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Title:

Resolving word order ambiguities in Basque: event-related brain potentials evidence

Abstract:

In this pioneering research using neuroimage in Basque (pre-indoeuropean, head-final language), we show that the processing of non-canonical word order (object-first sentences) supposes an additional cost in the working memory for the parser. Additionally, this research shows that the semantic disambiguation of temporally ambiguous sentences generates a semantic component (N400). Linguistic analyses argue that the object-subject-verb order contains a displaced object. In our research we provide electrophysiological and reading times evidence supporting theoretical proposals in linguistics. Those proposals argue that sentences containing displaced elements are syntactically more complex, and hence, they have a higher processing cost. As reading times show, visually presented non-canonical object-first sentences require more time to be processed than canonical subject-first, and the former are harder to comprehend. The ERPs show that visually presented displaced objects require more activation of working memory (LAN), and a higher cost of integration in the position of the subcategorizer verb (P600).

Keywords:

Higher Mental Processes

Language Perception

Working Memory

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Presentation:

I prefer to give an oral presentation, but I am willing to give a poster presentation if necessary