



# Big Five model and trait emotional intelligence in camouflaging behaviours in autism

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## ABSTRACT

This study investigated the association of the five-factor model and trait emotional intelligence (trait EI) with camouflaging behaviours (masking and compensating for autistic characteristics) in a large sample of 278 autistic and 230 typically developing (TD) participants. Participants completed questionnaires assessing autistic traits, big five personality, trait EI, and social camouflaging of autistic traits. Camouflaging was negatively related to extraversion, agreeableness, and conscientiousness, while it was positively related to neuroticism. Trait EI was also negatively linked to camouflaging. The differences between autistic and TD participants regarding camouflaging are discussed.

Additionally, associations between the dimensions of extraversion, agreeableness, conscientiousness, and neuroticism with autistic traits were found, supporting previous research showing that individuals with higher autistic traits are predisposed to specific personality traits. Trait EI had a negative relationship with autistic traits, suggesting a specific emotional difficulty for individuals with high autistic traits.

Autism Spectrum Disorders (ASD) are a group of developmental disorders diagnosed by an individual having persistent deficits across social settings (e.g. in communication and interaction) and showing a restricted, repetitive pattern of behaviour, interests, or activities (American Psychiatric Association, 2013). In addition to clinical diagnoses of ASD, autistic traits (such as difficulties with communication, strict behavioural routines, and aversion to change) are distributed across the entire population (Rotatori & Deisinger, 2015). Throughout this paper we refer to people diagnosed with ASD as autistic individuals, following research suggesting this is the preferred description in the autistic community (Kenny et al., 2016).

## 1. Big five model and autistic traits

The Big Five model of personality (consisting of extraversion, neuroticism, agreeableness, conscientiousness, and openness to experience) gives a measure of an individual's personality type. A recent meta-analysis has collated research on autism and the Big Five (Lodi-Smith, Rodgers, Cunningham, Lopata, & Thomeer, 2018). In autistic individuals, all five factors were negatively associated with autistic characteristics (note, they used the reverse of neuroticism – emotional stability) with z-scores ranging from 0.21–0.50. Autistic individuals

also had significantly lower scores on all five factors than typically developing (TD) individuals. The largest of these effects were for extraversion, emotional stability (neuroticism), and agreeableness.

### 1.1. Trait EI and autistic traits

Trait EI is defined as a constellation of emotional perceptions assessed via questionnaires and rating scales (Petrides, Pita, & Kokkinaki, 2007). It comprises all of the personality facets that relate to affect. Trait EI is of interest because there is clear evidence of emotional differences in autistic individuals, such as difficulties with empathy (Baron-Cohen & Wheelwright, 2004), and facial or vocal emotion identification (Golan, Baron-Cohen, & Hill, 2006). Autistic individuals have demonstrated lower trait EI than TD controls (Boily, Kingston, & Montgomery, 2017; Petrides, Hudry, Michalaria, Swami, & Sevdalis, 2011). Furthermore, Gökçen, Petrides, Hudry, Frederickson, and Smillie (2014) reported a negative correlation between autistic traits and trait EI, as well as the wellbeing, sociability, and emotionality factors of trait EI with correlations ranging from 0.31 to 0.62. However, Gökçen et al. (2014) used TD participants and, therefore, it is unclear whether the association is present in autistic individuals. Investigation of this relationship in a group particularly high in autistic traits may

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illuminate whether the relationship is wholly linear or if a different relationship exists.

### 1.2. Big Five, trait EI and camouflaging

Camouflaging, defined as the use of compensation and masking strategies in social situations, is a relatively new area of research in autism. It includes hiding autistic characteristics, using techniques to appear socially competent, and preventing others from seeing social difficulties (Hull et al., 2017). Camouflaging has been described by autistic individuals and clinicians for several years (e.g. Lai, Baron-Cohen, & Buxbaum, 2015), and has recently been more fully investigated (Cage & Troxell-Whitman, 2019; Hull et al., 2017, 2018; Lai et al., 2017). Components of camouflaging include masking (hiding of autistic characteristics and presenting alternative personas; Cage & Troxell-Whitman, 2019), compensation (developing alternative routes to overcome innate autistic difficulties; Livingston & Happé, 2017), and assimilation (trying to fit in with others; Hull et al., 2018). Research in camouflaging has so far mostly focused on autistic adults without intellectual disability, and therefore the extent of camouflaging across the entire autism spectrum is still unknown.

