

## **On the prosodic cues of ironic exclamatives. A pilot study.**

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Irony is traditionally considered a semantic inversion between the primary meaning and the implicated one: it is defined as a matter of saying one thing and meaning something else. Nevertheless, to date a number of alternative interpretations of irony have been proposed, like the echoic account and the pretence theories (for additional references, see also [1]). Irony has different aims but, basically, it is an attitude strictly connected to the willing of safeguarding the personal image: by means of irony speakers can hide their real intention blurring the lines between context and content. With reference to its purposes, two main categories of irony can be distinguished: sarcasm and teasing. Sarcasm is used to communicate an impolite valuation of the addressee using a normally polite sentence, on the contrary teasing indirectly communicates a positive valuation by means of a verbal criticism [2].

The role of context is essential for the production and the identification of an ironic utterance. The pragmatic dimension of irony is, however, strongly connected to the prosodic one. When contextual elements are ambiguous or unavailable, the prosodic cues of verbal irony become more perceptible [3]. To date, relatively few studies have focused on the acoustic analysis of ironic speech. Nasal articulation, reduced speech rate, heightened pitch variation, but also changes in voice quality and monotonic or lowered pitch (flat irony) are some of the typical prosodic cues of ironic speech identified so far (among others [4], [5], [6], [7]). Most recent studies have confirmed these findings and highlighted other cues that strongly mark sarcastic voice [3], [8]. However, with specific reference to Italian, there is currently little available research focused on the acoustic description of verbal irony [2], [9], [10].

On the basis of these issues, the main goal of this research is to investigate the differences between literal and sarcastic utterances in Bari Italian in terms of acoustic parameters. To pursue this aim, we selected exclamative sentences: we opted for this phrasal type because in spoken Italian sarcastic attitude is usually communicated by means of exclamatives.

For our research, six male speakers of Bari Italian (24-33 years old) were invited to read six pairs of texts. The two texts of each pair described two different situations both ending with the same exclamative sentence: the context defined the attitude (sarcastic or sincere) that each speaker would have used to utter the sentence. An acoustic analysis of the speech material was carried out, considering the variables employed in this field of study: average  $F0$ , minimum  $F0$ , maximum  $F0$ ,  $F0$  range, onset and offset  $F0$  values, duration, speech rate, mean intensity and the duration of the last stressed vowel. The data collected were subjected to statistical analysis. The results showed that some parameters are more involved in the characterization of verbal irony than others: higher minimum, maximum and offset  $F0$  values, a higher intensity, a slower speech rate and a longer duration of the last stressed vowel seemed to characterize sarcastic exclamatives. Nevertheless, results also confirmed that different vocal profiles are related to the communication of sarcasm. In the present research we identified two main tendencies: three of the speakers realized flat irony, while the other three showed a more heightened pitch variation.

The present study highlights the extreme variability of irony, an attitude that allows to play with voice in order to indirectly communicate a positive or a negative intention.

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