

# Gender Differences in Hand Movement Behavior

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*Introduction:* In research on gender differences in nonverbal behavior the aspect of hand movement behavior and gestures was considered differentiating between co-speech gesturing and self-touch (Rosip & Hall, 2004; Brighton & Hall, 1995; Frances, 1979). In line with the public perception some studies indicate that women tend to use hand movements more frequently whereas men tend to display more self-touch (Brighton & Hall, 1995) or position shifts (Frances, 1979). Additionally, men show a greater tendency towards a lateralization for different movement types (Saucier & Elias, 2001). However, these findings do not provide insight about more specific differences between genders in their organization of hand movement behavior and gestures.

*Methods:* We conducted a meta-analysis of four studies (Helmich & Lausberg, 2012; Lausberg et al., 2011; Skomroch et al., 2010; Sassenberg, in prep.), re-narration tasks and semi-standardized interviews, including 49 females and 42 males. The video-taped hand movement behavior was analyzed with the NEUROGES system (Lausberg & Sloetjes, 2009) by two independent blind raters. The interrater agreement was calculated according to a modified version of Cohen's Kappa (Holle & Rein, in prep.) on 25% of the data and revealed satisfying agreement for these studies.

*Results:* A differentiation between 'in space' movements and 'on body' movements did not result in significant differences between women and men. However, men performed movements in which the hands act on each other significantly more often than women whereas women displayed more presentation as well as more pantomime gestures.

*Discussion:* These results indicate that in less interactional communications female and male hand movement behavior and gestures do not differ in global terms such free movement during speech and self-touch. Perceived differences are rather to be found in a more subtle differentiation of hand movement types. Although women did not perform generally more gestures in space, they performed gestures with picturesque content more often. In men hand to hand fidgeting was more predominant among body oriented movements.

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