

Non-technical summary of: Cheung, R.W., Hartley, C., Monaghan, P. (2019) Environmental effects on parental gesture and infant word learning. In A.K. Goel, C.M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society*, 212-218.

Summary of content:

One of the issues surrounding how children learn language is how they learn a particular word and object belong together. For example, when a child sees an apple for the first time, and hears the word 'apple', how do they know the word refers to the fruit, and not the bowl it sits in, a part of the apple, or perhaps even the colour? Children manage to pick up language in very complicated environments with lots of different sources of information (e.g. a preschool classroom full of toys, wall hangings, people, other children, etc.), and they do this very quickly. This process seems to depend upon how children as 'learners' use the information available to them, and how parents as 'teachers' package that information for them.

In this paper, we considered how parents might change their behaviour when teaching their child new words by asking them to teach their child a new word when there was one, two, or six possible objects for that word. In particular, we looked at how parents might use gestures such as pointing differently. We then looked at how well children learnt these words after their parents had taught them. Surprisingly, children did best when there were two possible objects - even more so than when there was just one. When teaching, parents also gave the most information to their children when there were two objects, compared to when there was either one or several. This paper considers whether having some sort of comparison is useful for learning, how parents will help their children learn by using gestures to make sense of this comparison, and how learning might be best when there is some variety in the environment.

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