

Supplementary Materials

Sensorimotor inhibition during emotional processing

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Supplemental methods:

List of IAPS images used in the main Experiment

Negative images: 1120, 1525, 1932, 2120, 5971, 5973, 6230, 6250, 6510, 6550, 6570.1, 8480, 9230, 9908, 9930. Positive images: 1441, 1463, 1710, 1999, 2035, 2045, 2057, 2224, 2314, 2340, 2347, 2530, 2550, 4623, 7325. Neutral images: 5390, 7002, 7003, 7004, 7006, 7009, 7021, 7026, 7039, 7041, 7052, 7492, 7530, 7650, 8325. All the negative stimuli were taken from the study from Barke et al. [S1].

Characteristics of visual stimuli

All the visual stimuli used in the main experiment were taken from a previous study from our group [S2]. In the table below are shown the ratings for valence and arousal and the percentage of accuracy in the emotional content recognition of the EBL (named 'Postures' in the table) and IAPS stimuli. All values are reported as Mean \pm S.D. Valence and arousal were evaluated on a 1-to-9 Likert scale.

	Postures			IAPS		
	Fear	Happy	Neutral	Fear	Happy	Neutral
Accuracy						
(Questionnaires)	90.13 \pm 14.92	89.33 \pm 17.43	95.33 \pm 10.51	81.60 \pm 15.19	93.33 \pm 7.45	97.07 \pm 5.80
(Mean \pm S.D.)						
Valence						
(Mean \pm S.D.)	2.41 \pm 0.94	7.38 \pm 0.86	5.00 \pm 0.14	2.09 \pm 0.67	7.32 \pm 0.76	5.11 \pm 0.29
Arousal						
(Mean \pm S.D.)	6.08 \pm 1.94	6.26 \pm 1.68	1.61 \pm 1.15	7.20 \pm 0.97	5.88 \pm 1.33	1.575 \pm 1.17

As observable in the table, all visual stimuli were matched for valence (i.e., negative stimuli = low valence, positive stimuli = high valence, neutral stimuli = valence equal to 5) and arousal (high arousing stimuli = arousal higher than 5, low arousing stimuli = arousal lower than 5) [S3].

Regarding the EBL stimuli, all the validation analyses are retrievable in the main study and in the supplementary materials provided by Borgomaneri and colleagues in the paper named “Motor mapping of implied actions during perception of emotional body language” [S4].

Linear regression with GROUP (EBL and IAPS) as predictor of BIS/BAS and SAI Ratio

data

	p	Standardized β	R²	95% C.I.	
BIS	0.628	-0.123	0.015	-4.229	2.629
BAS	0.681	-0.104	-0.051	-5.614	3.764
SAI Ratio					
Fear 120ms	0.592	0.135	0.018	-0.85	0.144
SAI Ratio					
Fear 300ms	0.549	0.151	0.023	-0.180	0.326
SAI Ratio					
Happiness 120ms	0.627	-0.123	0.015	-0.241	0.149
SAI Ratio					
Happiness 300ms	0.761	-0.077	0.006	-0.264	0.197
SAI Ratio					
Neutral 120ms	0.763	0.076	0.006	-0.283	0.379
SAI Ratio					
Neutral 300ms	0.787	-0.274	0.005	-0.339	0.262

Supplemental References:

- [S1] Barke, A., Stahl, J. & Kröner-Herwig, B. Identifying a subset of fear-evoking pictures from the IAPS on the basis of dimensional and categorical ratings for a German sample. *J. Behav. Ther. Exp. Psychiatry* **43**, 565–572 (2012)
- [S2] Botta, A., Lagravinese, G., Bove, M., Avenanti, A. & Avanzino, L. Modulation of Response Times During Processing of Emotional Body Language. *Front. Psychol.* **12**, 1–11 (2021)
- [S3] Bradley, M. M., Codispoti, M., Cuthbert, B. N. & Lang, P. J. Emotion and Motivation I: Defensive and Appetitive Reactions in Picture Processing. *Emotion* **1**, 276–298 (2001)
- [S4] Borgomaneri, S., Gazzola, V. & Avenanti, A. Motor mapping of implied actions during perception of emotional body language. *Brain Stimul.* **5**, 70–76 (2012)