Recurrent gestures and multimodal patterns in kindergarten children

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The use of gestures and verbal elements in early infantile communication has been well investigated from a language acquisition perspective (e.g., Morgenstern 2014). However, in the majority of cases, children under the age of four are studied. In addition, Behrens (2008) has pointed out this research gap by emphasizing that there is only very little information about children's naturalistic linguistic interaction and production during kindergarten years.

It is remarkable because from the age of four onwards children increasingly develop an adult-like gesture-speech system with different gesture types in coordination with a variety of utterances. This paper takes up Behren's observations and seeks to close this gap by focussing on kindergartners in everyday interactions. Following Bressem's and Müller's results (2017) that recurrent gestures already come with conventionalized and entrenched gestural patterns, we will show that children use these gestures in connection with speech and form a basic repertoire of multimodal patterns, which means recurrent combinations of words and gestures that get more dynamic the older a child becomes.

It is based on 10 hours of video data in which 41 German speaking kindergarten children in two different day care centers were filmed in different situations of everyday interactions. Taking a linguistic perspective on the study of gestures (Ladewig 2014; Müller 2013) all instances of word-gesture units were identified and analyzed with respect to their form, meaning, and function. The annotation is based on the Methods of Gesture Analysis as well as on the Linguistic Annotation System for Gestures, which offer a form-based method to systematically reconstruct the meaning of gestures and their potential for recurrent forms (Bressem et al. 2013: 1100; see also Müller 2010).

It will be shown that kindergarten children use multimodal patterns linked to recurrent gestures, e.g. palm down, in specific language contexts. Furthermore, we will demonstrate the importance of the recurrent type in kindergartners everyday multimodal communication. Therefore, the explorative study offers a starting point for empirical and qualitative observations of gesture-word productions between 4 and 6. It aims at giving insights into how multimodal patterns emerge and shift over time and thus could provide an indication of a transitional phase from a childlike to adult gesture-speech system.

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