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Using the Triarchic model of psychopathy to replicate "Greed is good? Student disciplinary choice and self-reported psychopathy"

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Abstract ■ The present study is a replication of Wilson and McCarthy (2011) [Greed is good? Student disciplinary choice and self-reported psychopathy. Personality and Individual Differences, 51(7), 873–876]. We replicated the previous findings, supporting higher levels of primary psychopathic traits, as measured by Meanness, in commerce students in comparison to students from other disciplines. Our results also indicate that law students display higher levels of boldness than students from any other field, and that science students display higher levels of disinhibition than students in arts or social sciences.

Keywords ■ Psychopathy; University major; Triarchic model; Social desirability; Field of study.

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Introduction

Psychopathy is a personality condition characterized by callousness, impulsivity, lack of empathy, and social deviance (Berg et al., 2013). The diagnosis of psychopathy is given by assessing an individual with the Psychopathy Checklist-Revised (PCL-R; Hare, 2003). Upon its conception, the PCL was divided in two, with Factor 1 assessing affective-interpersonal characteristics and Factor 2 assessing socially deviant behaviors. Subsequently, a revision containing four facets was developed, dividing each factor in two: Facet 1 includes interpersonal items, Facet 2 includes affective items, Facet 3 includes behavior lifestyle items, and Facet 4 includes antisocial items (Hare & Neumann, 2005).

Since the PCL-R was developed for use in forensic settings, and due to its reliance on criminal tendencies, various self-report instruments assessing psychopathic traits in the general population were developed. One of these instrument is the Levenson Self-Report Psychopathy scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995). The LSRP is a 26-item measure developed based on the initial two-factor model of the PCL-R to examine psychopathic traits in college students and the general population (Ross, Bye, Wrobel, & Horton, 2008). The subscale primary psychopathy assesses manipulative and egoistical personality traits, while the subscale secondary psychopathy focuses on impulsivity and the inability to learn from mistakes. However, subsequent research on the instrument indicates that the LSRP captures more traits related to antisocial personality disorder (ASPD) than psychopathy (Lilienfeld & Fowler, 2006). Although sharing several similarities (e.g. impulsivity, irresponsibility, lack of remorse), psychopathy and ASPD distinguish each other by exclusive traits to psychopathy related to affective and interpersonal features (e.g., empathy deficits, shallow moral emotions, social potency, immunity to stress, and venturesomeness Berg et al., 2013; Murphy, Lilienfeld, Skeem, & Edens, 2016). Furthermore, past research demonstrates a limited relationship between the LSRP and bold interpersonal features (social potency and stress/anxiety immunity Patrick, 2010; Poythress et al., 2010; Sellbom & Phillips, 2013; Witt, Donnellan, Blonigen, Krueger, & Conger, 2009).

A recently developed model of psychopathy, the Tri-

Table 1 ■ Means (and SD) for the TriPM components by field of study.

	Arts (n = 30)	Social Sciences (n = 91)	Sciences (n = 221)	Commerce (n = 82)	Law (n = 54)	Other (n = 85)
Boldness	42.2 (11.0)	44.7 (10.7)	46.4 (10.1)	48.7 (9.3)	51.2 (8.3)	48.5 (8.7)
Disinhibition	35.9 (8.1)	37.2 (8.1)	37.7 (9.0)	37.7 (9.3)	36.6 (8.1)	37.7 (8.1)
Meanness	27.5 (6.8)	31.8 (10.1)	35.3 (10.3)	38.8 (9.8)	34.6 (10.0)	36.7 (10.6)

archic Psychopathy Model, has received considerable attention due to its construct validity (Patrick, Fowles, & Krueger, 2009). The Triarchic model defines psychopathy as three components: Boldness, Meanness, and Disinhibition. Boldness refers to adaptive features, such as social dominance, fearlessness, stress immunity, and self-assurance. Meanness refers to aggression towards others, an absence of empathy, excitement through destruction, and represents the affective/interpersonal deficits. Disinhibition refers to impulsivity and lack of behavioral restraints, and represents the behavioral deficits. The Triarchic Psychopathy Measure (TriPM; Patrick, 2010) was developed based on the Triarchic model, assessing psychopathic traits through 58 self-reported items. Recent evidences show that the TriPM is a viable instrument to assess psychopathic traits in the general population due to its inclusion of both adaptive functioning and externalizing problems (Drislane, Patrick, & Arsal, 2014; Stanley, Wygant, & Sellbom, 2012; van Dongen, Drislane, Nijman, Soe-Agnie, & van Marle, 2017).

