Categorical perception of emotional expressions: key results

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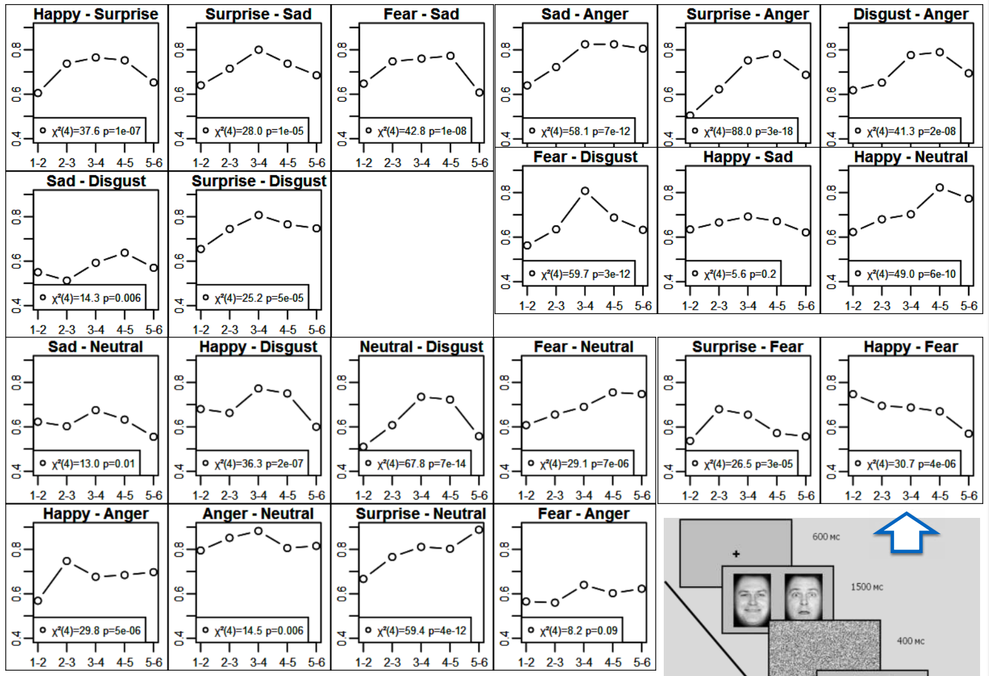
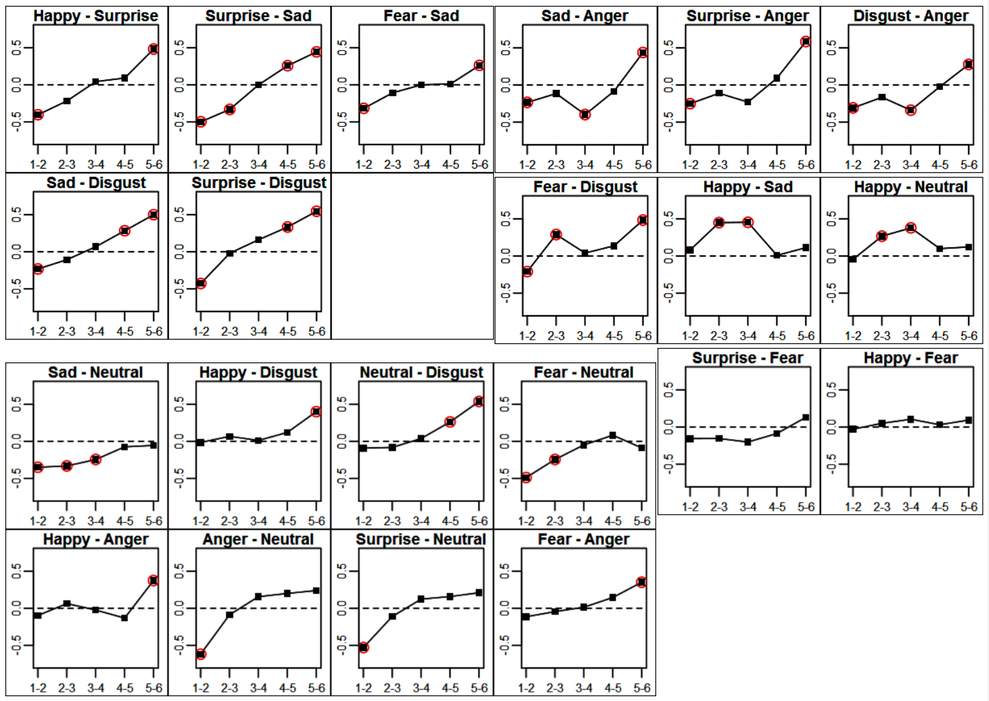
ABX discrimination task: variability of accuracy distributions; 400ES x pair of images; *X*: pairs of images; *Y*: Accuracy [1,2]



Perceptual magnet effect.

