

Repetition vs. listener accommodation: A case study of co-speech gesture in retellings
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Since Bell's (1984) Audience Design Model, a number of studies (Aylett & Turk, 2004; Bard et al., 2000; Fowler, 1988; Fowler & Housum, 1987) have examined variation in speaker performance as dependent on the listener. For example, Fowler (1988) argues that speakers are sensitive to a listener's state of knowledge, providing experimental evidence that acoustic duration of a subsequent mention of a word reduces when repeated to the same listener.

Speakers' performance is not only restricted to the acoustic signal, but speakers also perform co-speech gesture when engaging in a conversation (Kendon, 2004; McNeill 1992). Similar to speech, there is structured variation in co-speech gesture. In this case, the phenomenon of subsequent mention reduction has been found to also extend to co-speech gesture (Hoetjes et al., 2011; Gerwing & Bavelas, 2004); thus, it can be said that this kind of reduction occurs multi-modally. Though it appears that reduction in subsequent mention occurs when a listener is present in these studies, it is unclear whether to interpret this as listener accommodation or simply as a product of automatization from repetition (*cf.* Bybee, 2002).

In order to disentangle the confound between automatization and listener accommodation, we need experimental conditions where narrative retellings occur with both a new and a repeated listener, specifically in a condition sequence of: (1) Listener A; (2) Listener B; (3) Listener A again (Galati & Brennan, 2009). In this study, twenty speakers were asked to retell a single narrative in this sequence. We measured co-speech gesture size and mechanical kinematic features used (e.g., fingers vs. wrists vs. elbows vs. shoulders) across the three conditions.

Results indicate that speakers steadily reduce co-speech gesture across all three conditions, suggesting gesture reduction is driven more simply by repetition rather than as an accommodation to a new listener versus a listener familiar with the narrative. Further, we argue that this (1)/(2)/(3) retelling sequence can be used more generally to examine the interaction between automatization and listener accommodation in a range of studies beyond co-speech gesture.

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