Vowel Harmony in Korean Ideophones: A Corpus-based Study

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IDEOPHONES?
- Class of words that are used to depict "manner, color, sound, smell, action, state, or intensity" (Doke (1935), Voeltz & Kilian-Hatz (2001))
- Cover term including mimetics and onomatopoeia

BACKGROUND
- Korean ideophones exhibit uncommon vowel qualities known as "light" (/o, a/) vs. "dark" (/u, a/) is encoded (Martin (1962), Kim-Renaud (1976), Sohn (2001)).
  "light" = brightness, sharpness, smallness, thinness, quickness
  "dark" = heaviness, dullness, slowness, deepness, thickness

DATA COLLECTION & ANALYSIS
- Hand-coded mini corpus of 100 Korean 4-syllable ideophones
- Ideophones retrieved from Sejong corpus (web-based searchable Korean corpus, http://www.sejong.or.kr)
- Each word is coded based on the following criteria:
  - vowel information (phonology)
  - gloss (semantics)
  - light/dark/neutral sense based on the examples where the ideophones were used (semantics)
  - token frequency of each ideophone from Sejong corpus
  - Chi-square test was used to compare two kinds of light-dark-neutral distribution: phonological light-dark-neutral distribution vs. semantic light-dark-neutral distribution.

RESULTS
- Type frequency (p > .05)
  For 100 ideophones, there is no statistical difference between the phonological and the semantic distribution.

- Token frequency (*, p < .01)
  For 1,112 tokens of 100 ideophones, there is a statistical difference between the phonological and the semantic distribution.

- Mismatch between phonology and semantics:
  Exemplars of Korean ideophones (i.e. tokens of 100 Korean ideophones) show that there is phonology-semantics mismatch in vowel harmony in Korean ideophones.

IDEOPHONES

PHONEMICALLY

SEMANTICALLY

INTERPRETATION

DISCUSSION
- Non-linear morphemes in Korean ideophones? (McCarthy (1982))
- The presence of meaningful morphemic tiers for vowel quality in Korean ideophones has been claimed.
- According to the corpus-based analysis, there are no consistent form-meaning correspondences in Korean ideophones.
- Light / dark vowels in Korean ideophones cannot be considered independent morphemes.
- A pilot behavioral study of Korean ideophones conducted by the author (Sung (2010)) is also against the non-linear morpheme hypothesis by McCarthy (1982); no priming effects found in a lexical decision task on Korean ideophones.

CONCLUSION
- Interplay of phonological and semantic components in light / dark vowels was revisited through quantitative approach to data.
- Further studies could be pursued with other types of light / dark ideophones.

SELECTED REFERENCES