Camouflaging is theoretically related to reputation management in TD individuals (Izuma, Matsumoto, Camerer, & Adolphs, 2011), although the extent of similarity between these concepts requires further examination. Reputation management (also known as self-presentation) involves various strategies to both motivate and construct one's public reputation, which may be distinct to one's private self-impression (Leary & Kowalski, 1990). However, research suggests that autistic individuals use reputation management less often, and to a lesser degree than TD individuals (Cage, Pellicano, Shah, & Bird, 2013). In contrast, camouflaging (which involves behavioural management related specifically to autistic traits), is more common in autistic than non-autistic individuals (Hull et al., 2018). TD individuals still camouflage autistic traits to some extent, reflecting the continuous nature of autistic traits within the population. Autistic traits have been strongly positively correlated with camouflaging in autistic and TD samples (Hull et al., 2018, 2019).

As camouflaging is still a relatively new area of research, there has not yet been any investigation into its association with the Big Five. This is an important avenue of research as certain personality traits may predispose an individual to camouflage and may be associated with individual variation in the success of camouflaging strategies. There has been some examination of the relationship between personality traits and reputation management/self-presentation, which provides some hypotheses regarding a possible relationship between personality traits and camouflaging. However, as mentioned previously, the extent to which the concepts of reputation management and camouflaging are distinct is still to be determined. If the associations between camouflaging and personality traits are similar to those between reputation management and personality, this would suggest that camouflaging and reputation management represent very closely related concepts. On the other hand, if opposing associations are found, this would suggest that camouflaging of autistic traits represents a distinct behaviour to reputation management. Exploration of the relationship between camouflaging and personality therefore would also provide more information about the conceptual nature of camouflaging in relationship to reputation management by TD individuals.

Extraversion has several facets that are relevant to self-presentation strategies. For example, extraverted individuals make friends easily and enjoy being around large groups. These are contexts in which self-presentation strategies may be employed. Early research found that extraversion was positively associated with public self-consciousness (Trapnell & Campbell, 1999) and with self-monitoring (John, Cheek, & Klohnen, 1996), both of which are related to self-presentation strategies. Extraversion has also been linked to actual self-presentation and emotional disclosure (Seidman, 2013).

Neuroticism is positively associated with online self-presentation behaviours (Seidman, 2013). It is likely that the more neurotic an individual is the more they would feel the need to camouflage their autistic traits. The relationship between the other dimensions and self-presentation is still uncertain. Agreeableness has been positively associated with actual self-presentation but negatively with attention-seeking, while conscientiousness was negatively associated with several self-presentation behaviours, such as attention-seeking and ideal self-expression (Seidman, 2013). The same study found no relationship between openness to experience and self-presentation.

A link may also exist between trait EI and camouflaging. There have been studies examining the association between trait EI and self-presentation. High trait EI individuals score higher on measures of self-monitoring (Schutte et al., 2001), while Petrides, Pérez-González, and Furnham (2007) found trait EI to be a positive predictor of the ability to modify self-presentation.

However, both these studies examined self-presentation as part of the broader concept of self-monitoring. This concept also encompasses sensitivity to emotional expression, which is shown to be impaired in autistic individuals (Baron-Cohen & Wheelwright, 2004; Golan et al., 2006). Research has demonstrated greater camouflaging in autistic individuals (Hull et al., 2018), therefore the relationships between personality, trait EI, and self-presentation in TD populations may not extend to camouflaging by autistic individuals.

