

Paradigmatic effects on the production of Dutch variable plurals

Tim Zee, Louis ten Bosch, Ingo Plag, Mirjam Ernestus

Relative Frequency & Paradigms

tiger
tigers

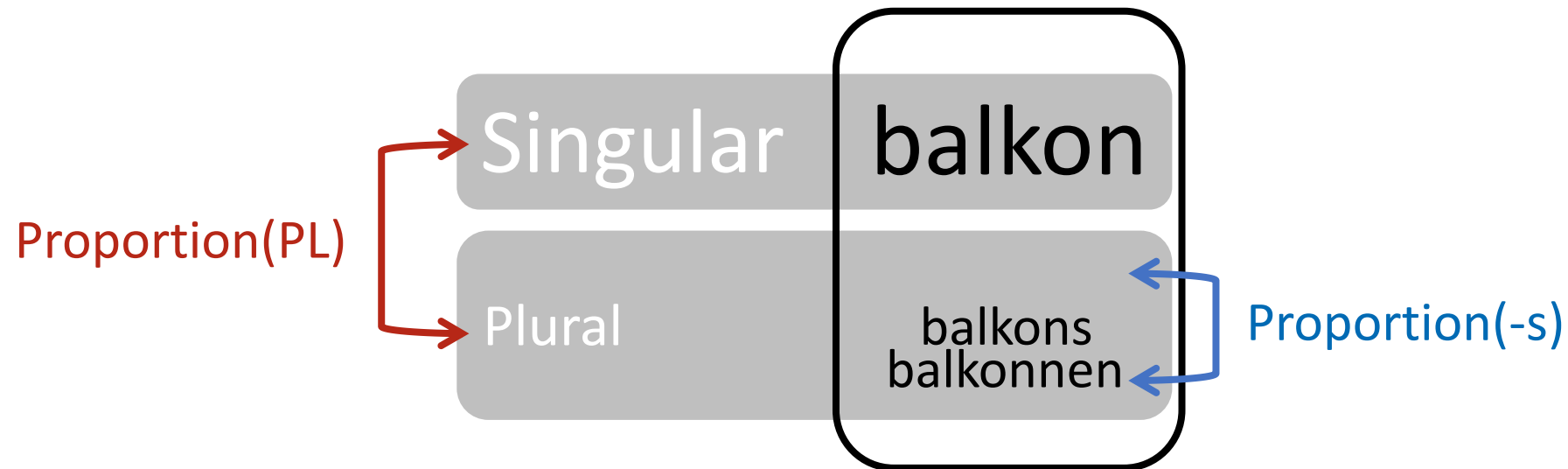
finger
fingers

Processing time: tiger < tigers

finger ≈ fingers

(overview in Beyersmann et al. 2015)

Paradigms and Variable plurals



What does inflectional variation tell us about representation?

- How does **Proportion(-s)** arise?
- How do **Proportion(-s)** and **Proportion(PL)** affect processing?

How does Proportion(-s) arise?

- Why do certain nouns get –s while others get –en?

(Baayen et al. 2002)

- | | | | |
|------------------------------|---|-----|-------------------------------------|
| 1. unstressed final syllable | → | –s | } Preference for disyllabic trochee |
| 2. stressed final syllable | → | –en | |
| 3. stressed final vowel | → | –s | |

- Why variable plurals?

indiviDU

piraMIde

How does Proportion(-s) arise?

- Computational model

(cf. Keuleers et al., 2007)

