Structural, psycholinguistic, and sociolinguistic typologies of writing

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Writing: System, use, ideology
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writing is a complex structural, psychological, and social phenomenon that can and should be studied in detail from myriad perspectives (= particularistic view).

However, for a comprehensive theory of writing, a coalescence of these perspectives is inevitable; many phenomena can only be explained through recourse to all these perspectives (= holistic view).

There is often not only no contact between structural and usage-based perspectives (as well as between different usage-based perspectives), but also a mutual devaluation or complete dismissal (→ reason for this workshop).

Typologies are generalizations (and sometimes reductionist simplifications) and should always be scrutinized; it is rather the process of attempting to typologize that is of value as it necessitates the identification of core categories in a conceptualization of writing (which uncover commonalities and differences between systems, cultures, etc.); how can typologies/criteria inform each other?
Structural typologies

- most typologies of writing (systems) thus far have centered on ‘structure’ (and linguistic function)
  * however, not the structure inherent in writing (= autonomous paradigm) but the relation between the basic units of writing and units of language (= dependentialist paradigm) \rightarrow \textit{dominant level of representational mapping} (JOYCE/MELETIS in press), \textit{predominant organizing principle} (TRIGGER 1998)

- structural writing system typologies are predominantly \textit{segmental}
  * this means important non-segmental features are disregarded; e.g., that in alphabets such as German, the most important level of structural analysis is the written word rather than the grapheme (SCHMIDT 2018)
  * there is a call for an inclusion of non-segmental types of organization (GNANADESIKAN 2017)
Psycholinguistic typologies

- the focus of psycholinguistic research has also been on the dominant level of representational mapping and how it affects **reading processes** as well as **literacy acquisition**
  - phonocentric idea of *(phonographic)* ‘depth’, morphographic transparency and interaction between phonography and (secondary) morphography rather marginalized
  - effect of other features of writing systems are not as intensively studied (cf. the ten dimensions of complexity, DANIELS/SHARE 2018)
  - reading and writing as idealized (bundles of) processes rather than concrete realizations of literacy practices embedded in a given context

- as these typologies concern not only psychological aspects but also physiological aspects involved in production and perception, including the interaction with writing instruments and writing material, a more inclusive designation would be **processing typologies**
**Structural and psycholinguistic typologies**

**possible criteria**

**graphetics**
- visual complexity (at all levels, both qualitative and quantitative, both paradigmatic and syntagmatic, both individual and systematic)
  - segmental complexity is influenced by size of inventory of a writing system/script, which is determined by the dominant level of representational mapping (cf. MITON/MORIN 2021)
- **spatiality**: spacing (between words but also between segmental units), directionality
- other possibilities: case, diacritics, ligatures, etc. (cf. scriptsource.org)
- dominant type of production (handwriting, typing, wiping)

**graphematics**
- ‘orthographic’ depth (KATZ/FROST 1992), i.e., graphematic transparency (system-inherent) and orthographic transparency (via external regulations); cf. for the difference HANDEL’S (2013) study on Chinese character simplification
- level interacting with/determining punctuation (prosody, syntax, etc.)
Semiotic criteria

- **Iconicity**
  - Pictography
    - Signans visually resembles meaning of the signatum (not the signatum itself, which is a morpheme)
  - Diagrammaticity
    - A visual change in the signans structurally reflects a change in the signatum (e.g., plurality)

- **Biuniqueness**
  - Transparency
    - A signans is in a graphematic relation with only one signatum
  - Uniformity
    - A signatum is in a graphematic relation only with one signans

- **Indexicality**
  - Index
    - An indexing signans is in spatial contiguity with an indexed signatum
  - Compositional transparency
    - The sum of the graphematic value of the grapheme equals the graphematic value of the whole grapheme
  - Positional transparency
    - The order of the basic shapes in the signans of a graphematic string corresponds with the order of corresponding linguistic units in the signatum

- **Figure—ground**
  - This is an example of a foot note to illustrate how the parameter of indexicality works.
Sociolinguistic typologies

– concern not (only) the system and its structure but the literate culture/community (i.e., its members) in which a system is embedded and being used

– center on concrete realizations of literacy practices, which are affected by ideologies of writing

– as our social needs are most aware to us (and thus seem most pressing), sociolinguistic factors can override structural and psycholinguistic ones

– What is the potential for (social) variation in a given system? (Does the system allow it? The culture?) What are the conditions of literacy in a given literate culture?

  * structural constraints: zone of social meaning (not only graphematic but also graphetic), potential for indexicality (cf. SEBBA 2007)
  * constrained by linguistic policy, (internalized) top-down prescriptivism (also among members in the form of grassroots prescriptivism, cf. LUKAČ 2018), questions of agency
  * How much metapragmatic awareness is there and how is it reflected in discourses?
Sociolinguistic typologies
possible criteria (mutually interacting)

- (non-)integration of foreign material, i.e., purism
- visual and/or functional cultural (un)specificity (e.g., Roman script as unspecific)
  * not only how a system is structured but also who created it (social hierarchies, hegemonies, dominance and subordinance)
- technological affordances (e.g., Unicode encoding for scripts)
- pluricentricity vs. monocentricity
- qualitative and quantitative breadth of literacy practices
- attitudes towards standard language (and orthography) and authorities of linguistic policy
- amount of history, i.e., age of a writing system and literacy practices in a given culture
- biscriptality (cf. BUNČIĆ 2016) and contact phenomena (cf., exemplarily, COULMAS 2014)
- types of orthographic regulation (community involvement, natural/artificial, codification, variability)
- status (alive, moribund, dead)
Idealized interaction of perspectives

**SYSTEM**

**Structure**
- Structural linguistics
  - How is the system structured?
  - How does processing (gradually, i.e., diachronically) affect the structure? (e.g., decrease of pictography)
  - How do literacy practices (and the processing involved in them) diachronically affect structure?
  - How do ideologies affect structure? (e.g., by prompting change through orthography reforms)

**Processing**
- Psycholinguistics
  - How does the structure affect processing? (e.g., extrinsic symmetry)
  - How is writing processed (produced and perceived)?
  - How do different literacy practices and their conditions and circumstances affect processing?
  - How do ideologies affect processing? (e.g., attitudes towards fonts or towards practices such as handwriting)

**USE**

**Practices and ideologies**
- Sociolinguistics
  - How does the structure affect literacy practices (or variation involved in them) and what are ideologies associated with (features of) structure?
  - How does processing affect practices, what are beliefs about and attitudes towards processing? (e.g., the difficulty of rules)
  - What literacy practices are carried out in a given literate community in which one system is/multiple systems are used?
  - What are the ideologies associated with the system? And with practices?
Consider as an example the copy typists on the cover slide:

- **structure**: they use an alphabet, which facilitates the use of technology such as a typewriter
- **processing**: they copy by typing (which is automatized for them) while not looking at their own hands
- **sociolinguistics**: they copy type as a (collective) professional literacy practice devoid of agency

Diverse perspectives combined explain the ‘bigger picture’ not just for entire writing systems but also specific phenomena.

Work on typologies as a comparative-contrastive endeavor can help by identifying and fleshing out criteria and uncovering central commonalities and differences between writing systems and literate cultures.

There is a continuing need to integrate diverse perspectives on writing into a larger unified theoretical framework (in addition to fine-grained particularist work from these perspectives).

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**Conclusion and outlook**

References


Sebba, Mark. 2007. Spelling and society: The culture and politics of orthography around the world. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511486739