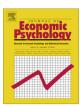
FISEVIER

Contents lists available at ScienceDirect

# Journal of Economic Psychology

journal homepage: www.elsevier.com/locate/joep



# Do psychopathic traits predict professional success?

Hedwig Eisenbarth\*, Claire M. Hart, Constantine Sedikides

University of Southampton, United Kingdom



#### ARTICLE INFO

Article history: Received 17 May 2017 Received in revised form 12 January 2018 Accepted 12 January 2018 Available online 16 January 2018

Keywords:
Psychopathy
Professional
Career
Self-centered impulsivity
Fearless dominance

#### ABSTRACT

Does psychopathy predict professional success? Psychopathy and professional success are multidimensional constructs, and thus certain elements of psychopathy may be related more strongly to certain elements of professional success. Also, psychopathic traits, comprising self-centered impulsivity, fearless dominance, and coldheartedness, may not predict professional success above and beyond the Big Five. We investigated whether selfcentered impulsivity, fearless dominance, and coldheartedness predicted professional satisfaction (satisfaction with salary, with promotion, and with career) as well as material success (annual salary, number of promotions, and professional standing) in an occupational sample (N = 439). Self-centered impulsivity was inversely related to professional satisfaction, whereas fearless dominance was positively related to professional satisfaction and material success. Coldheartedness was related to neither of them. Adding the Big Five, as well as participant gender and time in job, as predictors revealed that extraversion and self-centered impulsivity predicted professional satisfaction, whereas only extraversion predicted material success; fearless dominance was no longer a significant predictor of material success. Taken together, self-centered impulsivity was negatively linked, whereas fearless dominance was positively linked, to professional success. The findings highlight the differential contribution of impulsiveness- versus fearlessness-related elements of psychopathic traits to professional satisfaction.

© 2018 Elsevier B.V. All rights reserved.

## 1. Introduction

Psychopathy is a personality construct described in terms of positive adjustment characteristics (e.g., superficial charm), behavioral deviance (e.g., unreliability), and emotional-interpersonal deficits (e.g., lack of remorse; Cleckley, 1941; Skeem, Polaschek, Patrick, & Lilienfeld, 2011). A high expression of psychopathic traits has been associated with harmful intrapersonal and interpersonal outcomes (Coid & Yang, 2011; Colins, Fanti, Salekin, & Andershed, 2016; Crossley, Woodworth, Black, & Hare, 2016; Muris, Merckelbach, Otgaar, & Meijer, 2017), glaring examples being risk-taking, aggression, and criminal activity (Heilbrun, 1979; Millon, Simonsen, Birket-Smith, & Davis, 2003).

Yet, is psychopathy exclusively linked with negative outcomes? Recent approaches have raised the possibility of the "successful psychopath" (Coid & Yang, 2011; Colins et al., 2016; Crossley et al., 2016). Although, for example, impulsivity in psychopaths may be related to negative social outcomes, such as aggression (Boddy, 2015; Lilienfeld, Watts, & Smith, 2015) and poor behavioral control (Miller, Wilson, Hyatt, & Zeichner, 2015), fearless dominance and coldheartedness may be related to positive organizational outcomes, such as higher profits, especially when the context may seem to call for short-term and

<sup>\*</sup> Corresponding author at: Psychology Department, University of Southampton, Southampton SO17 1BJ, United Kingdom. E-mail address: h.eisenbarth@soton.ac.uk (H. Eisenbarth).

tough decisions (Baskin-Sommers et al., 2015; LaLiberte & Grekin, 2015). Relatedly, a small but burgeoning literature has focused on psychopaths as professionals. This literature has indicated that psychopathic traits are more prevalent in the corporate world than in community samples (Babiak, Neumann, & Hare, 2010), that psychopathic leaders are viewed as high on charisma or self-presentation (creativity, strategic thinking, communication skills) but low on responsibility or performance (teamwork, management ability, accomplishments; Babiak et al., 2010), and that psychopathic leaders infringe negatively upon their employees' motivation, job satisfaction, and wellbeing (Almeida et al., 2015; Tassy, Deruelle, Mancini, Leistedt, & Wicker, 2013) while compounding counterproductive workplace behavior (Blickle & Schütte, 2017; Scherer, Baysinger, Zolynsky, & LeBreton, 2013). These negative outcomes pertain to the psychopaths' social environment. But are they successful on a professional level?

