

Camouflaging and social competence predict internalizing behaviours in non-autistic young
adults

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Abstract

Background: Camouflaging, defined as the use of strategies to compensate for or hide autistic traits, is associated with internalizing behaviour (i.e., anxiety and depression) in both autistic and non-autistic people. Non-autistic adults who have poorer social competence tend to engage in more camouflaging, thus it's unclear whether the increase in internalizing behaviour associated with camouflaging may be explained by poor social competence, rather than camouflaging itself. The purpose of this study was to extend previous research on camouflaging and internalizing behaviour among non-autistic people through examination of the role of social competence.

Methods: In this study, 315 non-autistic young adults completed the Multidimensional Social Competence Scale (MSCS) to assess their social competence, the Camouflaging of Autistic Traits Questionnaire (CAT-Q) to assess their use of camouflaging strategies, and the Behaviour Assessment Scale for Children 2 – Self-Report of Personality, College Version (BASC-2 SRP-COL) to assess their internalizing behaviour.

Results: We found that camouflaging predicted internalizing behaviour among non-autistic young adults after controlling for social competence, autistic traits, age, IQ, and gender. Camouflaging partially mediated the relationship between social competence and internalizing behaviours.

Conclusions: These results suggest that the use of camouflaging strategies is uniquely associated with internalizing behaviour over and above social competence and may, in part, contribute to the increased internalizing behaviours observed in individuals with poorer social competence.

Introduction

To varying degrees, people attune to the behaviour of those around them and change their self-presentation in an attempt to manage the way other people perceive them. This is a well-documented psychological phenomenon referred to as impression management¹ or self-monitoring². Recently, however, researchers and autistic advocates have applied a similar concept specifically to the management of autistic traits, a phenomenon that has come to be known as ‘camouflaging’. Camouflaging is defined as strategies used in social settings in an attempt to mask or compensate for autistic traits³⁻⁵. Given that autistic traits are by definition socially atypical, many autistic people feel they do not fit in with their peers and engage in effortful behaviours *not* to appear autistic to others⁶. Indeed, autistic people may carefully monitor and modify their behaviour in an attempt to conform with the conventions of non-autistic social behaviour^{3,7,8}. To do so, autistic people may learn or develop rules to guide their social interactions with their non-autistic peers. Common examples of camouflaging include practicing the use of nonverbal behaviours, such as eye contact, in a manner more similar to non-autistic people and developing scripts to navigate social interactions. Camouflaging also often involves actively hiding more obvious autistic traits, such as suppressing self-stimulatory behaviours or “stims”. These “stims” often involve repetitive movements or sounds that help autistic people cope with sensory overstimulation, anxiety, and pain reduction amongst other things^{3,9}.

Researchers have noted the similarities between camouflaging and self-monitoring¹⁰⁻¹², yet camouflaging refers specifically to compensating for social difficulties related to autistic traits, which exist at varying levels across autistic and non-autistic people¹³. Research has demonstrated that non-autistic people also engage in camouflaging^{4,14}, reflecting the continuous

nature of autistic traits within the population. Hull and colleagues ¹⁰ found that camouflaging was strongly positively correlated to autistic traits in both autistic and non-autistic samples. Furthermore, Scheerer and colleagues ¹⁵ found that non-autistic adults' camouflaging was strongly associated with social competence, suggesting that camouflaging is a response that both autistic and non-autistic people may use when they perceive themselves to lack the necessary social competencies expected within a given social context.

Camouflaging and Internalizing Problems

There are undoubtedly some benefits to successful camouflaging. Camouflaging efforts may help people avoid the social stressors associated with difficulties fitting in. For instance, camouflaging may help autistic people to avoid negative perceptions, as research demonstrates that observers often judge autistic people less favorably than non-autistic people when assessed in social situations ¹⁶. Camouflaging may also produce tangible benefits. For example, autistic adults have reported that camouflaging is necessary to procure and maintain employment ³.

However, despite the possible advantages, there is emerging evidence that camouflaging may be a risk factor for internalizing behaviour ^{17,18}. Internalizing behaviour is a broad category of psychological behaviours that are directed inwards and create psychological distress within the individual, including anxiety and depression ¹⁹. Autistic adults commonly describe their experience of camouflaging as having a negative impact on their mental health ²⁰⁻²². Indeed, camouflaging has been quantitatively associated with anxiety and depression among autistic adults ^{18,20,23}, adolescents ¹⁷, and children ²⁴. Among non-autistic people, camouflaging has similarly been associated with anxiety and depression among adults ²⁵ and adolescents ¹⁷.

