The Immediate Effect of Pragmatic Plausibility in Reanalysis: Evidence from Event-related Brain Potentials

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Previous studies on reanalysis in sentence processing have shown that the processing load of reanalysis increases in proportion to the difficulty in revising the existing structure. The present study, on the other hand, argues that the processing load of reanalysis also increases when the pragmatic plausibility of the interpretation of the revised structure turns out to be pragmatically less plausible. This paper reports the results of two experiments: The results of Experiment 1 (a self-paced reading study) indicate that the pragmatically less plausible interpretation of the revised structure immediately affects the processing load of the reanalysis. Experiment 2 further addresses the issue of the immediate impact of the effect of the pragmatic plausibility by recording event-related brain potentials (ERPs). The results revealed that a large N400 effect was observed at the pragmatically less plausible words, while the response to the effect of the structural revision resulted in a P600 effect. Furthermore, we found the nearly perfect linear summation between the N400 and P600 effects, suggesting that the difficulty in the pragmatic integration process did not affect the difficulty in the structural revision process. In addition, we found that the onset of the P600 effect reflecting the cost of revising the existing structure was relatively earlier than that of the N400 effect reflecting the pragmatic implausibility. The present study provides us with some implications for a theory of reanalysis and consideration of the time course of reanalysis.

On-line Processing of Floating Quantifier Constructions in Japanese: Using Event-related Brain Potentials

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This study investigates when and how the association process between two syntactic elements are performed in on-line sentence processing. The results of our ERP experiment suggest that the language processor adopts a two-stage processing style. First, when the language processor encounters an element requiring association with another element, it holds it in working memory until the appropriate candidate for the association appears. Then, the language processor associates the candidate for association with the element which had been stored in working memory.

Lack of Implicit Prosody Effects in Deaf Readers of Japanese

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Prosodic contours have been claimed to be implicitly imposed on sentences read in silence, thereby affecting the interpretation of ambiguous constructions (the implicit prosody hypothesis, Fodor 2002). Some of the strongest evidence supporting this hypothesis manipulated the prosodic length of segments (Hirose 2003). However, such manipulations also increase the number of characters in the critical words, thus the results may not reflect the influence of prosodic factors but rather how perceptual mechanisms and working memory handle written words with larger numbers of characters. If so, such results should be replicable with readers who have low ability in handling prosodic information. We report experimental results suggesting that deaf readers are not sensitive to Hirose's length manipulations. Therefore, the manipulations are likely to be related to prosodic contours rather than some other type of length measurement.

A Semantic and Pragmatic Account of the *-te-ar* Construction in Japanese

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This study examines the conditions governing the distribution of the nominative-marked argument and the verb in the resultative *-te-ar* construction (e.g. *E ga kake-te-ar-u* 'A picture has been hung (there)'). Much attention has been paid to agency and its associated character to elucidate the nature of this construction (e.g. Matsumoto 1990). The current analysis argues for a need to consider both semantic and pragmatic conditions. On the basis of Van Valin and LaPolla (1997), this study offers a lexical decompositional analysis of the verbs that can enter into the *-te-ar* construction. It argues that the construction requires the verb to possess an activity and a change-of-state component in its logical structure (LS), corroborating and expanding on Hasegawa (1996). The notion of coercion is drawn upon to explain why a verb that lacks the change-of-state component in its LS can be combined with *-te-ar* in some contexts. Further, the notion of objectivity (Kuno 1972) is drawn upon to account for infelicities arising when the sentence functions as presentational.