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## CORRELATION OF BROADER AUTISTIC SPECTRUM PHENOTYPE TRAITS AND EMPATHY SCORES

BACKGROUND: Chakrabati et al. (2009) found that in high-functioning individuals with autism (AS) who rank high on the autism spectrum quotient (AQ), there is a link between their AQ score and their social-emotional behaviour on a genetic level. Given the evidence of the genetic basis of autism and a possible relationship with empathy, would this correspondence be found in the general population? Currently, those with AS score lower on empathy scales. What type of empathy is most correlated with AQ score? Empathy can be divided into cognitive empathy, emotional contagion and emotional disconnection. Based on both social exchange and extreme male brain theories of autism, higher scores on AQ should correspond to lower empathy scores.

METHOD: 325 students from Concordia University of Edmonton and the University of Alberta (235 female, 88 males, 2 non-binary or transgender) completed the 50-item Autism Spectrum Quotient self-report questionnaire (ASQ) devised by Simon Baron-Cohen et al. (2001) and the 20-item Revised Basic Empathy Scale in Adults (BES-A) as developed by Carre et al. (2013) using Google forms.

## RESULTS:

As hypothesized, there is a significant negative correlation between AQ and EQ. This seems to be driven by significantly negative correlations between Autism traits of Communication and Imagination scores with Empathy factors of Emotional Disconnection and Cognitive Empathy. Social Skills also negatively correlated with all three factors of Empathy. It seems that the ability to understand and disconnect from emotions is particularly related to communication and imagination abilities.