### 1.1. Psychopathic traits and professional success

Psychopathy, as part of the Dark Triad, has been associated with rise in power and success (Cheng, Tracy, & Henrich, 2010). However, despite early references to successful aspects of psychopathic traits (Cleckley, 1941), theorizing about the relationship between psychopathic traits and career success has been scarce. Lilienfeld et al. (2015) suggested grouping existing findings under three theoretical umbrellas: A moderated-expression model, a differential-severity model, and a differential-configuration model. They further argued that the evidence is consistent with the differential-configuration model, which posits that successful psychopathy comprises a disparate constitution of traits compared to non-successful psychopathy (Lilienfeld et al., 2015).

Psychopathy, as measured with the Psychopathic Personality Inventory (PPI-R; Lilienfeld & Widows, 2005), can be described by two factor-analytically based dimensions: Self-Centered Impulsivity (SCI), comprising blame externalization, Machiavellian egocentricity, carefree non-planfulness, and rebellious nonconformity, and Fearless Dominance (FD), comprising stress immunity, social influence, and fearlessness. This framework for psychopathic traits parallels the concept of primary and secondary psychopathy, with FD correlating with primary and SCI with secondary psychopathy (Yildirim & Derksen, 2015). Coldheartedness (CO) is a further feature of psychopathy, which is not assigned to the other two factors.

We review next findings where psychopathy is assessed with the PPI-R (Lilienfeld & Widows, 2005). In an occupational sample, SCI predicted higher (other-rated) counter-productive interpersonal behavior at work and lower (other-rated) performance at work, whereas FD and CO showed no such associations (Schutte et al., 2016). In a community sample, SCIrelated traits, like impulsivity and antisociality, predicted status and wealth (operationalized in terms of social class, income, number of rooms at home, supervision of others in job, and home ownership), whereas FD-related traits did not predict status and wealth (Ullrich, Farrington, & Coid, 2008). These studies used a compendium of five-factor-model items to measure psychopathy, without differentiating between SCI and FD, and reported negative relationships between overall psychopathy and success. Also, in a large national survey, overall psychopathic traits were negatively related with household income and number of times participants were fired (Boccio & Beaver, 2015). Moreover, in a survey of organizational employees, overall psychopathic traits and career satisfaction were negatively related, although the effect was small; however, overall psychopathy was unrelated to leadership position and salary (Spurk, Keller, & Hirschi, 2016). In our study, we use the PPI-R (Lilienfeld & Widows, 2005), as it affords distinction among three key aspects of psychopathic traits (FD, SCI, CO) that appear to contribute differentially to professional outcomes (Blickle & Schütte, 2017; Schutte et al., 2016). Further, related personality traits such as narcissism and Machiavellianism have been previously linked with questionable behavior at work (O'Boyle, Forsyth, Banks, & McDaniel, 2012; Sedikides & Campbell, 2017). We focused on psychopathic traits, because they show strongest relationships with job performance rather than with counterproductive work behavior (O'Boyle et al., 2012).

One proxy measure of professional success is academic success in student samples. Academic success (grades) and interpersonal, callous, or lifestyle aspects of psychopathic traits are unrelated, whereas academic success and antisocial or criminal behavior aspects of psychopathy are inversely related (Hassall, Boduszek, & Dhingra, 2015). However, how professional success is defined or measured varies in the academic fields of management versus psychology (Smith & Lilienfeld, 2013; Spurk et al., 2016), which could account, in part, for result discrepancies. We addressed this issue by assessing simultaneously multiple indicators of professional success.

### 1.2. Relevant control variables investigating professional success

The Big Five can explain a large amount of variance in psychopathy (O'Boyle, Forsyth, Banks, Story, & White, 2015) and have also been linked to professional success (Wihler, Meurs, Momm, John, & Blickle, 2017). As such, the Big Five need to be considered when addressing the relationship between psychopathic traits and success. Extraversion positively predicts salary, number of promotions, and job or career satisfaction, whereas neuroticism negatively predicts career and job satisfaction (Judge, Heller, & Mount, 2002; Seibert & Kraimer, 2001). Agreeableness, which is inversely related to psychopathic traits, and Openness negatively predict career satisfaction and salary level, respectively (Seibert & Kraimer, 2001), whereas Extraversion, which is typically weakly correlated with psychopathic traits, predicts movement into higher managerial positions (Niess & Zacher, 2015). Furthermore, low conscientiousness, a negative correlate of psychopathic traits, has been linked with high sales success (Wihler et al., 2017). In summary, Neuroticism and Extraversion predict job and career satisfaction, a professional satisfaction variable, whereas Extraversion predicts number of promotions, a material success measure. These

empirical discrepancies indicate that the definition of professional success matters. Therefore, we included as variables both professional satisfaction and material success.

