



# Predicting Academic Dishonesty: The Role of Psychopathic Traits, Perception of Academic Dishonesty, Moral Disengagement and Motivation

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## Abstract

This study conducted on a sample of 295 Dutch and Italian undergraduate and graduate students aims to investigate how psychopathic personality traits (meanness, boldness and disinhibition) may lead to cheating behavior, and to study whether there are correlations between psychopathic traits, motivation, moral disengagement, the perception of seriousness of academic dishonesty and frequency of academic dishonesty to try to better understand what causes students to cheat and engage in dishonest conduct. Results confirmed the key role of psychopathic traits, particularly the disinhibition aspect in predicting academic dishonesty. In addition, it was shown that students' perceptions of what constitutes academic dishonesty and what does not are also important in predicting the frequency of dishonest behavior. Furthermore, the role of motivation and moral disengagement in predicting and mediating the relationship between traits of psychopathy and academic dishonesty were analyzed through mediation and regression analysis.

**Keywords** Triarchic Psychopathy · Academic Dishonesty · Perception of Academic Dishonesty · Motivation · Moral Disengagement

## Introduction

School, in addition to being a hub of knowledge and study, is also a place of socialization and education where we get to interact with other peers and authority figures beyond the family who enable us to understand that there are written and unwritten rules to which we must conform in order to ensure balance in society. Failure to follow these rules has long-term consequences because today's students are tomorrow's citizens. Among the various issues that schools must address, academic dishonesty plays a key role. Academic dishonesty

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esty can be described as “any deviant behavior taking place during an academic exercise” (Hendy, & Montarget, 2019, p.85). It includes a wide variety of behaviors and among the most common forms of academic dishonesty are: cheating, copying from another student while taking a test, copying sentences without correctly citing the source, working on an individual project in a group and inquiring about the content or questions of an exam before taking it (McCabe & Trevino, 1993).

Academic dishonesty is a frequent problem at colleges and universities worldwide (Harding, Carpenter, Montgomery, & Steneck, 2001; Akakandelwa & Wamundila, 2013). The high prevalence of academic dishonesty is confirmed in various studies (McCabe & Trevino, 1993; McCabe & Trevino, 1996). 70% of students admitted to having cheated at least once during their school career (Keith-Spiegel, Tabahnick, Whitley, & Washburn, 1998) and three out of four admitted to engaging in dishonest academic behavior such as copying from another student during a test or collaborating with other students on a homework assignment (Bowers, 1964, as cited in McCabe & Trevino, 1996).

Students who resort to cheating strategies, having an advantage over their peers who act honestly, and may get higher grades contributing to an unmeritocratic and unequal school environment (Whitley & Keith-Spiegel, 2001). Seeing one’s peers copying could encourage the same behavior and get the message across that academic dishonesty is an acceptable course of action, especially when institutions do not make clear and tough statements against this kind of behavior (Fass, 1986). Furthermore, a student who copies misses the opportunity to learn and acquire the necessary knowledge that his or her degree program requires (Harding et al., 2003). These behaviors carry forward, as several studies have shown a statistical association between academic dishonesty and workplace dishonesty (e.g., Nonis & Swift, 2001; Gillespie, 2003).

The vast majority of research on academic dishonesty is divided into two major strands of research between those who seek to identify individual characteristics and those who instead consider contextual factors that lead students to cheat in different situations (McCabe & Trevino, 1997). In terms of individual characteristics, psychopathy turns out to be a good predictor of academic dishonesty (e.g., Nathanson et al., 2006; Williams et al., 2010; Baran & Jonason, 2020; Ljubin-Golub et al., 2020; Dias-Oliveira et al., 2022). Psychopathy is a constellation of personality traits characterized by emotional and behavioral deficits. Central features are lack of empathy, guilt or remorse when harming others and superficial affection; use of manipulation and superficial charm to exploit others and achieve one’s own goals (Hare, 1993). The disorder is often associated with antisocial and violent behavior (Hare, 1993; Glenn & Raine, 2008). More recently, the triarchic conceptualization of psychopathy has been developed (Patrick, 2010), which includes: meanness, boldness and disinhibition. Disinhibition reflects the tendency to impulsiveness, irresponsibility, anger and hostility, Boldness is associated with high levels of social dominance, low levels of anxiety and venturesomeness. While meanness includes lack of empathy, cruelty and predatory aggression (Patrick et al., 2009).

