

The road to language learning is iconic: evidence from British Sign Language

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Abstract

Languages are highly complex systems that, nonetheless, most children acquire easily and in the absence of formal instructions. The arbitrary link between a word's form and its meaning, generally considered to be a universal feature of language, appears as a particularly challenging feature of acquisition. Arbitrariness means that a child acquiring a language must solve the problem of how to map words, conventionalized symbols that have no meaningful links to the world, onto human experience or meaning. However, iconic (non-arbitrary) mappings between properties of meaning and phonological features of word forms are also widely present across languages, especially signed languages. While recent research has shown a role for sign iconicity in language processing, research on the role of iconicity in sign language development has been mixed.

In the present study we examined the degree to which iconicity plays a role in determining which signs very young children (11-30 months) comprehend and produce. We analysed a large sample of parental reports (from deaf parents only) of deaf children's sign production and comprehension from the British Sign Language (BSL) Communicative Development Inventory (CDI, Woolfe, Herman, Roy, Woll, 2010). The results show that iconicity facilitates sign learning from early development, rendering iconic signs easier to learn. More specifically, iconicity predicts early sign comprehension and production even taking into account familiarity, phonological complexity, imaginability, concreteness, and the type of labels children acquire cross-linguistically (using data from British English CDI, Hamilton et al. 2000).

The iconic links between our perceptual-motor experience of the world and the form of a sign likely provide an imitative mechanism to support early sign acquisition (i.e., highlighting motor and perceptual similarity between actions and signs such as the sign DRINK which is produced by tipping a curved hand to the mouth simulating holding a cup and drinking from it). Importantly, these results from sign language can also be applied to spoken languages, where gestures, tone of voice, inflection, and face-to-face communication can help make the link between words and their meanings less arbitrary. We suggest that despite the traditional focus on arbitrariness in language, iconicity is also a fundamental property of all languages, providing scaffolding (a middle-ground) to bridge the "great divide" between linguistic form and bodily experience for both sign language and spoken language learners.

References

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