic spellings. The balance between the two is not easy to determine. It would be interesting if the use of virtuosic spellings in names reflected their special status in scribal education (for example, they did not feature much in lexical lists).[88]

When transcribing *foreign* names (and indeed words at large, though this happened less often), writers of cuneiform could (like modern scholars) find themselves at a loss.[89] Thus Laurie Pearce and Cornelia Wunsch comment apropos of the wide variation in cuneiform spellings of the divine name "Yahweh" (including *e-ḫu-u*, *ia-a-ḫu-ú*, *ia-a-mu*, *ia-ʾu-ú*, *i-ḫu-ú* and *ia-mu*) that writers were working "without the benefit of standardization."[90] An inscription of the Neo-Assyrian king Sargon mentions "120 bronze objects, *strong and light*, made in their *land* [Urartu], whose names are not suitable for writing."[91] Even if this is something of a literary conceit (several such words are in fact written in nearby lines), it still reflects an awareness of the difficulties of writing words where no established set of conventions for transcription exists.[92] Egyptians in the New Kingdom may have gone out of their way to develop a sub-system of the hieroglyphic script which also marked vowels, principally for the representation of foreign words (Schenkel 1986:114-122).[93]

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[86] For example, Barg pronounced "barge" (Carney 1994:443, who notes that in the case of English some of these cases stem from foreign borrowings). Albrow (1972, reissued 1981:30) comments that some surnames unexpectedly double final consonants (Ladd, Wagg, Carr) or add a final *e* (Waye, Lowe, Toye).

[87] For example, Güterbock (1983:138), on the equation of Hittite "Aḫḫiyawa" with the Achaeans—"I do not think that phonetic laws apply to foreign names"—and Civil (1972:271), on why the proper Akkadian name of the numinous bird-like creature Anzû does not have *d*, despite being loaned from Sumerian Anzud: being a proper name, it was "subject during its transmission to influences which do not operate in the case of other loanwords."

[88] Though some names were practiced during scribal education. See for example Stol (1991:210): "The boys in school learned how to write proper names and the long lists to be copied by them have been found," with refs in his n. 193.

[89] Compare modern struggles over the representation of words such as "Australia" and "Denmark" in Arabic script (Badawi et al. 2004:19).

[90] Pearce and Wunsch (2014:19). The spellings (which are all at the start of Judean personal names) are taken from their pp. 19-20. See also n. 172. See further Pearce and Wunsch (2014:19-27), especially the names Ahīqam and Rapā-Yāwa (pp. 26-27), with their "extravagant" spellings.

[91] Thureau-Dangin (1912:56) line 364: [1]20 *udê dannū<ti> qallūti epišti mātišunu* (less likely: *šadîšunu* ("their mountains")) *ša nibīt šumišunu ana šaṭāri lā ṭābu*.

[92] See also the comment in Reiner (2000:4b): "The sounds of foreign languages were described as birds chirping or simply as 'difficult to write'" (ref. to the Sargon inscription follows).

[93] Uljas (2013:3a) reserves judgment.

4.6 Hypercorrection and normativity

As it entails choice, Akkadian spelling can be said to constitute its own "level" within the transposition of a message from the oral world into the world of writing. Often, the choices made at this level do not seem particularly noteworthy, but sometimes they betray meta awareness about the process of spelling. Some writers seem to have felt they "ought" to spell something in a particular way, different from the phonetically simplest possibility. Other writers appear to have elaborated quite complex, and even counterintuitive, ways of consciously manipulating spelling conventions.

An informative example is posed by occasional spellings of expected *ss* as *ts*. Karlheinz Deller identifies three first millennium spellings of the word *šipassu* ("clay sealing") which use *t* (for example, *ši-pat-sa*), as if it had come from original **šipat+ša* (Akkadian *tš* normally assimilates to *ss*). He comments that these should be interpreted in terms of "incorrect application of the graphemic principles which govern the orthography of suffixes after dentals."[94] In other words, these cases must be related to the fact that etymological *ts* assimilated to *ss* in many varieties of Akkadian: being used to *ss* representing etymological *ts*, the writers flipped the situation round, using written *ts* to represent spoken *ss*. As a modern philologist, one's first instinct is to call this "confusion," but it is dangerous to make value judgments of this kind, and it is possible that writers did something like this in full awareness of the complexities. Either way, the crucial point is that the shift in all likelihood happened at the level of spelling, rather than of language.

Confusion over how to represent a word in writing may also surface in Late Babylonian spellings of Aramaic word-final *h* as *t*.[95] This recalls instances where "confusion" leads writers of Modern Arabic to alternate between *h* and the *tā' marbūṭa* (which sound the same, and require morphological knowledge to be distinguished correctly) (see Badawi et al. 2004:20).

Learned contexts, as always, pose their own complications: when the name of Marduk's consort (Ṣarpanītu/Zarpanītu) is written *zerbānītu*, to build in the ideas of *zēru* ("seed," "descendants") and *bānītu* ("creatress"),[96] it is hard to know whether the pronunciation had changed, or if the enrichment was introduced in writing at odds with the normal pronunciation of the name (and, if so, how the new spelling was read out).

5. Outlook

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[94] Deller (1987:70) on K. 6323+, Hh X 478, and *Diri* IV 135.

[95] Examples in Mayer (1985:201).

[96] See refs in Lieberman (1987:179-180). Such spellings cluster at Nineveh (including a MS in Neo-Babylonian script), and started already in the eighth century BCE.

It is very likely that even the scribes and scholars who left us the most complex and interesting writings lived their lives largely in the oral sphere. This, the present paper has suggested, was not without effect on how Babylonians and Assyrians spelled (and read).

Spelling thus gives us a new vantage point from which to study the whole issue of Mesopotamian Orality. The paper has attempted to map out how we can study the "psychology" of Akkadian orthography, giving a preliminary view of what questions and issues it intersects with, and what sort of rewards it can give us. Here, Writing and Orality are inextricably linked. We should be open to studying Akkadian spellings not just as evidence for pronunciation, or for the syllabary of different periods, but as a source of information about writers' choices, and about writers' understanding of conventions for how to represent language in writing.

In some ways—easy recognizability of function words, aberrations in the spellings of names—we found that Akkadian behaves just like the spelling of a modern language. But we have attributed many of its other traits, especially the dearth of "fixed word images," to its being a written language which existed in a largely oral environment, where reading and writing practices had a tendency to propagate "vertically" rather than "horizontally," resulting in "Balkanization." In this, Akkadian differs widely from modern situations, most notably in the non-pervasiveness of "fixed word images"—which do however emerge in contexts of high intensity literacy.

We have seen that the choices made by individual writers could be subject to all sorts of influences and motivations, many of them a far cry from Orality. Indeed, Akkadian also reveals itself to be a goldmine for the study of "licensed variation" in spelling, a subject for which modern languages tend to offer restricted scope. But it was the largely oral world of Ancient Mesopotamia which in the first place set up the system of spelling as one in which spelling standardization was not usually necessary (Old Assyrian and scholarly texts in sumerograms come closest), and choice was built in.

More inroads into the topic of Mesopotamian orality and its "footprints" in the written record are needed, to properly build up a picture of its role in lived experience. From here it will be possible to approach the question of oral influence on *belles lettres* with energies renewed.

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