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Psychopathy and accounting students' attitudes towards unethical professional practices

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ABSTRACT

Psychopathy is a personality trait characterized by deficits of conscience and empathy, leading to callous attitudes and manipulative behavior, and is one of the “Dark Triad” of personality variables, along with Machiavellianism and narcissism. It has gained some attention in accounting literature, and clearly has serious implications for fraud and unethical behavior by accountants and auditors—arguably more so than other dark personality traits. Using a national sample of accounting students, this study documents the levels of psychopathy, the correlations with certain attitudes about unethical professional practices, and the potential trend across academic class level. Comparisons are made to previous samples of college students, accounting faculty, prisoners, and the general population. The responses of individuals high on the scale are described to offer insight into the attitudes and beliefs of those individuals. Implications for accounting education and opportunities for further research are discussed.

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1. Introduction

Understanding the nature of accounting students has long been recognized as an objective of accounting education research (e.g., Apostolou, Dorminey, Hassell, & Rebele, 2017; Rebele et al., 1998; Williams, Tiller, Herring, & Scheiner, 1988). Apostolou et al. (2017) noted a 33 percent increase in such articles from 2015 to 2016. A knowledge of the characteristics of students attracted to the accounting profession, and of how the curriculum interacts with these characteristics, can guide recruitment and educational efforts—which largely determine the makeup of the accounting profession.

Recently, the “Dark Triad” personality traits of psychopathy, Machiavellianism, and narcissism have gained attention in accounting and business research (e.g., Bailey, 2015; Majors, 2016; Murphy, 2012).¹ Arguably the most concerning among these traits is psychopathy, defined by a lack of conscience (Hare, 1993). Clearly, a deficit of conscience facilitates rationalization, promoting fraudulent acts. Trompeter, Carpenter, Desai, Jones, and Riley (2013, 294) surmise that “personality matters in economic crime... [and] may be useful in understanding an individual's ability to rationalize.” Ramamoorti (2008) identifies psychopathy as an area of behavioral science relevant to the study of fraud and forensic accounting, and argues that accounting students are poorly trained in the psychology of fraud.

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¹ It is worth noting that the study of personality was out of favor among psychologists from about 1968 until 1990, a period described as the “dark ages of personality” (Revelle, Wilt, & Condon, 2011, 14). Accounting researchers naturally were influenced, although they lagged the trend and have been slow to recover, but they are doing so. In addition to the research cited as relevant to this paper, recent education-related examples include Kovar, Ott, and Fisher (2003), Burton, Daugherty, Dickins, and Schisler (2016) and Farag and Elias (2016).

Given that personality traits, including psychopathy, tend to be stable across one's lifetime (e.g., Campbell, Doucette, & French, 2009; Harpur & Hare, 1994), a study of the accounting student population also provides a baseline relevant to practitioners. To my knowledge, the only mention of psychopathy in empirical accounting education research is by Cook, Bay, Visser, Myburgh, and Njoroge (2011), who employ a measure of psychopathy as a control variable in their study of emotional intelligence.

The purpose of this study is to investigate the levels and patterns of psychopathic tendency among US accounting students. At subclinical² levels, psychopathy is measured by an established self-report instrument (Levenson, Kiehl, & Fitzpatrick, 1995), and the callous attitudes expressed by individuals scoring high on this instrument are disturbing in their implications for the commission of fraudulent or unethical acts. Moreover, the study finds significant correlations between psychopathy scores and acceptance of specific fraudulent unethical acts, contributing to the research that indicates acceptance of such acts implies a higher likelihood of their commission (e.g., Riopka, Coupland, & Olver, 2015).

The connection between psychopathic thought processes and acceptance of unethical practices provides insights relevant to the teaching of internal controls and forensic accounting. The descriptive data, being the first evidence of the levels of psychopathy among accounting students, is a starting point for further investigation of this important factor and its implications for recruitment and training of accounting students.

The remainder of this paper is organized as follows: The next section is a review of the literature and the development of research questions. The current study is then described, followed by a report of the results. The final section offers a discussion of the implications, limitations and potential for further research.

2. Literature review and development of research questions

This section addresses the nature of psychopathy, measurement of the construct, and its relationship to other personality factors. It then develops four research questions to be addressed by the current study.

2.1. Psychopathy

At least as early as the landmark clinical work by Cleckley (1941/1976), psychopathy has been recognized as a personality disorder characterized by a lack of conscience and low empathy, usually accompanied by high stress tolerance, cold-heartedness, superficial charm, egocentricity, manipulativeness, and a variety of antisocial behaviors (Hare, 1993). Psychopathy does not respond well to treatment, and, like other personality factors, is slow to change. Growing evidence supports the long-held belief that it reflects innate brain differences (e.g., Decety, Chen, Harenski, & Kiehl, 2013).

Psychopathy reflects radical rationality (*homo economicus*), not insanity; psychopaths *know* right from wrong, but do not *care*. Glenn, Koleva, Iyer, Graham, and Ditto (2010) propose that psychopathic individuals “do not construe [their] personal identities in moral terms” (497) and are not motivated to be, or be seen as, moral individuals. Experimental findings by Glenn et al. (2010) confirm that persons higher in psychopathy may judge an act to be unethical but not form an intention to behave accordingly.³

Robert Hare⁴ worked for many years with Canadian prisoners and developed the gold-standard clinical test of psychopathy, the Psychopathy Checklist, Revised (PCL-R). Psychopathy is a personality disorder with at least two dimensions or factors.⁵ “Primary” psychopathy is “generally viewed as the core of the psychopathy construct” (Lee & Ashton, 2005, 1576). It includes an inclination to lie, a lack of remorse, callousness, and manipulativeness—which are characteristics predictive of fraud. These tendencies usually are facilitated by superficial charm. “Secondary” psychopathy includes impulsivity, intolerance of frustration, quick-temperedness, and lack of long-term goals.

Psychology literature identifies “successful psychopaths,” who tend to be high on primary psychopathy and low on secondary psychopathy (Lykken, 1995). Stevens, Deuling, and Armenakis (2012) examine such individuals' reactions to ethical dilemmas, providing an empirical test of psychopathy's relationship to unethical behavior. They find that psychopathy facilitates moral disengagement, allowing one to engage in practices they know to be wrong while maintaining an acceptable self-image. A salient example is Bernie Madoff, who appeared to maintain a normal family life, but whom “former employees describe . . . as a ruthless, detached individual who showed little remorse for robbing his innocent victims of their life savings” (Quow, 2013, 74).

² In contrast, a “clinical” diagnosis is more severe and would require direct observation of a patient by a competent professional. Subclinical levels sometimes are termed “everyday psychopathy” because of their prevalence in the general population.

³ Readers familiar with Rest's (1986) Four-Component Model of ethical behavior will recognize this as a failure to complete the third component in the model.

