

Title: *Motivation in two-handed signs: A cross-linguistic investigation of word forms*
Language: English

Is the division between one-handed and two-handed signs in a language completely arbitrary, or does iconicity allow us to predict whether certain concepts are likely to foster two-handed expressions? Klima and Bellugi (1979: 21), for example, use TREE in AmericanSL, DanishSL, and ChineseSL to argue that iconicity "does not in any way determine the actual details of the form." However, each of these signs evokes the visual image of a prototypical tree, and though the signs are different, each is two-handed. We propose that iconicity can determine details of form, namely, whether a sign will be two-handed. In this study, we use typological data from three languages to investigate whether certain meanings co-occur with two-handed signs. We argue that it is possible to predict, on semantic grounds, which signs will tend toward two-handedness.

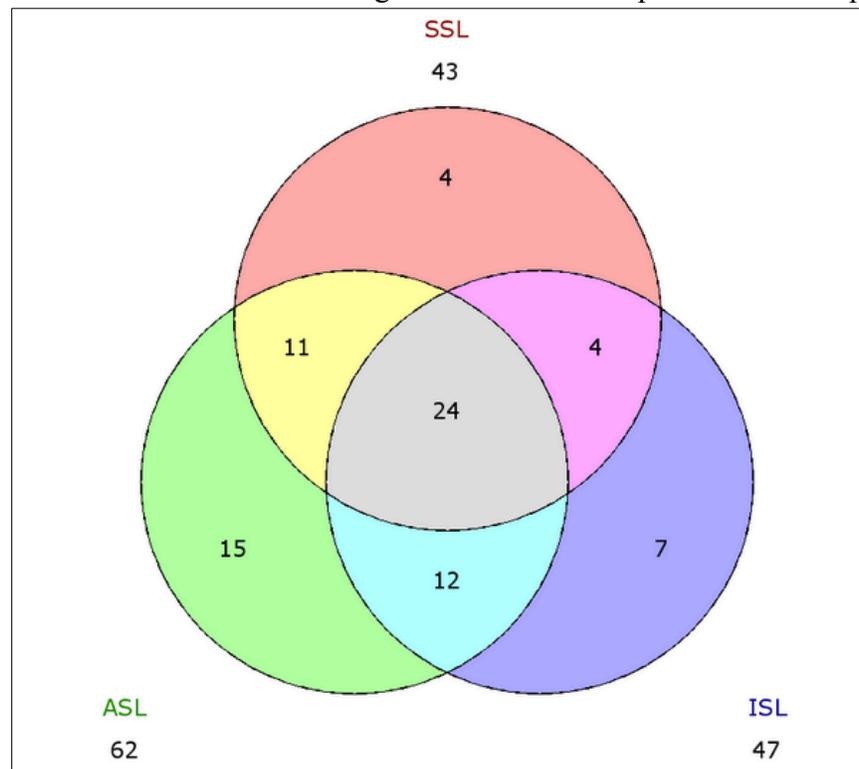
The data in this study come from two databases of signs from AmericanSL, IsraeliSL, and SwedishSL. The first database is built around *meaning*, using the ECHO project's Swadesh list for sign languages (Crasborn et. al. 2007). The second database is built around *form*, using lists of two-handed signs that share a phonological feature (ex. movement or non-dominant handshape) in one language, to identify whether those signs are two-handed in the other two sign languages, too.

We find significant overlap among the three unrelated languages. For example, in a randomly-selected 100-concept sample from the Swadesh list data, we find 24 concepts that are two-handed in all three languages ($p = .001$, Figure 1); these overlapping concepts also represent the largest proportion of two-handed signs in each language. Among signs that are two-handed in all three languages, we find signs that make use of different iconic mappings, and signs that make use of the same iconic mapping, in identical or different forms. These findings suggest that it is not simply concepts, but salient sensory images or semantic features that are associated with concepts, that promote two-handed signs.

For example, EMPTY looks different across the languages in our sample, but it is two-handed in each language because of its semantics; one hand represents a surface or container, and the other hand highlights that the surface or container is bare. Our interpretation of the data is not that a given sign will always be two-handed in a given language, though it may well be. Instead, we demonstrate that semantic features and iconic mappings typical of figure-ground relationships, communicative processes, bodily actions, and meteorological phenomena, to name a few, foster two-handed signs.

Our findings are consistent with a growing body of research suggesting that iconic forms can serve as a tool for analyzing how aspects of human experience are codified in language (Croft 1990, Taub 2001, Meir 2002, Meir et. al. 2007, Wilbur 2009). Because the kinds of generalizations we are making here are cross-linguistic tendencies rather than strict universal rules, and especially because two-handed signs can change due to other lexicalization processes (Frishberg 1975), we hope that our study will serve as the basis for further typological comparison.

Figure 1 Distribution of two-handed signs in a random sample of 100 concepts



References

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