"I deny my expectations. Even so, I predict": Differential electrophysiological effects of concession and result connectives in discourse comprehension

Authors: Alexander, Shetreet, Choi, Xiang, Kuperberg

We used event-related potentials (ERPs) to compare comprehenders’ use of two types of discourse connectives to predict upcoming events: “Therefore”, which tells comprehenders to expect a specific causal relationship (Result), and “Even so”, which tells comprehenders to deny expectations about any type of real-world relationship (Concession). Participants read two-sentence contexts followed by a third sentence, presented word by word, beginning with “Therefore” or “Even so”. ERPs were measured on critical words that rendered scenarios coherent or incoherent (“She took the test and aced/failed it… Therefore/Even so, she CELEBRATED…”). The N400 was reduced on coherent (versus incoherent) critical words following “Even so”, but not following “Therefore”. A posteriorly distributed late positivity was enhanced on incoherent (versus coherent) critical words, regardless of the preceding connective. These findings suggest that, while both connectives influenced online neural processing, “Even so” led comprehenders to generate stronger predictions about upcoming events than “Therefore”.