(RESEARCH ARTICLE)

The mediating role of Machiavellianism on Interaction Involvement and Social Desirability among adults

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Abstract

The study examined how tactics and views dimensions of Machiavellianism as a whole, with social desirability, may affect interpersonal communication to gain benefits from others. The study included 190 participants across India (97 males, 91 females and 2 non-binary) with an inclusion criterion that they should not have any diagnosed psychological disorder/condition and the treatment for the same should not be ongoing. The study used a correlational non-experimental research design incorporating mediation and regression analysis to examine the predictive and interactive relationship between variables. The study revealed that there was a weak negative correlation between Machiavellianism and interaction involvement; a negative moderate correlation between social desirability and Machiavellianism, and a positive weak correlation between social desirability and interaction involvement, suggesting this weak correlation could be due to scattered data, which is not linear. The results of mediation suggest that there is a partial direct effect of social desirability on interaction involvement that is highly significant, making the total effect significant. In addition to this, the p-value for the indirect effect caused by Machiavellianism is 0.073, suggesting a possible indirect effect, supporting that there is a trend of mediation.

Keywords: Machiavellianism; Social desirability; Interaction involvement; Response bias; Impression management; Correlational study; Personality traits; Deceptive communication

1. Introduction

Communication is a natural discipline by which individuals share their experiences, thoughts and feelings with others. Each individual communicates differently and their interaction style reflects how they communicate with others (Beattie, 2014). Machiavellianism, social desirability, and interaction involvement are three interconnected constructs that play significant roles in understanding human behavior, particularly in psychosocial contexts, especially during interaction with others. Machiavellianism and narcissism have similar traits which overlap with each other, and there are much research done on manipulative behaviors which consist of these two personality traits. Narcissism has grandiose yet fragile sense of self and has preoccupation sense of admiration whereas Machiavellianism is characterised by a tendency to behave in the direction of interpersonal manipulative manner. Social desirability also plays an important role in shaping interpersonal relationships which might affect the style of interaction individuals have with others. The study will aim to find the relationship between Machiavellianism and how it affects interpersonal communications, which include the social desirability factor and interaction involvement.

1.1. Machiavellianism as a concept

Machiavellianism is defined as "a strategy of social conduct that involves manipulating others for personal gain, often against others' self-interest" (Wilson, Near, & Miller, 1996). In simple terms, individuals who manipulate others for their

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benefit. It is similar to narcissism in multiple aspects, and research shows they both are highly correlated with each other, such as both being task-oriented compared to person-oriented (McHoskey, 1995); exploitation of others, highly manipulative, self-inflated sense of self (Lee & Ashton, 2017). There is a construct of subclinical or normal narcissism, which creates the baseline to diagnose personality as narcissistic personality disorder (Raskin and Hall, 1979). Machiavellianism is a personality trait, whereas narcissism could be a personality trait as well as a disorder, depending on the severity of the traits.

1.2. Characteristics of the Machiavellianism personality trait

The main behaviour of a Machiavellian individual is lying and cheating, and betrayal. Machiavellians have also been known to cause misfortune in a Romantic relationship (Abell & Brewer, 2018). Because of their unethical behavior, they are more prone to bribe people and give kickbacks (Hegarty, 1995). These individuals portray betrayal only when they see the event as beneficial to them. They are manipulative and according to H.W. Franke it is a covert behaviour to the detriment of the people targeted. There has been plenty of research which proves Machiavellianism in work makes an individual more strained towards work, less job satisfaction (Gemmill and Heisler, 1972). In contrast to it, in the work environment, Machiavellians perform well where the rules are ambiguous because they don't like following rules and they tend to ignore set procedures of the institution. (Grover & Enz, 2005)

1.3. Social Desirability

The tendency to present oneself favorably in social situations, mainly aligning their responses to societal norms, is referred to as social desirability (Crowne & Marlow, 1960). It is also showing overly positive and downplaying negative behaviour or responses, which hampers the validity and interpretation of self-report (Arthur et al., 2021; Brownback & Novotny, 2018; Z. Lee & Sargeant, 2011; Ones et al., 1996). Social desirability is highly noted in psychological self-report personality tests. Understanding the concept of social desirability is important as it can hamper the validity and psychological results and could lead to misinterpretation of data because individuals want to be more socially acceptable (Lanz et al., 2021c). Understanding the cause behind response biases would help the researchers to get past this bias, although social desirability response bias cannot be omitted completely, but researchers can take measures to reduce it so that the results and the analysis won't get affected or hampered (Fisher, 1993). Socially desirable response biases mostly happen when a topic is too sensitive to talk about, the individual might feel judged if they give their true opinions, therefore, they feel pressured to conform to perceived social norms and standards (Latkin et al., 2017). For instance, a study found that individuals with depression gave more socially desirable responses and underreported depressive symptoms because mental health issues are stigmatised in a similar population and didn't give accurate results. Society and stigma around mental health are a major cause of socially desirable responses in psychological assessments.

