

Novel Marking of Signer Commitment in Turkish Sign Language (TİD)

Serpil Karabüklü & Ronnie B. Wilbur

It is generally recognized that a collaborative speaker/signer should convey commitment to a proposition (Krifka 2021) by following the maxim of quantity (Grice 1975). Varying levels of commitment can be conveyed by speakers with choice of morphemes or intonational patterns and also with gestures (Borrás-Comes et al. 2019). In the visual domain, modulations are reported by intensification of nonmanuals (head/face) (ASL, Shaffer 2004; JSL, Akahori et al. 2013; DGS, Herrmann 2014; TİD, Karabüklü & Wilbur, 2020). Here we address the unstudied interaction of manual signs and nonmanuals for marking signer commitment. Possibilities include the two channels contributing distinctly or that one (manual) forms the basis while the other (nonmanual) further increases or decreases the set level.

This study investigated how combinations of nonmanuals (head nod (4), squint, head tilt (5)) with sentence types (declarative (1), modals (2), attitude verbs (3)) affected the signer's commitment levels in TİD. 16 participants (9 f, age $M=35.19$) rated sentences with nonmanuals for how certain the signer was about a proposition on a 7-point scale. LME in R was used to analyze the effects of age of acquisition, sentence types, and nonmanuals on commitment levels. Results showed a significant effect of nonmanuals and sentences. Compared to the manual-only condition, participants found the signer would be significantly more certain with head nod ($t=4.01$, $p<.001$), repetitive head nod ($t=3.77$, $p<.001$), and combined repetitive head nod with squint ($t=1.69$, $p=.05$), whereas the signer would be significantly less certain with head tilt ($t=-4.49$, $p<.001$) or head tilt with squint ($t=-3.60$, $p<.001$). Taking declarative as the baseline for sentence type, participants found the signer would be significantly more certain with the addition of ability modal POSITIVE ($t=2.64$, $p=.01$), and significantly less certain with the added attitude verb GUESS ($t=-2.14$, $p=.03$). There was also an interesting significant interaction of nonmanuals and sentences ($p<.001$), such that nonmanuals affected certainty levels, but within a range established by the sentences themselves. For example, comparing the verb GUESS and modal POSITIVE, the overall effect of nonmanuals with POSITIVE is higher than with GUESS alone (Figure 1). Thus, nonmanuals *boost* the commitment level that is set by the sentence itself.

This leads to a theoretical question: why would two exponents, head nod and squint, be needed for marking commitment? One possibility is the existing use of head nod as an edge marker in the information structure, as well as on a focused verb (Gürer and Karabüklü, 2023). Thus, we see high commitment with head nod as similar to the verum focus effect in spoken languages (Tonhauser, 2016). Separately, squint conveys the signer's judgment of the proposition (Krifka 2021). Following Krifka's distinction between subjective and objective epistemics, we propose that manual signs in Tense Phrase function in the at-issue level, whereas squint would be in Judge Phrase in the not-at-issue level (6) to convey signer's justification for commitment to the proposition. As expected from a not-at-issue level operator, squint appears in questions and scopes over the sentential negation NOT in (7). Another distinction comes from challengeability, that is, objective epistemic can be challenged while subjective ones cannot. As seen in the context in (8), the signer challenges A's proposition in B by bringing a stronger claim. Here, the modal sign POSSIBLE (might) is challenged and replaced with a stronger modal NECESSARY (must). Squint does not appear in B's response because B has a higher commitment than A, and it appears with a repetitive head nod as found in the experimental study. As the first study systematically testing nonmanuals and commitment, the study shows that commitment as a gradable property is simultaneously modified via both manual and nonmanual strategies.

Examples & Figures:

- (1) ALI SWIM 'Ali swims.' (2) ALI SWIM POSSIBLE 'Ali might swim' (3) AYSE ALI SWIM KNOW 'Ayse knows that Ali swims.'
_____hn _____ht, sq
- (4) ALI SWIM 'Ali swims.' (5) ALI SWIM 'Ali swims.'
_____hn _____hn
- (6) [ActP [ComP] [JP squint] [J] [TP LIE POSSIBLE]]
_____sq
_____hbt _____hft

(7) CONFERENCE FOR OYA INTERPRET^NOT POSSIBLE
 'Might Oya not interpret at the conference?'

