

## The Links Between Parenting Styles and Impostor Phenomenon

Sijia Li, Jennifer L. Hughes\*, and Su Myat Thu  
Agnes Scott College

**ABSTRACT.** Clance and Imes (1978) coined the term *impostor phenomenon* to describe the phoniness an individual feels about his/her achievement and the inability to internalize success. They proposed that impostor feelings are often rooted in early family relations. Prior empirical research found partial support for this proposition. The current study investigated the links between parenting styles and the impostor phenomenon, and examined the role of the sex of adult children as a moderator variable. The sample constituted 506 American undergraduate and graduate students (105 men, 401 women). Participants were recruited using a snowball sampling technique. We found that lack of parental care,  $r(444) = -.25, p < .001$ , and parental overprotection,  $r(445) = .23, p < .001$ , were linked with higher impostor scores. Parental care,  $\beta = -.18, t(442) = -3.30, p = .001$ , and parental overprotection,  $\beta = .18, t(442) = 2.38, p = .02$ , both emerged to be predictors of impostor scores. The predictive power of parenting variables weakened when maternal and paternal parenting styles were examined separately. Only maternal care was found to be negatively predictive of impostor scores,  $\beta = -.41, t(440) = -4.18, p < .001$ . Men were overall less responsive to parenting variables. For men, only maternal care was found to be negatively correlated with impostor scores. For women, maternal and paternal care was found to be negatively correlated with impostor scores, and maternal and paternal overprotection was found to be positively correlated with impostor scores. Our results provided support for the proposed relationship between family environments and impostor phenomenon, and indicated that men may develop impostor feelings based on different mechanisms than women.

Not all people enjoy their accomplishments. Clance and Imes (1978) referred to those who feel phony and fraudulent about their success as *impostors*, and this experience was named the *impostor phenomenon*. Impostors think of themselves as intellectual frauds, have tremendous difficulty internalizing their achievements, experience anxiety and depression, and endure the chronic fear that they might be found out. They attribute their success to external factors (i.e., luck, effort), personal charm, and knowing

the right person, rather than to their capabilities and intelligence. Clance and Imes (1978) have observed that impostors often engage in behaviors that would maintain their impostor feelings (e.g., overpreparing, using charm or perceptiveness to win others over, and not revealing what they truly think). Therefore, positive feedback or success cannot change but only confirms impostors' appraisals of themselves.

Impostor phenomenon, as a relatively new clinical construct, is closely related with other

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existing constructs and can have a severe mental health impact on its victims. Self-handicapping tendency and fear of failure have been consistently found to be highly correlated with and predictive of impostor feelings (Cowman & Ferrari, 2002; Fried-Buchalter, 1997; Ross, Stewart, Mugge, & Fultz, 2001; Want & Kleitman, 2006). Exhibiting these maladaptive behavior patterns, impostors in general report higher depression, higher generalized anxiety, lower self-esteem, and poorer mental health than nonimpostors (Clance & Imes, 1978; Gibson-Beverly & Schwartz, 2008; McGregor, Gee, & Posey, 2008; Ross et al., 2001; Thompson, Davis, & Davidson, 1998). Impostors may also experience difficulty in enjoying their success and achieving their full potential (Clance & O'Toole, 1987).

### Impostor Phenomenon and Women

Clance and Imes (1978) first observed the impostor phenomenon in their clinical work with a group of high-achieving women. They suspected that women were prone to impostor feelings because women are not expected to succeed in our society. Thus, women lack the social support that is offered to men and may worry if a successful career will compromise their feminine characteristics (Clance, Dingman, Reviere, & Stober, 1995; Clance & O'Toole, 1987). King and Cooley (1995) and McGregor et al. (2008) confirmed that women experienced impostor feelings more frequently than men. However, other researchers reported opposite results that women and men experienced impostor feelings at a comparable rate (Bernard, Dollinger, & Ramaniah, 2002; Caselman, Self, & Self, 2006; Castro, Jones, & Mirsalimi, 2004; Cromwell, Brown, Sanchez-Huceles, & Adair, 1990; September, McCarrey, Baranowsky, Parent, & Schindler, 2001; Thompson et al., 1998). The different populations involved in these studies might be the reason for the contradictory results.

