Using multimodal corpora to study the ironic tone of voice: opportunities and challenges

Research on the ironic tone of voice in natural contexts has ever been challenging. Given that available speech corpora are not tagged for irony, researchers have often resorted to either experimental research designs (Rockwell, 2000; Cheang & Pell, 2008) or smaller, sampled corpora (Attardo et al., 2003; Bryant, 2010). These studies show that there is a considerable difference between the prosodic patterns of elicited and non-elicited irony. While elicited irony is often marked by a slower tempo, a greater intensity (Rockwell, 2000), and various peculiarities in pitch (Rockwell, 2000; Attardo et al., 2003; Cheang & Pell, 2008), only the slower tempo is attested for non-elicited irony (Bryant 2010). It remains an open question whether these findings can be extended to naturally occurring irony.

The present paper fills this gap by searching for the syntactic string *Tell me about it*, which allows for an ironic and a non-ironic reading, in the multimodal *NewsScape Library of Television News Broadcasts* (aka *Red Hen*, Steen & Turner, 2013). This search resulted in 2936 hits in total, including many duplicates, syntactically integrated occurrences (e.g. *can you tell me about it*), and results that are transcribed incorrectly (e.g. *Tell me about that*), all of which have been removed from further analyses. Results including considerable overlaps of the target utterance with utterances by other speakers have been discarded, too. 108 of the remaining results (about one tenth of the number of correct results in total) have been annotated for reading (ironic vs. non-ironic), data type (non-spontaneous vs. spontaneous irony), speaker gender and prosodic features (i.e. mean pitch, pitch range, duration, and mean intensity) using Praat (Boersma & Weenink, 2019). A series of two-way ANOVAS was performed on the prosodic features, with reading and data type as factor variables. None of these proved to be significant, except of duration. While there was no interaction effect for reading and data type (F (1, 1) = 1.044, p = .31), both showed main effects (both $p < 0.01$): *Tell me about it* was uttered slower when it was produced non-spontaneously and when it was intended ironically.

While the results of this research project seems to be fully in line with previous findings on the ironic tone of voice (in particular with that of Bryant 2010), it still raises methodological questions, which will be the topic of the second part of the present paper. *Red Hen* only offers mp4 video files, which have to be converted into wav format for further phonetic and/or phonological analyses, entailing a possible loss in quality. Since these recordings have not been made with the intention of enabling phonetic or phonological research, they come in differing qualities anyway and therefore measurements performed on them are of questionable reliability. The present paper argues that *Red Hen*, even though the sampling procedure might be challenging, is still a rich and valuable resource for analyzing phonetic and phonological issues as its size allows for balancing idiosyncrasies.

References

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