

Time reproduction task and different methods of reproduction

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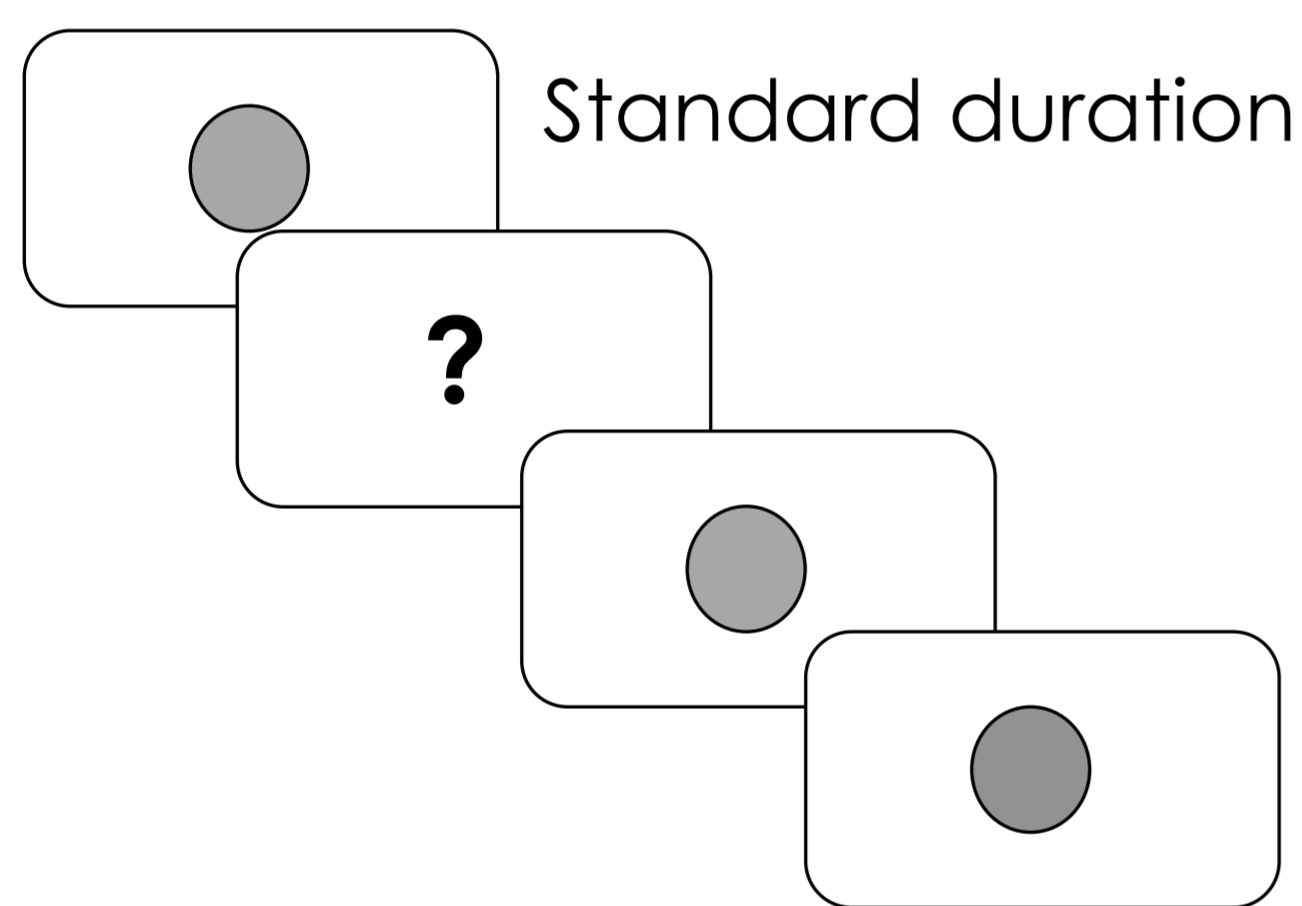
INTRODUCTION

Time reproduction is one of the most used methods in temporal judgments. Participants first perceive the sample duration and then are required to reproduce the duration of the stimulus previously presented. In particular are asked to produce a motor action (press a button) when the same duration has elapsed (Block, 1990). Variation at the level of internal clock or short-term memory variations have been found to be the major source of variance in time reproduction task (Grondin, 2010). However, preparing and executing a motor action take time and planning the execution of an action required cognitive resources. In this study we compared three different methods of reproducing the interval often employed in time reproduction task: (1) press at the end of the reproduction; (2) press to start and to stop the reproduction; and (3) keep pressing to reproduce the duration.

