



The Relative Contributions of Dark Triad Traits and Multidimensional Perfectionism to the Impostor Phenomenon

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Abstract: This study examined the contributions of Dark Triad traits and multidimensional perfectionism to the impostor phenomenon (IP) among college students. While prior research links both to impostor feelings, their combined effects remain unclear. Students completed self-report measures, and hierarchical regression was used for analysis. Dark Triad traits alone did not significantly predict IP. However, adding perfectionism significantly improved the model. Socially prescribed perfectionism emerged as a strong positive predictor, indicating higher impostor feelings with perceived external expectations. Narcissism showed a significant negative relationship, suggesting a protective effect, while Machiavellianism, psychopathy, and other perfectionism dimensions were not significant predictors.

Keywords: *Impostor Phenomenon, Dark Triad, Narcissism, Multidimensional Perfectionism, Socially Prescribed Perfectionism, College Students, Hierarchical Regression*

1. Introduction

The impostor phenomenon (IP) is a key focus in psychological research, especially in high-achievement settings. First defined by Clance and Imes (1978), it involves persistent feelings of intellectual fraudulence, where individuals doubt their abilities and fear being exposed as incompetent despite evident success. Such individuals often attribute achievements to external factors like luck, leading to anxiety, low self-confidence, and reduced satisfaction. Initially thought to affect mainly high-achieving women, later research shows that both men and women experience similar levels of IP, making it a widespread

phenomenon. College students are particularly vulnerable due to academic pressure, competition, and high expectations.

Personality traits, particularly the Dark Triad narcissism, Machiavellianism, and psychopathy may influence IP. Narcissism, marked by self-confidence and grandiosity, may reduce self-doubt, while Machiavellianism and psychopathy may have weaker or indirect effects.

Perfectionism is another major contributor, especially socially prescribed perfectionism, which reflects the belief that others demand flawless performance. This leads to internalized pressure, anxiety, and discounting of success, reinforcing impostor feelings.

Although both personality traits and perfectionism are linked to IP, they are often studied separately. These factors likely interact, with socially prescribed perfectionism increasing vulnerability and narcissism potentially offering protection.

Therefore, this study uses hierarchical regression to examine the relative and combined effects of Dark Triad traits and multidimensional perfectionism in predicting IP among college students, aiming to identify key predictors and inform targeted interventions.

2. Methodology

This chapter outlines the methodological approach used to investigate the relative contributions of Dark Triad traits and multidimensional perfectionism to the impostor phenomenon. It includes the study aim, research design, objectives, hypothesis, sampling strategy, data collection methods, measurement tools, and data analysis procedures. Ethical considerations and study limitations are also discussed within the methodological framework.

2.1 Aim of the study

This study examines how Dark Triad traits (Machiavellianism, narcissism, psychopathy) and multidimensional perfectionism (self-, other-, socially prescribed) predict impostor phenomenon and interact to influence individuals' impostor feelings.

2.2 Research Objectives

1. To assess the level of impostor phenomenon among participants.
2. To examine the relationship between Dark Triad traits and the impostor phenomenon.
3. To investigate the relationship between multidimensional perfectionism and the impostor phenomenon.
4. To determine the relative contribution of Dark Triad traits and perfectionism dimensions in predicting impostor phenomenon.

Based on previous literature and the study's objectives, the following hypotheses are proposed:

2.3 Alternative Hypotheses (H_1)

1. There will be a significant relationship between Dark Triad traits and the impostor phenomenon.
2. There will be a significant relationship between multidimensional perfectionism and the impostor phenomenon.
3. Dimensions of perfectionism will significantly predict impostor phenomenon.
4. Dark Triad traits and multidimensional perfectionism will jointly contribute to the prediction of impostor phenomenon.

2.4 Null Hypotheses (H_0)

1. There is no significant relationship between Dark Triad traits and the impostor phenomenon.
2. There is no significant relationship between multidimensional perfectionism and the impostor phenomenon.
3. Dark Triad traits do not significantly predict impostor phenomenon.
4. Dark Triad traits and multidimensional perfectionism do not jointly contribute to the prediction of impostor phenomenon.