Considering that various instruments in the field of psychopathy adhere to different conceptualizations of the disorder, the choice of the instrument can affect the results of a study. For instance, Wilson and McCarthy (2011) examined the relationship between university student's major of study and psychopathic traits as defined by the LSRP, and concluded that students majoring in commerce had higher levels of primary psychopathy than students from arts, science, law, or other fields. The authors supported their findings by proposing that majors in commerce attract individuals with high levels of determination, manipulative behaviors and low empathy. This study was the first to examine the relationship between university majors and psychopathy, and it has not been replicated up to date. Hence, the purpose of the present study is to determine if the results would remain consistent when assessing psychopathy using an alternative model of psychopathy including an adaptive component.

Method

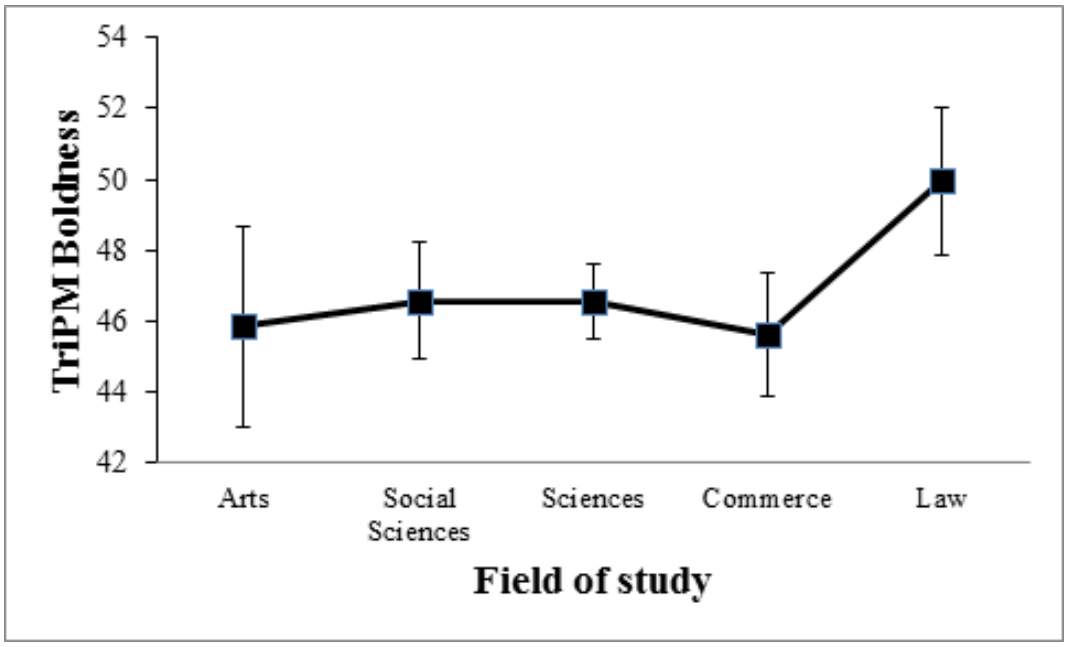
Participants

A total of 563 university students were recruited online via websites dedicated to psychological research (www.callforparticipants.com, reddit.com/r/SampleSize). Although relatively new, several studies support the efficiency and validity of recruiting participants on web-based forums such as reddit.com (Casler, Bickel, & Hackett, 2013; Jamnik & Lane, 2017; Shatz, 2016). The sample consisted of 337 males and 226 females. Participants were mostly bachelor students (72%), followed by master students (13%), doctoral students (10%), or other (5%). Participants were mostly located in North America (63%), Asia (16%), Europe (15%), Oceania (5%), or other (1%). In terms of ethnicity, participants were mostly Caucasian (66%), Asian (21%), or other (13%). The distribution of participants by field of study differed significantly from the original study. Originally, all participants were undergraduate psychology students who identified their majors as arts (65%), science (14%), commerce (13%), law (5%), or other (3%). In the present study, participants were recruited based on their field of study, rather than their major. Participants' field of study was sciences (39%), followed by social sciences (16%), commerce (15%) and other (15%), law (10%), or arts (5%). The participants' mean age was 22.53 (SD = 4.19). All participants provided informed consent prior to completing the questionnaires. The participants did not receive a financial compensation for participating in this study.