In a more theoretical sense, it would be logical to predict that camouflaging and trait EI were related based on the facets of trait EI. For example, sociability and self-control may play an aspect in desire or need to camouflage and in the ability to do so successfully. Furthermore, camouflaging has been shown to be associated with higher levels of anxiety and depressive symptoms (Hull et al., 2018), so there may be evidence to suggest a theoretical relationship with well-being. Again, however, it is important to point out that the literature described here has focused on associations between trait EI and self-presentation in TD individuals. We have used these studies to provide hypotheses for associations between trait EI and camouflaging of autistic traits, but it is still unclear to what extent the concepts of camouflaging and self-presentation overlap or are distinct, hence the need for direct examination of the trait EI/camouflaging relationship.

### 1.3. The current study

The current study is the first to explore the relationship between the Big Five, trait EI, and camouflaging in autistic and non-autistic individuals. It attempts to elucidate the association of trait EI and the big five with camouflaging. It also advances research on trait EI and autism by investigating the predictive association of trait EI in autistic traits using large autistic and non-autistic samples for the first time.

The following hypotheses were tested:

Individual with greater camouflaging will be

H1: Higher on extraversion

H2: Higher on neuroticism

H3: Lower on conscientiousness

Individuals with higher autistic traits will be:

H4: higher on neuroticism; lower on extraversion, agreeableness, and conscientiousness

H5: Lower on trait EI

In addition, exploratory analyses were performed on the relationships between autistic traits, the big five, trait EI, and camouflaging.

## 2. Method

### 2.1. Participants

A power analysis was conducted prior to data collection. This

indicated that at least 300 participants were needed to detect effect sizes similar to previous research on autism and big 5 traits. A large sample of responses from 592 participants were collected (404 females, 172 males, mean age = 36.8 years, SD = 15.4). Of them, 278 reported having a diagnosis of an ASD (further reporting the age at which they were diagnosed and the type of healthcare professional who diagnosed them), 230 were TD, and 84 considered themselves to have self-diagnosed ASD. Self-diagnosed participants were not included in any analyses. Participants were recruited through an online recruitment system at [institution removed for review], via social media, and from the [database removed for review]. The participants recruited through [institution] (N = 58) were rewarded with course credit. Most participants were from North America, Europe, or Australia; however, there were also participants from Asia (N = 37), South America (N = 3), and South Africa (N = 2).

### 3. Measures

The experiment employed four questionnaires, presented to the participants in an online survey through Qualtrics.

The Broad Autism Phenotypes Questionnaire (BAPQ; Hurley, Losh, Parlier, Reznick, & Piven, 2007).

The BAPQ was used to measure participants' autistic traits. Internal reliability was high (α = 0.96). The questionnaire consists of 36 closed questions scored on a 6-point scale and contains three subscales: aloofness (12 items, α = 0.93), rigidity (12 items, α = 0.92), and pragmatic language (12 items, α = 0.90). Scores above a certain cut-off (male average = 3.47, female average = 3.19) are associated with the Broader Autism Phenotype in the general population (Sasson et al., 2013). The BAPQ includes items such as 'People get frustrated with my unwillingness to bend' and 'I speak too loudly or softly'.

#### 3.1. The Big Five Inventory (BFI; John & Srivastava, 1999)

The BFI was used as a measure of the five-factor model. The questionnaire consists of 44 closed questions scored on a 5-point scale. This measure was chosen because it is concise, thus reducing the likelihood of respondent fatigue, and shows high convergence with the NEO PI-R facets (Soto & John, 2009). Cronbach's alphas for extraversion, neuroticism, conscientiousness, agreeableness, and openness to experience were 0.85, 0.87, 0.82, 0.79, and 0.81, respectively. Some examples of items included on this questionnaire are 'I see myself as someone who is sometimes shy, inhibited' and 'I see myself as someone is original, comes up with new ideas'.