#### 1.3. Overview

We examined the relation between the PPI-R derived components of psychopathic traits (FD, SCI, CO) and professional success in a general population sample. We operationalized professional success in terms of both professional satisfaction (satisfaction with one's career, with promotion frequency, and with salary) and material success (annual salary, number of promotions, and professional standing) (Ng, Eby, & Sorensen, 2005). Furthermore, we controlled for the Big Five as well as participant gender and time in job, given that they are associated with professional satisfaction and material success (Schutte et al., 2016; Wihler et al., 2017).

#### 2. Method

## 2.1. Sample and procedure

We recruited 477 occupational participants via the online platform Prolific Academic (http://www.prolific.ac/) and remunerated them with £2 (approximately \$3) (for validity of crowdsourced data, see: Behrend, Sharek, Meade, & Wiebe, 2011). We excluded 38 participants on the basis of one or more of the following a priori criteria: (1) failing to complete all measures (n = 20); (2) having taken part in a similar study (n = 16); and (3) being less than 18 years of age, not having English as first

**Table 1**Descriptive variables for the whole sample and by gender.

		All (N = 439)	Women (n = 262)	Men (n = 177)	p
Age		33.00 (9.22)	33.90 (9.53)	31.67 (8.58)	.011
Duration of cu	rrent employment (months)	55.59 (60.66)	56.65 (61.47)	54.02 (59.59)	.667
Professions					.021
	Finance & retail	78 (17.77)	46 (17.56)	32 (18.08)	
	Education	74 (16.86)	62 (23.66)	12 (6.78)	
	Health & social care	47 (10.71)	33 (12.6)	14 (7.91)	
	Software & telecommunication	48 (10.93)	15 (5.73)	33 (18.64)	
	Government & legal	42 (9.57)	23 (8.78)	19 (10.73)	
	Service & manufacturing	10 (9.11)	26 (9.92)	14 (7.91)	
	Science	31 (7.06)	9 (3.44)	22 (12.43)	
	Other	79 (18.00)	48 (18.32)	31 (17.51)	
Employment L	evels				.09
Employment E	Upper Management	19 (4.3)	10 (4.1)	9 (5.4)	.032
	Middle Management	57 (13.0)	30 (12.2)	27 (16.2)	
	Junior Management	62 (14.1)	41 (16.7)	21 (12.6)	
	Administrative Staff	72 (16.4)	57 (23.3)	15 (9.0)	
	Support Staff	43 (9.8)	24 (9.8)	19 (11.4)	
	Trained Professional	101 (23.0)	60 (24.5)	41 (24.6)	
	Skilled Laborer	13 (3.0)	3 (1.2)	10 (6.0)	
	Consultant	10 (2.3)	5 (2.0)	5 (3.0)	
	Self-employed	17 (3.9)	10 (4.1)	7 (4.2)	
	Other	17 (4.0)	5 (2.0)	13 (7.8)	
	Missing	27 (6.2)	,	,	
Types of Organ	nizations				.019
Types of organ	Public Sector	146 (33.3)	104 (40.2)	42 (24.1)	.01
	Private Sector	243 (55.4)	124 (47.9)	119 (68.4)	
	Large national	32 (7.3)	26 (10.0)	6 (3.4)	
	Not-for-profit	9 (2.1)	5 (1.9)	4 (2.3)	
	Other	3 (1.0)	0 (0)	3 (1.7)	
	Missing	6 (1.4)	- (-)	- ()	
Sizes of Organizations					.76
Sizes of Organi	< 30 employees	79 (18.0)	43 (16.7)	36 (20.5)	.70
	30–50 employees	23 (5.2)	15 (5.8)	8 (4.5)	
	51–100 employees	30 (6.8)	18 (7.0)	12 (6.8)	
	101–500 employees	61 (13.9)	42 (16.3)	19 (10.8)	
	501–1000 employees	59 (13.4)	36 (14.0)	23 (13.1)	
	> 1000 employees	181 (41.2)	103 (40.1)	78 (44.3)	
	Unknown	6 (1.4)	103 (10.1)	,0 (11.5)	

*Note.* The first number in rows for age and duration of current employment represents means (standard deviations in parenthesis); the first number in rows for professions, employment levels, types of organizations, and sizes of organizations represents frequencies (percentages in parenthesis).

language, not being in full-time employment, or not residing in the United Kingdom (n = 2). The final sample size (Table 1, top panel) comprised 439 participants (262 women, 177 men) ranging in age from 18 to 60 years (M = 33.00, SD = 9.22).

