
PROCESSING OF FACIAL ANGER IN BORDERLINE PERSONALITY DISORDER

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Patients with borderline personality disorder (BPD) are hypersensitive for social threat and are unable to regulate emotion. One reason for this might be deficits in facial emotion recognition. Although they do not show a general deficit in facial emotion recognition, previous studies have revealed a bias towards the perception of anger in morphed faces with low intensity of this emotion. The aim of this study was to further investigate the processing and recognition of ambiguous facial expressions BPD patients using bimodal social stimuli. Male and female BPD patients as well as matched healthy men and women were presented emotionally intonated sentences (auditory stimuli) and thereafter had to classify in a forced-choice decision task morphed faces displaying blends of happy and angry facial expressions (e.g., 80% angry/ 20% happy). Besides behavioral responses, we recorded and analyzed the electroencephalogram. In the behavioral data, we found a bias for anger when BPD patients are confronted with ambiguous bimodal stimuli. The ERP analyses revealed enhanced amplitudes for non-ambiguous emotional faces (i.e., 80%-angry/20%-happy, 80%-happy/20%-angry) compared with ambiguous faces (50%-angry/50%-happy) at components reflecting early (parietooccipital N170, frontocentral N200), and later (parietal P300) stages of emotional face processing. BPD patients had decreased amplitudes particularly in the emotion-sensitive parietalP300. These results confirm a hypersensitivity for subtle signals of facial anger and a reduced accuracy in anger recognition in faces clearly displaying anger in BPD patients maybe because of an enhanced early processing of and reduced regulation of the emotional reaction to facial anger.