2.5 Research Design

The study adopts a quantitative, cross-sectional research design. Data were collected at a single point in time using standardized self-report questionnaires. This design is appropriate for examining relationships among variables and determining the predictive contribution of independent variables (Dark Triad traits and perfectionism dimensions) to the dependent variable (impostor phenomenon).

2.6 Participants

The study included 72 university students from Amity University, recruited using convenience sampling based on accessibility and willingness. Participants were at least 18 years old and enrolled in undergraduate or postgraduate programs, with demographic details collected.

2.7 Assessments and Measures

The following standardized self-report instruments were used to assess the key variables in the present study:

Clance Impostor Phenomenon Scale (CIPS): The Clance Impostor Phenomenon Scale (CIPS) is a 20-item measure assessing impostor feelings such as self-doubt, fear of failure, and difficulty internalizing success, rated on a 5-point Likert scale. Scores range from 20 to 100, with higher scores indicating stronger impostor tendencies; the scale shows high reliability and good validity.

Short Dark Triad (SD3): The Short Dark Triad (SD3) scale assesses Machiavellianism, narcissism, and psychopathy using 27 items (9 per trait) rated on a 5-point Likert scale. Higher scores indicate greater levels of each trait, and the scale demonstrates acceptable reliability and validity across diverse samples.

Hewitt and Flett Multidimensional Perfectionism Scale (HF-MPS): The Hewitt and Flett Multidimensional Perfectionism Scale (HF-MPS) measures self-oriented, other-oriented, and socially prescribed perfectionism using 45 items on a 7-point Likert scale. Higher scores indicate greater perfectionistic tendencies, and the scale shows strong reliability and construct validity.

All instruments used in the study have been widely validated and are considered reliable measures of their respective constructs.

2.8 Data Analysis

Data were analyzed using SPSS, with descriptive statistics, Pearson correlations, and hierarchical multiple regression used to examine relationships and predictive contributions. Dark Triad traits were entered first, followed by multidimensional perfectionism to assess incremental variance in the impostor phenomenon.

2.9 Ethical Considerations

Ethical guidelines were followed, including informed consent, confidentiality, anonymity, and the right to withdraw at any time. No deception or harm was involved, and all data were used solely for research purposes.

3. Analysis of Results

This chapter presents the statistical analysis of the data collected to examine the relative contributions of Dark Triad traits and multidimensional perfectionism to the impostor phenomenon. The analyses were conducted using the Statistical Package for the Social Sciences (SPSS). The results are organized into descriptive statistics, correlation analysis, and hierarchical multiple regression analysis.

Descriptive Statistics

Descriptive statistics were computed to examine the central tendency and variability of the study variables, including Dark Triad traits, multidimensional perfectionism, and the impostor phenomenon.

The results indicated that the mean score for the impostor phenomenon was $M = 61.24$, $SD = 13.26$, suggesting a moderate to high level of impostor feelings among participants. For Dark Triad traits, participants reported moderate levels of Machiavellianism ($M = 27.89$, $SD = 4.84$), narcissism ($M = 27.10$, $SD = 4.70$), and psychopathy ($M = 22.10$, $SD = 5.22$).

Regarding multidimensional perfectionism, the mean scores were as follows: self-oriented perfectionism ($M = 45.93$, $SD = 6.77$), other-oriented perfectionism ($M = 41.81$, $SD = 7.52$), and socially prescribed perfectionism ($M = 44.53$, $SD = 6.79$). These results indicate relatively higher levels of self-oriented and socially prescribed perfectionism compared to other-oriented perfectionism.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mach	72	15	40	27.89	4.843
Narcissism	72	16	41	27.10	4.700
Psychopathy	72	11	37	22.10	5.217
IP	72	30	90	61.24	13.256
SO	72	28	61	45.93	6.773
OO	72	26	61	41.81	7.522
SP	72	27	62	44.53	6.793
Valid N (listwise)	72				

Correlation Analysis

Pearson correlation analysis examined relationships among Dark Triad traits, perfectionism, and the impostor phenomenon. The impostor phenomenon was positively related to socially prescribed perfectionism ($r = .36$, $p < .01$) and self-oriented perfectionism ($r = .26$, $p < .05$), indicating higher impostor feelings with greater perfectionism. It was negatively related to narcissism ($r = -.28$, $p < .05$), suggesting a protective effect. No significant associations were found with Machiavellianism, psychopathy, or other-oriented perfectionism. Significant intercorrelations also emerged among predictors, including

Machiavellianism with psychopathy, psychopathy with narcissism, and strong positive relationship among perfectionism dimensions.