1.4. Interaction Involvement

Interaction involvement refers to the extent to which an individual participates with another in a conversation and responds during an interaction attentively with sensitivity and understanding of other people's feelings (Cegala, 1980). For an individual to engage in a conversation, they need to pay attention to what the other person is sharing and should have the ability to connect emotionally (Duncan & Fiske, 1977). It is often studied as a cognitive factor in communication competence (Cegala, 1984; Kellermann & Roloff, 1983; Spitzberg Jr Cupach, 1988). Interaction involvement also has the concept of social interaction that affects all developmental domains. During social interactions, individuals express their needs and interact with others and reciprocate it in a transactional manner (Tronick et. al, 2019). The variable interaction involvement is based on social exchange theory. There are four assumptions by Molm (1997) for exchange theory; they desire to increase or decrease loss depending upon the motivation of the behavior; both parties, i.e. individuals conversing have some reason to exchange to obtain resources; individuals are not engaged in one shot transactional; the outcome obey psychological principle of satiation.

A high interaction involvement is associated with a productive conversation and can enhance relationship satisfaction, but findings suggest that individuals with high Machiavellianism exhibit lower interaction involvement because they have their self-serving motives leading to superficial interactions that lead to shallow relationships that lack emotional resonance (Jones & Paulhus, 2014). In contrast, a low interaction involvement involves an individual engaging in a conversation, very little to no conversation at all, limiting their active participation in an interpersonal relationship. They are reserved to align with social norms of modesty. Highly manipulative people give desirable answers, but some studies confirm that people with high Machiavellianism have low interaction with other people, although they have a high tendency to give desirable answers because of their self-serving motives (Hoefer, 1999). These three are one of the main concepts to build an interpersonal relationship, therefore, this study will open new insights related to these variables and will give a better understanding of the interaction people have.

1.5. Aim and objective of the study

To examine the impact of Machiavellianism and social desirability on interaction involvement among adults.

1.5.1. Objectives

- To examine the relationship between social desirability and Machiavellianism.
- To examine the relationship between interaction involvement and social desirability.
- To examine the relationship between Machiavellianism and interaction involvement.
- To examine whether Machiavellianism mediates the relationship between social desirability and interaction involvement.

1.5.2. Hypothesis

- H01: There is no correlation between social desirability and Machiavellianism
- H02: There is no correlation between interaction involvement and social desirability
- H03: There is no correlation between Machiavellianism and interaction involvement
- H04: Machiavellianism mediates the relationship between social desirability and interaction involvement.

1.6. Significance of the study

By studying one of the personalities from the dark triad in depth with social desirability and interpersonal involvement, this study opens up a new direction in understanding personality in social interactions, which bridges the gap between previous research. It would also help therapists to analyse clients' deceiving tendencies; they might use to look more socially desirable. By exploring the personality traits, especially the dark triad traits, e.g. Machiavellianism, as they could affect interpersonal communication and produce an unhealthy interaction style.

The study will also help individuals, especially individuals who are being manipulated or deceived, to understand how manipulative tendencies could be used with social desirability that could cause conflicting relationships. Thus, the study will help individuals identify and recognise the manipulative behavior of others and prevent them from getting into unfavorable situations and conversations.

2. Methodology

2.1. Research design

The study used a correlational non-experimental research design to explore the correlations between Machiavellianism, social desirability and interaction involvement, followed by exploring the influence of Machiavellianism on social desirability and interaction involvement.

2.2. Participants

The sample consisted 190 individuals (97 males, 91 females, 2 non-binary) across India, aged ranging from 18-44, who do not have any psychological conditions/disorder and their treatment for the same is not ongoing. This criterion is used to ensure there are no discrepancies in the responses due to any psychological condition. Machiavellianism is one of the personality traits in BPD, and individuals with BPD tend to show manipulative tactics to cope with insecurity or emotional instability (Mandal et. al, 2013).