Considering the distinctive phenotypic identities of each construct (Patrick et al., 2009), the relationship between triarchic psychopathy components and academic dishonesty could also be different. Students exhibiting high levels of disinhibition would not be willing to invest their energy and time in school; but rather be interested in pursuing short term rewards, impulsive, impatient and bad at planning (Weidacker et al., 2017), which might drive them to cheating behaviors. Given the predisposition to aggressive competition and arrogance

of meanness (Patrick et al., 2009), students who show high levels in this trait might resort to any means at their disposal including academic dishonesty to excel over others. Lack of empathy and inability to have an attachment to others would allow them to take advantage of others' resources without feeling guilt. Finally, for the boldness aspect, there could be a link through low levels of anxiety and sensation-seeking (Patrick & Drislane, 2015).

In the collective imagination psychopathy is present only in prison and criminal contexts, but several sources highlight how instead it occurs at different level of society, and many psychopathic individuals do not commit criminal acts (Cleckley, 1941; Hare, 1993). According to a meta-analysis conducted in 2021 (Sanz-García, Gesteira, Sanz & García-Vera) the prevalence of psychopathy in the general adult population shows variations depending on the instruments used to define the construct, the gender of the participants (with higher rates for men), and the type of sample drawn from the general population. The results of the meta-analysis (Sanz-García et al., 2021) show that the prevalence of psychopathy in the general population between 1.2% and 4.5%. Moreover, the prevalence of psychopathic traits is higher among college students than in the general population (Sanz-García et al., 2021). Psychopathic traits are linked to wide range of misconduct, including academic dishonesty (Williams et al., 2010; Baran & Jonason, 2020; Ljubin-Golub et al., 2020).

Among personality traits, psychopathy seems to be the strongest and unique significant factor compared to traits that are part of the dark triad such as Narcissism and Machiavellianism (Williams et al., 2010). The study of Ljubin-Golub et al. (2020), shows that the three dimensions of psychopathy, boldness, meanness and disinhibition and attitudes toward cheating are positively associated with academic dishonesty, while the mediation analysis show that the dimension of meanness has an indirect effect on academic dishonesty, mediated by attitudes toward cheating, while disinhibition and boldness have a direct effect. Another study, similarly, showed how among the three components of psychopathy, particularly high levels of disinhibition and meanness can lead to frequent behaviors of academic dishonesty (Baran & Jonason, 2020).

In order to prevent academic dishonesty, it is important we understand whether believing a certain behavior is a serious form of academic dishonesty can function as a deterrent to engaging in that behavior. In a 2006 study, positive attitudes toward cheating were positively related to the frequency with which each behavior occurred (Carpenter et al., 2006). Similar results were also obtained in a four-year longitudinal study of academic integrity, which showed a significant association between the perceived seriousness of, and admitting to academic dishonest behavior, particularly in those academic dishonesty behaviors related to collaboration and copying (Broeckelman-Post, 2009).

Another factor that may help explain academic dishonesty is moral disengagement. The concept was first introduced by Bandura (1986; 1991) and pertains to individuals justifying their bad behaviors and changing their beliefs, by persuading themselves that behavior is morally acceptable (Bandura et al., 1996; Shu et al., 2009). This process explains how individuals manage to perform unethical behavior without having guilt (Detert, Trevino & Sweitzer, 2008). One study found that moral disengagement and peer cheating behavior play a central role in increasing cheating behavior (Farnese et al., 2011). Detert and colleagues (2008) found that moral disengagement influences the process of decision making by engaging in unethical behaviors such as stealing, lying or cheating and that the relationship between individual characteristics (e.g., empathy, cynicism) and the unethical decision making is mediated by moral disengagement (Detert et al., 2008). Moreover, all mechanisms

of moral disengagement except diffusion of responsibility are associated with psychopathy (Maftai et al., 2022) and play a mediating role in the relationship between psychopathy and cheating behaviors (William et al., 2010).

