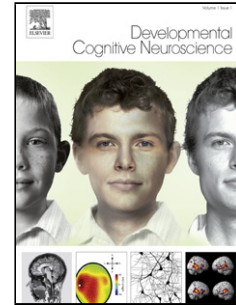


## Accepted Manuscript

Title: Reliability of Neural Activation and Connectivity during Implicit Face Emotion Processing in Youth

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PII: S1878-9293(17)30200-1  
DOI: <https://doi.org/10.1016/j.dcn.2018.03.010>  
Reference: DCN 558

To appear in:

Received date: 22-9-2017  
Revised date: 28-2-2018  
Accepted date: 24-3-2018

Please cite this article as: Haller SP, Kircanski K, Stoddard J, White LK, Chen G, Sharif-Askary B, Zhang S, Towbin KE, Pine DS, Leibenluft E, Brotman MA, Reliability of Neural Activation and Connectivity during Implicit Face Emotion Processing in Youth, *Developmental Cognitive Neuroscience* (2018), <https://doi.org/10.1016/j.dcn.2018.03.010>

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## Reliability of Neural Activation and Connectivity during Implicit Face Emotion Processing in Youth

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### Abstract

Face emotion imaging paradigms are widely used in both healthy and psychiatric populations. Here, in children and adolescents, we evaluate the test-retest reliability of blood oxygenation-level dependent (BOLD) activation and task-based functional connectivity on a widely used implicit face emotion processing task (i.e., gender labeling). Twenty-five healthy youth ( $M$  age = 13.97 years; 60% female) completed two functional magnetic resonance imaging (fMRI) scan sessions approximately two months apart. Participants identified the gender of faces displaying angry, fearful, happy, and neutral emotions. A Bayesian adaptation of the intraclass correlation (ICC) assessed reliability of evoked BOLD activation and amygdala seed-based functional connectivity on task events vs. baseline as well as contrasts between face emotions. For each face emotion vs. baseline, good reliability of activation was demonstrated across key emotion processing regions

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