The sample included participants from many professions, employment levels, as well as type and size of organizations (Table 1). There were gender differences in distributions across professions ( $X^2[1] = 5.31$ , p = .021) and type of organizations ( $X^2[1] = 5.51$ , p = .019), with women overrepresented in education and health employment sectors and men in private employment sectors. However, there were no gender differences in distributions across employment levels ( $X^2[1] = 2.84$ , P = .092) or size of organizations ( $X^2[1] = 0.09$ , P = .765). Following collection of demographic information, we administered the following measures in a randomized standard order.

#### 2.2. Measures

## 2.2.1. Descriptive information

Participants provided descriptive information about their current profession: employment level (self-employed or upper management position), type of organization (public or private) in which they were employed, size of organization in which they were employed (< 30 employees to >1000 employees), and duration of current employment (in years; Table 1).

#### 2.2.2. Current employment variables

Professional satisfaction. Participants rated their satisfaction with their career, promotion frequency, and salary (£0 to >£1 million). Correlations ranged from 0.46 to 0.60 (ps < .001, REL:  $r_{\alpha} = 0.78$ ; Table 2). We aggregated z-scored responses into an index of professional satisfaction. We ran a confirmatory factor analyses (CFA) on the professional satisfaction latent factor and its indicators using Lavaan, based on Maximum Likelihood. As the model was just-identified with parameters being uniquely determined, no model fit could be determined based on the CFA. However, standardized path estimates ranged between 0.70 for promotion satisfaction, 0.66 for salary satisfaction, and 0.86 for career satisfaction (Fig. 1) and average variance explained by Professional Satisfaction was 55%, which points to a good representation of professional satisfaction by those three variables.

Material success. Participants disclosed their annual salary in increments of £20,000 (from £0 to >£140,000; Table 2) and indicated the number of promotions they received within their current position (never [scored as 0] to >5 times [scored as 5]). We assessed professional standing by asking participants (1) whether they had their own office, and, if they did, what its size was ('No, I do not have my own office' to '> 400 square inches'—ordinal variable), (2) whether they had access to a company car ('no car access' to 'access to a sports car'—ordinal variable), (3) the size of budget they controlled ('0' to '> 1 m' GBP—ordinal variable), and (4) the number of employees under their supervision ('0' to '> 251'—ordinal variable). We aggregated responses into an index of professional standing, with higher scores reflecting higher standing (Table 2). We then computed an index of material success by summing responses to professional standing, salary, and number of promotions

**Table 2**Professional success variables and personality measure scores for the whole sample and by gender.

		All $(N = 439)$	Women $(n = 262)$	Men (n = 177)	P	$r_{\alpha}$
Career satis	faction	5.57 (2.01)	5.51 (2.22)	5.67 (1.86)	.633	
Promotion satisfaction		4.92 (2.33)	5.02 (2.33)	4.78 (2.34)	.307	
Salary satisfaction		5.36 (2.06)	5.41 (2.08)	5.28 (2.03)	.510	
Professiona satisfact	1	15.83 (5.65)	15.93 (5.65)	15.68 (5.03)	.990	0.78
Annual Salary in GBP		27,403 (17,766)	25,725 (15,464)	29,887 (20,282)	.021	
Number of	promotions				.744	
Never	-	166 (38.5)	95 (36.4)	70 (38.0)		
1-2 times		159 (36.5)	100 (38.3)	59 (33.0)		
3-5 times		70 (15.0)	39 (14.9)	31 (18.8)		
> 5 times		12 (2.7)	8 (3.1)	4 (2.4)		
Not applicable		32 (7.3)	19 (7.3)	13 (7.8)		
Professional Standing		5.96 (2.75)	5.75 (2.46)	6.27 (3.10)	.064	
Material success		10.55 (4.31)	10.29 (3.97)	10.95 (4.74)	.127	0.4
PPI-R	Sum	89.67 (11.07)	87.12 (10.85)	93.43 (10.33)	<.001	0.7
	FD	36.44 (7.42)	35.24 (7.37)	38.23 (7.16)	<.001	0.8
	SCI	31.03 (5.27)	30.72 (5.24)	31.49 (5.30)	.135	0.6
	CO	10.84 (2.94)	10.21 (2.65)	11.78 (3.10)	<.001	0.7
TIPI	Ex	7.62 (2.52)	7.79 (2.52)	7.36 (2.51)	.081	0.7
	Ag	9.30 (1.96)	9.56 (2.00)	8.92 (1.84)	.001	0.3
	Co	9.87 (2.04)	10.03 (2.06)	9.64 (2.00)	.045	0.6
	Em	8.73 (2.43)	8.26 (2.45)	9.44 (2.22)	<.001	0.7
	Op	9.43 (1.83)	9.52 (1.80)	9.29 (1.87)	.191	0.2

Note. The first number in each entry represents the mean, and the second number (in parenthesis) represents the standard deviation for each variable;  $(r_{\alpha}) = Cronbach$ 's Alpha for the outcome summary variables and the questionnaire subscales; FD = Fearless Dominance; SCI = Self-centred Impulsivity; Ag = Agreeableness; Co = Conscientiousness; Em = Emotional Stability; Op = Openness.

