

Morphologically-based phonological variation

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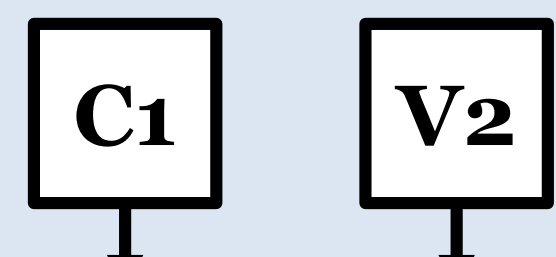
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Aim: to explore **gradience in morphophonology**, focusing on the **interaction between phonological and morphological** factors.

Data: from surveys on **n-insertion in existing and novel Korean words**.

1. Korean n-insertion

(1) Rule. $\emptyset \rightarrow n / C_1]_{M_1} - [j/i]_{M_2}$



e.g. a compound meaning 'mothball' $[com]_{M_1} + [jak]_{M_2} \rightarrow [com \ n \ jak]$

(2) **Basic conditions:** n is inserted at the juncture of two morphemes, M_1 and M_2 .

- M_1 ends with a consonant, C_1 .
- M_2 begins with a high front vowel, /i j/.

2. Variation

- n-insertion is **optional**: e.g. /com-jak/ [comnjak] ~ [comjak].
- **Exceptions:** not a few words which meet the basic conditions but do not undergo n-insertion.

(3) Additional conditions proposed in the literature

- **C_1 sonorancy** **sonorant vs. obstruent** com-jak vs. tok-jak
- **C_1 sonorant place** /m n l/ vs. ŋ com-jak vs. thaŋ-jak
- V_2 height high vs. non-high p^han-juli vs. com-jak
- dialect
- morphology, etymology, and length of M_1 and M_2

3. Surveys on n-insertion

(4) Test words [... C_1] _{M_1} + [j ...] _{M_2}

- 304 existing words
- 84 novel words [loanword] _{M_1} + [wug stem] _{M_2}
e.g. [k^hiŋ]-[jucenol] 'king-wug'

(5) Dialects of participants: Seoul, Kyungsang

(6) **Tendencies found**

(A > B = 'n-insertion is more frequent under condition A than condition B', * = significant in mixed effects analysis, ✓ = not significant)

effect	relative frequency	insertion rate		part of speakers' knowledge
		existing words	novel words	
C_1 sonorancy	sonorant > obstruent	* (.53 > .44)	✓ (.35 > .26)	?
C_1 sonorant place	/m n l/ > ŋ	* (.58 > .46)	* (.39 > .21)	yes
V_2 height	high > non-high	* (.62 > .49)	* (.35 > .27)	yes
M_1 length	poly-σ > mono-σ	* (.61 > .38)	opposite ✓ (.29 < .33)	no
M_1 morphology	stem & prefix > root	* (.57 & .41 > .33)	not tested	unnatural pattern (Jun 2015)
M_2 morphology	stem & suffix > root	* (.51 & .64 > .47)	not tested	

(7) Question: Why was C_1 sonorancy effect not significant in novel words unlike C_1 sonorant place effect?

(8) Tendencies varying with morphology of M_1 (existing words):

- **C_1 sonorancy effect** is prominent in existing words with **root M_1** (cf. free stem M_1). The opposite is true for C_1 sonorant place effect.

