

## Using Gestures in Speaking: Self-generating indexical fields

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### ABSTRACT

Unlike most prior research on gesture during speaking, with the exception of the concept of the catchment (McNeill 2000) developed within the growth point model, this work focuses on a phenomenon in gesture that tends to emerge over stretches of discourse- the ongoing schematic representation of information. A first study of two sets of cartoon narrations, one in American English and the other in Mandarin Chinese, shows that they typically display configurational spatial information otherwise absent from the linguistically encoded narrative. This insight is extended in a pair of studies focusing on spatial narratives, the first a study of a set of six route descriptions, and the second a study of twelve living space descriptions, that show how speakers create schematic gestural models of space that persist over discourse time, and serve to contextualize ongoing discourse, and especially ongoing gesture representation. The tight coordination of this unfolding gestural schematic representation with their co-occurring linguistic strings is shown not just in the coordination of gestural “strokes” with linguistic elements, but also in the timing of gestural ‘holds’ with clausal and phrasal units, and in the timing of superimposed ‘beats’ on these gestural holds with lexical units introducing significant new information into the discourse. Finally, an introductory lecture to HPSG is examined, to reveal that exactly the same principles of emergent schematic representation in gesture can take place within a discourse not overtly focused on spatial information.

Both gesture moves and lexemes are held to be substructures typically below the level at which the notion of intention may be usefully applied, the level of the socially mediated action. Thus, understanding the contributions that gesture makes to conversation requires that its minimal units be considered in their contexts of use, both linguistic and gestural, just as language forms should be, but with a special form of meaning generation occurring within the gesture space itself. The gesture space serves as a domain for indexically structured schematic representation, thus allowing for a significant role in generating and maintaining discourse coherence.