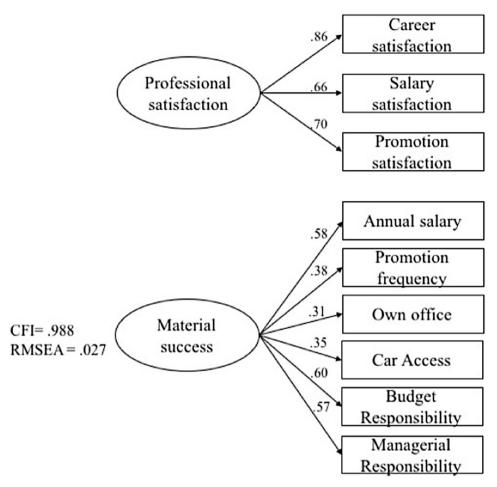


Fig. 1. Measurement models for professional satisfaction and material success latent variables including standardized estimates from confirmatory factor analysis (note that no fit indices are provided for the professional satisfaction model as it is a just-identified model).

(REL:  $r_{\alpha}$  = 0.48); material success, then, was an index variable. Zero-order correlations among material success variables ranged from 0.21 to 0.45, ps < .001. The professional satisfaction and material success indices were related, r(436) = 0.39, p < .001. We ran again a CFA, and assessed goodness of fit using the comparative fit index (CFI) and root mean square error of approximation (RMSEA), with CFI  $\geq 0.90$  and RMSEA  $\leq 0.08$  as indicative of acceptable model fit (West, Taylor, & Wu, 2012). The model for material success showed a good model fit ( $\chi^2(9) = 11.80$ , p = .23; CFI = 0.988; RMSEA = 0.027) with standardized path estimates ranging between 0.31 and 0.60 (Fig. 1). The average variance explained by material success was 21%.

## 2.2.3. Psychopathy

We measured psychopathy with the short version of the Psychopathic Personality Inventory Revised (PPI-R-40; Eisenbarth, Lilienfeld, & Yarkoni, 2015;  $1 = not \ at \ all$ ,  $9 = very \ much$ ). The PRI-R-40 comprises 40 items clustered in eight subscales, which are represented by two factors (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Marcus, Fulton, & Edens, 2013): Fearless Dominance (FD; stress immunity, social influence, fearlessness) and Self-Centered Impulsivity (SCI; blame externalization, Machiavellian egocentricity, carefree nonplanfulness, rebellious nonconformity). Coldheartedness, a further subscale, does not relate to FD or SCI. Items were rated on a 4-point scale (*false, mostly false, mostly true, true*). In our sample, reliabilities were  $r_{\alpha} = 0.64$  for SCI, 0.81 for FD, and 0.73 for CO (for between-factor correlations, see Supplementary Material A).

## 2.2.4. Further measures

We assessed the Big Five with the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003). Participants rated themselves (1 = disagree strongly to 6 = agree strongly) on two items pertaining to each of extraversion, agreeableness, conscientiousness, emotional stability, and openness (reliabilities in our sample:  $r_{\alpha}$  = 0.25–0.73). All data and code to reproduce the results presented in this article can be found on the Open Science Framework (osf.io/tgujv).

#### 3. Results

## 3.1. Gender differences in personality and professional success

We conducted t-tests to examine gender differences in professional success and personality variables, adjusting the alpha level for multiple testing to 0.017 (i.e., 3 tests; Table 2). Regarding professional success, women and men did not differ on overall professional satisfaction (t[400] = 0.01, p = .990, d = 0.05), satisfaction with career (t[399] = 0.48, p = .633, d = -0.08). satisfaction with promotion frequency (t[370] = 1.02, p = .307, d = 0.10), or satisfaction with salary (t[384] = 0.66, p = .510, d = 0.06). The genders did not differ on overall material success (t[33-2] = 1.53, p = .127, d = -0.15) or number of promotions  $(X^{2}[1]) = 0.11$ , p = 0.744). However, consistent with prior findings (Boccio & Beaver, 2015) men scored marginally higher on professional standing (t[319] = 1.86. p = .064. d = -0.19) and higher on annual salary (t[309] = 2.31. p = .021. d = -0.23). We controlled for gender in subsequent analyses.