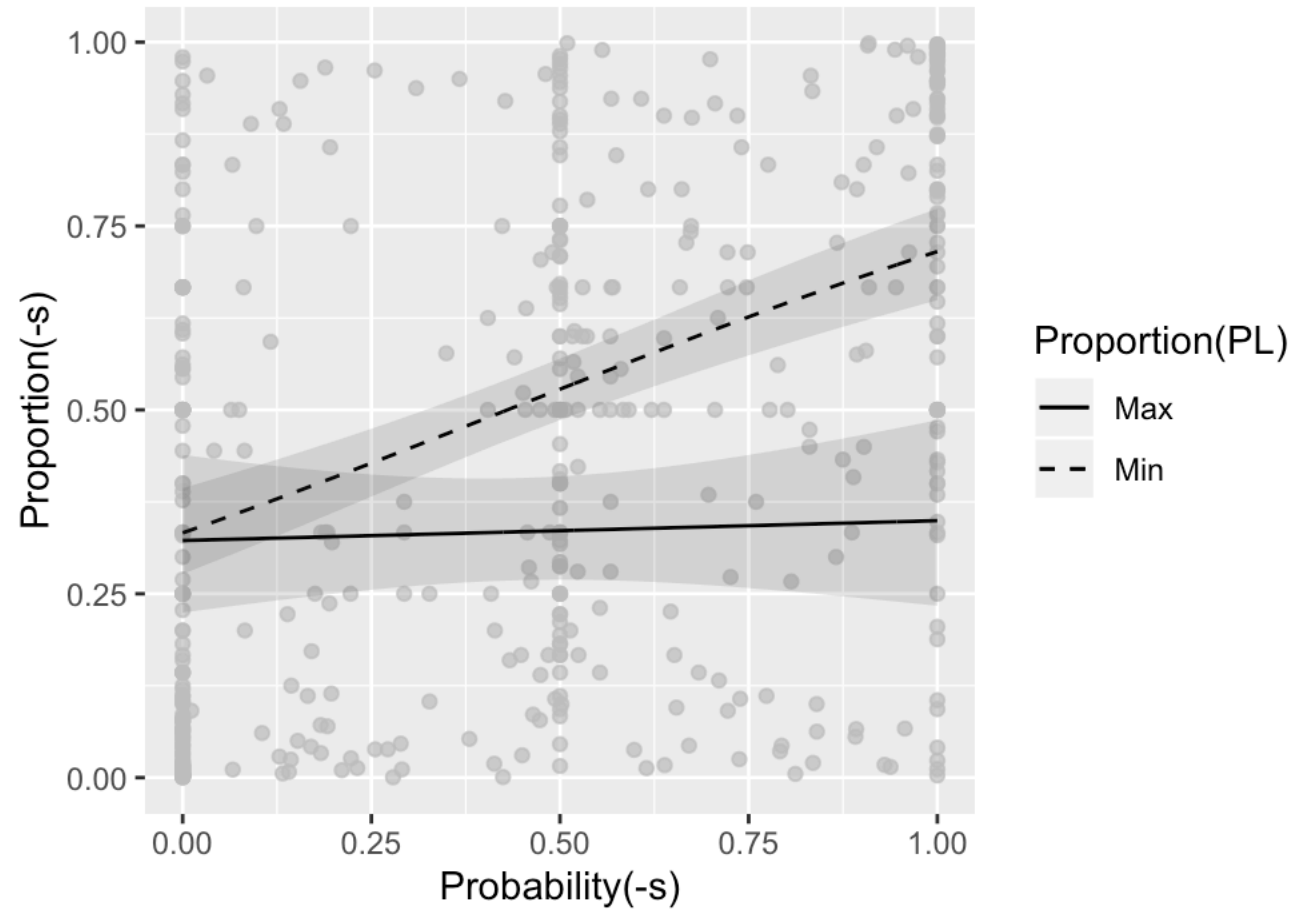
- Phonological generalization → probability of –s versus –en

- $\text{Proportion}(-s) \approx \text{Probability}(-s) * \text{Proportion(PL)}$

- Strong representations block generalization
 - Representational strength $\approx \text{Proportion(PL)}$

(Divjak & Caldwell-Harris, 2019)

How does Proportion(-s) arise?



How do Proportion(-s) and Proportion(PL) affect processing?

- Paradigmatic signal enhancement

(Kuperman et al., 2007)