⁴ Egan (2016) reports on Hare's 50-year career and his continuing work in the cover story of the June 2016 print issue of *Discover*, available at <http://discovermagazine.com/2016/June/12-psychopath-and-the-hare>.

⁵ The number of factors still is debated in the psychology literature (Murphy & Giurgutiu, 2012). The two-factor structure is the basis for much research, however, and seems especially suited for purposes of this study.

Self-report tests have been developed to reflect the same factors as the PLC-R that is used by trained clinicians. Levenson's Self-Reported Psychopathy Scale (Levenson et al., 1995) has been validated by several studies (Brinkley, Schmitt, Smith, & Newman, 2001; Lilienfeld & Andrews, 1996; Lynam, Whiteside, & Jones, 1999; Ray et al., 2013).

In a recent study, using Levenson's instrument, Bailey (2015) has reported an effect of primary psychopathy on academic accountants' research publication count, mediated by an increased acceptance of unethical practices. Consistent with Stevens et al.'s (2012) scenario-based study that demonstrated an increased willingness to accept unethical behaviors, mediated by moral disengagement, Bailey's (2015) study implies a connection between psychopathy and an actual behavioral outcome.

2.1.1. Relationships to other personality variables

The other "Dark Triad" personality variables are narcissism and Machiavellianism. Paulhus and Williams (2002) examine the relationships between narcissism, Machiavellianism, and psychopathy, and find that they are related but distinct constructs which have in common a lack of empathy that facilitates taking unfair advantage of others. Nathanson, Paulhus, and Williams (2006), in two studies, find cheating on classroom exams to be significantly correlated with subclinical psychopathy, but not with Machiavellianism (cf. Babiak & Hare, 2006, 124). In summary, it seems clear that psychopathy is the most serious of the Dark Triad in terms of its potential to promote fraud and financial misconduct.⁶

2.1.2. Relevance to fraud prevention and detection

The theory of fraud detection and prevention usually is framed in terms of the fraud triangle (Cressey, 1973; Public Company Accounting Oversight Board (PCAOB), 2005; Trompeter et al., 2013) and its extensions (e.g., Dorminey, Fleming, Kranacher, & Riley, 2012). The fraud triangle posits three necessary conditions for a fraudulent act to occur: an incentive or motive for the act, a perceived opportunity to commit the act, and an attitude or mind-set that allows the perpetrator to rationalize the act—or not to require such rationalization. The most obvious implication of psychopathic tendency is its effect upon rationalization, which for clinical psychopaths becomes a completely moot issue.

In addition, psychopathy may influence the other two sides of the triangle. Control systems rely on fear of detection and punishment to decrease perceived opportunity (Dorminey et al., 2012, 573), but psychopaths are characterized by fearlessness, coolness of affect, and confidence in their ability to talk their way out of punishment (Babiak & O'Toole, 2012). Motive also may be greater in psychopaths, for two reasons. First, psychopaths are characterized by selfishness and an elevated sense of entitlement, which can motivate fraud (Kranacher, Riley, & Wells, 2011). Second, psychopathy increases impulsivity and thrill-seeking behavior (Babiak & O'Toole, 2012; Paulhus & Williams, 2002), which may itself be an incentive for fraud.⁷ Finally, individuals highest on the psychopathy scale are predators, rather than "accidental" fraudsters driven by circumstances, and for predators "criminal mindset and arrogance replace pressure and rationalization" (Dorminey et al., 2012, 367).

2.2. Research questions

This initial investigation of psychopathy among accounting students is intended to shed light on at least four areas. First, a number of reference samples exist for a variety of populations, including non-accounting students. An understanding of the implications of psychopathy levels among accounting students should begin with a comparison to these benchmarks. This suggests the first research question:

RQ1: How do accounting students' scores on Levenson's Self-Report Psychopathy Scale (LSRP) compare with other populations?

Second, as students decide upon college majors and careers, a period of professional socialization or winnowing-out occurs. If it were found that mean psychopathy scores of accounting students increase with this process, implications for the accounting profession would be unfavorable, but a decrease would indicate favorable professional selection/socialization. Stability across class levels (no trend) would indicate that student scores are good predictors of the scores of practicing accountants. This leads to the second research question:

RQ2: Do accounting students' scores on the LSRP increase, decrease, or remain stable as their studies progress?

⁶ For a detailed explication of the differences among the dark personalities, see Paulhus (2014), in which he concludes that psychopathy is "[a]rguably the most malevolent" of the dark personalities" (421). Mathieu, Neumann, Hare, and Babiak (2014) offer a similar assessment.

⁷ Cleckley (1976, 388) also noted this phenomenon and attributed it to the psychopath's life being "devoid of higher order stimuli, of primary or serious goals and values, and of intense and meaningful satisfactions."

Third, the underlying concern for the accounting profession is that psychopathy correlates with the acceptance of unethical practices, which in turn allows the rationalization of unethical conduct. Given existing research (e.g., Riopka et al., 2015), the question is not whether the correlation exists, but its magnitude—i.e., how much variance in these attitudes psychopathy explains. The next research question addresses this link:

RQ3: How highly do the LSRP scores correlate with acceptance of questionable or blatantly unethical practices?

Finally, given that LSRP scores are new to accounting literature, a concrete understanding of the meaning of these scores is in order. The instrument is intended to measure “subclinical” populations, but how can the respondents be described? This suggests the final research question:

RQ4: At the highest measured levels of nonclinical psychopathy in this sample, what values and attitudes are accounting students embracing? (In concrete terms, what acts do they deem acceptable, and what attitudes permit such acceptance?)

3. Methods

After approval by the university’s institutional review board, I conducted an online survey during April 2013, requiring only about five minutes to complete. I asked faculty colleagues at several universities throughout the US to invite their accounting students (junior, senior, or graduate students declaring an accounting major) to respond to the web-based questionnaire (Appendix A). Responses were completely anonymous and voluntary. At the conclusion of the questionnaire, respondents were, as promised, invited to separately email me to enter a lottery in which one in every twenty entrants would receive a \$100 cash prize.

3.1. Data collection

To mitigate concerns about self-identification, both age and gender were optional responses. Gender is often significant in ethics-related studies (generally in favor of females), and males tend to score higher on primary psychopathy (e.g., Riopka et al., 2015; Wilson & McCarthy, 2011). Other demographic variables included the respondent’s class level (junior, senior, or graduate/earned bachelor’s) and the institution’s sponsorship (public, secular private, or religious private). Given that some schools supplied only a few participants, asking for school name during data collection would have undermined anonymity; this information was collected separately when they entered the prize pool.

3.1.1. Attitudes towards unethical professional practices

In order to develop a brief but general measure of the acceptance of unethical practices, I used items from an accepted earnings-management survey, combined with four self-enriching acts—two that are likely felonies and two that could be considered misdemeanors. Table 1 shows the eight related items on the questionnaire, which used a five-point Likert scale ranging from 1 (completely acceptable) to 5 (completely unacceptable).