Hierarchical Multiple Regression Analysis

Hierarchical multiple regression was conducted to examine the relative contributions of Dark Triad traits and multidimensional perfectionism to the prediction of impostor phenomenon. Impostor phenomenon (IP) was the dependent variable. In Step 1, the Dark Triad traits—Machiavellianism, narcissism, and psychopathy—were entered. In Step 2, the dimensions of perfectionism (self-oriented [SO], other-oriented [OO], and socially prescribed [SP]) were added to the model.

Step 1: Dark Triad Traits

The first block, which included Machiavellianism, narcissism, and psychopathy, accounted for $R^2 = .10$ of the variance in impostor phenomenon. This model was not statistically significant, $F(3, 68) = 2.57, p = .061$, indicating that the Dark Triad traits alone did not significantly predict impostor feelings. Among the individual predictors, only narcissism was a significant predictor, showing a negative relationship with impostor phenomenon ($\beta = -.31, p = .013$). Machiavellianism ($\beta = .14, p = .278$) and psychopathy ($\beta = .03, p = .802$) were not significant predictors.

Step 2: Addition of Perfectionism Dimensions

In the second block, self-oriented, other-oriented, and socially prescribed perfectionism were added to the model. The inclusion of these variables significantly improved the model, $\Delta R^2 = .16, F \text{ change}(3, 65) = 3.79, p = .003$. The final model accounted for $R^2 = .26$ of the variance in impostor phenomenon, suggesting that the combined predictors explain approximately 26% of the variability in impostor feelings.

In the final model

Socially prescribed perfectionism (SP) emerged as the strongest positive predictor ($\beta = .41, p = .009$), indicating that higher SP is associated with higher impostor feelings. Narcissism remained a significant negative predictor ($\beta = -.31, p = .011$). Other variables—Machiavellianism, psychopathy, self-oriented perfectionism (SO), and other-oriented perfectionism (OO)—were not significant predictors in the final model.

Table 2: Correlations

		Mach	Psychopathy	SP	OO	Narcissism	SO	IP
Mach	Pearson Correlation	1	.378**	.066	.168	.128	.178	.109
	Sig. (2-tailed)		.001	.584	.157	.284	.136	.364

	N	72	72	72	72	72	72	72
Psychopathy	Pearson Correlation	.378**	1	.230	.223	.319**	.029	-.015
	Sig. (2-tailed)	.001		.052	.059	.006	.807	.902
	N	72	72	72	72	72	72	72
SP	Pearson Correlation	.066	.230	1	.673**	-.045	.456**	.364**
	Sig. (2-tailed)	.584	.052		.000	.708	.000	.002
	N	72	72	72	72	72	72	72
OO	Pearson Correlation	.168	.223	.673**	1	-.047	.464**	.174
	Sig. (2-tailed)	.157	.059	.000		.696	.000	.144
	N	72	72	72	72	72	72	72
Narcissism	Pearson Correlation	.128	.319**	-.045	-.047	1	.112	-.282*
	Sig. (2-tailed)	.284	.006	.708	.696		.350	.016
	N	72	72	72	72	72	72	72
SO	Pearson Correlation	.178	.029	.456**	.464**	.112	1	.256*
	Sig. (2-tailed)	.136	.807	.000	.000	.350		.030
	N	72	72	72	72	72	72	72
IP	Pearson Correlation	.109	-.015	.364**	.174	-.282*	.256*	1
	Sig. (2-tailed)	.364	.902	.002	.144	.016	.030	
	N	72	72	72	72	72	72	72

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319 ^a	.102	.062	12.837
2	.509 ^b	.259	.191	11.926

a. Predictors: (Constant), Psychopathy, Narcissism, Mach

b. Predictors: (Constant), Psychopathy, Narcissism, Mach, SO, OO, SP

Table 4: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1271.905	3	423.968	2.573	.061 ^b
	Residual	11205.081	68	164.781		
	Total	12476.986	71			

