Recurrent head gestures: A cross-modal comparison of pragmatic functions in spoken German and DGS (German Sign Language)

Silva H. Ladewig[1] & Anastasia Bauer[2]
[1]*Georg-August-Universität Göttingen,* [2]*Universität zu Köln*
silva.ladewig@uni-goettingen.de, anastasia.bauer@uni-koeln.de

Recurrent gestures, defined by stable form–meaning relationships, are integral to communication and serve diverse pragmatic functions (Ladewig 2024; Müller 2017). While manual recurrent gestures have been extensively studied, their non-manual counterparts, such as head gestures, remain underexplored. Cross-modal comparisons of head gestures in spoken and signed languages are also still scarce (Bauer, et al., 2023; Lutzenberger et al., 2024). This study investigates whether non-manual recurrent gestures, specifically head nods and head shakes, fulfill pragmatic functions comparable to manual gestures or exhibit distinct roles.

Drawing on one hour of conversational data each from spoken German and German Sign Language (DGS), the analysis includes 16 participants from the Recurrent Gesture Project (Ladewig 2025) and the Public DGS Corpus (Hanke et al. 2020). In total, 1996 recurrent head gestures were manually identified, with 1709 annotated in ELAN for pragmatic function, with 70 % nods and 30 % shakes.

Findings reveal that head nods and shakes serve pragmatic functions comparable to manual gestures, including discursive, metacommunicative, modal, performative, and interactive functions across both spoken and signed discourse. However, a key difference emerges in their distribution: in spoken German, head nods most frequently fulfill discursive functions, whereas in DGS they predominantly serve interactive functions. For head shakes, modal functions are most common in spoken German, while in DGS they are most frequently used for negation, with additional uses in modal and interactive functions.

Preliminary analysis suggests formal differences as well, including gesture duration and synchronization with (non-)lexical cues and other non-manual elements. Gestures with interactive functions tend to be longer and occur less frequently with lexical material. These findings establish head nods and shakes as recurrent gestures with stable form–meaning relationships. While manual and non-manual gestures may achieve similar communicative effects, their functional distributions differ, with head gestures playing a predominantly interactional role. This cross-modal perspective highlights the significance of head gestures in multimodal communication across spoken and signed languages.

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