Despite the clear association, the relationship between camouflaging and internalizing behaviour is not fully understood. There are several mechanisms by which these relationships

could develop. First, autistic adults commonly report that camouflaging is stressful²¹ and exhausting³. The effort required to camouflage in social situations may lead to intense exhaustion and reduce an individual's capacity to deal with existing internalizing behaviours. Second, camouflaging may present challenges to a person's sense of identity³, leading to subsequent mental health challenges. Studies in non-autistic populations show that self-monitoring is a component of the typical developmental process of identity formation, with self-monitoring tending to increase throughout adolescence and then decrease with age through adulthood^{26,27}. Thus, the continued and frequent use of camouflaging strategies through adulthood forces a person to act in accordance with social norms and may erode a person's sense of identity³. Third, camouflaging may strip people of the coping mechanisms that are most adaptive for them, such as self-stimulatory behaviours or noise cancelling headphones, thus leaving them more vulnerable to mental health difficulties. Many 'atypical' behaviours in autism serve adaptive functions in the context of neurobiological differences²⁸. For example, stimming may serve a self-regulatory function that allows the person to manage their level of stimulation in challenging sensory environments. Similarly, sensory stimulation that many neurotypical people may not even notice, such as loud noises or scratchy tags, may lead to sensory overload and even pain for autistic people. Although the use of support tools, such as noise cancelling headphones or special clothing, can help to mitigate this discomfort, it may make an autistic person more "visible" and thus vulnerable to criticism.

Finally, though the relationship between camouflaging and internalizing behaviour is complex and bidirectional, it is possible that this relationship is simply a by-product of other variables, such as social competence. Consistent with this explanation, poor social competence has been associated with both internalizing behaviours²⁹ and camouflaging¹⁵. It is unclear what

additional role camouflaging may play in the internalizing behaviours of people with poor social competence, who may already be experiencing psychological consequences as a result of their social difficulties. Given camouflaging appears to reflect an attempt to compensate for poor social skills, it is of interest to determine whether adopting camouflaging strategies further exacerbates these internalizing problems, contributing to a further increase in internalizing behaviours above those related to poor social competence.

Method

Participants

We collected data from 315 university students between the ages of 17 and 26 years ($M = 19.86$, $SD = 1.48$; 234 female). We excluded 10 participants who completed the study as their Full Scale IQ score was less than our cutoff of 75. Participants gave informed consent and received course credit for their participation. All procedures were approved by the Simon Fraser University Research Ethics Board and were in accordance with the World Medical Association's 2013 Declaration of Helsinki.

Procedures

We recruited participants from introductory university psychology classes who received course credit for their participation in the study. The study took approximately 60 minutes to complete. Participants provided their informed consent, then completed the Wechsler Abbreviated Scale of Intelligence – Second Edition (WASI-II), administered by a trained research assistant, followed by a short demographic questionnaire and four self-report questionnaires (see Measures section).

Measures

Participants completed the Camouflaging Autistic Traits Questionnaire (CAT-Q)¹⁰, the Multidimensional Social Competence Scale (MSCS)³⁰, the Autism-Spectrum Quotient (AQ)³¹, and the college version of the Behavior Assessment System for Children 2, Self-Report of Personality (BASC-2 SRP-CV)³². All questionnaire measures were self-report and completed in-person by the participants. Additionally, we assessed participants' cognitive ability using the WASI-II³³, a researcher administrated measure.

Camouflaging Autistic Traits Questionnaire (CAT-Q). The CAT-Q¹⁰ is a 25-item self-report questionnaire measuring behaviours and strategies implemented to camouflage autistic traits using a 7-point Likert scale. The CAT-Q yields three factor scores: Compensation (compensatory strategies to offset perceived social difficulties), Masking (strategies utilized appear non-autistic to other people), and Assimilation (strategies for blending into social situations). The three factor scores are summed to create the total CAT-Q score, where higher scores represent greater levels of camouflaging. The CAT-Q was validated with samples of autistic and non-autistic adults over the age of 16 years old where total CAT-Q scores were positively correlated with autistic traits in both samples. The CAT-Q has high internal consistency ($\alpha = .94$) and acceptable test-retest reliability ($r = .77$).