Items 1–4 were adapted from Merchant’s (1989) earnings management survey, used by Grasso, Tilley, and White (2009).⁸ These were presented as actions that managers might take to achieve earnings management or window-dressing, assuming that incentives were strong to do so and that, if the acts are questionable or illegal, the “chance of detection and punishment is very small.” The first act (working overtime to maximize year-end shipments), although economically questionable, is not generally considered unethical, and was included here as a validity check on the responses. The next three are clearly fraudulent (burying scrap costs, having a supplier delay billing, and postponing a necessary write-off). Items 5–8 concern actions that an employee “might benefit financially from,” assuming that “the individual strongly needs the money for reasons such as family financial distress, and is very unlikely to be caught.” These four are clearly dishonest, but designed to represent a range of seriousness. For example, item 5, choosing not to report an overpayment in one’s salary, could be attributed to oversight and probably would escape punishment. The other three involve blatant fraud. Items 6 and 8 are likely felonies,⁹ but item 7 (duplicate expense reimbursement), is an act that could be attributed to error and is in a setting where minor cheating is common (Callahan, 2004, 181). The DISAPPROVAL score is the average of the participant’s responses to items 2 through 8.

3.1.2. Levenson’s Self-Report Psychopathy Scale (LSRP)

Items 9–24 are the sixteen primary psychopathy items from the LSRP. As explained above, I chose the scale because of its primary psychopathy factor, and because it is well established, with benchmarks from a substantial

⁸ Modifications were as follows: I inserted the third *the* in item 1; item 2 in the original appeared twice, with “small amount” and “large amount,” respectively, in parentheses; and item 4 is a simplification of three inventory-valuation questions in the original instrument.

⁹ Regarding item 8, see, e.g., Texas Title 7, Offenses against Property, Chapter 33, Computer Crimes Sec. 33.02; and California Penal Code 502.

Table 1

Wording of questions about dubious actions.

Item	
1	Work overtime to ship everything possible before the end of the year to meet the annual budget target
2	Bury most of scrap expense in other expense accounts to avoid scrutiny of excessive scrap costs
3	Ask a consulting firm to delay invoicing for work already done until next year
4	Postpone writing off spoiled, worthless inventory
5	Choose not to report excessive payment of \$500 included in a paycheck, due to a clerical error
6	Deposit a check, received in payment of a written-off account, to one's own personal bank account
7	Claim duplicate reimbursement for lodging related to a business trip, when one's spouse also claims reimbursement for the same expense from their employer
8	Sell the company's client list to a competitor

and growing number of studies.¹⁰ Responses to each item are on a scale of 1–5, so that the total score ranges from 16 to 80.

In summary, the key dependent variable in the study is DISAPPROVAL, which is the mean disapproval rating of the seven inappropriate acts (excluding working overtime to expedite shipments). The key independent variable is PSYCHOPATHY, which is the primary psychopathy score from the LSRP.

4. Results

Presentation of the results begins with a description of the data screening and validation, followed by a description of the data. Research questions 1 through 3 lend themselves to statistical analysis, but research question 4 is qualitative in nature.

4.1. Data screening and response validation

To check for careless or confused responses, I examined the data for inconsistencies. In particular, the first hypothetical action listed is to “work overtime to ship everything possible to meet the annual budget target.” A student who recognizes this as a commonly accepted practice should not disapprove of it more strongly than any one of the remaining, more egregious acts. Such inverted ratings seemingly indicate either lack of attention or a misunderstanding of the scale. Twenty-one of the 256 responses showed at least one such inversion, and I examined each of those responses. Three clearly reflected errors or inconsistencies¹¹ and were deleted, leaving 253 valid responses. The remaining eighteen responses seemed logically coherent¹² and were retained (but, as noted below, their deletion would not alter the findings).

Because all of the attitudes and beliefs were collected via the same questionnaire instrument, an internal validity concern is that correlations between variables may be artificially inflated (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, Harman's (1976) single factor test indicates that no such problem exists here; a factor analysis specifying a single factor explains only 25% of the variance, versus the 50% threshold of danger. Cronbach's alphas are 0.74 for DISAPPROVAL and 0.79 for PSYCHOPATHY.

4.2. Descriptive statistics and validation of response patterns

As noted above, to enhance anonymity, participants identified their schools only when separately entering for the prize lottery. Table 2 summarizes the sources, which were largely from private universities on the East Coast and public universities in the Midwest, Florida and other Southeastern states.

Table 3 shows descriptive statistics. Panel A shows the minimum, maximum, mean, and standard deviation (SD) of each continuous variable. The mean age is just under 23, and only four participants declined to state their age. PSYCHOPATHY is the score on the LSRP primary psychopathy scale. DISAPPROVAL is the average rating of the seven unethical items. The next eight items listed are the ratings of the specific actions, where 1 = completely acceptable and 5 = completely unacceptable. The first of these (working overtime to maximize year-end shipments) is rated as much less unacceptable than the others, indicating that participants are able to distinguish it from the more egregious and unethical acts.

¹⁰ As a final item, I included, as a simple and highly exploratory indicator of religious belief, the Religiosity (traditional religious belief) item from the Defining Issues Test of ethical judgment (Rest, 1990). The variable did not show significant results, and is not discussed further.

¹¹ These inconsistencies are as follows: check-skimming fraud much less severe than duplicate expense claim; hiding scrap completely unacceptable, while check-skimming fraud completely acceptable; duplicate reimbursement completely acceptable, all others completely unacceptable.

¹² Often the individual assigned “moderately unacceptable” to working overtime, probably because they did not understand the question or the acceptability of this practice. They subsequently assigned higher acceptability to another item—often keeping the \$500 overpayment or claiming a duplicate reimbursement—and the ratings of items except for the overtime item seemed to represent a coherent belief system.

Table 2
Sources of participants, based on entries to lottery.

Count	Description	%
118	Private, East Coast	53%
43	Public, Southern, except Florida	19%
37	Public, Midwestern	17%
22	Public, Florida	10%
2	Public, East Coast	1%
222		100%

Note: The number of students entering the lottery was 222, while 256 responded. Thus, 34 (13%) chose not to enter the lottery.

Table 3
Descriptive statistics.