Investigating the motivations behind academic dishonesty behaviors could help to better understand these behaviors. Literature regarding the influence of motivation on academic dishonesty suggests that types of motivation orientation are associated with academic dishonesty by distinguishing between intrinsic or mastery goal orientation (aimed at acquiring more knowledge), performance goal orientation (aimed to competing with others demonstrating one's worth in front of others) and extrinsic motivation (aimed at gaining extrinsic incentive; Jordan, 2001; Anderman et al., 1998). A meta-analysis revealed that academic dishonesty was negatively associated with intrinsic motivation and mastery motivation, while it was positively correlated with amotivation and extrinsic motivation (Krou et al., 2021). Furthermore, the relationship between psychopathy traits and academic dishonesty is mediated by mastery goal orientation but not performance goal orientation (Baran & Jonason, 2020).

Although many studies have shown the importance of these individual aspects, and some have looked at combinations of these factors, a more comprehensive model, including psychopathic personality traits, has not yet been tested. The purpose of this research is to explore the role of psychopathy traits in predicting academic dishonesty, and to study possible associations between psychopathy traits, motivation, moral disengagement, the perception of seriousness of academic dishonesty and frequency of academic dishonesty to try to identify individual risk factors that would lead students to cheat and engage in dishonest conduct. Furthermore, gender and cultural differences will be explored.

Building on the findings of previous studies, the starting hypothesis is that there will be a positive association between the three dimensions of psychopathy - boldness, meanness and disinhibition- and the occurrence of academic dishonesty. We anticipate that higher levels of psychopathic traits will correspond to an increased tendency to engage in academic dishonesty behaviors.

The second hypothesis postulates an inverse relationship between perception of seriousness and the frequency of academic dishonesty, suggesting that as a student views a behavior as a more serious form of academic dishonesty, they are less likely to engage in it. Additionally, we hypothesize that the perception of seriousness will play a mediating role in the relationship between psychopathic traits and the frequency of academic dishonesty.

The third hypothesis states that there is a positive association between moral disengagement and academic dishonesty, with higher levels of moral disengagement being linked to an increased inclination to engage in academic dishonesty behaviors, and a possible mediating role of moral disengagement in the relationship between psychopathic traits and academic dishonesty.

The fourth and last hypothesis assumes that low levels of mastery goal orientation are associated with frequency of dishonest behavior. We anticipate that students with higher levels of mastery goal orientation are more likely to exhibit a higher frequency of dishonest behaviors in their academic pursuits. Furthermore, a mediating role of mastery goal orientation in the relationship between psychopathic traits and academic dishonesty is hypothesized.

## Methods

### Participants and Procedure

The survey was completed by 154 Dutch and 141 Italian undergraduate and graduate university students (33% male, 65% female and 2% non-binary/third gender). The age of the participants ranged from 18 to 36 ( $M=22.27$ ;  $SD=3.26$ ). The majority of the participants were from Psychology Faculty (74.45%), while the remaining sample were from Science and Technology Faculty (12.55%), Humanities Faculty (7.80%), Medicine Faculty (2.60%) and Business and Law faculty (2.59%).

The study was approved by the Ethics Committee of the Faculty of Social and Behavioral Sciences of University of Amsterdam. The distribution of the questionnaire involved two distinct channels. Firstly, it was administered online by posting the questionnaire on the Behavioral Science Lab webpage accompanied by a description about the objectives of the study, who the study was aimed at, and the estimated average time for completion. Students from University of Amsterdam received one credit for participation.

Subsequently, the distribution of the questionnaire was extended through external public channels including university networks and Italian social media groups aimed at university students. This approach facilitated the collection of students' samples representing two distinct nationalities. Italian students were not provided with any form of compensation or reward.

Students completed the questionnaire through the Qualtrics platform ([www.Qualtrics.com](http://www.Qualtrics.com)). They were given an information letter with details of the research and an informed consent form to approve before starting the study. Participation in the study was voluntary and could be stopped at any time, and anonymity was guaranteed. Participation generally took around 30 min.