Multidimensional Social Competence Scale. The MSCS Self Report³⁰ is a 77-item self-report questionnaire assessing social competence using a 5-point Likert scale, with higher scores indicating greater social competence. In addition to a total social competence score, the MSCS yields seven subscale scores: Social Motivation, Social Inferencing, Demonstrating Empathic Concern, Social Knowledge, Verbal Conversation Skills, Nonverbal Sending Skills, and Emotional Regulation. The self-report MSCS utilized in this study was validated with non-

autistic young adults between 17 to 25 years and identified to have good internal consistency for the full scale ($\alpha = 0.795$)³⁴.

Autism-Spectrum Quotient (AQ). The AQ ³¹ is a 50-item self-report questionnaire measuring features of ASD using a 4-point Likert scale. The AQ yields an overall total score as well as five theoretically derived subscale scores: Social Skills, Attention Switching, Attention to Detail, Communication, and Imagination. Higher scores indicate greater levels of autistic traits, with individuals scoring 32+ considered to have high autistic traits. In addition to numerous other validation studies, the AQ has been validated in non-autistic college students and demonstrated to have acceptable internal consistency and test-retest reliability (Stevenson & Hart, 2017).

Behavior Assessment System for Children 2, Self-Report of Personality, College Version (BASC-2 SRP-CV). The college version of the Self-Report of Personality form of the BASC-2 ³² is a 185-item self-report questionnaire measure of personality and psychopathology in young adults in the context of post-secondary education. The first half of the items use a true-false response format, whereas the second half of the items use a 4-point Likert scale. Of use in this study, the BASC-2 provides a T-score for an Internalizing Problems composite, which includes subscales measuring anxiety and depression symptoms. The BASC-2 SRP-CV was validated with non-autistic young adults aged 18 to 25 years old and was demonstrated to have acceptable internal consistency ($\alpha = .71$ to $.94$) and test-retest reliability ($r = .74$ to $.99$).

Wechsler Abbreviated Scale of Intelligence, 2nd Edition (WASI-II). The WASI-II ³³ is a brief cognitive ability assessment tool that was administered and scored by trained research assistants. The FSIQ-2 scale on the WASI-II was utilized in this study and is composed of scores from two subtests: Vocabulary and Matrix Reasoning. The Vocabulary subtest prompts

examinees to define words that are presented visually and orally by the examiner and the Matrix Reasoning subtest has examinees select a correct picture response to complete matrices presented to them from the WASI-II stimulus book.

Results

Descriptive Analyses

Table 1 presents descriptive information for each of the variables in the study.

Table 1. Descriptive statistics

Variable	Mean	SD	Range
Age	19.86	1.48	17-26
IQ (WASI-II)	98.76	9.58	76-129
Internalizing problems (BASC-2)	53.19	10.45	35-89
Autistic traits (AQ)	17.76	6.21	3-36
Social competence (MSCS)	295.89	26.22	226-360
Camouflaging (CAT-Q)	92.98	23.27	39-163

Note. $N = 315$ ($n = 234$ female)

Abbreviations: WASI-II, Wechsler Abbreviated Scale of Intelligence, 2nd Edition; BASC-2, Behaviour Assessment System for Children, 2nd Edition; AQ, Autism-Spectrum Quotient; MSCS, Multidimensional Social Competence Scale; CAT-Q, Camouflaging Autistic Traits Questionnaire

Correlational Analyses

Table 2 presents a correlational matrix depicting the relationships between each of the variables measured in the study. Internalizing behaviours were significantly positively correlated with camouflaging (Pearson's $r = .50$) and autistic traits (Pearson's $r = .41$), and significantly negatively correlated with social competence (Pearson's $r = -.45$). Camouflaging was significantly positively correlated with autistic traits (Pearson's $r = .50$) and significantly negatively correlated with social competence (Pearson's $r = -.48$). All above mentioned relationships were significant at $p < .001$.

Table 2. Correlations among all variables.

