



Distinguishing Neurodevelopmental Impulsivity from Perceived Manipulation: A Mixed-Methods Study on ADHD Traits and Machiavellianism Among Young Adults

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Abstract: Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental condition characterised by impulsivity, emotional dysregulation, and attentional difficulties that frequently persist into adulthood. Behaviours associated with ADHD, particularly emotional intensity and rapid reactions, are often socially misunderstood and may be interpreted as intentional manipulation. In contrast, Machiavellianism represents a personality construct defined by strategic manipulation, emotional detachment, and goal-oriented interpersonal control. Despite clear theoretical distinctions, overlapping behavioural appearances may lead observers to attribute impulsive actions to manipulative intent. The present study examined whether ADHD traits are statistically associated with Machiavellianism and explored how individuals with elevated ADHD traits experience social interpretation of their behaviour. A mixed-methods explanatory sequential design was employed. Quantitative data were collected using the Adult ADHD Self-Report Scale (ASRS-v1.1) and the Machiavellianism subscale of the Short Dark Triad (SD3). Qualitative data were gathered through semi-structured interviews exploring lived experiences of behavioural labeling and interpersonal misunderstanding among young adults aged 18–25 years within a non-clinical Indian sample. Correlation analysis revealed a small positive but statistically non-significant relationship between ADHD traits and Machiavellianism ($r = .199$, $p = .092$), suggesting that the constructs represent distinct psychological processes. Qualitative findings identified recurring themes including perceived misinterpretation, emotional overwhelm, impulsivity versus intentionality, and social withdrawal following negative labeling. Participants consistently described their behaviour as emotionally reactive rather than

strategically manipulative. The findings support the existence of an “intentionality gap” between internal emotional experience and external social judgment. The study contributes to conceptual clarification between neurodevelopmental impulsivity and personality-based manipulation while highlighting attributional bias in interpersonal perception. Implications include stigma reduction, improved clinical understanding, and enhanced psychoeducational awareness regarding ADHD-related interpersonal behaviour among young adults.

Keywords: *ADHD Traits; Machiavellianism; Emotional Dysregulation; Behavioural Misinterpretation; Mixed-Methods*

1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental condition involving persistent patterns of inattention, impulsivity, and emotional dysregulation that interfere with functioning across academic, occupational, and interpersonal contexts (American Psychiatric Association, 2022). Although historically conceptualized as a childhood disorder, contemporary research demonstrates that ADHD frequently continues into adulthood, influencing emotional regulation, self-concept, and social relationships.

One of the defining characteristics of ADHD is impulsivity, described as rapid behavioural responses without adequate evaluation of consequences (Barkley, 2015). Individuals with elevated ADHD traits often experience heightened emotional reactivity, difficulty delaying responses, and challenges regulating affective intensity. These behaviours arise primarily from executive functioning differences associated with prefrontal cortical regulation rather than deliberate interpersonal intention (Shaw et al., 2014). Consequently, emotionally expressive behaviour may appear exaggerated or socially inappropriate despite lacking strategic motivation.

In contrast, Machiavellianism is a personality construct rooted in social and personality psychology and characterized by calculated manipulation, emotional detachment, and strategic interpersonal behaviour (Christie & Geis, 1970). As one component of the Dark Triad of personality traits, Machiavellianism reflects intentional planning, cognitive control, and goal-directed influence over others (Paulhus & Williams, 2002). Unlike impulsivity associated with ADHD, Machiavellian behaviour involves deliberate decision-making and awareness of interpersonal outcomes.

Despite these conceptual differences, observable behaviours such as emotional intensity, assertiveness, or socially disruptive communication may appear similar to external observers. Attribution Theory suggests that individuals often explain behaviour using

dispositional assumptions rather than situational or neurological explanations (Heider, 1958). This tendency contributes to the fundamental attribution error, wherein observers attribute behaviour to personality traits instead of contextual factors (Ross, 1977).

Individuals displaying ADHD-related emotional dysregulation may therefore be perceived as manipulative, attention-seeking, or intentionally dramatic. Research on stigma indicates that atypical emotional expression frequently results in negative social labeling and interpersonal misunderstanding (Mueller et al., 2012). Such misinterpretations may contribute to social withdrawal, reduced self-confidence, and psychological distress.

Although ADHD and Dark Triad traits have been studied extensively, empirical research directly examining their relationship remains limited. Furthermore, few studies integrate quantitative trait analysis with qualitative exploration of lived experiences, particularly within Indian young adult populations. The present study addresses this gap by investigating whether ADHD traits are statistically related to Machiavellianism and by examining how individuals interpret and experience social judgments of their behaviour.

2. Literature Review

Neurodevelopmental Perspectives on ADHD

Neurodevelopmental theory conceptualises ADHD as involving deficits in behavioural inhibition and executive functioning (Barkley, 2015). Difficulties in inhibitory control contribute to impulsive responding and emotional dysregulation, affecting interpersonal functioning. Neuroimaging research links ADHD symptoms to atypical development within frontostriatal neural networks responsible for attention regulation and emotional control (Shaw et al., 2014).

