# The gestural other: accentedness, gesture space use and the perception of identity

Gesturing style is governed by cultural conventions (Archer, 1997; Wu et al., 2020; Kita's 'gestural pragmatics', 2009). Although there is an abundance of evidence to substantiate this for gesture production, gesture comprehension research has only focused on the interpersonal evaluations elicited towards the gesturer: whether they are friendly, assertive, or convincing (Gnisci and Pace, 2014). To link gesture and the perception of cultural identity, the concepts of accentedness, 'nativeness' and 'othering' (Moncada Linares, 2016) were included to construct the framework. The present study set out to, firstly, investigate whether Dutch perceivers associate expansive gesturers with accented speech, given the documented limited use of gesture space in North European (including Dutch) cultures (Kita, 2009). Secondly, the interpersonal evaluations expansive gesturers triggered were recorded in hopes of replicating previous findings.

For the stimuli videos (muted except for the last 3 words), thirty-six models were asked to produce a Dutch sentence and were given instructions on their gesturing style. The sentences were later used in a Lexical Decision Task (LDT). The experiment employed a 2x2x2 factorial design. One factor was whether the word was real or not, with pseudowords from Wordgen (Duyck et al., 2004). The other variable was accentedness of the gesturer in Dutch, or lackthereof. The third variable was gesturing style: expansive or restricted beat gestures. The experiment was distributed online to 23 participants who were asked to complete the LDT and then evaluate the models (10-point Likert scale) on friendliness, approachability, openness, pleasantness, likeability, competence, extraversion, strength, calmness, and Dutchness, adapted from Gnisci and Pace's study (2014). Reaction times, accuracy and, for the evaluations, the Likert scale scores were used to respond to the research questions.

The results showed no effect of gesture on reaction times. There was an effect of accentedness ($p<.05$). In the model for the binomial variable 'accuracy', there was a very significant effect of gesture on accuracy ($p<.0001$), with participants being 2.1 times less accurate in the absence of gesture. Although there was no interaction with accentedness in the regression, t-test pairwise comparisons of the means of accuracy to the four model groups revealed a significant difference between the two accented groups ($p<.001$): accented expansive gesturers elicited higher accuracy than restricted gesturers (Fig. 1). For the interpersonal evaluations, expansive gesturers were significantly more highly rated as more 'likeable' ($p<.0001$; Fig. 2), 'extraverted' ($p<.0001$), 'confident' ($p<.001$) and 'agitated' ($p<.0001$). In sum, the results provide a first link between gesture perception and cultural identity, which can be captured through accuracy scores, while successfully replicating previous findings on the effect of gesture on interpersonal evaluations.

**References**


Archer, D. (1997). Unspoken diversity: Cultural differences in gestures. *Qualitative sociology*, 20(1), 79.

Duyck, W., Desmet, T., Verbeke, L. P., & Brysbaert, M. (2004). WordGen: A tool for word selection and nonword generation in Dutch, English, German, and French. *Behavior Research Methods, Instruments, & Computers*, 36, 488-499.

Gnisci, A., & Pace, A. (2014). The effects of hand gestures on psychosocial perception: A preliminary study. *In Recent Advances of Neural Network Models and Applications: Proceedings of the 23rd Workshop of the Italian Neural Networks Society (SIREN)*, May 23-25, Vietri sul Mare, Salerno, Italy (pp. 305-314). Springer International Publishing.

Moncada Linares, S. (2016). Othering: Towards a critical cultural awareness in the language classroom. How, 23(1), 129-146.

Wu, H., Wang, Y., Liu, J., Qiu, J., & Zhang, X. (2020). User-defined gesture interaction for invehicle information systems. *Multimedia Tools and Applications*, 79, 263-288.