These equations determine the number of samples needed to find n targets. RT predictions were generated by multiplying by a rate parameter and adding an intercept. RMS error to individual observer data was minimized. With unique targets, you can remember names (0 found = 0). With identical targets you must remember spatial location (“There was a target in the upper left”). While verbal or visual memory loads do not slow search rate (Woodman, Vogel, & Luck, 2001), spatial memory loads do (Oh & Kim, 2002).

We replicated Takeda’s experiment with his stimuli and then with ours:

**Testable Hypothesis 1**: Search rate will be slower for tasks where observers must use spatial memory to keep track of targets.

**Testable Hypothesis 2**: Use of spatial memory for targets will increase the estimated memory capacity in a visual search task.

**Experiment 1: Takeda replication**

Task: are there at least n targets (Os)? takeda stimuli with Takeda design

**Experiment 2: Horowitz & Wolfe stimuli with Takeda design**

Task: are there at least n targets (digits)? Stimuli were larger.

We theorized that:
1. Spatial memory for targets can add to the apparent memory capacity of visual search.
2. Spatial memory comes with an RT cost (More memory leads to slower search rate).

Therefore:
1) Spatial memory for targets can add to the apparent memory capacity of visual search.
2) But spatial memory for targets slows search.
3) Hypothesis 2 confirmed: Estimated limited memory capacity was higher in Experiment 1, perhaps reflecting the contribution of spatial memory for targets.

The critical difference might be the nature of memory for targets, not for rejected distractors.

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