### Impostor Phenomenon and the Family

Aside from the gender-specific socialization, Clance and Imes (1978) reasoned that the roots of the impostor phenomenon lie in early family relations. They predicted that atypical family role assignments, being the perfect kid or having a sibling who is unarguably considered as the smart and socially adept one, contribute to impostor feelings in adults. Clance (1986) identified four family factors related to the impostor phenomenon: (a) one learns early in life that being smart is the first command of the family, (b) one has different

interests or achievements than others in the family, (c) feedback one receives from family is inconsistent with those from the outside world, and (d) one obtains limited praise from one's parents. These family mechanisms have a negative impact on the overall psychological well-being of the children and cause them to experience impostor feelings at a higher frequency in their adulthood.

Empirical research on family environment provided partial support for the theories. Bussotti (1990) failed to establish an association between atypical family role assignments (i.e., being the smart one or socially sensitive one) and impostor feelings with a sample of undergraduate and graduate students, though psychological birth order, sex, and atypical family role assignment jointly predicted impostor scores. He suggested that the nonsignificant results might have occurred because of the wording of his questionnaire about atypical family role assignment; the direct wording of the survey (i.e., "you are the smartest child in your family") reduced the probability that an impostor would answer *yes* given his or her unfavorable self-appraisal. Another possible reason was that impostors who reported atypical family role assignments were overrepresented in the clinical population (i.e., those who sought clinical help for mental issues) and that the assertion of Clance and Imes (1978) did not hold in the general population.

Subsequent research on family mechanisms shed light on other family factors linked to the impostor phenomenon. Bussotti (1990) found that impostors are more likely to come from families that are low on cohesion, have a limited channel of expression, and have a lot of conflict and rules. Parentification (i.e., the practice that expects children to sacrifice their own needs and to carry out adult functions) and parental alcoholism have also been revealed to increase the risk of the development of impostor feelings in adult children (Castro et al., 2004; Robinson & Goodpaster, 1991). These factors all contribute to unhealthy family relations and unsupportive family environment; adults who come from families with these factors are prone to experience impostor feelings.

Parenting style, as an essential determinant of family relations, is yet another family variable that relates to the impostor phenomenon. Empirical research that has examined the relationship between parenting styles and the impostor phenomenon was very limited and produced mixed results. Sonnak and Towell (2001) found that

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higher impostor scores were related to parental overprotection and lack of parental care in British university students. Nevertheless, family support failed to emerge as a significant predictor of impostor scores of adolescents in the study of Caselman et al. (2006). Want and Kleitman (2006) conducted their study with Australian adults from various occupations and ages. Their results showed that more paternal care was linked with lower impostor feelings and that more paternal and maternal overprotection was linked with higher impostor feelings. No link was found between maternal care and the impostor phenomenon. Cultural as well as generational differences might be responsible for the inconsistent results found in these studies.

### Current Study

To the authors' knowledge, no research has been conducted looking at the relationships between parenting styles and the impostor phenomenon with an American population. To fill in the gap, the current study replicated Want and Kleitman's (2006) work with American young adults. We investigated how the caring and overprotective behaviors of parents are related to impostor feelings, if they predict impostor feelings, and whether the sex of adult children moderated this relationship. The hypotheses were: (a) for men and women, parental care is negatively and parental overprotection positively correlated with impostor scores; and (b) for men and women, parental care is negatively and parental overprotection is positively predictive of impostor scores.

## Method

### Participants

We recruited 506 undergraduate and graduate students (105 men, 401 women). The age of participants ranged from 18 to 44, with the mean age being 21.02 ( $SD = 3.33$ ). Sixty-four percent of the participants reported their race as White, 17.2% as Black, 6.9% as Asian, 7.7% as biracial or multiracial, and 3.6% as other (one participant did not indicate race).

### Materials

**Impostor Phenomenon.** The Clance Impostor Phenomenon Scale (CIPS; Clance, 1985) was used in the current study to measure the impostor feelings experienced by the participants. The scale assesses feelings of phoniness, fear of failure despite of previous success, and attributions of success to luck. It is a 20-item scale using a 5-point

Likert-type scale from 1 (*not at all true*) to 5 (*very true*). A sample item is "I can give the impression that I am more competent than I really am." Holmes, Kertay, Adamson, Holland, and Clance (1993) reported a Cronbach's alpha coefficient of .96 and found the scale to differentiate impostors from nonimpostors. French, Ullrich-French, and Follman (2008) reported an internal consistency reliability of .92 for the total scale. In the current study, the Cronbach's alpha coefficient was .91.

