

APPLYING THE CONCEPTS OF LEXICAL PRIMING TO GERMAN POLYSEMANTIC WORDS

Abstract. Hoey [2005] gives a detailed account of how the Theory of Lexical Priming can be seen applied to written English texts. Focussing on disambiguation of polysemantic words, this paper looks at evidence of lexical priming in a structurally different language – German.

Keywords. Lexical Priming, polysemy, German, English, genre-specific usage.

1. Introduction

Hoey [2005] gives a detailed account of how the Theory of Lexical Priming can be seen applied to written English texts. Pace-Sigge [2013] tested the theory for spoken English and provided a background with regards to the concept of *priming* and how it was and is applied in Computational Linguistics and Psycholinguistic research [cf. Quillian: 1968].

So far, the only research into applying this theory to non-English languages seems to have been undertaken by Jantunen and Brunni [2013] as well as Hoey and Shao [forthcoming]. This paper looks at one aspect of the theory only: disambiguation of polysemantic terms in German.

For this investigation, the German element of the *European Parliament Proceedings Parallel Corpus 1996-2006* as well as the collection of *German Political Speeches* of the (five) presidents of the German Federal Republic 1984-2012 [Barbaresi: 2012] was used. This research focuses on the items *Steuer* and *Hut*. The words have been selected with reference to Helbig and Buscha [1984: 275]. Each appears with two different genus (gender) formations. Their meanings differ accordingly: *das Steuer* refers to the “steering wheel” of a vehicle; *die Steuer*, on the other hand, means “tax”. These two words are only orthographically the same.

The verb-form *steuern* – “to control / to steer” - will be not looked at here.

Der Hut is “the hat”; *die Hut* refers to “care” or “guard”. While the inflections change in a genus-dependent way, usage is clearly differentiated and, in particularly in the political speeches viewed, highly metaphorical. As in English, German has phrases like «that is an old hat» (*das ist ein alter Hut*) or references to people who fulfil different roles. This paper shows that there are clear differences in colligation and semantic association that go beyond the surface of genus differentiation. The Lexical Priming Theory claims that our primings will vary according to genre and domain. It is appropriate therefore to investigate the morphological dimensions of polysemy/homonymy in a well-defined domain. Preferences for literal or metaphorical usage are inherent in the genre of political speeches investigated here. Thus, each of the words are representing two different lexical items through a fixed framework of item-specific nestings which are both grammatical and lexical: colligational and collocational.

2. Preliminary Research Findings

Michael Hoey claims that«(...) the patterns of one use of a polysemous word always distinguishes it from those of other uses of the word. We are (...) primed to recognise these contrastive patterns and to reproduce them. More precisely, (...) the collocations, semantic associations and colligations a word is primed for will systematically distinguish its polysemous senses» [Hoey, 2005: 81].

Such an approach to disambiguate word meanings can be traced back to early theoretical work by Quillian [1962 and 1968] who stated that «the resolution of a polysemantic ambiguity (...) consists of exploiting clues in the words, sentences or paragraphs (...) which make certain alternate meanings impossible» [Quillian 1962: 17]. This, in short, describes what Hoey refers to as *nesting*. With respect to morphology, however, Hoey [2005] focused on the English language. This means that the only issue for priming dis-

cussed by him are usage patterns of singular and plural patterns (e.g. consequence – consequences). Since then, Hoey has also looked at English compared to Chinese morphology. A case has been made, however to expand the «priming» theses as follows: «(...) it seems essential to postulate a hypothesis that concerns morphological (...) priming as well. Drawing upon Hoey's [2005: 13] priming hypotheses, we postulate the following: every word is primed to occur in particular morphophonological forms; these are its paradigmatic morphological preferences» [Jantunen and Brunni, 2013: 238].

Jantunen and Brunni's extension of the theory can also be used beyond the confines of foreign language teaching: morphological priming occurs for every language that has morphological elements. Jantunen and Brunni highlight that highly inflected languages show primings that fit into a very similar pattern.

With respect to the research at hand, the investigation therefore looks how the items *der Hut*; *die Hut* and also *das Steuer*; *die Steuer* are characteristically primed for native speakers in their collocations, colligations, morphological preferences and semantic associations in order to differentiate different meaningful lexical items for different purposes in political speeches.

The issue of genus in the German language has been widely investigated [a.a. – Zubin and Köpcke 1984; Fries 2001; Bewer 2004; Marki 2008]. Confusingly for learners, the definitive article does not remain stable. For example, *die Frau* (the woman) switches to *von der Frau* (of the woman) whereas *der* is associated with the male genus - as in *der Mann* (the man). The earliest work in German to use corpora and a method based on Quillian's work to differentiate between polysemous words is described in [Zimmermann 1972].

Looking at the CHILDES (corpus of children's utterances) evidence, it can be seen that the more complex, metaphorical usage is not yet present – *Steuer* is only employed by the caregivers; *Hut* is only ever used with reference to the item of clothing.

Given that the (non-CHILDES) corpora are speeches by elected representatives, the use of *die Steuer* (tax) is strongly predominant and almost exclusively literal. The use of *das Steuer* (steering wheel) appears with only two L1 collocates – *am* and *ans* (contractions of *an dem* and *an das*) and these appear overwhelmingly with reference to alcohol or drugs.

The situation is markedly different when politicians employ the word *Hut*, which is almost always used in a transferred sense. In more than 1/3 of all cases, the figurative phrase *unter einen Hut bringen* (reconcile) is used. That would be the use for *der Hut*. *Die Hut* is used notably less frequently (around 1/6 of all uses) when the speakers say *auf der Hut sein* (to be careful / to be on guard). There are also references which can be directly translated into English, for example “wearing another hat” (*einen anderen Hut tragen*); “to raise my hat” (*ich ziehe meinen Hut*) and “old hat” (*ein alter Hut*) which are also noteworthy. Such examples highlight how key prepositions (*unter*, *auf*) are part of a wider, meaning-giving colligational framework.

It can be seen that the same items in German are clearly differentiated where the meaning (even the transferred meaning) differs. Not only through a different genus (which need not be the orthographic article) but also through differences in frequency and, more importantly, nesting.

3. Conclusions

Going beyond the boundaries of English language use, Lexical Priming can also be seen as relevant when looking at highly inflected languages like Finnish or German. Research undertaken indicates that polysemous words are found in environments that are not only genus-specifically divergent: they also relate a contrastive patterns of use. In other words, the nesting of each of these indicates that the speaker uses a particular item.

This research also points to the fact that usage of rare words like *Steuer* are specific to a set of speakers like parliamentarians;

furthermore, such proficient users of the language hardly refer to *Hut* in its literal sense. Instead, it occurs in transferred, metaphorical meanings. As the theory of Lexical Priming claims that speaker's primings will vary according to genre and domain, it is entirely reasonable to find morphological and metaphorical dimensions of usage which are specific to a well-defined domain.

This investigation is a first step towards deeper research to find evidence that the theory of Lexical Priming can be applied to the German language. This paper, focussing exclusively on polysemy, does highlight that further research into the issue of priming patterns in the German language is a field that can provide valuable insights.

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