

Iconicity in language processing: What signed languages reveal

Robin L. Thompson

University College London Deafness, Cognition and Language Research Centre Cognitive,
Perceptual and Brain Sciences Research Department

Robert Skinner

University College London Deafness, Cognition and Language Research Centre Cognitive,
Perceptual and Brain Sciences Research Department

David P Vinson

University College London Deafness, Cognition and Language Research Centre Cognitive,
Perceptual and Brain Sciences Research Department

Gabriella Vigliocco

University College London Deafness, Cognition and Language Research Centre Cognitive,
Perceptual and Brain Sciences Research Department

Abstract: The visual/gestural modality of signed languages allows meaningful form/meaning mappings (iconicity) across numerous basic concepts. Some previous studies show that iconicity affects sign language processing. However work to date does not provide a clear answer about the mechanisms driving such an effect. In three experiments we found differential effects of iconicity in British Sign Language such that iconicity facilitates decisions on a meaning-related task (for phonological decisions about features motivated by iconicity), but slows responses when the task is not related to meaning (decisions about unmotivated features for the same signs). Further in a language production task, picture naming is facilitated for iconic signs. The findings suggest that iconic signs activate meaning representations more quickly than non-iconic signs regardless of the task (meaning-based or not) for both comprehension and production, whereby decisions related to that meaning are aided, but decisions not related to the meaning are hindered.