Big Five personality and academic dishonesty: A meta-analytic review

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ABSTRACT

Academic dishonesty is widespread within secondary and higher education. It can include unethical academic behaviors such as cheating, plagiarism, or unauthorized help. Researchers have investigated a number of individual and contextual factors in an effort to understand the phenomenon. In the last decade, there has been increasing interest in the role personality plays in explaining unethical academic behaviors. We used meta-analysis to estimate the relationship between each of the Big Five personality factors and academic dishonesty. Previous reviews have highlighted the role of neuroticism and extraversion as potential predictors of cheating behavior. However, our results indicate that conscientiousness and agreeableness are the strongest Big Five predictors, with both factors negatively related to academic dishonesty. We discuss the implications of our findings for both research and practice.

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1. Introduction

The prevalence of academic dishonesty among high school and college students is well-documented. In a recent survey of over 20,000 American high school students (Josephson Institute, 2012), 51% admitted to cheating on a test, 74% had copied another student's homework, and 32% had copied an Internet document for a classroom assignment. Whitley's (1998) review of cheating among college students indicated that approximately 43% had cheated on exams, 41% had cheated on homework, 47% had plagiarized, and 70% had engaged in at least one form of academic dishonesty. More recent evidence confirms earlier estimates. McCabe (2005) surveyed over 64,000 undergraduates at U.S. and Canadian institutions from 2002 to 2005. Self-reports of cheating ranged from 3% to 42%, depending on the specific cheating behavior. Clearly academic dishonesty remains a significant issue on both high school and college campuses.

Research on academic dishonesty (e.g., Crown and Spiller, 1998; McCabe and Trevino, 1997; Whitley, 1998) has focused on understanding the individual and contextual factors that influence it. For example, individual characteristics such as gender, age, ability, personality, and extracurricular involvement as well as situational factors such as honor codes, penalties, and risk of detection have been shown to relate to cheating. Within personality, researchers have examined a number of traits, including locus of control and Type A personality.

Over the past few decades, the five-factor (Big Five) model has emerged as one of the dominant models of personality (Digman, 1990). The Big Five factors include neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. The five-factor model has been widely used to predict both academic performance (Poropat, 2009) and job performance (Shaffer & Postlethwaite, 2012). Williams, Nathanson, and Paulhus (2010, p. 295) observe that "given the consensus on their importance, it is surprising how few studies of personality and scholastic cheating have included the Big Five traits. Of the five, only extraversion and stability (vs. neuroticism) have received any attention." Long before the five-factor model emerged, researchers examined the roles extraversion (Brownell, 1928) and neuroticism (Campbell, 1933) play in college cheating. Despite this early interest, it has not been until the last decade that all of the Big Five traits have received regular attention in the cheating literature.

However, there is significant variability in the research results. For example, extraversion has been found to be both positively ($r = +.13$; Gallagher, 2002) and negatively ($r = -.21$; Salgado et al., 2014) related to academic dishonesty. While most studies have found negative relationships between conscientiousness and cheating, these estimates have spanned the range from $-.08$ (Clause, 2004) to $-.37$ (Curtis, 2013). Similar variability is evident with neuroticism, openness, and agreeableness. Taken together, this variability impedes the ability to draw meaningful conclusions regarding the true relationship between the Big Five factors and academic dishonesty.

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Meta-analysis (Schmidt & Hunter, 2015) is an ideal tool to synthesize seemingly divergent findings. By combining results across studies, meta-analysis corrects for bias due to sampling error. Further, it allows results to be corrected for bias due to measurement error and other statistical artifacts. Thus, meta-analysis provides more accurate estimates of relationships between constructs than any single primary study.

In the current study, we meta-analyze the relationship of each of the Big Five personality traits with academic dishonesty. As the first meta-analysis of these relationships, our study fills a void in the literature by providing more precise and accurate estimates than are currently available. As such, our results contribute to a better understanding of the individual factors that influence unethical behavior. We begin by developing a theoretical rationale for how each of the Big Five traits relates to academic dishonesty. Next, we present the results of our meta-analysis. We conclude by discussing the implications of our findings for research and practice.

2. Relationships of personality with academic dishonesty

In the section that follows, we discuss the nature of each Big Five trait and how it theoretically and empirically relates to academic dishonesty. We also draw on related research from work and criminology that may inform our expectations regarding these relationships. Previous research (e.g., Salgado, 2002) has established the usefulness of the Big Five for predicting counterproductive behavior in the workplace, that is, "any intentional behavior on the part of an organization member viewed by the organization as contrary to its legitimate interest" (Sackett & DeVore, 2001). This can include theft, property damage, and organizational rule breaking. Universities likely find academic dishonesty as contrary to their interest in student learning and achievement. Poropat (2009, p. 331) finds that "with respect to the role of personality, 'school' becomes more like work as students progress through their academic careers." Indeed, students who cheat in an academic context are more likely to do so at work (Blankenship & Whitley, 2000; Nonis & Swift, 2001; Stone, Jawahar, & Kisamore, 2011). Similarly, research in the field of criminology (e.g., Miller and Lynam (2001)) has demonstrated the role of certain Big Five factors in predicting anti-social behavior such as delinquency, crime, and violence.

