



- (3) a. If **any** box exploded, I would have noticed.  
 b. \* If a box exploded **until 3pm**, I would have noticed.  
 c. Has **any** box exploded?  
 d. \* Did/\*has the box explode(d) **until 3pm**?
- (4) a. \*  $\overline{\text{(IF) BOX EXPLODE UNTIL 3PM}}$ <sup>re</sup>, IX-1 SURE SEE  
 b. \*  $\overline{\text{BOX EXPLODE UNTIL 3PM}}$ <sup>re</sup>

Embedded complements is another domain where *strong* and *weak* NPIs behave differently. While *weak* NPIs can be licensed under negation with any complement taking predicate, *strong* NPIs are licensed only if embedded within a Neg-Raising predicate (e.g., want, believe, think, etc. Horn 2020), cf. (5). UNTIL again coherently behaves as a *strong* NPI, cf. (6).

- (5) a. John didn't claim that **any** box exploded.  
 b. \* John didn't claim that the box exploded **until 3pm**.  
 c. John didn't want the box to explode **until 3pm**.
- (6) a. \* PIERRE NOT ANNOUNCE BOX EXPLODE UNTIL 3PM  
 b. PIERRE NOT-WANT BOX EXPLODE UNTIL 3PM

**Typological variation in the UNTIL phrase.** From the syntactic standpoint, while LSF and NGT allow the UNTIL phrase in sentence final position (cf. (7a), (7b)), LIS requires it at the beginning of the sentence, cf. (7d) vs. (7e). The last example also shows that it is mandatory in LIS to have the left-boundary of the temporal interval to be explicitly expressed. Finally, the NGT example in (7c) shows that the negative NMM can license strong NPIs, providing further and independent evidence that NGT is “non-manual dominant” w.r.t. negation (Coerts 1992; Oomen & Pfau 2017).

- (7) a. BOX NEG EXPLODE UNTIL 3PM. (LSF) ‘The box didn’t explode until 3pm.’  
 b. BOX  $\overline{\text{NEG EXPLODE UNTIL 3PM}}$ <sup>hs</sup>. (NGT) ‘The box didn’t explode until 3pm.’  
 c. BOX  $\overline{\text{EXPLODE UNTIL 3PM}}$ <sup>hs</sup>. (NGT) ‘The box didn’t explode until 3pm.’  
 d. \* BOX NEG EXPLODE 2PM UNTIL 3PM. (LIS) ‘The box didn’t explode until 3pm.’  
 e. 2PM UNTIL 3PM BOX NEG EXPLODE. (LIS) ‘The box didn’t explode until 3pm.’

**Conclusions and outlook.** The distributional pattern of the sign UNTIL in LIS, LSF and NGT mirrors that of English *until*, providing evidence that it functions as a *strong* NPI. Its punctual use can be used as an independent diagnostic to identify telic predicates. Sentences with telic predicates and UNTIL are only licensed in a negative environment (anti-veridical, to be precise). As far as we are aware of, this is the first time a *strong* NPI has been identified and described in any sign language. We also documented typological variation pertaining the distribution of the UNTIL phrase in the three languages, which in turn allowed us to offer an independent argument for the status of Neg-NMM in NGT as a genuine negative marker. These discoveries open up many possibilities for further research into the areas we have started exploring here. In particular, while it is true that NPIs like *any* are difficult to find in SL, others like UNTIL are clearly less so.

**Selected References.** Abner & Wilbur. 2017. Quantification in American Sign Language. In *Handbook of quantifiers in natural language* (pp. 21-59). Condoravdi. 2009. Punctual Until as a Scalar NPI. In Hanson & Inkelas (eds.), *The Nature of the Word: Studies in Honor of Paul Kiparsky*, 631–654. Davidson. 2020. Is experimental a gradable predicate? *NELS* 50. Haspelmath. 1997. *Indefinite pronouns*. Oomen & Pfau. 2017. Signing NOT (or not): a typological perspective on standard negation in NGT. *Linguistic Typology* 21(1). 1-51. Schlenker. 2014. Iconic features. *Natural Language Semantics* 22(4), 299-356. Quer. 2020. The expression of negation in sign languages. In *The Oxford Handbook of Negation*.