Large differences in the distribution of instances of common object-based categories in early childhood

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Abstract: Few studies have documented the examples of common early-learned object-based categories children actually encounter. This study asked parents (N = 10) to record, using a digital camera, the concrete instances their children saw (M = 16 mo). For five days, if an object was labeled with one of the nouns inside a pre-determined list of eight nouns, parents were to take a photo–our final dataset consisted of 700 photos. We coded the contents of each photo as: 3D real object, 3D realistic toy, 3D simple shape toy, 2D realistic object, and 2D simple shape.

Our results show large differences between categories in terms of type of exemplars: mostly composed of 3D real objects, with a mixture of 3D and 2D variability, or only experienced as 2D images.

These results are relevant to theories of visual object categorization–e.g. in understanding viewpoint invariance, or perception of abstract structural shape.