**Parental Bonding.** The Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) was used in the current study to assess the perceived parent-child relationships before the age of 16. This instrument has 25 items, which are divided into two subscales including Care and Overprotection. The Care subscale measures expressed care, warmth, emotional support, and positive affect toward the children. The Overprotection subscale measures perceived control and restriction in the family. Respondents retrospectively evaluate parental behaviors and attitudes for each of their parents on a 4-point Likert-type scale from 1 (*very unlikely*) to 4 (*very likely*). The scores of Parental Care are calculated by adding scores on Maternal Care and Paternal Care subscales. Likewise, the scores of parental overprotection are obtained by adding up scores on maternal overprotection and paternal overprotection. The reliability of different subscales was found to be approximately .90 (Fouladi, Moller, & McCarthy, 2006; Mackinnon, Henderson, Scott, & Duncan-Jones, 1989). In this study, the Cronbach's alphas were .93 for scores on maternal care, .95 for scores on paternal care, .70 for maternal overprotection, and .71 for paternal overprotection.

### Procedure

Eleven undergraduate research assistants used a snowball sampling technique to recruit participants. They created paper flyers and sent out e-mails to their families and friends. An individual had to be 18 or older and be enrolled in an undergraduate program or a graduate program to participate in this study. Participants were given a link to the online survey, which began with an informed consent. The survey contained questions about demographics, school, and health as well as the CIPS and the PBI among other inventories. Participation in the study was entirely voluntary though participants were entered into a drawing and had a chance to win one of four \$50 Target gift cards. The authors obtained approval from the

Institutional Review Board prior to the recruitment.

## Results

### Preview: Sex Differences in Impostor Scores and Parenting Variables

In our sample, women reported significantly more impostor feelings than men,  $t(504) = -3.44$ ,  $p < .001$ ,  $d = .42$ . Men and women reported receiving comparable maternal care,  $t(493) = -0.10$ ,  $p = .92$ ; maternal overprotection,  $t(492) = 0.29$ ;  $p = .77$ ; and paternal care,  $t(448) = -0.84$ ,  $p = .40$ , in their first 16 years of life. Men reported receiving less paternal overprotection than women,  $t(450) = -3.75$ ,  $p < .001$  (see Table 1 for descriptive statistics of aforementioned variables).

### Correlations Between Impostor Scores and Parenting Styles

Correlations were conducted with parenting variables for women and men separately to test the first hypothesis. Our hypothesis was partially supported in that, for women, parental care was negatively related to impostor feelings,  $r(355) = -.27$ ,  $p < .001$ , and parental overprotection was positively related to impostor feelings,  $r(355) = .24$ ,  $p < .001$ . However, for men, neither correlations was significant, for parental care,  $r(87) = -.21$ ,  $p = .05$ , or for parental overprotection,  $r(88) = .12$ ,  $p = .26$ . When variables were examined separately by the gender of parents, we found that, for women, lower impostor scores were linked with more maternal care,  $r(391) = -.28$ ,  $p < .001$ , and more paternal care,  $r(358) = -.15$ ,  $p = .005$ . We also found that higher impostor scores were linked with more maternal overprotection,  $r(390) = .23$ ,  $p < .001$ , and more paternal overprotection,  $r(359)$

$= .17$ ,  $p = .001$ . For men, only maternal care was correlated with impostor feelings,  $r(100) = -.24$ ,  $p = .01$ . Other parenting variables failed to correlate with impostor scores.

Correlations were also conducted for all participants in order to clarify the general relationship between these variables and to facilitate the comparison with previous research. We found that impostor scores were negatively correlated to parental care,  $r(444) = -.25$ ,  $p < .001$ ; maternal care,  $r(493) = -.27$ ,  $p < .001$ ; paternal care,  $r(448) = -.14$ ,  $p = .002$ ; and positively correlated to parental overprotection,  $r(445) = .23$ ,  $p < .001$ ; maternal overprotection,  $r(492) = .21$ ,  $p < .001$ ; and paternal overprotection,  $r(450) = .18$ ,  $p < .001$ . Table 2 summarized the correlations between scores on the CIPS and parenting variables.

