The Role of Faithfulness in Imperfect Overlapping in Korean Blends: A Nonsense Word Study
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1. Introduction

- Blending is a word formation process in which two words are merged into a new word with shortening of at least one word (Bat-El 1996; Piñeros 2004; Gries 2004, Ahn 2014)
- brunch = breakfast + lunch
- Two faithfulness constraints are competing with each other
  1) Prosodic structure (+length) of a head
  2) Segmental maximization
- Overlapping: A segment from both source words
  - camp’o’xi&m = cam + simp’o’xi&m (‘a symposium that is really boring’ (‘a sleep’ ‘a symposium’)
- Imperfect Overlapping: A segment in the blend is identical to a segment in one source word and very similar to a segment in the other source word
- Among 493 Korean blends:
  - Intuition: ‘Similarity’ matters. But what counts as similarity?

Research Questions:
- When segments overlap imperfectly, which pair of segments tolerates mismatching better, and what segment is more likely to be kept in the blend?
- Does imperfect overlap reflect a language-specific pattern from grammar or something else (e.g. cross-linguistic perceptual/acoustic factors)?

2. Methodology

- Experiment: A Nonsense Word Study
  - Online experiment (Experigen, Becker & Levine 2010) with 190 native Korean speakers
  - All items were written in Korean orthography
  - Instruction: participants were asked to rate the name of a hybrid dog

Stimuli

- 11 consonants
  - Labial: p + t + k
  - Coronal: t* + k* + n
  - Dorsal: m

- Consornts C2 and C3 differ in laryngeal, manner, place, and laryngeal+place, or place+maner. (total 171 items)
- Stimuli were generated based on both quantity (feature counting) and quality (laryngeal/place/manner).

- Predictions
  - feature counting: the difference between 1 & 2 features
  - Korean alternation grammar: laryngeal feature differences < manner/place differences

- Balanced design: given /kipa+mako/, both /kipakola/ and /kimako/ were rated by different people

3. Results

- Patterns of laryngeal feature alternations
  - Place (Jun 1995) and manner (Davis & Shin 1999) alternations affect codas whereas laryngeal alternations also affect onsets.

Korean alternations

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4. Analysis

- Participants tolerated mismatches of laryngeal features better than that of place/manner features also. Onevo & preferred fortis/aspirated to lenis in blends.
- The results can be explained with the grammar independently motivated in Korean phonology (the native grammatical alternations).

- Place (Jun 1995) and manner (Davis & Shin 1999) alternations affect codas whereas laryngeal alternations also affect onsets.

Max-Ent Grammar (Wilson 2006)

- To obtain constraint weights, the Maxent grammar tool was trained on examples of Korean alternations that were not blends.
- In onset position: the weight of laryngeal FAITH < place/manner FAITH

Asymmetrical IDENT values of features (Pater 1995)

5. Discussion

- The results reflect the constraint weights that speakers know from native grammatical alternations.
- Feature counting: can’t explain why laryngeal feature differences are ‘less different’ than place/manner feature differences.
- Shared-natural classes (Frisch et al. 2004): what features can account for Korean three-way laryngeal distinctions?
- A possible extension: P-map approach (Steriade 2001)
  - The contrast p/p* in onset position gives rise to more instances of misidentification than the contrast p/m or p/k in onset position
  - This is reflected in correspondence constraints of Korean alternation grammar.
- A further study with other languages with different alternation patterns: (1) language-specific patterns or (2) cross-linguistic perceptual/acoustic factors?
- Thai: three-way laryngeal stops, but has different alternation patterns
- English: a choice between keeping voiced vs. voiceless?
- Japanese nasals (cf. Kawahara 2007)

References