Is the OR-structure a Default Model in Inferring Causal Structure?

Kyung Soo Do
Sungkyunkwan univ.

JaeHyuk Choi
Sungkyunkwan univ.

Han Eol Choi
Sungkyunkwan univ.

Abstract: Two experiments were conducted to explore whether the OR structure works as a default causal model in inferring the causal structure from the contingency data. The contingencies of three unfamiliar variables were used in Experiment 1. Participants almost perfectly inferred the OR structure from the OR data, but incorrectly inferred the OR structure from the AND data for about a little less than half of the time, and almost always inferred the OR structure from the chain data. The result suggested that the OR interpretation can be the default causal model. The prevalence of the OR interpretation from the contingency data was reported even when the three variables were familiar ones in Experiment 2. Multinomial modeling performed on the results of the two experiments strongly suggested that the OR interpretation work as a default causal model.