### Parenting Styles as Predictors of Impostor Scores

We conducted multiple linear regressions with parental parenting variables for women and men separately to test the second hypothesis. For women, parental care was found to be negatively predictive,  $\beta = -.21$ ,  $t(353) = -3.38$ ,  $p = .001$ , and parental overprotection positively predictive of impostor scores,  $\beta = .19$ ,  $t(353) = 2.15$ ,  $p = .03$ . The model explained 8.3% of variance in impostor scores,  $R^2 = .08$ ,  $F(2, 353) = 15.91$ ,  $p < .001$ . For men, the model was not significant,  $R^2 = .04$ ,  $F(2, 353) = 1.91$ ,  $p = .15$ . Linear multiple regressions were also conducted with maternal and paternal parenting variables separately. Only maternal care emerged as a strong predictor of impostor scores for women,  $\beta = -.43$ ,  $t(351) = -3.89$ ,  $p < .001$ , although the model was significant,  $R^2 = .10$ ,  $F(4, 351) = 10.15$ ,  $p < .001$ . Maternal and paternal parenting

**TABLE 1**

**Descriptive Statistics for Maternal Care, Paternal Care, Maternal Overprotection, Paternal Overprotection, and Scores on the Clance Imposter Phenomenon Scale (CIPS)**

Variables	Men		Women		t test	
	M	SD	M	SD	t	p
Maternal Care	39.35	7.47	39.44	8.06	-0.10	.92
Paternal Care	36.42	8.82	37.32	9.12	-0.84	.40
Maternal Overprotection	29.00	5.53	28.82	5.75	0.29	.77
Paternal Overprotection	25.54	4.86	28.03	5.84	-3.75	<.001
Scores on the CIPS	54.57	9.58	59.75	14.61	-3.44	<.001

**TABLE 2**

**Correlations Between Scores on the Clance Imposter Phenomenon Scale and Parenting Variables**

	All participants	Men	Women
Maternal Care	-.27**	-.24*	-.28**
Paternal Care	-.14**	-.17	-.15**
Total Parental Care	-.25**	-.21	-.27**
Maternal Overprotection	.21**	.10	.23**
Paternal Overprotection	.18**	.14	.17**
Total Parental Overprotection	.23**	.12	.24**

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

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variables were not a strong predictor of imposter scores for men, and the model was insignificant,  $R^2 = .06$ ,  $F(4, 351) = 1.37$ ,  $p = .25$ .

For all participants, we found that parental care was negatively predictive of imposter scores,  $\beta = -.18$ ,  $t(442) = -3.30$ ,  $p = .001$ ; and parental overprotection positively predictive,  $\beta = .18$ ,  $t(442) = 2.38$ ,  $p = .02$ ; and that maternal care was negatively predictive of imposter scores,  $\beta = -.41$ ,  $t(440) = -4.18$ ,  $p < .001$ . Table 3 and 4 reported the details of regression models mentioned above.

### Discussion

Clance and Imes (1978) referred to the experience of feeling fraudulent about one's accomplishment as the imposter phenomenon and speculated that early family relations contributed to the development of imposter feelings. The current study investigated the relationships between parenting styles and imposter feelings with undergraduate and graduate students in the United States and examined whether the sex of adult children moderated the relationships. We found that parental care negatively correlated to imposter scores and that parental overprotection positively correlated imposter scores. Maternal and paternal care was linked with lower imposter scores. Maternal and paternal overprotection was linked with higher imposter scores. When separating participants by sex, all aforementioned correlations were significant for women, but only the negative correlations between maternal care and imposter scores were significant for men. Overall parental care negatively

and parental overprotection positively predicted imposter scores. Both variables were strong predictors of imposter feelings in women but neither of them was in men. Maternal care was found to be negatively predictive of imposter scores when examining the impact of maternal and paternal parenting styles separately. Other parenting variables failed to predict imposter scores.

### Comparison With Previous Research

The correlations found between parenting styles and imposter feelings were consistent with those found by Want and Kleitman (2006) except that the negative correlations between maternal care and imposter scores were significant in our study but not in their study. They found that lack of paternal care and paternal overprotection were predictive of higher imposter scores and reasoned that fathers have a larger impact on the development of imposter feelings in adult children. This relationship between paternal parenting styles and the imposter phenomenon was not observed in the current study.