Variable	1.	2.	3.	4.	5.	6.
1. Internalizing behaviours	1	-	-	-	-	-
2. Age	-.09	1	-	-	-	-
3. Gender	.07	-.13	1	-	-	-
4. IQ	-.07	-.10*	-.35	1	-	-
5. Autistic traits	.41**	.15*	-.10*	-.12*	1	-
6. Social competence	-.45**	-.10*	.17*	-.18*	-.65**	1
7. Camouflaging	.50**	.10*	-.03*	-.06	.50**	-.48**

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

Regression Analysis

We conducted a hierarchical linear multiple regression analysis to test whether camouflaging was a significant predictor of internalizing behaviour, while controlling for social competence, autistic traits, IQ, gender, and age. Table 3 presents details on each regression model. To check that the assumptions of hierarchical multiple regression tests were satisfied, we assessed linearity by partial regression plots and a plot of studentized residuals against the predicted values. We found independence of residuals, as assessed by a Durbin-Watson statistic of 1.875. We assessed homoscedasticity by visual inspection of a plot of studentized residuals versus unstandardized predicted values. We found no evidence of multicollinearity, as indicated by tolerance values greater than 0.1. We found no studentized deleted residuals greater than ± 3 standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1. Finally, we found the assumption of normality was met by inspection of Q-Q plot.

Table 3. Hierarchical multiple regression analysis predicting internalizing behaviour.

Variable	Internalizing Problems					
	Model 1		Model 2		Model 3	
	B	β	B	β	B	β
Constant	61.759		103.544		83.346	
Age	-1.050	-0.150	-1.004	-0.143	-1.090	-0.155
Gender	2.301	0.096	3.157	0.132	2.737	0.115

IQ	-0.027	0.056	-0.010	-0.010	-0.015	-0.014
Autistic traits	0.747**	0.444**	0.396	0.236	0.205	0.122
Social competence			-0.131	-0.329	-0.092	-0.231
Camouflaging					0.157**	0.350**
R^2	0.207		0.268		0.354	
F	20.196**		22.636**		28.106**	
ΔR^2	0.207		0.061		0.086	
ΔF	20.196**		25.908**		40.855**	

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

The full model of age, gender, IQ, autistic traits, social competence, and camouflaging to predict internalizing behaviour (Model 3) was statistically significant, $R^2 = .354$, $F(6, 308) = 28.106$, $p < .001$, adjusted $R^2 = .341$. In the first step of the model (Model 1), age, gender, IQ, and autistic traits significantly predicted internalizing behaviour, $R^2 = .207$, $F(4, 310) = 20.196$, $p < .001$, adjusted $R^2 = .196$. The addition of MSCS social competence scores (Model 2) led to an increase in R^2 of .061, $F(1, 309) = 25.908$, $p < .001$, therefore accounting for an additional 6% of the variance in internalizing behaviour. We then added camouflaging scores to the model (Model 3), leading to a statistically significant increase in R^2 of .086 ($F(1, 308) = 40.855$, $p < .001$), indicating that camouflaging accounted for an additional 9% of the variance in internalizing behaviour beyond all previous predictor variables.

Mediation Analysis

Finally, we conducted a regression-based mediation analysis using the bootstrapping method³⁵ to examine CAT-Q camouflaging scores as a potential mediator of the relationship between MSCS social competence scores and BASC-2 internalizing problems scores. The standardized regression coefficient between social competence and camouflaging was statistically significant, as was the standardized regression coefficient between camouflaging and internalizing behaviours. The standardized indirect effect was $(-.48)(.38) = -.18$. We tested the

significance of this indirect effect using bootstrapping procedures³⁶. Unstandardized indirect effects were computed for each of 10,000 bootstrapping samples. The bootstrapped unstandardized indirect effect was -.07 with a 95% confidence interval that ranged from -.1 to -.05. Thus, the indirect effect was statistically significant. However, the relationship between social competence and internalizing behaviours remained statistically significant with camouflaging added to the model, which suggests that camouflaging only partially mediated this relationship.

Discussion

The aim of the current study was to explore the ability of camouflaging and social competence to predict internalizing behaviours among non-autistic young adults. We found that after controlling for age, gender, IQ, and autistic traits, social competence accounted for an additional 6% of variance in internalizing behaviour, with lower social competence associated with increased internalizing behaviours. Furthermore, given that camouflaging and social competence were highly correlated, we investigated whether camouflaging could account for unique variance in internalizing behaviours over and above social competence. We found that camouflaging accounted for an additional 9% of the variance in internalizing behaviours over and above social competence, with higher camouflaging associated with increased internalizing behaviours. These results suggest that over and above social competence, camouflaging is related to internalizing behaviours in non-autistic individuals.