Materials and Procedure

The procedure for this experiment was the same as the one used by Wilson and McCarthy (2011), with the exception of the following differences. First, we added a sixth option for the participant's field of study, namely social sciences. Second, we replaced the LSRP used in the original study with the TriPM (Patrick, 2010). This instrument is answered using a 4-point Likert scale (true, mostly true, mostly false, false). Although the components assessed in the TriPM and the LSRP differ to some extent, past findings reported a strong correlation between Meanness and LSRP Primary psychopathy ($r = .56$), as well as Disinhibition

Figure 1 ■ The mean scale scores on Boldness as a function of field of study, including gender, SDE, and IM as covariates. Error bars are at 95% confidence interval.



and LSRP Secondary psychopathy ($r = .60$) (Drislane et al., 2014). In addition to a total score, it provides three components scores (Boldness, Meanness, Disinhibition). The two subscales of the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991), namely Impression Management (IM) and Self-Deceptive Enhancement (SDE), remained unchanged from the original study.

Results

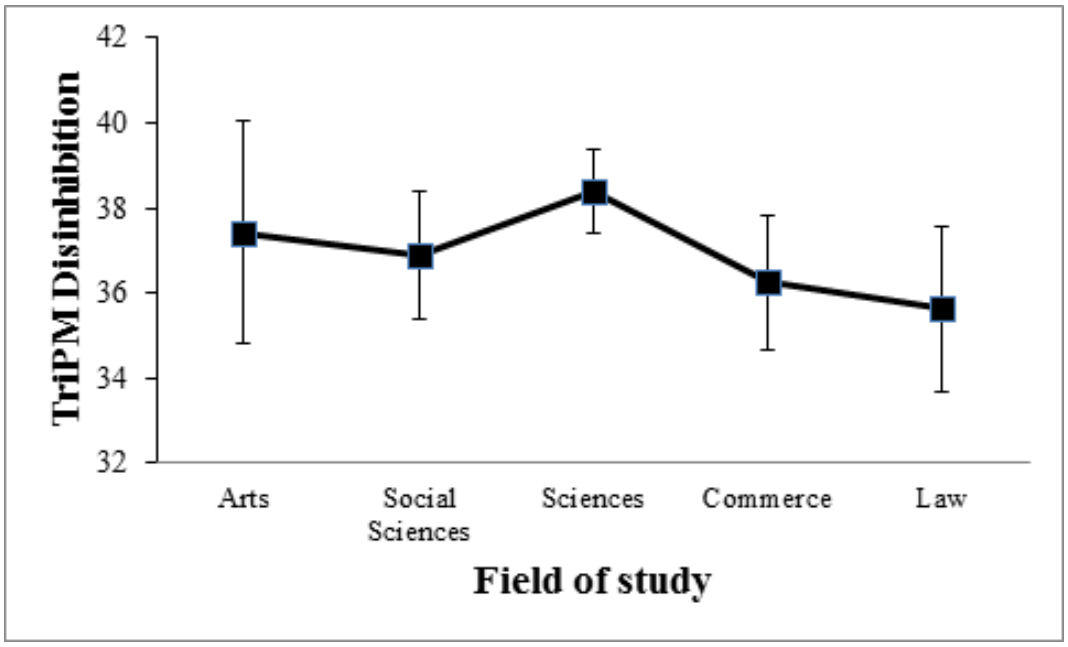
The three components of the TriPM correlated strongly with the TriPM total ($r = .62$ to $.85, p < .001$). Impression Management correlated negatively with Boldness ($r = -.21, p < .001$), Disinhibition ($r = -.55, p < .001$) and Meanness ($r = -.53, p < .001$). Alternatively, Self-Deceptive Enhancement was positively correlated with Boldness ($r = .61, p < .001$), and Meanness ($r = .16, p < .001$), but negatively correlated with Disinhibition ($r = -.25, p < .001$). Although the present population's mean scores on Disinhibition and Meanness were below the scale mid-point, the mean score on Boldness was sensibly the same (47) as the mid-point mean of the component (47.5). Table 1 shows the mean score on the three components of the TriPM by field of study.

