Orthography–semantic links in word identification:

automatic activation of embedded stem meaning

in the presence or absence of pseudosuffixes

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Readers use sublexical information in word identification

Decomposition of *morphologically* complex words:

BOOK+STORE

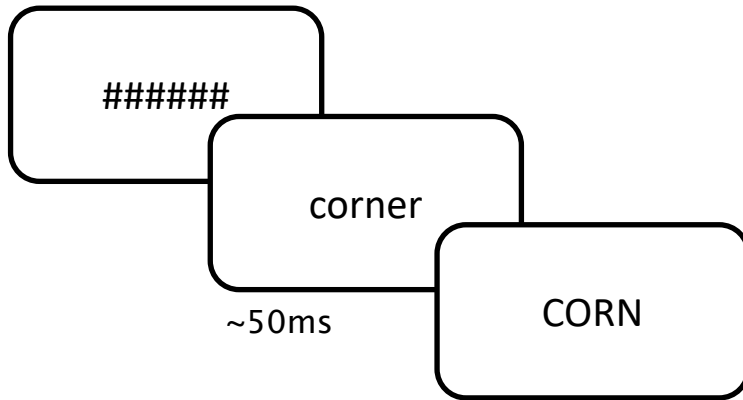READ+ER

Recognition of *orthographically* embedded neighbors:

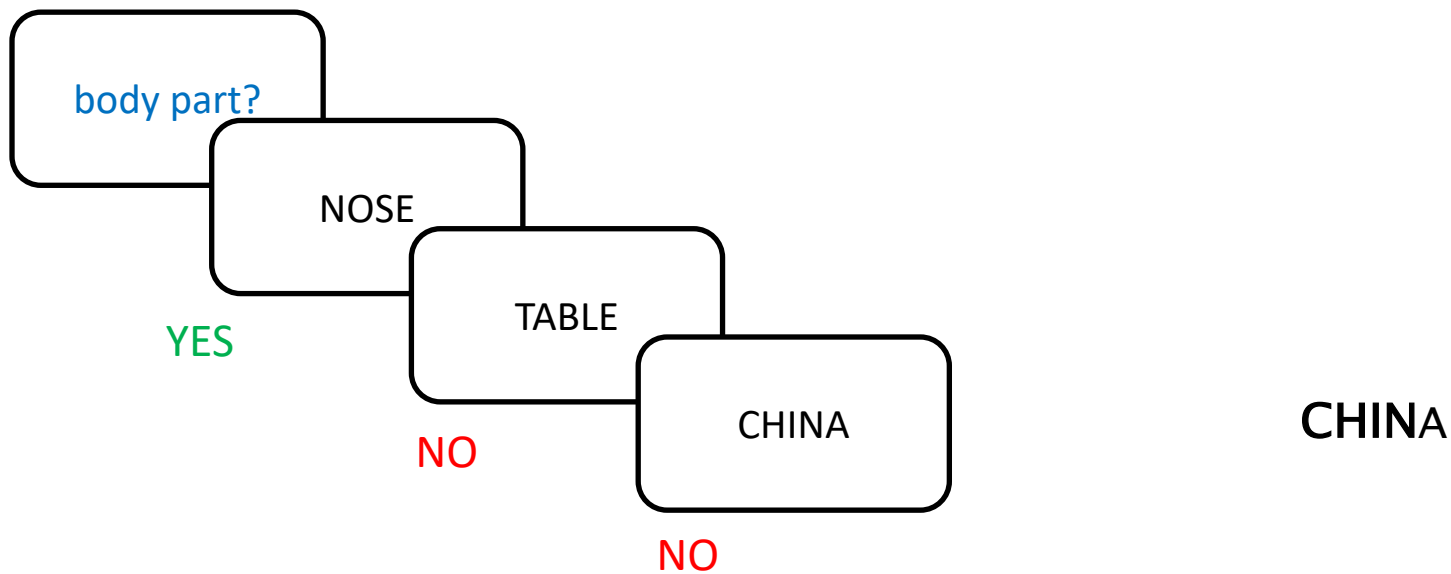HAT in THAT

Masked priming LDT

(e.g., Rastle et al., 2004)

######

corner

~50ms

CORN

FARMER – FARM ✔️

CORNER – CORN ✔️

CASHEW – CASH ❌

Facilitation from pseudosuffixed words
even in the absence of a TRUE morphological relationship

CORNER – CORN

Semantic categorization

(e.g., Bowers et al., 2005)

body part?

