Phonological Representation in Akkadian Orthography

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Introduction

- Background
  - Typology of writing systems
  - Introduction to cuneiform and Akkadian
- Analysis of Akkadian orthography
  - The incompleteness claim
  - “Too little”
  - “Too much”
- Conclusions
  - The fall of the syllabary
  - Phonological constituency
Classifying writing systems

- Traditionally, phonologically-based writing systems are categorized as either segmental (phonemic/alphabetic) or syllabic. The syllabary is typically taken to be more basic and more common; this is used as evidence for the syllable’s ‘intuitiveness’ and atomicity.
- Poser (2004:27) says that that “far from being the predominant writing system, demonstrable syllabaries are so rare as to be virtually non-existent [sic]. No example of a stable syllabary not combined with extensive subsyllabic analysis for a language with robust syllable structure is known.”
- Poser’s new typology
  - Syllabic: Syllable = Graph
    - Early Bamum, Sumerian > **Akkadian**, Toma, early Yupik
    - Onset / rhyme: S = 2G [p, t, k, sp, st, sk…] [a, i, a, aw, um…]
  - Fan Qie, Bopomofo, Hmong (Pollard, Pahaw)
  - Moraic: G ≤ S ≥ 2G {pa, ta, ka, spa…} {a, i, u, p, n…}
  - Katakana, Hiragana, Linear B
  - Segmental: S ≥ G
    - Latin, Greek, Cyrillic…

Akkadian

- Is one of the five examples Poser cites as a true syllabary (down from Gelb’s 30+): “a true but incomplete syllabary” (Poser 2004:24)
- Was a Semitic language spoken in Mesopotamia from around -3000 to 100. Four scholars (Rawlinson, Oppert, Talbot, & Hincks) officially deciphered Akkadian in 1857.
- Used a cuneiform writing system borrowed from its geographically ancestral but genetically unrelated ancestor, Sumerian
  - 1000+ logograms ➔ rebus ➔ V, VC, CV, CVC syllabary
    - Pictorial development
    - TI’s ‘arrow’ ➔ TI(L) ‘life’
  - Akkadian texts are approximately 86-96% syllabograms, while Sumerian texts are 36-54% (Coulmas 1996: 6).
  - “One symbol might sometimes have [a] dozen syllabic values apart from many logographical meanings” (Lipin 1973:21).
Akkadian Phonotactics

- Phonotactically permitted syllables had structure CV, CV:, or CVC – the status of CV:C is controversial.
- So-called V syllables are glottal stop-initial. (Lipin 1973:55-56)
- Short syllables can only be open (Lipin 1973:72)
- No tautosyllabic clusters in onsets or rhymes (Huehnergard & Woods 2004:234)
- Length is contrastive for both vowels and consonants. Some argue that CV:C may vary freely with CVC: (Huehnergard & Woods 2004:234)
The incompleteness claim

A ‘true and complete’ syllabary of Akkadian, following Poser (2004:3), would contain approximately 1000 signs, depending on the status of certain controversial allophones/phonemes. This number can be derived directly from the phonotactics of the language:

\[
\begin{align*}
&\{ p b t \ddot{t} d k g q ? s s \# h \# z m n l w j r \} X \\
&\{ a \times \Omega a i p b t \ddot{t} d k g q ? s s \# h \# z m n l r \} U \\
&\{ i \times \Omega i p t \ddot{t} d k g q ? s s \# h \# z m n l r \} U \\
&\{ u \times \Omega u p t \ddot{t} d k g q ? s s \# h \# z m n l r \} U \\
\end{align*}
\]

The number of syllabograms actually used in Akkadian texts is far smaller—more on the order of a couple hundred—particularly when over-differentiation is taken into account. Clearly, the Akkadian system falls short of the completeness criterion. But now we depart from Poser, with regards to the ‘true syllabary’ status of the writing system.

Morphophonological shortcomings

For both morphological and phonological reasons, the Sumerian syllabary did not lend itself well to representing Akkadian.

- Sumerian was an agglutinative language of simple monosyllables, whereas Akkadian had inflectional morphology and more robust syllabic structure.
- The syllabary fails to capture phonemic contrasts between the voiced ~ voiceless ~ emphatic series of consonants in VC and CVC signs. This was also the case for some CV signs. Over time, conventions for distinguishing voiced and voiceless stops developed, but consistency was never achieved (Cooper 1996:46).
- In CV signs /e/ and /i/ were not properly distinguished, nor was the phonemic distinction between them in Old Babylonian (Huehnergard & Woods 2004:232).
  - BE-EL = BE-IL = BI-EL = BI-IL for beš ‘lord’
- Glottal stop did not have a dedicated sign, except in post-Old Babylonian dialects. (Used $hV$/$V\ddot{b}$ or $V$ signs or broken writing)
- All five gutturals in onset position were inconsistently represented by $V$ signs (Gelb 1952b:24-25).
- There was only one sign for each of the two glides, /y/ and /w/, regardless of their accompanying vowels (e.g., <wa> = /w$/V$/)
Spelling strategies

There were several strategies available for writing CVC.CVC words (red means a 1:1 syllable to graph relationship):

- **CVC – CVC** $\rightarrow$ šar-rum (Only if CVC available, and even then, optionally)
- **CV₁ - V₁C – CVC** $\rightarrow$ ša-ar-rum
- **CVC – CV₁ - V₁C** $\rightarrow$ šar-ru-um
- **CV₁ - V₁C – CV₁ - V₁C** $\rightarrow$ ša-ar-ru-um
- **CVC – VC if C₂=C₃** $\rightarrow$ šar-um. This “broken writing” is rare (Lipin 1973:29, Huehnergard & Woods 2004:228). It should not happen in a syllabary because it involves the divorce of C₃ from the vowel in its rhyme.

Subsyllabic analysis

- While the syllabograms give too little phonological information as I have just described, there is also evidence that they were used to represent subsyllabic information in a way that a true syllabary (under Poser’s definition) does not.
- Long vowels, which are contrastive in Akkadian, were (optionally) distinguished through the usage of CV-V plene sign sequences (Mercer 1921:6). This is exactly parallel to Japanese katakana, which Poser (2004:5) analyzes as moraic.
- Similarly, double consonants were often indicated by VC-CV sequences (Huehnergard & Woods 2004:228). This shows precisely the type of subsyllabic analysis that Poser says distinguishes moraic writing systems from true syllabaries.
  - Inaddišum (‘s/he will give to him’) attested in four forms
    - i-na-di-šum, i-na-ad-di-šum, i-na-di-iš-šum, i-na-ad-di-iš-šum
Conclusions

- The Akkadian cuneiform writing system was not a true syllabary under the strict definition proposed by Poser.
- Akkadian shows evidence of under-differentiation and over-differentiation as well as subsyllabic analysis of the moraic type.
- Syllabaries are not at all common, as is often reported.
- A richer typology of writing systems is needed in order to account for systems that employ a level of analysis finer than the syllable but coarser than the segment.
- Subsyllabic analysis in orthography provides evidence for the reality of phonological constituents (syllable, mora, onset, rhyme, segment).
- It also calls into question the atomicity and special ‘intuitive’ status of the syllable (cf. Gelb 1952a).

References