

The Usage of Negative Emotive Words in Twitter

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Abstract : In this paper, the usage of negative emotive words is examined on the basis of a large Hungarian twitter-database via NLP methods. The data is analysed from a gender point of view, as well as changes in language usage over time. The term negative emotive word refers to those words that, on their own, without context, have semantic content that can be associated with negative emotion, but in particular cases, they may function as intensifiers (e.g. rohadt jó 'damn good') or a sentiment expression with positive polarity despite their negative prior polarity (e.g. brutális, ahogy ez a férfi rajzol 'it's awesome (lit. brutal) how this guy draws'). Based on the findings of several authors, the same phenomenon can be found in other languages, so it is probably a language-independent feature. For the recent analysis, 67783 tweets were collected: 37818 tweets (19580 tweets written by females and 18238 tweets written by males) in 2016 and 48344 (18379 tweets written by females and 29965 tweets written by males) in 2021. The goal of the research was to make up two datasets comparable from the viewpoint of semantic changes, as well as from gender specificities. An exhaustive lexicon of Hungarian negative emotive intensifiers was also compiled (containing 214 words). After basic preprocessing steps, tweets were processed by 'magyarlanc', a toolkit is written in JAVA for the linguistic processing of Hungarian texts. Then, the frequency and collocation features of all these words in our corpus were automatically analyzed (via the analysis of parts-of-speech and sentiment values of the co-occurring words). Finally, the results of all four subcorpora were compared. Here some of the main outcomes of our analyses are provided: There are almost four times fewer cases in the male corpus compared to the female corpus when the negative emotive intensifier modified a negative polarity word in the tweet (e.g., damn bad). At the same time, male authors used these intensifiers more frequently, modifying a positive polarity or a neutral word (e.g., damn good and damn big). Results also pointed out that, in contrast to female authors, male authors used these words much more frequently as a positive polarity word as well (e.g., brutális, ahogy ez a férfi rajzol 'it's awesome (lit. brutal) how this guy draws'). We also observed that male authors use significantly fewer types of emotive intensifiers than female authors, and the frequency proportion of the words is more balanced in the female corpus. As for changes in language usage over time, some notable differences in the frequency and collocation features of the words examined were identified: some of the words collocate with more positive words in the 2nd subcorpora than in the 1st, which points to the semantic change of these words over time.

Keywords : gender differences, negative emotive words, semantic changes over time, twitter

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