Psychological Achievements

(Psychol Achiev), 2025
32(*Special Issue*), 99-132
Received: 20 Dec 2025
Accepted: 02 Sep 2026
Doi: 10.22055/PSY.2026.51389.3535

ISSN (E): 2588-6649
https://psychac.scu.ac.ir/

Open Access
Publish Free

Research Article

Do Impulsivity and Moral Disengagement Mediate the Relationship between Dark Personality Traits and Academic Dishonesty in University Students?

Saadi Hameh Khani[1], Farzaneh Michaeli Manee [2]*

1- Masters graduate of Educational Psychology, Department of Psychology, Literature & Human Scince Faculty, Urmia University, Urmia, Iran.
2- Associate Professor of Educational Psychology, Department of Psychology, Faculty of Literature and Humanities Sciences, Urmia University, Urmia, Iran.

Article Info

Corresponding Author:
Farzaneh Michaeli Manee

Email:
f.michaeli.manee@gmail.com

Keywords:
Academic dishonesty, Impulsivity, Dark Personality Traits, Moral Disengagement, University Students.

Citation:
Hameh Khani, S., & Michaeli Manee, F. (2025). Do Impulsivity and Moral Disengagement Mediate the Relationship between Dark Personality Traits and Academic Dishonesty in University Students?, *Psychological Achievements, 32*(Special Issue), 99-132.

Abstract

Aim: This study aimed to examine the structural relationships between the Dark Triad personality traits (Psychopathy, Machiavellianism, and Narcissism), moral disengagement, impulsivity, and academic dishonesty among university students.

Methods: The current study was a descriptive-correlational study that employed a structural equation modeling (SEM) approach. The research society was Urmia University students. The cluster sampling method was used in this study (N = 385, 55.30% female and 44.70% male, Meanage = 19.60, SDage = 1.65). Data were analyzed using structural equation modeling (SEM) with SPSS-24 and AMOS-26 software. To collect data, the Moral Disengagement Scale, Short Scale of Dark Personality, Traits-The Dirty Dozen, Barratt Impulsiveness Scale (BIS-11) and Academic Dishonesty Questionnaire were used.

Results: The analysis confirmed that all three structural models demonstrated excellent fit indices (e.g., for Narcissism: CMIN/DF=2.00CMIN/DF = 2.00CMIN/DF=2.00, CFI=0.93CFI = 0.93CFI=0.93, GFI=0.93GFI = 0.93GFI=0.93, RMSEA=0.05RMSEA = 0.05RMSEA=0.05). Findings revealed that while Psychopathy had a direct effect on academic dishonesty, the influence of all three Dark Triad traits was significantly mediated by moral disengagement and impulsivity. Specifically, the pathways of influence varied across traits: Machiavellianism and Psychopathy were strongly linked to dishonesty through both mediators, whereas Narcissism's impact was primarily driven by impulsivity and its indirect link through moral disengagement.

C***onclusion:*** The findings of the present study suggest that the psychological mechanisms underlying academic dishonesty differ across the Dark Triad traits. The present findings extend the application of the Theory of Planned Behavior (TPB) by demonstrating that background personality characteristics may influence academic dishonesty through different psychological pathways. Moral disengagement emerged as a primary mechanism for psychopathy and Machiavellianism, whereas impulsivity preceded moral disengagement only in the narcissism model. These findings suggest that incorporating moral-cognitive mechanisms into TPB may provide a more comprehensive explanation of unethical academic behavior These findings suggest that educational interventions should focus on enhancing both moral reasoning and emotional self-regulation to effectively mitigate academic misconduct.

© 2025 The Author(s). Published by Shahid Chamran University of Ahvaz. This is an open-access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

Academic dishonesty (AD) is a global phenomenon with a long history associated with what is right and wrong (Peled & Khaldy, 2013). Korn and Davidovitch (2016) explain that dishonesty in education is a behavior that learners, in particular, engage in without regard to the consequences and is linked to cheating and plagiarism in the performance of academic duties. The findings of Alsuwaileh et al. (2016) suggest that AD is highly common among college students since the benefits of AD are high. This is the case while the likelihood of being caught and severity of punishment as well as withdrawal are relatively low.

Khamesan and Amiri (2011) suggested several dimensions of AD include cheating on exams (copying others' exam papers and allowing others to transcribe them) and cheating on homework (using unreliable online resources and falsifying sources as well as bibliographies). In another category, the dimensions of AD encompass behaviors such as plagiarism, active cheating, and passive cheating. Plagiarism implies presenting an idea, expressing or copying the content of another's work without acknowledging the source or claiming authorship, and appropriating the academic work of others. Active cheating means gaining points for oneself, while passive cheating refers to gaining points for others in the form of help (Anderman & Murdoc, 2007; Etemad & Jokar, 2018).

Mc Nair and Oye (2018) believe that students who cheat in high school are more likely to cheat in college. According to Hasanah and Maharani (2020), academic dishonesty is an unethical academic practice since it reflects students' moral attitudes through behaviors such as cheating, sharing answers along examinations, and submitting group work as individual work. They further argue that when such behaviors are not detected and addressed, students may carry these unethical tendencies into the workplace, augmenting the likelihood of engaging in unethical professional conduct. Some researchers believe that AD is usually the cause and predictor of other violations in other areas of life, such as work (e.g., Klocko, 2014; Parnther, 2020).

Thus, efforts to lower academic dishonesty among students is important (Qudsyi et al., 2018). Nevertheless, to achieve this goal, it is necessary to study the various factors associated with AD or its precursors. Then, the findings of research that need further investigation or contradict each other should be emphasized so that interventions in future research can be planned, implemented, and studied to prevent or mitigate AD based on a strong background. In other words, it seems necessary to explore and identify the predictors of AD to prevent as well as correct it.

Theorical Frame of The Study and Research Literature

In studies on academic misconduct, two theories called The Theory of Reasoned Acon (Fishbein, 1979) or TRA and The Theory of Planned Behavior (Ajzen, 1991) or TPB have been applied and developed. Ajzen (1991) ameliorated TRA through adding a perceived behavioral control factor. Beck and Ajzen (1991) introduced a modified version of TPB by including the fourth variable, moral commitment. These authors argue that moral commitment heightens the predictive power of planned behavior theory. Alleyne and Phillips (2011) applied the extended version of Beck and Ajzen's TPB (1991) to students' decisions to participate in academic dishonesty (cheating and lying). This model suggests that students' intentions to engage in dysfunctional behaviors may be affected by moral commitment in addition to attitudes, subjective norms, and perceived behavioral control. The results indicated that, with the exception of subjective norms that only predicted

students 'intent to cheat, attitudes, perceived behavioral control, and moral obligation were significant predictors of students' intent to commit academic dishonesty in the form of cheating and lying.

Alleyne and Phillips (2011) also found that through adding moral commitment to the TPB theory, the theory was still able to predict academic dishonesty (in this study, lying and cheating). Elsewhere, Harding et al. (2007) in their research, in addition to moral commitment, introduced another moral component called moral reasoning in their proposed conceptual model along with other structures influencing the intention to commit cheating behavior and demonstrated its relationship with academic dishonesty through intention.

Meanwhile, research evidence suggests the development of this theory by adding personality traits as predictors of intentions. For instance, Stone et al. (2010) found that prudence (similar to conscientiousness) is a personality precursor that predicts attitudes and subjective norms pertained to academic misconduct. Curtis et al. (2022) noted that psychopathy and Machiavellianism predict contract cheating through intent. Esteves et al. (2021) disclosed that Machiavellianism and narcissism are positively linked to cheating behaviors. However, the other result of the mentioned study indicated that psychopathy was not related to academic cheating behaviors.

Another study discovered the relationship between the dark three traits, especially psychopathy and cheating (Zhang et al., 2019). Other evidence has suggested that the goals of triumph and the lack of moral disinhibition incite psychopaths to cheat (Williams et al., 2010).

In general, according to studies and the mentioned theories, personality traits have been studied as precursors of intention. Factors including attitude to behavior, subjective norm, perceived behavioral control, and moral components including moral commitment and moral reasoning have been regarded as effective factors on intention. In these models, intention and/or these factors have mediated the relationship between personality and behavior (**Figure 1**).

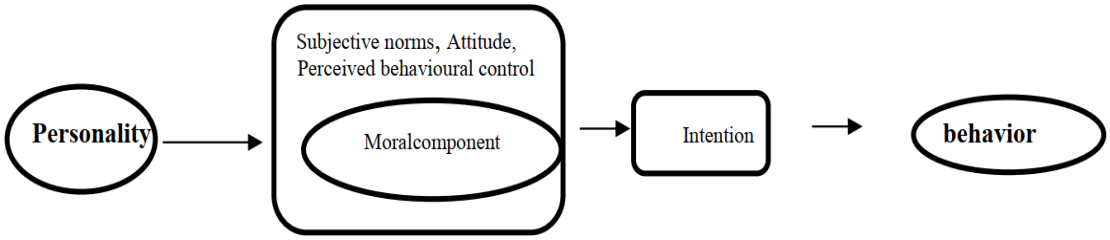


Figure 1. Behavioral precursors based on TRA and TBP as well as related research

Regardless of the type of academic dishonesty behavior, there are several reasons and factors for its occurrence, including demographic characteristics (such as gender), attitudes toward cheating, personality traits, contextual factors, and the expected reward (Kanat-Maymon et al., 2015).

In addition to TRA and TPB-based studies, there are various studies that have reported predictors of academic dishonesty.

Personality traits are one of the individual factors. Nathanson et al. (2006) and Williams et al. (2010) suggested that the three dark characteristics of Machiavellianism, narcissism, and psychopathy (Jones and Paulhus, 2011), when compared with the five major personality traits: openness, conscientiousness, extraversion, agreeableness, and emotional stability, are better predictors of student engagement in academic misconduct. Probably these three dark

personality traits are the ones that are more likely to be involved in norm-breaking behaviors (Muris et al., 2017).

In the present study, considering the theoretical and research background of academic dishonesty and emphasizing individual factors, the variables of dark personality traits, impulsivity and moral disengagement are examined as the preconditions of academic dishonesty (in the current study of plagiarism, active cheating, and passive cheating).

We consider moral disengagement as the moral component which influences the behavior, and expectedly, as with the two moral components (moral commitment and moral reasoning) moral disengagement mediates the relationship between personality and behavior. Each of the mentioned variables is described in the following.

Further, the regression investigations have indicated that moral disengagement and impulsivity could predict academic dishonesty, so that people with higher moral disengagement and impulsivity are more likely to cheat (Farnese et al., 2011). Other studies have noted the relationship between AD and impulsivity (Angell, 2006; Patton et al., 1995), AD and moral disengagement (Barbee, 2020; Risser & Eckert, 2016). Research has demonstrated that each of the dark personality traits is associated with impulsivity (For instance: Kiire et al., 2020; Jones and Paulhus, 2011).

The Dark Triad of personality

Based on the research background, some personality traits can predict academic self-handicapping (Allipour Birgani et al., 2011), achievement motivation (Zarea, & Mohammadzadeh, 2012), and academic performance (Atashafrouz, & Araban, 2017). On the other hand, higher level of academic motivation and lower level of academic self-handicapping in students would lower the tendency to cheat (Afzali et al., 2020).

In recent years, psychologists have turned their attention to a group of personality traits or features commonly characterized by a lack of empathy, an instrumental attitude toward people, egoism, the tendency to deceive others in interpersonal relationships, as well as the exploitation of interpersonal partners (Paulhus, 2014). These traits, known as dark personality traits, represent a range of disturbing and undesirable social traits which include narcissism, Machiavellianism, and psychopathy (Paulhus & Williams, 2002). The narcissism trait refers to relatively stable individual differences characterized by arrogance, selfishness, grandiosity, self-love, and inflated self-views (Morf & Rhodewalt, 2001). People with high narcissism exhibit feelings of greatness, superiority, and dominance (Jonason & Webster, 2010) and tend to make risky decisions (Chatterjee & Hambrick, 2007) while also lying in selection interviews (Paulhus et al., 2013).

The concept of Machiavellianism refers to a lack of affection and empathy, profit motives (e.g., money and power), pursuit of personal goals, exploitation, hypocrisy, and antisocial tendencies (Abell et al., 2015). Those with high Machiavellianism tend to control others for their own interests through deceptive behaviors (Paulhus & Williams, 2002). They carefully plan for their cheating (Williams et al., 2010).

Individuals with high psychopathy are more impulsive and less empathetic (Paulhus & Williams, 2002). Psychopathy includes a tendency to be impulsive, to engage in sensation-seeking, as well as to resist stress, all being associated with AD (Ternes et al., 2019). One of the definitions of psychopathy is based on the triarchic model of psychopathy, which includes the dimensions of boldness, meanness, and disinhibition (Patrick et al., 2009). In the triarchic

model of psychopathy, boldness signifies confidence, fearlessness, and a high tolerance for stress and unfamiliarity. Exhibiting interpersonal deficits such as lack of empathy, cruelty, and exploitation, and disinhibition, meanness suggests a tendency toward impulsivity, poor self-regulation, and a focus on immediate gratification. Those with high psychopathy are more impulsive and less empathetic (Paulhus and Williams, 2002).

