

Adjective Intensification in American Sign Language

Yurika Aonuki

University of British Columbia

American Sign Language (ASL) has a morpho-phonological phenomenon of intensifying the meanings of adjectives (i.e., expressing ‘very’ as in ‘very good’) by changing the form of the adjective itself. Through fieldwork, this project aims to both provide statistical support for earlier descriptions of this process and revisit some of the open questions.

Previous literature has identified a number of formational properties involved in intensification, including longer duration of an initial hold and presence of a (longer) final hold, enlargement or addition of a movement path, and nonmanual components (Klima & Bellugi, 1979; Padden, 1988; Brentari, 1998; Sandler & Lillo-Martin, 2006; Wilbur, Malaia, & Shay, 2012). However, it is unclear whether all of these changes apply uniformly to signs, which themselves vary in terms of their phonological properties. For example, signs can have a path movement, produced by the shoulder or elbow joints and causing a change in the place of articulation; a local movement, produced by the wrist or finger joints and causing a change in the orientation or configuration of the hand(s); or both. It is then worth reexamining how modification of movement applies to path and local movements.

This study considers a total of 99 adjectives in ASL. For each adjective, a female nonnative fluent Deaf signer from Canada was asked to sign a pair of sentences in the form of, for example, BOOK GOOD ‘The book is good,’ with the adjective non-intensified in the first sentence and intensified in the second. Video recordings of each production were coded for their phonological properties, including duration, type of movement, size of the movement path, and joint(s) involved in each movement, as applicable.

The results provide statistical support for lengthening of initial and final holds. A paired t-test shows that duration of the initial hold is significantly longer under intensification in both signs with a path movement [$t(71)=5.16$; $p=2.169 \times 10^{-6}$] and those with only a local movement [$t(26)=4.55$; $p=0.0001$]. The same is true of the final hold in both signs with [$t(71)=4.10$; $p=0.0001$] and without [$t(26)=3.27$; $p=0.0030$] a path movement. At the same time, duration of movement, whether path [$t(71)=6.12$; $p=4.7 \times 10^{-8}$] or local [$t(26)=3.07$; $p=0.0049$], is also significantly longer under intensification. The tendency for enlargement of the movement path in signs with a path movement is also supported (Table 1).

	Smaller	Same	Larger	Total
Size of the movement path	4	8	58	70

Table 1. Size of the movement path in intensified forms as compared to non-intensified forms

Possibly correlated with the larger movement path is articulation of the movement by a more proximal joint (e.g., the shoulder as compared to the elbow), which is observed in 14% of signs with a path movement and 26% of signs with only a local movement. Moreover, intensified forms are often accompanied by head and/or torso movements that are rhythmically aligned with path (32%) and local (41%) movements, as previously observed for stress marking (Wilbur & Schick, 1987). Both of these changes can be analyzed as “proximalization” or “phonetic enhancement” through spreading of movement to another feature node in Brentari’s Prosodic Model (1998, p.134), which locates nonmanual properties in the most proximal node.

As suggested above, the data have implications for morpho-phonological status and representation of the formational properties involved. For example, given that the duration and size of a path movement are both increased under intensification, are they both markers of intensification, or is one merely a phonetic consequence of the other? With the variety of changes involved and targets affected, can intensification still be represented as a morphological operation? Such questions will be considered in this presentation.

References

- Brentari, D. (1998). *A prosodic model of sign language phonology*. Cambridge, MA: The MIT Press.
- Klima, E. S. & Bellugi, U. (1979). *The Signs of Language*. Cambridge, MA: Harvard University Press.
- Padden, C. (1988). *Interaction of Morphology and Syntax in American Sign Language*. London: Routledge.
- Sandler, W. & Lillo-Martin, D. (2006). *Sign language and linguistic universals*. Cambridge, MA: Cambridge University Press.
- Wilbur, R. B., Malaia, E., & Shay, R. A. (2012). Degree modification and intensification in American Sign Language adjectives. In M. Aloni, V. Kimmelman, F. Roelofsen, G. W. Sassoon, K. Schulz, & M. Westera (Eds.), *Logic, Language and Meaning: 18th Amsterdam Colloquium 2011 Revised Selected Papers* (pp. 92-101). Berlin: Springer-Verlag Berlin Heidelberg.
- Wilbur, R. B. & Schick, B. S. (1987). The effects of linguistic stress on ASL signs. *Language and Speech*, 30(4), 301-323.