

The Role of Task Characteristics and Individual Differences in Pointing to Unseen Locations

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Abstract

Pointing tasks have been used for decades to investigate peoples understanding of environmental-scale spaces. Most of this research has used the variability of pointing estimates to provide insights into peoples cognitive maps. In pointing experiments, experimenters need to identify a signal within the trial-by-trial and participant-by-participant variability. However, it is not well understood how characteristics of the task and differences between individuals contribute to pointing variability. In this paper, I investigated characteristics of pointing tasks and individual differences (i.e., gender, sense-of-direction, familiarity, and strategy use) to provide insights into the factors that influence pointing accuracy and its variability. Using the findings of this study, I make recommendations for best-practices in pointing task methods and analyses.