2.1. Neuroticism

Neurotic individuals have a tendency to experience negative emotional states such as anxiety, guilt, insecurity, and self-pity. Their moods also tend to be volatile and their behavior impulsive. They are more susceptible to psychological stress, as they "are likely to interpret ordinary situations as threatening, and can experience minor frustrations as hopelessly overwhelming" (Widiger, 2009, p. 129). Neurotic individuals also cope poorly with stress. Neuroticism is associated with coping strategies such as denial, withdrawal, and wishful thinking (Carver & Connor-Smith, 2010).

The neuroticism trait emerged prior to the advent of the five-factor model. In an early example, Campbell (1933) found that neurotic individuals were more likely to cheat on exams, engaging in behaviors such as using prepared notes, using a textbook, or exchanging answers with other students. Such behavior is not surprising given what we now understand about neurotic individuals. Those high in neuroticism are likely to interpret difficult assignments and exams not as a challenge, but as a threat, and may be easily overwhelmed by the demands. Unfortunately, their favored coping strategies may provide a temporary escape from stress, but are not effective long term. Carver and Connor-Smith (2010, p. 686) note that "the longer one avoids dealing with the problem, the more intractable it becomes and the less time is available to deal with it when one finally turns to it." Indeed, previous meta-analytic research has shown that neurotic individuals are more likely to procrastinate ($\rho = .28$, $k = 59$; Steel, 2007).

Thus, as a due date looms, neurotic individuals may now have insufficient time to properly prepare and complete the assignment or exam successfully. Under pressure, they may view cheating as an alternate path to achievement, particularly given that neurotic individuals are more concerned with performance than they are with learning. Neuroticism is the Big Five trait with the strongest relationship with performance goal orientation (Payne, Youngcourt, & Beaubien, 2007), specifically for gaining favorable assessments ($\rho = .32$, $k = 10$) and avoiding negative assessments ($\rho = .37$, $k = 5$) of their performance.

Consistent with this theoretical rationale, many studies (e.g., Clark, 2011; Nguyen & Biderman, 2013; Stone, Jawahar, & Kisamore, 2010) have reported a small to modest positive relationship between neuroticism and academic dishonesty. However, some studies have found a small negative relationship (e.g., Clariana, 2013; Williams et al., 2010) or no relationship at all (Curtis, 2013; Salgado et al., 2014). Meta-analytic evidence outside the academic context shows that neuroticism is positively related to deviant workplace behavior ($\rho = .06$, $k = 15$; Salgado, 2002) as well as anti-social behavior ($r = .12$, $k = 14$; Miller & Lynam, 2001). Consequently, we expect neuroticism to demonstrate a positive relationship with academic dishonesty.

2.2. Extraversion

Individuals high in extraversion enjoy being in social situations. They are characterized by warmth, positive affect, high energy, assertiveness, and an outgoing nature. Some conceptualizations of extraversion (e.g., Costa & McCrae, Cattell) also include facets related to excitement-seeking, while others (e.g., Hogan, Tellegen) include facets related to ambition (Watson & Clark, 1997). Like neuroticism, extraversion was conceptualized prior to the advent of the Big Five, and thus, has a history of investigation with respect to academic dishonesty (e.g., Brownell, 1928).

The excitement-seeking facet of extraversion provides the strongest rationale for linking this trait to cheating. Individuals high in excitement-seeking are risk-takers who seek out thrills and stimulating environments (de Bruin & Rudnick, 2007). Indeed, de Bruin and Rudnick (2007) found that higher excitement seeking related to higher frequencies of cheating on exams. However, there is more direct evidence on the related construct of sensation-seeking (e.g., Zuckerman, 1979) and academic dishonesty.

Aluja, García, and García (2003) have shown that sensation-seeking is related to extraversion ($r = .34$) and, in particular, its facet of excitement-seeking ($r = .58$). Like individuals high in excitement-seeking, individuals high in sensation-seeking require strong environmental stimulation and will take risks to meet this need. In part, this is because they view risk differently. They tend to appraise situations as less risky and threatening than those low in sensation-seeking (Roberti, 2004). Thus, while some students may see engaging in academic dishonesty as a risky behavior likely to result in penalties, high sensation-seekers would perceive reduced risk, leading to increased cheating. In an experiment with undergraduates, DeAndrea, Carpenter, Shulman, and Levine (2009) found sensation seeking predicted cheating on an extra credit task. McTernan, Love, and Rettinger (2014) found sensation seeking predicted both academic and non-academic cheating in a general population sample.

Empirical results regarding extraversion and academic dishonesty as well as other forms of deviant behavior are varied. Most studies (e.g., Gallagher, 2002; Karim, Zamzuri, & Nor, 2009; Williams et al., 2010) have reported a small positive relationship