Perception and production of geminates by L1-German and L1-Swedish speakers with Italian as L3

Marieke Einfeldt1), Tanja Kupisch1,2), Mechtilde Tronnier3)

1) University of Konstanz, 2) The Arctic University of Norway, 3) Lund University

1. VOWEL AND CONSONANT LENGTH

**Italian** has **consonant gemination**, i.e., consonant length is phonemic.

1. /pala/ vs. /pal/a; 'shovel' vs. 'ball'
   - Phonetically, the vowel is shorter when preceding a geminate compared to a singleton (no phonological consequences).
   - Gemination is visible in orthography:
     - <pala> vs. <pala> [pal:a]
   - L1 Italian speakers rely more on the consonant (than on the vowel) to distinguish words (Rochet & Rochet 1995)

**German** has **no gemination**, although vowel length is phonemic.

2. /ro:ta/ vs. /rota/ 'red' vs. mob'
   - The grapheme shows this contrast:
     - <rote> [ro:te] vs. <Rote> [ro:ta]
   - Vowel quality differs
   - Long consonants may occur at word or morpheme boundaries (but no phonological relevance):
     - <mi> 'tons' vs. <mil:o:n>

**Swedish** has **complementary length**.

3. /o:tba/ vs. /rali/ 'alibi' vs. 'rally'
   - The grapheme shows short vowels followed by double consonants:
     - <alibi> [o:tbi] vs. <rally > [ral:i]
   - L1 Swedish speakers rely more on vowel length than on consonant length

**Summary**

1. All three languages have quantity distinctions but only Italian and Swedish have long consonants in their phoneme inventory.
2. In all three language quantity changes are represented in orthography.
3. The similarities in spelling across the languages are not congruent with pronunciation.

2. L3-TRANSFER MODELS

1. L2 **Status Factor** (Bardel & Falk 2007, 2012).
2. L3 **Cumulative Enhancement Model (CEM)** (Flynn et al. 2004).
3. L3 **Typological Primacy Model** (TPM) (Rothman 2015)

LMP predicts that “all previously acquired languages remain active throughout the learning process, and [cross linguistic influence] takes place on a property-by-property basis” (Westergaard et al. 2016:13). All models but LMP and CEM predict no differences between L1 German and L1 Swedish.

**Method**

**5. Production**
   - Participants read 42 items in carrier sentence from PPT-slides, e.g., “Era *palla* che ho detto” (It was *palla* that I said).
   - (16 geminates + 16 singleton counterparts + 10 distractors)
   - Vowel length and consonant length measured with Praat.

**6. Perception**
   - Picture-based minimal-pair decision task with 11 singleton/geminate-pairs, e.g., note (Singleton) vs. notte (G1)
   - 5 versions of words (Singleton, G4, G3, G2, G1) with intervocalic consonants = 55 items

**References**