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Article

Other-rated personality and student cheating

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Abstract: Although considerable research has examined student cheating, relatively few studies have examined personality as an antecedent of student cheating. Its role in career success has been established. This is the first study to examine relationships between student cheating and personality assessed using a multi-perspective approach, i.e., peer, meta-perceptions and self-personality ratings. Results suggest this approach has implications for predicting student cheating and career success. We examine the ability of other-rated Big Five personality traits to account for more variance in student cheating and report cheating than self-rated personality ratings. Online surveys of 121 business college students and 357 other raters provided ratings of six personality traits, cheating attitudes, cheating behavior and reporting cheating. Regression and correlation analysis examined relationships between cheating and personality traits via a multi-perspectives approach: traditional self-ratings, meta-perceptions (how individuals think others view them), and other ratings. Our findings are consistent with the substantial literature demonstrating that personality ratings by others have stronger validity than traditional self-ratings. Specifically, others' ratings of peer personality traits and meta-perceptions accounted for additional variance in cheating behavior and reported cheating beyond traditional self-ratings. Consistent with virtually all studies of deviant behavior, conscientiousness was highly significant for cheating behavior and report cheating and marginally significant for attitude. Similarly, emotional stability was significant for cheating behavior and report cheating. These findings suggest the use of multi-perspective personality measures to predict outcomes such as cheating behaviors, as previous research has shown college cheating is associated with cheating at work and dysfunctional career consequences.

Keywords: personality; student cheating; career success; multi-perspectives approach

1. Introduction

Considerable research (Judge et al., 1999; Iliescu et al., 2023) has demonstrated significant, long-term effects of the Big Five personality traits on both intrinsic and extrinsic indicators of career success. For example, an early study (Judge et al., 1999) stated, "The longitudinal consistency of these traits helps explain why behaviors reflected in the Big Five constructs are able to predict career success up to 50 years later." (p. 646). Our study examines the ability of other ratings of personality to explain cheating attitudes, behaviors and willingness to report cheating. We contend that this behavioral sign, cheating, is an important predictor of career success or a career derailer (Chamorro-Premuzic, 2017). Seibert et al. (2001, p. 2) defined career success

as "the positive psychological and work-related outcomes accumulated as a result of one's work experiences."

Objective career success can be externally verified by variables such as pay, hierarchical position, status, or promotions. Subjective career success is a self-evaluation of career progress by an individual, such as career satisfaction (Ng et al., 2005). Career satisfaction measures the extent to which individuals believe their career progress is consistent with their goals, values, and preferences (Ng et al., 2005; Seibert et al., 2001). Unethical behaviors, such as student cheating, lead to reputational damage that undermines long-term career success (Treviño and Nelson, 2016). A thorough understanding of the antecedents to cheating is critical, therefore, for efforts aimed at counseling students and curbing cheating in educational settings. Understanding antecedents of cheating is important for careers, as research suggests that students who cheat in school are more likely to engage in unethical behavior at work (Ariely, 2012; Stone and Jawahar, 2015). Cheating in school, i.e., a behavior sample, is a likely precursor to engaging in unethical behaviors at work and thus may threaten workers' career success and pose risks for organizational ethical violations. We expand current research examining relationships between personality and academic integrity, specifically, student cheating and reporting cheating.

As part of schools' and organizations' efforts to create and maintain ethical workplaces, it is important to select and train people who are willing to report cheating and unethical work behaviors (Treviño and Nelson, 2016). Although few studies have examined reporting cheating in schools, we contend that student reporting cheating (McCabe et al., 2012; Kisamore et al., 2007; Stone et al., 2012), is analogous to whistleblowing (Bjørkelo et al., 2010) in organizations.

A substantial number of studies have examined student cheating and plagiarism (e.g., Lee et al., 2020; McCabe et al., 2012). Three recent meta-analyses (Cuadrado et al., 2021; Giluk and Postlethwaite, 2015; Lee et al., 2020) examined relationships between personality, cognitive ability and various forms of academic misconduct. However, studies included in these meta-analyses relied only on self- reports of personality.

