Overview of Social Cognitive Ability from the Perspective of Facial Expressions and Context —Estimating Emotion Based on Context Essays and Facial Expressions—

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In recent years, increasing numbers of children have unbalanced emotional developments and sociability, particularly individuals with autistic spectrum disorders (ASD), and have difficulty inferring other people's feelings from their facial expressions and contexts, and therefore, they are less able to respond with prosocial behavior. Thus, teaching the connection between facial-based or situation-based emotions and prosocial behavioral responses is needed. In this research, we provided essays describing the context and facial expressions of a given character, and gave participants tasks to estimate the characters' emotion under two conditions: emotions described in the context essay and given facial expression were congruent, or they were incongruent. Furthermore, we tracked frontal lobe activity that was deeply associated with high cognitive functions using near-infrared spectroscopy (NIRS) and examined whether the frontal lobe activity related to emotion estimation differed as a function of the sympathy level.

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