**Background**

1. English spelling cannot be directly deduced from phonology because it is an opaque language.
2. Native speakers of English use phonotactic, graphotactic, and frequency norms, as well as the spelling of phonological neighbors to deduce consonant doubling in new words. Non-native speakers of English follow the same norms to decide whether or not to double a consonant, if their L1 writing system is different.
3. L1 Spanish speakers do not use vowel length to determine whether to double a consonant.
4. Non-native speakers use number of vowels to determine whether to double a consonant.
5. L1 Spanish, L2 English B1 – C2
6. 47 L1 Chinese + 38 L1 Korean
7. 111 L1 English

**Methods**

**Participants**

- 47 L1 Spanish, L2 English B1 – C2
- 47 L1 Chinese + 38 L1 Korean
- 111 L1 English

**Stimuli**

- Pseudowords presented auditorily.
- 30 condition categories

**Procedure**

- 500 ms
- Listen twice
- Self-paced typing
- Present twice

**Results**

**L1 Comparisons**

Consonant doubling ~ Vowel Length * 1 Orthography

Number of Vowels * 1 Orthography + (1+vowel|participant)\(\times\)1|new

Consonant doubling by orthography and vowel length

- Same (Spanish)
- Different (Chinese & Korean) Orthography
- Baseline (English)

Consonant doubling by orthography and number of vowels

- Same (Spanish)
- Different (Chinese & Korean) Orthography
- Baseline (English)

- Main effect of vowel length
- Main effect of number of vowels

**Results by L1**

Consonant doubling ~ Vowel Length * Number of vowels + (1+vowel|participant)\(\times\)1|new

- Main effect of vowel length
- Main effect of number of vowels
- No interaction

- Main effect of vowel length
- Main effect of number of vowels
- Marginal interaction

- Main effect of vowel length
- Main effect of number of vowels
- No interaction

**Conclusions**

1. L1 Spanish speakers do not use vowel length to determine consonant doubling in English
2. L1 Spanish speakers use number of vowels to determine whether to double a consonant or not in English
3. Non-native speakers double consonants less overall than native speakers
4. Non-native speakers with a different orthography follow the same pattern as the native speakers of English
5. Non-native speakers with the same orthography follow a different pattern from the natives (possible perceptual issue?)

**References**


**Take home**

L2 speakers of English use many of the same mechanisms as L1 speakers to determine new word spelling.

But! They do not behave completely like native speakers: They underuse consonant doubling and are influenced by their L1.