

Supplementary Materials: The effect of background clutter on visual search in video conferencing

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We provide the results of additional eye movement data analysis below.

Fixation durations

We computed the average fixation duration in each display and tested whether the fixation durations were related to display clutter. Fixation durations were significantly correlated with the amount of clutter in both Experiment 1, $r(1342) = 0.14, p < 0.001$, and Experiment 2, $r(1341) = 0.29, p < 0.001$, suggesting that the fixation durations increased as the amount of clutter increased.

Saccade amplitude

We computed the saccade amplitudes by calculating the Euclidean distance between two consecutive fixation locations of observers. In Experiment 1, there was a positive correlation between saccade amplitude and the amount of clutter, $r(1342) = 0.14, p < 0.001$. In Experiment 2, saccade amplitude was not correlated with clutter ($p > 0.05$).

First fixation duration

At the start of each trial, observers were asked to fixate at the center of the screen and allowed to make eye movements after the trial was initiated with a key press and the stimulus display was shown. The time observers took to initiate the first saccade was recorded as the first fixation duration. We analyzed the relationship between the first fixation duration and the display clutter. The first fixation duration increased with the amount of display clutter in both Experiment 1, $r(1342) = 0.25, p < 0.001$, and in Experiment 2, $r(1341) = 0.28, p < 0.001$.