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Authors

Fukuoka, Misa

Miwa, Kazuhisa

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Experimental Investigation on Top-down and Bottom-up Processing in Comprehension of Graphs to Justify Decisions

Misa Fukuoka

Nagoya University, Nagoya Aichi, Japan

Kazuhisa Miwa

Nagoya University, Nagoya-shi, Aichi-ken, Japan

Abstract

Authors (2017) examined decision-making processes together with graph comprehension and in particular the influence of bottom-up and top-down processing on them. Using an altered procedure, this study examined bottom-up and top-down processing relative to graph comprehension where a decision is made first, followed by graph comprehension. We compared the results of the two studies. Some of the results observed in the previous study were not observed in this study, suggesting that the influence of impressions provisionally formed on graph comprehension was mitigated to justify the declared decision in advance. Attitudes that individuals have in a daily life were observed to have an influence in the decision in both the previous and current studies, showing that it strongly influences decision making regardless of the degree to which the graph is comprehended.