Regarding personality, consistent with previous findings (Delk, Bobadilla, & Lima, 2017; Uzieblo, Verschuere, Van den Bussche, & Crombez, 2010), men scored higher than women on overall psychopathy (t[390] = 6.15, p < .001, d = -0.60), on FD (t[390] = 4.23, p < .001, d = -0.41), and on CO (t[390] = 5.53, p < .001, d = -0.54), but not on SCI (t[390] = 1.50, p < .001, d = -0.54)p = .135, d = -0.15). Also, men scored higher on emotional stability (t[390] = 5.24, p < .001, d = -0.50) and lower on agreeableness (t[397] = 3.48, p = .001, d = -0.33), but not on any other of the Big Five (ts[368] = 1.31 - 2.01, ps = 0.045 - 0.191), matching previous findings in the general population (Costa, Terracciano, & McCrae, 2001).

#### 3.2. Associations between professional success and personality

We computed zero-order correlations between personality on the one hand and professional satisfaction and material success on the other (Table 3), Overall, psychopathy was unrelated to either professional success index. However, FD was positively related to professional satisfaction and material success, whereas SCI was negatively related to professional satisfaction and was unrelated to material success. CO was unrelated to professional satisfaction and material success. Further, extraversion and conscientiousness were positively related to professional satisfaction (matching previous findings on career satisfaction being related to extraversion: e.g. Seibert & Kraimer, 2001), and extraversion and emotional stability were positively related to material success. We controlled for the Big Five in subsequent analyses.

#### 3.3. Psychopathy as a predictor of professional success

Next, we tested a structural equation model examining the relationships between psychopathy (FD, SCI, and CO) and our two latent variables, professional satisfaction and material success separately, while controlling for gender, Big Five, and years in job (Table 4). To assess model fit, we used again Comparative Fit Index (CFI) and RMSEA (Neumann, Hare, & Pardini, 2015) and adopted the traditional CFI  $\geq$  0.90 and RMSEA  $\leq$  0.08 as indicative of acceptable model fit (West et al., 2012).

Professional satisfaction. In a first model, we entered FD, SCI, and CO. The model provided a good fit to the data,  $X^2(6) =$ 7.50, p = .28, CFI = 0.97, RMSEA = 0.02. Mirroring the zero-order correlations, FD was a significant positive predictor (B = 0.04, SE = 0.01, z = 2.91, p = .004), whereas SCI was a significant negative predictor (B = -0.05, SE = 0.02, z = -2.75, SE = 0.02, SE = 0.02, z = -2.75, SE = 0.02, zp = .006), of professional satisfaction. CO was not a significant predictor (B = -0.03, SE = 0.03, Z = 0.88, p = .381, see Fig. 2). In a second model, we entered gender, Big Five, and time in job alongside FD, SCI, and CO. The additional predictors

Table 3 Pearson correlation coefficients for personality and professional success variables.

		Professional satisfaction	Material success
PPI-R	Sum	-0.03	0.09
	FD	0.12**	0.15
	SCI	-0.13	-0.01
	CO	-0.05	0.00
TIPI	Ex	0.14***	0.21***
	Ag	0.05	0.03
	Co	0.09*	0.05
	Em	0.07	0.15
	Op	0.02	0.02
	Co Em	0.09° 0.07	0.05 0.15

Note. FD = Fearless Dominance, SCI = Self-centred Impulsivity, CO = Coldheartedness, Ag = Agreeableness, Co = Conscientiousness, Em = Emotional Stability, Op = Openness.

p < .001.

*p* < .01.

p < .05.

Structural equation modelling results predicting professional success variables (unstandardized estimates).

		Professional satisfaction	Material success
PPI-R	FD	0.04**	0.01°°
	SCI	-0.05**	-0.003
	CO	-0.03	<0.001
PPI-R	FD	0.03	0.004
	SCI	-0.05*	0.002
	CO	0.001	-0.007
TIPI	Ex Ag Co Em Op	0.11° 0.01 0.08 -0.05 -0.03	0.036** -0.01 0.02 0.01 -0.01
Gender		0.15	0.07
Time in job		-0.02	0.01

Note. FD = Fearless Dominance, SCI = Self-centred Impulsivity, CO = Coldheartedness, Ag = Agreeableness, Co = Conscientiousness, Em = Emotional Stability, Op = Openness. Participant gender was coded as 1 for males and 0 for females.

p < .05.

