Suffix Activation Through Morphosyntactic Features

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Orthographic word recognition and production is mediated by morphological processing. Verbs are early decomposed in stem and suffixes for further morphosyntactic feature activation (Rastle & Davis, 2008).

### Questions
- Do French readers recognize isolated verbal inflectional affixes?
- Which affixes are represented in the mental lexicon?
- Can affixes trigger inflected verbal production? How?

### Online Experiment
Investigate the affix recognition through feature and node activation, based on RT and accuracy.

#### Participants
24 (12 males), mean age 21.66, right-hand, French as L1.

#### Procedure: Visual
Lexical decision task on verbal affixes.

#### Stimuli
15 prefixes, 30 suffixes, 90 pseudo-affixes.

- Suffices are recognized faster and more accurately than prefixes.
- T and Agr nodes are recognized faster and more accurately than Pre and Th nodes.
- N-gram frequency modulates affix visual recognition.
- Suffices are recognized by means of node and frequency.

### Offline Experiment
Investigate the write production of inflected verbal forms from suffixes through suffix frequency and node, based on production and accuracy.

#### Participants
14 (5 males), mean age 22.29, French as L1.

#### Procedure
Write word production from suffixes. Three productions, first close production. 20 minutes.

#### Stimuli
34 suffixes with defined bounds.

- Participants can activate and produce inflected verbs from suffixes.
- There is a large general individual variance between subjects.
- Responses get more accurately through experiment.
- Accuracy: Th suffix -; Agr ++, followed by T + suffixes.

### Discussion
All French verbs are decomposed in stem and suffixes (Meunier & Marslen Wilson, 2004). Our results in both experiments correlated, showing that some specific suffixes, as [ai], [ons], [ent], are easily recognized and used in word production, while other, as [i], [x], [es], are hardly recognized as verbal suffixes.

#### Answers
- Suffices are recognized in function of frequency.
- Agr plural and T suffixes.
- Through features and word activation.

#### New Questions
- How do affixes interact with stem allomorphy?
- How do nodes and features are hierarchized in the lexicon?

### Conclusion
Overall, our results suggest a full-decomposition model (Marantz, 2013) where all French verbal inflectional suffixes are activated through morphosyntactic features in function of morpheme frequency and entropy (Estivalet & Meunier, 2015).

### References