Incomplete sampling leads to broader category generalizations in preschoolers

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Abstract: Recent research demonstrates young children are particularly sensitive to how samples are generated (Xu & Tenenbaum, 2007). For example, children readily adjust their inferences in response to violations of intentional sampling (e.g., naïve and accidental sampling). However, even well-reasoned intentional sampling processes can be perturbed by external contextual factors, such as an interruption resulting in incomplete sampling. Here we explore how an interruption to intentional sampling affects preschoolers' category learning and generalizations. In Study 1, children observed sampled evidence about a simple unstructured category. Study 2 placed added inferential demands on children through use of a more complex similarity-based category structure and abstracting the sampling process. In both studies, interrupted sampling led to broader generalization than completed sampling given equivalent evidence. The findings contribute to a growing body of literature demonstrating children's sensitivity to the pragmatics of sampling contexts in inductive inference.