

Kerkhofs, R., Vonk, W., Schriefers, H., & Chwilla, D. J. (2007). Discourse, syntax, and prosody: The brain reveals an immediate interaction. *Journal of Cognitive Neuroscience*, 19(9), 1421-1434. doi:10.1162/jocn.2007.19.9.1421.

Speech is structured into parts by syntactic and prosodic breaks. In locally syntactic ambiguous sentences, the detection of a syntactic break necessarily follows detection of a corresponding prosodic break, making an investigation of the immediate interplay of syntactic and prosodic information impossible when studying sentences in isolation. This problem can be solved, however, by embedding sentences in a discourse context that induces the expectation of either the presence or the absence of a syntactic break right at a prosodic break. Event-related potentials (ERPs) were compared to acoustically identical sentences in these different contexts. We found in two experiments that the closure positive shift, an ERP component known to be elicited by prosodic breaks, was reduced in size when a prosodic break was aligned with a syntactic break. These results establish that the brain matches prosodic information against syntactic information immediately.

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