### Materials

#### Psychopathy

Psychopathy was assessed with the Triarchic Psychopathy Measure (TriPM; Patrick, 2010), a 58-item self-report instrument that consists of three subscales: Meanness (19 items), Boldness (19 items), and Disinhibition (20 items). Each item is rated on a four-point Likert scale (True=0; Somewhat true=1; Somewhat false=2; False=3). The scores of the three subscales were considered separately and were summed to have a total psychopathy score. High scores indicate high levels of psychopathic traits. In prior research, internal consistency of the scale was good ( $\alpha=.77-.88$ ; Stanley et al., 2013). In the current research, Cronbach's alpha values were:  $\alpha=.79$  (disinhibition),  $\alpha=.83$  (boldness) and  $\alpha=.84$  (meanness). The internal consistency of the TriPM was  $\alpha=.87$ .

#### Motivation

Motivation was assessed by the Achievement Goal Questionnaire-Revised (AGQ-R; Elliot & Murayama, 2008). This self-report questionnaire consists of 12 items divided into four sections: mastery-approach goal items ( $\alpha=.84$ ); mastery-avoidance goal items ( $\alpha=.88$ );

performance-approach goal items ( $\alpha=.92$ ); performance-avoidance goal items ( $\alpha=.94$ ). Each item is rated on a five-point scale (1=strongly disagree; 5=strongly agree). Items were summed to calculate the mastery goal orientation and performance goal orientation. In the current research, Cronbach's alpha was .75 and .73 for Mastery Goal Orientation and 0.88 for Performance Goal Orientation.

### **Moral Disengagement**

Moral Disengagement was assessed by a 24 item self-report questionnaire developed by Detert, Treviño and Sweitzer in 2008, based on a similar measure developed by Bandura and colleagues (Bandura et al., 1996). The 24 items ( $\alpha=.87$ ) are divided into eight sub-components: moral justification; euphemistic labeling; advantageous comparison; displacement of responsibility; diffusion of responsibility; distortion of consequences; attribution of blame; dehumanization. Each item is rated on a five-point scale (1=strongly disagree; 5=strongly agree). The total score was used. High scores indicate high levels of moral disengagement. In the current research, Cronbach's alpha was 0.79.

### **Academic Dishonesty**

Academic dishonesty was assessed by a 26 item self-report questionnaire used in the work of Williams et al. (2014), coming from the dissertation of Broeckelman-Post's (2009). In Broeckelman's research work, the 26 typical behaviors of academic dishonesty are divided into four categories: academic misconduct, collaboration, copying sentences, and library misconduct. To measure the frequency of academic dishonesty, students were asked to rate (never=1; once=2, more than once=3) how often they had engaged in each of 26 behaviors during this year. High scores on this scale indicate a high frequency of dishonest behavior. Reliability is estimated for each category at 0.96, 0.78, 0.90 and 0.86 respectively. In the current research, Cronbach's alpha was .90.

### **Perception of Seriousness**

To measure the perception of seriousness of academic dishonesty, students were asked to rate how severe they thought the 26 behaviors of the academic dishonesty questionnaires were on a five point scale (1=not at all, 5=extremely serious cheating). High scores on this scale indicate that the student considers the behaviors listed as serious forms of academic dishonesty. The total score was used to calculate the frequency and perception of seriousness of academic dishonesty. In the current study, Cronbach's alpha for the perception of seriousness of academic dishonesty was  $\alpha=.94$ .

### **Statistical Analyses**

Analyses are conducted with R STUDIO (version 4.2.0, 2022). Models are fitted using SEM from the R package Lavaan (Rosseel, 2012). A correlation matrix is presented to show the simple association between the study variables. A path model will be done to test the main hypothesis: including both the direct effects model and the mediation. The first model will estimate the effect of all variables on academic dishonesty, as well as the effect of the TriPM

scales on all potential mediators. Mediation effects will be requested in Lavaan. Alpha levels are set at  $p < .05$ .

## Missing Data

### Outliers

Outliers were found in the questionnaire on the frequency of academic dishonesty (1.5 IQRs below the first quartile) and in the questionnaire on perception of seriousness of academic dishonesty (1.5 IQRs above the third quartile); however, they were interpreted as normal sample variation and kept in the dataset to conduct the analyses.