Notably, it remains unclear from these findings what direction these relationships operate in. We cannot determine whether poor social competence and camouflaging behaviours *lead* to internalizing behaviours, or whether the opposite is true. Indeed, all three of these concepts – social competence, camouflaging, and internalizing behaviours – contain a great deal of

theoretical overlap and are likely intertwined in their development and maintenance. For example, social anxiety (which would fall under the umbrella of an internalizing behaviour) is often predicated on an individual's belief in their own poor social competence, which may lead to increased camouflaging behaviours to hide their social difficulties. Another possibility is that there is an underlying common causal factor influencing these variables. For example, those who are chronically socially isolated may have poorer social skills due to fewer social experiences and may then engage in more camouflaging due to feelings of social ineptness, and thus experience more internalizing behaviours. Future research should explore the directionality of these relationships directly through longitudinal methodologies and consider other possible causal factors using mixed methods approaches. Interestingly, however, we found that camouflaging partially mediated the relationship between social competence and internalizing behaviours, suggesting that camouflaging may be partially responsible for the increased internalizing behaviours observed in individuals with poorer social competence.

These results replicate previous findings that non-autistic people engage in camouflaging^{4,14,17} and that camouflaging in non-autistic people is related to social competence¹⁵. Further, these results are consistent with previous studies indicating that camouflaging is associated with internalizing behaviours among autistic and non-autistic adolescents¹⁷ and autistic adults¹⁸. The current research extends these findings in a sample of non-autistic adults, taking into consideration their social competence.

Although it is likely that camouflaging is more prevalent among autistic people, it is not entirely unique to them and may be a broad response to social difficulties. As written by Sparrow Rose Jones in *No You Don't: Essays from an Unstrange Mind*³⁷, "And if you aren't autistic, don't be surprised if you recognize pieces of yourself in here, too. Because autism is a difference

of intensity and frequency but above all, it is a slice of the human condition”. This is not to diminish the autistic experience, but rather to illustrate autistic people as carrying more intense versions of common human experiences. It is also important to highlight that camouflaging occurs in both autistic and non-autistic people in an effort to comply with social demands on behaviour. When we conceptualize the social difficulties experienced by autistic people as existing within the person, rather than the environment, we create a culture in which camouflaging is required. Increased acceptance of neurodiversity in the general population, while no easy feat, may decrease the need for people to camouflage. Further research is required to understand the conditions in which all people camouflage and those that may be specific to autistic people. Additionally, given the similarity between camouflaging and self-monitoring more generally, investigating the relationship between these two concepts would be beneficial. For example, researchers could directly compare camouflaging and self-monitoring among both autistic and non-autistic samples to clarify their overlap.

Limitations

This study had notable strengths, including a large sample size and well-controlled analyses; this was the first study investigating the relationship between camouflaging and internalizing behaviours while accounting for social competence and cognitive ability. The analyses also controlled for age and autistic traits. However, the study is limited in that it cannot determine the directionality of the relationship and may not be representative of all non-autistic adults. We were not able to investigate some possible common causal factors, such as acceptance or authenticity. Our sample consisted of non-autistic university students and thus may not be representative of other populations of adults. We were specifically looking at the relationships between camouflaging, social competence, and internalizing behaviours among a non-autistic

sample. Although we found that individuals who reported lower social competence reported more camouflaging and internalizing problems, the relationship with social competence may be different among an autistic sample. For instance, autistic adults with higher social competence may engage in more camouflaging as “social competence” as a construct is based on the assumptions of neurotypical social conventions.

Implications

Overall, our findings are consistent with previous studies examining the association between camouflaging and internalizing behaviours and provide additional evidence that camouflaging may have negative consequences. Elucidating the mechanisms driving this relationship is not possible with the current data, however, we presented several potential mechanisms through which this relationship may develop. Camouflaging may reduce people’s capacity to deal with negative emotions as it is often reported to be stressful and exhausting³ and as certain autistic traits, such as stims, have been argued to serve a self-regulatory role²⁸. Additionally, since camouflaging is conceptualized as the use of strategies to hide or mask parts of oneself, it may lead to difficulties with identity, acceptance, and feelings of inauthenticity¹⁷. As proposed by Bernardin and colleagues¹⁷, authenticity may be a third variable explaining the association between camouflaging and well-being.

The findings from this study also have important clinical implications. Given that camouflaging predicted internalizing problems in a non-autistic sample, camouflaging may be an important consideration in mental health assessment and intervention not only for autistic people, but all those demonstrating internalizing behaviours. Assessment should focus on understanding the function and consequences of camouflaging for the individual and interventions may include working with individuals to help them feel more comfortable during social interactions and

increase their self-acceptance. Additionally, clinicians should exercise caution in implementing social skills interventions to ensure they are not inadvertently teaching camouflaging or increasing feelings of inauthenticity. Finally, the relationship between camouflaging and internalizing behaviours supports the call for greater acceptance of diversity to reduce the need for people to change parts of themselves to avoid criticism or to “fit in”.

