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Authors
Isono, Shinnosuke
Hirose, Yuki

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Unaccusativity, expectation, and reactivation of the subject in sentence comprehension

Shinnosuke Isono
University of Tokyo, Meguro-ku, Tokyo, Japan

Yuki Hirose
University of Tokyo, Tokyo, Japan

Abstract

Psycholinguistic studies have shown that human sentence comprehension is predictive. The current study investigates if this is also the case in the realm of argument structure. Previous studies using the cross-modal priming (CMP) paradigm show that whether and when the subject is reactivated after the encounter with the verb depends on the type of the verb (unaccusative vs. unergative). We hypothesized that this is because the human parser predicts the verb type in advance. To test this hypothesis, we conducted a CMP experiment in Japanese, a verb-final language, and manipulated the parser's prediction by changing the bias on the verb type in the experimental stimuli. As expected, there was a significant interaction between the reactivation pattern and the bias. This suggests that the human parser makes an early prediction of the argument structure before the verb is revealed, and that prediction is quickly adapted to the current environment.