AgCC had affective responses to the pictures of the emotional states of others which were similar to neurotypical controls. Recent research has shown that individuals with AgCC have difficulty inferring and elaborating on the more complex cognitive, social, and emotional aspects of simple animations (Renteria-Vazquez et al., 2022; Turk et al., 2010). Cognitive empathy would require this form of elaborative thinking, even when affective empathy is normal. Similarly, Paul et al. (2021) described alexithymia in persons with AgCC as difficulty in expressing emotions linguistically, but found similar endorsements of emotional experience when compared to neurotypical controls. This study provides further evidence to suggest the corpus callosum facilitates the ability to cognitively label emotions but not necessarily the ability to experience emotions affectively.

Categories: Emotional and Social Processes
Keyword 1: corpus callosum
Keyword 2: social cognition
Keyword 3: theory of mind
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40 Sex Differences in Emotional Intelligence Ability and Risk-Taking Behavior

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Objective: People differ in their propensity to engage in risky behaviors. Numerous factors such as cognition and personality have been utilized in predicting risk-taking, but little is known about the influence of stable emotional competencies, such as Emotional Intelligence (EI), in risk-taking. EI is defined as the ability and capacity to understand, perceive, and manage one's own, as well as others', emotions. However there has been little published research on the effect of ability emotional intelligence in engaging in risk- taking behavior. We hypothesized that those with higher emotional intelligence ability scores would demonstrate higher and more optimal risk-taking propensity. Furthermore, as prior research has demonstrated that males engage in more risk-taking behaviors, we accounted for sex differences within our analysis.
Participants and Methods: One-hundred and twelve healthy adults completed this study, including 56 females (Mage=21.7, SD=5.8) and 56 males (Mage=21.5, SD=3.2). The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was used to assess total EI ability while the Balloon Analog Risk Task (BART) was used to assess risk-taking propensity. We specifically analyzed adjusted number of pumps on unexploded balloons throughout the BART to account for the increased risk. We conducted Pearson correlations and a multiple regression to assess the if ability emotional intelligence and gender significantly predicted risk-taking propensity.
Results: There was a significant correlation between total emotional intelligence ability score and adjusted number of pumps on the BART for females, $r(55)=.362$, $p = .006$, but not for males $r(55)=.053$, $p=.701$, suggesting that females who score higher in emotional intelligence ability also had a higher risk-taking propensity. Due to these findings, we conducted a multiple regression to assess if ability emotional intelligence and gender significantly predict risk-taking propensity on the BART. The results of the regression indicated the two predictors explained 9.0% of the variance ($R^2 = .09$, $F(2,108)=5.32$, $p<.01$). However, it was found that ability emotional intelligence significantly predicted risk-taking propensity ($\beta = .23$, $p<.05$), but not sex ($\beta = -.17$, $p=.06$). There was no sex x EI interaction.
Conclusions: Higher ability emotional intelligence was significantly related to greater risk-taking propensity, but this was only observed for females. However, the lack of significance of sex in significantly predicting risk-taking may just be due to lower statistical power in the study. Importantly, the adjusted number of pumps for the participants in this sample was generally far below the mid-point for popping balloons, suggesting that the higher scores observed here represent more optimal decision performance rather than just greater risk. Thus, greater EI may reflect greater capacity to learn from reward and punishment feedback and apply that learning to optimize performance. Future research should look at the effect of emotional intelligence training in improving optimal risk-taking, particularly for populations

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known for engaging in risky behaviors such as those with mTBI.

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41 Aesthetic Perception in Agenesis of the Corpus Callosum

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Objective: Agenesis of the Corpus Callosum (AgCC) is the congenital absence of all or part of the corpus callosum. Previous research has demonstrated that isolated AgCC results in a pattern of cognitive and psychosocial deficiencies, even when FSIQ is in the normal range (FSIQ > 80; Brown & Paul, 2019). Importantly, individuals with AgCC have been shown to provide narratives containing fewer emotional words, social interactions, and mental inferences on the Thematic Apperception Test (TAT; Turk et al., 2009). Similarly, research has suggested deficits in the elaborative imagination of persons with AgCC when they are providing narrative descriptions of simple animations (Renteria-Vasquez et al., 2021). Such findings raise questions about aesthetic perception in AgCC. While previous research has demonstrated differences in aesthetic perception among other neuropsychological populations (e.g. Parkinson's Disease; Lauring et al., 2019), there is no research reported regarding aesthetic appreciations in AgCC. The present study employed the Assessment of Art Attributes (AAA; Chatterjee et al., 2010) to compare the conceptual and perceptual aspects of aesthetic perception of persons with AgCC to neurotypical control participants. Prior investigation by Bromberger and colleagues (2011) utilized the AAA to examine the aesthetic perception of persons with right hemisphere lesions, finding deviations in judgements of abstractness, symbolism, realism, and animacy– all classified as "conceptual attributes." Based on these findings, it was predicted that individuals with AgCC would rate paintings differently than neurotypical controls on conceptual attributes, but not on perceptual attributes.
Participants and Methods: Thirteen persons with AgCC and 49 neurotypical individuals completed the AAA. After completing measures of artistic experience and colorblindness, participants rated 24 paintings on 14 attributes. Balance, color saturation, color temperature, depth, simplicity, and stroke made up the "perceptual scales," while abstractness, animacy, emotion, objective accuracy, realism, interest, and preference made up the "conceptual scales."
Results: Following Bromberger and colleagues (2011), average ratings from all control participants were used to rank the 24 paintings for each scale. Spearman's rank-order correlations were then conducted between the rankings of each participant and the average of the controls for each scale. Spearman's rho coefficients were then compared between AgCC and control groups using t-tests, controlling for multiple comparisons. As hypothesized, the AgCC group had significant deviations from the average of the controls (lower rho values) on several conceptual attributes: Abstractness ($p = .004$, $d = .11$), emotion ($p < .001$, $d = .12$), and interest ($p < .001$, $d = .18$), whereas individuals with AgCC deviated on only one perceptual attribute: Simplicity ($p = .003$, $d = .12$).
Conclusions: While generally unremarkable in the sensory aspects, persons with AgCC demonstrated greatest differences in three important conceptual aspects of aesthetic perception. This outcome suggests that such higher-order aesthetic appreciations require interhemispheric interactivity. These results further support the hypothesis that decreased elaborative imagination is a fundamental component of AgCC.

Categories: Emotional and Social Processes
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Keyword 2: visual imagery
Keyword 3: emotional processes

42 Does dorsolateral prefrontal cortical functioning moderate the relation between conduct problems and

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