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Morphological priming of inflectional suffixes

Katarina Marjanovič, Davide Crepaldi
SISSA, Trieste, Italy
Contact: katarina.marjanovic@sissa.it

Morphological processing

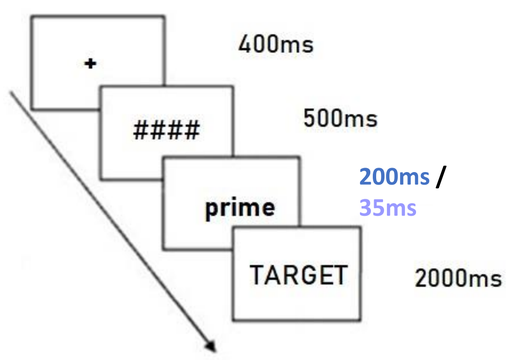
Morphologically complex words processed through their constituent morphemes
(e.g. Amenta & Crepaldi, 2012; Bradley, 1979; Rastle et al., 2000; Taft and Forster, 1976)

Established primarily through priming paradigms
(e.g., Boudewyn et al., 2012; Camblin et al., 2007)

Priming and masked priming paradigm

Priming:
- Presentation of two consecutive words
- How presentation of 1st word (the prime) influences the response to the 2nd word (the target)
  (e.g., Boudewyn et al., 2012; Camblin et al., 2007)

Masked priming:
- Prime is presented for very short time, outside of awareness (i.e., is "masked")
- Tackles relationships between words in the lexicon strategy-free



Morphological priming

Stem priming
- Shared stem = facilitated recognition (e.g., Bradley, 1979)

softness → softer

Suffix priming
- Controversial results (Duñabeitia et al., 2008; Marlsen-Wilson et al., 1994; Giraudo & Grainger, 2003)
- Type of prime matters
  - Word prime: lexical competition (Crepaldi et al., 2016, Davis & Lupker, 2006)
  - Nonword prime: priming more reliably observed (Crepaldi et al., 2016)

softness → kindness

cars → dogs

DERIVATIONAL SUFFIXES ✓

INFLECTIONAL SUFFIXES ?

Present study

- Two experiments in Slovenian:
  → inflectionally rich language
- Masked priming paradigm
- Lexical decision task
- Participants native speakers of Slovenian

Research Question

Does facilitation of word recognition differ when word is preceded by stem or inflectional suffix prime?

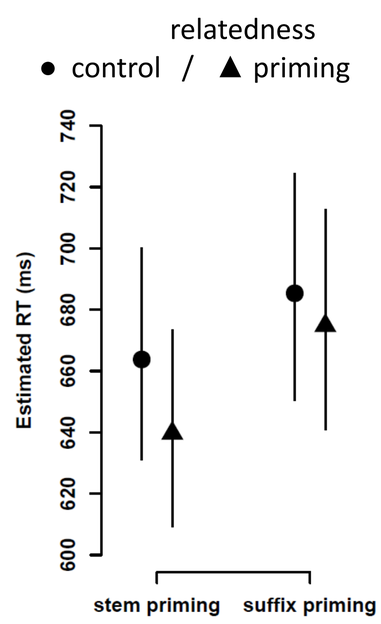
1st experiment

Design

- 40 **target words**
- 40 nonwords
- nonword **primes**
- N = 60 (F= 41)

HALJAM	Priming	Control
Suffix priming	MEST**AM**	MESTOV
Stem priming	**HALJ**OV	JAHTOV

Results



Model parameters:
- Solid priming when sharing a stem
  t(2110.8) = -3.55, p < .001
- Suffix priming does not differ from stem priming
  t(2111.2) = 1.49, p = .14
- Suffix priming per se:
  t(2070.2) = -2.03, p = .04 (outliers-free model)
  t(2111.0) = -1.41, p = .16 (full model)

Stem priming ✓
Suffix priming ?

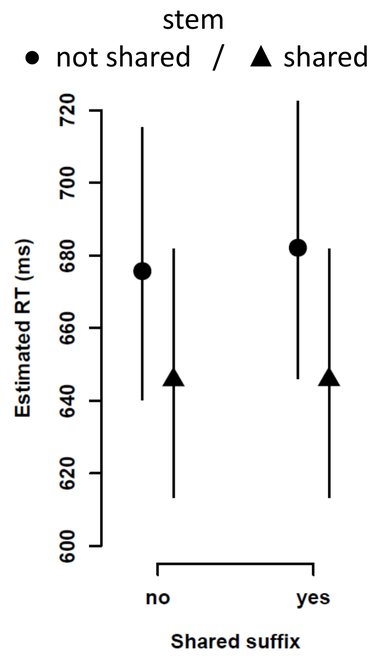
2nd experiment

Design

- 40 **target words**
- 40 nonwords
- nonword **primes**
- N = 62 (F= 46)

LISAM	Stem shared	Stem not shared
Suffix shared	**LISAM**	MET**AM**
Suffix not shared	**LIS**OV	BEROV

Results



Model parameters:
- Shared stem: t(2223.5) = -3.93, p < .001
- Shared suffix: t(2222.6) = 1.32, p = .19
- Interaction: t(2224.0) = -1.41, p = .16

Stem priming ✓ (= Experiment 1)
Suffix priming ?
Interaction ✕

Discussion

- Well-established paradigm, with a novel design
- Data suggests stem priming → Stem priming: well-established phenomena
  → Present study: cross-linguistic evidence
- Data suggest no inflectional suffix priming:
  → There is a need to rethink suggested affix priming effect!
- Absence of effect possibly due to discrepancy between morpheme types:

	Inflectional suffixes	Derivational suffixes	Stems
Information type	morpho-syntactic	lexical	lexical
Information value/semantics	+	++	+++

References

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