Brain correlates underpinning expressive speech act processing

Isabella Boux*[1,2,3], Milena Osterloh[1], Luigi Grisoni[1], Rosario Tomasello[1,4], and Friedemann Pulvermüller[1,3,4]

[1]Brain Language Laboratory, Freie Universität Berlin – Germany
[2]Einstein Center for Neurosciences Berlin, Charité Universitätsmedizin – Germany
[3]Berlin School of Mind and Brain, Humboldt Universität zu Berlin – Germany
[4]Cluster of Excellence 'Matters of Activity. Image Space Material', Humboldt Universität zu Berlin – Germany

Abstract

Determining the time at which brain indexes of speech acts emerge is a fundamental question in neuropragmatics. Previous works on assertive and directive speech acts support the view of rapid neural processing of speech act type. Here we ask if similar early dissociations can also be found for an unexplored class of speech acts: expressives (vs. assertives). Neurophysiological signatures of expressives (vs. assertives) appeared early at about 250 ms after critical stimulus onset. These findings further support the view of rapid neural processing of speech acts in communication, which is critical for facilitating quick and effective social interactions.

Keywords: speech acts, illocutionary force, expressives, EEG, neurophysiology

*Speaker