We build on this growing body of knowledge to examine if meta-perceptions and other ratings of personality explain additional variance in academic integrity beyond traditional self-reports of personality. We expect, consistent with previous research (Connelly et al., 2022; Foster et al., 2023), that other ratings and meta-perceptions can account for unique variance in important outcomes such as work performance ratings. For example, Foster et al. (2023) showed that meta-perceptions and other ratings predicted performance ratings for college students beyond traditional self-report personality ratings. These results suggest that the relationship between personality and important outcomes can often be complex and, therefore, not adequately accounted for using traditional self-report personality ratings alone. Given the importance of academic integrity and the potential value of identifying individuals who are more likely to be accepting of or engage in cheating behaviors, we use a multi-perspective approach, providing new insights into relationships between personality and indicators of academic integrity and discuss implications for careers.

2. Personality in academic integrity research

2.1. Personality and attitudes toward cheating and cheating behavior

Violations of academic integrity are a form of deviant or counterproductive behavior as it is an "intentional behavior … viewed by the organization as contrary to its legitimate interest" (Sackett and DeVore, 2001, p. 145). Academic integrity research (for example, see Giluk and Postlethwaite, 2015; Cuadrado et al., 2021) has frequently characterized cheating as a form of deviance. Understanding the antecedents of academic cheating, particularly in schools of business, is important for management education as research indicates violation of academic integrity is associated with unethical work behavior (Ariely, 2012; Nonis and Swift, 2001; Sims, 1993; Stone and Jawahar, 2015).

Although relatively few studies have examined personality as an antecedent of academic cheating, a recent meta-analysis (Ellen et al., 2021) found all Big Five traits were related to workplace deviant behavior, with conscientiousness and agreeableness accounting for the greatest variance. Three studies (Kisamore et al., 2007; Stone and Jawahar, 2015; Scrimpshire et al., 2017) found that students with lower scores on the Hogan Personality Inventory (Hogan and Hogan, 2007) Prudence scale, like conscientiousness, had higher levels of self-reported cheating. Individuals scoring low in prudence tend to be impulsive and careless about rules and venturesome, while high-prudence students are more likely to follow rules and resist pressures to cheat. Other studies (e.g., de Bruin and Rudnick, 2007) have reported a negative relationship between conscientiousness and academic dishonesty.

de Bruin and Rudnick (2007) found that high extraversion students are risk-takers who seek thrills and stimulating environments and are prone to cheating on exams. Neurotic individuals experience negative emotional states such as anxiety and insecurity, and are more susceptible to psychological stress (Widiger, 2009). Under pressure, they may view cheating as an alternate path to achievement (Giluk and Postlethwaite, 2015). Research (Giluk and Postlethwaite, 2015) also suggests that students high in openness are less likely to violate academic integrity.

Several recent meta-analyses have found relationships between a variety of personality factors and outcomes related to academic integrity, including academic misconduct (Cuadrado et al., 2021; Giluk and Postlethwaite, 2015) and cheating on homework and plagiarism (Lee et al., 2020). Cuadrado et al. found a strong negative association ($r = -0.34$) (Gignac and Szodorai, 2016) between conscientiousness and cheating, while extraversion had a positive relationship ($r = 0.19$). Lee et al. (2020) found similar results for conscientiousness, agreeableness and emotional stability. Consistent with this research, we expect that self-report personality ratings are correlated with indices of cheating.

Based on the foregoing analysis, we propose:

H1. *Self-reported ratings of conscientiousness and openness will be negatively related to attitudes toward cheating and cheating behavior, while extraversion and emotional stability will be positively related.*

2.2. Personality and report cheating

The few studies examining reporting cheating found students who observed cheating rarely report it.

For example, in two studies (Burton and Near, 1995; Nuss, 1984), only 3–5% of those who observed cheating said they would report it. Other studies (see Stone et al., 2009) also found very few students willing to report cheating.

Waltzer et al. (2022) reporting cheating study, citing two studies examining personality, concluded that future research should examine whether personality is an antecedent to the likelihood of reporting cheating. Specifically, Kisamore et al. (2007) found a correlation of $r = 0.23$ with Prudence in the Hogan Personality Inventory (HPI) (Hogan and Hogan, 2007). Stone et al. (2012), the second study, found two subscales of the HPI Prudence scale, self-confidence and moralistic, correlated with intent to report cheating.

