Are headshakes gestures or grammatical markers? Negation patterns in Australian Sign Language (Auslan) and Polish Sign Language (PJM)

Basing linguistic analyses of the communication of the deaf on real usage data (rather than on intuitions of individual signers) is becoming a methodological standard worldwide. In this paper, we would like to discuss our current work on negation in Auslan (Australian Sign Language) and PJM (Polish Sign Language, polski język migowy) as an example of experience in using corpus data for sign language research purposes (cf. Filipczak et al., 2015).

Building a sign language corpus is extremely time-consuming and labor-intensive. In most projects that are currently being developed, deaf people are filmed in pairs as they respond to elicitation materials shown to them on a screen (see, e.g., Rutkowski et al., 2017). Once videos are collected, they need to be annotated (Johnston, 2010). When analyzing negation in Auslan and PJM, we examined two extensive sets of annotated corpus data. We identified all manual signs associated with negation, as well as all occurrences of headshaking, which is often analyzed as the grammatical marker of negation in sign languages (Zeshan, 2004, 2006; Pfau, 2015).

We found that almost all (approximately 97%) of the grammatically negative clauses in the Auslan corpus included a negation-related sign and of these 61% overall also included a headshake during, at minimum, the production of that sign. In other words, only 3% were negated only non-manually. As for PJM, there were as many instances of morphologically-negated signs accompanied by a negative headshake as instances of headshake-less negative signs. Out of all occurrences of morphologically-negated signs (4060 cases) 47% were accompanied by a headshake, while 53% occurred without this non-manual feature. We also found 450 examples of manual verbs negated solely by means of a headshake. However, there were as many as 1900 cases of headshakes accompanying morphologically-negated verbs.

In the light of the presented observations, we tentatively suggest that headshaking appears not to have been incorporated into the linguistic systems of Auslan and PJM in any unexpected way, serving rather gestural than grammatical function in the discourse. The analyzed corpus data suggests that headshaking behavior in negative environments may not be all that different from the way in which the hearing people in their vocal communication use it.

Conducting linguistic research on the basis of corpus data definitely adds to our understanding of sign languages. Analyzing extensive datasets might provide new counter-evidence to claims made exclusively on the basis of grammaticality judgments or elicitation. Usage data may not be easily reconciled with intuitions and assumptions about how sign languages function and what their grammatical characteristics are like. The corpus-based study presented in this paper finds more variety in negation patterns than previously described in typological studies.

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