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Great Expectations: Evaluating the Role of Object-Color Expectations on Visual Memory

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Abstract

Previous research has shown that category expectations can improve recall, by reducing absolute average error (e.g. Huttenlocher, et.al., 1991; Hemmer & Steyvers, 2009), particularly when expectations are consistent with studied information. However, studied information that is expectation-inconsistent may also boost memory (e.g. Sakamoto & Love, 2004). Using a cued-recall task, we manipulated the degree to which studied object-color pairs aligned with peoples (N=29) expectations to explore the role of expectations in delayed recall. Our preliminary results show greater recall accuracy for expectation-consistent items (e.g. yellow bananas) compared to expectation-inconsistent (purple bananas), and no-expectation items (yellow toothbrushes). However, there was no difference in accuracy between expectation-inconsistent and no-expectation items, nor was there a difference between weak and strong expectation-inconsistent items (orangish-yellow and purple bananas, respectively). This preliminary work shows that in delayed recall, the benefit of category expectations might not extend to instances when studied information is misaligned with those expectations.

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