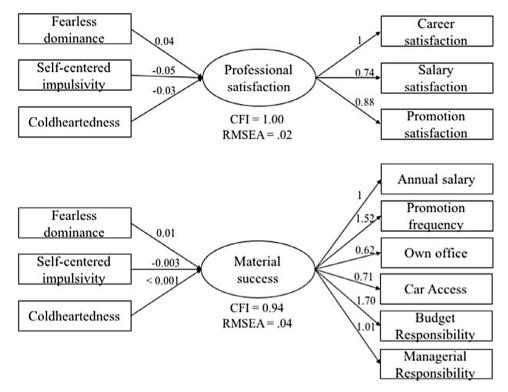


Fig. 2. Structural models for Professional satisfaction and Material success including unstandardized estimates.

significantly reduced model fit,  $X^2(20) = 36.32$ , p = .01, CFI = 0.96, RMSEA = 0.05;  $X^{2difference}(14) = 28.82$ , p = .01. When controlling for these additional variables, FD no longer remained a significant predictor of professional satisfaction (B = 0.03, SE = 0.02, z = 1.26, p = .207), although SCI did so (B = -0.05, SE = 0.02, z = -2.30, p = .021). CO was still not a significant predictor. Of the Big Five, only extraversion emerged as a significant predictor (B = 0.11, SE = 0.05, z = 2.21, p = .027). Dropping Agreeableness and Openness from the analyses, due to their low reliability scores, did not alter the results.

Material success. In a first model, we entered FD, SCI, and CO, resulting in acceptable model fit,  $X^2(24) = 38.52$ , p = .03, CFI = 0.95, RMSEA = 0.04. Mirroring the zero-order correlations, FD was a significant positive predictor of material success

<sup>\*\*\*</sup>p < .001.

p < .01.

(B=0.01, SE=0.003, z=3.30, p=.001), whereas SCI (B=-0.003, SE=0.003, z=-0.75, p=.452) and CO (B<0.01, SE=0.001, z=0.01, p=.996) were not (see Fig. 2). In a second model, we entered gender, Big Five, and time in job alongside FD, SCI, and CO. These additional predictors did not significantly change overall model fit,  $X^2(59)=79.73, p=.04$ , CFI = 0.92, RMSEA = 0.03;  $X^{2difference}$  (35) = 41.21, p=.217. However, neither FD (B=0.004, SE=0.01, z=0.80, p=.426), nor SCI (B=0.002, SE=0.01, z=0.37, p=.711) or CO (B=-0.01, SE=0.01, z=-0.82, p=.411) predicted material success. Of the Big Five, only extraversion emerged as a significant (positive) predictor (B=0.04, SE=0.01, z=3.10, p=.002), next to time in job (b=-0.001, SE=<0.001, z=3.45, p=.001). Dropping Agreeableness and Openness from the analyses due to their low reliability scores did not change the results.

#### 4. Discussion

We asked whether components of psychopathy (FD, SCI, CO) predict professional satisfaction and material success. Higher FD was associated with higher professional satisfaction and material success, whereas higher SCI was associated with lower professional satisfaction (and was unassociated with material success). However, when controlling for the Big Five, time in job, and gender, FD was no longer predictive of material success, whereas SCI and extraversion predicted professional satisfaction, and only extraversion predicted material success.

The results diverge from prior reports of no or negative relations between psychopathic traits and success/wealth variables. FD, which is associated with resistance to stress, influence in social interactions, and low fear, was positively related to professional satisfaction and material success. Contrarily, SCI, which describes blame externalization, Machiavellian egocentricity, carefree non-planfulness, and rebellious nonconformity, were inversely related to professional satisfaction. Prior work distinguished less commonly between components of psychopathic traits, like SCI and FD, when examining professional success. Such a distinction is important and has been implemented in research on counterproductive work behavior (Blickle & Schütte, 2017; Scherer et al., 2013). Overall psychopathic traits are, by and large, negatively linked to life success or professional success (Hassall et al., 2015; Ullrich et al., 2008). SCI is related to poor work-performance (Schutte et al., 2016), but other components of psychopathy are unrelated to academic success or work performance. The distinction between the bold and fearless traits that build the FD factor, and the disinhibited and poor behavior-control traits that build the SCI factor, may explain previous null findings: As evident from our results, the effects of these opposing variables on professional success cancel each other out, a pattern consistent with the differential-configuration model (Lilienfeld et al., 2015).

However, the relation between components of psychopathy and professional success was substantially reduced when the Big Five (as well as gender and time in job) were taken into consideration. FD did not predict material success anymore, albeit extraversion did. SCI predicted professional satisfaction, but only in combination with extraversion. Thus, extraversion seems to have a stronger predictive power compared to psychopathy components, which is in line with prior research that used the Big Five to predict sales success (Wihler et al., 2017) as well as some recent claims about a stronger predictive value of basic personality traits (Muris et al., 2017; O'Boyle et al., 2015). Of note, partialling variance (i.e., removing trait variance) may alter the construct being measured. Indeed, constructs may not be as clearly separated as the relevant statistical approaches often make them seem (Lynam, Hoyle, & Newman, 2006; Stoeber & Gaudreau, 2017). Thus, model comparison should be interpreted with caution.

