Ambiguity and Word Classes Lol!

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1 Introduction

Ambiguity is pervasive in language. blablabla Conversion is a productive process that inevitably produces homophones. Additionally, noun-verb and verb-noun conversions are doubly homophonous with inflectional affixes in *-s*.

2 Avoiding Ambiguity

formal equivalence homonymy and polysemy

that deletion is not permitted in non-extraposed subject clauses Wasow (2015)

(1) This paper demonstrates that the differences in duration of English final S as a function of the morphological function it expresses.

2.1 Brainstorm

Hypothesis: third person singular -s is avoided in noun-verb conversion take a polysemous word and gather identical n-grams

2.2 Literature

Studies like Plag, Homann & Kunter (2017) call into question whether there is perfect homonymy between different types of word final *-s*. The study found significant length differences, and hypothesizes that Yung Song et al. (2013) did not find any such effect, however, albeit on a more lexically restricted study.

In a more recent study, Tomaschek et al. (2021) show that length of final *-s* can be modelled as having a discriminatory function depending on the lexical and phonological context. In other words, the duration was found to decrease with increasing contextual ambiguity. "Energy is not invested in a signal that creates confusion instead of clarity." (Tomaschek et al. 2021: 154) This points to some degree of ambiguity sensitivity, even though it is not entirely clear what it means for ambiguity avoidance.

Systematic phonetic differences potentially contribute to the disambiguation

Wasow (2015) surveys a variety of studies ... and concludes that ambiguity avoidance has not been shown to be as common as expected considering the pervasiveness of ambiguities in language. Grice underestimated the pervasiveness of ambiguity. Provides an attempt at a taximony. - word order freezing as ambiguity avoidance - that deletion only in unambiguous syntactic context - German free syntax but default SVO reading. Wasow does not call it default.

Piantadosi, Tily & Gibson (2012)

Trott & Bergen (2020): Linguistic forms are expected to show a certain degree of ambiguity in order to provide an efficient system. Simulations suggest that ambiguity caused by homophony is more common in natural languages than expected, even when taking into account. Homophones are smoothed out in lexically neighboring areas.

Recently, word embedding techniques have been used for various lexical tasks. Beekhuizen, Armstrong & Stevenson (2021): word2vec for distinguishing polysemes from homonyms?

Lee (2021) In combination with contextual word embeddings, clustering techniques have been used to detect homonymy.

3 Considerations

Textual co-occurrence can only serve as an upper bound. Prosodic markers in spoken language can further disambiguate most types of ambiguity. The same is true for more general types of background knowledge.

4 Conclusion

Include more contextual and "world knowledge" information, such as images (e.g. Kottur et al. 2016; Shahmohammadi, Lensch & Baayen 2021). Recent advances in context embedding might provide tools to further test where real ambiguity exists and where it affects the system of language.

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