Perceptual saliency of affixes

Recently, Beyersmann, Ziegler & Grainger (2015) tested affix chunking in a letter search experiment. They found an advantage for suffixed nonwords (e.g., *filmure*) over pseudo-suffixed (e.g., *filmire*) but not for prefixed nonwords (i.e., *propoint* is not > than *cropoint*). This asymmetry was interpreted as a reflection of different underlying processes for the recognition of suffixed and prefixed items. A chunking pre-lexical mechanism would operate on suffixed while prefixed would be represented holistically at the word level. As pointed out by Giraudo and Grainger (2003), functional and positional differences could reflect different processes. In the present study we performed two experiments where we tested morphemic saliency (for real stems) and positional effect of affixes. For both experiments, 30 native French speakers performed a letter search task.

In our first experiment, we selected words instead of nonwords because their use allows us to create a pseudoaffixed condition. Hence formal effects can be differentiated from morphological effects. Letter detection performances on real affixed words (e.g., *injuste* 'unfair'; *tueur* 'killer') were tested against pseudo-affixed (*insecte* 'insect'; *fleur* 'flower') and unrelated controls. The critical letter always corresponded to the last letter of the affix or pseudo-affix. While results replicated the asymmetry found by Beyersmann et al. (2015), we found for suffixed words a genuine morphological effect differing from both pseudo-suffixed and the control condition. On the other hand, for prefixed, only formal effects emerged without showing a significant difference between real prefixed and the unrelated control words.

In order to dissociate functional from positional effects of prefixes and suffixes, we carried on a second experiment in which we only manipulated simple words. The target letter was present in a cluster either at the beginning or at the end, for example: 'E' in RE in *chèvre* (goat) vs. in *requin* (shark). Results showed an advantage for the beginning over the ending letters, suggesting that prefix and suffix asymmetry is due to linguistic or functional factors rather than to the left to right reading direction (positional effect).

Taken together, the results show morphemic salience in the suffix condition (possibly due to a functional effect). As for the prefixed words, word salience seems to guide the letter detection. This data has to be interpreted relative to the masked priming data (Giraudo & Grainger, 2003) which also showed an asymmetry but in the opposite direction (morphological facilitation effect only for prefixed words).

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