

New Research From Psychological Science

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Read about the latest research published in *Psychological Science*:

[Lexical Acquisition Through Category Matching: 12-Month-Old Infants Associate Words to Visual Categories](#)

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How do infants learn what objects and words belong to different categories before mastering language? Pomiechowska and Gliga familiarized 12-month-olds with objects from two novel categories (coffee makers and staplers) in a way that fostered category learning (i.e., blocked by category) or in a way that did not foster category learning (i.e., randomly). Then, they showed infants an exemplar of the category with a verbal label (e.g., “This is a *toma*.”). In the test phase, infants’ gaze was measured by an eye tracker while they were presented with two never-seen objects, one from each category, and were prompted to look at one of them (e.g., “Look at the *toma*.”). Infants looked at the correct object when they had learned the category but not when they had randomly seen members of the two categories. When infants were not exposed to the category name (in this example, *toma*) and were presented during the test with an object from one of the old categories and an object from a new category (garlic press), infants who learned the old categories gazed more at the new-category object, indicating new-category learning. Moreover, when infants were not familiarized with the categories, they did not exhibit the ability to extend labels to new objects but were able to recognize old objects as part of the category. Taken together, these results indicate that infants are able to use preverbal category knowledge to discover word meanings. Thus, individual differences in category learning may be a source of differences in the rate of language acquisition (e.g., poor category learning in autism may explain slower vocabulary growth).

[Working Memory Has Better Fidelity Than Long-Term Memory: The Fidelity Constraint Is Not a General Property of Memory After All](#)



Although it is undeniable that memory for details changes with the passage of time, there is disagreement over whether these changes are different in working memory (WM) and long-term memory (LTM). To examine declines in the level of information, or fidelity, in WM versus LTM, the authors showed participants images of everyday objects in different colors, and tested their memory for those objects either immediately after the presentation of each object (WM test) or after the presentation of all the objects (LTM test). In the tests, participants looked at an object in gray scale and indicated whether they had seen it before and in which color. Overall, participants had better color memory, showing higher fidelity, in the WM test than in the LTM test. However, color memory got worse as participants did more memory trials and when they had to study more objects, suggesting that memory fidelity decreases because of mechanisms that occur over time, such as interference, but not necessarily because of the passage of time itself. The results indicate that WM and LTM are separate memory systems that do not share the same constraints of fidelity.