Ternes et al. (2019) explored the relationship between dark personality traits and academic misconduct. The results indicated that only psychopathy was related to AD (usually copying the work of others). In another study, Baughman et al. (2014) tested the relationship between lying as well as dishonesty and these traits. Their findings demonstrated that psychopathy and Machiavellianism were correlated with lying in various fields, including the educational field. Research by Esteves et al. (2021) also noted that narcissism might predict a person's involvement in cheating, as well as introducing and initiating cheating. Other studies have reported that narcissists are more likely to engage in behaviors associated with AD, such as cheating (Brunell et al., 2011; Menon & Sharland, 2011). Those with high narcissism represent feelings of greatness, superiority, and dominance (Jonason & Webster, 2010).

Moral Disengagement

Academic dishonesty and all its subordinate behaviors are inherently a form of academic misconduct violating social norms and are therefore considered immoral behavior (Moeck, 2002).

Moral disengagement, which Bandura introduced through Moral Agency Theory in the social cognitive perspective, encompasses strategies that people consciously or unconsciously employ to enable them to engage in immoral behaviors while concurrently identifying themselves as moral (Bandura et al., 2001).

Moral disengagement is a cognitive state and a form of self-regulatory behavior in which ethical standards pertained to one's activities, become inactive (Seriki et al., 2020) and they protect themselves from immoral acts through denying or neutralizing personal responsibility (Stephens, 2018).

Bandura (2016) suggests eight mechanisms for moral disengagement which are believed to make the deactivation process of moral self-regulation possible; these mechanisms tend to justify immoral behaviors to protect self-esteem. The mechanisms of moral disengagement involve: (a) moral justification, (b) euphemistic labeling, (c) advantageous comparison, (d) displacement of responsibility, (e) diffusion of responsibility, (f) distortion or disregarding of consequences, (g) dehumanization, and (h) attribution of blame. The first two mechanisms indicate justifying immoral behavior as a means to an end and blazoning an immoral act in a way that does not make you feel ashamed, respectively. Advantageous comparison and displacement of responsibility deal with comparing immoral acts with worse acts, thus making them appear insignificant, putting responsibility for one's immoral action on someone else, and running away from moral principles, respectively. Further, diffusion of responsibility indicates that deciding on a bad deed is easier as a group than deciding whether to do it individually. Also, distortion or disregard of consequences means ignoring the damage or distorting the consequences so that they do not feel ashamed. Additionally, dehumanization and attribution of blame represent equating others with inhuman beings, not seeing the need to deal morally with them, as well as blaming another person's action or speech for immoral behavior, respectively. These mechanisms cause a person to engage in

dishonest behavior or cheating without feeling guilty and could be affected by personality traits. For instance, narcissism is characterized by self-entitlement and arrogance which cause individuals to prioritize personal goals and interests over legal and moral laws as well as principles and do anything to achieve them. The desire to show off and self-enhancement makes this group always seek to shine and exhibit their superiority in educational and competitive contexts (Brunell et al., 2011). Thus, they attempt to ameliorate their performance to show off more, and one of the simple ways is to behave and act contrary to ethics and norms.

On the other hand, investigations have noted that moral disengagement could predict AD, so people with higher moral disengagement are more likely to cheat (Farnese et al., 2011). The results of Barbee (2020) revealed that AD is positively correlated with moral disengagement. Likewise, Risser and Eckert (2016) suggested moral disengagement as a predictor of AD. Considering the aforementioned points and the literature (e.g., Barbee, 2020), it was hypothesized that a dark triad of personality traits could influence AD through moral disengagement in our proposed theoretical model.

Various studies have noted that activation of moral disengagement mechanisms plays a key role in the occurrence of dishonest and deceptive behaviors (i.e. Fida et al., 2018; Shu et al., 2011; Stephens, 2018; Vincent et al., 2013). Moral disengagement seems to facilitate participation in immorality and makes personal inappropriate goals more valuable than accepted personal as well as social principles and norms. The studies conducted in this field have indicated that these mechanisms facilitate the possibility of participating in the immorality within the educational system and allow students to deny the immoral nature of academic dishonesty behavior and make it a viable option (Fida et al., 2018).

Impulsivity

Impulsivity was another individual variable of the study. Indeed, it is characterized by four main characteristics: i) unplanned tendency to act, ii) lack of perseverance or inability to perform difficult tasks or duties, iii) feeling urgent to act hastily in times of distress, and iv) sensation seeking or the need for freshness of excitement (Burnett et al., 2012). Preference for short-term interests, momentary decisions, risky behaviors, greater tendency to abnormal and illegal behaviors, low self-control, more experience of negative emotions, and poor academic performance are characteristics of impulsive individuals (Herman et al., 2018; Lozano et al., 2014).

The findings of the study conducted by Anderman et al. (2009) have noted that impulsivity is a significant predictor of academic fraud.

Some studies have revealed that impulsivity could predict AD, so people with higher impulsivity are more likely to cheat (e.g., Farnese et al., 2011).

As such, those with this trait are more likely to commit fraud or similar behaviors. Nonetheless, another investigation by Barbee (2020) demonstrated that academic dishonesty is negatively correlated with impulsivity, honesty-humility and conscientiousness, and found that some cheaters require preparation and authority to succeed. For instance, if a non-impulsive person decides that he does not want to study for the test but wants to get a good grade, he can prepare the answers in advance to sneak into the test room. On the contrary, if an impulsive person decides not to study, they are less likely to prepare the answers in

advance and may skip or take the exam while simply guessing the answers. Perhaps highly impulsive people who do not have high academic motivation choose not to be dishonest

According to Barbee (2020), the relationship between impulsivity and AD needs to be further explored in the future. We supposed that impulsivity associates with self-control and inhibitory ability and can result in behaviors that according to study of McTernan et al. (2014), lead them to achieve the goal faster, behaviors like cheating.

Angell (2006) predicted that cheating was positively linked to impulsivity and negatively correlated with personal effectiveness as well as academic motivation. Patton et al. (1995) found positive correlations between impulsivity and dishonesty in their research, both across the undergraduate population and across the prison population.

Research has noted that each of the dark personality traits is associated with impulsivity. For instance, the results of research by Kiire et al. (2020) indicated that psychopathy has a positive relationship with all dimensions of UPPS-P impulsivity, while Machiavellianism has a negative relationship with lack of perseverance as well as lack of foresight. Further, narcissism was negatively associated with a lack of perseverance and had a positive association with Sensation Seeking. In the study by Jones & Paulhus (2011), psychopathy was most linked to dysfunctional impulsivity, while narcissism was associated with functional impulsivity. The narcissistic impulsivity seems to involve venturesome social participation while the psychopathic impulsivity is weak owing to self-regulation. Machiavellianism had no fixed association with any type of impulsivity.

The current study

In the present study, we studied research undertaken within the framework of TPB and research related to AD. Even though the present study did not directly appraise the core constructs of the TPB, including attitudes, subjective norms, perceived behavioral control, and behavioral intentions, the theory acknowledges personality traits as background factors that shape behavior indirectly through cognitive and moral-cognitive processes.

In these studies, structural relationship models or regression models were explored. Based on the results of studies such as Curtis et al. (2022), dark personality traits might also be included in the model as a predictor variable of factors affecting intention. Also, other investigations have shown that undesirable and socially disturbing personality traits can be valid predictors of law-breaking behaviors across various contexts, including educational settings (Anderman et al., 2009; Ternes et al., 2019; Baran & Jonason, 2020). Thus, we hypothesized that each of the dark personality traits of psychopathy, Machiavellianism, and narcissism could forecast academic dishonesty behavior. Considering the expanded version of TPB (Beck and Ajzen, 1991) as a frame, and based on the study by Harding et al. (2007) as well as Barbee (2020) which examined moral disengagement as a predictor of dishonesty, we hypothesized that moral disengagement could be an influential moral component on a behavior in the theoretical model. Further, the mediate role of moral disengagement in the correlation of empathy and aggression (Wang et al., 2017) and aggressiveness across various contexts (Cuadrado-Gordillo et al., 2020) with **academic misconduct** has been noted in some studies. Hence, it was postulated that this variable would be able to mediate the relationship between dark personality traits and academic dishonesty. As such, we designed a model in which each of the characteristics of dark personality traits predicts academic dishonesty behavior by the mediating role of moral disengagement.

On the other hand, impulsivity is one of the variables that has been noted in research to be able to serve as a predictor and positively explain the behavior of academic dishonesty (such as Farnese et al., 2011). Yet, in another investigation (Barbee, 2020), a negative correlation was found between academic dishonesty and impulsivity in students. In any case, according to Barbee (2020), the relationship between impulsivity and academic dishonesty needs to be further examined in the future. Studies have also exhibited a link between impulsivity and misconduct behaviors (e.g., Vogel & Barton, 2013), and hence we included it in the model as well. In this way, we drew a direct path from impulsivity to dishonesty; that is, it was assumed that impulsivity would be able to predict academic dishonesty. In his dissertation, Stevens, Littlefield, Talley, & Brown (2017), on the subject of impulsivity and the behavior-intention relationship in relation to alcohol consumption in adults discusses almost similar discussions based on the TPB. He challenges hypotheses about the role of impulsivity as well as its related dimensions in the behavior-intention relationship. For instance, it examines the hypothesis that impulsivity through mediating intention can influence alcohol consumption behavior. Accordingly, and given the existing background on the relationship between impulsivity and academic dishonesty, the question arises as to whether the effective factors on intention or precursors of intentions can drive the mechanism of the relationship between impulsivity and academic dishonesty. Also, we examined the indirect path from impulsivity to academic dishonesty mediated by moral disengagement as a moral component affecting intention in the theoretical model. In the sense that impulsivity was assumed to be able to predict academic dishonesty through the mediating role of moral disengagement.

Eventually, research suggests a relationship between the dark triad of personality traits and impulsivity (e.g., Dubas et al., 2017; Kiire et al., 2020; Jones, & Paulhus, 2011). Thus, a path was drawn from each of the dark traits of personality to impulsivity. Further, Dubas et al. (2017) also found that impulsivity and dark personality traits are effective on the development of problematic behaviors in adolescents. In this way, we also considered an indirect path from personality to academic dishonesty mediated by impulsivity. In other words, with regard to the relationship between personality and impulsivity; as well as between impulsivity and academic dishonesty, impulsivity is probably a variable that can justify the relationship between personality and academic dishonesty as an underlying mechanism. Thus, it is assumed that each of the dark personality traits of psychopathy, Machiavellianism, and narcissism are able to explain academic dishonesty through impulsive mediation.

As described, paths were drawn based on the research and theoretical background in which, dark personality traits predict academic dishonesty (i.e., active cheating, passive cheating, and plagiarism) directly and indirectly (through moral disengagement and impulsivity), along with impulsivity directly and indirectly (through moral disengagement) .

Different studies have researched academic dishonesty of the students (e.g., Chudzicka-Czupała et al., 2016; Lonsdale, 2017). In particular, in studies that have acted within the theoretical framework of TPB, we did not find either of these two variables in the model. Another innovation of the present study is the examination of impulsivity variable as a mediating variable of the relationship between personality and academic dishonesty. The third issue is the role of moral disengagement as a moral component that has a relationship with individuals in engaging in behaviors such as academic dishonesty, which in the present model has been proposed as a mediating variable between personality as well as impulsivity

and academic dishonesty. In the present study, we presented an integrated model based on TPB pathways and research literature. The findings of the present study can add to the existing knowledge gap in the field of identifying individual factors forecasting academic dishonesty in the form of a theoretical model based on TPB and research literature.

According to the above-mentioned explanations, the proposed model is displayed in **Figure 2**.

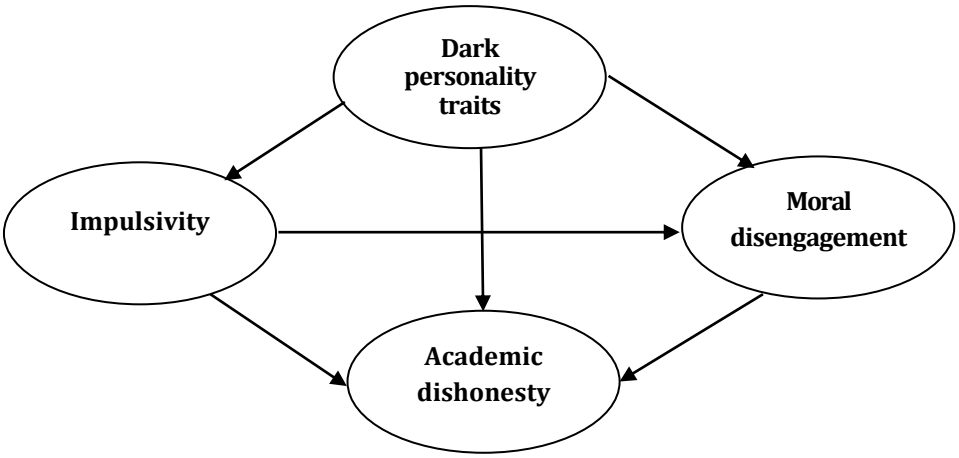


Figure 2. The proposed model

3. Methods

The current study was a descriptive-correlational study which employed a structural equation modeling (SEM) approach.

3.1. Sample and Procedure

The sample was derived from the students enrolled in classes at Urmia University faculties via the cluster sampling method. The university accommodates 12,000 people and 12 faculties. Six faculties were randomly selected from among 12 in the first stage. The total population of the students in the selected faculties studying in the academic year was 4,157.

In the second stage, the minimum sample size was initially estimated using Krejcie and Morgan's sampling table based on the target population. Nevertheless, since structural equation modeling (SEM) was the primary analytical approach, the adequacy of the final sample was also ascertained according to established SEM recommendations. Methodological guidelines indicate that SEM generally requires a minimum sample of approximately 200 participants for stable parameter estimation, with larger samples recommended for models of moderate complexity (Kline, 2023; Hair et al., 2022). Hence, the final sample of 385 participants was considered adequate to provide stable parameter estimates and sufficient statistical power for the proposed structural models.

