

**Comparatives and visible degree scales in Italian Sign Language (LIS)**  
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**Background.** Sign languages are fully fledged natural languages which use the visual-gestural channel to transmit and receive linguistic information. Recent studies showed that subtle aspects of meaning like the event structure (Wilbur 2003), or properties of nominal elements (Schlenker 2014) are sensitive to the iconic properties of sign language (in addition to more holistic iconic effects). This work extends this general research line by focusing on comparative constructions in LIS.

**Goals.** i) Illustrate how comparative constructions work in LIS; ii) under what conditions degree scales are visible and accessible; iii) how the presence of a visible maximum-degree in absolute adjectives can affect the meaning of the positive form of the sign.

**i. Comparative constructions in LIS** are produced either with a synthetic or an analytic form. While, non-manual markers (NMM, e.g. facial expressions) alone cannot carry comparative meaning, they are active in both constructions. The analytic form is realized with the manual sign glossed “MORE”, as in (1)b. The synthetic form is realized by a simultaneous affix on the adjective (i.e. incorporated into the adjective). We gloss the affixed adjective as “(ADJECTIVE)-**scale**-more”. The phonological features of the affix “-**scale**-more” are still to be fully determined. In the case of (1)a, it is an arch movement on the vertical axis bypassing the high reached by the previous mentioning of TALL. When available, the two strategies are apparently in free distribution, as in (1).

- (1) a. MARIA TALL GIANNI (TALL)-**scale**-more 'Gianni is taller than Maria'  
b. MARIA TALL GIANNI MORE 'Gianni is taller than Maria'

**ii. Visibility of the scale.** Both phonological and morphological constraints play a role in determining the availability of the synthetic strategy. Specifically, “-**scale**-more” can be incorporated into classifier signs (cf. (1)a vs. (4)b, where SMART is a lexical sign, and TALL is a classifier for size in the vertical dimension) that respect the phonological constraint in (2).

- (2) **Phonological constraint:** only signs with single change of location (e.g. TALL) or single handshape change (e.g. CULTIVATED) allow incorporation of the affix “-**scale**-more”.

The result of the affixation process is an adjective that iconically/visibly show its degree. The other adjectives cannot access a separate “iconic scale” introduced by “-**scale**-more” produced in isolation (i.e. “-**scale**-more” is a bound morpheme with specific morpho-phonological requirements). Those adjectives express comparatives with the analytic form only, as in (4). We assume the following Economy Condition (EC) is responsible for this.

- (3) **EC:** Do not introduce a separate iconic scale if you can express the meaning without it.  
(4) a. MARIA SMART GIANNI MORE 'Gianni is smarter than Maria'  
b. \*MARIA SMART GIANNI **scale**-MORE Intended: 'Gianni is smarter than Maria'

However, when a relevant scale is already present and visible in the linguistic context, then that scale can be used even with non-iconic adjectives. This is made possible in LIS with signs like A-BIT. Crucially, this sign incorporates the sign “-**scale**-MORE” to produce the meaning “a bit more”, as in (5)a. The analytic form is not available in those cases, cf. (5)b.

- (5) a. MARIA TALL GIANNI A-BIT (TALL)-**scale**-MORE 'Gianni is a bit taller than Maria'  
b. \* MARIA TALL GIANNI (TALL) A-BIT (TALL) MORE

In the appropriate context (i.e. after the sign A-BIT -**scale**-MORE introduces an iconic scale), iconic

scales can be used to convey degrees also with non-iconic adjectives, as shown in (6) where the adjective SMART is used. The first occurrence of the comparative must be expressed by the analytic form MORE, the last one can use and make reference to the scale introduced by A-BIT -scale-MORE.

- (6) **Context:** I know Maria, Gianni, Paolo and Roberto. They are all smart with this scale:  
 Roberto > Paolo > Gianni > Maria  
 a. MARIA SMART, GIANNI SMART MORE PAOLO A-BIT-scale-more ROBERTO SMART scale-more/MORE  
 'Maria is smart, Gianni is smarter, Paolo a bit more (than Gianni) and Roberto more (than Paolo)'

**iii. Absolute adjectives.** The LIS equivalent of English absolute adjectives with a maximum standard interpretation (Kennedy&McNally, 2005) does not allow comparatives with MORE/scale-MORE. We attribute this fact to the iconic component of these adjectives. This component makes the maximum degree visible and makes 'imprecise' readings not accessible (Imprecise readings are available in spoken languages). Crucially, comparatives with LESS are possible:

- (7) a. \* GLASS IX-3<sub>A</sub> FULL/EMPTY IX-3<sub>B</sub> MORE Intended: 'This glass is fuller than that one'  
 b. GLASS IX-3<sub>A</sub> FULL IX-3<sub>B</sub> LESS 'This glass is less full than that one'

That iconicity is relevant is indirectly confirmed by French sign language data. In LSF, the sign for FULL is iconic, while the sign for EMPTY is not. Only the latter can enter a comparative construction of the more-type. (we are looking for a LIS equivalent of this LSF pair).

Turning back to LIS, imprecise readings become accessible when an “aboutness” non-manual marker (NMM) is used, as in (8). The aboutness NMM over the first occurrence of FULL makes the imprecise reading “almost at the maximum degree” available. The second NMM makes sure that the degree of the second occurrence of FULL exceeds the degree of the first one.

- (8) \_\_\_\_\_ +/- \_\_\_\_\_ exceed  
 GLASS IX-3<sub>A</sub> FULL IX-3<sub>B</sub> FULL (\*MORE)  
 'This glass is fuller than that one' / 'This glass is more or less full, that one is completely full'

The issue to disentangle, however, is whether sentences like (8) are real comparatives or instantiate a different construction, as suggested by the alternative translation. We have three pieces of evidence suggesting for the latter option: i) the fact that the sign MORE cannot be used; ii) non-manual markers alone cannot vehicle a comparative construction in LIS (at least with relative adjectives); iii) repetition of the adjective is perceived as redundant in comparatives like those in (1) and (4).

**Conclusions.** The use of visible degree scales in LIS is morphologically and phonologically constrained. The scale can be incorporated only with adjectives that are classifiers and are articulated with change of location or handshape change. Adjectives without the incorporated scale cannot access a separate iconic scale because of the Economy condition. Absolute adjectives behave somewhat differently from spoken languages. Imprecise readings are not allowed due to iconic constraints, unless special NMM is used. When this happens, the construction is not a real comparative. Two juxtaposed sentences are produced involving non-manual adverbials whose meanings are “more or less” and “completely” is used instead.

**Reference.** Kennedy C., & McNally L. 2005. Scale Structure, degree modification and the semantics of gradable predicates. *Language* 81, 2, 345-381. Schlenker, Philippe: 2014, Iconic Features. *Natural Language Semantics* 22, 4, 299-356. Wilbur, R.B. 2003. Representation of telicity in ASL. *Chicago Linguistic Society* 39, 354-368.