

Speaking ironically: Does tone of voice influence children’s understanding?

Introduction and research questions

It is well known that children below the age of 6 have difficulties understanding verbal irony, for instance, “What lovely weather!” uttered in a downpour (e.g. Glenwright & Pexman, 2010; Hancock, Dunham, & Purdy, 2000). However, links between theories of irony processing and developmental studies have been largely absent. A key debate in the pragmatic literature concerns the main mechanism underlying irony: Does irony consist in echoing and dismissing an attributed thought (Sperber & Wilson, 1981; Wilson & Sperber, 2012), or in pretending to perform a speech act that one simultaneously dismisses (Clark & Gerrig, 1984)?

Our study investigates the different predictions about the ironical tone of voice made by echo and pretence accounts: The pretence account suggests that an ironical speaker mimics the tone of voice of the person she is imitating, leaving her own voice behind (Clark & Gerrig, 1984). According to the echoic account, irony is characterized by a deadpan tone of voice which reflects the speaker’s dismissive attitude to the thought she is echoing. On this theory, pretence is seen as a possible additional element, but not as a distinctive feature of irony (Sperber & Wilson, 1981; Wilson & Sperber, 2012). We hypothesised that, given children’s early familiarity with pretence, a parodic, exaggerated tone of voice (pretence) would make an ironical utterance easier to understand than a deadpan tone of voice (echo).

Method

We developed a novel irony comprehension task combining eye-tracking with picture selection, and tested 183 Norwegian-speaking children between 3 and 8 years of age as well as a control group of 20 adults. Each participant listened to 12 stories which ended either with an ironical utterance, a literal criticism or a literal praise (see Figure 1 for an irony example). Half of the participants listened to irony spoken with a deadpan tone of voice and half to irony spoken with a parodic tone of voice. We measured participants’ eye gaze to a happy and angry emoticon while the target utterance unfolded (see 1c), and asked participants to point to the emoticon which they thought represented the mother’s inner feelings best (“Is mum happy or angry?”).



a. Emil is playing in his room. Mum comes in and says: “It’s very messy in here. You have to tidy up your room.” Emil answers: “Okay, I will tidy up now.”

b. Emil continues to play with his cars. Mum says to Emil:

c. “That’s great! You have really tidied up!”

Figure 1: Example of an ironic stimulus

Results

The accuracy data from the picture-selection task, presented in Figure 2, shows an improvement of irony understanding with age. While 3- to 5-year-old children performed at or below chance

level, 6-year-old children interpreted verbal irony already correctly more than 70 percent of the time. The offline data does not show an effect of the deadpan and parodic tone of voice on irony understanding.

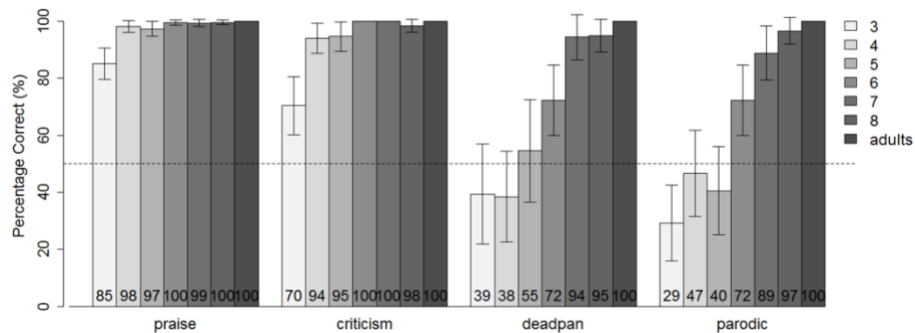


Figure 2: Choice of correct emoticon in the literal praise condition, literal criticism condition, deadpan irony and parodic irony.

However, in the online gaze data we find evidence that the tone of voice does influence irony processing. Our analysis with generalized linear mixed models, with looking time as dependent variable, shows that 3-5- year-old children, who performed at or below chance in the offline task, looked significantly more often to the angry emoticon compared to the happy emoticon if they listened to ironical utterances with a parodic rather than a deadpan tone of voice. Interestingly, we find the opposite result in adults, who looked more at the negative emoticon when listening to irony uttered with a deadpan tone of voice.

Discussion and conclusion

Our results suggest that the different types of ironical intonation influence the processing of irony. Given children’s familiarity with pretence, it seems that the imitative, exaggerated tone of voice used in pretence-based forms of irony makes it easier for them to recognise that the speaker is distancing herself from the literal speech act she is performing. By contrast, for adults the deadpan tone of voice might be more strongly linked to a negative attitude. We take our findings to provide support for the echoic theory of irony, claiming that the deadpan tone of voice is the default ironical intonation (for adults). However, children – and potentially other populations with difficulties in irony understanding such as individuals with Autism Spectrum Disorder – might benefit from the more salient parodic tone of voice which draws their attention to the non-literality of the speech act. From a methodological point of view, our study highlights the importance of combining online and offline methods in the investigation of children’s pragmatic development.

References

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