As previously noted, conscientious individuals are planful, hardworking, and rule-abiding. Highly conscientious students feel morally obligated to report cheating (Miceli and Near, 2002; Stone et al., 2012). So, when they see others cheating, they are more likely to report cheating to authorities. Additionally, we expect that higher extraversion students may report cheating due to their assertive and self-confident character.

Based on the foregoing analysis of the literature linking personality to report cheating, we offer the following hypothesis.

H2. *Self-reported ratings of conscientiousness and extraversion will be positively related to report cheating, while agreeableness and emotional stability will be negatively related.*

2.3. Meta-perceptions and cheating

Socio-Analytic Theory (Hogan and Blickle, 2018) outlines two aspects of personality, identity and reputation, and views self-awareness as the agreement between them. Identity is how people describe their personality and reputation is how others describe someone's personality. Part of identity stems from one's perception of how others see them.

Individuals who can accurately predict their reputation are more likely to behave in ways to maintain that reputation. This expectation is consistent with predictions of cognitive consistency or balance theories (Heider, 1958). For instance, self-consistency theory suggests that to maintain cognitive consistency between attitudes and behaviors, individuals tend to engage in behaviors consistent with their overall self-views (Crocker and Park, 2004). How individuals believe others see them are called meta-perceptions (Carlson and Barranti, 2016). Thus, individuals' perception of their reputation, e.g., meta-perception, motivates them to hold attitudes and behave consistently with their meta-perceptions.

Consistent with previous research (e.g., Carlson and Barranti, 2016; Foster et al., 2023), we propose that meta-perceptions will explain variance in attitudes, cheating behavior, and report cheating beyond traditional self-reports of personality. However,

we take an exploratory approach to examining relationships between meta-perceptions of specific personality factors

and each of these three outcomes. Therefore, we propose a research question:

Research question 1: Meta-perceptions will account for variance above and beyond traditional self-reports of personality in predicting attitudes towards cheating, cheating behaviors, and report cheating.

2.4. Other ratings of personality and academic integrity

Some forms of cheating require assistance from other students and because many students live and study together, they likely have knowledge of cheating behavior. Indeed, one study (Scrimpshire et al., 2017) found that students' friends often have knowledge of and assisted in cheating behaviors. Furthermore, McCabe et al. (2012), as well as other researchers (Stone et al., 2009; Zhao et al., 2022) have found the perception that other students are cheating, rationalization, is one of the strongest predictors of cheating. The Lee et al. (2020) analysis found that the strongest mean true-score correlation with cheating was $r = 0.43$ for neutralization, similar to a rationalization. This suggests that other students' knowledge of their peers contributes to their perceptions of cheating and supports the use of other ratings in cheating research.

Despite the potential value of ratings from others, almost all research on academic cheating has relied on self-reports of cheating behavior. And although the same is true for most personality studies, a growing body of research (Berry et al., 2012; Connolly et al., 2007; Connelly and Ones, 2010; Connelly et al., 2022) has shown that personality ratings by acquaintances, or "other ratings" of a target person's personality, often have a stronger relationship with a target's behaviors at work than self-ratings.

Ellingson and Tirol-Carmody's (2022) recent chapter contends that peer ratings have several advantages compared to self-ratings. Their study also presented data and arguments supporting the superiority of other over self-ratings for human resource management research. This research suggests that multiple other personality ratings will be associated with deviant academic behaviors, such as student cheating.

Consistent with previous research (Ellingson and Tirol-Carmody, 2022), we propose that other ratings of personality will explain variance in attitudes, cheating behavior, and report cheating beyond traditional self-reports of personality and meta-perceptions. Once again, given the lack of previous research examining relationships between other ratings of personality and academic integrity, we only hypothesize that other ratings of personality will account for additional variance in attitudes towards cheating, cheating behaviors, and reporting cheating. However, we take an exploratory approach to examining relationships between specific personality factors and each of these three outcomes.

