Supplementary material

Instantaneous neural processing of communicative functions conveyed by speech prosody

Rosario Tomasello^{1,2}*, Luigi Grisoni^{1,2}, Isabella Boux^{1,3,4} Daniela Sammler⁵ and Friedemann Pulvermüller^{1,2,3,4}

¹ Brain Language Laboratory, Department of Philosophy and Humanities, WE4
Freie Universität Berlin

14195 Berlin,

Germany

²Cluster of Excellence 'Matters of Activity. Image Space Material', Humboldt Universität zu Berlin 10099 Berlin,

Germany

³ Berlin School of Mind and Brain, Humboldt Universität zu Berlin 10117 Berlin,

Germany

⁴ Einstein Center for Neurosciences 10117 Berlin, Germany

⁵ Research Group 'Neurocognition of Music and Language', Max Planck Institute for Empirical Aesthetics, 60322 Frankfurt/M., Germany

*Corresponding author. Address for correspondence:

Brain Language Laboratory
Department of Philosophy and Humanities, WE4
Freie Universität Berlin
Habelschwerdter Allee 45
14195 Berlin, Germany

Tel.: +49 (0) 30 838 51984 Tomasello.R@fu-berlin.de ORCID: 0000-0001-8414-2644

Supplementary material

	Spoken sentence (communicative action)					
	Rising Pitch		Falling Pitch			
	Mean	SEM	Mean	SEM	Z-value	р
RMS (dB, intensity)	69.43	0.72	69.30	0.62	0.2313	0.817
Pitch F0 (Hz)	250.07	5.84	178.10	3.40	5.118	<0.001
		Low-pass F	iltered signal		_	
RMS (dB, intensity)	72.09	0.60	72.09	0.66	1.076	0.281
Pitch F0 (Hz)	235.79	5.45	172.15	3.21	5.256	<0.001
		Non-vo	cal sound		_	
RMS (dB, intensity)	65.24	0.054	65.41	0.042	2.109	0.034
Pitch F0 (Hz)	221.06	4.27	200.059	3.08	3.161	< 0.001

Table S1: Statistical comparison of the mean acoustic features on the EEG time window 68-118ms where significant neurophysiological differences were found. Note that the marginally significant difference in RMS (dB, intensity) in the non-vocal sound condition is due to the small variance within the stimuli (see the near-identical values of the mean and SEM).