- -s longer if more frequent in English verbal paradigm

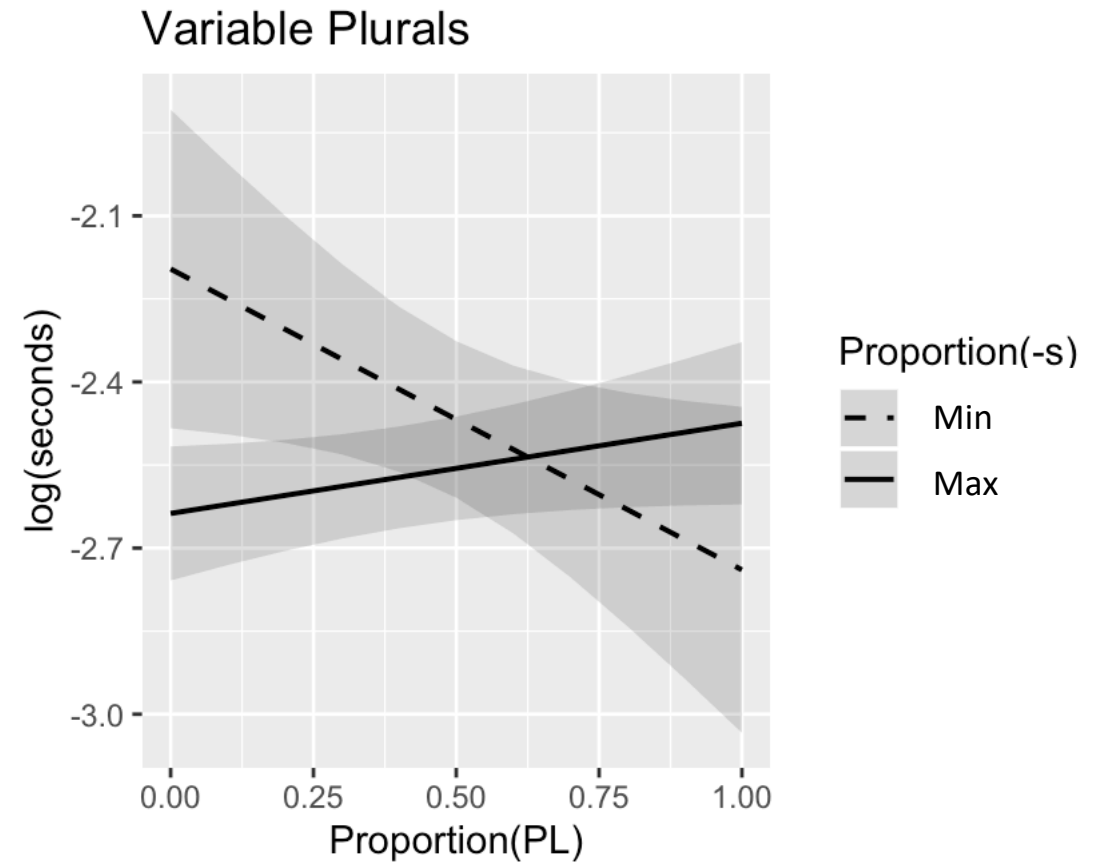
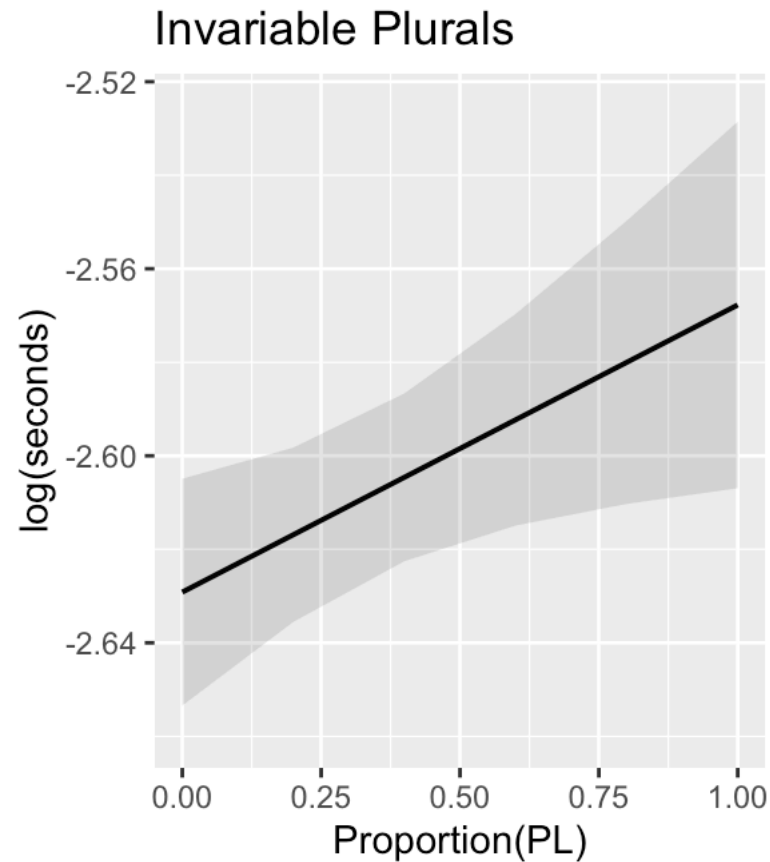
(Cohen, 2014)

- What if the paradigm contains a competitor?

- Semantic neighbours inhibit processing

(Mirman, 2011)

How do Proportion(-s) and Proportion(PL) affect processing?



Conclusions

What does inflectional variation tell us about representation?

- Strong representation can block phonological generalization
- Representations of variants compete, affecting pronunciation

Questions and Comments?



References

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