

**Contextual effects on figurative language processing: Activation vs. suppression**

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Early psycholinguistic studies initially showed that processing figurative language takes longer than literal speech. Recent research has shown that this may be due to limitations of standard reaction time methodology, such as speed accuracy trade-off issues [3]. More importantly, including strong contextual manipulations also diminishes processing differences between literal and figurative meanings. However, the lack of reaction time differences in rich contexts supplies little direct evidence about how context alters the psychological mechanisms involved in figurative language comprehension.

In this paper, we test between two accounts of metaphor processing using a novel metaphor interference paradigm using mouse-tracking to better understand how context modulates how and when salient features of a concept are used in online-processing. Active suppression accounts hold that listeners first access the most salient or probable feature of a concept regardless of the context, and if the figurative meaning is not the most salient, then listeners must suppress this feature and retrieve a less salient feature to understand the metaphor [2][4]. Another account suggests that context can have a more direct effect on the salience of a feature and effectively eliminates the stage of processing where features must be evaluated in the order of "resting" salience [1]. In three mouse-tracking experiments, we examine how context affects the availability of low vs. high salience features during online metaphor processing.

A metaphor interference paradigm was created, in which participants read sentences such as "the goalie is a spider" and had to click on the picture that best corresponds to the figurative state of the metaphorical topic, e.g. a diving goalie. In the first experiment, listeners either read sentences with a non-sense competitor (an apple) or a literal meaning competitor (a spider) in the opposing corner of the screen as the target. In a second experiment, listeners first saw pictures that either had a feature of the topic that was relevant for the metaphor (a spider web) or an irrelevant one (spider fangs). This allowed us to separate features for a given metaphorical vehicle in terms of salience and relevance. Participants then went through the same procedure as Experiment 1 with 4 different types of competitors. The active suppression account predicts that low salience relevant features should interfere during later processing in both zero-context and full context conditions. The direct access view, however, predicts that low salience relevant features should interfere during later processing in zero-context, however during early processing the full context condition.

Results from the first experiment show a clear interference effect of literal meaning pictures. Results from the second experiment found that high salience features for the vehicle that were not relevant for understanding the metaphor interfered earlier on in processing, whereas low salience features that were relevant for the metaphor interfered later in processing. This is evidence for the active suppression account, however a third experiment is now being conducted to test whether this affect occurs in richer contexts. If context diminishes the interference effect found in Experiment 2, then this would support the direct access view.

**References**

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