# **UC Merced**

**Proceedings of the Annual Meeting of the Cognitive Science Society** 

## Title

Verbs of Explanandum seem Crucial in Evaluating Explanations

#### Permalink

https://escholarship.org/uc/item/6010t6qj

### Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 38(0)

#### Authors

Yoo, Kwanghyeon Do, Kyung Soo

### **Publication Date**

2016

Peer reviewed

#### Verbs of Explanandum seem Crucial in Evaluating Explanations

#### Kwanghyeon Yoo

Sungkyunkwan University

#### **Kyung Soo Do**

Sungkyunkwan University

**Abstract:** Many previous studies have assumed that the domain of the explanandum determines which type of explanation, mechanistic or teleological, people prefer (domain theory). In this study, I proposed that the explanandum's thematic relation, which is mostly determined by the predicate, i.e., action verb or state verb, is crucial for the explanation type preference (thematic relation theory). To compare the two theories, participants were asked to read a sentence describing the explanandum, and then judge the appropriateness of two explanations for the explanandum, mechanistic and teleological, one after the other. Order of the two explanations were counterbalanced over participants. The domain and thematic relations were manipulated by varying the subject and the predicate of the explanandum. Mechanistic explanations were preferred when the predicate was a state verb, whereas teleological explanations were preferred for an action verb. Results of the experiment gave support for the thematic relation theory.