

An Event-Related Potential Study on Conceptual Metaphors in Mandarin Chinese

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This study aims to examine how people process conceptual metaphors at different levels of novelty: conventional metaphors, novel metaphors and anomalous metaphors. Conventional metaphors are the target-source pairings using the existing conceptual mappings; novel metaphors, on the other hand, are those using the novel conceptual mappings; anomalous metaphors are those using the non-existing conceptual mappings. We would like to know whether the underlying conceptual mappings affect the processing of conceptual metaphors and whether anomalous metaphors are processed differently from novel metaphors when the two metaphor conditions are controlled for the same semantic relatedness between source and target domains. We expect anomalous metaphor sentences elicit larger N400 components than novel metaphors. In addition, conventional metaphor sentences will elicit the smallest N400 components among the three metaphor sentence conditions. Twenty-four undergraduate participants were instructed to read each metaphor sentence word by word visually and the N400 components of the metaphors were measured. The results show that the mean N400 components of anomalous metaphors are larger than novel metaphors even though there is no significant difference between the two metaphor conditions. In addition, the mean N400 components of conventional metaphors are smaller than the novel or anomalous metaphors even though the difference does not reach a significant level. We will discuss how the results of this study suggest the possible metaphor processing models and reconsider the question of what factors make metaphors “novel” from the linguistic and processing perspectives.