### Common Method Variance

In this study, Harman's (1976) single-factor test was employed to address the potential for response bias and assess the presence of common method bias. The outcome of the analysis of the questionnaire items revealed that a single factor (MR1) explained approximately 37% of the total variance in the dataset. This finding indicates that the common method bias was not a significant concern in this study, despite its presence.

## Results

Out of 295 participants in the study, several participants had omitted more than 40 answer (64 participants). The responses of 231 participants were analyzed. Table 1 shows the descriptive statistics and Table 2 shows the results of Pearson's correlations. In order to explore the cultural differences between the group of Italian and Dutch students a series of regression analyses were done. The results revealed that the Italian group deviated by reporting higher scores in the questionnaire that measured the perception of academic dishonesty. The overall regression was statistically significant ( $R^2 = 0.02$ ,  $F(1, 229) = 5.193$ ,  $p < .05$ ). It was found that the group variable significantly predicted the perception of seriousness of academic dishonesty. The coefficient for the group ( $\beta = 3.861$ ,  $p < .05$ ) indicates that, on average, Italian students group scored about 3.861 units higher than the Dutch students group. The sample of Italian students also reports higher scores on the motivation questionnaire ( $\beta = 1.531$ ,  $p < .01$ ); ( $R^2 = 0.045$ ,  $F(1, 229) = 10.82$ ,  $p < .01$ ). Furthermore, the results revealed that the Dutch group showed higher scores on the moral disengagement questionnaire ( $\beta = -4.500$ ,

**Table 1** Descriptive statistics

Variable	M	(SD)	Min	Max
Perception of AD	82.96	(20.25)	26	124
Academic Dishonesty	33.75	(7.86)	26	74
Mastery GO	22.42	(4.09)	11	30
Performance GO	19.72	(5.49)	6	30
Boldness	28.12	(8.92)	2	53
Meanness	12.49	(7.80)	0	44
Disinhibition	16.96	(7.63)	1	40
Psychopathy total	57.57	(17.08)	21	101
Moral Disengagement	51.17	(10.36)	25	81

Note. AD=Academic Dishonesty, GO=Goal Orientation

**Table 2** Correlations between the study variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Perception AD	--									
2. Academic Dishonesty	-0.17*	--								
3. Mastery GO	0.03	-0.01	--							
4. Performance GO	0.04	0.10	0.22**	--						
5. Boldness	-0.05	-0.02	-0.03	0.01	--					
6. Meanness	-0.16*	0.27**	-0.15*	0.15*	0.21	--				
7. Disinhibition	-0.12	0.38**	-0.08	0.09	0.02	0.51	--			
8. Psychopathy total	-0.15*	0.29**	-0.12	0.11	0.63	0.79	0.69	--		
9. Moral Disengagement	-0.16*	0.11	-0.06	0.19**	0.14*	0.48**	0.36**	0.45**	--	
10. Gender <sup>a</sup>	0.09	-0.10	0.06	-0.10	-0.23**	-0.42**	-0.13*	-0.37**	-0.18**	--
11. Age	-0.13	0.18**	0.17*	-0.00	0.00	0.02	0.01	0.02	-0.22**	-0.14*

Note.  $p < .05$ , \*  $p < .01$  \*\*. AD=Academic Dishonesty, GO=Goal Orientation

<sup>a</sup> 0=male; 1=female (five participants who defined themselves in another way were omitted for this correlation)

$p < .01$ ); ( $R^2 = 0.073$ ,  $F(1, 229) = 18.16$ ,  $p < .001$ ). No differences emerged in the scores of the questionnaires assessing psychopathy and the frequency of academic dishonesty.

A path model was run to test the hypotheses, including both the direct and mediating effects. The model had an overall good fit,  $\chi^2(3, 231) = 1.707$ ,  $p = .635$ , CFI = 1, TLI = 1.072, RMSEA<sub>90%CI</sub> = 0.000–0.089, SRMR = 0.014. Table 3; Fig. 1 show that neither Mastery Goal Orientation nor Moral Disengagement were predictors of Academic Dishonesty. However, Disinhibition and Perception of Seriousness were predictors in the expected directions. It also shown that Meanness is a predictor of Mastery Goal Orientation and Meanness and Disinhibition predicts Moral Disengagement.

