

Examining the cheats: The role of conscientiousness and excitement seeking in academic dishonesty



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This study examines the relationships of the personality traits of conscientiousness and excitement seeking with self-reported frequency of premeditated cheating in tests and exams among university students. The results show that the two traits combine to account for a statistically and practically significant proportion of variance in academic cheating. It appears that a lack of effort and a need for high excitement seeking may serve as predisposing traits with regard to academic cheating. A model of the role that the two traits may play in explaining academic cheating is presented.

Keywords: academic dishonesty; Big Five model; cheating; conscientiousness; excitement seeking; procrastination; self-control

The act of cheating during tests, by copying from another person or using pre-prepared notes, deliberate plagiarising or buying assignment papers, are all acts which fall under the umbrella term of academic dishonesty (Pino & Smith, 2003). Such deviance appears to be a pervasive and perhaps growing problem in higher education settings. Although there is little research on academic dishonesty in the South African context, it is regarded as an extensive problem in the USA (see Bolin, 2004; Dawkins, 2004; McCabe, Trevino, & Butterfield, 2001). In this article, we attempt to establish links between the personality traits of Conscientiousness and Excitement seeking and premeditated cheating in tests and examinations in the hope that it will lead to a deeper understanding of the phenomenon of academic dishonesty.

Research has uncovered a number of demographic and person variables related to academic dishonesty. Specifically, men, younger students, students with lower grades

and ability, and students who live in residences are more likely to engage in dishonest academic behaviour than women, older students, students with better grades and ability, and students who do not live in residences (Bolin, 2004; Dawkins, 2004; Jensen, Arnett, Feldman, & Cauffman, 2002; Pino & Smith, 2003). Peer approval of dishonesty and peer cheating are also positively related to academic dishonesty (McCabe & Trevino, 1997; McCabe et al., 2001).

Although research has revealed a relatively consistent picture with regard to the demographic and person variables listed above, less is known about the role of personality traits in the explanation and prediction of academic dishonesty. Two personality traits that have received some attention within the context of academic dishonesty, however, are lack of self-control and academic procrastination. The role of these two traits is briefly explored below, and their relationships to the so-called Big Five model of personality, which represents a comprehensive and integrative model of personality traits, are discussed.

Bolin (2004) drew on the general theory of crime (Gottfredson & Hirschi, 1990) in his attempt to shed light on the relationship between personality and academic dishonesty. This theory posits that deviant behaviour (of which academic dishonesty is an example) is caused by a lack of self-control, perceived opportunity for deviant behaviour, and the interaction of the two (Gottfredson & Hirschi, 1990). Individuals with a lack of self-control are thought to be predisposed to deviant behaviour and could find it difficult to resist when opportunities for deviance arise. Bolin (2004) reported a positive relationship between lack of self-control and academic dishonesty, but found that attitudes toward academic dishonesty mediated this relationship. Similarly, attitudes toward academic dishonesty mediated the relationship between perceived opportunity and academic dishonesty. In a related study, Jensen et al. (2002) reported a negative relationship between self-restraint (the opposite of lack of self-control) and academic dishonesty. A positive relationship between tolerance of deviance and academic dishonesty was also found. Taken together, these two studies suggest that individuals with low self-control and with positive attitudes toward deviant behaviour are more likely to engage in academic dishonesty when presented with opportunities than individuals with high self-control and negative attitudes toward deviant behaviour.

The second personality trait that has received some research attention is academic procrastination, which can be defined as 'the purposive delay in beginning or completing academically-related tasks' (Ferrari & Beck, 1998, p. 529). Academic procrastination appears to be relatively common among university and college students, and is a common precursor to academic dishonesty (Roig & DeTomasso, 1995). The primary reasons for engaging in procrastination appear to be fear of failure and avoidance of aversive tasks. The consequences of academic procrastination include being poorly prepared for tests and examinations, increased test anxiety, failure to meet deadlines for assignments, poor writing skills, and lower grades (Ferrari & Beck, 1998; Fritzsche, Young, & Hickson, 2003; Johnson & Bloom, 1995; Roig & DeTomasso, 1995). Procrastination is a relatively stable personality variable (cf. Johnson & Bloom, 1995) that can be imbedded as a facet in

more comprehensive and general models of personality traits, such as the Big Five model of personality (cf. De Raad & Perugini, 2002; McCrae & Costa, 1985) or Eysenck's three-factor model of personality (Eysenck & Eysenck, 1985). From this perspective, some people are consistently more likely than others to procrastinate, and to do so in a variety of situations.