NOSE

TABLE

CHINA

YES

NO

NO

CHINA

Inhibition from embedded neighbors

CHINA

Embedded words are facilitated
by carrier words
even in the absence of a true
morphological relationship

CORNER – CORN

Embedded words compete
with their carrier words
in the absence of a
pseudomorphological
relationship

CHINA

Length of additional letter string

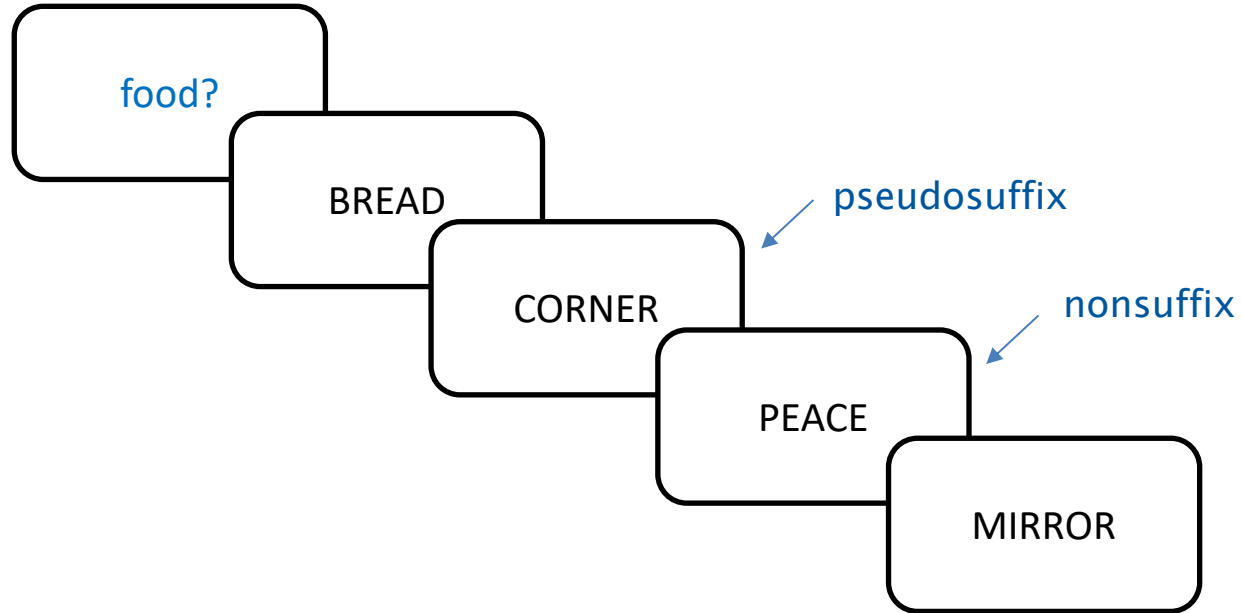2-4 letter suffixes vs. 1 letter neighbors

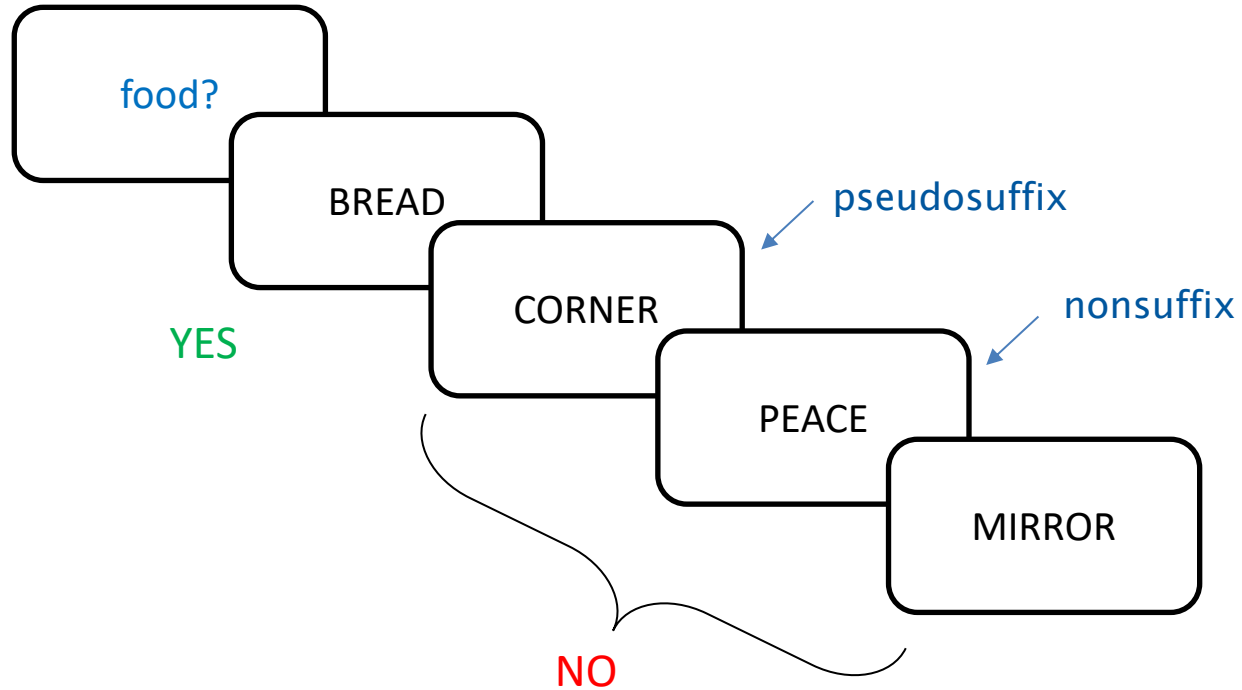Morphological status of additional letters