#### 3.2. Trait emotional intelligence questionnaire (TEIQue-SF; Petrides, 2009)

The short form version of the TEIQue, consisting of 30 closed questions scored on a 7-point scale, was used to minimise respondent time. Internal consistency was high for the global score (α = 0.92) as well as for its four factors: emotionality (8 items, α = 0.82), sociability (6 items, α = 0.79), well-being (6 items, α = 0.88), and self-control (6 items, α = 0.75). This questionnaire contains items like 'Many times, I can't figure out what emotion I'm feeling' and 'I normally find it difficult to keep myself motivated'.

#### 3.3. Camouflaging autistic traits questionnaire (CAT-Q; Hull et al., 2018)

The CAT-Q is a self-report measure of camouflaging, which consists of 25 closed questions scored on a 7-point scale. Internal consistency was high (α = 0.94) and there are three subscales: compensation (9 items, α = 0.94), masking (8 items, α = 0.80), and assimilation (8 items, α = 0.90). It contains items such as 'When I am interacting with someone, I deliberately copy their body language or facial expressions' and 'I always think about the impression I make on other people'.

### 3.4. Procedure

Participants completed the BAPQ first, followed by the BFI, then CAT-Q, and finally the TEIQue-SF. They were then asked for demographic details, including age, gender, nationality, native language, student status, education level, and type of ASD diagnosis (e.g. Autism, Aspergers, etc.). Finally, participants were debriefed on the complete aims of the study and were provided with the details of researchers.

### 3.5. Analysis

t-Tests were undertaken to determine whether autistic and TD groups were significantly different on BAPQ and TEIQue-SF scores. Four multiple regressions were undertaken. The first two regressed BAPQ scores on the four factors of trait EI separately in the autistic and TD samples, to test Hypothesis 5. The third and fourth regressed camouflaging on BFI variables, and the trait EI factors separately in the autistic and TD samples, to test Hypotheses 1–4. BAPQ scores were included as a covariate in the third and fourth regressions, as previous research has demonstrated an association between camouflaging and autistic traits; however this was not considered a main focus of analysis. In these latter two regressions, sets of variables were entered in decreasing order of the strength of correlation with the CAT-Q total score.

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## 4. Results

Descriptive statistics for the BAPQ, BFI, TEIQue-SF, and CAT-Q are displayed in Table 1. Inspection of histograms showed the results for all four questionnaires to be normally distributed. Bonferroni corrections were used on all analyses. Correlations were assessed against  $p = .000175$ , ANOVAs against  $p = .0025$ , and t-tests against  $p = .00227$ .

A t-test on BAPQ scores [ $t(506) = 18.19$ ;  $p < .001$ ;  $d = 1.61$ ] found autistic participants had significantly higher levels of autistic traits than TD participants. For autistic individuals 12.5% of male participants and 1.84% of female participants were below the cut-off score for BAP. For TD individuals, 60% of male participants and 54.01% of female participants were below the cut-off.

Another t-test was run to determine group differences in trait EI.