Next, as a precaution 395 were randomly distributed among students from the selected faculties who were present in various classrooms, computer labs, and libraries. Initially, the students were explained about the field of cooperation and the questions of the questionnaires, and if they agreed, the questionnaire was given to them. It was indicated that 385 questionnaires were completely filled out, meaning that the response rate was .97%.

The sample included 385 students (213 people or 55.30% Female, 172 people or 44.70 % male, 363 people or 94.30% married and 22 people or 5.70% single; Mean age = 19.60, Standard deviation (SD)age = 1.65). Participants were recruited from the faculties of Literature and Human Sciences (n = 114), Engineering (n = 84), Agriculture (n = 23), Economics and Management (n = 40), Sport Sciences (n = 21), and Sciences (n = 103).

3.2. Research Tools

3.2.1. Moral Disengagement Scale (Bandura et al., 1996)

This 32-item scale measures 8 mechanisms of moral disengagement (moral justification (1-9-17-25), euphemistic labelling (2-10-18-26), advantageous comparison (27-19-11-3), displacement of responsibility (29-21-13-5), diffusion of responsibility (4-12-20-28), dehumanization (7-15-23-31), distortion of consequences (6-14-22-30), and attribution of blame (8-16-24-32)) on the Likert scale (1= strongly disagree, 2=disagree, 3= no idea, 4=agree 5=totally agree), developed by Bandura et al (1996). The Cronbach's alpha in Zelidman's (2014) research was reported as .88. Suri et al. (2018), with Mahmoodfakhe et al. (2022) calculating the Cronbach's alpha equal to .84. and .80 respectively.

In the present study, after eliminating items with factorial loading lower than 0.30 (9-17-2-26-4-28-23-6-8-16-5-13-21-29), the measurement model of this scale revealed an acceptable fit (CMIN=369.296; DF=177.000; CMIN/DF=2.086; CFI=0.922; GFI= .920, AGFI=.886, SRMR=0.064; RMSEA=0.053). Cronbach's alpha of the entire scale was .82 and the reliability range of its components was obtained from .74 to .91. Average Variance Extracted (AVE) was calculated in order to examine validity. AVEs for moral justification, euphemistic labelling, advantageous comparison, displacement of responsibility, diffusion of responsibility, dehumanization, distortion of consequences and attribution of blame were equal to 0.53, 0.60, 0.57, 0.59, 0.56, 0.61, 0.60 and 0.51, respectively. Composite Reliability (CR) for the above-mentioned components was equal to 0.74, 0.80, 0.77, 0.79, 0.77, 0.72, 0.70 and 0.75, respectively. In a measurement model composite of items of all variables, AVE and CR for the entire scale were 0.56 and 0.77 respectively.

3.2.2. Short Scale of Dark Personality Traits- The Dirty Dozen (Jonason & Webster, 2010)

This 12-item questionnaire cover three traits of Machiavellianism (1-4), psychopathy (5-8) and narcissism (9-12) on a 5-point Likert scale (almost never= 1 to always= 5), with a minimum score of 12 and a maximum score of 84 was developed by Jonason & Webster (2010). In various studies, these researchers reported Cronbach's alpha levels of .72 to .77 (Machiavellianism), .66 to .69 (psychopathy) and .78 to .85 (narcissism). In the study by Yousefi & Piri (2016), Retest coefficients for the entire scale and components lied within the range between 0.66 and 0.80. The internal consistency coefficient of the subscales was between 0.68 and 0.77. Mahmoodfakhe et al. (2022) reported that Cronbach's alpha for the entire scale was equal to .80.

In the present study, Cronbach's alpha for narcissism, Machiavellianism, and psychopathy was .80, .79, and .88, respectively. Also, the measurement model of this scale revealed an appropriate fit and construct validity (CMIN=89.449; DF=48.000; CMIN/DF=1.864; CFI=0.951; GFI= .964, AGFI= .942, SRMR=0.054; RMSEA=0.047). The AVE and CR for psychopathy, Machiavellianism, and narcissism were equal to (0.55,0.71), (0.56,

0.71) and (0.51, 0.80), respectively. In a measurement model composite of items of all variables, AVE and CR for the entire scale were 0.55 and 0.79 respectively.

3.2.3. Barratt Impulsiveness Scale (BIS-11)

This 30-item questionnaire measures the three components of lack of planning (1*-7*-8*-10*-12*-13*-14-15*-18-27-29), motor impulsivity (2-3-4-16-17-19-21*-22-23-25-30*), and cognitive impulsivity (5-6-9*-11-20-24-26-28) on a four-point Likert scale (rarely= 1 to always= 4). The * reflects the reverse score. This scale has been developed by Patton et al. (1995). Cronbach's alpha in various studies by Patton et al. (1995) was calculated for a total score from 0.79 to .83. Ekhtiary et al. (2008) found an alpha coefficient of 0.78 for cognitive impulsivity, 0.63 for motor impulsivity, 0.74 for unplannedness impulsivity and 0.83 for the entire test. In the research by Mikaeli Manee et al. (2019), reliability using Cronbach's alpha for the entire test was 0.80 and the sub-scales of motor, cognitive, and lack of planning, was 0.74, 0.75, 0.0 and 0.70, respectively. The items with factorial loading lower than 0.30 were eliminated (8-10-15-18-27-29-17-21-23-24). The measurement model of this scale revealed acceptable model fit fitness and confirmation of construct validity (CMIN=298.549; DF=152.000; CMIN/DF=1.964; GFI=.923, AGFI=.894, CFI=0.882; SRMR=0.060; RMSEA=0.050). In the present study, internal consistency coefficients (using Cronbach's alpha) for motor impulsivity, cognitive impulsivity, and lack of planning were .73, .74, and .78, respectively. Further, the internal consistency coefficient for the entire scale was .75. The AVE and CR for motor, cognitive, and lack of planning were equal to (0.60,0.79), (0.56, 0.78) and (0.57, 0.80), respectively. In a measurement model composite of items of all variables, AVE and CR for the entire scale were 0.59 and 0.81 respectively.

3.2.4. Academic Dishonesty Questionnaire

In its original form, this 17-item questionnaire was developed by Khamesan and Amiri (2011) to explore academic cheating through measuring two components of cheating in exams and cheating in homework, on a 5-point Likert scale (never = 1 to always = 5) among Iranian students. After performing exploratory factor analysis via principal components method with Varimax rotation and considering the desirability of indicators, three factors were extracted by Etemad and Jokar (2018); according to research literature (such as Anderman & Murdock, 2007), they were named plagiarism such as item 11: "I have added items to the list of sources, without using them in writing the article"; Active cheating such as item 1: "I have used unauthorized notes in the class exam"; And passive cheating such as item 15: "I have done homework or lab work or .... etc. for other students." In addition to the components, the questionnaire provides a total score. In their work, Questions 3, 13, and 16 were eliminated. Etemad and Jokar (2018), obtained Cronbach's alpha of .88 for the entire scale. Further, the Cronbach's alpha levels for the mentioned components were .80, .79, and .75, respectively. In the current study, Cronbach's alpha for the entire scale was .74 and its levels for plagiarism, active fraud, and passive fraud were .75, .78, and .71, respectively. Also, the measurement model of this scale demonstrated desirable fit and construct validity (CMIN=236.033; DF=89.000; CMIN/DF=2.652; CFI=0.923; GFI= .928, AGFI=.890, SRMR=0.064; RMSEA=0.066). The AVE and CR for active fraud, plagiarism and passive fraud were equal to (0.54,0.80), (0.53, 0.71) and (0.54, 0.72), respectively. In a

measurement model composite of items of all variables, AVE and CR for the entire scale were 0.56 and 0.86 respectively.

HTMT (Heterotrait - Monotrait Ratio) for Academic Dishonest Behavior- Impulsivity, Academic Dishonest Behavior- Moral Disengagement, Academic Dishonest Behavior- Psychopathy, Academic Dishonest Behavior- Machiavellianism, Academic Dishonest Behavior- Narcissism / Impulsivity- Moral Disengagement, Impulsivity- Psychopathy, Impulsivity- Machiavellianism, Impulsivity- Narcissism / Moral Disengagement- Psychopathy, Moral Disengagement- Machiavellianism, Moral Disengagement- Narcissism / Psychopathy- Machiavellianism, Psychopathy- Narcissism, Machiavellianism- Narcissism were calculated; which were equal to 0.488, 0.472, 0.532, 0.531, 0.532 / 0.402, 0.563, 0.560, 0.560 and 0.523, 0.51, 0.52 / 0.38, 0.41, 0.30 respectively. All values were less than 0.90. Thus, discriminant validity of the variables was acceptable.

3.3. Ethical Considerations

The students were briefed that participation was not compulsory and no bonus was offered. They were assured that the questionnaire information would be employed only for the purpose of the research and would remain completely confidential. Next, they were given a deadline of one week. This process lasted a month.

The present study did not entail potential harm, and participation was voluntary in accordance with APA ethical principles. Data were anonymized and kept strictly confidential, with respondents being free to withdraw from the study at any time. Thus, obtaining approval from an Institutional Review Board (IRB) or Research Ethics Committee was not required.

Data Analyses

Data were analyzed using structural equation modeling (SEM) by SPSS-24 and AMOS-26 software. Several key assumptions of structural equation modelling, including outliers, missing data, normality, and multicollinearity, were examined to ensure that the data in this study would fulfil the underlying assumptions of structural equation modelling. Further, box plots of the observed variables were examined to track univariate outliers. Multivariate outlier data were also ascertained using the Mahalanobis Distance Index through the analysis of torque structures. The results indicated that there was not any univariate and multivariate outlier data. Also, regarding the missing data, none of the questionnaires had an unanswered item since all papers were checked, and the participants were encouraged to answer all of the questions carefully. The skewness and kurtosis of variables were employed to check the normality of the univariate. In terms of the skewness coefficient and kurtosis coefficient, as their values were within the range (-2, 2) for all variables, it can be mentioned that the data distribution has been close to the normal distribution (**Table 1**). Accordingly, there was no violation of data normality. In addition, the multicollinearity of the predictor variables was explored using tolerance statistics (T) and the variance inflation factor (VIF). For the predictor variables, namely, Machiavellianism, psychopathy, narcissism, impulsiveness, and moral disengagement, the obtained T values were above .10 (0.74, 0.85, 0.84, 0.85, and 0.81, respectively), while the VIF values were below 10 (1.34,

1.16, 1.18, 1.16, and 1.23, respectively), indicating absence of multicollinearity of the predictor variables.

The data were analyzed after confirming the structural equation modelling assumptions. Following the two-step approach recommended by Anderson and Gerbing (1988), the measurement characteristics of each instrument were first ascertained at the item level (examination the measurement models) using confirmatory factor analysis. After confirming the construct validity of the instruments, the structural models were estimated using the validated subscale scores as indicators of the latent constructs rather than individual items. This approach lowered model complexity while preserving the theoretical multidimensional structure of each construct.

In the current study, after conducting confirmatory factor analysis for the measurement models, questions with a factor load of lower than 0.30 or insignificant factor values were eliminated from the model. Among the major methods of estimating reliability, Cronbach's alpha coefficient (an acceptable value above .70) was applied to determine the reliability of the questionnaire. Average Variance Extracted (AVE) was calculated in order to explore Validity (more than 0.50 is acceptable) and Composite Reliability (CR) (more than 0.70 is acceptable). Also, for testing AVE and CR for the total scores of the latent variables, a measurement model including all of the items of the research variable was analyzed.

Further, Discriminant validity was supported through HTMT (Henseler et al, 2015). HTMT was calculated based on the values of correlation matrix between items of each pair of the variables and the HTMT formula (Henseler et al, 2015) in the Excel.

Owing to covariance in one model and the uninterpretability of variables (Lynam, Hoyle et al., 2006), each of the three dark personality traits was examined separately in the three models. Following previous recommendations, the three Dark Triad traits were inspected in separate structural equation models rather than concurrently. This approach was adopted since the Dark Triad traits are conceptually distinct despite being moderately intercorrelated (Paulhus & Williams, 2002). Simultaneously estimating highly correlated personality constructs may obscure their unique effects and complicate the interpretation of parameter estimates because of shared variance (Lynam et al., 2006). Accordingly, separate models allowed the specific mechanisms through which each dark triad trait was linked to impulsivity, moral disengagement, and academic dishonesty to be examined more accurately.

Since all study variables were appraised using self-report questionnaires collected from the same participants at a single time point, Harman's single-factor test was undertaken to examine the potential influence of common method variance. An unrotated exploratory factor analysis including items of the all of the means indicated that the first factor accounted for 14.19% of the total variance, which is substantially below the commonly recommended threshold of 50%. Thus, common method variance was unlikely to represent a serious threat to the validity of the findings (Podsakoff et al., 2003).

