

Friend or foe: the morphological kinship between words

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Sincronically semantically opaque words

Restaurante
(restaurant)



Restaurar
(to restore)

Refrigerante
(soda)



MORPHOLOGICALLY DERIVED!

Refrigerar
(to refrigerate)

Liquidação
(sale)



Líquido
(liquid)

Big questions of lexical access

- How are they accessed?

Whole words	X	Decomposed in morphemes
(Hay, Baayen, 2005)		(Stockall, Marantz, 2006; Kazanina et al., 2008)

- How are they represented in the mental lexicon?

Same lexical entry (friend)	X	Different lexical entries (foe)
Semantic relationship processing (Garcia, 2009; Dominguez, Veja, Barber, 2004)	X	Morphological relationship processing

- Distributed Morphology (Halle, Marantz, 1993).

Behavioral pilot experiment

- Crossmodal priming test (oral prime – written target).
- Lexical decision task (word/non-word).

#	Condition	Prime (oral)	Target (written)
1. Sm ₃	Semantic Relationship 1 layer	<i>Professor</i> Profess+or	<i>Ensinar</i> (to teach) Ensin+ar
2. Sm ₄	Semantic Relationship 2 layers	<i>Professor</i> Profess+or	<i>Educação</i> (education) Educ+a+ção
3. MC ₃	Compositional Relationship 1 layer	<i>Professor</i> Profess+or	<i>Professor</i> (professor) Profess+or
4. MC ₄	Compositional Relationship 2 layers	<i>Professor</i> Profess+or	<i>Professoril</i> (professorial) Profess+or+il
5. MO ₃	Opaque Relationship 1 layer	<i>Professor</i> Profess+or	<i>Professar</i> (to profess) Profess+ar
6. MO ₄	Opaque Relationship 2 layers	<i>Professor</i> Profess+or	<i>Professado</i> (professed) Profess+a+do

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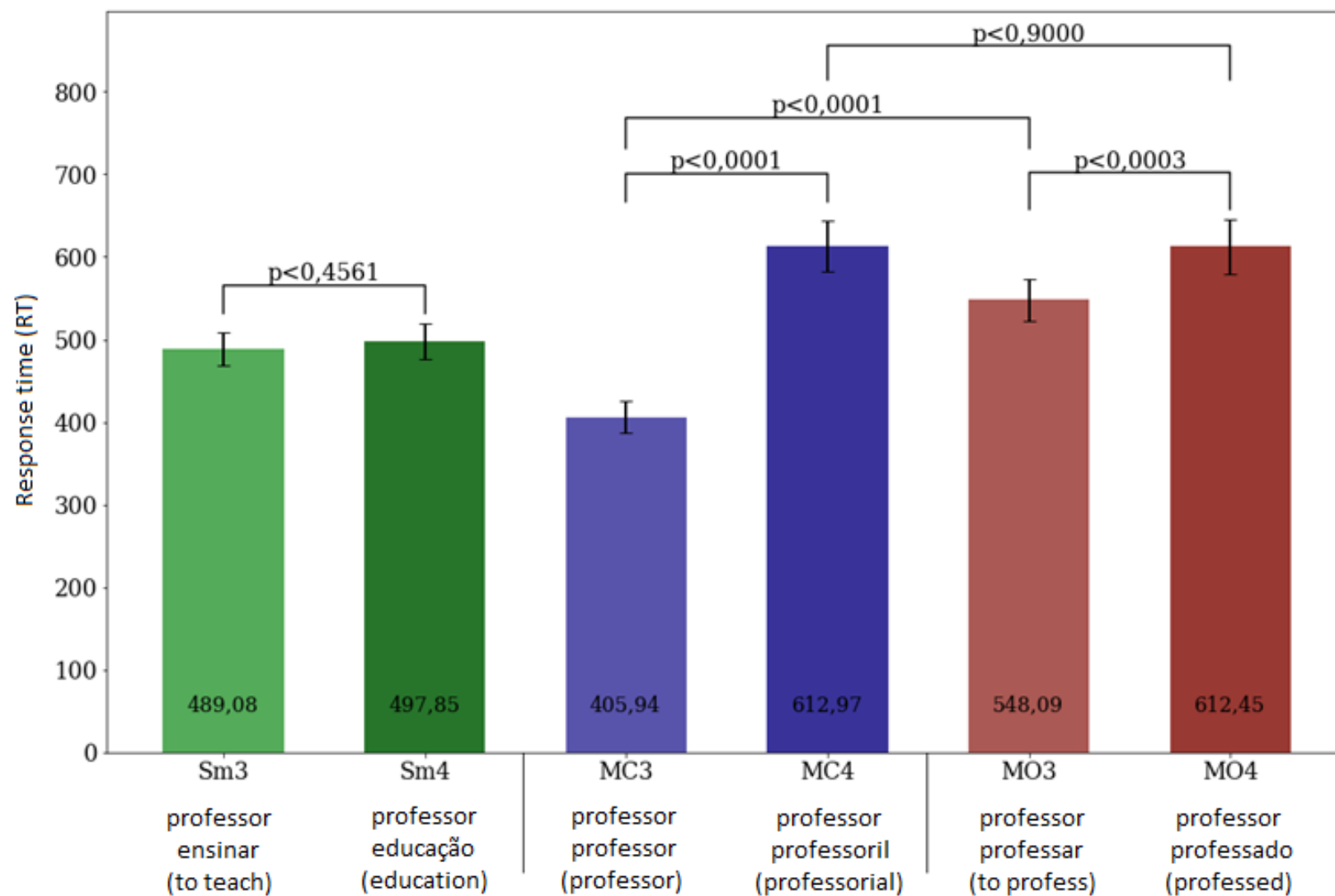
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Behavioral pilot experiment (Results)



Conclusion

- i. A decompositional course during processing of morphologically related words, even when they are semantically opaque;
- ii. No decompositional course during processing of words only semantically (and not also morphologically) related;
- iii. New entries for words as *restaurante* (restaurant) in the mental lexicon.

These results suggest the existence of different psychological processes for the morphologic and semantic routes in reading: linguistic composition for the former and joint memory for the latter.

What is next?

- What are the **neurophysiological** correlates to this computation?
(Bozic et al., 2007; Lavric, Clapp, Rastle, 2007; Moris et al., 2007; Petterson, Nestor, Rogers, 2007; Pylkkänen, 2019)
- EEG test with the same design.

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Thank you!

Suggestions, critics, collaborations?
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