It is potentially fruitful to relate lack of self-control and academic procrastination to the factors of the Big Five model of personality. This model, which emerged strongly during the 1980s and 1990s as an integrative trait model of personality, posits that individual differences in personality can be adequately and comprehensively described in terms of five broad traits. Although different authors have labelled the five traits differently, they are often referred to as Extroversion, Neuroticism (or Emotional stability), Agreeableness, Conscientiousness, and Openness to Experience (or Intellect or Culture).

These five broad traits have been identified by the factor analysis of self-reports to personality descriptive adjectives in many different languages (cf. De Raad, 2000; Goldberg, 1990) and in self-reports to personality questionnaires (cf. Costa, McCrae, & Jónsson, 2002). A comprehensive programme of factor analytic studies by McCrae and Costa (1985) have established that almost all traits measured by personality questionnaires can be located within the factor space defined by the Big Five. The advantage of locating personality traits within this space is that researchers can share a similar language, it is parsimonious, communication is improved, repetition is avoided, and the traits' meanings are illuminated. In this regard, the Big Five may be seen as an organiser in the field of personality research (De Raad & Perugini, 2002).

The two traits that have been discussed with regard to academic dishonesty, namely lack of self-control and academic procrastination, can be seen as components or indicators of the broad Conscientiousness trait of the Big Five. Conscientiousness is thought to reflect an individual's '... amount of persistence, organization, and motivation to succeed in goal-directed endeavours' (Piedmont, 1998, p. 27). Individuals high in Conscientiousness are expected to be industrious, orderly, reliable, decisive, and self-disciplined (Roberts, Chernyshenko, Stark, & Goldberg, 2005). Seen against this background, individuals who tend to procrastinate and who are low in self-control are likely to be low in Conscientiousness. Indeed, procrastination can be seen as the opposite of dutifulness, and low self-control as the opposite of self-discipline. Hence, procrastination and low self-control can be seen as manifestations or indicators of low Conscientiousness.

Conscientiousness has been linked to academic achievement. For instance, Paunonen and Ashton (2001) reported a positive correlation of 0.21 between Conscientiousness and academic achievement, and Chamorro-Premuzic and Furnham (2003) reported positive correlations as high as 0.39. This positive relationship can be attributed to the hard-working and self-disciplined nature of highly conscientious individuals (Chamorro-Premuzic & Furnham, 2003).

In the workplace, Conscientiousness is negatively related to undesirable work behaviours, such as absenteeism, dishonesty, and destructive behaviours, and positively

related to work-related integrity, job success and job satisfaction (Salgado, 2003; Wanek, Sackett, & Ones, 2003). Recent research by Nonis and Swift (2001) showed a strong positive correlation between academic dishonesty and work place dishonesty ($r = 0.66$ for undergraduate students and $r = 0.61$ for graduate students). These correlations suggest that dishonesty is a relatively stable characteristic that manifests in behaviour across different contexts.

Although not emphasised in research on academic dishonesty, Excitement seeking is another personality variable that can be related to academic dishonesty. Excitement seeking is conceptualised by Costa et al. (2002) as a facet of the broader Extroversion trait and is characterised by a need for thrills, risk-taking and strong stimulation (Piedmont, 1998). Excitement seeking appears to be closely related to Zuckerman's (1994) trait of sensation-seeking, which has been linked to legal, social, financial, and recreational risk-taking behaviour (Horvath & Zuckerman, 1993; Roberti, 2004). Hence, one expects individuals who have high standings on the Excitement seeking trait to be more willing to take the risks involved in academic dishonesty. In contrast, individuals with low standings see the potential risks involved as too great — even if they are tempted to engage in academic dishonesty.