H3. *Other ratings of personality will account for variance above and beyond traditional self-report and meta-perceptions in predicting attitudes towards cheating, cheating behaviors, and report cheating.*

3. Methods

3.1. Participants

Focal respondents were 171 students enrolled in undergraduate or graduate business classes at a large Midwestern U. S. university and were part of a college subject pool. Extra credit was offered as an incentive for participation, and an alternative assignment was offered to students who did not choose to participate. The study was conducted near the end of the term, and some students had already earned the maximum extra credit allowed for the course. However, 50 respondents were eliminated from analysis due to incomplete or careless responses or the absence of other raters, resulting in 121 respondents with useable data. Of those reporting demographic information, 64% were male, and 9% reported being Black, 10% American Indian, 10% Asian or Pacific Islander, 6% Hispanic, 77% White, and 3% Other (students were allowed to select more than one response).

The average age of respondents was 22.47 with a standard deviation of 5.04. Respondents provided traditional self-report ratings and meta-perceptions of their personality, while others rated participants' personality. The study was conducted in accordance with the University's IRB guidelines. The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board of Oklahoma State University (protocol code BU1474, approved January 6, 2016) for studies involving humans. Participants volunteered to participate to receive extra course credit and were given a written assignment as an alternative.

To receive credit, students completed an online survey including the 22-item P720 personality measure and 18 questions examining attitudes and instances of academic cheating behaviors and reporting cheating. They rated themselves (traditional self-report) and how they think others would rate them (meta-perceptions) on each item and provided e-mail addresses of up to five others who knew them well enough to rate their personality.

Only data from students who completed the personality measure and had ratings from at least one other rater were included in the analysis. The final sample included 121 students who were rated by 357 other raters, resulting in an average of 2.95 other ratings per participant. Using the P720, other raters rated participants' personality. They indicated their primary relationship with the participant as: Friend (42.8%), Coworker-Peer (25.9%), Family (18.5%), Coworker-Supervisor (5.1%), Coworker-Subordinate (3.4%), and Other (4.3%). Of those reporting demographics (N = 105), 69% were female, and 31% were male, and their average age was 23.14 years (SD = 7.03). Data were obtained from a larger study (Foster et al., 2023).

3.2. Measures

All scales except the personality measures were measured on 5-point Likert-type scales. Academic misconduct was measured using the 10-item scale ($\alpha = 0.89$), McCabe Student Survey, developed by McCabe et al. (2012), and Stone and Jawahar (2015). Items in the McCabe scale examined how often respondents engaged in behaviors such as cheating on a test, helping others cheat, collaborating without

permission, and plagiarizing a paper. The stem for cheating was "how often during college have you done any of these" with a response scale of "never" to "many times". High scores indicate greater engagement in academic misconduct.

Sample items tapped major cheating, e.g., "cheat on a test in any way," and minor cheating, e.g., "worked with others on an assignment when individual work was required". Four items measured intention to report cheating using a five-point agree-disagree scale ($\alpha = 0.91$). A sample item is "I would report an incidence of cheating by a student I consider a friend." Attitude toward cheating was assessed with four items using a five-point agree-disagree scale ($\alpha = 0.86$). A sample item is "Sometimes it is necessary to cheat to keep up with my classes."

The Personality 720 assessment instrument (P720) (PassKeys International, 2018) was used to examine personality. The P720 is a short personality assessment that collects personality data using a "multi-perspective" approach (Foster, 2019; Foster et al., 2022). In this study, the P720 used three methods assessing three perspectives: Traditional self-report (i.e., "How would you describe yourself?", one's identity), meta-perceptions (i.e., "How do you think others would describe you?"), and other ratings (i.e., "How would you describe this person?", one's reputation). Respondents rated either themselves or the target individual using a sliding scale with anchors ranging from 1 to 10. Construct validity of the P720 scale scores is demonstrated in the significant correlations with International Personality Item Pool (IPIP) scores (Foster et al., 2023; Gray et al., 2023). Personality data were obtained from a larger study (Foster et al., 2023; Gray et al., 2023).

For each rating type, the P720 contains 22 items based on the Five Factor Model of personality (FFM) (Digman, 1990), resulting in six overall scales (Big Five plus achievement orientation), each comprised of three to four items. Each item consists of two adjective pairs representing opposite ends of a continuum. For example, the emotional stability scale contains three items with endpoints of 1 (Emotional, Anxious, and Easily Agitated) and 10 (Unemotional, Calm and Composed). Overall scores are comprised of averages across these items.

