
Alexithymia from the social neuroscience perspective

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Abstract

Though Sifnéos and Nemiah considered alexithymics have difficulties interacting and dealing with their social environment, very few studies attempted to objectively investigate whether alexithymia is associated with poor socio-affective skills. We explored this issue in a disorder associated with abnormal social adaptation. Thirty-eight adults with autism spectrum disorder (ASD), 87 parents of ASD and 47 typical adults completed self-reports assessing ASD traits, alexithymia, physical and social anhedonia. Autistic traits and alexithymia scores were strongly correlated. The ASD displayed higher scores than both the parents and typical adults. Further, the parents differed from the typical adults on measures of alexithymia and anhedonia. Hence, alexithymia is not only a key feature of ASD, but may also be observed in the broader autism phenotype. At the cerebral level, we explored how alexithymia modulates the responses to a social threat, with a specific emphasis on the impact of personal involvement. We compared the behavioral and cerebral responses of normal individuals with maximally divergent alexithymia scores (10 vs 11) to self- or other-oriented angry and neutral body expressions. Alexithymics showed greater activity in the human mirror neuron system and experienced high levels of threat with both self- and other-oriented angry expressions. Alexithymics displayed activation within vmPFC for self-oriented anger and experienced greater levels of threat with self- as compared to other-oriented angry expressions. This further demonstrates alexithymia is a relevant model to investigate the links between brain, social cognition and behavior, notably to delineate potential pathways between dysfunctional cerebral circuits, poor emotional insight, and intersubjectivity.

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