**Table 1**  
Means and SD for the BAPQ, BFI, TEIQue-SF, and standardised CAT-Q.

Measure	All participants (SD)	Typically developing (SD)	Autistic (SD)
BAPQ	3.86 (0.92)	3.12 (0.79)	4.31 (0.68)
Aloof	4.05 (1.06)	3.32 (1.00)	4.48 (0.85)
Pragmatic Lang	3.58 (1.00)	2.81 (0.84)	4.05 (0.76)
Rigid	3.95 (1.02)	3.24 (0.90)	4.40 (0.86)
BFI			
E (1.00–5.00)	2.43 (0.89)	2.81 (0.92)	2.21 (0.79)
A (1.11–5.00)	3.46 (0.75)	3.68 (0.70)	3.33 (0.78)
C (1.00–5.00)	3.47 (0.79)	3.58 (0.77)	3.46 (0.78)
N (1.00–5.00)	3.65 (0.90)	3.33 (0.92)	3.87 (0.81)
O (1.30–5.00)	3.67 (0.72)	3.67 (0.70)	3.64 (0.75)
TEIQue-SF	3.96 (1.02)	4.60 (0.94)	3.54 (0.86)
Emotionality	3.89 (1.31)	4.78 (1.17)	3.36 (1.10)
Sociability	3.85 (1.25)	4.42 (1.15)	3.47 (1.18)
Well-being	4.46 (1.39)	4.99 (1.25)	4.08 (1.41)
Self-control	3.63 (1.17)	4.09 (1.13)	3.32 (1.11)
CAT-Q	4.39 (1.24)	3.64 (1.14)	4.84 (1.05)
Compensation	4.03 (1.64)	2.97 (1.41)	4.67 (1.41)
Masking	4.38 (1.25)	4.23 (1.15)	4.46 (1.31)
Assimilation	4.86 (1.48)	3.89 (1.47)	5.44 (1.16)

BAPQ = Broad Autism Phenotype Questionnaire (Range 1–6); BFI = Big Five Inventory (Range 1–5); TEIQue-SF = Trait Emotional Intelligence Questionnaire – Short Form (Range 1–7); standardised CAT-Q = Camouflaging Autistic Traits Questionnaire (Range 1–7).

**Table 2**  
Correlations between the BAPQ, BFI, camouflaging, and trait EI.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. BAPQ	-																		
2. Aloofness		-																	
3. Pragmatic Language			-																
4. Rigid				-															
5. Extraversion					-														
6. Agreeableness						-													
7. Neuroticism							-												
8. Conscientiousness								-											
9. Openness									-										
10. Camouflaging										-									
11. Compensation											-								
12. Masking												-							
13. Assimilation													-						
14. Trait EI														-					
15. Wellbeing															-				
16. Self-control																-			
17. Emotionality																	-		
18. Sociability																		-	

Correlations in the TD sample are below the diagonal, correlations in the autistic sample are above the diagonal.

This was found to be significant [ $t(506) = 13.26; p < .001; d = 1.18$ ], with TD participants scoring higher than autistic participants. This pattern of results held throughout the four trait EI factors.

#### 4.1. Big Five, trait EI and camouflaging

All correlations between the big five, Trait EI, and camouflaging can be seen in Table 2. In the TD sample, there were negative correlations between camouflaging and agreeableness, extraversion, and trait EI. The relationship between camouflaging and extraversion was in the opposite direction to that proposed in Hypothesis 1. A positive correlation was found between neuroticism and camouflaging, in support of Hypothesis 2, and a negative correlation between conscientiousness and camouflaging, in support of Hypothesis 3. However, only the relationship between neuroticism and camouflaging was significant in the autistic sample, again supporting Hypothesis 2. Despite no overall association between camouflaging and extraversion in the autistic sample, a significant correlation was found with the camouflaging subscale of assimilation.

#### 4.2. Trait emotional intelligence and autistic traits

A negative correlation between scores on the BAPQ and TEIQue-SF was found in both the autistic and TD samples, supporting Hypothesis 5. Negative correlations were also found between BAPQ scores and all four factors of TEIQue across autistic and TD participants.

Multiple regressions were undertaken of BAPQ scores on the four factors of trait EI (emotionality, sociability, self-control, and wellbeing). The results of these regressions in the TD [ $F(4,225) = 74.37, p < .001, R^2 = 0.57$ ] and autistic [ $F(4,273) = 60.92, p < .001, R^2 = 0.47$ ] samples can be seen in Supplementary Table 1. Emotionality was a significant predictor ( $\beta = -10.20, p < .001$ ) in the TD sample, while emotionality ( $\beta = -0.48, p < .001$ ) and sociability ( $\beta = -0.20, p < .001$ ) were significant predictors in the autistic sample.