3.3. Analytic strategy

We computed scale scores for traditional self-report, meta-perceptions, and other ratings by averaging responses across the three to four items on each scale representing each perspective. This resulted in 18 initial predictor variables: Six traditional self-reports, six meta-perceptions, and six other ratings. The data set is available upon reasonable request from the second author.

To investigate the psychometric properties of the P720 instrument, we first examined coefficient alphas for each P720 scale using data from all three measurement perspectives: traditional self-report, meta-perceptions, and other ratings. However, it should be noted that we expected alphas to fall below traditional benchmarks because P720 scales include a small number of items designed to capture distinct facets of each higher-order personality factor. As a result, internal consistency is reduced by design in favor of broad construct representation. This tradeoff is well documented in the bandwidth–fidelity literature, which suggests that while broad measures including

multiple diverse facets may result in lower alphas, the resulting content coverage can allow for better overall prediction of broad criteria such as job performance (Ones and Viswesvaran, 1996). Additionally, while shorter scales inherently result in lower coefficient alphas, their use is particularly important when needing to reduce respondent burden, such as when obtaining data from multiple raters. This is especially critical given evidence that shorter, more focused scales can maintain high predictive validity despite lower internal consistency (De Vries, 2013; Thalmayer et al., 2011), and that observer ratings often provide incremental and sometimes stronger predictions of behavior compared to traditional self-reports (Connelly and Ones, 2010).

Therefore, we also examined inter-rater reliability for other ratings using data from all participants who were rated by at least two other individuals (N = 266). Because raters varied by participant, we calculated intra-class correlations using a one-way random effects model for absolute agreement (Shrout and Fleiss, 1979). Also, participants were able to select fellow students, family members, friends or coworkers as their other raters. Because a person's reputation might vary based on the nature of their relationship with others (Harris and Schaubroeck, 1988), we also calculated ICCs for the two largest sub-sets of participants, those who were rated by at least two friends (N = 117) and those who were rated by at least two other raters who indicated they were both coworkers and peers (N = 34).

We used correlation analysis and a three-step hierarchical regression analysis to test our hypotheses and more broadly examine the utility of considering different perspectives when predicting cheating and report cheating. We examined correlations between traditional self-report scores and outcomes to test hypotheses H1 and H2 and from steps 2 and 3 in the regressions for all traits to explore the potential incremental validity of meta-perceptions and other ratings, respectively.

First, we entered all six self-report P720 scales in step 1 (H1), all six meta-perception P720 scales in step 2 (H2), and all six other rating P720 scales in step 3 (H3). Next, we conducted six more regressions, one for each P720 factor, using the same steps by entering traditional self-report in step 1, meta-perceptions in step 2, and other ratings in step 3.

4. Results

Table 1 presents coefficient alphas for each scale for all three perspectives and ICCs (Intraclass Correlation Coefficient) for other ratings.

Table 1. Reliability estimates for P720 scales.

	Coefficient alpha[a]			**ICC[bc]**		
Scales	**Self-report**	**Meta-perceptions**	**Other raters**	**All participants**	**Friends**	**Coworkers-peers**
Extraversion	0.65	0.68	0.68	0.53	0.62	0.68
Agreeableness	0.55	0.54	0.61	0.40	0.39	0.55
Conscientiousness	0.53	0.56	0.54	0.42	0.64	0.73
Emotional Stability	0.60	0.54	0.59	0.59	0.50	0.69

Table 1. *Cont.*

	Coefficient alpha[a]			ICC[bc]		
Scales	**Self-report**	**Meta-perceptions**	**Other raters**	**All participants**	**Friends**	**Coworkers-peers**
Openness	0.52	0.51	0.71	0.46	0.43	0.36
Achievement Orientation	0.50	0.59	0.66	0.37	0.54	0.51

Note: [a] N = 380–381 for self-report and meta-perceptions; N = 961–966 for other ratings; [b] N = 266 for all participants, N = 117 for friends; N = 34 for coworkers-peers; [c] Results are from the first two raters for each participant.

