

The road to language learning is iconic

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Languages are highly complex systems and yet most children seem to acquire language easily, even in the absence of formal instruction. New research on young children's use of British Sign Language (BSL) sheds light on one of the mechanisms - *iconicity* - that may endow children with this amazing ability.

For spoken and written <u>language</u>, the arbitrary relationship between a word's form – how it sounds or how it looks on paper – and its meaning is a particularly challenging feature of language acquisition. But one of the first things people notice about sign languages is that signs often represent aspects of meaning in their form. For example, in BSL the sign EAT involves bringing the hand to the mouth just as you would if you were bringing food to the mouth to eat it.

In fact, a high proportion of signs across the world's sign languages are similarly iconic, connecting human experience to linguistic form.

Robin Thompson and colleagues David Vison, Bencie Woll, and Gabriella Vigliocco at the Deafness, Cognition and Language Research Centre (DCAL) at University College London in the United Kingdom wanted to examine whether this kind of iconicity might provide a key to understanding how children come to link words to their meaning.

Their findings are published in <u>Psychological Science</u>, a journal of the Association for Psychological Science.

The researchers looked at data from 31 deaf children who were being



raised in deaf BSL signing families in the United Kingdom. Parents indicated the number of words understood and produced by their children between the ages of 8 and 30 months. The researchers decided to focus on 89 specific signs, examining children's <u>familiarity</u> with the signs as well as the iconicity and complexity of the signs.

The findings reveal that younger (11-20 months) and older (21-30 months) children comprehended and produced more BSL signs that were iconic than those that were less iconic. And the benefit of iconicity seemed to be greater for the older <u>children</u>. Importantly, this relationship did not seem to depend on how familiar, <u>complex</u> or concrete the words were.

Together, these findings suggest that iconicity could play an important role in <u>language acquisition</u>.

Thompson and colleagues hypothesize that iconic links between our perceptual-motor experience of the world and the form of a sign may provide an imitation-based mechanism that supports early sign acquisition. These iconic links highlight motor and perceptual similarity between actions and signs such as DRINK, which is produced by tipping a curved hand to the mouth and represents the action of holding a cup and drinking from it.

The researchers emphasize that these results can also be applied to spoken languages, in which gestures, tone of voice, inflection, and faceto-face communication can help make the link between words and their meanings less arbitrary.

"We suggest that iconicity provides scaffolding – a middle-ground – to bridge the "great divide" between linguistic form and bodily experience for both sign language and spoken language learners," says Thompson.



Provided by Association for Psychological Science

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