There may be several factors that explain the difference in the findings of the two studies. The discrepancy in the mean age of the participants is likely to be one of the factors. In Want and Kleitman's (2006) study, the participants were from a wide range of occupations and had a mean age of 38.54 ( $SD = 9.39$ ). In this study, we used a sample of undergraduate and graduate students with a mean age of 21.02 ( $SD = 3.33$ ). The apparent age difference indicates that there might be generational gaps between participants in the two studies. The standards and expectations of parenting practices are likely to be very different from those held two generations ago. Also, Want and Kleitman (2006) conducted their study with an Australian sample. Although Australia is an individualistic country like the United States, it is not clear whether the social norms of parenting are the same in the Australian society. Fathers in Australia might be expected to take on more responsibilities and be more involved in child-rearing than fathers in the United States and thus have a more influential role in the development of imposter feelings of adult children.

This study replicated the links between parenting styles and imposter feelings found by Sonnak and Towell (2001) that lack of parental care and parental overprotection were related to higher imposter scores. Also, we found partial support for their findings that parental care and parental overprotection were strong predictors of imposter

**TABLE 3**

**Multiple Linear Regressions With Parental Parenting Variables to Predict Scores on the Clance Imposter Phenomenon Scale**

Variable	$\beta$	F	Overall $R^2$
<b>All Participants</b>			
Parental Care	-.18***		
Parental Overprotection	.18*	17.40***	.07
<b>Men</b>			
Parental Care	-.14		
Parental Overprotection	-.03	1.91	.04
<b>Women</b>			
Parental Care	-.21***		
Parental Overprotection	.19*	15.91***	.08

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

scores because the relationship was not observed among men. The samples used in their study and in the current study both consisted of young adult students and had substantially more women than men. The similarity of the sample compositions might contribute to the similar findings. Nonetheless, our study provided further empirical evidence for the relationships between parenting styles and the imposter phenomenon, and presented a more detailed description of such relationships.

**Implication on the Impostor Theory**

The current study found support for the proposition of Clance and Imes (1978) that early family relations affect the development of the impostor phenomenon. Parenting styles, to a large extent, set the tone for overall family relations. Parental care creates supportive and warm family atmosphere that helps children develop a healthy sense of self-esteem and self-worth. If children are provided with sufficient parental warmth across situations, they are more likely to enjoy their success, less likely to overgeneralize their failures, less likely to feel the obligation to meet ideal or unachievable standards, and thus are less prone to experience impostor feelings. On the other hand, parental overprotection, probably leading to discouraging relations between parents and children, may impair children’s self-confidence and be detrimental to their sense of self-worth. Children may interpret parental overprotection as lack of confidence in their competence and internalize this appraisal, which increases their likelihood of suffering from impostor feelings.

The links between parenting styles and the impostor phenomenon were not found to be strong among men in this study. A possible explanation is that men expect to receive less parental care and parental overprotection on average than women in their childhood according to the norm of the parenting practices. Therefore, men are overall less affected by the difference in parental care and overprotection. Nonetheless, we suspect that the mechanism of the development of the impostor phenomenon is different for men and women. Clance and Imes (1978) identified early family relations as one of the roots of impostor feelings mainly based on their clinical work with female impostors. It is possible that early family relations are more influential on women than on men, and other factors may explain the impostor phenomenon in men.

**Strengths and Limitations**

This study contributed to the literature on the relationships between early family environment and the impostor phenomenon by examining its impact on men and women separately. The current study was the first empirical research concerning the moderating effect of sex on how parenting styles are related to impostor feelings. It provided unique insight into the possibly different dynamics of impostor feelings in men and women. Also, the current study supported the notion that family relations have an essential role in the development of impostor feelings and demonstrated that parental parenting variables jointly predict impostor feelings in adults. Furthermore, most prior research on the same topic used non-U.S. samples. This study replicated the links found in previous research and thus increased the generalizability of previous findings.