2.3. Technique used

The samples were collected via convenience sampling which is a non-probability sampling technique. This technique was used to ensure that individuals who fell under the inclusion criteria were reached, which provided better information to fulfil the aim of the study.

2.4. Data analysis

Descriptive and inferential statistics were carried out to obtain a detailed statistical result for the objectives. Descriptive statistics included mean, median and standard deviation along with normality of the test. Inferential included correlational and mediation analysis using Jamovi 2.3.28.

3. Results and discussion

The study aimed to explore the mediating effect of Machiavellianism on social desirability and interaction involvement among adults, parallel to the research objectives. The detailed explanation of the results is discussed below.

Table 1 Descriptive statistics of the variables

Descriptives					Shapiro-Wilk	
	N	Mean	Median	SD	W	p
Social desirability	190	10.6	11.0	3.15	0.961	< .001
Machiavellianism	190	41.2	42.0	9.81	0.975	0.002
Interaction involvement	190	43.1	43.0	6.56	0.991	0.244

Table 1 shows the descriptive statistics of 190 participants across three variables. Mean, median, and standard deviation of Machiavellianism, social desirability and interaction involvement were measured. The mean, median and standard deviation of Machiavellianism are 10.6, 11,3.15 respectively. Similarly, mean, median and standard deviation of social desirability are 41.2,42 and 9.81, respectively. And lastly, mean, median and standard deviation of interaction involvement are 43.1,43 and 6.56.

Shapiro-Wilk normality test was carried out to check if the data is normally distributed. The result shows that only interaction involvement is normally distributed with a p-value of 2.44, which is greater than the significance value of 0.05.

To check Hypothesis 1, Hypothesis 2 and Hypothesis 3, Spearman's Correlational analysis was carried out.

Table 2 Correlational matrix of the variables

Correlation Matrix		Social desirability	Machiavellianism	Interaction involvement
Social desirability	Spearman's rho	—		
	df	—		
	p-value	—		
Machiavellianism	Spearman's rho	-0.415***	—	
	df	188	—	
	p-value	< .001	—	
Interaction involvement	Spearman's rho	0.183*	-0.237**	—
	df	188	188	—
	p-value	0.011	0.001	—

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

Table 2 depicts Spearman's Correlational analysis of Machiavellianism, social desirability and interaction involvement.

- H01: There is no correlation between Machiavellianism and social desirability

The results show there is a negative moderate correlation between Machiavellianism and social desirability with ρ =-0.415, p<.001 at a 0.05 significance level. A study supports this result, the study compared the dark triad personality with social desirability, and it was found out that social desirability is positively correlated with narcissism but negatively correlated with Machiavellianism and psychopathy (Kowalski et. al, 2018). Another study explored these

variables by using MACH-IV scale and found a small moderate negative correlation with social desirability (Hoefer, 1999). This result does not link with HO1, which is that Machiavellianism and social desirability do not correlate, and therefore, we reject H01.

- HO2: There is no correlation between interaction involvement and social desirability

Table 2 depicts that there is a weak positive correlation with ρ=0.183, p=0.011 at 0.05 significance level, rejecting H02. There are no direct studies related to interaction involvement but there are studies that explored interpersonal communication skills and found out that social desirability is associated with self-deception where individuals perceive themselves as socially competent influencing their interaction involvement positively (Hoefer, 1999). According to the "Two-Component Model of Socially Desirable Responding", Self-Deceptive Enhancement (SDE) had no significant relationship with observable social behaviors or interpersonal involvement. Impression Management, on the other hand, was slightly correlated with certain social presentation behaviours, but only in specific contexts (e.g., job interviews, socially evaluative situations). SDE ↔ Interpersonal involvement (r = ~0.06, p<0.05), IM ↔ Social expressiveness (r ≈ 0.15–0.20), often weak and context-dependent. (Paulhus, 1984)

- HO3: There is no correlation between Machiavellianism and interaction involvement

Machiavellianism and interaction involvement have a weak negative correlation with ρ=-0.237, p=0.001 at a 0.05 significance level. This result is supported by a few studies such as one study that explored that Machiavellianism positively predicts emotional manipulation and negatively predicts emotional intelligence, which hinders effective interaction among individuals, supporting the negative correlation of Machiavellianism with interaction involvement (Walters et al, 2021). Another study found that individuals high in Machiavellianism tend to use manipulative tactics rather than genuine interaction strategies, which may reduce their involvement in meaningful interpersonal exchanges (Grams and Rogers, 1990).