The data analysis was based on structural equation modelling using AMOS-26. Since the models are multi-mediation and it is essential to know the indirect effects of each of the mediators individually, instead of total indirect effects, specific indirect effects were calculated using plugins in AMOS-26 (Gaskin et al., 2020) which considers indirect effects using Bootstrapping. The upper and lower extends as well as P-values are reported in **Table 3.**

4. Results

Descriptive findings are outlined in **Table 1.**

Table 1. Descriptive indices and Pearson correlation test

		1	2	3	4	5	6
1	Psychopathy	1					
2	Machiavellianism	.27**	1				
3	Narcissism	.36**	.08	1			
4	Impulsivity	.27**	.28**	.18**	1		
5	Moral Disengagement	.35**	.31**	.15**	.26**	1	
6	Academic Dishonest Behavior	.41**	.28**	.15**	.38**	.30**	1
	Mean±SD	2.26±.72	2.4±.71	3.14±.95	2.09±.35	2.50±.37	2.12±.63
	Skewness	.86	.10	-.05	.39	-.03	.55
	Kurtosis	.95	-.18	-.42	.65	.26	.06

The results of the research hypotheses and paths of the models are presented in **Tables 2 and 3,** and **Figures 3, 4, and 5.**

Table 2. Standardized regression weights for direct paths

Model	Direct paths			β	S.E.	C.R.	P	Result
a	Impulsivity	<---	Psychopathy	.461	.428	3.139	.002	Approved
	Moral disengagement	<---	Psychopathy	.466	.388	3.867	***	Approved
	Moral disengagement	<---	Impulsivity	.083	.089	1.033	.302	Refused
	AD	<---	Psychopathy	.403	1.223	3.409	***	Approved
	AD	<---	Impulsivity	.223	.304	2.608	.009	Approved
	AD	<---	Moral disengagement	.260	.246	3.406	***	Approved
	R2 AD=.503							
b	Impulsivity	<---	Machiavellianism	.548	.569	2.952	.003	Approved
	Moral disengagement	<---	Machiavellianism	.470	.514	2.781	.005	Approved
	Moral disengagement	<---	Impulsivity	.068	.113	0.591	.554	Refused
	AD	<---	Machiavellianism	.162	1.274	1.170	.242	Refused
	AD	<---	Impulsivity	.364	.357	3.064	.002	Approved
	AD	<---	Moral disengagement	.280	.261	3.255	.001	Approved
	R2 AD=.414							
c	Impulsivity	<---	Narcissism	.333	.110	3.572	***	Approved
	Moral disengagement	<---	Narcissism	-.056	.078	-.792	.428	Refused
	Moral disengagement	<---	Impulsivity	.354	.091	3.619	***	Approved
	AD	<---	Narcissism	.043	.268	.637	.524	Refused
	AD	<---	Impulsivity	.342	.326	3.509	***	Approved
	AD	<---	Moral disengagement	.435	.291	5.381	***	Approved
	R2 AD=.420							

According to **Table 2,** in model 'a', psychopathy can predict AD directly. Psychopathy can predict 40% of the variance of the AD at the significant level of 0.001. It means that when the level of this trait RISES by 1 standard deviation, AD increases by 40 standard deviations. In the other words, the characteristics of the other two traits do not directly reflect the tendency to AD; but perhaps there are other mechanisms that link these traits to AD.

Also, in all three model's impulsivities directly and positively predicts AD (**Table 2**). In model 'a, b and c', impulsivity can predict 22, 36 and 34% of the variance of the AD at the significant level of 0.01 and for model 3, 0.001. It means that when the level of impulsivity grows by 1 standard deviation, AD rises by 22, 36 and 34 standard deviations.

In the models a, b and c, moral disengagement can predict 26, 28 and 43% of the variance of AD significantly. According to Table 2, the path coefficient of narcissism to moral disengagement is insignificant. but in the other two models, Psychopathy and Machiavellianism can predict moral disengagement significantly and positively. The level of these traits more, the moral disengagement more. It implies that when the level of each of these traits goes up by 1 standard deviation, moral disengagement grows by 46 and 47 standard deviations. Also, Impulsivity just in model 'c', for trait narcissism, directly and positively predicts 35% of variance of moral disengagement. Then, when the level of Impulsivity rises by 1 standard deviation, moral disengagement increases by 35 standard deviation.

Table 3. Standardized regression weights for specific indirect effects

Model	Indirect Path	β	Lower	Upper	P-Value	Result
	Psychopathy --> Impulsivity --> Moral disengagement	0.038	-.057	0.473	0.232	Refused
	Psychopathy --> Impulsivity --> Moral disengagement --> AD	0.038	-0.020	0.502	0.156	Refused
a	Psychopathy --> Impulsivity --> AD	0.103*	0.197	2.524	0.047	Approved
	Psychopathy --> Moral disengagement --> AD	0.121**	0.556	2.893	0.004	Approved
	Impulsivity --> Moral disengagement --> AD	0.022	-0.023	0.364	0.190	Refused
	Machiavellianism --> Impulsivity --> Moral disengagement	0.037	-.0394	0.520	0.536	Refused
	Machiavellianism --> Impulsivity --> Moral disengagement --> AD	0.037	-.251	0.550	0.411	Refused
b	Machiavellianism --> Impulsivity --> AD	0.200*	0.521	4.597	0.027	Approved
	Machiavellianism --> Moral disengagement --> AD	0.132*	0.373	3.114	0.023	Approved
	Impulsivity --> Moral disengagement --> AD	0.019	-0.153	0.331	0.476	Refused
	Narcissism --> Impulsivity --> Moral disengagement	0.118**	0.064	0.243	0.001	Approved
	Narcissism --> Impulsivity --> Moral disengagement --> AD	0.118***	0.102	0.435	0.000	Approved
c	Narcissism --> Impulsivity --> AD	0.114**	0.196	0.823	0.004	Approved
	Narcissism --> Moral disengagement --> AD	-0.025	-0.365	0.092	0.362	Refused
	Impulsivity --> Moral disengagement --> AD	0.154***	0.276	0.975	0.001	Approved

Significance of Estimates: *** p < 0.001, ** p < 0.010, * p < 0.050, † p < 0.100

Further, based on **Table 3**, Machiavellianism and psychopathy have an indirect effect on AD through the mediation of moral disengagement, in other words, moral disengagement has a mediating role in the models 'a and b'.

It means that Machiavellianism and psychopathy could explain variance of AD through moral disengagement in a way that by increase in the level of these two traits, the level of disengagement in moral behaviors and deactivation of the moral regulation prosses increases (according to **table2** β is positive and significant). Then deactivation of this prosses goes the tendency to AD up (according to **Table 2** β is positive and significant). Consequently, according to **Table 3**, 13 and 12 percent of the ability of Machiavellianism and psychopathy to explain variance of AD, is related to the mediator role of moral disengagement. These values

that their upper and lower extends do not include zero, are significant at the level of 0.01. The mediating role of moral disengagement in the relationship between narcissism and AD is insignificant. If the interval confidence includes zero, then the regression coefficient is not significant. Then, apparently the probable association between narcissism and AD is different from the two other traits one.

Further, according to **Table 3**, impulsivity had a positive and significant mediation role in the relationship between dark traits and AD in all three models. 10, 20 and 12% of the ability of psychopathy, Machiavellianism, and narcissism to explain variance of AD, is related to the mediator role of impulsivity. By increasing in the level of the traits, impulsivity rises; then AD grows.

In addition, for the model 'c', moral disengagement had a positive and significant mediating role in predicting AD by impulsivity and regarding the models 'a and b', the indirect effect of impulsivity on AD through moral disengagement is insignificant. In model 'c', 15 percent of the ability of impulsivity to explain variance of AD, is pertained to the mediator role of moral disengagement. For narcissism, upon increasing in the level of the impulsivity, moral disengagement is heightened; then AD increases.

Further, there is a serial mediation path (each of the personality traits --> impulsivity --> moral disengagement --> AD) that is significant only for narcissism (11%) and confirm the previous results that were significant only for this trait. In sum, notably based on the above-mentioned findings each of the traits predict and explain the tendency to or the behavior of Ad in a different way and under various mechanisms. The Discussion Section deliberates the results and interpretations.

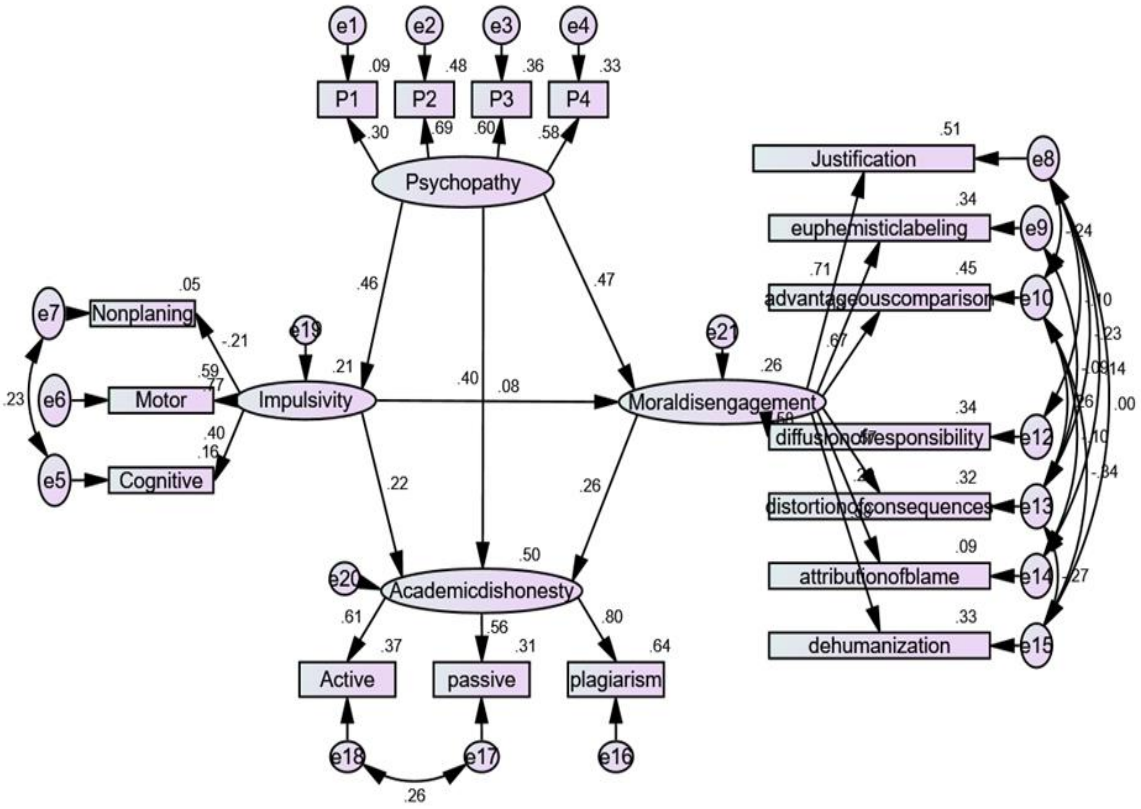


Figure 3. Standardized regression coefficients for model 'a'

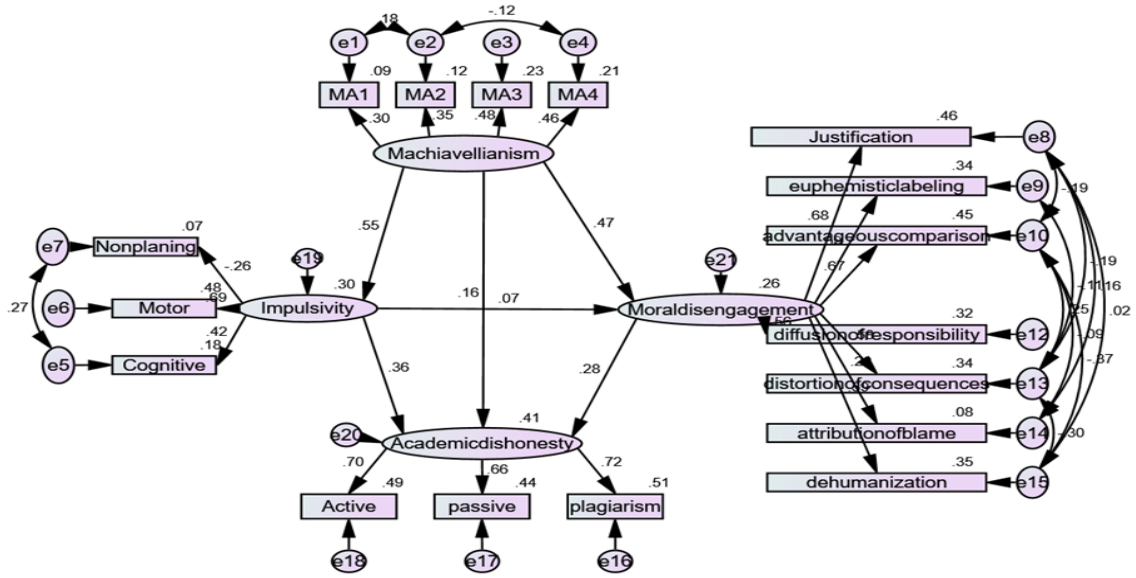


Figure 4. Standardized regression coefficients for model 'b'

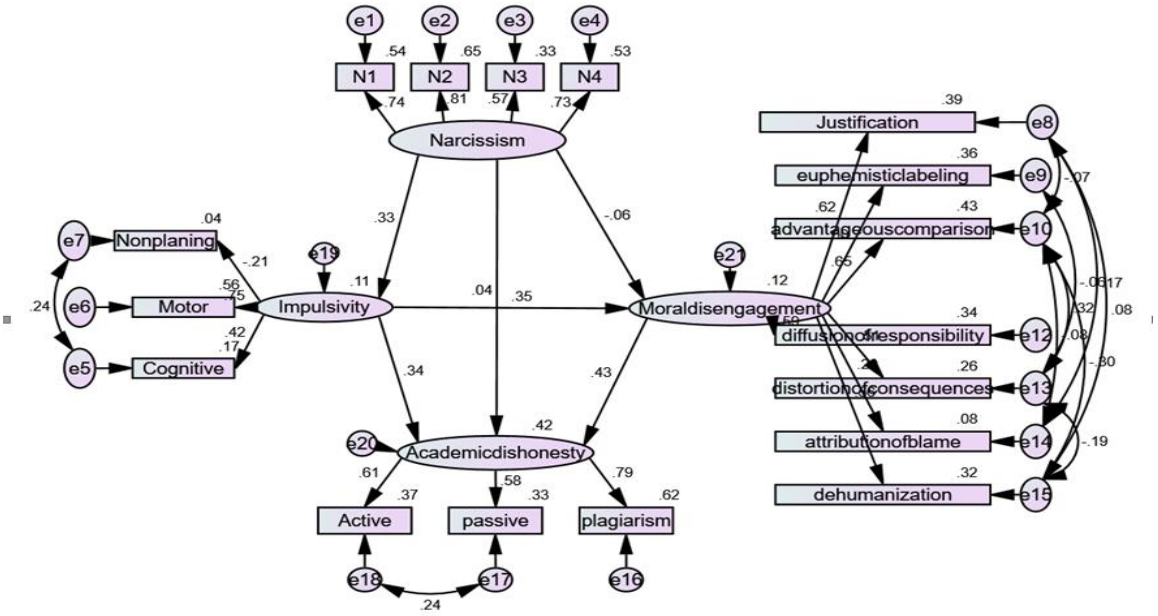


Figure 5. Standardized regression coefficients for model 'c'

Table 4 reports fit indices for the proposed models.