There were several limitations to the current study. The sample in the current study was not very representative of the general population in terms of sex composition. There were substantially more women than men in the sample. Though it did

**TABLE 4**

**Multiple Linear Regressions With Maternal and Paternal Parenting Variables to Predict Scores on the Clance Impostor Phenomenon Scale**

Variable	$\beta$	F	Overall R <sup>2</sup>
<b>All Participants</b>			
Maternal Care	-.41***		
Maternal Overprotection	.15		
Paternal Care	.01		
Paternal Overprotection	.21	10.93***	.09
<b>Men</b>			
Maternal Care	-.28		
Maternal Overprotection	-.30		
Paternal Care	-.04		
Paternal Overprotection	.26	1.37	.06
<b>Women</b>			
Maternal Care	-.43***		
Maternal Overprotection	.30		
Paternal Care	-.06		
Paternal Overprotection	.06	10.15***	.10

\*p < .05, \*\*p < .01, \*\*\*p < .001

not affect the results concerning women and men separately, the composition of the sample may have caused biases in results considering all participants as a whole. For example, the negative correlation between parental care and impostor scores found for all participants may be significant because of the strong relationship between the two variables for women. Thus, the nonsignificance of the relationship for men might not have enough weight to influence the results because of the small number of the men. Another limitation of this study was the low baseline number of male impostors. Using a cutoff score of 62 (Holmes et al., 1993), only 26 men were classified as impostors. This might have led to the nonsignificant results between parenting variables and impostor scores in men. In this study, the PBI was embedded among other inventories that assess other potential variables that relate to the impostor phenomenon. Nearly 10% of participants did not complete the PBI concerning paternal parenting styles, likely because of survey fatigue, which may to some extent explain the nonsignificant results regarding paternal parenting variables. In addition, the questionnaire did not ask how much each of the parents was involved in child-rearing practice. It was thus not clear whether mothers were generally more involved than fathers, which may be an alternative explanation for the results that only maternal care was strongly predictive of impostor scores.

### Future Research

Future research needs to examine if the relationships between various family variables and impostor feelings among men remain nonsignificant. If so, more research should be devoted to investigating how impostor feelings develop differently in men than in women. Likewise, researchers should control for the involvement of each of the parents to clarify the influence of maternal and paternal parenting styles, and provide explanations for the difference. Still, longitudinal research may be carried out to see if and how the predictive power of parenting variables on impostor scores change with respect to time. All prior empirical research on the impostor phenomenon has been cross-sectional. Longitudinal research is especially needed to provide valuable insight into the evolution of the impostor phenomenon.

### Conclusion

In the current study, we found support for the proposed connection between early family relations

and imposter feelings (Clance & Imes, 1978). We revealed that parental care linked to lower impostor scores while parental overprotection linked to higher scores. They both predicted imposter feelings in adult children. Women were found to be more responsive to parenting variables than men. The developmental mechanism of imposter feelings among men and women might be different and needs further investigation.

