the expected directions across and within groups, with the strongest associations observed for memory for verbal information (rs = .51 to .58) and processing speed (rs = .48 to .57). Consistent with traditional list-learning tests, ID- and LD-EM were highly correlated (r = .85). Experienced affect intensity was inversely associated with ID-EM (r = -.29) and LD-EM (r = -.38) but not with recognition accuracy (r = -.10). Logistic regression examining ID-EM was significant, $\chi 2(3) = 26.05$, $p < .001$, Nagelkerke $R2 = .49$. ID-EM accounted for unique variance in group status (p = .006; OR = 0.65) after accounting for recognition accuracy and face memory. Similarly, the model examining LD-EM was significant $\chi 2(3) = 27.70$, $p < .001$, Nagelkerke $R2 = .43$; LD-EM was significant after accounting for other variables (p = .017; OR = 0.69).

Conclusions: The findings are consistent with the hypothesis that memory for emotions represents a unique component of social cognition that is separate from recognition. Accuracy in identifying emotions, face recognition memory, and memory for emotions are strongly related but not wholly redundant processes. Consistent with prior literature, subjective experience of emotion had substantial effects on objective performance tasks, indicating that an individual's intense experience of their own emotions can disrupt sensitivity to the emotions of others. Future research should assess the extent to which memory for emotions relates to psychosocial outcomes such as the quality and quantity of interpersonal relationships.

Categories: Emotional and Social Processes
Keyword 1: traumatic brain injury
Keyword 2: assessment
Keyword 3: social cognition
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39 Empathic Abilities of Individuals with Agenesis of the Corpus Callosum

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Objective: Previous research suggests that individuals with isolated Agenesis of the Corpus Callosum (AgCC) have cognitive and psychosocial deficits including that of complex processing of emotions (Anderson et al., 2017) and their ability to verbally express emotional experiences (Paul et al., 2021). Additionally, research suggests individuals with AgCC show impaired recognition of the emotions of others (Symington et al., 2010), as well as diminished ability to infer and describe the emotions of others (Renteria-Vazquez et al., 2022; Turk et al., 2010). However, the nature of the empathic abilities of individuals with AgCC remains unclear in empirical research. Capacity for empathetic feelings and situational recognition in persons with AgCC were tested using the Multifaceted Empathy Test [MET] (Foell et al., 2018). We hypothesized that individuals with AgCC would have lower abilities for both cognitive and affective empathy than neurotypical controls.

Participants and Methods: Results from 50 neurotypical control participants recruited from MTurk Cloud were compared to responses from 19 AgCC participants with normal-range FSIQ (>80) drawn from the individuals with AgCC involved with the Human Brain and Cognition Lab at the Travis Research Institute. The research was completed through an online version of the MET. The MET uses a series of photographs of individuals displaying an emotion. To measure cognitive empathy, the participants are asked to pick the correct emotion being displayed with three distractors for each item. To measure affective empathy, they are then asked on a sliding scale, "how much do you empathize with the person shown" (1 = Not at all, 7 = Very much).

Results: Results of a MANOVA showed a trend for a significant overall difference between individuals with AgCC and controls for empathic abilities $F(1, 67) = 2.59$, p-value = .082, with persons with AgCC showing less empathy overall. Follow-up one-way ANOVAs showed that individuals with AgCC scored significantly lower in cognitive empathy $F(1, 67) = 4.63$, p-value = .035, $\eta p2 = .065$; however, affective empathy was not significantly different between groups $F(1, 67) = .537$, p-value = .466, $\eta p2 = .008$.

Conclusions: Results suggest that adults with AgCC have a diminished ability to give cognitive labels to the emotional states of others compared to neurotypical controls. However, contrary to our hypothesis, participants with

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