In terms of gender differences, males scored significantly higher than females on Boldness ($t(561) = 6.22, p < .001$) and Meanness ($t(561) = 5.49, p < .001$), but no difference was observed on Disinhibition ($t(561) = 0.72, p = .470$). In addition to scoring higher on Boldness and Meanness, males were also more likely to identify their field of study as sciences, commerce, and law, and less likely to be enrolled in arts and social sciences ($\chi^2(5) = 38.55, p < .001$).

Based on the association between Impression Management, Self-Deceptive Enhancement, and psychopathic traits, in addition to the higher scores observed in males for Boldness and Meanness, a multivariate ANCOVA was conducted with the three TriPM components as dependent variables, field of study as between-subject factors, and IM, SDE, and gender as covariates. Due to the potentially high discrepancy of fields of study in the category 'other', only participants in arts, social sciences, sciences, commerce, and law were included in the following analyses.

The MANCOVA revealed a statistically significant difference between fields of study and psychopathic traits ($F(12, 1238) = 3.606, p < .001$); Wilk's $\Lambda = 0.913$, partial $\eta^2 = .03$. Tests of between-subjects effects indicate that IM was a significant covariate for Boldness ($F(1, 470) = 49.87, p < .001$), Disinhibition ($F(1, 470) = 198.96, p < .001$), and Meanness ($F(1, 470) = 198.29, p < .001$). Similarly, SDE was a significant covariate for Boldness ($F(1, 470) = 324.71, p < .001$), Disinhibition ($F(1, 470) = 24.96, p < .001$), and Meanness ($F(1, 470) = 24.83, p <$

Figure 2 ■ The mean scale scores on Disinhibition as a function of field of study, including gender, SDE, and IM as covariates. Error bars are at 95% confidence interval.



.001). Gender was a significant covariate for Boldness ($F(1, 470) = 31.38, p < .001$) and Meanness ($F(1, 470) = 13.61, p < .001$). Field of study has a significant main effect for Boldness ($F(4, 470) = 3.00, p = .018$), Disinhibition ($F(4, 470) = 2.49, p = .042$), and Meanness ($F(4, 470) = 5.07, p = .001$).

Figures 1, 2, and 3 show marginal means for psychopathy adjusted for the effect of IM, SDE, and gender as covariates. Regarding Boldness, pairwise comparisons indicate that law students display significantly higher levels of boldness traits than students from arts ($p = .020$), social sciences ($p = .011$), sciences (p = .004), and commerce ($p = .001$). No other difference was observed between the other fields. For Disinhibition, students in sciences scored higher than those in commerce ($p = .022$) and in law ($p = .011$). Regarding Meanness, students in commerce scored significantly higher than arts students ($p = .006$) and social sciences students ($p = .015$). Similar results were observed in science students, who scored higher than arts students ($p = .001$) and social science students ($p = .002$).

