

Discourse context can completely overrule lexical-semantic violations: evidence from the N400

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According to a two-step model of semantic interpretation in language comprehension, local semantics can initially not be overruled by pragmatic factors. Alternatively, a single-step model (Gibbs, 1984; van Berkum et al., 2003) would predict that discourse context can overrule local lexical-semantic knowledge when these two conflict and can as such immediately influence comprehension processes. We contrasted these hypotheses in an ERP experiment in which we specifically examined whether a discourse context could modulate the integrative processes revolving around the 'core' semantic feature animacy. Subjects listened to six-sentence stories in which a person was engaged in conversation with either another person or with an inanimate object. In the latter case, we expected the narrative to gradually and implicitly set up a cartoon-like interpretive context for our subjects, i.e., a context in which it is not at all uncommon for inanimate objects to have animate properties. Upon first encounter in the story, inanimate nouns such as in "The woman told the clock" elicited an N400 effect compared to an animate control noun, reflecting the fact that in the absence of a wider context, listeners find it odd to find inanimate objects engaged in conversation. However, when subjects heard the same noun again in a similar sentence towards the end of the story, this N400 effect had disappeared. The latter finding suggests that a strong discourse context can indeed completely overrule local lexical-semantic violations, in accordance with a single-step model of semantic interpretation.

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Poster session of choice = Cognition & Behavior posters on Friday 4 June