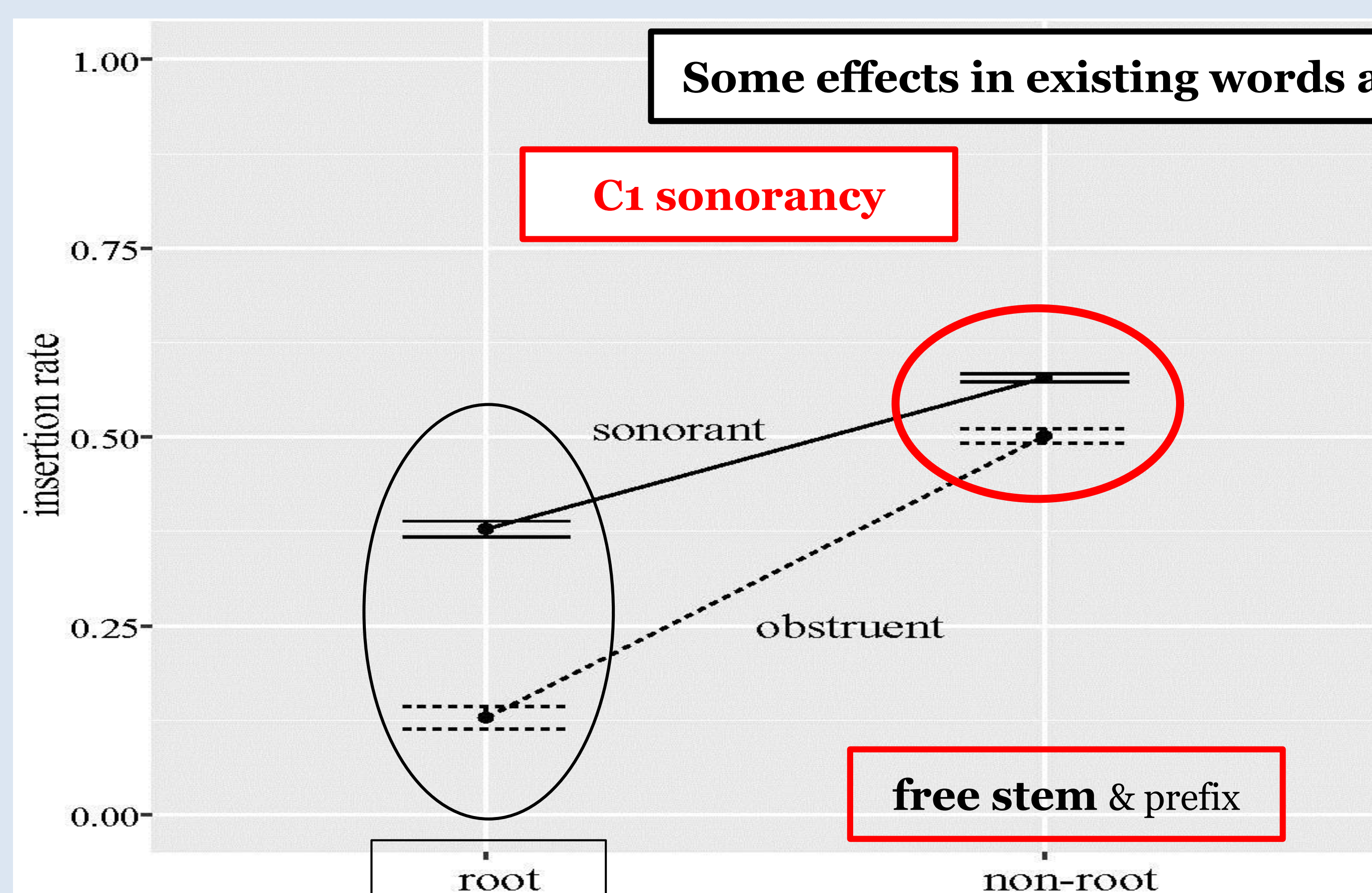


Figure 1: C_1 sonorancy x M_1 morphology

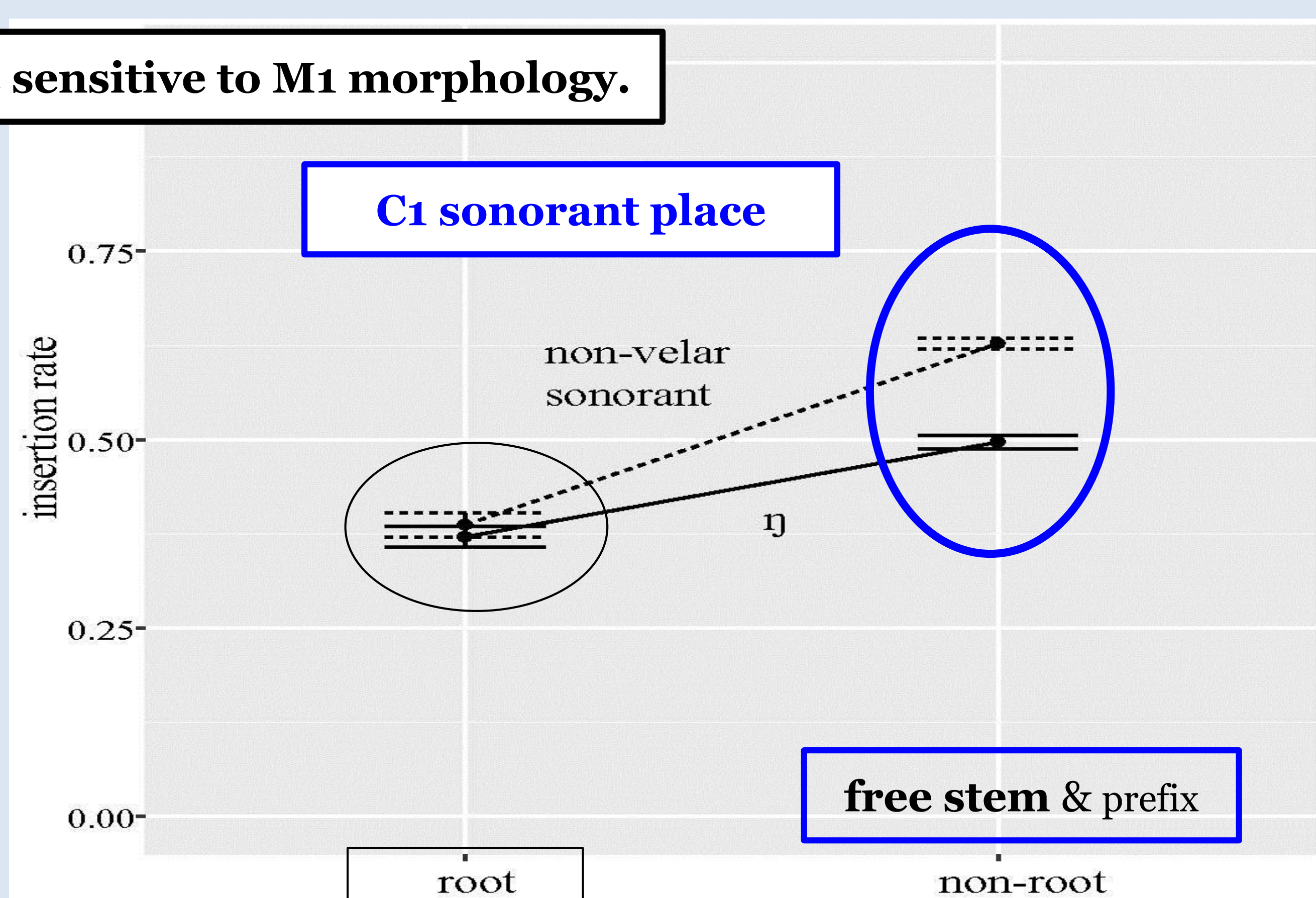


Figure 2: C_1 sonorant place x M_1 morphology

- The relevant results of the **novel word** survey are matched with patterns of **existing words** with **non-root free stem**, not bound root, M_1 .

(9) **Two alternatives**

- Speakers are aware of how phonological tendencies vary across morphological categories.
 - ▶ Note: **Loanword M_1 in novel word survey = free stem, not bound root.**
- Speakers merely attend to the patterns in words with free stems rather than bound roots.

References & acknowledgments

Jun, Jongho (2015). Korean n-insertion: a mismatch between data and learning. *Phonology* 32.3. 417-458.

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