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Author Confirmation Statement

H.A., N.S., T.B., and G.I. conceived and designed the experiment. N.S. and T.B. collected the data. H.A. and N.S. analyzed the data. H.A. prepared the initial draft of the article, while N.S., T.B., and G.I. reviewed and edited subsequent drafts. All authors reviewed and approved the final draft before submission. The article has been submitted solely to this journal and is not published, in press, or submitted elsewhere.

Author Disclosure Statement

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References

1. Goffman E. *The Presentation of Self in Everyday Life*. Anchor Books; 1959.
2. Snyder M. Self-Monitoring Process. *Adv Exp Soc Psychol*. 1979;12:85-128.
doi:10.1016/S0065-2601(08)60260-9
3. Hull L, Petrides K V., Allison C, et al. “Putting on My Best Normal”: Social Camouflaging in Adults with Autism Spectrum Conditions. *J Autism Dev Disord*. 2017;47(8):2519-2534. doi:10.1007/s10803-017-3166-5
4. Cook J, Hull L, Crane L, Mandy W. Camouflaging in autism: A systematic review. *Clin Psychol Rev*. 2021;89(September):102080. doi:10.1016/j.cpr.2021.102080
5. Fungueiriño MT, Cruz S, Sampaio A, Carracedo A, Prieto MF. Social Camouflaging in Females with Autism Spectrum Disorder : A Systematic Review. *J Autism Dev Disord*. 2020;(0123456789). doi:10.1007/s10803-020-04695-x
6. Mandy W. Social camouflaging in autism: Is it time to lose the mask? *Autism*. 2019;23(8):1879-1881. doi:10.1177/1362361319878559
7. Lai MC, Lombardo M V., Ruigrok ANV, et al. Quantifying and exploring camouflaging in men and women with autism. *Autism*. 2017;21(6):690-702.
doi:10.1177/1362361316671012
8. Livingston LA, Colvert E, Bolton P, Happé F. Good social skills despite poor theory of mind: exploring compensation in autism spectrum disorder. *J Child Psychol Psychiatry Allied Discip*. 2018;60(1):102-110. doi:10.1111/jcpp.12886
9. Baldwin S, Costley D. The experiences and needs of female adults with high-functioning autism spectrum disorder. *Autism*. 2016;20(4):483-495. doi:10.1177/1362361315590805
10. Hull L, Mandy W, Lai MC, et al. Development and Validation of the Camouflaging

- Autistic Traits Questionnaire (CAT-Q). *J Autism Dev Disord.* 2019;49(3):819-833.
doi:10.1007/s10803-018-3792-6
11. Robinson E, Hull L, Petrides K V. Big Five model and trait emotional intelligence in camouflaging behaviours in autism. *Pers Individ Dif.* 2020;152(April 2019):109565.
doi:10.1016/j.paid.2019.109565
 12. Jorgenson C, Lewis T, Rose C, Kanne S. Social Camouflaging in Autistic and Neurotypical Adolescents: A Pilot Study of Differences by Sex and Diagnosis. *J Autism Dev Disord.* Published online 2020. doi:10.1007/s10803-020-04491-7
 13. Constantino JN, Todd RD. Autistic traits in the general population: A twin study. *Arch Gen Psychiatry.* 2003;60(5):524-530. doi:10.1001/archpsyc.60.5.524
 14. Hull L, Lai MC, Baron-Cohen S, et al. Gender differences in self-reported camouflaging in autistic and non-autistic adults. *Autism.* 2019;24(2):352-363.
doi:10.1177/1362361319864804
 15. Scheerer N, Aime H, Boucher T, Iarocci G. The Association Between Self-Reported Camouflaging of Autistic Traits and Social Competence in Nonautistic Young Adults. *Autism in Adulthood.* 2020;2(4). doi:10.1089/aut.2019.0062
 16. Sasson NJ, Faso DJ, Nugent J, Lovell S, Kennedy DP, Grossman RB. Neurotypical Peers are Less Willing to Interact with Those with Autism based on Thin Slice Judgments. *Sci Rep.* 2017;7(October 2016):1-10. doi:10.1038/srep40700
 17. Bernardin CJ, Lewis T, Bell D, Kanne S. Associations between social camouflaging and internalizing symptoms in autistic and non-autistic adolescents. *Autism.* 2021;25(6):1580-1591. doi:10.1177/1362361321997284
 18. Hull L, Levy L, Lai MC, et al. Is social camouflaging associated with anxiety and