Given the background sketched above, it was our aim to investigate the relationship between academic dishonesty and the personality variables of Conscientiousness and Excitement seeking. It was hypothesised that Conscientiousness and Excitement seeking are significant predictors of academic dishonesty in tests and examinations. Specifically, the hypothesis was that Conscientiousness will have a significant negative relationship with academic dishonesty, whereas Excitement seeking will have a significant positive relationship with academic dishonesty. It is recognised that other personality variables not included in this study also contribute to the understanding of academic dishonesty, but the traits of Conscientiousness and Excitement seeking appear to be particularly relevant and serve to give a theoretically meaningful and compact account of the role of personality in cheating.

METHOD

Participants

In total, 683 second-year psychology students (425 white, 120 black, 83 Indian, 46 coloured, and nine unspecified) participated in this study at a bilingual (Afrikaans and English) university in Johannesburg, South Africa. There were 142 men and 538 women and three participants whose gender was unknown to us. Participants' mean age was 20.99 with a standard deviation of 5.10. Participation was voluntary and data were treated confidentially. These participants were clearly not representative of all university students in South Africa, with men and black students being under-presented. The surveys were handed out during

classes and students were given several days to complete them. To mediate the effects of possible social desirability, all surveys were completed anonymously.

Measures

Conscientiousness was measured with the Basic Traits Inventory (BTI), (Taylor & De Bruin, 2003), which was constructed to provide measures of the five factors of the Big Five model in the South African context. The Conscientiousness scale consists of five subscales or facets, namely Effort, Order, Dutifulness, Prudence, and Self-discipline. The items in the scale were selected on the basis of Rasch analyses and item factor analyses. Factor analyses of the facets have shown that their covariances are dominated by a single Conscientiousness factor. This factor manifests in the same way for white and black South Africans (De Bruin, Schepers, & Taylor, 2005; Ramsay, Taylor, De Bruin, & Meiring, 2005; Taylor & De Bruin, 2004). In three separate studies, the coefficients of congruence of the Conscientiousness factor for whites and blacks were > 0.90 . The reliability indices of the facets and the total scale were all satisfactory, and estimated by Cronbach's alpha for the present participants as: Effort, $\alpha = 0.87$; Order, $\alpha = 0.88$; Dutifulness, $\alpha = 0.82$; Prudence, $\alpha = 0.78$; Self-discipline, $\alpha = 0.82$; and Total Conscientiousness scale, $\alpha = 0.94$. A sample item of the Conscientiousness scale is 'I finish my tasks on time'. All items are answered on a five-point Likert-type scale, with responses ranging from Strongly disagree to Strongly agree.

Excitement seeking was measured with the Excitement seeking facet of the Extroversion scale of the BTI. The Cronbach's alpha reliability coefficient of this eight-item scale was 0.85. Sample items of this facet include 'I like to take risks for fun', 'I like to do things that are a little bit frightening', and 'I like sports with an element of danger'. Responses to these items show a good fit to the Rasch rating scale model and a single common factor model, which suggests that the items are dominated by a strong common theme.

Academic dishonesty was assessed with a single question: 'Approximately how many times in your life have you engaged in premeditated cheating in tests or exams?' Responses to this question were categorised into three ordinal categories as described in the results section.

RESULTS

The first step in the data analysis process was to examine the distribution of responses to the academic dishonesty question. Self-reported frequencies of premeditated cheating in tests and examinations ranged between 0 and 50 occurrences of cheating. The median and the mode were both equal to 0. Visual inspection and the skewness coefficient of 7.44 showed that the academic dishonesty variable was heavily positively skewed. Moreover, the large kurtosis coefficient of 81.359 confirmed that it would be inappropriate to use self-reported frequency of cheating as a normally distributed continuous variable. It was decided to

divide the variable into three ordered categories, namely (a) no cheating (individuals who indicated that they have never cheated, $n = 425$), (b) limited cheating (individuals who indicated that they have cheated between one and three times, $n = 200$), and (c) more cheating (individuals who indicated that they have cheated four or more times, $n = 58$).