Results of the mediation can be found in Table 4. Mediation analyses were conducted to test whether Mastery Goal Orientation, Moral Disengagement and Perception of Seriousness of Academic Dishonesty mediated the relationship between the three subscales of the TriPM and Frequency of Academic Dishonesty. The outcomes show no significant mediation effects.



**Table 3** Predictors of academic dishonesty, mastery goal orientation, perception of seriousness and moral disengagement

Predictors of Academic Dishonesty			
	Estimate	Z	p-value
Mastery Goal Orientation	0.066	0.567	0.571
Moral Disengagement	-0.067	-1.281	0.200
Perception of AD	<b>-0.048</b>	<b>-2.024</b>	<b>0.043</b>
Meanness	0.146	1.878	0.060
Disinhibition	<b>0.340</b>	<b>4.680</b>	<b>0.000</b>
Boldness	-0.043	-0.802	0.422
Predictors of Mastery Goal Orientation			
	Estimate	Z	p-value
Meanness	<b>-0.081</b>	<b>-1.979</b>	<b>0.048</b>
Disinhibition	0.001	0.020	0.984
Boldness	0.001	0.035	0.972
Predictors of Perception of AD			
	Estimate	Z	p-value
Meanness	-0.331	-1.644	0.100
Disinhibition	-0.144	-0.715	0.475
Boldness	-0.057	-0.374	0.708
Predictors of Moral Disengagement			
	Estimate	Z	p-value
Meanness	<b>0.520</b>	<b>5.766</b>	<b>0.000</b>
Disinhibition	<b>0.214</b>	<b>2.378</b>	<b>0.017</b>
Boldness	0.063	0.935	0.350

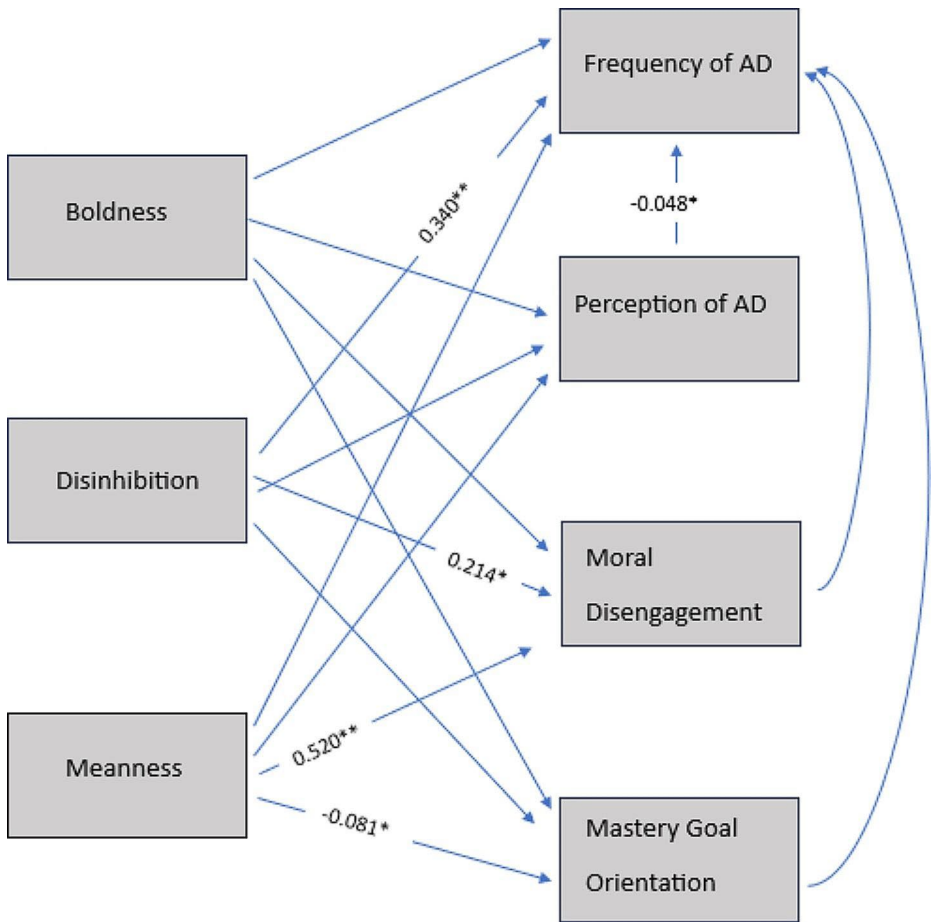
*Note.* The Estimate is similar to a non-standardized regression coefficient. Estimates in Bold were significant

