

# Do all complex words have the same degree of complexity?

*Thursday, June 22, 2017 3:20 PM (2h 10m)*

We may find several studies claiming that morphological structure plays an important role in word processing. In this paper, supported by the observation of written derived words processing, we intend to demonstrate that complex words display different degrees of complexity, depending on morphological and semantic features. We've performed two experiments, on adults and 4th grade children. Our hypothesis is that word processing is sensitive to the morphological status of the word, although not necessarily in the same way.

In the first experiment, we've used a lexical decision with four conditions:

- 1) SW- simple words (janela 'window');
- 2) CDW- compositional derived words (desejoso 'willing');
- 3) nCDW~suf - non-compositional derived words (suffix allomorphy)(luxuoso 'luxurious');
- 4) nCDW~base - non-compositional derived words (base allomorphy) (padeiro 'baker');

Results confirm that both groups recognize CDW faster than nCDW. Furthermore, for children, processing nCDW~suf is significantly different from all the other conditions, whereas for adults, the relevant condition is CDW.

In the second experiment, we've used priming with three different times of exposure: 50, 100 and 150 ms. We've tested 3 conditions of prime/target pairs (the base word is always the prime):

- 1) CDW (desejo 'desire'/desejoso 'desirous');
- 2) nCDW~suf (luxo 'luxury'/luxuoso 'luxurious');
- 3) nCDW~base (água 'water'/aquoso 'watery').

Results indicate that CDW processing brings lower costs and nCDW~suf bring higher costs to word processing. These results are consistent in all exposure times. By crossing the data with the lexical decision experiment, we've also noticed that: for adults, there was a facilitation with the prime presentation at 50 ms; for children this facilitation occurs at 100 or 150 ms.

These experiments suggest that derived words aren't all processed in the same way - different degrees of complexity affect visual word processing.

**Primary author:** PINTO, Carina (CLUL)

**Co-authors:** VILLALVA, Alina (FLUL, CLUL); COSTA, Armanda (FLUL, CLUL)

**Presenter:** PINTO, Carina (CLUL)

**Session Classification:** Poster 1

**Track Classification:** Freely Contributed Paper