Table 4. Fit Indices for the proposed model

Indices	CMIN	df	P	CMIN/DF	RMSEA	CFI	GFI	IFI	PNFI
Criterion	-	-	-	3>	.08>	.90<	.90<	0-1	>0.50
Model a	212.296	101	.000	2.102	.054	.918	.935	.920	.637
Model b	190.540	101	.000	1.887	.048	.922	.944	.924	.633
Model c	206.662	103	.000	2.006	0.051	0.933	.936	.934	.664

As **Table 4** reports, all three research models have an acceptable model fit with data. Also, the combination of personality traits, impulsivity and moral disengagement in each of the proposed theoretical models 'a, b and c', explain .50, .41 and .42% of the variance of AD at a significant level.

Among the three models, the psychopathy model explained the largest proportion of variance in academic dishonesty, followed by the Machiavellianism and narcissism models. Nevertheless, since the models were estimated separately, no formal statistical comparison of the explained variance across models was conducted.

5. Discussion

The present study aimed to predict and explain AD in the form of a conceptual model through each of the dark personality traits, directly and indirectly, via moral disengagement and impulsivity, as well as impulsivity, directly and indirectly, through moral disengagement. The results presented good fit for the models and some of the hypotheses. Even though the present study did not directly examine the core TPB constructs, such as attitudes, subjective norms, perceived behavioral control, or behavioral intentions, the theory recognizes personality characteristics as background factors that influence behavior through cognitive and moral-cognitive processes

The first hypothesis was that 'each of the dark personality traits of psychopathy, Machiavellianism, and narcissism could predict AD behavior'. The findings of the present study indicated that psychopathy could directly predict AD, but Machiavellianism and narcissism were not predictors of AD behaviors among the students. This finding is in in accordance with the results of previous studies, suggesting that this trait is associated with AD and related behaviors and can predict them (e.g., Baran & Jonason, 2020; Curtis et al., 2022; Baughman et al., 2014; Ternes et al., 2019). Even in some studies, psychopathy has been most strongly linked to academic fraud (e.g., Cheung & Egan, 2020; Williams et al., 2010; Zhang et al., 2019).

Inconsistent with the findings of the current study, Esteves et al. (2021) concluded that Machiavellianism and narcissism are positively linked to cheating behaviors. Nevertheless, they found no association between psychopathy and the involvement of someone in cheating or the initiative to commit cheating. Other studies noted that Machiavellianism is associated with academic fraud and dishonesty and can predict it (e.g., Markowitz & Levine, 2021; Williams et al., 2010).

Those with high psychopathy are more impulsive as well as less empathetic and tend to engage in antisocial behaviors (Paulhus & Williams, 2002). This finding of the current study can be interpreted through the Theory of Planned Behavior (TPB) (Ajzen, 1991). According to TPB, behavior is primarily determined by behavioral intentions, which are influenced by attitudes toward the behavior, subjective norms, as well as perceived behavioral control. Even though Machiavellian individuals while typically characterized by strategic thinking and goal-oriented manipulation, and narcissistic individuals seek admiration and social approval, these traits may not necessarily translate into academic dishonesty when subjective norms discourage cheating or when students perceive a high likelihood of cheating identification and punishment. In contrast, psychopathy is characterized by impulsivity, low empathy, disregard for social norms, and diminished

sensitivity to negative consequences. These characteristics may undermine the influence of social norms and perceived behavioral control, making psychopathic individuals more likely to commit academic dishonesty regardless of contextual constraints. Cultural context, measurement differences, and sample characteristics could explain the discrepant results.

For instance, in the research by Nathanson et al. (2006) and Williams et al. (2010) psychopathic have shown a relationship with cheating. These researchers explain that perceptions of academic cheating might vary considerably among different nationalities (e.g., Burns et al., 1998). In Brazil, academic cheating can be viewed as a negative manifestation of the Brazilian way, characterized by acquisition of immoral or illicit benefits through trickery (Ferreira et al., 2012). Contrary to the psychopathic tendency to engage in antisocial behaviors (Paulhus and Williams, 2002), the Brazilian way reflects a misconception about moral and legal constraints, and creates the misconception that transgression of social norms such as academic cheating is acceptable (Fernandes et al., 2015). Thus, AD may reflect the influence of the Brazilian way rather than a particular trait.

One possible explanation is that, across the Iranian university context, cultural and educational values may further explain why Machiavellianism and narcissism did not predict AD. Iranian students are often educated in environments that emphasize moral, religious, and social responsibilities. Hence, concerns about social reputation, family expectations, and institutional sanctions may inhibit students with Machiavellian or narcissistic tendencies from engaging in academic dishonesty, in spite of their self-serving motivations. Nevertheless, since psychopathy is linked to a diminished concern for moral obligations and social consequences, these cultural and normative influences may be less effective in preventing dishonest behavior among individuals high in psychopathy.

Another research finding was that psychopathy and Machiavellianism could predict AD behavior through the mediation of moral disengagement. It suggests that each of the traits, psychopathy and Machiavellianism forecast moral disengagement on the one hand, and moral disengagement predicts AD on the other, which are in accordance with the results of other studies (e.g., Fida et al., 2018; Shu et al., 2011; Stephens, 2018; Vincent et al., 2013).

The mediating role of moral disengagement can also be interpreted within the framework of the extended Theory of Planned Behavior (TPB). Although the original TPB (Ajzen, 1991) emphasizes attitudes, subjective norms, and perceived behavioral control as the primary determinants of behavioral intention, subsequent studies have suggested that incorporating moral constructs, such as moral obligation, personal moral norms, and moral commitment, ameliorates the model's ability to explain unethical behaviors. From this perspective, moral disengagement can be viewed as a moral cognitive mechanism which weakens individuals' internal moral standards. Through cognitively justifying unethical actions and reducing anticipated feelings of guilt or self-condemnation, moral disengagement diminishes moral commitment and facilitates the formation of intentions to engage in academic dishonesty. Thus, psychopathic and Machiavellian traits may promote academic dishonesty indirectly since these personality characteristics encourage moral disengagement, which, in turn, reduces moral restraints and elevates the likelihood of dishonest behavior.

Explaining this finding based on Bandura's (1991) Social Cognitive Theory, it can be postulated that moral norms regulate human behavior. When a person commits an immoral act, a kind of cognitive conflict develops within their mental system which results in feelings of shame, guilt, and dissatisfaction. In such a situation, the person attempts to apply various strategies to turn off moral self-regulation and to downplay the moral aspects of their wrongdoing. Indeed, in spite of the tendency of individuals to incorporate values and beliefs into their activities, mechanisms of moral disengagement are effective as a facilitator of AD (Shu et al., 2011) and as a mediating variable in the occurrence of deceptive behaviors (Farnese et al., 2011; Vincent et al., 2013). As such, people whose moral self-regulation is easily disrupted are more likely than others to violate moral standards and feel less guilty of committing transgressions. For this reason, in academic situations, they commit behaviors that are considered dishonest. Moral disengagement causes individuals to be motivated to engage in immoral behavior without feeling uncomfortable about themselves since through justifying and explaining the academic misconduct behavior according to their rational opinion, on the one hand, they protect their self-concept and achieve the desired goal and result, on the other.

Meanwhile, some attributes are linked to Machiavellianism, such as self-entitlement, grandiosity, irresponsibility, poor empathy, and lying. Moreover, those with high Machiavellianism tend to control others for their own interests through deceptive behaviors (Paulhus and Williams, 2002). Machiavellianism is characterized by lying in various contexts (including educational settings), deception and trickery to achieve personal goals and interests, as well as tendency to engage in immoral behaviors (Barbaranelli et al., 2018; Williams et al., 2010). The psychopathy trait is characterized by confusion and disorder at the level of emotional and interpersonal relationships, together with the dysfunction of moral reasoning (Gong et al., 2019). These attributes of these two traits put one at risk for engaging in behaviors such as AD. Specifically, the deception trait leads this group to cheat in competitive or progressive situations that have the potential to deceive others. These people, even when they do not need to cheat, resort to deception and immoral behavior since they desire control and greed to achieve the goal. Machiavellian individuals apply deception as a common way to prevent the slightest chance of failure. Accordingly, moral disengagement frees individuals from the agony of conscience and feeling of being guilty caused by inconsistencies between behavior and internal standards (Bandura, 1990). In other words, moral disengagement is a way to deal with cognitive inconsistencies arising from the conflict of actual behavior with moral principles, values, beliefs, and attitudes (Stephens, 2018). This mechanism allows people to justify their misbehavior (Peeters et al., 2019).

Unlike the current research, a significant impact of narcissism on moral disengagement was observed in other studies (e.g., Fossati et al., 2014; Jones et al., 2017). This finding may be interpreted within the framework of the Theory of Planned Behavior (TPB) (Ajzen, 1991). In the extended TPB, moral factors affect behavioral intentions through strengthening or weakening individuals' internal moral standards. Nevertheless, narcissistic individuals are primarily motivated by maintaining a positive self-image, gaining admiration, as well as preserving their social reputation rather than by cognitively justifying unethical behavior. Thus, unlike psychopathic and Machiavellian

individuals, they may not rely on moral disengagement mechanisms to engage in academic dishonesty. Instead, their behavioral decisions may depend more on contextual factors, such as the anticipated influence of cheating on their social image, perceived social norms, or the likelihood of being caught. From this perspective, even though narcissistic individuals may possess a strong desire for achievement and recognition, they are also highly concerned with how they are perceived by others. Committing academic dishonesty could threaten their desired image if discovered. Thus, their intentions to cheat may be influenced more by concerns about reputation and social evaluation than by reductions in moral self-regulation through moral disengagement. This may explain why moral disengagement failed to mediate the relationship between narcissism and academic dishonesty in the present study.

Across the Iranian university context, where academic reputation, family expectations, and social evaluation are highly valued, narcissistic students may be particularly motivated to protect their public image. As a result, concerns about social approval and reputation may outweigh the tendency to morally justify dishonest behavior, thereby diminishing the mediating role of moral disengagement

The results indicated that impulsivity directly predicts AD in all three models. This finding accords with the results of studies conducted by Anderman et al. (2009) and Bacon et al. (2020), implying that impulsive people have been shown to engage in AD behaviors, such as cheating, more than others. These individuals become involved in illegal and immoral behaviors owing to low self-control, an inability to delay gratification, and low regulatory self-efficacy. Low self-control (Callender et al., 2010) and higher levels of sensation seeking (Deandrea et al., 2009) are also linked to cheating and attitudes toward AD. Although TPB assumes that personality traits primarily influence behavior indirectly through behavioral intentions, the direct impact of impulsivity observed in the present study may indicate that impulsivity compromises self-regulatory processes involved in implementing behavioral intentions. This interpretation is consistent with extended TPB models, acknowledging the role of individual differences in facilitating or inhibiting the enactment of intended behavior.

Further, impulsive people with low self-control are usually in a hurry to reach the goal, whereby the immediate benefits of achieving it are obvious, attractive, and motivating for them. Meanwhile, its negative and harmful impacts seem insignificant to them. Hence, they desire to achieve academic success at any cost and under any circumstances, even if the price is to violate moral principles and harm others. Characteristics such as low self-control, sensation seeking, and short-term reward preferences can be predictive and triggering behaviors linked to academic dishonesty, such as cheating, in students. Accordingly, such behaviors are shortcuts to achieving personal interests faster (Bacon et al., 2020).