As a second step, the three groups were compared with regard to Conscientiousness and Excitement seeking. The standardised means and standard deviations of the two personality variables for each of the groups are given in Table 1. The correlation between Conscientiousness and Excitement seeking was statistically significant ($r = -0.163$, $p < 0.001$), showing a relatively small negative relationship between the two variables. Inspection of the standardised means in Table 1 shows a pattern where higher frequencies of cheating in tests and examinations appear to be related to lower Conscientiousness and higher Excitement seeking.

Table 1. Descriptive statistics for the Excitement seeking and Conscientiousness scales

Personality trait	No cheating ($n = 427$)		Limited cheating ($n = 200$)		More cheating ($n = 58$)	
	Mean	SD	Mean	SD	Mean	SD
Excitement seeking	-0.118	0.991	0.121	0.969	0.451	1.007
Conscientiousness	0.122	1.015	-0.147	0.940	-0.388	0.927

To test whether these observed differences between the three groups of participants were statistically significant, the data were subjected to a discriminant function analysis, which produced a statistically significant discriminant function [$\chi^2(4) = 35.910$, $p < 0.001$; Wilks' $\Lambda = 0.945$]. The canonical correlation between cheating and the composite variable of Conscientiousness and Excitement seeking was 0.226, which shows that the linear combination of the two personality variables shared approximately 5.1 per cent of its variance with cheating in tests and examinations. Inspection of the discriminant structure matrix showed strong correlations between the two personality variables and the discriminant function: Conscientiousness ($r = -0.749$) and Excitement seeking ($r = 0.760$). The corresponding standardised canonical discriminant function coefficients were -0.657 for Conscientiousness and 0.669 for Excitement seeking. These findings show that Conscientiousness and Excitement seeking contributed about equally to the separation of the three groups.

For Conscientiousness and Excitement seeking, *post hoc* Tukey tests showed statistically significant differences ($p < 0.05$) between the no cheating and limited cheating groups, and the no cheating and more cheating groups, but not between the limited and more cheating groups ($p > 0.05$). The positive relationship between Excitement seeking and academic dishonesty and the negative relationship between Conscientiousness and academic dishonesty is clearly depicted in Figures 1 and 2, respectively.

