REMEMBERING COMPLEX OBJECTS IN
VISUAL WORKING MEMORY

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ABSTRACT

Visual working memory stores stimuli from our environment as representations that can be accessed by high-level control processes. This study addresses a longstanding debate in the literature about whether storage limits in visual working memory include a limit to the complexity of discrete items. We examined the issue with a number of change-detection experiments that used complex stimuli which possessed multiple features per stimulus item. Some past research that used the same methodology as our experiments found that detection of changes in stimuli was unaffected by how many features of the items participants were required to remember (Luck and Vogel, 1997). However, in none of our eight experiments were we able to replicate that result and instead found that participants were less able to detect changes when they were required to remember more features of the items. We were unable to support the notion that items with multiple relevant features can be processed by visual working memory without loss.