

# The Memory Retrieval Process in Reflexive-antecedent Dependency Resolution: Interference Type and Distractor Prominence



**A TALK BY ZHONG CHEN  
ROCHESTER INSTITUTE  
OF TECHNOLOGY**

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A central question in human sentence comprehension is: how are linguistic relations formed between non-adjacent words? Researchers have argued that the dependency resolution relies on a cue-based retrieval mechanism defined in the general cognitive architecture ACT-R (Anderson & Lebiere, 1998). The assumption is that retrieval cues, such as gender, number and animacy, allow the human parser to seek out relevant items in memory.

In this talk, I present empirical evidence that supports the cue-based retrieval idea. It shows processing slowdowns at reflexives due to the presence of a cue-matching distractor. This kind of interference effect is even possible when the distractor locates at a structure-inaccessible position subject to Binding Principle A (Chomsky, 1981). I also discuss factors that could play a role in this memory retrieval process, such as distractor recency and prominence. Experimental observations are consistent with predictions made by a computational model of language processing (Engelmann et al, submitted) and a Bayesian random-effects meta-analysis (Jäger et al, submitted).

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