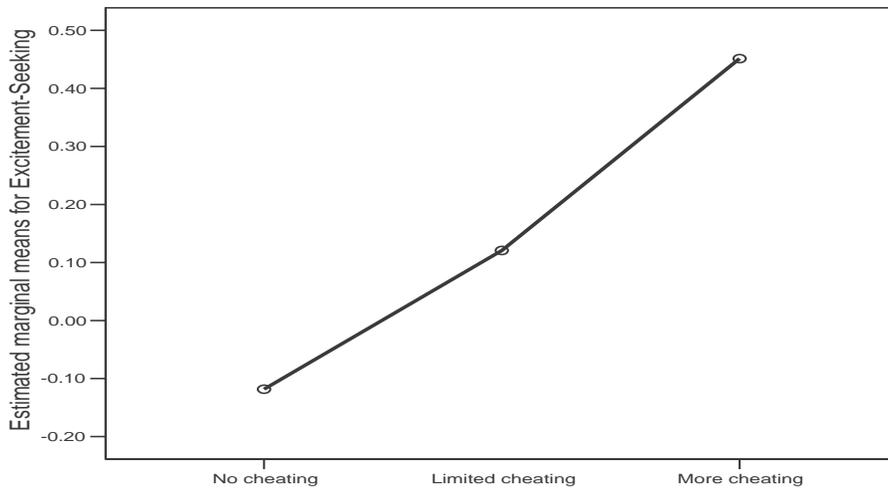


Figure 1. The relationship between academic cheating and Excitement seeking

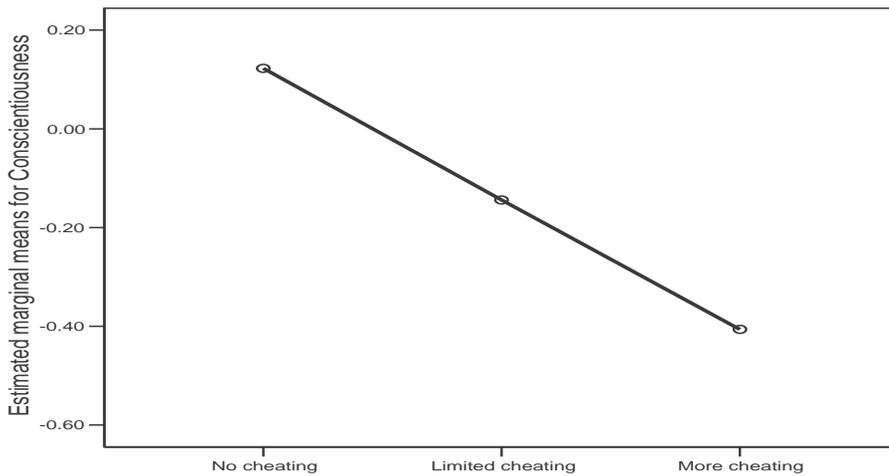


Figure 2. The relationship between academic cheating and Conscientiousness

To shed more light on which of the Conscientiousness facets contributed most to the explanation of academic dishonesty, the three groups of students were compared with

regard to these facets by means of a discriminant function analysis. The discriminant function was statistically significant [$\chi^2(10) = 31.597, p < 0.001$]. The canonical correlation between academic dishonesty and the combination of the Conscientiousness facets was 0.205, showing a 4.2% variance overlap. Inspection of the discriminant structure matrix shows the following correlations between the Conscientiousness facets and the discriminant function: Effort, $r = 0.902$; Order, $r = 0.399$; Dutifulness, $r = 0.700$; Prudence, $r = 0.724$; and Self-discipline, $r = 0.586$. Effort clearly contributed the most in discriminating between the three groups of students. By specifying Effort as the only independent variable in the discriminant analysis, a canonical correlation of 0.193 was obtained, which is almost as strong as the canonical correlation obtained with all five facets as independent variables.

DISCUSSION

The aim of this study was to examine among university students the relationship between premeditated cheating in tests and examinations and the personality variables of Conscientiousness and Excitement seeking. It was hypothesised that the cheating variable would be positively related to Excitement seeking and negatively related to Conscientiousness. Below, we first discuss the prevalence of premeditated cheating in tests and exams in our group of participants, following which we discuss our findings with regard to the personality traits against the background of the stated hypotheses and previous research findings.

The results showed that a relatively large proportion of the participants had cheated at least once during their academic career (approximately 38%). This result corresponds well with that reported by Whitley (1998), whose review of 107 studies in the USA revealed a mean of 43% for the prevalence of cheating in tests and examinations. Note, however, that our question asked about the frequency of premeditated cheating in tests and exams in the students' entire academic careers and not just while at university. This is a potential weakness of our study since it is conceivable that individuals might change over time with regard to academic dishonesty. Nonetheless, the self-reported frequency of cheating is undesirably high and underscores the need for research on academic dishonesty.

The results of a discriminant function analysis showed statistically significant differences between three groups of students (no cheating, limited cheating, and more cheating) with regard to Conscientiousness and Excitement seeking. These differences were in the expected direction, supporting our hypotheses of a statistically significant negative relationship between academic dishonesty and Conscientiousness and a statistically significant positive relationship between academic dishonesty and Excitement seeking. The discriminant function analysis showed that both personality variables contributed strongly and about equally to the separation of the three groups of students.

The canonical correlation between academic dishonesty and the two personality variables indicated an overlap of approximately 5.1% of the variance in cheating and the linear combination of Conscientiousness and Excitement seeking. This relationship seems

disappointingly weak at first glance, but at least two factors need to be taken into account in interpreting it. First, the relationship between personality traits and behaviour is likely to be strongest when there are limited environmental constraints on behaviour. However, in test and examination situations there usually are very clear and rigid rules on how individuals should behave, of which the most prominent and obvious is that individuals should not cheat. The penalty for disobeying this rule can be severe, and it can be safely assumed that students will be aware of this. Hence, in test or examination situations, one expects limited opportunities for the natural expression of personality traits such as low Conscientiousness or high Excitement seeking, which leads to the attenuation of the relationship between the traits and behaviour.

