

## Universality and variation in sign language comparatives

Natasha Thalluri & Kathryn Davidson, Harvard University

**Introduction.** One well studied area of semantic variation concerns how languages express gradable concepts (e.g. *tall*, *heavy*). Some languages show evidence that has been argued to favor a degree based semantics, examples being the use of differential comparatives like *A is 5cm taller than B* and questions that target the degree using the gradable adjective, like *How tall is A?*. In contrast, other languages do not show evidence for a degree based semantics, and express comparison in the form *A is tall, B is more tall* and questions that target the dimension rather than the degree, such as *How much height does A have?*. Based on research on spoken languages, the Degree Semantics Parameter (DSP) proposes a split between languages that use a degree system and those that do not (Beck et al., 2009; Bochnak, 2015). While sign languages remain relatively understudied in this domain, recent work on expressions of gradability in various sign languages can offer new insight into the typology of gradable constructions. Through a comparative analysis of 5 sign languages- Italian Sign Language (LIS), American Sign Language (ASL), German Sign Language (DGS), Turkish Sign Language (TİD), and Russian Sign Language (RSL) we propose an updated typology of gradability in sign languages that takes iconicity in these cases as a point of universality while examining the cross-linguistic variation in the non-iconic expressions of comparison.

**Universality in iconicity.** In sign languages, most of the discussion on semantic variation in gradability has been focused on the kind of comparative constructions that take advantage of iconicity, illustrated by the ASL case in (1) which depicts the relative heights of Mary and Gianni.



(1)

MARY TALL<sub>(at-signer-head)</sub> GIANNI TALL<sub>(neutral-space)</sub>

Lit. ‘Mary is this tall, Gianni is this tall.’ (‘Mary is taller than Gianni.’)

On the one hand, Aristodemo and Geraci (2018) suggest in their analysis of similar comparatives in LIS that such cases are evidence of visible degrees in sign languages, and their iconic potential places them on one side of the DSP. Similar constructions have also been reported in ASL (Kentner, 2020), TİD (Özsoy and Kaşikara, 2018), and RSL (Aksenov, 2019). In contrast, Koulidobrova et al. (2023) argue that ASL data patterns with non-degree languages in formation of comparatives, etc, and Thalluri and Davidson (2024) provide a formal semantic analysis of the iconicity in examples like (1) via co-sign gesture that is incorporated into the morpho-phonological form of the sign of the gradable predicate, further suggesting no need for a degree based semantics in ASL.

Looking crosslinguistically, we observe that while many sign languages show the kind of comparative construction in (1) that has been argued to be support for degree-based semantics, we also see the very same use of space in co-speech gestures (2).



(2)

Alex is tall [ ] but Jo is like TALL [ ]

Interpretation: Both Alex and Jo are tall, but Jo is very tall. (English w co-speech gesture)

Rather than being evidence that sign languages all involve degree based semantics, we suggest that this apparent uniformity in sign languages is instead due to a gesture-like iconicity. Iconic comparatives may not be subject to as much cross-linguistic variation precisely because they are expressed via gesture; their availability as a strategy of comparison in any sign language is related to the iconicity of the sign of the gradable predicate. While signs such as TALL or HEAVY in ASL

incorporate the co-sign gesture into the form of the sign, this is not always possible for all predicates. In contrast, the ASL predicate FUNNY cannot occur in such a construction even though it is in the same semantic class of gradable predicates as TALL, which we might predict if this were about underlying representation of degrees.

**Points of variation.** While the iconicity of certain gradable predicates leads to the appearance of uniformity across sign languages, when we put it aside we see cross-linguistic variation in the form and the meaning of comparative constructions. For example, a conjoined comparative construction involves two instances of the gradable predicate or two antonymous predicates in a biclausal structure (Stassen, 2013) and while these have been reported in all the sign languages examined so far, languages differ in the entailments that these constructions generate. For example, in the spoken language literature, conjoined constructions involving two antonymous predicates, such as *A is tall and B is short*, are only felicitous in contexts where the first person is tall and the second one is short, but not in “crisp judgement” contexts where both individuals being compared are tall, but one is just slightly taller than the other. This same pattern has been observed with similar conjoined constructions in ASL (Koulidobrova et al., 2023), while in RSL these constructions (3) have been reported to be felicitous in crisp judgement contexts .

- (3)  ‘One boy is taller than the other’ (RSL, (Aksenov, 2019))

Further variation in sign languages emerges in the kinds of constructions available for expressing comparatives. Interestingly, the BEAT strategy of comparison (4) has been reported in both ASL and DGS, but not in the other three.

- (4)  COMPARISON BERLIN1C\* THERE1\* BERLIN1C\* TO-BEAT-7\* PARIS  
‘But Berlin is bigger than Paris in comparison.’ (DGS,(Konrad et al., 2020))

A final point of variation in the inventory of comparative constructions comes from TiD, which is the only sign language discussed here that exhibits a locational comparative (5). This construction differs from the conjoined strategy in that it involves only one occurrence of the gradable predicate being compared, but has an overt comparative marker on the gradable predicate.

- (5) CAT IX<sub>a</sub> OTHER LION<sub>b</sub> IX<sub>compb</sub> MORE BRAVE  
CAT IT OTHER LION IX<sub>compb</sub> MORE BRAVE  
‘The lion is braver than the cat’ (TiD(Özsoy and Kaşikara, 2018))

**Conclusion.** We propose an approach to the typology of gradability constructions that incorporates the existing insights from spoken languages while accounting for the novel insights from the sign language data discussed here. First, seeming uniformity finds a source in iconicity, which extends beyond sign languages to also cases of co-speech gesture. When we put iconicity from co-sign gestures aside, we see that variation in sign languages emerges just as in spoken languages, examples of which include the nature of entailment and the overall inventory of comparative constructions.