It is time for context – Determinants of the negative bias in emotion recognition in Borderline Personality Disorder

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Patients with Borderline Personality Disorder (BPD) suffer from severe emotion dysregulation, instable relationships, and tend to perceive their interaction partners as hostile and rejecting. Causal to these negative perceptions of others might be deficits in social cognition, in particular a negative bias in emotion recognition (i.e. the attribution of negative emotions to neutral or ambiguous facial expressions). However, until now, findings regarding such a negative bias are heterogeneous, and influencing factors of its occurrence are neither well-described, nor systematically examined. The aim of this dissertation was to investigate internal and external determinants, as well as the specificity of the negative bias in BPD.

A behavioral study combining affective priming, emotion recognition and a manipulation of the available processing time in one paradigm was conducted with BPD patients, a healthy and a clinical control group of schizophrenia patients. The results support the existence of a negative bias in patients with BPD, and suggest that preceding emotional information, as well as available processing time are relevant factors for the occurrence of the negative bias. In addition, an association between the negative bias and emotion dysregulation was revealed in BPD. While schizophrenia patients showed a similar error pattern, the extent of negatively biased responses was not associated with emotion dysregulation, pointing to distinct mechanisms underlying the disturbed processing of facial expressions.

Further, an adapted task of affective priming combined with emotion recognition was applied to healthy participants in a functional magnetic resonance imaging study. Increased activation due to negative preceding information was revealed in brain regions such as the amygdala, the superior temporal sulcus, and the nucleus accumbens. These areas have been previously found to be disturbed in patients with BPD and also in patients with schizophrenia. The results of this study suggest that the brain's response to facial expressions is sensitive to interfering negative emotional information, possibly reflecting a vulnerability factor for the emergence of the negative bias.

The findings of this dissertation fit well into existing literature of a negative bias in BPD and provide new insights into the mechanisms of disturbed emotion recognition. It was shown that processing time as well as context information influence emotion recognition. Further, the results indicate a specific association between emotion dysregulation and the negative bias in BPD.