Second, it is informative to interpret the strength of the obtained effect against the background of other findings regarding personality traits and risky misconduct, dishonest, or counterproductive behaviour. For instance, Jensen et al. (2002) reported a 4% overlap for men and a 12% overlap for women with regard to academically dishonest behaviour and the trait of self-restraint (which can be seen as a blend of Conscientiousness and Excitement seeking). In a different context, but still with regard to unacceptable risk behaviour, Glicksohn, Ben-Shalom, and Lazar (2004) reported correlations of 0.17 (approximately 3% overlapping variance), -0.16 (approximately 3% overlapping variance), and 0.19 (approximately 4% overlapping variance) between risk-taking misconduct in the military and the Eysenck Psychoticism scale (Eysenck, Eysenck, & Barrett, 1985), the Eysenck Lie scale (Eysenck et al, 1985), and the Zuckerman Boredom Susceptibility scale (Zuckerman, 1979), respectively. Integrity tests, which are saturated with Conscientiousness (Ones, Viswesvaran, & Schmidt, 1993), show correlations of 0.27 (approximately 7% shared variance) with counterproductive workplace behaviours (Sackett & DeVore, 2001). Seen against the background of these studies, the strength of the relationships obtained in the present study appears to be in the appropriate range.

To obtain a more fine-grained view of the role of Conscientiousness in academic dishonesty, we performed a discriminant function analysis with the five facets of the Conscientiousness scale as the independent variables. This analysis showed that the discriminant function was heavily saturated with and almost identical to the Effort facet, suggesting that a lack of effort with regard to the completion of tasks could play a critical role in understanding academic dishonesty. The canonical correlation of the Effort facet and academic dishonesty was 0.193, which is almost as strong as the canonical correlation of all five Conscientiousness facets and academic dishonesty ($r = 0.208$). This shows that, after taking the role of Effort into account, the remaining facets contribute very little to the explanation of academic dishonesty.

Overall, the results of this study supported our hypotheses and added an additional application for the Five-factor model of personality. On the basis of our results and previous findings, we offer the following tentative explanation of premeditated cheating in tests and exams from a personality perspective. First, students who are low on Conscientiousness are generally more likely to procrastinate on academic tasks and not to put in enough effort

in preparing for tests and examinations than students who are high on Conscientiousness. This is likely to lead to situations where the student low on Conscientiousness is poorly prepared for such evaluations, which leads to unsatisfactory academic performance and increased pressure to perform better in subsequent tests or exams. Students who are repeatedly poorly prepared for tests or exams may search for alternative ways in which to perform well. Because students who are low on Conscientiousness also tend to be less disciplined and concerned about rules than individuals high on Conscientiousness, cheating might be considered as a potential solution to their problems. If these students are high on Excitement seeking, they might rate the risks involved in cheating as low, making them particularly vulnerable to dishonest academic behaviour if the opportunity presents itself. Hence, the combination of low Conscientiousness and high Excitement seeking can be regarded as a risk factor in academic dishonesty.

Although there is certainly a range of situational and dispositional variables that induce someone to cheat during an evaluation, relatively stable personality differences have a discernible impact on the event. Knowing who is most at risk for dishonesty on the basis of personality begs the question 'What to do about it?' No literature was found, from South Africa or abroad, that effectively answers this question. Despite the potentially serious consequences of academic dishonesty, it would be offensive to provide any kind of support to those at risk as a preventative measure. If programmes are to be provided, such as codes of honour, which are common in many foreign universities (McCabe et al., 2001), these should be offered to all students. In the final analysis, the information regarding the personality dimensions of high-risk cheats is valuable mostly on a theoretical level and contributes to a better understanding of the role that personality plays in risky behaviours.

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