2	Regression	3231.466	6	538.578	3.786	.003 ^c
	Residual	9245.520	65	142.239		
	Total	12476.986	71			

- a. Dependent Variable: IP
- b. b. Predictors: (Constant), Psychopathy, Narcissism, Mach
- c. c. Predictors: (Constant), Psychopathy, Narcissism, Mach, SO, OO, SP

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	72.741	11.843		6.142	.000		
	Mach	.372	.340	.136	1.094	.278	.857	1.167
	Narcissism	-.875	.342	-.310	-2.559	.013	.898	1.113
	Psychopathy	.083	.330	.033	.252	.802	.782	1.278
2	(Constant)	39.654	14.810		2.678	.009		
	Mach	.362	.325	.132	1.115	.269	.809	1.237
	Narcissism	-.862	.329	-.306	-2.624	.011	.840	1.190
	Psychopathy	-.046	.326	-.018	-.142	.887	.691	1.447
	SO	.354	.254	.181	1.397	.167	.679	1.472
	SP	.803	.297	.411	2.706	.009	.493	2.027
	OO	-.386	.267	-.219	-1.449	.152	.498	2.008

- a. Dependent Variable: IP

4. Discussion

This study examined the relative contributions of Dark Triad traits (Machiavellianism, narcissism, psychopathy) and multidimensional perfectionism (self-oriented, other-oriented, socially prescribed) to the impostor phenomenon among adults. Results showed that socially prescribed perfectionism (SP) was the strongest positive predictor of impostor feelings, while narcissism had a significant negative association. Machiavellianism, psychopathy, self-oriented perfectionism (SO), and other-oriented perfectionism (OO) were not significant predictors in the final model, highlighting a specific pattern of effects.

Narcissism was the only significant Dark Triad predictor, suggesting that individuals high in narcissism characterized by confidence, self-enhancement, and perceived superiority are less likely to experience impostor feelings. This supports the view that narcissism may act as a protective factor against self-doubt and perceived incompetence. In contrast, Machiavellianism and psychopathy showed no significant relationship, indicating that these

traits may influence interpersonal behavior but are not directly linked to internal self-evaluations of competence or fraudulence.

Among perfectionism dimensions, socially prescribed perfectionism was the most important predictor, reflecting the role of perceived external expectations in driving impostor feelings. Self-oriented perfectionism showed a weak, non-significant association, while other-oriented perfectionism was unrelated to impostor experiences.

Overall, the model explained 26% of the variance in impostor phenomenon, demonstrating its multifactorial nature. The findings highlight the importance of external evaluative pressure and suggest that narcissism may provide a protective effect, while other traits play minimal roles.

5. Conclusion

This study examined the relative contributions of Dark Triad traits (Machiavellianism, narcissism, psychopathy) and multidimensional perfectionism (self-oriented, other-oriented, socially prescribed) in predicting the impostor phenomenon among adults. It aimed to identify the strongest predictors of self-doubt, perceived fraudulence, and fear of being exposed as incompetent.

Findings showed that socially prescribed perfectionism was the strongest positive predictor, indicating that perceived external pressure and unrealistic expectations significantly contribute to impostor feelings. Narcissism was negatively associated with the impostor phenomenon, suggesting that self-confidence and self-enhancement may serve as protective factors. Machiavellianism, psychopathy, self-oriented perfectionism, and other-oriented perfectionism were not significant predictors in the final model.

The combined model explained 26% of the variance in impostor phenomenon, highlighting its multifactorial nature and the importance of both personality traits and perceived external demands.

This study supports the multidimensional nature of perfectionism and emphasizes the distinct role of socially prescribed perfectionism compared to other forms. It also shows that personality traits may play different roles, with narcissism acting as protective, while other Dark Triad traits appear neutral. Overall, the findings provide an integrative framework combining personality and perfectionism to better understand impostor experiences.

The results underscore that impostor phenomenon is strongly influenced by external evaluative pressure and shaped by individual personality differences, offering insights for

interventions aimed at reducing maladaptive perfectionism and improving psychological well-being in academic and professional settings.

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