

# **ELECTROPHYSIOLOGICAL CORRELATES OF ATTENTIONAL ENGAGEMENT AND DISENGAGEMENT FROM THREAT IN ANXIOUS CHILDREN**

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Pediatric anxiety disorders are characterised by attentional biases (AB) towards threat. Electrophysiological studies in adults revealed enhanced P100 and P200 amplitudes for threatening faces reflecting enhanced detection, perceptual processing and disengagement impairments. Studies investigating these questions in children are scarce while they may allow to model anxiety's effects on attentional processes under development. This study aimed to investigate electrophysiological correlates of attentional engagement and disengagement abilities from threatening faces in anxious children. Fifteen children reporting high levels of social anxiety and twenty healthy controls completed the State-Trait Anxiety Inventory for Children (STAI-C) and the Social Phobia and Anxiety Inventory for Children (SPAI-C) to examine the separated effects of these variables. They performed an emotional spatial-cueing task in which they had to detect targets cued by neutral or disgusted faces. Electrophysiological activity was recorded throughout the task. Results showed that children with high levels of trait anxiety had larger P100 amplitudes for disgust while high levels of social anxiety were correlated to larger P200 amplitudes. Children with high trait anxiety had larger P100 amplitudes for targets following disgusted faces. However, social anxiety did not influence targets processing. These results confirm the presence of AB towards threat in anxious children but the type of anxiety seems to moderate this effect. Trait anxiety is associated with enhanced attentional engagement whereas social anxiety seems to be characterised by disengagement impairments. Interestingly, these processing were associated to a faster processing of disgust for all children confirming a distinction between the notions of effectiveness and efficiency in anxiety disorders.

**Keywords (3) pediatric anxiety disorders, attentional biases, electrophysiology**

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