The current study attempts to replicate prior findings (Lodi-Smith et al., in press) that Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and emotional stability) are negatively related to autism characteristics such that individuals with higher symptom burden will show lower levels of each of the traits.

Study aims:
1. Examining the relationship between Big Five personality traits and ASD symptoms broken down by symptom category.
2. Examining whether Big Five personality traits mediate the relationship between ASD symptoms and outcomes.

These aims will be examined using two independent samples from the National Database of Autism Research.

### Preliminary Correlation Results

#### Big Five Traits and ASD Symptoms

<table>
<thead>
<tr>
<th>Trait</th>
<th>Correlation Coefficient</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness</td>
<td>-0.24</td>
<td>0.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>Extraversion</td>
<td>-0.15</td>
<td>0.19</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>-0.20</td>
<td>0.05</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-0.20</td>
<td>0.06</td>
</tr>
</tbody>
</table>

### Conclusions & Future Directions

Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and emotional stability) are somewhat related to ASD symptoms. These effects are at times not as robust as in prior meta-analytic work (Lodi-Smith et al., in press) and somewhat variable across studies and symptoms.

- This may be due to the small sample size particularly for adult sample. Given the extreme groups nature of the data, future analyses will move away from null-hypothesis significance testing approaches.
- This may also be due to the within ASD nature of these analyses - past work has primarily focused on comparing individuals with ASD or high in ASD characteristics to control participants not the association of personality to symptom variability within individuals diagnosed with ASD. This may bring restricted range in personality traits. Future analyses will compare ASD participants from these samples to norms for the associated Big Five measures.
- Variability between samples may also be due to developmental differences in ASD and personality traits.

Big Five traits and ASD characteristics are somewhat related to a variety of outcome measures. Future analyses will use these correlations to inform multiple mediation analyses to conceptually replicate prior research (Rodgers et al., 2018) suggesting that Big Five traits mediate the relationship between ASD and outcomes.

### Methods

#### Participants

- Child sample: 74-98 children with ASD (from Wood et al., 2016)
- Adult sample: 21-30 adults with ASD (from Minshew et al., 2007)

#### Measures

- Child sample:
  - Big Five Questionnaire (BFI, Caprara et al., 1993)
  - Autism Diagnostic Interview-Revised (ADI-R, Lord et al., 1994), Autism Diagnostic Observation Schedule (ADOS; Lord et al., 1989)
  - Social Responsiveness Scale (SRS; Constantino & Gruber, 2005)
  - Playground observation of peer engagement (POPE; Kasari et al., 2003)
- Adult sample:
  - NDI Five Factor Inventory (NEO-FFI; Costa and McCrae, 1992)
  - ADI-R or ADOS (varies by participant)
  - Medical history, physical exam, finger tapping test (Schmitt, 2013), grooved pegboard test (Merker & Podell, 2011)
  - Benton Facial Recognition Test (Benton & Van Allen, 1968), Reading the Mind in the Eyes Test (Baron-Cohen et al., 1997)

### References