
Prosodic Influences on the Anticipation of Negation: Evidence from an Eye-Tracking Study in German

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Real-time comprehension of negation is often less efficient than that of affirmation (Kaup & Dudschig 2020), as listeners must revise an initial affirmative interpretation when the polarity cue appears late in the sentence. In German, this delay is frequent because *nicht* ('not') typically follows other constituents. Prosodic cues occurring before the negation particle may therefore provide advance information that facilitates processing. This study examines whether natural prosodic modulations can trigger anticipatory eye movements toward the alternative referent before *nicht* is encountered.

A visual-world eye-tracking experiment was conducted using a 2×2 design. The first factor was *Polarity* (affirmative, with the adverbial *bestimmt* 'surely', vs. negated, with *nicht* 'not'). The second factor was *Order* (object > adverbial vs. adverbial > object). Sentences such as *Lena hat Clara einen großen und einen kleinen Kaffee eingeschenkt. Clara trinkt den kleinen Kaffee bestimmt/nicht* ('Lena poured Clara a large and a small coffee. Clara drinks the small coffee surely/not') were presented while participants viewed four pictures (large coffee, small coffee, large wine, small wine). Following Orenes et al. (2014), negated sentences were expected to elicit looks to the alternative object once negation was processed.

Data from 38 participants have been analyzed so far. For sentences with late adverbials (*bestimmt/nicht* following the object), a word-based window analysis did not reveal significant differences in fixations between affirmative and negated sentences before the adverbial, suggesting no anticipatory shift prior to the negation particle.

This absence of early effects suggests that under natural prosody, predictive processing does not emerge when the polarity marker is delayed. Reaction times were slower for negated than affirmative sentences, indicating processing costs at the polarity cue.

References: • Dudschig, C., Kaup, B., Liu, M., & J. Schwab (2021). The processing of negation and polarity: An overview. *Journal of Psycholinguistic Research* 50(6), 1199–1213. <https://doi.org/10.1007/s10936-021-09812-9>. • Orenes, I., Beltrán, D., & C. Santamaría (2014). How negation is understood: Evidence from the visual world paradigm. *Journal of Memory and Language* 74, 36–45. <https://doi.org/10.1016/j.jml.2014.03.003>.