

# The learnability of sign language morphology: an experimental study

**Katie Mudd**

Stony Brook University, Stony Brook, New York, United States

**Neil Fox**

University of Birmingham, Birmingham, United Kingdom

**Kenny Smith**

University of Edinburgh, Edinburgh, United Kingdom

**Adam Schembri**

University of Birmingham, Birmingham, United Kingdom

## Abstract

Linguistic features are adapted to their sociolinguistic ecologies (Lupyan & Dale, 2010). In this way, we posit that the morphological features of sign languages have evolved to be learnable and iconic, as many sign languages have a large proportion of second language learners and delayed first language learners. To test the learnability of sign language morphology, we conceptually replicate Smith (2024), teaching participants (hearing non-signers) British Sign Language (BSL) descriptions (lexical item plus classifier construction depicting the referent and movement) of scenes where animals perform movements. We test how accurately and how quickly participants perform in two conditions: a BSL condition pairing scenes with the BSL descriptions and a counter-iconic condition randomly pairing BSL descriptions to scenes. Following our pre-registered analysis, our pilot study suggests that BSL condition participants perform faster and more accurately than those in the counter-iconic condition. Data collection for our online learning study is underway.