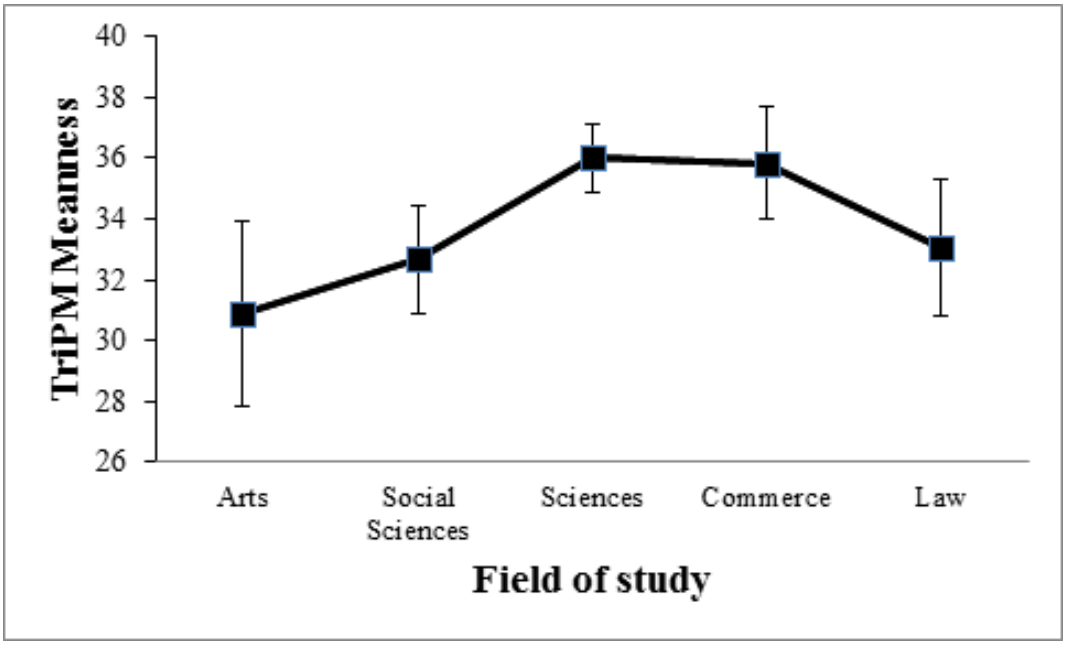
Discussion

The results in the present study support the findings of Wilson and McCarthy (2011), and expand on the role of the field of study on Boldness and Disinhibition. Meanness, which is strongly correlated with primary psychopathy from the LSRP, was higher in commerce students, and significantly different from students in arts or social sciences (Drislane et al., 2014). However, when taking into account all covariates, the mean of science students on Meanness was slightly higher ($M = 36.00$) than commerce students ($M = 35.83$), supporting the importance of taking desirable responding and gender as covariates.

In addition to the confirmed higher levels of meanness in commerce students, our study highlights two new findings. First, students in law displayed higher levels of boldness than any other discipline examined. Although to our knowledge no studies explicitly examined psychopathic traits in law students, multiple studies based on anecdotal references support that highly psychopathic individuals tend to occupy various positions, such as lawyers, politicians, and businessmen (Mullins-Sweatt, Glover, Derefinko, Miller, & Widiger, 2010; Skeem, Polaschek, Patrick, & Lilienfeld, 2011; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003). Second, higher levels of disinhibition were found in participants studying in science. Once again, we did not find previous findings supporting or disproving the relationship between studying in science and higher levels of impulsivity and behavioral deficits.

Our study replicated additional minor findings. First, as observed in the original study, males displayed higher

Figure 3 ■ The mean scale scores on Meanness as a function of field of study, including gender, SDE, and IM as covariates. Error bars are at 95% confidence interval.



levels of Meanness (equivalent of primary psychopathy) and Boldness, but not in Disinhibition (equivalent of secondary psychopathy). The relationship between psychopathy and gender is highly unclear, as some studies found differences across all dimensions of psychopathy (Durand & Plata, 2017; Poy, Segarra, Esteller, López, & Moltó, 2014), others found differences in only portions of the components of psychopathy (Durand, 2016; Miller, Gaughan, & Pryor, 2008), while others did not observe any relationship between gender and psychopathy (Miller, Watts, & Jones, 2011). Additionally, the covariate effect of IM was replicated on all components of the TriPM. Although results regarding SDE were omitted in the original study, the present study supports a strong correlation between self-deceptive enhancement and Boldness, as well as weak correlations with Disinhibition and Meanness.

In conclusion, our findings support the effect of the field of study in psychopathic traits, and we replicate the higher scores on Meanness observed in commerce students. We expanded this replication by supporting an association between the law field and higher levels of Boldness, and the science field and higher levels of Disinhibition. Although our sample size was significantly smaller than in the original study, our participants distribution by field of study reflects the size of the smallest groups in Wilson and McCarthy's (2011) study. Subsequent studies should consider investigating psychopathic traits in subfields of science (life science, engineering, technology, mathematics, etc.) and law (common law, civil law, forensic, etc.). Alternatively, investigating psychopathic traits in a cohort of students from admission in commerce, science, and law to graduation would help determine if psychopathic individuals are more likely to register in these fields, or if they develop higher psychopathic traits during their studies.

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