#### 4.3. Five-Factor model and autistic traits

Correlations between all variables and subscales are reported in Table 2. Correlations between BAPQ scores and the big five domains of extraversion, agreeableness, and neuroticism were all significant in both samples. In support of Hypothesis 4, neuroticism was positively associated with autistic traits in both samples, while extraversion and agreeableness were negatively associated with autistic traits in both samples. No relationship between autistic traits and conscientiousness emerged in either sample.

A multiple regression was undertaken of camouflaging in the TD sample, the results of which are presented in Table 3. This contained the subscales of BAPQ, the big five dimensions, and the factors of Trait EI as predictors. This model was significant [ $F(12,217) = 23.74, p < .001, R^2 = 0.75$ ] with pragmatic language, aloofness, rigidity, and self-control as significant predictors, in contrast to Hypotheses 1–3.

An identical multiple regression was undertaken in the autistic sample. This regression was significant [ $F(12, 264) = 6.24, p < .001, R^2 = 0.221$ ] and the results can be seen in Table 4. Neuroticism was a predictor, in support of Hypothesis 2, in addition to aloofness, openness to experience, and wellbeing.

### 5. Discussion

This study investigated the relationships between the Big Five, trait EI, autistic traits, and camouflaging.

#### 5.1. Big Five, trait EI and camouflaging

Contrary to Hypothesis 1, there was a significant negative correlation between extraversion and camouflaging in the TD sample. It may

**Table 3**  
Multiple Regression Analyses Predicting Camouflaging from BAPQ subscales (Step 1), Five-factor model of Personality (Step 2), and the Trait EI Factors (Step 3) in the Typically Developing Sample.

95% CI					
	$\beta$	SE	$t$	Lower bound	Upper bound
(Constant)		1.09	1.61	-0.39	3.91
Aloofness	0.21	0.10	2.32*	0.04	0.44
Pragmatic language	0.31	0.11	4.00**	0.21	0.63
Rigid	0.14	0.09	2.01*	0.01	0.34
Extraversion	-0.15	0.10	-1.91	-0.37	0.01
Agreeableness	0.03	0.10	0.48	-0.15	0.25
Neuroticism	0.00	0.11	-0.01	-0.22	0.22
Conscientiousness	-0.05	0.08	-0.96	-0.24	0.08
Openness to experience	0.07	0.08	1.38	-0.05	0.27
Wellbeing	0.12	0.06	1.87	-0.01	0.22
Self-control	-0.23	0.09	-2.53*	-0.41	-0.05
Emotionality	-0.08	0.08	-0.98	-0.22	0.08
Sociability	0.07	0.07	1.13	-0.06	0.20

\* $p < .05$ , \*\* $p < .001$ .

**Table 4**  
Multiple regression analyses predicting camouflaging from BAPQ subscales (Step 1), Big Five personality (Step 2), and Trait EI subscales (Step 3) in the autistic sample.

95% CI					
Predictor	$\beta$	SE	$t$	Lower bound	Upper Bound
(Constant)		1.15	-0.13	-2.42	2.12
Aloofness	0.30	0.11	3.41**	0.16	0.59
Pragmatic Language	-0.01	0.10	-0.16	-0.22	0.19
Rigid	0.11	0.09	1.60	-0.03	0.31
Extraversion	-0.04	0.10	-0.50	-0.24	0.14
Agreeableness	0.06	0.09	0.92	-0.09	0.25
Neuroticism	0.23	0.12	2.58*	0.07	0.52
Conscientiousness	-0.08	0.08	-1.38	-0.27	0.05
Openness to experience	0.27	0.08	4.59**	0.21	0.54
Wellbeing	0.18	0.05	2.41*	0.02	0.24
Self-control	-0.07	0.08	-0.82	-0.23	0.10
Emotionality	0.03	0.07	0.45	-0.11	0.17
Sociability	0.03	0.06	0.41	-0.10	0.15

\* $p < .05$ , \*\* $p < .001$ .

be that introverted individuals feel they need to camouflage in social situations in order to appear more extraverted. However, this correlation was not significant in the autistic sample. This suggests camouflaging may not be the same as the self-presentation strategies used in TD populations, especially since the latter are positively related to with extraversion (Michikyan, Subrahmanyam, & Dennis, 2014). Some personality traits may predict variation in self-presentation by TD individuals, whereas other factors, including situational variables, may underlie autistic individuals' camouflaging (Hull et al., 2018).