Average coefficient alphas across all three perspectives were lowest for conscientiousness (0.60) and highest for extraversion (0.70), and averages across scales were lowest for self-report (0.56) and highest for other ratings (0.63). We calculated ICCs based on data from the first two other raters for each participant and used the Spearman Brown Prophesy Formula to estimate inter-rater reliability for four raters. Inter-rater reliability estimates ranged from 0.54 for achievement orientation to 0.74 for emotional stability (average across scales = 0.63).

As expected, average ICCs were slightly higher when limiting data to ratings from only friends (average across scales = 0.68) and coworkers-peers (average across scales = 0.73). Ellingson and Tirol-Carmody (2022) note that in research utilizing other ratings, reliabilities are often lower than self-ratings; however, they were slightly higher in our sample.

Table 2 displays means, standard deviations and correlations among the variables. Consistent with past research, conscientiousness was the strongest predictor for all three outcomes, with self-report correlations ranging from −0.18 to 0.12. Additionally, correlations between self- and other ratings are: extraversion, 0.52; agreeableness, 0.27; conscientiousness, 0.37; emotional stability, 0.40; openness, 0.23; and achievement orientation, 0.32; all significant at $p < 0.01$.

Table 2. Means, standard deviations, and correlations between study variables.

	M	**SD**	**Age**	**Sex**	**E**	**A**	**C**	**ES**	**O**	**AO**	**CA**	**CB**	**RC**	**Alpha**
Age	22.61	5.65												
Sex	1.32	0.52	−0.1											
E	6.52	1.72	0.11	−0.16										0.65
A	6.43	1.62	−0.14	−0.04	0.11									0.55
C	6.21	1.58	0.1	−0.019	0.03	0.19								0.53
ES	5.3	2.09	0.11	0.31	−0.06	−0.1	−0.01							0.6
OP	7.31	1.59	0.01	0.14	0.27	0.06	−0.22	0.15						0.52
AO	6.61	1.54	0.19	0.14	0.23	−0.015	0.09	0.31	0.25					0.5
CA	1.75	0.82	−0.2	0.03	−0.15	−0.05	−0.18	0.05	0.01	−0.09				0.86
CB	1.51	0.61	−0.15	0.13	0	0.07	−0.17	0.14	0.18	−0.03	0.65			0.89
RC	2.97	1.07	0.23	−0.03	0.05	−0.07	0.12	0.09	0.16	0.09	−0.3	−0.31		0.91

Note: N = 121; E–Extraversion, A–Agreeableness, C–Conscientiousness, ES–Emotional Stability, OP–openness, AO–Achievement Orientation, CA–Attitude toward Cheating, CB–Cheating Behavior, RC–Report Cheating; Gender: 1 = F, 2 = M; Correlations larger than 0.1 significant at $p < 0.05$, & correlations larger than 0.18 significant at $p < 0.01$.

4.1. Hypotheses testing

Table 2 presents correlational results examining H1 and H2. According to H1, self-reported ratings of conscientiousness. agreeableness and openness will

be negatively related to attitudes toward cheating and cheating behavior, while extraversion and emotional stability will be positively related. Data support the traits conscientiousness and extraversion for the attitude toward cheating. For cheating behavior, conscientiousness, emotional stability and openness are significant. The expectation that self-reported ratings of conscientiousness will be positively related to report cheating is supported, while agreeableness will be negatively related (i.e., H2) , but this relationship was negative but not significant. Additionally, openness was positive and significant.

Table 3 also shows support for research question 1, meta-perceptions will account for variance above and beyond traditional self-reports of personality in predicting attitudes towards cheating, cheating behaviors, and report cheating. Finally, for H2, other ratings of personality will account for variance above and beyond traditional self-report and meta-perceptions in predicting attitudes towards cheating, cheating behaviors, and report cheating, as supported.

Table 3. The incremental validity of personality for predicting cheating.

Predictor	Outcome	R–step 1	R–step 2	R–step 3	R–step 4
All six factors	Attitude toward cheating	0.194**	0.321**	0.386**	0.441**
	Cheating behavior	0.182**	0.292**	0.385**	0.434*
	Report cheating	0.259**	0.334**	0.498**	0.536**

Note: N = 357; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Step 1: Control variables (age and gender); step 2: Self-report; step 3: Meta-perceptions; step 4: Other-ratings; significance for steps 2–3 reflects the p-value of R-score change.