- depression in autistic adults? *Mol Autism*. 2021;12(1):1-13. doi:10.1186/s13229-021-00421-1
19. Achenbach TM, McConaughy SH, Howell CT. Child/Adolescent Behavioral and Emotional Problems: Implications of Cross-Informant Correlations for Situational Specificity. *Psychol Bull*. 1987;101(2):213-232. doi:10.1037/0033-2909.101.2.213
 20. Bargiela S, Steward R, Mandy W. The Experiences of Late-diagnosed Women with Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype. *J Autism Dev Disord*. 2016;46(10):3281-3294. doi:10.1007/s10803-016-2872-8
 21. Cage E, Di Monaco J, Newell V. Experiences of Autism Acceptance and Mental Health in Autistic Adults. *J Autism Dev Disord*. 2018;48(2):473-484. doi:10.1007/s10803-017-3342-7
 22. Tierney S, Burns J, Kilbey E. Looking behind the mask: Social coping strategies of girls on the autistic spectrum. *Res Autism Spectr Disord*. 2016;23:73-83. doi:10.1016/j.rasd.2015.11.013
 23. Cage E, Troxell-Whitman Z. Understanding the Reasons, Contexts and Costs of Camouflaging for Autistic Adults. *J Autism Dev Disord*. 2019;49(5):1899-1911. doi:10.1007/s10803-018-03878-x
 24. Livingston LA, Shah P, Happé F. Compensatory strategies below the behavioural surface in autism: a qualitative study. *The Lancet Psychiatry*. 2019;6(9):766-777. doi:10.1016/S2215-0366(19)30224-X
 25. Beck JS, Lundwall RA, Gabrielsen T, Cox JC, South M. Looking good but feeling bad: “Camouflaging” behaviors and mental health in women with autistic traits. *Autism*. 2020;24(4):809-821. doi:10.1177/1362361320912147

26. Erikson EH. *Identity and the Life Cycle*. W.W. Norton & Company; 1980.
27. Pledger LM. Development of Self-Monitoring Behavior from Early to Late Adolescence. *Adolescence*. 1992;27(106):329-338.
28. Kapp SK, Steward R, Crane L, et al. 'People should be allowed to do what they like': Autistic adults' views and experiences of stimming. *Autism*. 2019;23(7):1782-1792. doi:10.1177/1362361319829628
29. Johnston KHS, Iarocci G. Are Generalized Anxiety and Depression Symptoms Associated with Social Competence in Children with and without Autism Spectrum Disorder? *J Autism Dev Disord*. 2017;47(12):3778-3788. doi:10.1007/s10803-017-3056-x
30. Yager J, Iarocci G. The development of the multidimensional social competence scale: A standardized measure of social competence in autism spectrum disorders. *Autism Res*. 2013;6(6):631-641. doi:10.1002/aur.1331
31. Baron-Cohen S, Wheelwright S, Skinner R, Martin J, Clubley E. The autism-spectrum quotient (AQ): evidence from Asperger syndrome/high-functioning autism, males and females, scientists and mathematicians. *J Autism Dev Disord*. 2001;31(1):5-17. <https://link.springer.com/content/pdf/10.1023/A:1005653411471.pdf>
32. Reynolds CR, Kamphaus RW. *Behavior Assessment Scale for Children*. Second. American Guidance Service; 2004.
33. Wechsler D. *Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II)*. Second Edi. NCS Pearson; 2011.
34. Trevisan DA, Tafreshi D, Slaney KL, Yager J, Iarocci G. A psychometric evaluation of the Multidimensional Social Competence Scale (MSCS) for young adults. *PLoS One*. 2018;13(11):1-19. doi:10.1371/journal.pone.0206800

35. Hayes AF, Rockwood NJ. Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behav Res Ther.* 2017;98:39-57. doi:10.1016/j.brat.2016.11.001
36. Hayes A. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach.* The Guilford Press; 2013.
37. Jones SR. *No You Don't: Essays from an Unstrange Mind.* Createspace Independent Publishing Platform; 2013.