The fourth finding was that impulsivity indirectly influenced AD through moral disengagement, among those with higher levels of narcissism. This finding can be interpreted within the framework of the TPB (Ajzen, 1991, 2020). From this perspective, impulsivity may augment individuals' tendency to morally justify dishonest behavior through weakening moral self-regulation and facilitating mechanisms of moral disengagement. Once moral standards are cognitively disengaged, individuals may

perceive fewer internal barriers to committing academic dishonesty. Thus, moral disengagement can be understood as a cognitive moral mechanism through which impulsive tendencies are translated into dishonest academic behavior. Since impulsivity disrupts the process of thoughtful control, and moral reasoning as well as the activation of moral standards require contemplative thinking, they are more likely to be indifferent to moral norms and principles while also engaging in academic misconduct behaviors. In other words, impulsive traits such as poor self-control, inability to control thoughts, and low self-regulatory pave the way for applying such mechanisms.

The significant indirect impact observed in the narcissism model suggests that narcissistic traits alone may not be sufficient to promote academic dishonesty. Nevertheless, when narcissistic individuals are also characterized by higher impulsivity, they may become more likely to activate mechanisms of moral disengagement, such as justifying dishonest behavior or minimizing its consequences. In this way, impulsivity appears to facilitate translation of narcissistic tendencies into academic dishonesty through diminished moral self-regulation. An interesting finding of the present study was that moral disengagement did not mediate the relationship between narcissism and academic dishonesty, whereas it significantly mediated the correlation between impulsivity and academic dishonesty within the narcissism model. This finding suggests that narcissistic traits alone may not be sufficient to activate the cognitive mechanisms of moral disengagement that facilitate dishonest academic behavior. Rather, impulsivity appears to play a key role in translating narcissistic tendencies into academic dishonesty. Those with narcissistic characteristics often strive to maintain a positive self-image and seek admiration from others, which may discourage them from engaging in unethical behavior that could threaten their social reputation. Nevertheless, when narcissistic individuals also exhibit high levels of impulsivity, they may be less likely to regulate their immediate reactions and more likely to justify dishonest actions through mechanisms of moral disengagement. Hence, impulsivity may weaken moral self-regulation, making it easier for narcissistic individuals to rationalize academic dishonesty and engage in such behavior.

Impulsivity disrupts the process of thoughtful control, and moral reasoning a well as the activation of moral standards require contemplative thinking; thus, they are more likely to be indifferent to moral norms and principles while also engaging in deviant behaviors. In other words, impulsive traits such as poor self-control, an inability to control thoughts, and low self-regulation pave the way for utilizing such mechanisms. According to Bandura (1999), moral self-regulation can be selectively and voluntarily disabled using cognitive mechanisms of moral disengagement. Moral disengagement mechanisms tend to justify immoral behaviors aimed at protecting one's self-esteem (Caprara et al., 2009). These mechanisms determine how human beings, despite their commitment to moral principles, may commit behaviors that violate moral principles, while still believing in those principles. These mechanisms prevent feelings of conflict, shame, and remorse (Farnese et al., 2011). Also, narcissists tend to act under the influence of their egos (Wallace & Baumeister, 2002). As a result, academic cheating in narcissists can be affected by their need to maintain a positive self-image.

Another research finding was that each dark personality trait could explain AD through impulsive mediation. The findings of the study by Baran and Jonason (2020) indicated that students with higher levels of meanness and lack of inhibition, but not boldness, reported repeated AD along their higher education. The association between lack of inhibition and AD can signal impulsive cheating owing to self-control problems and the inability to predict the possible negative consequences of cheating (Drislane et al., 2014). In a study, among all aspects of psychopathy, lack of inhibition was the strongest predictor of AD, which confirmed the role of impulsivity in forecasting risky behavior (Bacon et al., 2020) and the role of delay in satisfaction in refraining from academic misconduct (Amigud & Lancaster, 2019). Also, the results of studies by Anderman et al. (2009) confirmed that impulsivity has a positive relationship with AD behaviors, such as cheating. Disinhibition requires impulsivity, difficulty regulating emotions, poor self-control, hostility, and mistrust (Patrick & Drislane, 2015). Characteristics of psychopathy include callousness, shallow affect, manipulativeness, lack of empathy, impulsiveness, grandiosity, and social aggressiveness (Miller & Lynam, 2015). Thus, the relationship between this personality trait and impulsivity is not so impossible. The results of the research by Kiire et al. (2020) revealed that psychopathy has a positive relationship with all dimensions of UPPS-P impulsivity, while Machiavellianism showed a negative relationship with lack of perseverance and lack of foresight. In addition, narcissism was negatively linked to a lack of perseverance and a positive correlation with Sensation Seeking. These findings are in line with the theoretical perspective (Jones, 2016; Jones & Paulhus, 2011). Miller et al. (2011) also reported that there is a negative relationship between narcissism and lack of perseverance, which is one of the dimensions of impulsivity. In Jones and Paulhus (2011) study based on regression analysis, psychopathy was most associated with dysfunctional impulsivity whereas narcissism was linked to functional impulsivity. The narcissistic impulsivity seems to involve bold social participation while the psychopathic impulsivity is owing to weak self-regulation. Machiavellianism had no fixed association with any type of impulsivity. In summary, the members of the Dark Triad have demonstrated a coherent pattern of relationships with impulsivity. Two negative personality traits linked to impulsivity were narcissism (Vazire & Funder, 2006) and psychopathy (Jones and Paulhus, 2011). Of the two, narcissism was consistently associated with extraversion, while psychopathy was consistently correlated with conscientiousness (in a less amount) (Paulhus & Williams, 2002).

This finding can be interpreted within the framework of the TPB (Ajzen, 1991, 2020). Even though the present study did not directly explore the core constructs of TPB, the theory considers personality characteristics as background factors that influence behavior through psychological and cognitive processes. From this perspective, impulsivity can be regarded as an important self-regulatory mechanism through which dark personality traits are translated into academic dishonesty. Those with higher levels of psychopathy, Machiavellianism, or narcissism may be more likely to act impulsively, making rapid decisions with limited consideration of ethical standards or potential consequences. As a result, impulsivity may lower the capacity for self-regulation and raise the likelihood that these personality characteristics are expressed in dishonest academic behavior.

An additional finding of the present study was that the serial mediating effect of impulsivity and moral disengagement was significant only in the narcissism model. This pattern suggests that the psychological mechanisms linking narcissism to academic dishonesty differ from those associated with psychopathy and Machiavellianism. Specifically, psychopathy and Machiavellianism exerted direct impacts on moral disengagement, while narcissism did not. Instead, narcissism influenced moral disengagement only indirectly through impulsivity. This finding implies that narcissistic tendencies alone may not be sufficient to compromise moral self-regulation. Rather, higher levels of impulsivity appear to facilitate activation of moral disengagement mechanisms among narcissistic individuals.

From the perspective of the TPB, this finding suggests that background personality characteristics may influence dishonest behavior through differing cognitive pathways. In the case of narcissism, impulsivity appears to represent an important self-regulatory process which precedes moral disengagement. Diminished self-regulatory capacity may promote the tendency to justify unethical academic behavior, thereby facilitating academic dishonesty. In contrast, psychopathic and Machiavellian traits appear to affect moral disengagement more directly, without requiring impulsivity as an intermediate psychological mechanism.

Another notable point is that beyond statistical considerations, separate models were theoretically justified as previous research suggests that the three Dark Triad traits, in spite of sharing a common antagonistic core, differ in their motivational and behavioral processes. Estimating separate models enabled identification of trait-specific pathways linking psychopathy, Machiavellianism, and narcissism with impulsivity, moral disengagement, and academic dishonesty.

In general, the results revealed the power of personal variables in the occurrence of dishonest behavior. This can be attributed to the influence of personality traits and moral arguments on the occurrence as well as continuation of immoral behaviors. This complex and multifaceted academic dishonesty behavior is the outcome of numerous individual factors that interact with each other and cause academic dishonesty. Accordingly, it can be stated that human beings are influenced by personal and individual characteristics in most of their life that are rooted in their inherited and educational inputs. These traits are very stable and resilient; in difficult and sensitive times, such as stressful and competitive educational environments, they take the lead and control the human behaviors. Therefore, an impulsive person with flexible moral principles who is selfish, self-centered, and competitive will exhibit more behavioral examples of academic dishonesty than those without these characteristics.

6. Limitations and Recommendations

One of the limitations of this study was non-examination of the types of AD. Thus, it is suggested that future research explore the relationship between dark personality traits and various types of AD and moral disengagement. The other limitation was the application of self-reported tools that could be subject to bias (Budd, 1987). Thus, it is possible that students did not answer honestly on certain items and that their answers did not reflect their actual behavior. Nevertheless, Cronbach's alpha and the measurement model of the

means indicated adequate psychometric characteristics of the measures. Further, since all study variables were appraised using self-report questionnaires collected from the same participants at a single time point, Harman's single-factor test was undertaken to examine the potential influence of common method variance. Common method variance was equal to 14.19% and was unlikely to represent a serious threat to the validity of the findings (Podsakoff et al., 2003).

Another limitation was the cross-sectional nature of the present study. Since longitudinal research provides more information about the causal relationships between model variables, it is suggested that research relationships be explored longitudinally in future research. Further, the authors did not control the participant's academic performance. For instance, students with lower-than-average performance tend to cheat. Then, future research should inspect whether or not academic performance can influence the relationship between exogenous variables and AD.

The results are based on the Urmia University sample; caution should be exercised when generalizing them to other samples as well as universities.

7. Conclusion

In general, the findings exhibited the power of personal variables in the occurrence of dishonest behavior. This can be attributed to the influence of personality traits and moral arguments on the occurrence and continuation of immoral behaviors. Previous studies have also revealed that personal characteristics predict immoral behavior across educational settings (e.g., Kanat-Maymon et al., 2015; Maloshonok & Shmeleva, 2019; Starovoytova & Namango, 2016). Accordingly, human beings are influenced by personal and individual characteristics rooted in their inherited and educational inputs. These traits are highly stable and resilient and take the lead as well as control human behaviors in difficult and sensitive times, such as stressful and competitive educational environments. As such, an impulsive person with flexible moral principles who is selfish, self-centered, and competitive will exhibit more behavioral examples of AD than those without these characteristics.

The findings of the present study suggest that the psychological mechanisms underlying academic dishonesty differ across the Dark Triad traits. Psychopathy demonstrated both a direct relationship with academic dishonesty and an indirect association through moral disengagement, while Machiavellianism influenced academic dishonesty primarily through moral disengagement. In contrast, narcissism did not directly activate moral disengagement; instead, its impact on academic dishonesty emerged through a sequential process in which impulsivity augmented moral disengagement, ultimately facilitating dishonest academic behavior. These findings reveal that impulsivity and moral disengagement represent distinct yet complementary psychological mechanisms linking maladaptive personality traits with academic dishonesty.

The present findings extend the application of the TPB by indicating that background personality characteristics may influence academic dishonesty through different psychological pathways. Rather than operating through a single mechanism, the Dark Triad traits presented distinct cognitive and self-regulatory processes. Specifically, moral disengagement emerged as a primary mechanism for psychopathy and Machiavellianism,

whereas impulsivity preceded moral disengagement only in the narcissism model. These findings suggest that incorporating moral-cognitive mechanisms into TPB may offer a more comprehensive explanation of unethical academic behavior.

Further, as previously reported, there are contradictory results about the relationships among the research variables. A possible explanation for these discrepant results is that the perception of academic cheating can vary significantly across different nationalities (e.g., Burns et al., 1998). It was also demonstrated that both situational variation and personality dimensions could predict honesty and dishonesty, but the effects of personality were not uniform across situations (Markowitz & Levine, 2021). Further, some studies have employed different means to measure dark personalities. For instance, in the study by Williams et al. (2010), narcissism and Machiavellianism were appraised via the Narcissistic Personality Inventory (Raskin & Terry, 1988) and the 20-item Mach-IV (Christie & Geis, 1970), respectively, with psychopathy measured using the 64-item Self-Report Psychopathy scale (Paulhus et al., in press). Accordingly, the findings of studies on similar subjects can vary.

In general, this study contributes to the academic cheating behavior literature, documenting that behaviors engaging someone and taking the initiative in cheating are linked to the dark triad, impulsivity, and moral disengagement. Briefly, the present research has contributed to a better understanding of the predictors of AD. As the world faces countless ethical and social crises, studying AD in academic institutions becomes significant.

Considering the mediating and significant role of moral disengagement in the occurrence of dishonest behavior, it is suggested to underscore the strengthening of moral related components and responsibility in academic and school situations as well as to design programs to improve and correct it.

Universities are asked to make institutional efforts to keep sustainability on track. The results of the current study can be useful in accomplishing this goal. For example, considering the mediating and significant role of moral disengagement in the occurrence of dishonest behavior, it is suggested that the strengthening of moral-related components and responsibility be emphasized in academic as well as school situations and programs be designed to improve and correct it. The authors encourage future researchers to replicate this research and continue examining other potential causes of AD.

Universities should develop interventions aimed at strengthening students' moral self-regulation and reducing moral disengagement through ethics education, reflective moral reasoning, and integrity-based educational programs

Given the significant role of impulsivity, training programs that promote self-regulation, emotional regulation, and delayed decision-making may lower students' tendency to engage in academic dishonesty.

Students with elevated psychopathic characteristics may require more intensive preventive interventions since academic dishonesty appears to occur even in the absence of moral disengagement.

8. Author Contributions

SHK: Designing the study procedures, analyzing and interpreting the research data, writing and reviewing the paper; FMM: Presenting the research concept, drafting of the manuscript,

analyzing and interpreting the research data, writing and reviewing the paper, statistical analysis, confirming the final draft, being accountable for all aspects of research. All authors discussed the results, reviewed and approved the final version of the manuscript.

9. Acknowledgments

This is hereby to thank all the esteemed students who participated in this study.