5. Discussion

We demonstrate the utility of a multi-perspectives approach, i.e., peer, meta-perceptions and self-personality ratings for predicting student cheating and career success. This study makes several contributions to the careers and academic integrity literature.

First, the most significant finding of our study is that the effect of personality on violations of academic integrity may be larger than found in prior research that relied on traditional self-report measures. This finding may prove to be heuristically valuable for future career research and practice.

A second significant finding is that other ratings and meta-perceptions of all six personality traits yielded incremental validity for report cheating beyond self-ratings. Student reporting of cheating is one of the most important factors in creating an ethical learning and work environment. The few studies examining reporting cheating (McCabe et al., 2012; Kisamore et al., 2007; Stone et al., 2012) few are willing to report cheating. Consistent with earlier research, we found self-rated conscientiousness and extraversion positively associated with report cheating. Additionally, as hypothesized, the joint effect of meta-perceptions and other ratings for conscientiousness and extraversion accounted for significantly more variance than self-ratings.

All six traits are significantly associated with reporting cheating, with agreeableness and emotional stability negatively related (see **Table 2**). The negative relationship with agreeableness and positive relationship with extraversion is consistent with prior whistleblowing research (Bjørkelo et al., 2010; Near and Miceli, 1985).

Because students are more likely to have a fairly accurate sense of their peers' sense of ethics and values than their cheating behaviors, personality is more closely related to report cheating.

Other ratings provided additional incremental validity above self-report ratings and meta-perceptions for attitudes towards cheating, with other ratings reaching close to significance when using report cheating as the dependent variable. These results not only replicate previous research showing that conscientiousness is a significant and consistent predictor of cheating-related attitudes and behaviors, but that additional variance can be accounted for when using a multi-perspective approach. Also consistent with previous research, conscientiousness was significantly related to all three outcome variables, while extraversion predicted attitudes towards cheating and cheating behavior. Perhaps more interesting, however, is that other ratings and meta-perceptions were not only predictive of but showed validity above and beyond self-report personality scores for at least one criterion variable for all six personality factors (see **Table 4**).

Table 4. Incremental validity by personality factor.

Predictor	Outcome	R–step 1	R–step 2	R–step 3	R–step 4
Extraversion	Attitude toward cheating	0.194**	0.235*	0.237	0.270*
	Cheating behavior	0.182**	0.189	0.213+	0.232+
	Report cheating	0.259**	0.259	0.297**	0.297
Agreeableness	Attitude toward cheating	0.194**	0.194	0.197	0.207
	Cheating behavior	0.182**	0.183	0.183	0.195
	Report cheating	0.259**	0.260	0.274+	0.298*
Conscientiousness	Attitude toward cheating	0.194**	0.283**	0.300*	0.330**
	Cheating behavior	0.182**	0.257**	0.290**	0.300
	Report cheating	0.259**	0.290*	0.393**	0.403+
Emotional Stability	Attitude toward cheating	0.194**	0.202	0.219	0.221
	Cheating behavior	0.182**	0.183	0.222*	0.237
	Report cheating	0.259**	0.260	0.316**	0.352**
Openness	Attitude toward cheating	0.194**	0.195	0.203	0.230*
	Cheating behavior	0.182**	0.221*	0.222	0.223
	Report cheating	0.259**	0.285*	0.307*	0.310
Achievement Orientation	Attitude toward cheating	0.194**	0.214+	0.264**	0.298**
	Cheating behavior	0.182**	0.198	0.203	0.206
	Report cheating	0.259**	0.259	0.270	0.270

Note: N = 357; + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Step 1: Control variables (age and gender); step 2: Self-report; step 3: Meta-perceptions; step 4: Other-ratings; significance for steps 2–3 reflect the p-value of R-score change.

Furthermore, either meta-perceptions and/or other ratings significantly improved prediction on at least one of the three outcomes for all six personality variables. In other words, prediction could be significantly improved for every personality scale by using a multi-perspective approach rather than relying solely on traditional self-report. Taken together, these results show that the relationship between personality and student integrity is more complex than can be derived from using only one method to assess personality.

