Visual Attention in Signed vs. Spoken Face-to-face Discourse: Relevant Differences and Indications for Novel Lines of Investigation

This paper highlights differences in visual attention patterns in signed vs. spoken discourse which we believe are relevant for a better understanding of both perceptual and formal constraints linked to the primary sensory channel(s) of language use, and the processing of visual-manual gestures in sign vs. speech.

Building on evidence on ASL (e.g., Baker 1977; Siple 1978), on Italian (LIS) and French (LSF) signed languages (SL) (e.g. Author 2000; Author 2007; Author 2007), we reconsider a distinctive feature of the dynamic processing of signed language: the addressee's gaze remains constantly focused on the area around the signer's eyes, and *is never directed on the hand gestures and movements produced by the signer.*

We reexamine the implications of this feature for exploring perceptual and formal constraints in processing intra- and extra-linguistic visual-manual gestures, and environmental visual information, in deaf signers compared to hearing speakers. For example, in speech, the addressee may simultaneously use the acoustic channel for speech, the visual one for co-verbal gestures and/or environmental visual information. In contrast, in signed language (SL) the addressee must rely on vision only for processing linguistic, (possibly) also 'gestural' information, and environmental visual information. Competition for the addressee's visual attention, and interferences among these kinds of stimuli may easily arise, in sign, and have no parallel in speech. This entails a different temporal structuring of linguistic, gestural and extra-linguistic information in sign vs. speech.

We illustrate how the visual attention patterns proper of signing are especially interesting when framed within models of SL discourse taking fully into account highly iconic structures which resemble on the surface co-verbal gestures in speech but which, in SL, are fully integrated in the linguistic system, are marked by specific gaze patterns, and exhibit a morphemic structure apparently unique of the signed modality (Author 2000; Author 2007; Author 2007). Our observations suggest that research on co-verbal gesture may benefit from more in depth examinations of eye gaze and visual attention patterns in gesture production and reception. This in turn may provide novel insights on important differences in visual attention patterns in sign vs. speech.

References:

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