Differences in the Processing of Sentences with Lexical Ambiguity and Structural Ambiguity: An Experimental Study

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Abstract : This paper is based on assumptions of psycholinguistics and investigates the processing of ambiguous sentences in Brazilian Portuguese. Specifically, it aims to verify if there is a difference in processing time between sentences with lexical ambiguity and sentences with structural (or syntactic) ambiguity. We hypothesize, based on the Garden Path Theory, that the two types of ambiguity entail different cognitive efforts, since sentences with structural ambiguity require that two structures be processed, whereas ambiguous phrases whose root of ambiguity is in a word require the processing of a single structure, which admits a variation of punctual meaning, within the scope of only one lexical item. In order to test this hypothesis, 25 undergraduate students, whose average age was 27.66 years, native speakers of Brazilian Portuguese, performed a self-monitoring reading task of ambiguous sentences, which had lexical and structural ambiguity. The results suggest that unambiguous sentence processing is faster than ambiguous sentence processing, whether it has lexical or structural ambiguity. In addition, participants presented a mean reading time greater for sentences with syntactic ambiguity than for sentences with lexical ambiguity, evidencing a greater cognitive effort in sentence processing with structural ambiguity.

Keywords: Brazilian portuguese, lexical ambiguity, sentence processing, syntactic ambiguity

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