However, extraversion did not significantly predict camouflaging beyond the role of autistic traits in either group, suggesting that the strong relationship between extraversion and autistic traits in the TD sample may account for some of this variance.

There was support for the hypothesis that neuroticism would have a positive association with camouflaging across both groups. Additionally, neuroticism and openness to experience both significantly predicted camouflaging beyond the influence of autistic traits in the autistic sample. This echoes previous findings that more neurotic individuals engage more often in self-presentation strategies (Michikyan et al., 2014; Seidman, 2013). In contrast to the results on extraversion, this shows a similarity between camouflaging and self-presentation strategies. It may be that the two constructs are not completely synonymous, but that specific self-presentation strategies are related to

camouflaging. It may also be that this association can be explained by the relationship between neuroticism and anxiety (Uliaszek et al., 2009), since previous research has shown that people who are more anxious are also more likely to engage in camouflaging (Hull et al., 2018).

Finally, it was predicted that individuals scoring higher on camouflaging would score lower on conscientiousness. In the TD sample, there was a significant negative correlation between total camouflaging and conscientiousness, as well as between assimilation and conscientiousness. This is in line with the results of Seidman (2013), where conscientiousness was negatively associated with self-presentation behaviours. However, the correlation did not reach significance in the autistic group. These results again highlight a difference between the autistic group and the TD group in relation to big five personality traits associated with camouflaging. This may indicate a qualitative difference in camouflaging behaviours between individuals with and without a diagnosis of ASD, although again, the lack of a significant predictive effect of conscientiousness in the multiple regression means these findings should be replicated.

Although no specific hypotheses were advanced regarding the relationship between camouflaging and the big five domains of agreeableness and openness to experience, our results revealed a negative relationship with the former domain in the TD sample. However, this did not reach significance in the autistic group, further highlighting a pattern of difference between the TD group and autistic group. Openness to experience showed no significant correlations with camouflaging in any analysis, although it was a significant predictor of camouflaging in the autistic sample. Replication of these results is needed to better understand the relationship between camouflaging and this dimension in both autistic and TD groups.

Although no specific hypotheses were proposed, the relationship between trait EI and camouflaging was also explored. A negative correlation between the two variables was found in TD participants, which did not reach significance in the autistic sample. These findings suggest camouflaging is qualitatively different to self-presentation strategies, as trait EI has been shown to be positively related to self-presentation strategies (Petrides, Pérez-González, & Furnham, 2007; Schutte et al., 2001). This may also indicate that more complex relationships exist between autism, camouflaging, and trait EI. When entered into a multiple regression with other correlates of camouflaging (BAPQ scores and BFI scores), wellbeing predicted camouflaging in autistic participants and self-control predicted camouflaging in TD participants. This suggests that trait EI may be partially predictive of camouflaging independent of the individual's level of autistic traits. However, more detailed empirical investigations need to be undertaken to understand the nature of this relationship and any other factors which may moderate or mediate it.

## 5.2. Five-Factor model and autistic traits

A positive correlation between BAPQ scores and neuroticism was found across both groups. BAPQ scores were negatively correlated with extraversion and agreeableness across both groups. These results corroborate the findings of previous studies on both TD and autistic groups (Lodi-Smith et al., 2018) and mostly support the fourth hypothesis. As these associations have been consistently demonstrated, it suggests that they are particularly robust.

The correlations between conscientiousness and BAPQ scores were not significant in either the autistic or the TD sample, contrasting with previous findings (Lodi-Smith et al., 2018), suggesting the relationship may require further examination.