10. Conflicts of Interest

There are no conflicts of interest. This article was extracted from the master thesis, with the guidance of Farzaneh Michaeli Manee.

References

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411

Amigud, A., & Lancaster, T. (2019). 246 reasons to cheat: An analysis of students' reasons for seeking to outsource academic work. *Computers & Education*, *134*, 98-107. https://doi.org/10.1016/j.compedu.2019.01.017

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020- T.

Angell, L. R. (2006). The relationship of impulsiveness, personal efficacy and academic motivation to college cheating. *College Student Journal*, *40*(1), 118-131.

Alleyne, P., & Phillips, K. (2011). Exploring academic dishonesty among university students in Barbados: An extension to the theory of planned behaviour. *Journal of Academic Ethics*, *9*(4), 323-338. https://doi.org/10.1007/s10805-011-9144-1

Anderman, E. M., & Murdoc, B. T. (2007). *Psychology of academic cheating*. USA: Elsevier Academic Press.

Anderman, E., Cupp, P., & Lane, D. (2009). Impulsivity and academic cheating. *The Journal of Experimental Education*, *78*(1), 135– 150. https://doi.org/10.1080/00220970903224636

Alsuwaileh, B. G., Russ-Eft, D. F., & Alshurai, S. R. (2016). Academic dishonesty: A mixed-method study of rational choice among students at the college of basic education in Kuwait. *Journal of Education and Practice*, *7*(30), 131-159.

Abell, L., Qualter, P., Brewer, G., Barlow, A., Stylianou, M., Henzi, P., & Barrett, L. (2015). Why Machiavellianism matters in childhood: The relationship between children's machiavellian traits and their peer interactions in a natural setting. *Europe's Journal of Psychology*, *11*(3), 484–493. https://doi.org/10.5964/ejop.v11i3.957

Amigud, A., & Lancaster, T. (2019). 246 reasons to cheat: An analysis of students' reasons for seeking to outsource academic work. *Computers & Education*, *134*, 98-107. https://doi.org/10.1016/j.compedu.2019.01.017

Allipour Birgani, S., Maktabi, G., Shehni Yailagh, M. and Mofradnejad, N. (2011). The Relationship of Personality Traits with Academic Self Handicapping and the Comparison of Parenting Styles in Regard of the Later Variable in High School Students in Behbahan. *Psychological Achievements*, *18*(2), 135-154.

Atashafrouz, A. and Araban, S. (2017). The Causal Relationship between Personality Traits and Academic Performance with Mediating Role of Study Strategies in Students. *Psychological Achievements*, *24*(1), 78-98. doi: 10.22055/psy.2017.17251.1490

Afzali, A., Ghashami, S. M. A., & Hendi Varkane, A. (2020). Developing a prediction model for the incidence of academic Cheating tendency in students based on academic variables. *Educational Psychology*, *16*(56), 75-96. doi: 10.22054/jep.2020.31112.2261

Baughman, H. M., Jonason, P. K., Lyons, M., & Vernon, P. A. (2014). Liar liar pants on fire: Cheater strategies linked to the dark triad. *Personality and Individual Differences*, *71*, 35–38. https://doi.org/10.1016/j.paid.2014.07.019

Bandura, A. (1990). Mechanisms of moral disengagement. In W. Reich (Ed.), *Origins of terrorism: Psychologies, ideologies, theologies, and states of mind* (pp. 161–191), Cambridge University Press.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, *3*(3), 193–209. https://doi.org/10.1207/s15327957pspr0303_3

Burnett, S., Adam, R. J., Urner, M., van der Leer, L., Bahrami, B., Bays, P. M., & Husain, M. (2012). Impulsivity and rapid decision-making for reward. *Frontiers in psychology*, *3*, Article 153. https://doi.org/10.3389/fpsyg.2012.00153

Bacon, A. M., McDaid, C., Williams, N., & Corr, P. J. (2020). What motivates academic dishonesty in students? A reinforcement sensitivity theory explanation. *British Journal of Educational Psychology*, *90*(1), 152–166. https://doi.org/10.1111/bjep.12269

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, *50*(2), 248–287. https://doi.org/10.1016/0749-5978(91)90022-L

Bandura, A. (2016). *Moral disengagement: How people do harm and live with themselves*. Worth Publishers.

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in exercise of moral agency. *Journal of Personality and Social Psychology*, *71*(2), 364–374. https://doi.org/10.1037/0022-3514.71.2.364

Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Socio-cognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*, *80*(1), 125–135. https://doi.org/10.1037/0022-3514.80.1.125

Baran, L., & Jonason, P. K. (2020). Academic dishonesty among university students: The roles of the psychopathy, motivation, and self-efficacy. *PLOS One, 15*(8), Article e0238141. https://doi.org/10.1371/journal.pone.0238141

Barbaranelli, C., Farnese M. L., Tramontano, C., Fida, R., Ghezzi, V., Paciello, M., & Long, P. (2018). Machiavellian ways to academic cheating: A mediational and interactional model. *Frontiers in Psychology*, *9*, Article 695. https://doi.org/10.3389/fpsyg.2018.00695

Barbee, L. (2020). *Predicting academic dishonesty using personality, impulsiveness, morality, and somatic faking* [Thesis for Bachelor of Science, Department of Criminology. *University of Lynchburg*].

Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of Research in Personality, 25*(3), 285–301. https://doi.org/10.1016/0092-6566(91)90021-H

Brunell, A. B., Staats, S., Barden, J., & Hupp, J. M. (2011). Narcissism and academic dishonesty: The exhibitionism dimension and the lack of guilt. *Personality and Individual Differences*, *50*(3), 323–328. https://doi.org/10.1016/j.paid.2010.10.006

Budd, R. J. (1987). Response bias and the theory of reasoned action. *Social Cognition, 5*(2), 95– 107. doi.org/10.1521/soco.1987.5.2.95

Burns, S. R., Davis, S. F., Hoshino, J., & Miller, R. L. (1998). Academic dishonesty: A delineation of cross-cultural patterns. *College Student Journal, 32*, 590–596.

Christie, R., & Geis, F. L. (1970). *Studies in Machiavellianism*. New York: Academic.

Caprara, G. V., Fida, R., Vecchione, M., Tramontano, C., & Barbaranelli, C. (2009). Assessing civic moral disengagement: Dimensionality and construct validity. *Personality and Individual Differences*, *47*(5), 504–509. https://doi.org/10.1016/j.paid.2009.04.027

Chatterjee, A., & Hambrick, D. C. (2007). It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. *Administrative Science Quarterly, 52*, 351–386. https://doi.org/10.2189/asqu.52.3.351.

Chudzicka-Czupała, A., Grabowski, D., Mello, A. L., Kuntz, J., Zaharia, D. V., Hapon, N., … Börü, D. (2016). Application of the theory of planned behavior in academic cheating research–cross-cultural comparison. *Ethics & Behavior, 26*, 638–659. DOI:10.1080/10508422.2015.1112745

Callender, K. A., Olson, S. L., Kerr, D. C., & Sameroff, A. J. (2010). Assessment of cheating behavior in young school-age children: Distinguishing normative behaviors from risk markers of externalizing psychopathology. *Journal of Clinical Child & Adolescent Psychology, 39*, 776-788. DOI: 10.1080/15374416.2010.517165

Cheung, Y. K., & Egan, V. (2020). The hexaco-60, the dark triad and scholastic cheating. *Psychological Reports*. https://doi.org/10.1177/0033294120961071

Cuadrado-Gordillo, I., Fernández-Antelo, I., & Parra, G. M-M. (2020). Moral disengagement as a moderating factor in the relationship between the perception of dating violence and victimization. *International Journal of Environmental Research and Public Health*, *17*(14), 51–64. https://doi.org/10.3390/ijerph17145164

Curtis, G. J., Clare, J., Vieira, E., Selby, E., & Jonason, P. K. (2022). Predicting contract cheating intentions: Dark personality traits, attitudes, norms, and anticipated guilt and shame. *Personality and Individual Differences*, *185*, 111277. https://doi.org/10.1016/j.paid.2021.111277

Deandrea, D. C., Carpenter, C., Shulman, H., & Levine, T. R. (2009). The relationship between cheating behavior and sensation-seeking. *Personality and Individual Differences, 47*, 944-947. https://doi.org/10.1016/j.paid.2009.07.021

Drislane, L. E., Patrick, C. J., & Arsal, G. (2014). Clarifying the content coverage of differing psychopathy inventories through reference to the triarchic psychopathy measure. *Psychological assessment*, *26*(2), 350. https:// doi.org/10.1037/a0035152 PMID: 24320762

Dubas, J. S., Baams, L., Doornwaard, S. M., & van Aken, M. (2017). Dark personality traits and impulsivity among adolescents: Differential links to problem behaviors and family relations. *Journal of abnormal psychology*, *126*(7), 877–889. https://doi.org/10.1037/abn0000290

Ekhtiari, H., Safaei, H., Esmaeili-Javid, G., Atef-Vahid, M., & Edalati, H.and Mokri, A. (2008). Determination of the validity and reliability of the Persian versions of four questionnaires—Eysenck, Barratt, Dickman, and Zuckerman—in assessing risk-taking behaviors and impulsivity among healthy individuals and opioid abusers. **Iranian Journal of Psychiatry and Clinical Psychology, 14*(3), 326-336

Esteves, G. G. L., Oliveira, L. S., de Andrade, J. M., & Menezes, M. P. (2021). Dark triad predicts academic cheating. *Personality and Individual Differences, 171*, Article 110513. https://doi.org/10.1016/j.paid.2020.110513.

Etemad, J., & Jokar, B. (2018). Academic dishonesty and epistemological beliefs: the hereditary role of gender moderation. *Education and learning studies, 10*(1), 111-129. doi: 10.22099/jsli.2018.4918

Fishbein, M. (1979). A Theory of Reasoned Action: Some applications and implications. *Nebraska Symposium on Motivation, 27*, 65–116. PMID: 7242751

Ferreira, M. C., Fischer, R., Porto, J. B., Pilati, R., & Milfont, T. L. (2012). Unraveling the mystery of Brazilian Jeitinho: A cultural exploration of social norms. *Personality and Social Psychology Bulletin, 38*, 331–344. https://doi.org/10.1177/ 0146167211427148.

Fernandes, D. M., Perallis, C. G., & Pezzato, F. A. (2015). Creativity, Brazilian "jeitinho," and cultural practices: A behavioral analysis. *Behavior Analysis: Research and Practice, 15*, 28–35. https://doi.org/10.1037/h0101067.

Farnese, M. L., Tramontano, C., Fida, R., & Paciello, M. (2011). Cheating behaviors in academic context: Does academic moral disengagement matter? *Procedia - Social and Behavioral Sciences*, *29*, 356–365. https://doi.org/10.1016/j.sbspro.2011.11.250

Fida, R., Tramontano, C., Paciello, M., Ghezzi, V., & Barbaranelli, C. (2018). Understanding the interplay among regulatory self-efficacy, moral disengagement, and academic cheating behaviour during vocational education: A three-wave study. *Journal of Business Ethics*, *153*(3), 725–740. https://doi.org/10.1007/s10551-016-3373-6

Fossati, A., Pincus, A. L., Borroni, S., Munteanu, A. F., & Maffei, C. (2014). Are pathological narcissism and psychopathy different constructs or different names for the same thing? A study based on Italian nonclinical adult participants. *Journal of Personality Disorders*, *28*(3), 394–418. https://doi.org/10.1521/pedi_2014_28_127

Gaskin, J., James, M., & Lim, J. (2020), "Indirect Effects", AMOS Plugin. Gaskination's StatWiki.

Hasanah, A., & Maharani, S. N. (2020). Rationalization, reliosity, and ethical beliefs of students against academic cheating: the role of intentions as a variable of mediation. *South East Asia Journal of Contemporary Business, Economics and Law, 23*(1), 226-236. ISSN 2289-1560.

Gong, X., Brazil, I. A., Chang, L. J., & Sanfey, A. G. (2019). Psychopathic traits are related to diminished guilt aversion and reduced trustworthiness during social decision-making. *Scientific Reports*, *9*, Article 7307. https://doi.org/10.1038/s41598-019-43727-0

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*(1), 115-135.

Harding, T. S., Mayhew, M. J., Finelli, C. J., & Carpenter, D. D. (2007). The theory of planned behavior as a model of academic dishonesty in engineering and humanities undergraduates. *Ethics and Behavior, 17*(3), 255–279. https://doi.org/10.1080/10508420701519239

Hair, J., Hult, G., Tomas, M., Ringle, C., Sarstedt, M., Danks, N., Ray, S., & St, C. (2022). Book Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. 10.1007/978-3-030-80519-7.

Herman, A. M., Critchley, H. D., & Duka, T. (2018). Risk-taking and impulsivity: The role of mood states and interoception. *Frontiers in Psychology*, *9*, Article 1625. https://doi.org/10.3389/fpsyg.2018.01625

Hendy, N. T., & Montargot, N. (2019). Understanding academic dishonesty among business school students in France using the theory of planned behavior. *The International Journal of Management Education*, *17*(1), 85-93. https://doi.org/10.1016/j.ijme.2018.12.003

Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment*, *22*(2), 420–432. https://doi.org/10.1037/a0019265

Jones, B. D., Woodman, T., Barlow, M., & Roberts, R. (2017). The darker side of personality: Narcissism predicts moral disengagement and antisocial behavior in sport. *The Sport Psychologist*, *31*(2), 109–116. https://doi.org/10.1123/tsp.2016-0007

Jones, D. N. (2016). The nature of machiavellianism: Distinct patterns of misbehavior. In V. Zeigler-Hill, & D. K. Marcus (Eds.). *The dark side of personality: Science and practice in social, personality, and clinical psychology* (pp. 87–107). Washington, DC: American Psychological Association.