(8) Context: You heard that one of your friends won the lottery and are talking about it with another friend. One of your friends questions if Ali could win that much money and you say that it is regulated by rules, and he must have.

A: _____sq
 LIE POSSIBLE
 'It might be a lie (that Ali won that much).'

_____hs _____rhnl _____hn

B: NO, IX-3a WIN BE NECESSARY, RULE EXISTENTIAL
 'No, he must have won, there are rules.'

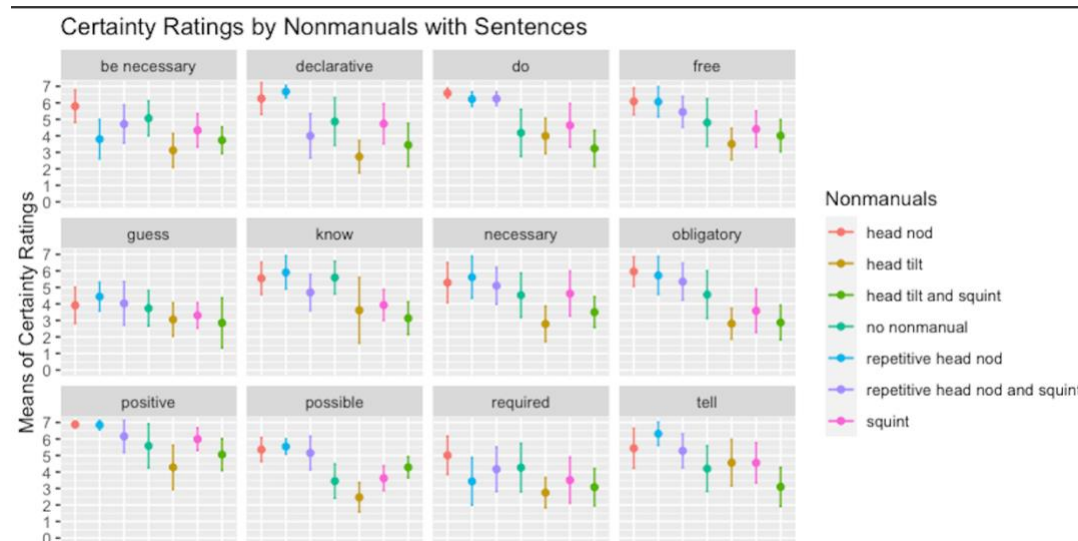


Figure 1. Effects of Nonmanuals with Sentences on Certainty Ratings

References: Akahori H, Yano U, Matsuoka K & Oka N. 2013. Expressing modality: A descriptive study of Japanese Sign Language. **Borras-Comes, J., Kiagia, E., & Prieto, P. 2019.** Epistemic intonation and epistemic gesture are mutually co-expressive: Empirical results from two intonation-gesture matching tasks. *Journal of Pragmatics*. **Grice, H.P. 1975.** Logic and conversation. In: *Speech Acts (Syntax and Semantics, 3)*. **Gürer, A. & Karabüklü, S. 2023.** Non-manual Focus Markers in Turkish Sign Language (TİD). In *Proceedings of Tu+7 Workshop*. **Herrmann A. 2013.** Modal and Focus Particles in Sign Languages: A Cross-Linguistic Study. **Karabüklü S & Wilbur RB. 2020.** Seeing Possible Worlds., CLS55. **Krifka, M. 2021.** Layers of assertive clauses: Propositions, judgments, commitments, acts. **Shaffer B. 2004.** Information ordering and speaker subjectivity: Modality in ASL. *Cognitive Linguistics*. **Tonhauser, J. 2016.** Prosodic cues to presupposition projection. *Semantics and Linguistic Theory* 26.