

The processing of negative sentences: How does negation influence simulation processes during comprehension and when is the pragmatics of negation taken into account?

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In my talk, I will report results of two ongoing research projects dealing with the processing of negative sentences. The first research project is based on the experiential-simulations account of language comprehension which assumes that comprehenders mentally simulate the described objects, situations and events during language comprehension. More specifically, it is usually assumed that words automatically activate experiential traces in the brain that stem from the comprehenders' interactions with the referents of these words. When words appear in larger phrases or sentences, the activated experiential traces are presumably combined to yield an experiential simulation consistent with the meaning of the larger phrase or sentence. Negative sentences constitute an interesting test case for the experiential-simulations account because negation typically changes the described states of affairs without many changes in the lexical content of the sentences (e.g., "It is raining." vs. "It is not raining."). Studies involving negative sentences can thus contribute to a better understanding of the relative contributions of word- vs. sentence-based simulation processes during comprehension.

The second project focusses on the classical two step models of comprehension, according to which readers or listeners first compute the context-independent meaning of an expression based on their linguistic knowledge, and only in a second step take into account the communicative aspects of language. Although highly plausible from a linguistic perspective, the two-step model has not been without opponents in psycholinguistics. Many researchers instead believe in what might be called a one-step model of comprehension, according to which various sources of information are taken into account simultaneously during comprehension. Negative sentences are particularly interesting in this debate as the contexts in which negative sentences can felicitously occur are rather limited, and negative sentences are thus associated with specific pragmatic inferences. The question then arises whether these pragmatic inferences already occur early on in the comprehension process (as predicted by one-step models of comprehension) or not until later in the comprehension process, after the context-independent meaning of an expression has been determined (as predicted by two-step models of comprehension.).