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Knowledge partitioning in forecasting

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Abstract: In this study, we would like to examine whether the learned forecasting function can be separated for use by context. The participants were asked to learn to forecast the position of a target, defined as a sine function of trial number. A context cue was paired with the moving of the target systematically and randomly in two conditions. The learning performance was quite good in both conditions. In the transfer phases, in the systematic-context condition, some participants learned to rely on context to direct their prediction (i.e., knowledge partitioning), whereas some others and those in the randomized-context condition learned to rely on the concept about the function for forecasting. However, contrary to the precedent knowledge partitioning studies, the variety of using context or not was found within participants across transfer phases. The modeling results favored the associative account over the rule account on accommodating the training and transfer response patterns.