These results suggest that there are specific personality dimensions underlying autistic traits. The findings of low extraversion, low agreeableness, and high neuroticism associated with high autistic traits were replicated across all analyses, suggesting these are particularly robust.

### 5.3. Trait EI and autistic traits

A negative association between trait EI and autistic traits was hypothesized. Considerable support was found for this hypothesis with large correlations noted across both the autistic and the TD samples. This finding lends support to previous research in the field reporting a significantly lower level of trait EI in autistic samples (Boily et al., 2017; Gökçen et al., 2014). These findings have implications, especially for people high in autistic traits or diagnosed with ASD, as trait EI is an important factor for a fulfilling life (Petrides et al., 2016). Trait EI has also been related to treatment outcomes in depression and anxiety (Rudenstine & Espinosa, 2018), suggesting that low trait EI may impact the recovery of autistic individuals suffering from these conditions.

The regression results indicate that a large amount of variance in autistic traits can be accounted for by trait EI. This further supports the theory that difficulties with trait EI are a key characteristic of ASD. The analyses indicate that emotionality is a particularly good predictor of autistic traits, which is consistent with previous research (Gökçen et al., 2014). The high significance of the emotionality factor as a predictor of autistic traits in both TD and autistic samples suggests that an intervention specifically targeting emotionality would benefit individuals in both groups.

### 5.4. Predicting camouflaging

Camouflaging was regressed on BAPQ subscale scores, BFI variables, and the trait EI factors. In the TD sample, a model containing pragmatic language, aloofness, rigidity, and self-control accounted for the greatest variance in camouflaging. This suggests that camouflaging can be best predicted by autistic traits in TD individuals, and that other individual differences, including big five personality and trait EI, may impact it indirectly through their relationship with autistic traits. However, the significance of the self-control factor suggests that trait EI may influence camouflaging independent of autistic traits. In autistic participants, a model containing aloofness, neuroticism, openness to experience, and wellbeing accounted for the greatest variance in camouflaging. This suggests that camouflaging in autistic participants can be partially explained by some aspects of their big five traits and trait EI, in addition to their autistic traits. The common factor of aloofness in both models suggests that this aspect of the Broader Autism Phenotype may drive camouflaging in both TD and autistic individuals. Feeling separate to others may lead to use of camouflaging strategies in order to socialise and integrate (Hull et al., 2017).

### 5.5. Strengths and limitations

This study benefited from a large sample of autistic participants, which is rare in this area of research. As such, it offers some of the strongest evidence for the relationships between personality, trait EI, and autistic traits to date. Additionally, it is the first study to explore the association of the five-factor model and trait EI with camouflaging, with important implications for our understanding of the factors promoting camouflaging in both autistic and TD individuals. This study is also one of the first to compare camouflaging with previous findings concerning reputation management and personality, therefore strengthening the conceptual distinctions between camouflaging and reputation management.

A limitation of the current study is that, due to its online nature, participants' self-reported ASD diagnoses could not be verified, although participants were only included if they were able to report the type of healthcare professional who had diagnosed them.

Autistic traits were used as a proxy of the types of autistic characteristics which may be camouflaged, but do not reflect scores on diagnostic assessments of autistic characteristics. However, scores on the BAPQ were significantly higher for the autistic group than the TD group, and scores in both groups were evaluated against the cut-off

scores outlined in Sasson et al. (2013). Considerably more participants who self-reported as TD were below the cut-off threshold than those who self-reported as autistic.

## 6. Conclusions

This study aimed to investigate the relationship between autistic traits, the big five, trait EI, and camouflaging, in one of the largest samples yet in this area of research. Trait EI was negatively associated with autistic traits in both autistic and TD samples. This has implications for all individuals high in autistic traits, as trait EI is strongly linked to psychological wellbeing and life satisfaction. Differences in the predictors of camouflaging were found between autistic and TD samples, suggesting that autistic camouflaging may be partially driven by situational pressures, such as stigma, and TD self-presentation strategies may be driven by individual differences, especially autistic traits.

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