In conclusion, H01, H02 and H03 were rejected based on Spearman's correlational analysis. Further, mediation analysis was carried out to find the mediating effect of Machiavellianism on the relationship between social desirability and interaction involvement.

Table 3 Mediation analysis

Mediation Estimates						
Effect	**Label**	**Estimate**	**SE**	**Z**	**p**	**% Mediation**
Indirect	a × b	0.131	0.0743	1.77	0.077	25.4
Direct	c	0.385	0.1617	2.38	0.017	74.6
Total	c + a × b	0.517	0.1462	3.53	< .001	100.0

Table 4 Path estimates

			Label	**Estimate**	**SE**	**Z**	**p**
Path Estimates							
Social desirability	→	Machiavellianism	a	-1.3805	0.2022	-6.83	< .001
Machiavellianism	→	Interaction involvement	b	-0.0952	0.0520	-1.83	0.067
Social desirability	→	Interaction involvement	c	0.3853	0.1617	2.38	0.017

Table 3 predicts the mediation effect of Machiavellianism between social desirability and interaction involvement, which is the fourth hypothesis.

- H04: Machiavellianism mediates the relationship between social desirability and interaction involvement.

The table suggests that there is an indirect, i.e. a mediating effect of 25.4% of Machiavellianism on the relationship, but it is not significant at the 0.05 significance level, p-value 0.077 for the indirect effect is closer to the significant value 0.05, but may support a trend towards mediation. Although the direct effect of social desirability on interaction involvement is Significant with p=0.017 at a 0.05 significance level, with an estimate of 0.3853 and a mediation percentage of 74.6%. The result fails to accept H04; therefore, Machiavellianism do not mediate between social desirability and interaction involvement. Hoefer (1999) found that Machiavellianism and social desirability are negatively correlated, and individuals having manipulative tendencies prioritize self-serving behavior. While direct research between interaction involvement and Machiavellianism is limited and the correlational analysis from Table 2 also indicated an insignificant relationship between these variables.

Thus, Hypothesis 4, which is Machiavellianism, mediates the relationship between social desirability and interaction involvement is rejected.

4. Conclusion

Social desirability along with Machiavellianism, brings change in interaction involvement, and all three variables are significantly correlated with each other. Machiavellianism is negatively correlated while social desirability is positively correlated to interaction involvement, suggesting that high Machiavellian individuals tend to engage less in social situations and if they do engage, they do it because of their motives to benefit from others. Overall, both traits influence interaction with social desirability playing more direct role.

Limitations and suggestions

The study could have more responses to increase the generalizability. Machiavellianism has two dimensions view and tactics and interaction involvement consist of attentiveness, responsiveness and perceptiveness, so this study lacks the analysis of which dimension of Machiavellianism affect which dimension dimensions of interaction involvement and how much does the personality of the individual affect this relationship The study could have use a qualitative approach for more detailed results or a cross-sectional study with the same variables.

Implications

The study emphasized the importance of dark triad personality in interpersonal communication, which supports the theory of social exchange where individuals seek to maximize the benefit through interactions and minimizing the cost. For therapists, this study helps to understand not to interpret dark personalities in isolation, as individuals exhibiting high Machiavellian traits may still be capable of prosocial or socially desirable behaviour

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1] Andrews, P., & Meyer, R. G. (2003). Marlowe–Crowne Social Desirability Scale and short Form C: Forensic norms. Journal of Clinical Psychology, 59(4), 483–492. https://doi.org/10.1002/jclp.10136

[2] Ashton, M. C., Lee, K., & Son, C. (2000). Honesty as the sixth factor of personality: correlations with Machiavellianism, primary psychopathy, and social adroitness. European Journal of Personality, 14(4), 359–368. https://doi.org/10.1002/1099-0984(200007/08)14:4%3C359::aid-per382%3E3.0.co;2-y

[3] Beattie, G., & Ellis, A. (2014). The Psychology of Language and Communication. In Psychology Press eBooks. https://doi.org/10.4324/9781315804767

[4] Brewer, G., & Abell, L. (2017). Machiavellianism, relationship satisfaction, and romantic relationship quality. Europe's Journal of Psychology, 13(3), 491–502. https://doi.org/10.5964/ejop.v13i3.1217