Emotional dysregulation is increasingly recognized as a central component of ADHD rather than a secondary feature. Individuals often experience intense emotional reactions, rapid mood shifts, and challenges modulating emotional expression. Importantly, these reactions are typically reactive rather than premeditated, distinguishing them from intentional social strategies.

Machiavellianism and Strategic Social Behaviour

Machiavellianism represents a stable personality trait characterized by pragmatic morality, manipulation, and emotional detachment (Christie & Geis, 1970). Individuals high in Machiavellianism engage in calculated interpersonal behaviour aimed at achieving personal goals. Research suggests strong associations between Machiavellianism and planning ability, strategic thinking, and cognitive empathy without emotional empathy (Jones & Paulhus, 2014).

Conceptually, Machiavellianism involves proactive behaviour, whereas ADHD impulsivity reflects reactive behaviour. This distinction between proactive and reactive processes forms the theoretical foundation for expecting minimal association between the constructs.

Attribution Theory and Behavioural Misinterpretation

Attribution Theory proposes that individuals seek causal explanations for behaviour and frequently rely on dispositional judgments (Heider, 1958). The fundamental attribution error leads observers to overestimate personality causes while underestimating situational or biological influences (Ross, 1977).

When emotionally expressive individuals violate social expectations, observers may interpret behaviour as intentional manipulation. Stigma research demonstrates that individuals displaying atypical emotional responses are more likely to experience negative evaluation and rejection (Mueller et al., 2012). Such misinterpretation may be particularly relevant for ADHD populations.

2.1 Research Gap

Existing literature largely examines ADHD and Dark Triad traits independently. Limited research explores whether ADHD-related impulsivity is empirically associated with Machiavellian tendencies or how individuals experience behavioral mislabeling. Additionally, culturally contextual studies within Indian young adult populations remain scarce. The present mixed-methods study addresses these gaps.

3. Methodology

3.1 Research Design

An explanatory sequential mixed-methods design was employed. Quantitative analysis first examined statistical relationships between ADHD traits and Machiavellianism. Qualitative interviews subsequently explored participants lived experiences to explain and contextualize quantitative findings.

3.2 Participants

Participants were young adults aged 18–25 years recruited from a non-clinical Indian population. Inclusion criteria required English proficiency, completion of questionnaires, and voluntary consent for participation.

3.3 Measures

Adult ADHD Self-Report Scale (ASRS-v1.1): A six-item screening instrument assessing frequency of ADHD symptoms over the previous six months.

Short Dark Triad (SD3) Machiavellianism Subscale: A nine-item measure assessing strategic manipulation and interpersonal calculation.

3.4 Variables

- ADHD traits (continuous measured variable)
- Machiavellianism (continuous measured variable)

3.5 Procedure

Participants completed standardized questionnaires administered online. Based on screening scores, selected participants with elevated ADHD traits participated in semi-structured interviews exploring interpersonal experiences and perceived social labeling.

3.6 Ethical Considerations

Participation was voluntary, and informed consent was obtained prior to data collection. Participants were assured anonymity and confidentiality, and no identifying information was retained. Individuals were informed of their right to withdraw at any stage without penalty. Data were used solely for academic purposes in accordance with ethical psychological research guidelines.

4. Results & Discussion

Quantitative Findings

Table 1. *Presents the correlation between ADHD traits and Machiavellianism.*

Variables	r	p
ADHD – Machiavellianism	.199	.092

The correlation did not reach statistical significance at the $p < .05$ level, indicating that ADHD traits and Machiavellianism are not significantly related. This finding supports the hypothesis that neurodevelopmental impulsivity and personality-based manipulation represent distinct constructs.

Qualitative Findings

Thematic analysis identified recurring experiential themes:

- Perceived mislabeling as manipulative or attention-seeking
- Emotional overwhelm during interpersonal situations
- Behaviour experienced as spontaneous rather than strategic
- Feelings of invalidation
- Social withdrawal following negative judgments

Participants consistently described behaviour as emotionally driven rather than intentionally manipulative.

Integrated Interpretation: The Intentionality Gap

Combining quantitative and qualitative findings reveals an “intentionality gap” between internal motivation and external perception. ADHD-related behaviour emerges from regulatory difficulty, whereas Machiavellian behaviour reflects strategic intent. Observers may misattribute impulsive reactions to personality motives due to attributional bias.

5. Conclusion & Implications

The study demonstrates that ADHD traits are not significantly associated with Machiavellianism, reinforcing theoretical distinctions between neurodevelopmental impulsivity and personality-based manipulation. Findings suggest that perceived manipulation may reflect observer interpretation rather than intentional behaviour.

Theoretical Implications

The research contributes empirical evidence supporting differentiation between reactive emotional dysregulation and proactive interpersonal strategy.

Practical Implications

Results highlight the need for psychoeducation and stigma reduction initiatives emphasizing neurodevelopmental explanations of behaviour. Increased awareness may improve peer understanding, educational environments, and clinical assessment practices.

Limitations of the Study

The relatively small sample size limits generalizability. Self-report measures introduce potential response bias. Additionally, the cross-sectional design prevents causal conclusions.

Future Research Directions

Future studies may employ longitudinal designs, clinical samples, and cross-cultural comparisons to further examine attribution processes and interpersonal perception related to ADHD traits.

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