## Discussion

The current study attempted to integrate several influential variables within a single model that elucidates academic dishonesty behaviors. By including traits of psychopathy, moral disengagement, motivation, and perceived seriousness of academic dishonesty, this integrative approach is a distinctive aspect of this research.

The first hypothesis on the association between the three subscales of the TriPM and academic dishonesty was partially confirmed. Pearson’s correlations showed that academic dishonesty correlates with the two scales of the Triarchic Psychopathy Measure: disinhibition and meanness. Although there was a positive correlation between meanness and academic dishonesty, the path model did not show meanness a significant predictor of academic dishonesty, pointing to the disinhibition as the only predictive psychopathy traits. Although perception of academic dishonesty negatively predicted dishonesty, neither this nor mastery goal orientation or moral disengagement were found to mediate the association between psychopathic traits and dishonest behavior.

The differential findings regarding the different psychopathy traits, are to some extent consistent with prior research. Several studies found that disinhibition was either a direct or indirect predictor, whereas meanness and boldness were either not, indirectly, or far less predictive of academic dishonesty (Baran & Johanson, 2020; Dias-Oliveira et al., 2022; Ljubin-Golub et al., 2020). This confirms that different factors of the Triarchic Model of Psychopathy might act differently in determining cheating behaviors. The current study however also did not find indirect effects of meanness or disinhibition on academic dishonesty.



**Fig. 1** Visual representation of the path model. *Note.*  $p < .05$ , \*  $p < .01$  \*\*

Another aspect the study focused on is students' perceptions of academic dishonesty and its relationship to the frequency of these behaviors. In line with our hypothesis, the perception of seriousness was significantly associated with the frequency of academic dishonesty, in such a way that those students who perceived the behaviors as being more serious, also had committed less of them in the past. This is line with prior research (Carpenter et al., 2006; Broeckelman-Post, 2009) showing the perceived seriousness of a behavior determines whether is enacted. These studies, however, did not simultaneously account for the influence of psychopathic traits and moral disengagement in students. This result shows that focusing on what behaviors students consider academic dishonesty and what they do not could help more reliably predict and prevent cheating behavior.

Although moral disengagement was predicted by meanness and disinhibition, it was not a predictor of academic dishonesty and there was no mediation effect. These findings are consistent with the results of Maftei and colleagues (2022) supporting the association between moral disengagement and psychopathy, and particularly the association with meanness traits as demonstrated by several studies that show how moral disengagement nega-

**Table 4** Mediation model: outcomes

Predictors	Mastery Goal Orientation		
	Estimate	Z	p-value
Meanness	-0.005	-0.545	0.586
Disinhibition	0.000	0.020	0.984
Boldness	0.000	0.035	0.972
	Moral Disengagement		
	Estimate	Z	p-value
Meanness	-0.035	-1.251	0.211
Disinhibition	-0.014	-1.128	0.259
Boldness	-0.004	-0.755	0.450
	Perception of AD		
	Estimate	Z	p-value
Meanness	0.016	1.276	0.202
Disinhibition	0.007	0.674	0.500
Boldness	0.003	0.368	0.713

*Note.* The Estimate is similar to a non-standardized regression coefficient. Estimates in Bold were significant

tively correlates with empathy (Detert, Trevino & Sweitzer, 2008; Concha-Salgado et al., 2022). Furthermore, the link with disinhibition traits adds support to the study of Yao et al. (2019) who found moral disengagement was associated with disinhibition and aggressive traits.