Jones, D. L. R. (2011). Academic dishonesty: Are more students cheating? *Business and Professional Communication Quarterly*, *74*(2), 141–150. https://doi.org/10.1177/1080569911404059

Jones, D. N., & Paulhus, D. L. (2011). The role of impulsivity in the Dark triad of personality. *Personality and Individual Differences*, *51*(5), 679-682. https://doi.org/10.1016/j.paid.2011.04.011

Kline, R. B. (2023). Structural equation modeling in neuropsychology research. In G. G. Brown, B. Crosson, K. Y. Haaland, & T. Z. King (Eds.), *APA handbook of neuropsychology: Neuroscience and neuromethods* (pp. 681–698). American Psychological Association. https://doi.org/10.1037/0000308-034

Kanat-Maymon, Y., Benjamin, M., Stavsky, A., Shoshani, A., & Roth, G. (2015). The role of basic need fulfillment in academic dishonesty: A self-determination theory perspective. *Contemporary Educational Psychology*, *43*, 1–9. https://doi.org/10.1016/j.cedpsych.2015.08.002

Klocko, M. N. (2014). Academic dishonesty in schools of nursing: A literature review. *Journal of Nursing Education*, *53*(3), 121–125. https://doi.org/10.3928/01484834-20140205-01

Korn, L., & Davidovitch, N. (2016). The profile of academic offenders: Features of students who admit to academic dishonesty. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research*, *22*, 3043–3055. https://doi.org/10.12659/msm.898810

Kiire, S., Matsumoto, N., & Yoshida, E. (2020). Discrimination of dark triad traits using the UPPS-P model of impulsivity. *Personality and Individual Differences*, *167*, 110256. DOI: 10.1016/j.paid.2020.110256

Khamesan, A., & Amiri, M. A. (2011). Study of academic fraud among male and female students. *Ethics in Science and Technology, 6*(1), 53-61. http://ethicsjournal.ir/article-1-722-fa.html

Krejcie, R. V., & Morgan, D. W. (1970). *Determining sample size for research activities*. *Educational and Psychological Measurement, 30*(3), 607–610

Lozano, J. H., Gordillo, F., & Pérez, M. A. (2014). Impulsivity, intelligence, and academic performance: Testing the interaction hypothesis. *Personality and Individual Differences*, *61-62*, 63–68. https://doi.org/10.1016/j.paid.2014.01.013

Lonsdale, D. (2017). Intentions to cheat: Ajzen's planned behavior and goal-related personality facets. *The Journal of Psychology, 151*, 113–129. DOI: 10.1080/00223980.2016.1241737

Lynam, Hoyle, & Newman (2006). *The Perils of Partialling: Cautionary Tales from Aggression and Psychopathy*

Muris, P., Merckelbach, H., Otgaar, H., & Meijer, E. (2017). The malevolent side of human nature: A meta-analysis and critical review of the literature on the dark triad (narcissism, Machiavellianism, and psychopathy). *Perspectives on psychological science*, *12*(2), 183-204. doi: 10.1177/1745691616666070

Moeck, P. G. (2002). Academic dishonesty: Cheating among community college students. *Community College Journal of Research and Practice*, *26*(6), 479–491. https://doi.org/10.1080/02776770290041846

Mahmoodfakhe, H., Roshan, A., & Shiri, H. (2022). Prediction of moral disengagement based on dark triad of personality and belief in a just world among the Marketers of Urmia city during Corona. *Social Psychology Research*, *12*(47), 98-114. doi: 10.22034/spr.2022.366117.1785

Mikaeli Manee, F., Nasri, Sh., and Abkhiz, Sh., 2019, The relationship between emotional atmosphere of the family, excitement, implusivity on bullying among high School female students, the 7th National Conference of New Studies and Researches in the field of Educational Sciences, *Psychology and Counseling Iran*, Tehran, https://civilica.com/doc/1140848

Maloshonok, N., & Shmeleva, E. (2019). Factors influencing academic dishonesty among undergraduate students at Russian universities. *Journal of Academic Ethics*, *17*(3), 313–329. https://doi.org/10.1007/s10805-019-9324-y

Markowitz, D. M., & Levine, T. R. (2021). It's the situation and your disposition: A test of two honesty hypotheses. *Social Psychological and Personality Science*, *12*(2), 213–224. https://doi.org/10.1177/1948550619898976

Mc Nair, D. E., & Oye, W. N. (2018). Developmental responses to incidents of academic dishonesty. *New Directions for Community Colleges*, *2018*(183), 65–72. https://doi.org/10.1002/cc.20318

McTernan, M., Love, P., & Rettinger, D. (2014). The influence of personality on the decision to cheat. *Ethics & Behavior*, *24*(1), 53–72. https://doi.org/10.1080/10508422.2013.819783

Menon, M. K., & Sharland, A. (2011). Narcissism, exploitative attitudes, and academic dishonesty: An exploratory investigation of reality versus myth. *Journal of Education for Business*, *86*(1), 50-55. https://doi.org/10.1080/08832321003774772

Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Inquiry*, *12*(4), 177–196. https://doi.org/10.1207/S15327965PLI1204_1

Miller, J. D., & Lynam, D. R. (2015). Psychopathy and personality: Advances and debates. *Journal of Personality, 83*(6), 585–592. https://doi.org/10.1111/jopy.12145.

Miller, J. D., Campbell, W. K., Young, D. L., Lakey, C. E., Reidy, D. E., Zeichner, A., & Goodie, A. S. (2009). Examining the relations among narcissism, impulsivity, and self-defeating behaviors. *Journal of Personality, 77*(3), 761–794. DOI: 10.1111/j.1467-6494.2009.00564.x

Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure of scholastic cheating: Personality and competence but not demographics. *Contemporary educational psychology*, *31*(1), 97-122. https://doi.org/10.1016/j.cedpsych.2005.03.001

Paulhus, D. L., Nathanson, C., & Williams, K. M. (in press). A new look at the link between cognitive ability and exam cheating. In B. D. Zumbo (Ed.), Developments in the theories and applications of measurement, evaluation, and research methodologies across the disciplines (Vol. 1). Vancouver: University of British Columbia Press.

Paulhus, D. L. (2014). Toward a taxonomy of dark personalities. *Current Directions in Psychological Science*, *23*(6), 421–426. https://doi.org/10.1177/0963721414547737

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Paulhus, D. L., Westlake, B. G., Calvez, S. S., & Harms, P. D. (2013). Self-presentation style in job interviews: The role of personality and culture. *Journal of Applied Social Psychology, 43*, 2042–2059. https://doi.org/10.1111/jasp.12157.

Peeters, W., Diependaele, L., & Sterckx, S. (2019). Moral disengagement and the motivational gap in climate change. *Ethical Theory and Moral Practice*, *22*(2), 425–447. https://doi.org/10.1007/s10677-019-09995-5

Parnther, C. (2020). Academic misconduct in higher education: A comprehensive review. *Journal of Higher Education Policy and Leadership Studies*, *1*(1), 25–45. https://doi.org/10.29252/johepal.1.1.25

Patton, J. H., Stanford, M. S., & Barratt, E. S. (1995). Factor structure of the Barratt Impulsiveness Scale. *Journal of Clinical Psychology*, *51*(6), 768–774. https://doi.org/10.1002/1097-4679(199511)51:6<768::AID-JCLP2270510607>3.0.CO;2-1

Patrick, C. J., Fowles, D. C., Krueger, R. F. (2009). Triarchic conceptualization of psychopathy: Developmental origins of disinhibition, boldness, and meanness. *Development and Psychopathology*, *21*, 913–938. https://doi.org/10. 1017/S0954579409000492 PMID: 19583890

Patrick, C. J., & Drislane, L. E. (2015). Triarchic model of psychopathy: Origins, operationalizations, and observed linkages with personality and general psychopathology. *Journal of Personality, 83*(6), 627–643. https://doi.org/10.1111/jopy.12119.

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism and psychopathy. *Journal of Research in Personality*, *36*(6), 556–563. https://doi.org/10.1016/S0092-6566(02)00505-6

Peled, Y., & Khaldy, S. (2013). Discrimination, survival and tradition as argumentation for academic dishonesty. *Educational Practice and Theory*, *35*(1), 41–61. https://doi.org/10.7459/ept/35.1.04

Qudsyi, H., Sholeh, A., & Afsari, N. (2018). Upaya untuk mengurangi ketidakjujuran akademik pada mahasiswa melalui peer education. *Integritas: Jurnal Antikorupsi*, *4*(1), 77-100. https://doi.org/10.32697/integritas.v4i1.168

Risser, S., & Eckert, K. (2016). Investigating the relationships between antisocial behaviors, psychopathic traits, and moral disengagement. *International Journal of Law and Psychiatry, 45,* 70-74. doi: 10.1016/j.ijlp.2016.02.012

Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology, 54*(5), 890–902. https://doi.org/10.1037/0022-3514.54.5.890

Suri, H., Kadivar, P., Karamati, H., & Hassanabadi, H. (2018). Investigating the factorial structure, reliability and validity of the Persian version of the Ethical Conflict Scale. *Two Quarterly Journals of Cognitive Strategies in Learning, 7*(12), 17-32.

Seriki, O. K., Nath, P., Ingene, C. A., & Evans, K., R. (2020). How complexity impacts salesperson counterproductive behavior: The mediating role of moral disengagement. *Journal of Business Research*, *107*, 324–335. https://doi.org/10.1016/j.jbusres.2018.10.060

Stone, T., Jawahar, I., & Kisamore, J. (2010). Predicting academic misconduct intentions and behavior using the theory of planned behavior and personality. *Basic and Applied Social Psychology, 32*(1), 35–45. https://doi.org/10.1080/01973530903539895

Shu, L. L., Gino, F., & Bazerman, M. H. (2011). Dishonest deed, clear conscience: When cheating leads to moral disengagement and motivated forgetting. *Personality and Social Psychology Bulletin*, *37*(3), 330–349. https://doi.org/10.1177/0146167211398138

Starovoytova, D., & Namango, S. (2016). Factors affecting cheating-behavior at undergraduate-engineering. *Journal of Education and Practice*, *7*(31), 66–82.

Stephens, J. M. (2018). Bridging the divide: The role of motivation and self-regulation in explaining the judgment-action gap related to academic dishonesty. *Frontiers in Psychology*, *9*, Article 246. https://doi.org/10.3389/fpsyg.2018.00246

Stevens, A. K., Littlefield, A. K., Talley, A. E., & Brown, J. L. (2017). Do individuals higher in impulsivity drink more impulsively? A pilot study within a high-risk sample of young adults. *Addictive behaviors*, *65*, 147–153. https://doi.org/10.1016/j.addbeh.2016.10.026

Ternes, M., Babin, C., Woodworth, A., & Stephens, S. (2019). Academic misconduct: An examination of its association with the dark triad and antisocial behavior. *Personality and Individual Differences*, *138*, 75–78. https://doi.org/10.1016/j.paid.2018.09.031

Vincent, L. C., Emich, K. J., & Goncalo, J. A. (2013). Stretching the moral gray zone: Positive affect, moral disengagement, and dishonesty. *Psychological Science*, *24*(4), 595–599. https://doi.org/10.1177/0956797612458806

Vazire, S., & Funder, D. C. (2006). Impulsivity and the self-defeating behavior of narcissists. *Personality and Social Psychology Review, 10,* 154–165. https://doi.org/10.1207/s15327957pspr1002_4

Vogel, M., & Barton, M. S. (2013). Impulsivity, school context, and school misconduct. *Youth & Society*, *45*(4), 455–479. https://doi.org/10.1177/0044118X11421941

Wang, X., Lei, L., Yang, J., Gao, L., & Zhao, F. (2017). Moral disengagement as mediator and moderator of the relation between empathy and aggression among Chinese male juvenile delinquents. *Child Psychiatry and Human Development*, *48*(2), 316–326. https://doi.org/10.1007/s10578-016-0643-6

Wallace, H. M., & Baumeister, R. F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology, 82*, 819–834. https://doi.org/10.1037/0022-3514.82.5.819.

Williams, K. M., Nathanson, C., & Paulhus, D. L. (2010). Identifying and profiling scholastic cheaters: Their personality, congnitive ability, and motivation. *Journal of Experimental Psychology: Applied*, *16*(3), 293–307. https://doi.org/ 10.1037/a0020773

Yousefi R, Piri F. (2016). Psychometric Properties of Persian Version of Dirty Dozen Scale. *IJPCP,* 22(1), 67-76. URL: http://ijpcp.iums.ac.ir/article-1-2574-fa.html

Zelidman, A. (2014). *Empathy as amoderator of adolescent bullying behavior and moral disengagement after controlling for social desirability* [Doctoral Dissertation, Wayne State University]. Digital Commons@Wayne State University. https://digitalcommons.wayne.edu/oa_dissertations/944/

Zhang, J., Paulhus, D. L., & Ziegler, M. (2019). Personality predictors of scholastic cheating in a Chinese sample. *Educational Psychology*, *39*(5), 572–590. https://doi.org/10.1080/01443410.2018.1502414

Zarea, H., & Mohammadzadeh, R. (2012). The Role of Personality Traits in Predicting College Students' Achievement Motivation. *Psychological Achievements*, *19*(1), 117-138.