Panel A: Variables treated as scale (continuous)					
	N	Min	Max	Mean	SD
Age	249	19	58	22.78	5.047
PSYCHOPATHY	253	16	63	28.05	6.033
DISAPPROVAL	253	2.0	5.0	4.43	0.502
Work OT to maximize year-end	253	1	5	1.90	1.021
Bury scrap to avoid scrutiny	253	1	5	4.27	0.930
Customer delay billing	253	2	5	4.24	0.939
Postpone inventory write-down	253	1	5	4.28	0.928
Keep \$500 overpayment	253	1	5	4.34	0.982
Skimming fraud	253	2	5	4.81	0.585
Claim duplicate reimbursement	253	1	5	4.23	0.988
Sell employer's client list	253	1	5	4.85	0.528
Panel B: Categorical variables					
		n	Percent	Valid percent	Cumulative percent
Class	Junior	97	38.3	38.5	38.5
	Senior	109	43.1	43.3	81.7
	Graduate/earned UG	46	18.2	18.3	100.0
	Total valid	252	99.6	100.0	
	Missing	1	0.4		
	Total	253	100.0		
Sponsorship	Public	119	47.0	47.0	47.0
	Private secular	133	52.6	52.6	99.6
	Private religious	1	0.4	0.4	100.0
	Total	253	100.0	100.0	
Gender	Female	126	49.8	50.2	50.2
	Male	125	49.4	49.8	100.0
	Total valid	251	99.2	100.0	
	Missing	2	0.8	0	
	Total	253	100.0	100.0	

Notes: Age is stated age in years. PSYCHOPATHY is the score on primary psychopathy factor, Levenson's Self-Reported Psychopathy Scale. DISAPPROVAL (of inappropriate acts) is the average rating of the seven actions other than working overtime, where 1=completely acceptable and 5=completely unacceptable. The last eight items are ratings of the acceptability of the eight individual hypothetical acts.

Notes: Gender is stated gender, 1 = M, 0 = F (optional response to protect anonymity).

Panel B of Table 3 describes the categorical variables Class, Sponsorship, and Gender. Forty-three percent of participants are at the senior level, 38% are juniors, and 18% are graduate students or have earned their bachelor's degree. Sponsorship is 47% public and 53% secular private, with only one response from a religious private school. The participants were evenly split between male and female, with only two declining to specify.

The pattern of differences between the DISAPPROVAL ratings indicates that participants perceived the relative seriousness of the acts to be as intended, which supports the construct validity of the DISAPPROVAL scale. Table 4 shows paired *t*-tests comparing the ratings of the eight actions. As shown in the first column of figures, the "work overtime" action differs from each of the others at a highly significant level. The two felonies (check-skimming fraud and selling the employer's client list) are similar to each other ($p = 0.197$), but differ from all of the other acts at $p < 0.001$. Finally, the two acts designed to be "misdemeanors" (keep \$500 overpayment and claim duplicate reimbursement) differ from the felonies ($p < 0.001$) but are similar to the earnings manipulations and only marginally different from each other ($p = 0.06$). Finally, for the two unethical

Table 4Paired *t*-tests comparing the DISAPPROVAL ratings of the eight actions.

Action		Work OT	Bury scrap	Delay billing	Postpone write-down	Keep \$500	Skimming	Claim duplicate
Bury scrap to avoid scrutiny	<i>t</i>	−30.04						
	Sig.	0.000						
Customer delay billing	<i>t</i>	−28.12	0.63					
	Sig.	0.000	0.528					
Postpone write-down	<i>t</i>	−28.23	0.18	−0.46				
	Sig.	0.000	0.859	0.648				
Keep \$500 overpayment	<i>t</i>	−27.98	−0.78	−1.33	−0.95			
	Sig.	0.000	0.435	0.185	0.345			
Skimming fraud	<i>t</i>	−38.37	−7.90	−8.77	−8.26	−7.48		
	Sig.	0.000	0.000	0.000	0.000	0.000		
Claim duplicate reimbursement	<i>t</i>	−25.17	0.90	0.36	0.73	1.87	9.32	
	Sig.	0.000	0.372	0.723	0.464	0.063	0.000	
Sell employer's client list	<i>t</i>	−42.27	−9.83	−9.70	−8.64	−8.44	−1.29	−9.73
	Sig.	0.000	0.000	0.000	0.000	0.000	0.197	0.000

Notes: A negative *t* value indicates the action in the column receives lower DISAPPROVAL than the action in the row. The tests are two-tailed and are not adjusted for overall alpha risk.

acts most comparable to those in Grasso et al.'s (2009) study of managers and accounting professionals, the mean responses are quite similar: “burying scrap” was rated 4.22 versus 4.27 for the current sample ($p = 0.45$, two-tailed *t* test), and “ask a consulting firm to delay billing...” the average response for large and small amounts was 4.24, the same as the current sample.¹³

Table 5 shows the Pearson correlations between the variables. As expected from past studies, PSYCHOPATHY is correlated negatively with age and positively with male gender. It is negatively correlated with DISAPPROVAL as well as each of the individual unethical acts. A triangle in the table outlines the correlations between acceptability ratings of the eight hypothetical acts. The first (working overtime) is not significantly correlated with any of the others except for burying scrap cost—again consistent with participants understanding that working overtime to optimize the period's performance is of a completely different nature from the others. All but one of the correlations between the ratings of inappropriate acts are significant at the 0.05 level.

4.3. Data analysis

The four research questions address how accounting students' scores compare with samples from other populations, whether the scores are stable as students progress through an accounting program, how the scores relate to the acceptance of unethical practices, and the nature of the underlying values that individuals high on the psychopathy scale are embracing. These questions are addressed in turn below.

4.3.1. RQ1: How do accounting students' scores compare with samples from other populations?

Table 6 summarizes the PSYCHOPATHY scores from the current study and selected prior studies.¹⁴ The mean of the current sample is the fourth lowest, and it differs statistically from all but two of the other samples. The mean of Bailey's (2015) sample of accounting professors in the US and Canada is substantially lower than other samples, including this one, perhaps because, to my knowledge, it is the first published LSRP sample of a professional population. The relatively low scores for accounting students are consistent with findings of the Great British Psychopath Survey (Dutton, 2012, 162), which identified accountants as among the ten least psychopathic professions.¹⁵

4.3.2. RQ2: Do accounting majors' scores on the LSRP increase, decrease, or remain stable as their studies progress?

A one-way ANOVA of PSYCHOPATHY by class (Junior, Senior, Graduate/Bachelor's degree) shows no significant difference ($F [2, 249] = 1.64$, $p = 0.20$; not tabulated). Adjusting for covariates of age and gender makes the lack of difference even more evident (Table 7). After adjusting for these effects, class-level differences clearly are not significant ($p = 0.82$).

¹³ Specifically, these means refer to 4b and the average of 8a and 8b in Grasso et al. (2009, 53). With respect to the “innocuous” act of working overtime to maximize shipments, Grasso et al.'s participants expressed less disapproval (1.33 vs. 1.90, $p < 0.001$), perhaps because they are accustomed to actually participating in that practice.

¹⁴ The list is not exhaustive, and does not include certain samples outside North America or those reporting populations with ambiguous descriptions. Unfortunately for purposes of comparison, Wilson and McCarthy (2011) chose to use a seven-point response scale with the LSRP questions, and McHoskey, Worzel, and Szyarto (1998) used a five-point scale, so their studies are not included in the table. Gummelt, Anestis, and Carbonell (2012) incorrectly state in their article that the primary psychopathy scale includes 10 (rather than 16) items, and the mean score is inordinately high, so their study also is excluded.