suffix vs. nonsuffix

Task-demands

LDT vs. semantic categorization

Semantic categorization with CORNER and CASHEW type items

food?

BREAD

CORNER

PEACE

MIRROR

pseudosuffix

nonsuffix

Semantic categorization with CORNER and CASHEW type items

32 adults (Italian native speakers)

40 carrier words (nouns)
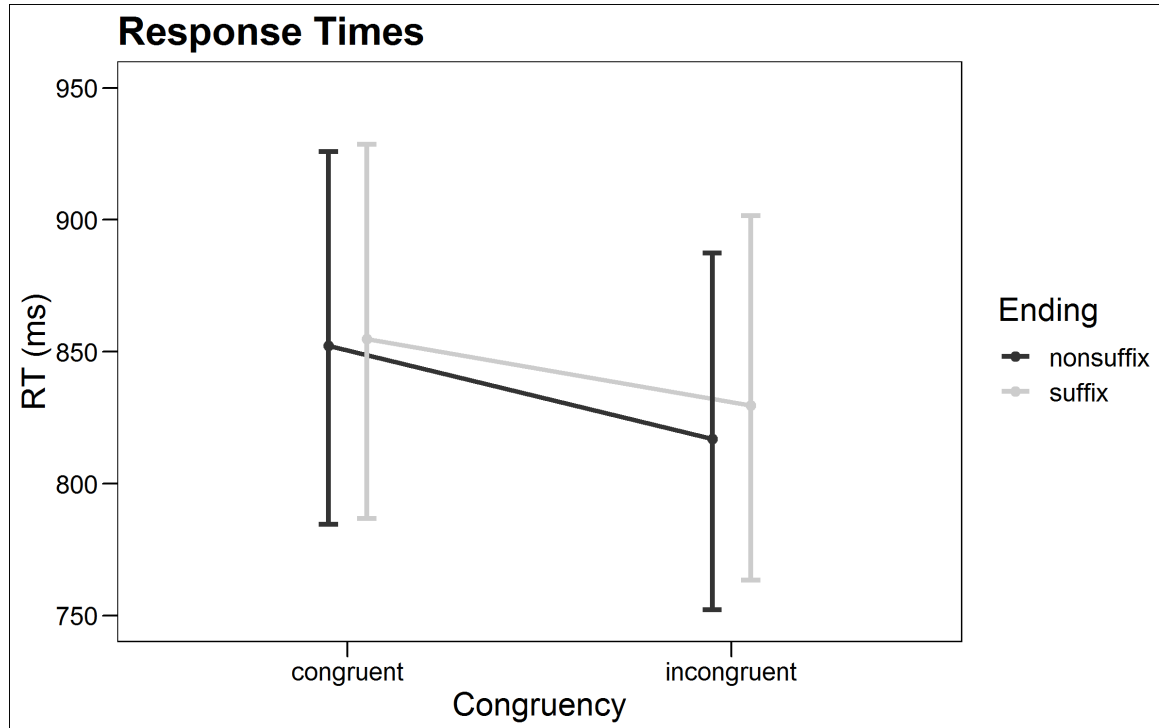   20 pseudosuffixed (CORNER type, e.g., *burrone*)
      20 non-suffixed (CASHEW type, e.g., *rapace*)

6 categories: animal (8), body part (11), food (8), house (3), landscape (7), person (3)