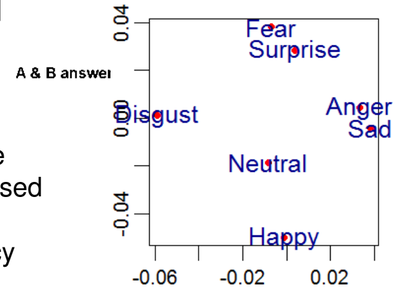
X: pairs of images ; *Y*: Kerr = (Nerr_b – Nerr_a) / (N_err_a + Nerr_b)

Red: pairs of images with ratio N_err_a / N_err_b ≠ 1 (χ^2criterium, $p < 0.01$)



Different relative "strength" of perceptual categories (individual X-AB task, discrimination accuracy, 28 sbj), 504 ES x sbj, significant differeces in accuracy marked [4]

Reconstruction of the perceptive space, based on asymmetry of identification accuracy

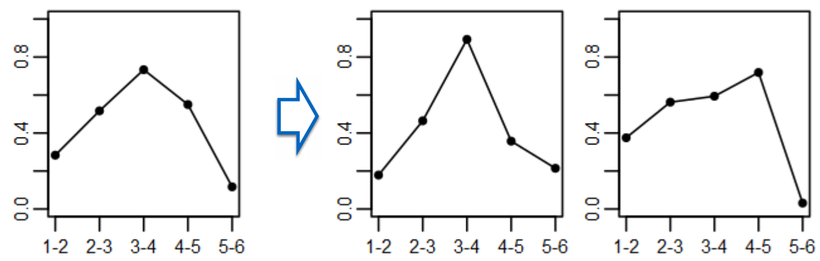


Alternative Expression	Test Expression						
	Fear	Anger	Disgust	Happy	Neutral	Sad	Surprise
Fear		0.88	0.89	0.72	0.90	0.90	0.78
Anger	0.90		0.74	0.91	0.86	0.79	0.90
Disgust	0.87	0.65		0.91	0.92	0.74	0.87
Happy	0.63	0.89	0.88		0.88	0.89	0.81
Neutral	0.86	0.82	0.90	0.88		0.79	0.85
Sad	0.87	0.76	0.84	0.91	0.89		0.89
Surprise	0.82	0.90	0.91	0.89	0.91	0.89	

Variation of between categories border

(dual ABX task, happy –surprise, 15 pairs x 84 ES); Split to 2 groups: 7 pairs + 8 pairs [3]

X: pairs of images; Y: discrimination accuracy

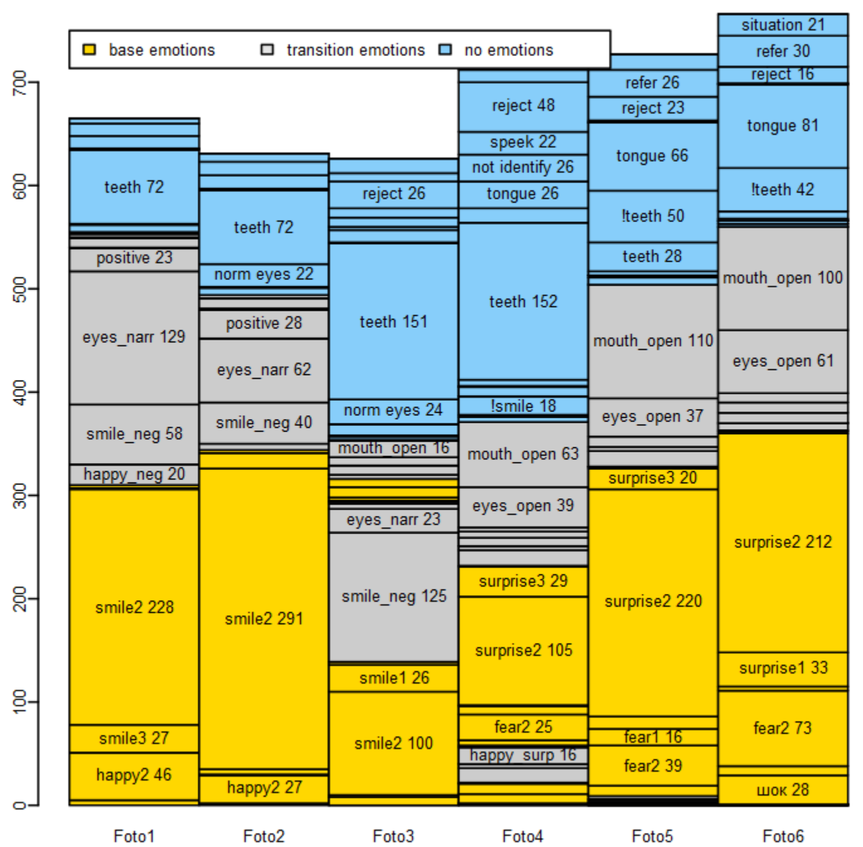


Different descriptions of facial expressions

(dual ABX task, happy - surprise 15 pairs × 84 experimental situations) [3]

X: images

Y: frequencies of descriptions



Literature:

1. *Kurakova, O. A., Zhegallo, A. V.* (2012). The effect of categorical perception of facial expressions: the diversity of manifestations. // *Experimental Psychology (Russia), 5(2), 22 – 38.*

2. *Barabanschikov V.A., Zhegallo A.V., Korolkova O.A. (2016)* Perceptive categorization of facial expressions . M.: Cogito-Center.

3. *Barabanschikov V.A., Zhegallo A.V., Korolkova O.A. (2017)* Identification of natural and artificial transient emotional expression of the face in the context of direct communication // Cognitive mechanisms of nonverbal communication, Ch 3. M.: Cogito-Center

4. *Zhegallo A.V. (2018)* Perceptual magnet effect in discrimination task for base emotional expressions // Human psychology as a subject of knowledge, communication and activity P. 976 – 983 M.: IPRAS