Time reproduction methods

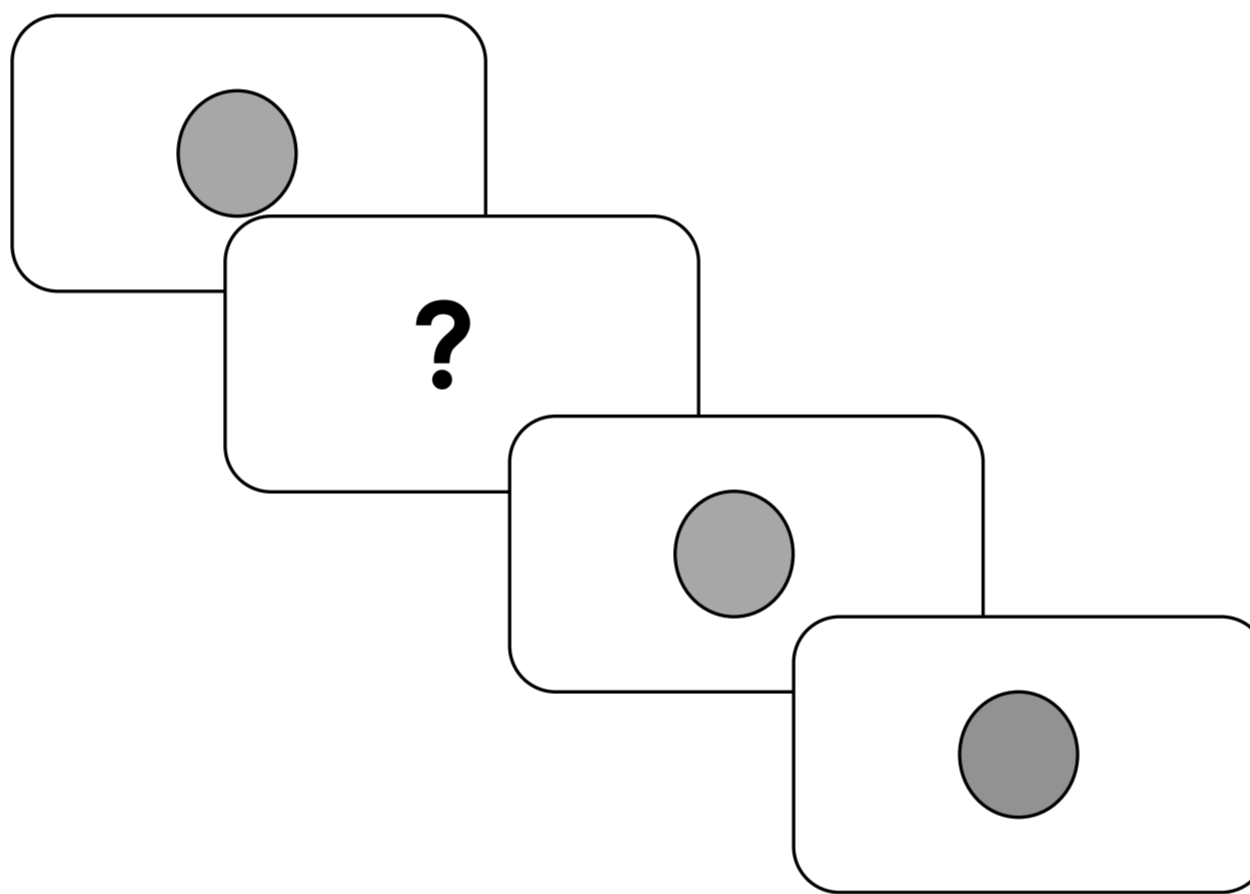
Method 1

Press to stop the reproduction



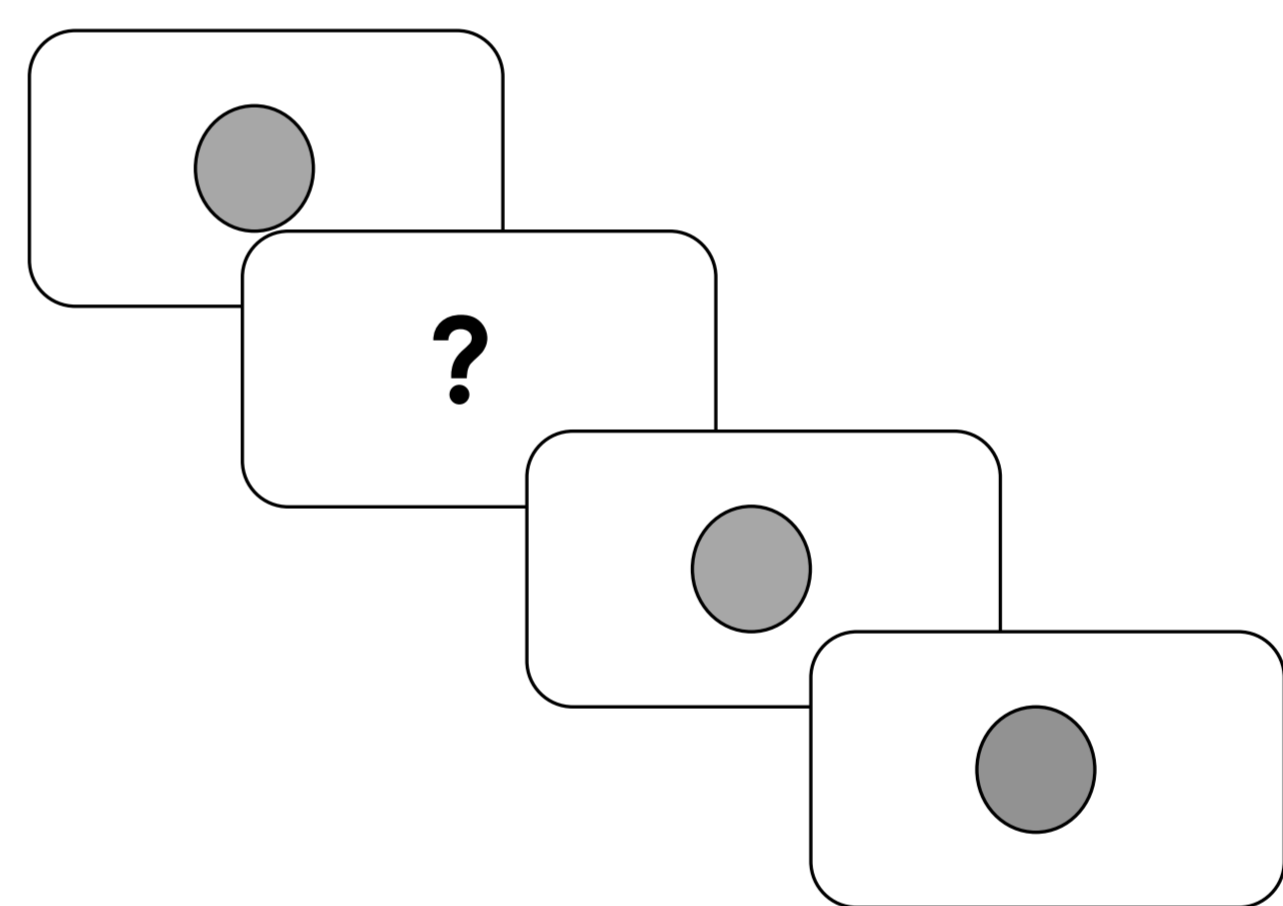
Method 1

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RESULTS

CONCLUSIONS

Reference memory is built on basis of the experiment structure. When standard duration varies across trials, reference memory is likely the mean of all presented standard durations. When standard duration is fixed within block, reference memory likely approaches the standard duration. Interestingly, these patterns of results are more evident for durations below 1 s.