

**SEMANTICS OVER SYNTAX—AMBIGUITY AS A  
PSYCHOLINGUISTIC NON-PROBLEM**

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Much of the research in the psycholinguistic investigation of ambiguity argues that ambiguous sentences are processed differently than more typical sentences. Also, much of the research used sentences in isolation or with a brief context. But in normal discourse, context is of an extended macrothematic type. We changed two classic experiments of ambiguity by adding context which had a general framework that established semantic constraints within which a given syntactic structure and ambiguity was to be processed. The processing of ambiguous sentences tended not to be different than the processing of normal sentences. This paper summarizes the results of two studies that examined the effects of semantic context on the eradication of multiple meanings when processing ambiguous sentences within a thematic whole including the possibility that the multiple meanings are processed unconsciously.

Support for the notion that more than one meaning of an ambiguous sentence is processed has come mainly from studies which have presented the sentences in isolation in the tradition of treating the sentence as the unit of language. This tradition tended not to appreciate that normal discourse involves inferences from verbal and nonverbal context as well as one's past experience. Most of the experiments that did use context did not have an extended context but instead had a brief prior context of a sentence or even simply previous words within the ambiguous sentence. Semantic constraints play an important role in providing an overall structure in which sentence processing occurs in typical discourse. We supplied such semantic constraints by providing a thematic context wherein ambiguous sentences occurred with the expectation that only a single meaning of the ambiguous sentence would be processed and, therefore, the ambiguous sentence would not be truly ambiguous to the processor.

The procedure in both experiments was to auditorily present ambiguous sentences preceded by a thematic context. The first experiment used a dichotic listening task in order to detect whether more than one meaning was being processed unconsciously and the second experiment used a phoneme monitoring task. Both examined the possibility of the unconscious processing of more than one meaning.

The dichotic listening task was devised by Lackner and Garrett (1972) who used it in a classic study of the processing of multiple meanings of ambiguous sentences presented without context. Ambiguous sentences were presented to one ear and disambiguating sentences to the other unattended ear. The disambiguating sentences were of two types, one disambiguated a particular meaning of the ambiguous sentence and the other disambiguated the other meaning of the same ambiguous sentence. Most of the time the subjects reported a

meaning of the sentence that was consistent with the disambiguating sentence thereby supporting the notion that both meanings were available when the ambiguous sentence was being processed. In our experiment each of the ambiguous sentences was preceded by a thematic context that biased one meaning of the ambiguous sentence. The sentences were either lexically or structurally ambiguous of the surface and underlying types. One-half of contexts biased a meaning consistent with disambiguating sentence and the other half biased a meaning which was inconsistent with the meaning of the disambiguating sentence. Generally, the subjects perceived the meanings that were consistent with the context rather than those that were consistent with the disambiguating sentence. It is apparent that the context provided semantic constraints that permitted only one meaning of the sentence to be processed so much as to eliminate the effects of the disambiguating sentence. The effects of the context was same for both lexical and structural ambiguities.

Another classic experiment that supported a multiple meaning interpretation of ambiguity processing was that of Foss (1970) (extended by Foss and Jenkins, 1973), who used a phoneme monitoring technique. Typically, the reaction times to monitored phonemes was longer when the phoneme followed a lexically ambiguous word than when it followed an unambiguous control word. The effect still occurred when the ambiguous word was preceded by a biasing context within the same sentence (Foss and Jenkins, 1973).

As with the dichotic listening study we expected that semantic constraints provided by a thematic context would prevent more than one meaning to be processed. Subjects were given structurally ambiguous sentences to monitor for a phoneme which occurred following the ambiguity, and they were also given unambiguous control sentences similar to the ambiguous sentences and monitored for the same phoneme occurring in the same position. Some of the sentences were preceded by a thematic context and some were not. Generally, the reaction times to the phonemes in ambiguous sentences were longer than in unambiguous sentences. However, these differences were not significant when the sentences were preceded by the contexts. The results of Foss (1970) were replicated for one of the no-context conditions where the reaction times were significantly longer in the ambiguous sentences than in the unambiguous sentence, but were not replicated in the other non-context condition. To summarize, we found that when ambiguous sentences were preceded by a thematic context, it did not take significantly longer to react to a critical phoneme than when the sentences were unambiguous.

Both of the experiments provide support for the single reading hypothesis of processing ambiguity in ordinary discourse when the ambiguity does not occur in isolation but occurs within a semantically constraining context. The dichotic listening study does not imply that the single meaning is selected prior to or post to the ambiguity. However, the phoneme monitoring study supports the notion that the single meaning is selected prior to the ambiguity.

## REFERENCES

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## ENDNOTES

- <sup>1</sup>An extended version of this article will appear in the *Journal of Pragmatics*.