¹⁵ In a study of first-year New Zealand college students, Wilson and McCarthy (2011) found commerce students to score higher on the LSRP than arts, science, and law students. Thus, to the extent that their sample included low-scoring accounting students, the current results suggest that the mean for non-accounting commerce (business) students would be even higher.

Table 5
Pearson correlation coefficients.

	Age	Gen-der	Work OT	Bury scrap	Delay billing	Post-poned W'down	Keep \$500	Skim-ming	Claim duplicate	Sell -client list	Psych-opathy
Gender, 1 = M, 0 = F	r Sig.	-.143 .024									
Work overtime to maximize year-end	r Sig.	.009 .887	-.157 .013								
Bury scrap to avoid scrutiny	r Sig.	.152 .016	-.033 .600								
Customer delay billing	r Sig.	.185 .003	-.084 .185	.348 .100							
Postpone write-down	r Sig.	.120 .059	.001 .984	.395 .000	.314 .000						
Keep \$500 overpayment	r Sig.	.147 .020	-.035 .579	.226 .000	.182 .004	.226 .000					
Skimming fraud	r Sig.	.043 .495	-.091 .149	.194 .804	.183 .004	.140 .026	.325 .000				
Claim duplicate reimbursement	r Sig.	.215 .001	-.039 .534	.202 .001	.211 .001	.156 .013	.399 .000	.340 .000			
Sell employer's client list	r Sig.	.064 .316	-.094 .139	.277 .000	.137 .029	-.003 .966	.275 .000	.256 .000	.179 .004		
PSYCHOPATHY (LSRP)	r Sig.	-.229 .000	.240 .000	-.274 .000	-.240 .000	-.170 .007	-.291 .000	-.168 .007	-.307 .000	-.324 .000	
DISAPPROVAL of inappropriate acts	r Sig.	.245 .000	-.082 .198	.114 .069	.656 .000	.603 .000	.582 .000	.655 .000	.627 .000	.429 .000	-.426 .000

Notes: Sig. indicates two-tailed p-values. The triangle encloses correlations between ratings of hypothetical (un)ethical actions.

Table 6

Comparison of PSYCHOPATHY scores in the current study to others.

Source	Population	N	Mean	SD	t ^a	p(t)
Bailey (2015)	Accounting professors, US and Canada	545	22.58	4.54	8.58	0.000
Book et al. (2015)	Undergraduate students at a Canadian university	40	25.61	4.86	2.44	0.015
Glenn et al. (2010)	Adult volunteers at yourmorals.org	2157	26.60	7.54	2.95	0.003
Current study	Accounting students (majors)	253	28.05	6.03	–	–
Campbell et al. (2009)	Students, introductory psychology University of New Brunswick, Canada	217	28.51	8.07	0.71	0.481
Walters, Brinkley, Magaletta, and Diamond (2008)	Male and female federal prison inmates	1972	28.70	7.60	1.31	0.191
Levenson et al. (1995)	Students, University of Calif. Davis	487	29.13	6.86	2.12	0.035
Malmstrom (2015)	Female students in undergraduate psychology course, San Jose State University	81	31.85	4.39	5.24	0.000
Book et al. (2015)	Males from the community of Kingston, Ontario ^b	50	32.30	6.50	4.50	0.000
Brinkley et al. (2001)	Minimum-security state prisoners	549	32.99	8.19	4.58	0.000
Book et al. (2015)	Male inmates, Ontario federal facility	59	34.18	7.32	6.74	0.000
Malmstrom (2015)	Male students in undergraduate psychology course, San Jose State University	52	34.98	6.84	7.37	0.000

Notes: Scores are from the primary psychopathy factor of the Levenson Self-Report Psychopathy Scale. Samples appear in ascending order of means.

^a The t tests are two-tailed and compare each of the other samples to the current study.^b Some of these were former prisoners at the Ontario federal facility (see other sample also in the list).**Table 7**

Analysis of covariance, PSYCHOPATHY by class, with gender and age.

Source	Type III sum of squares	df	Mean square	F	Sig.
Corrected model	840.869	4	210.217	6.440	0.000
Intercept	9277.031	1	9277.031	284.219	0.000
Age	278.781	1	278.781	8.541	0.004
Gender	369.505	1	369.505	11.320	0.001
Class	13.161	2	6.580	0.202	0.818
Error	7898.985	242	32.640		
Total	202052.000	247			
Corrected Total	8739.854	246			

Notes: Dependent variable: PSYCHOPATHY. $R^2 = 0.096$. Responses missing either class, age or gender are omitted.**Table 8**

Regression of DISAPPROVAL against PSYCHOPATHY and demographics.

B	Std. Error	Beta	t	Sig.	Partial Correl.	Tolerance	VIF
(Constant)	5.003	0.214	23.339	0.000	0.000		
Psycho	–0.033	0.005	–0.396	–6.647	0.000	–0.390	0.902
Gender	0.038	0.059	0.038	0.646	0.519	0.041	0.928
Age	0.013	0.006	0.130	2.147	0.033	0.135	0.879
Senior	0.038	0.063	0.038	0.598	0.550	0.038	0.814
Graduate	0.116	0.084	0.089	1.375	0.170	0.087	0.766

Notes:

Dependent Variable: DISAPPROVAL, the average score on the seven unethical acts (1 = Completely acceptable, 5 = Completely unacceptable).

N = 253, adjusted $R^2 = 0.19$.

PSYCHOPATHY: Primary psychopathy score, Levenson's Self-Report Psychopathy Scale.

Gender: 1 = M, 0 = F (mean substitution used for 2 missing values).

Age: Age in years (mean substitution used for 4 missing values).

Graduate: 1 = graduate status or completed bachelor's degree, else 0.

Senior: 1 = Senior status, else 0 (Junior status indicated by both Graduate and Senior set to 0).

Variance inflation factors (VIFs) are well above 0.2, indicating the absence of a multicollinearity problem.

4.3.3. RQ3: How highly do psychopathy scores correlate with acceptance of unethical practices?

To address this question, I use a multiple regression to assess the residual amount of variance explained over-and-above any effects of age, gender, and class level. Table 8 shows such a regression analysis of DISAPPROVAL against PSYCHOPATHY, Gender, Age, and two indicator variables for class level (Graduate and Senior, leaving Junior as the

default comparison level). PSYCHOPATHY is significant and explains about 15.2% of the variance in DISAPPROVAL (the square of the partial correlation coefficient of 0.39) after accounting for the other variables, which combined explain only about 3%. Gender is not significant, but Age is significant ($p = 0.033$), reflecting stronger disapproval by older participants.

To test the robustness of the regression analysis, I conducted several alternative analyses. First, the “outlier” participant with the extreme PSYCHOPATHY score of 63 does not drive the results, as deletion of that observation leaves the coefficients and significance levels almost unchanged. Second, I repeated the analysis excluding the eighteen responses mentioned above that exhibited an anomalous inversion of acceptability ratings, yet were retained because they seemed logically coherent upon inspection. The results again held with very little difference. Varying the definition of the aggregate DISAPPROVAL variable, by excluding the items that may be more ambiguous for beginning students (such as delaying billing), also gives consistent results.