Within-item across-category/-participant manipulation

		Congruency	
		Category-congruent	Category-incongruent
Ending	pseudosuffix	CORNER in food	CORNER in animal
	nonsuffix	PEACE in food	PEACE in animal

$$\log(RT) \sim \text{Congruency} * \text{Ending} + (1|\text{Participant}) + (1|\text{Item}) + (1|\text{Category})$$

Response Times

Congruency
t=3.11, p=.002
ΔRT=30ms

Ending
t=0.35, p=.727

Cong x Ending
t=0.48, p=.634

R^2=54.44%

31 adults (Italian native speakers)

40 carrier words (nouns)
   20 pseudosuffixed (CORNER type, e.g., *burrone*)
      20 non-suffixed (CASHEW type, e.g., *rapace*)

6 categories: animal (8), body part (11), food (8), house (3), landscape (7), person (3)

Across–item within–category/–participant manipulation

		Embedded Stem	
		yes	no
Ending	pseudosuffix	CORNER in food	TIMBER in food
	nonsuffix	PEACE in food	GRACE in food

$$1/(RT) \sim EmbeddedStem * Ending + (1|Participant) + (1|Item) + (1|Category)$$
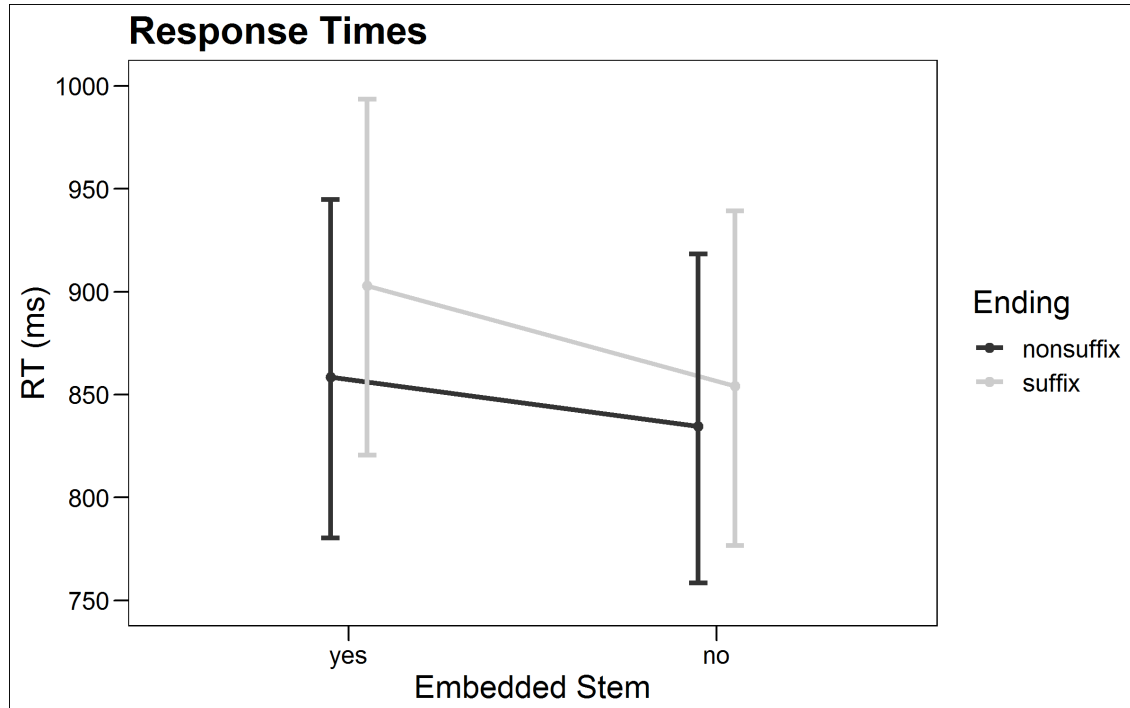
Embedded Stem
t=2.42, p=.016
ΔRT=33ms

Ending
t=1.96, p=.050
ΔRT=23ms

Embed x Ending
t=0.70, p=.487

R^2=61.09%

The lexical identification system activates the meaning of embedded stems

➢ when carrier words are more than 1 letter longer than the embedded words
extending beyond usual orthographic neighbors

➢ both in the presence and absence of morphological structure
extending beyond morphological (pseudo)structure

➢ in semantic tasks
extending beyond pure orthographic activation

One phenomenon instead of two?

Decomposition of *morphologically* complex words:

BOOK+STORE

READ+ER

Recognition of *orthographically* embedded neighbors:

HAT in THAT

Thank you!

Hasenäcker, J., Solaja, O., & Crepaldi, D. (submitted). Food in the corner and money in the cashews: Semantic activation of embedded stems in the presence or absence of a morphological structure.
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