[5] Cegala, D. J., Savage, G. T., Brunner, C. C., & Conrad, A. B. (1982). An elaboration of the meaning of interaction involvement: Toward the development of a theoretical concept. Communication Monographs, 49(4), 229–248. https://doi.org/10.1080/03637758209376087

[6] Cohn, J. F., & Tronick, E. Z. (1988). Mother-infant face-to-face interaction: Influence is bidirectional and unrelated to periodic cycles in either partner's behavior. Developmental Psychology, 24(3), 386–392. https://doi.org/10.1037/0012-1649.24.3.386

[7] Duncan, S., & Fiske, D. W. (2015). Face-to-Face Interaction. Routledge. https://doi.org/10.4324/9781315660998

[8] Fisher, R. J. (1993). Social Desirability Bias and the Validity of Indirect Questioning. Journal of Consumer Research, 20(2), 303–315. https://doi.org/10.1086/209351

[9] Gemmill, G. R., & Heisler, W. J. (1972). Machiavellianism as a Factor in Managerial Job Strain, Job Satisfaction, and Upward Mobility. Academy of Management Journal, 15(1), 51–62. https://doi.org/10.2307/254800

[10] Grams, W. C., & Rogers, R. W. (1990). Power and Personality: Effects of Machiavellianism, Need for Approval, and Motivation on Use of Influence Tactics. The Journal of General Psychology, 117(1), 71–82. https://doi.org/10.1080/00221309.1990.9917774

[11] Grover, S. L., & Enz, C. A. (2005). The Influence of Company Rules, Ethical Climate, and Individual Characteristics on Sales Representatives' Honesty. Journal of the Australian and New Zealand Academy of Management, 11(2), 27–36. https://doi.org/10.5172/jmo.2005.11.2.27

[12] Hegarty, W. H. (1995). Effects of Group Norms and Learning on Unethical Decision Behavior. Psychological Reports, 76(2), 593–594. https://doi.org/10.2466/pr0.1995.76.2.593

[13] Hoefer, M. L. (2018). Socially desirable responding on the Machiavellianism scale: Response bias or construct? http://dx.doi.org/10.25669/9qk4-9pmr

[14] Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3): A brief measure of dark personality traits. Assessment, 21(1), 28–41. https://doi.org/10.1177/1073191113514105

[15] Kowalski, C. M., Rogoza, R., Vernon, P. A., & Schermer, J. A. (2018). The dark triad and the self-presentation variables of socially desirable responding and self-monitoring. Personality and Individual Differences, 120, 234–237. https://doi.org/10.1016/j.paid.2017.09.007

[16] Lanz, L., Thielmann, I., & Gerpott, F. H. (2021). Are social desirability scales desirable? A meta-analytic test of the validity of social desirability scales in the context of prosocial behavior. Journal of Personality, 90(2). https://doi.org/10.1111/jopy.12662

[17] Latkin, C. A., Edwards, C., Davey-Rothwell, M. A., & Tobin, K. E. (2019). The Relationship between Social Desirability Bias and self-reports of health, Substance use, and Social Network Factors among Urban Substance Users in Baltimore, Maryland. Addictive Behaviors, 73(1), 133–136. https://doi.org/10.1016/j.addbeh.2017.05.005

[18] McHoskey, J. W., Worzel, W., & Szyarto, C. (1998). Machiavellianism and psychopathy. Journal of Personality and Social Psychology, 74(1), 192–210. https://doi.org/10.1037/0022-3514.74.1.192

[19] Ramanaiah, N. V., Schill, T., & Leung, L. S. (1977). A test of the hypothesis about the two-dimensional nature of the Marlowe-Crowne Social Desirability scale. Journal of Research in Personality, 11(2), 251–259. https://doi.org/10.1016/0092-6566(77)90022-8

[20] Raskin, R. N., & Hall, C. S. (1979). A narcissistic personality inventory. Psychological Reports, 45(2), 590–590.

[21] Walters, R. L. (2021). The Predictive Power of Machiavellianism, Emotional Manipulation, Agreeableness, and Emotional Intelligence on Counterproductive Work Behaviors. Retrieved April 16, 2025, from CORE Scholar website: https://corescholar.libraries.wright.edu/etd_all/2502?utm_source=corescholar.libraries.wright.edu%2Fetd_all%2F2502&utm_medium=PDF&utm_campaign=PDFCoverPages