Finally, the last hypothesis of our research assumed a negative association between mastery goal orientation and academic dishonesty. Contrary to the results of prior research (Baran & Johanson, 2020), the current study does not support the association or mediation role of mastery goal orientation. However, this study used a different measure of academic dishonesty, which could in part account for the difference in results. There may however also be other motivations that trigger behaviors of academic dishonesty in different contexts or countries.

Both cultural differences and the timing of the current study, might also explain some of the differences found with previous research. Cultural differences and differences in the educational system (e.g., how a university communicates about cheating), may be highly relevant and might make it difficult to translate these findings to other countries. Similarly, with regard to COVID-19, many students were not on campus during at least part of their study, and communication about rules and regulations may have been less effective during this time. This makes a more direct comparison of results rather difficult.

Our research is not without limitations that need to be mentioned. The first limit is in the representativeness of the sample. In fact, most of the students come from the Faculty of Social and Behavioral Sciences. This could be a potential limitation as faculties might have different rates of cheating (e.g., Khalid, 2015, Harding et al., 2001). In a study conducted in 2015 by Hassall, Boduszek and Dhingra, faculty-to-faculty differences in the manifestation of psychopathy traits were highlighted. The presence of psychopathic traits, measured through self-report, exhibits higher levels in business students than psychology students in all four factors of the scale. These differences could be attributed to the fact that different faculties and consequently the potential of pursuing specific careers might attract students with different personality traits, and this could in turn have an influence on the enactment of academic dishonesty behaviors. The second limitation is the potential of socially desirable responding on self-report. However, this risk was minimized by giving students anonymity. Furthermore, official records or other more objective measures are likely to underesti-

mate cheating behaviors. Finally, the cross-sectional study design does not allow us to draw causal inferences. Although it seems logical to assume motivation influences cheating, it could be that the act of cheating also has an effect on a student's motivation.

The inclusion of samples from two different geographical origins brought out interesting distinctions. Studies highlight how cultural differences explain differences in academic dishonest behaviors (Hendy et al., 2021; Błachnio et al., 2022). Although the current study did not notably reveal variations in the occurrence of academic dishonest behaviors, pronounced differences emerged in the perceived severity of such actions and in motivation. Further differences between the two groups were found in the behaviors of moral disengagement reported. Future studies might consider investigating such differences in more diverse samples in order to gain more insight into this influence.

It is important to consider that the results of this study may have been partly influenced by the particular context of the COVID-19 pandemic. The pandemic has caused unprecedented change at all levels of society including schools, leading us to forced digitization and a different approach to the use of technology. The pandemic has underlined the need for clear guidelines and rigorous verification mechanisms (Janke et al., 2021). These measures are particularly useful not only for addressing the challenges posed by distance learning, which could potentially lead to an increase in academic dishonesty due to reduced monitoring, but also for raising awareness and promoting adherence to clear rules.

Well-defined rules and an informed approach by students appear to be the most effective approach to prevent academic dishonesty. A school environment where academic dishonesty is condemned, where there is a code of honor where rules are clearly explained and shared with students, and where there are consequences for cheating behavior, can be very helpful in preventing this problem (McCabe & Trevino, 1993; Isakov & Tripathy, 2017). It may be more difficult to tackle factors such as disinhibition, however, a clearer knowledge of the rules may also prevent those who are more disinhibited from acting impulsively. It might also be necessary to target messages about cheating at students who might be less inhibited (e.g., students with known issues that are associated with disinhibition, such as ADHD).

In conclusion, this study shows that among the various factors considered, the traits of psychopathy, particularly the aspect of disinhibition and students' perceptions of academic dishonesty are central in predicting academic dishonesty. However, meanness and boldness were not predictive of academic dishonesty (either directly or indirectly) and neither mastery goal orientation, nor moral disengagement were associated or mediators of the association. Disinhibition and knowledge of seriousness of cheating behavior may therefore be the best targets on an individual level to prevent cheating behaviors.

**Author Contributions** Chiara Luisa Sirca: Conceptualization; data curation; formal analysis; methodology; project administration; writing – original draft. Eva Billen: Conceptualization; methodology; supervision; writing; review and editing.

## Declarations

**Conflict of Interest** Nothing to declare.

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