### References

- Bernard, N. S., Dollinger, S. J., & Ramaniah, N. V. (2002). Applying the big five personality factors to the impostor phenomenon. *Journal of Personality Assessment, 78*, 221–233. doi:10.1207/S15327752JPA7802\_07
- Bussotti, C. (1990). *The impostor phenomenon: Family roles and environment*. (Unpublished doctoral dissertation). Georgia State University, Atlanta, GA.
- Caselman, T. D., Self, P. A., & Self, A. L. (2006). Adolescent attributes contributing to the impostor phenomenon. *Journal of Adolescence, 29*, 395–405. doi:10.1016/j.adolescence.2005.07.003
- Castro, D. M., Jones, R. A., & Mirsalimi, H. (2004). Parentification and the impostor phenomenon: An empirical investigation. *American Journal of Family Therapy, 32*, 205–216. doi:10.1080/01926180490425676
- Clance, P. R. (1985). *The impostor phenomenon: Overcoming the fear that haunts your success*. Atlanta, GA: Peachtree Publishers.
- Clance, P. R. (1986). *The impostor phenomenon: When success makes you feel like a fake*. Atlanta, GA: Bantam.
- Clance, P. R., Dingman, D., Reviere, S. L., & Stober, D. R. (1995). Impostor phenomenon in an interpersonal/social context: Origins and treatment. *Women & Therapy, 16*, 79–96. doi:10.1300/J015v16n04\_07
- Clance, P. R., & Imes, S. A. (1978). The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice, 15*, 241–247. doi:10.1037/h0086006
- Clance, P. R., & O'Toole, M. A. (1987). The impostor phenomenon: An internal barrier to empowerment and achievement. *Women & Therapy, 6*, 51–64. doi:10.1300/J015V06N03\_05
- Cowman, S. E., & Ferrari, J. R. (2002). "Am I for real?" Predicting impostor tendencies from self-handicapping and affective components. *Social Behavior and Personality, 30*, 119–126. doi:10.2224/sbp.2002.30.2.119
- Cromwell, B., Brown, N. W., Sanchez-Huceles, J., & Adair, F. L. (1990). The impostor phenomenon and personality characteristics of high school honor students. *Journal of Social Behavior and Personality, 5*, 563–573.
- Fouladi, R. T., Moller, N. P., & McCarthy, C. J. (2006). Examination of internal consistency and construct validity of scores on the Parental Attachment Scale: Preliminary psychometric results. *Measurement and Evaluation in Counseling and Development, 39*, 2–30.
- French, B. F., Ullrich-French, S. C., & Follman, D. (2008). The psychometric properties of the Clance Impostor Scale. *Personality and Individual Differences, 44*, 1270–1278. doi:10.1016/j.paid.2007.11.023
- Fried-Buchalter, S. (1997). Fear of success, fear of failure, and the impostor phenomenon among male and female marketing managers. *Sex Roles, 37*, 847–859. doi:10.1007/BF02936343
- Gibson-Beverly, G., & Schwartz, J. P. (2008). Attachment, entitlement, and the impostor phenomenon in female graduate students. *Journal of College Counseling, 11*, 119–132. doi:10.1002/j.2161-1882.2008.tb00029.x
- Holmes, S. W., Kertay, L., Adamson, L. B., Holland, C. L., & Clance, P. R. (1993). Measuring the impostor phenomenon: A comparison of Clance's IP scale and Harvey's I-P scale. *Journal of Personality Assessment, 60*, 48–59. doi:10.1207/s15327752jpa6001\_3
- King, J. E., & Cooley, E. L. (1995). Achievement orientation and the impostor phenomenon among college students. *Contemporary Educational Psychology, 20*, 304–312. doi:10.1006/ceps.1995.1019
- Mackinnon, A. J., Henderson, A. S., Scott, R., & Duncan-Jones, P. (1989). The Parental Bonding Instrument (PBI): An epidemiological study in a general population sample. *Psychological Medicine: A Journal of Research in Psychiatry and the Allied Sciences, 19*, 1023–1034. doi:10.1017/S0033291700005754
- McGregor, L. N., Gee, D. E., & Posey, K. E. (2008). I feel like a fraud and it

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- depresses me: The relation between the imposter phenomenon and depression. *Social Behavior and Personality*, 36, 43–48. doi:10.2224/sbp.2008.36.1.43
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1–10. doi:10.1111/j.2044-8341.1979.tb02487.x
- Robinson, S. L., & Goodpaster, S. K. (1991). The effects of parental alcoholism on perception of control and imposter phenomenon. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 10(1–2), 113–119. doi:10.1007/BF02686785
- Ross, S. R., Stewart, J., Mugge, M., & Fultz, B. (2001). The imposter phenomenon, achievement dispositions, and the Five Factor Model. *Personality and Individual Differences*, 31, 1347–1355. doi:10.1016/S0191-8869(00)00228-2
- September, A. N., McCarrey, M., Baranowsky, A., Parent, C., & Schindler, D. (2001). The relation between well-being, imposter feelings, and gender role orientation among Canadian university students. *The Journal of Social Psychology*, 141, 218–232. doi:10.1080/00224540109600548
- Sonnak, C., & Towell, T. (2001). The impostor phenomenon in British university students: Relationships between self-esteem, mental health, parental rearing style, and socioeconomic status. *Personality and Individual Differences*, 31, 863–874. doi:10.1016/S0191-8869(00)00184-7
- Thompson, T., Davis, H., & Davidson, J. (1998). Attributional and affective responses of impostors to academic success and failure outcomes. *Personality and Individual Differences*, 25, 381–396. doi:10.1016/S0191-8869(98)00065-8
- Want, J., & Kleitman, S. (2006). Imposter phenomenon and self-handicapping: Links with parenting styles and self-confidence. *Personality and Individual Differences*, 40, 961–971. doi:10.1016/j.paid.2005.10.005

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*Author Note.* Sijia Li, Department of Psychology, Agnes Scott College; Jennifer L. Hughes, Department of Psychology, Agnes Scott College; Su Myat Thu, Department of Psychology, Agnes Scott College.

Sijia Li is now at Department of Psychology, University of West Florida.

Correspondences regarding this paper should be directed to Sijia Li at 11000 University Parkway, Building 41, Pensacola, FL, 32514. E-mail: sl44@students.uwf.edu.

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