Finally, I ran eight multiple regressions using in turn each of the eight individual acts as the dependent variable, and all of the relationships are directionally consistent with the main analysis. The action of working overtime (excluded from the main analysis) produces no significant relationships, as respondents recognize it as essentially ethical. All of the other regres-

Table 9
“Heat map” of acceptance ratings.

PSY	n	OT	Hide Scrap	Delay Billing	Post- pone writeoff	Keep \$500	Skim Check	Dup. Reimb.	Sell Client List	Disapproval
16	1	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
18	8	2.75	4.75	4.75	4.63	5.00	5.00	5.00	5.00	4.88
19	7	1.86	4.57	4.43	4.14	4.57	4.86	4.86	5.00	4.63
20	11	2.45	4.55	4.64	4.45	4.73	4.82	4.45	5.00	4.66
21	9	1.89	4.67	4.67	4.78	4.78	5.00	4.78	5.00	4.81
22	16	1.75	4.44	4.63	4.50	4.69	4.88	4.63	4.88	4.66
23	6	2.00	4.33	4.67	4.33	5.00	5.00	4.50	5.00	4.69
24	13	2.08	4.62	4.54	4.46	4.00	5.00	4.54	4.92	4.58
25	14	2.14	3.93	4.14	3.93	4.36	4.93	4.57	5.00	4.41
26	15	1.73	4.40	4.00	4.27	4.27	4.93	4.13	4.93	4.42
27	17	1.71	4.24	3.82	4.29	4.35	4.71	3.94	4.88	4.32
28	23	1.70	4.39	4.00	4.04	4.17	4.74	3.70	4.91	4.28
29	18	2.17	4.28	4.44	4.72	4.44	4.83	4.17	4.61	4.50
30	20	1.90	4.55	4.50	4.25	4.35	4.85	4.20	4.85	4.51
31	8	1.75	3.88	3.88	3.75	4.00	5.00	4.13	5.00	4.23
32	11	1.45	4.45	4.09	4.55	4.09	4.64	4.45	4.91	4.45
33	12	2.08	3.67	4.42	4.08	4.50	4.67	3.58	4.83	4.25
34	16	1.69	3.94	4.00	4.06	4.19	4.75	4.31	4.94	4.31
35	9	1.89	4.33	4.22	4.44	4.22	4.67	4.44	4.56	4.41
36	3	2.67	4.00	4.00	4.67	4.67	5.00	3.67	4.67	4.38
37	3	2.00	4.67	4.33	4.00	4.67	5.00	4.33	5.00	4.57
38	3	1.67	3.33	4.33	4.00	3.67	4.67	3.67	5.00	4.10
39	3	1.67	4.00	4.00	4.67	3.67	4.33	3.67	4.33	4.10
42	3	1.67	3.00	2.67	4.33	3.33	4.67	2.67	3.33	3.43
43	1	1.00	4.00	2.00	3.00	4.00	4.00	4.00	5.00	3.71
44	1	2.00	1.00	2.00	1.00	2.00	2.00	2.00	4.00	2.00
46	1	1.00	2.00	2.00	3.00	4.00	5.00	5.00	5.00	3.71
63	1	1.00	4.00	5.00	3.00	1.00	5.00	2.00	2.00	3.14

Notes:

PSY: Primary PSYCHOPATHY score, Levenson's self-report psychopathy scale.

n: Number of participants scoring at each level of PSYCHOPATHY.

The remaining columns contain the average acceptance of seven unethical acts (1 = Completely acceptable, 5 = Completely unacceptable) and DISAPPROVAL, the overall average of these. Darker shades indicate greater acceptance (lower DISAPPROVAL).

sions have significant coefficients for PSYCHOPATHY. Delaying billing is recognized as more serious by seniors and graduate students, as some of the juniors may not comprehend the matching principle.

4.3.4. RQ4: At the highest measured levels of nonclinical psychopathy in this sample, what values and attitudes are students embracing?

As an overview of the relationships between PSYCHOPATHY and each of the acts, Table 9 shows a “heat map” of the average scores, ranked from low to high PSYCHOPATHY. Darker shading indicates less disapproval of the actions. The “Work Overtime” act does not show a trend as PSYCHOPATHY increases, because participants generally recognize it as being ethically neutral. In the remaining columns, disapproval of the other acts, and the aggregate DISAPPROVAL score, decline noticeably only as PSYCHOPATHY scores reach the high 30s. Note, as shown in Table 6, scores that high tend to be from prison populations. The heat map indicates that participants scoring in the 40s or higher are noticeably more accepting of the unethical practices.

In order to understand the relationship between PSYCHOPATHY and the acceptance of unethical practices, it is useful to examine the precise values and attitudes that individuals are accepting or rejecting as they respond to the 16 items on the LSRP (questions 9–25, Appendix A). Appendix B reports the beliefs and assertions implicitly made by four of the highest-scoring participants, by extracting their responses to the questionnaire. The fact that participants are willing to admit to such attitudes and beliefs seems to support the power of directly asking sensitive questions when anonymity is assured. Readers are left to draw their own conclusions about the behavioral intentions of individuals holding the reported beliefs, but the responses help to give an intuitive feel for connection between psychopathic tendencies and acceptance of unethical behaviors.

5. Discussion

The implications of this study are generally favorable for the accounting profession. Notably, the mean level of psychopathic tendencies among accounting students is significantly lower than most other samples of students. The study provides some comfort that individuals higher on the psychopathy scale tend not to be attracted to accounting. Once students begin their studies, the favorably low psychopathy levels persist (based on cross-sectional data), suggesting that no selection or winnowing-out occurs, so that the characteristics seen in students may persist into their professional lives. Combined with Bailey's (2015) finding of very low psychopathy levels among accounting faculty, this speaks well for the accounting profession in the US.

Even if the average level of psychopathy within a group is low, as it is with the samples of accounting students and faculty, substantial variance typically will exist. It is the higher “outliers” that will likely cause problems, and the attitudes demonstrated by the most extreme observations in the current sample indicate why this is so. The average psychopathy level on Bailey's (2015) sample of accounting faculty was significantly lower than the accounting student sample, but the variable was statistically associated with acceptance of unethical research-and-publication attitudes, and in turn affected individuals' publication counts.¹⁶ Given the potential for harm, it is important to recognize that psychopathic tendencies exist among students and professionals, and more research is warranted.

Researchers should consider the role of psychopathy, as a covariate or a moderator, when they study other psychological constructs. Cook et al. (2011) recognized that psychopathy might limit the development of emotional intelligence (EI), and they included psychopathy as a covariate in their study of EI among students. Indeed, psychopathy is the most significant variable in each of their ANCOVAs, and had they not included it as a covariate, their findings about EI likely would have been obscured by the unexplained (“error”) variance. As an example of a moderating effect, the effectiveness of ethical training will likely be diminished for individuals with higher levels of psychopathy, who are swayed only by self-interest.

