

Attentional episodes in visual perception

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Supplemental Material

There is an ongoing debate about the importance of conditional accuracy measures when studying the so called “spreading of sparing” effect that occurs when multiple targets are presented in sequence (Dell Acqua et al. 2009, Olivers et al. in press). Presented below are conditional analyses from experiments 1 2 and 3. Each figure compares the raw accuracy scores to accuracy scores contingent on T1 having been successfully reported. Simulations are presented alongside the model.

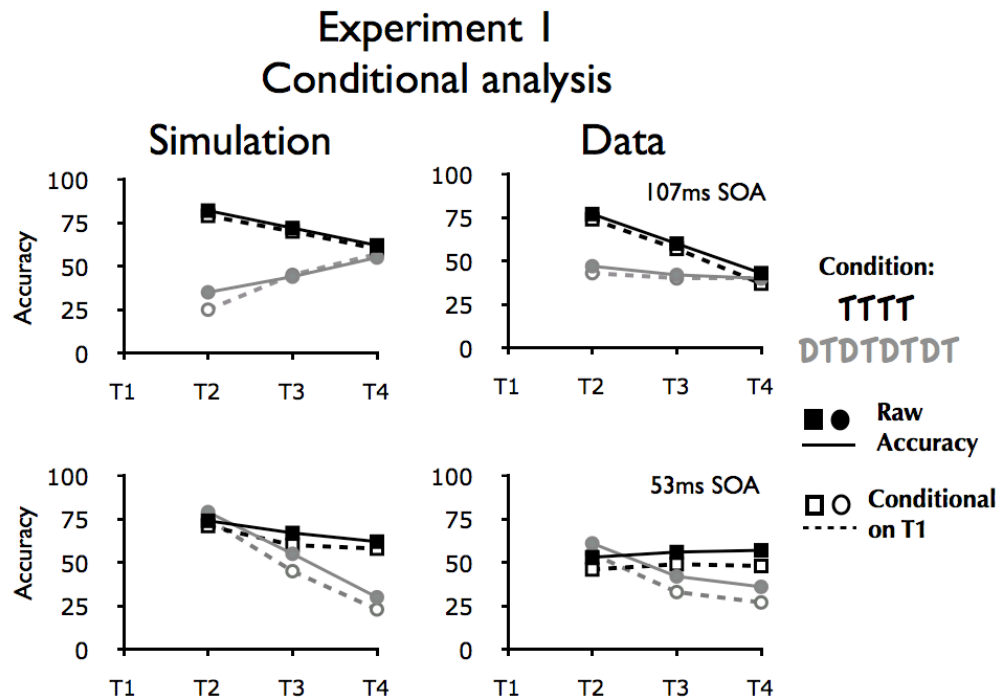


Figure S1. Shown are the conditionalized accuracy scores for T2, T3 and T4 on those trials for which T1 was correctly reported in Experiment 1. These are plotted against the raw accuracy scores for the same targets to illustrate that, while accuracy is slightly reduced in the conditionalized analysis, the overall pattern is very similar to the raw data.

Experiment 2 Conditional analysis

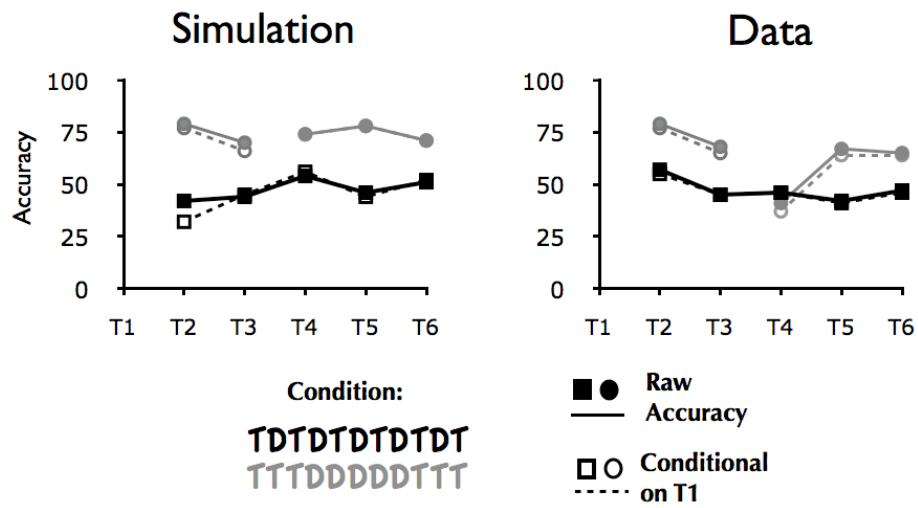


Figure S2. Shown are the conditionalized accuracy scores for T2 -T6 on those trials for which T1 was correctly reported in Experiment 2 against raw accuracy scores. The conditional data point for some of the targets lies underneath their corresponding raw accuracy data point.

Experiment 3

Conditional analysis

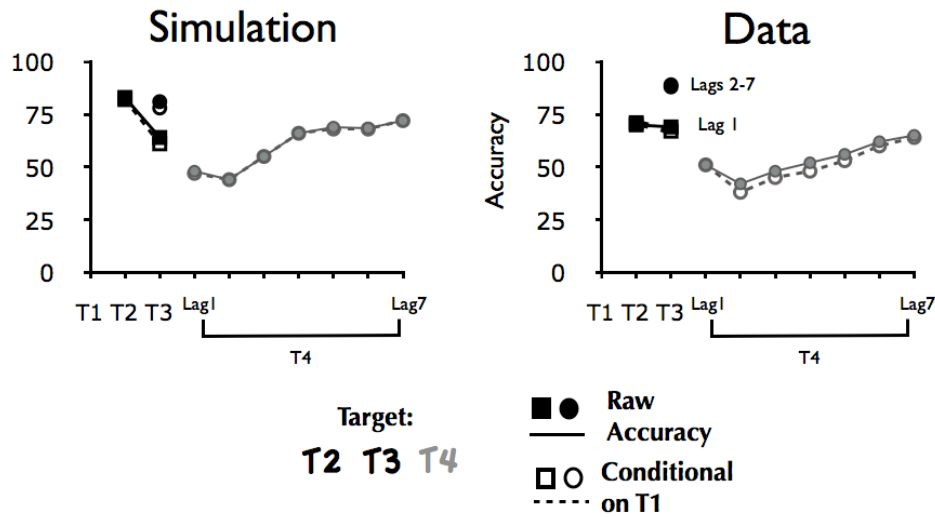


Figure S3. Shown are the conditionalized accuracy scores for T2, T3 and T4 on those trials for which T1 was correctly reported in Experiment 3 against raw accuracy scores. The conditional data point for some of the targets lies underneath the corresponding raw accuracy data point.

The model exhibits a conditional effect by virtue of the fact that encoding the T1, which lasts for several hundred milliseconds, produces an ongoing suppression of attention as well as weak inhibitory competition.

Analyses that were conditional on $T1 \wedge T2$, as in Dell Acqua et al. (2009), Olivers et al. (in press) produce very similar results, showing the same pattern across conditions and targets, but with accuracy reduced by several percent across all target positions.