How we model writing

The relationship between language, speech, and writing in a universal model of writing

Diversity of writing systems: embracing multiple perspectives 12th International Workshop of the Association for Written Language and Literacy

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Motivation

establishing a theoretical framework for a unified description of writing systems, including shared concepts and terminology, which makes possible the comparison of writing systems

Recently finished project:

PhD dissertation Naturalness in scripts and writing systems (2019), a treatment of writing in the theoretical framework of linguistic Naturalness Theory

A modular model of writing systems



(Meletis 2019: 99, based on Neef 2015)

Different views



The **phonology-independent view** of the relationship between writing and speech is plagued by three misconceptions:

- 1. Phonology equals speech.
- 2. If writing is dependent on speech (or, better: phonology), all features of writing must be explainable through this dependence.
- 3. The phonology-dependent hypothesis entails that writing should be discarded as a subject unworthy of linguistic study.

(Meletis 2019: 94-98)

Exemplary objection: Graphematic syllable

- in the context of a modality-indifferent phonology: amodal definition of the syllable as an alternation between more and less salient units (Primus 2003)
 - "salience" is modality/substance-specific; for writing, it is defined visually
 - the different syllables types (spoken, signed, written) are independent but exhibit correspondences
 - for the German writing system, materialized by Roman script, it is defined by the visual feature [±length] and the alternation of long and non-long 'letters' in a sequence of letters; long letters typically mark graphematic syllable boundaries (Fuhrhop & Buchmann 2009)
 - example: <le.gen> (|l| has an ascender, |g| a descender)

Crosslinguistic (non-)applicability

- [±length], as a visual feature, is graphetic, not graphematic; this makes it script-specific, in this case Roman script
 - Or maybe specific to a given type of writing system, i.e. the alphabet? [±length] is also exhibited by the Greek and Armenian scripts, for example, but not by Cyrillic (cf. Meletis 2019: 153-155)
 - What about other scripts and types of writing systems?
 - "[...] in Japanese, the syllables are already the graphemes." (Fuhrhop & Buchmann 2009: 152, my translation)

Graphematic syllable in Japanese?

<u>お腹が空きました</u>。

- in Japanese, there is an alternation between different scripts (two kana scripts, kanji, romaji...)
- in the syllabographic part of the system, the segmental graphemes represent phonological syllables
- spacing between graphemes does not consistently indicate which graphemes correspond with phonological syllables, as morphographic kanji sometimes have multisyllabic phonological representations

Graphematic syllable in syllabic systems

- if the graphematic syllable is defined as a 1) polysegmental visual unit (= visual unit with more than one basic shape) characterized by an 2) alternation of visual salience of its units, and 3) independent of the phonological syllable, then there is no graphematic syllable in syllabographic Japanese - generally: there is no graphematic syllable of this kind in syllabic writing systems
 - phonological syllables are represented by segmental units (= graphemes) in these systems; a visual alternation, thus, can only exist at higher graphematic levels (word, sentence level, etc.)

The infamous grapheme

- problematics of defining a unit such as the grapheme only for alphabets (via minimal pairs such as <house> and <mouse>)
 - either only treating alphabets or positing a grapheme only exists in alphabets (cf. Glück 2016); but cf. Birk (2013): it would be unthinkable to define the phoneme, morpheme etc. language-specifically, why should it be different for the grapheme?
 - double standard of calling the basic units of other types of writing systems "syllabograms" or "logograms", highlighting their fundamental dependence on linguistic units (phonological syllables, words)
 - Why should only graphemes in alphabets be independent? Does the alphabet (or do segmental phonographic writing systems) have a special status?

Conclusions

- graphematics and graphetics need to be separated
 - graphetic units are defined without recourse to language, i.e. purely by visual (generally, graphic) means; they are, consequently, scriptspecific (although some features might be universal)
 - graphematic units are defined by the relation between the visual and the linguistic, since writing is defined as the representation of language; at an abstract level, there might be generalizable graphematic units across writing systems
- the most significant differences between writing and speech stem from their distinct substances (visual/acoustic) and spatiality vs. temporality

Language, speech, and writing



Up for debate

How much particularism and how much universalism is needed in grapholinguistics? Does grapholinguistics need descriptive categories or rather comparative concepts (cf. Haspelmath 2010)?

Thank you for your attention!

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