This study bodes well for researchers investigating phenomena perceived as extreme or unusual, such as psychopathy. Because they are rare, extreme phenomena often are difficult to capture statistically. Nonetheless, this study demonstrates that subclinical psychopathy, as measured with an established self-report instrument, partially drives important unethical attitudes, and presumably the willingness to carry out unethical or fraudulent acts (Riopka et al., 2015). It also demonstrates, consistent with Bailey (2015), that research participants are willing to give frank responses to sensitive or incriminating questions when they are confident of anonymity. Although it is likely that self-presentation bias causes some overstatement of the true level of “disagreement” with unethical practices, it was not necessary to employ the popular “third-person” method of asking what one's peers would believe.

An important insight for students, as well as practitioners, is that *not* everyone has a conscience—a fact that runs counter to conventional wisdom.¹⁷ With respect to the study of fraud prevention, in particular, students should recognize that psychopathic individuals will be predators, and the fraud-triangle model can be expanded to include such

¹⁶ It is reasonable to assume a causal connection from psychopathy to attitudes, given that psychopathy is an enduring personality trait that affects one's values—while attitudes derive from values, relate to specific objects, and are more labile (Rokeach, 1973, 18).

¹⁷ A Google Scholar search of “everyone has a conscience” produces many results, ranging from the Bible (Romans 2:14–15), to Immanuel Kant, to popular literature. The title of Hare's (1993) exposition of psychopathy, “*Without Conscience...*” emphasizes the essence of the disorder, explaining why clinical psychopaths can sleep peacefully following horrendous acts.

individuals (Dorminey et al., 2012, 568). Dorminey et al. (2012) point out that predators are driven internally, in contrast to the “otherwise good citizen” who succumbs to pressures. Such individuals tend to be serial offenders, who typically escape prosecution. For them, opportunity becomes the sole necessary ingredient; they commit fraud simply “because they can.”

Given the recognition that psychopathy exists among students and professionals, what can educators and employers do about it? Psychopathy is not “treatable” (Decety et al., 2013; Hare, 1993), so any effect from the educational curriculum would likely be from screening out or attracting students with this characteristic. If the accounting profession presents itself as embracing ethical conduct and higher values, psychopaths will not find it attractive. Testing of employees or recruits for psychological traits is already a common practice (Kaplan & Saccuzzo, 2008). The use of a test for psychopathy, such as the B-Scan 360, developed for a business setting (Babiak, 2005) is feasible, and Egan (2016) reports that Hare is “validating a research tool that HR departments and corporate staffers could eventually use to screen prospective and current employees, from mailroom to corner office” (52).¹⁸ Such a test could play a role in screening accounting students, as well. Although one might expect “faking,” the desirable answer is not always obvious, because psychopathic attitudes often are mistaken for strong or decisive business leadership (Babiak & Hare, 2006). The following examples from the LSRP might comport with some students’ perceptions of business practices: “Success is based on survival of the fittest; I am not concerned about the losers”; “Making a lot of money is my most important goal” and “I let others worry about higher values; my main concern is with the bottom line.” Arguably, individuals who agree with these statements should not be discouraged or screened from the accounting discipline and profession. The professional bodies are well placed to consider a test such as the B-Scan 360 as part of the admission process to becoming a CPA.

With respect to accounting curricula and teaching, Ramamoorti (2008) argues that fraud and forensic accounting programs should devote more attention to the behavioral sciences. The book *Snakes in Suits* (Babiak & Hare, 2006) should be considered for a fraud, forensic accounting, or auditing course; the fascinating case studies demonstrate how psychopaths operate in organizations. The current study could be useful for a learning exercise. Students could privately score themselves on the LSRP primary psychopathy scale¹⁹ and discuss the variety of attitudes among their professional peers, the implications of those attitudes, and the potential for observing psychopathic tendencies in the workplace.

This study represents an initial effort to assess the nature of one of the “Dark Triad” of personality factors in accounting students. The other two factors, narcissism and Machiavellianism, share some features of self-centeredness and opportunism that can induce fraud, although psychopathy seems the most dangerous. Notably, the study of “dark” personality factors is evolving, and recently developed inventories facilitate studying them in tandem; see Paulhus (2014), who advocates the addition of “everyday sadism” to form a “Dark Tetrad.”

Limitations of the current study are related largely to its exploratory, descriptive nature. Future studies can extend the descriptions to other populations, as well as testing hypotheses about the effects of psychopathy in settings of theoretical interest. Notably, age was a statistically significant predictor after taking psychopathic tendencies into account, indicating unexplained variance due to generational or traditional/nontraditional student status. Representative questions for further research include the following: Why are accounting students relatively low on the psychopathy scale, and what can be learned to further strengthen recruitment into the accounting profession? Does the favorable profile extend to practitioners, and how does attrition affect the profile across experience levels? How does psychopathy predict or affect promotion in the accounting profession? Does the profile differ across practice specialty areas? Do the other dark triad variables explain further variance in fraud-acceptance attitudes—or explain a different set of antisocial attitudes?

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¹⁸ Babiak (2007, 412) notes that “Until several years ago, few corporations were willing to investigate even the most benign dark side traits among their employees, let alone psychopathy. However, in this post-9/11 world, the realization that freedom requires vigilance has opened the door to understanding the role psychopathy may play.” Ultimately, the fact that physical brain differences exist in psychopaths (Decety et al., 2013) may allow reliable detection, although privacy rights are an obvious concern.

¹⁹ An interactive LSRP instrument is available online at <http://personality-testing.info/tests/LSRP.php> (accessed July 15, 2017). It reports scores for both factors, although the reported primary psychopathy score must be multiplied by 16 to obtain the total.

Appendix A. Questionnaire

First, please answer a few demographic questions:

Age in years (optional but appreciated)

Gender: Female Male Prefer not to disclose

Your class standing: Junior Senior Graduate student or earned Bachelor's

Sponsorship of your school: Public Private non-religious Religious

The next questions concern your approval or disapproval of a variety of acts. The practice of “earnings management” has received considerable attention in recent years. At year-end, if corporate performance is not meeting expectations, managers often look for ways to affect or “adjust” the earnings, or to otherwise make the financial statements look better. In each of the cases below, assume that:

- Management has a *strong personal incentive to increase reported earnings*, such as ensuring a large bonus or a positive performance evaluation; and
- *If the act is questionable or even illegal, the chance of detection and punishment is very small.*

For each of the eight acts described below, please decide whether, in your own mind, the action is...

- Completely acceptable
- Moderately acceptable
- Unclear
- Moderately unacceptable
- Completely unacceptable

1. Work overtime to ship everything possible before the end of the year to meet the annual budget

target.

