Feature-based generalisation in sound pattern learning depends on phonetic motivation

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Abstract

It has been claimed that language learners are better at acquiring phonetically motivated phonological patterns compared to unmotivated patterns; this hypothesis is known as substantively biased phonological learning. We test this hypothesis by exposing French-speaking participants (n=120) to either a vowel harmony pattern (phonetically motivated) or a vowel disharmony pattern (comparable formal complexity but phonetically unmotivated) in an artificial language. Participants were trained with noun roots and a single suffix, but at test were required to add multiple suffixes to roots, including a novel suffix with a vowel unobserved during training. Although participants performed equally well when adding a single suffix, only those in the harmony condition generalized when adding two suffixes (including the held-out suffix). This work expands on previous research by showing feature-based generalization of harmony, but not disharmony, to novel affixes held out from training. It provides strong evidence for the substantively biased phonological learning account.

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