Third, this study demonstrates an additional and useful method for examining student cheating. To date, virtually all academic integrity survey research has relied

on self-reports for independent as well as dependent variables, thereby contributing to a common variance issue and social desirability. Few, if any, cheating studies have employed other ratings as a method to overcome this issue, despite recent research demonstrating that other ratings of personality contribute significant incremental variance in criteria beyond self-ratings. Although we are not advocating abandonment of self-ratings, other ratings can provide useful insights lacking in self-ratings.

5.1. Limitations

There are a few limitations of this study, including a sample limited to business students at one university, self-report of the dependent variables and use of a new personality measure.

This study, unlike most academic integrity surveys, minimized a frequent issue in many studies, common method variance. We collected personality ratings, our independent variable, from acquaintances of students and the dependent variables from the focal subjects. The personality scale, P720, used in the study is a recently developed multi-perspective instrument (Foster et al., 2022). Although a new instrument, the scales correlated strongly with IPIP scales (Gray et al., 2023). Future research should utilize larger, non-business student samples and conduct

longitudinal studies.

5.2. Practical and research implications

The findings of this study have several implications for creating an ethical classroom environment and career development. First, this study, McCabe et al. (2012) and Scrimpshire et al. (2017) show that many students are aware of cheating. As McCabe et al. (2012) have found, schools with honor codes that include an obligation to report cheating have lower cheating incidents. A second practice, when using personality tests for counseling or other purposes, simply adding meta-perceptions to self-ratings may be more useful than self-ratings.

Though student cheating is common (McCabe et al., 2012), it is rarely reported and documented. Personality ratings, self and particularly other ratings, may be more readily obtained and therefore useful for employee selection and career development. One study examining the relationship between the Big Five personality traits, student cheating, and work behaviors, i.e., organizational citizenship and counterproductive work behaviors (Stone and Jawahar, 2015), found that while cheating correlated more moderately with work behaviors, personality ratings significantly predicted work behaviors. While engaging in citizenship behaviors could facilitate career progression, counterproductive work behaviors are likely to contribute to career derailment.

From a career counseling and development perspective, Judge et al. (1999) in their study of Big Five traits stated, “Knowledge about one’s personality and intelligence early in life proved to be an effective predictor of one’s later career success, whether success was measured through subjective reactions or objective measures” (p. 643). Because personality was assessed via self-report, it is very likely that other-rated personality, combined with self- and meta-perceptions, would have greater predictive validity as demonstrated in this study and Connelly et al. (2022),

Ellingson and Tirol-Carmody (2022), and others. Additionally, other ratings may provide better insights regarding potential career derailers (Chamorro-Premuzic, 2017) than self-ratings and are therefore more useful for career development. Research by Ariely (2012) supports the value of detecting the tendency to cheat in school, as one immoral act leads to others, so it will not spill over to one's career.

6. Conclusions

This study of cheating is unique in assessing personality from multiple perspectives: self, meta-perception and other ratings. We deemed this approach potentially fruitful due to findings in two domains. First, the academic integrity literature (McCabe et al., 2012; Scrimpshire et al., 2017) suggested that student cheating is a social phenomenon, not an isolated one. Therefore, ratings from others who know students reflect behavior samples that more validly predict behavior than self-ratings of personality (Judge and Kammeyer-Mueller, 2022).

Second, our findings are consistent with the substantial literature (Berry et al., 2012; Connolly et al., 2007; Connelly and Ones, 2010; Connelly et al., 2022; Ellingson and Tirol-Carmody, 2022) demonstrating that personality ratings by others have stronger validity than traditional self-ratings. The differences between self-ratings and the joint effect of meta-perceptions and other ratings for report cheating were significant for all six personality variables. Consistent with virtually all studies of deviant behavior, conscientiousness was highly significant for cheating behavior and report cheating and marginally significant for attitude. Similarly, emotional stability was significant for cheating behavior and report cheating.

In conclusion, this study shows that personality accounts for more variance in cheating behavior and attitudes toward cheating than prior research using self-ratings of personality. These findings should encourage researchers and practitioners to use multi-perspective personality measures to predict outcomes, such as cheating behaviors, as prior research has shown that cheating at school is related to cheating at work, leading to dysfunctional career consequences (e.g., Ariely, 2012; Stone and Jawahar, 2015).

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Jeffrey Foster (jfoster@missouristate.edu) upon reasonable request.

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