2. Bury most of scrap expense in other expense accounts to avoid scrutiny of excessive scrap

costs.

3. Ask a consulting firm to delay invoicing for a large amount of work already done until next

year.

4. Postpone writing off spoiled, worthless inventory.

An employee might benefit financially from many other actions, such as the following. Assume the individual strongly needs the money for reasons such as family financial distress, and is very unlikely to be caught.

5. Choose not to report excessive payment of \$500 included in a paycheck, due to a clerical error.
6. Deposit a check, received in payment of a written-off account, to one's own personal bank account.
7. Claim duplicate reimbursement for lodging related to a business trip, when one's spouse also claims reimbursement for the same expense from their employer.
8. Sell the company's client list to a competitor.

The remaining questions concern your personal attitudes and beliefs. Response options for these questions are:

- Disagree strongly
- Disagree somewhat
- Agree somewhat
- Agree strongly

9. Success is based on survival of the fittest; I am not concerned about the losers.
10. For me, what's right is whatever I can get away with.
11. In today's world, I feel justified in doing anything I can get away with to succeed.
12. My main purpose in life is getting as many goodies as I can.
13. Making a lot of money is my most important goal.
14. I let others worry about higher values; my main concern is with the bottom line.
15. People who are stupid enough to get ripped off usually deserve it.

16. Looking out for myself is my top priority.
17. I tell other people what they want to hear so that they will do what I want them to do.
- * 18. I would be upset if my success came at someone else's expense.
- * 19. I often admire a really clever scam.
- * 20. I make a point of trying not to hurt others in pursuit of my goals.
21. I enjoy manipulating other people's feelings.
- * 22. I feel bad if my words or actions cause someone else to feel emotional pain.
- * 23. Even if I were trying very hard to sell something, I wouldn't lie about it.
- * 24. Cheating is not justified because it is unfair to others.
- ** 25. Euthanasia is wrong because only God should decide when a person's life should end.

Comments and feedback will be appreciated (please do not identify yourself):

Please don't hit Enter (Return).

Please when complete.

Notes:

* Reverse-scored items.

** "Religiosity" measure from the Defining Issues Test (Rest 1990), included on an exploratory basis. Listed as last item to minimize interference with the study variables. Not used in the study.

Notes:

* Reverse-scored items.

** "Religiosity" measure from the Defining Issues Test (Rest, 1990), included on an exploratory basis. Listed as last item to minimize interference with the study variables. Not used in the study.

Appendix B. Attitudes and values expressed by high-LSRP-scorers

Given the novelty in accounting research of Levenson's Self-Reported Psychopathy Scale (Levenson et al., 1995), this appendix offers examples of the underlying attitudes and beliefs represented by some of the high scores. The following examples reveal the statements accepted by individuals scoring high on PSYCHOPATHY. These are excerpts pieced together from the questionnaire items (items 9–24 in Appendix A) with which they agreed or disagreed.

Male junior, age 19, PSYCHOPATHY score 63:

I agree strongly that ...

Success is based on survival of the fittest; I am not concerned about the losers.

For me, what's right is whatever I can get away with.

In today's world, I feel justified in doing anything I can get away with to succeed.

My main purpose in life is getting as many goodies as I can.

Making a lot of money is my most important goal.

I let others worry about higher values; my main concern is with the bottom line.

People who are stupid enough to get ripped off usually deserve it.

Looking out for myself is my top priority.

I tell other people what they want to hear so that they will do what I want them to do.

I often admire a really clever scam.

I enjoy manipulating other people's feelings.

I disagree strongly that ...

I would be upset if my success came at someone else's expense.

I make a point of trying not to hurt others in pursuit of my goals.

I feel bad if my words or actions cause someone else to feel emotional pain.

Cheating is not justified because it is unfair to others.

I disagree somewhat that ...

Even if I were trying very hard to sell something, I wouldn't lie about it.

Acts I consider *completely acceptable* include ...

Keeping \$500 erroneously included in my paycheck.

Acts I consider *moderately acceptable* include ...

Claiming duplicate travel reimbursement.

Selling the company's client list to a competitor.

Male senior, age 22, PSYCHOPATHY score 46:

I agree strongly that ...

My main purpose in life is getting as many goodies as I can.

Making a lot of money is my most important goal.

Looking out for myself is my top priority.

I agree somewhat that ...

Success is based on survival of the fittest; I am not concerned about the losers.

For me, what's right is whatever I can get away with.

In today's world, I feel justified in doing anything I can get away with to succeed.

I let others worry about higher values; my main concern is with the bottom line.

I tell other people what they want to hear so that they will do what I want them to do.

I disagree somewhat that ...

I would be upset if my success came at someone else's expense.

I make a point of trying not to hurt others in pursuit of my goals.

I feel bad if my words or actions cause someone else to feel emotional pain.

Acts I consider *moderately acceptable* include ...

Burying scrap expense to avoid scrutiny.

Having a supplier delay billing for a large amount of completed work.

Acts I consider [only] *moderately unacceptable* include ...

Keeping \$500 erroneously included in my paycheck.

I am unsure about the acceptability of postponing the write-down of worthless inventory.

Female junior, age 19, PSYCHOPATHY score 42:

I agree somewhat that ...

Success is based on survival of the fittest; I am not concerned about the losers.

Making a lot of money is my most important goal.

I let others worry about higher values; my main concern is with the bottom line.

People who are stupid enough to get ripped off usually deserve it.

Looking out for myself is my top priority.

I tell other people what they want to hear so that they will do what I want them to do.

I disagree somewhat that ...

I would be upset if my success came at someone else's expense.

Acts I consider [only] *moderately unacceptable* include ...

Burying scrap expense to avoid scrutiny.
 Having a supplier delay billing for a large amount of completed work.
 Postponing the write-down of worthless inventory.
 Keeping \$500 erroneously included in my paycheck
 I am unclear about the acceptability of keeping \$500 erroneously included in my paycheck.

Female junior, age 26, PSYCHOPATHY score 42:

I disagree strongly that ...

I would be upset if my success came at someone else's expense.

Cheating is not justified because it is unfair to others.

I agree somewhat that ...

For me, what's right is whatever I can get away with.

Making a lot of money is my most important goal.

I let others worry about higher values; my main concern is with the bottom line.

People who are stupid enough to get ripped off usually deserve it.

I enjoy manipulating other people's feelings.

I disagree somewhat that ...

I make a point of trying not to hurt others in pursuit of my goals.

Even if I were trying very hard to sell something, I wouldn't lie about it.

Acts I consider *completely acceptable* include ...

Burying scrap expense to avoid scrutiny.

Selling the company's client list to a competitor.

Acts I consider *moderately acceptable* include ...

Having a supplier delay billing for a large amount of completed work.

I am unclear about the acceptability of keeping \$500 erroneously included in my paycheck.

Appendix C. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.jaccedu.2017.09.004>.

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