P1-47 RAMAS: The Russian Acted Multimodal Affective Set for affective computing and emotion recognition studies

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Emotion expression encompasses various types of information, including face and eye movement, voice and body motion. Emotions collected from real conversations are difficult to classify using one channel. That is why multimodal techniques have recently become more popular in automatic emotion recognition. We collected The Russian Acted Multimodal Affective Set (RAMAS) the first multimodal corpus in Russian language. This database contains approximately 7 hours of high-quality close-up video recordings of subjects faces, speech, 3D motion-capture data and such physiological signals as electro-dermal activity and photoplethysmogram. Ten actors played out interactive dyadic scenarios. Each scenario involved one of basic emotions: Anger, Sadness, Disgust, Happiness, Fear, Surprise, and social behavior – Domination and Submission. Emotions that subjects really felt during the scenarios were collected with short questionnaires (self-reports). The records were marked by 21 annotators (at least five annotators marked each scenario). The average Krippendorff's Alpha statistics for RAMAS dataset is 0.44. The proposed dataset is suitable for solving multimodal emotion recognition problem. We achieved 52,5% weighted accuracy with stacked bidirectional long short-term memory recurrent neural network and decision-level feature fusion. Analysis of self-reports revealed that actors experienced the same emotions they had played out in scenarios, and there were no significant differences between dominative and submissive scenarios for each experienced emotion. RAMAS is an open corpus that provides research community with synchronous multimodal recordings of faces, speech, gestures and physiology data. Such material is useful for various studies and automatic affective systems development.

P1-48 Synchronized psychophysiological and brain responses across healthy individuals during emotional movie watching

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Neural synchrony across participants in fMRI measurements have been studied previously related to emotional movie watching in which networks of brain areas coincided in different participants viewing similar emotional events. However, neural synchrony has not been studied with EEG frontal alpha asymmetry during emotional movie watching. Frontal alpha asymmetry reflects approach-withdrawal motivation, and it provides a tool to study temporal dynamics automatic processing of emotional contents. Here, we presented healthy adult participants with happy, sad and fearful movies. During the movie watching brain activity was measured with electroencephalography (EEG). In addition, psychophysiological responses were measured with electrodermal activity (EDA) and facial electromyography (facial EMG). EEG frontal alpha asymmetry index and psychophysiological responses will be calculated and differences will be studied between the three emotion conditions. Most importantly, the synchrony between the participants in frontal alpha asymmetry index and psychophysiological responses will be explored. Results of the study will be discussed in context of emotional arousal and approach-withdrawal motivation and importance of these in facilitating understanding of social interactions.

P1-49 The impact of moral judgments on emotional face perception: Electrophysiological evidence

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The influence of emotion on moral judgments has become increasingly prominent in recent years. While explicit normative measures are widely used to investigate this relationship, event-related potentials (ERPs) offer the advantage of a preconscious method to visualize the modulation of moral judgments. Based on Gray and Wegner's (2009) *Dimensional Moral Model*, the present study investigated whether the processing of neutral faces is modulated by moral context information. We hypothesized that neutral faces gain emotional valence when presented in a moral context and thus elicit ERP responses comparable to those established for the processing of emotional faces. Participants (*N*= 26, 13 female) were tested with regard to their implicit (ERPs) and explicit (morality rating) responses to neutral faces, shown in either a morally positive, negative, or neutral context. Higher ERP amplitudes in early (P100, N170) and later (EPN, LPC) processing stages were expected for harmful/helpful scenarios compared to neutral scenarios. Agents and patients were expected to differ for moral compared to neutral scenarios. In the explicit ratings neutral scenarios were expected to differ from moral scenarios. In ERPs, we found indications for an early modulation of moral valence (harmful/helpful) and an interaction of agency and moral valence after 80-120 ms. Later time sequences showed no significant differences. Morally positive and negative scenarios were rated as significantly different from neutral scenarios. Overall, the results indicate that the relationship of emotion and moral judgments can be observed on a preconscious neural level at an early processing stage as well as in explicit judgments.

P1-50 The role of facial mimicry in emotion recognition

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Recognising others' emotions is an essential social skill. Traditionally, this has been linked to mentalising. However, when observing facial expressions, people also partially activate the same brain areas that support production of the same expressions (simulation); this is often accompanied by spontaneous facial mimicry. While there is agreement that simulation is necessary for accurate facial expression recognition, the results about mimicry are inconsistent, and its contribution is still debated (for review: Wood et al., 2016). While mimicry is usually considered spontaneous (Dimberg, 2000), previous work suggests explicit categorization of facial expressions requires a voluntary mimicry modulation (e.g., Pistoia et al, 2010); this might be especially relevant when mentalisation alone is insufficient (e.g. ambiguous stimuli, or lack of context). Here, we present the results of two combined EEG/EMG studies assessing the role of mimicry in facial expression recognition. In Experiment 1, photographs of full blown facial expressions (anger, happiness, neutral) are presented either subliminally (50 ms) or supraliminary (200 ms) and participants (N = 25) are engaged in an explicit emotion categorization task. In Experiment 2, participants (N = 25) perform valence decisions and explicit categorisations of low-, medium- and high-intensity emotional expressions (anger, fear, happiness) along with neutral faces. In the two experiments, we look at the time-