The differentiation between components of psychopathy, and between professional satisfaction and material success, has two implications. First, components of psychopathy make separate contributions in explaining professional satisfaction and material success. In particular, FD is a more adaptive aspect and SCI a less adaptive aspect, while CO seems less relevant in this context. However, the relevance of different components of psychopathy has been under debate (Lilienfeld et al., 2012; Miller & Lynam, 2012) and therefore the current results have to be interpreted with caution (Eisenbarth, Demetriou, Kyranides, & Fanti, 2016).

Second, self-reported professional success varies depending on how it is operationalized. Professional satisfaction (which is more influenced by impression management) can be predicted to some extent by components of psychopathy, whereas material success is better explained by extraversion. These findings add to the literature on the relevance of psychopathic traits for professional variables, and improve understanding of predictors of professional success, especially professional satisfaction.

Although we attempted to address weakness of prior research by sampling broadly from the general population, including multiple indicators of professional satisfaction and material success, and controlling for the Big Five, our study has its own limitations. The recruitment approach, made via online platforms rather than large companies with varying managerial levels, may have added noise to our data. Furthermore, the current dataset is based solely on self-report, thus limiting generalizability to the field of professional success. Future research will do well to assess peer reports and use longitudinal designs as well as target specific work environments. In conclusion, and despite those methodological drawbacks, our study highlights a potential positive relation of FD, and a potential negative relation of SCI, with professional satisfaction, albeit qualified by extraversion.

### Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.joep.2018. 01.002.

#### References

- Almeida, P. R., Seixas, M. J., Ferreira-Santos, F., Vieira, J. B., Paiva, T. O., Moreira, P. S., & Costa, P. (2015). Empathic, moral and antisocial outcomes associated with distinct components of psychopathy in healthy individuals: A Triarchic model approach. *Personality and Individual Differences*, 85, 205–211. https://doi.org/10.1016/j.paid.2015.05.012.
- Babiak, P., Neumann, C. S., & Hare, R. D. (2010). Corporate psychopathy: Talking the walk. Behavioral Sciences and the Law, 28(2), 174–193. https://doi.org/10.1002/bsl.925.
- Baskin-Sommers, A. R., Brazil, I. A., Ryan, J., Kohlenberg, N. J., Neumann, C. S., & Newman, J. P. (2015). Mapping the association of global executive functioning onto diverse measures of psychopathic traits. *Personality Disorders: Theory, Research, and Treatment, 6*(4), 336–346. https://doi.org/10.1037/per0000125
- Behrend, T. S., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. Behavioural Research Methods, 43(3), 800–813. https://doi.org/10.3758/s13428-011-0081-0.
- Benning, S. D., Patrick, C. J., Hicks, B. M., Blonigen, D. M., & Krueger, R. F. (2003). Factor structure of the psychopathic personality inventory: Validity and implications for clinical assessment. *Psychological Assessment*, 15(3), 340–350. https://doi.org/10.1037/1040-3590.15.3.340.
- Blickle, G., & Schütte, N. (2017). Trait psychopathy, task performance, and counterproductive work behavior directed toward the organization. *Personality and Individual Differences*, 109, 225–231. https://doi.org/10.1016/j.paid.2017.01.006.
- Boccio, C. M., & Beaver, K. M. (2015). Psychopathic personality traits, intelligence, and economic success. *The Journal of Forensic Psychiatry & Psychology*, 26 (4), 551–569. https://doi.org/10.1080/14789949.2015.1037330.
- Boddy, C. R. (2015). Organisational psychopaths: A ten year update. *Management Decision*, 53(10), 2407–2432. https://doi.org/10.1108/MD-04-2015-0114. Cheng, J. T., Tracy, J. L., & Henrich, J. (2010). Pride, personality, and the evolutionary foundations of human social status. *Evolution and Human Behavior*, 31(5), 334–347. https://doi.org/10.1016/j.evolhumbehav.2010.02.004.
- Cleckley, H. M. (1941). The mask of sanity. St. Louis: Mosby.
- Coid, J., & Yang, M. (2011). The impact of psychopathy on violence among the household population of Great Britain. Social Psychiatry and Psychiatric Epidemiology, 46(6), 473–480. https://doi.org/10.1007/s00127-010-0212-4.
- Colins, O. F., Fanti, K. A., Salekin, R. T., & Andershed, H. (2016). Psychopathic personality in the general population: Differences and similarities across gender. *Journal of Personality Disorders*, 1–26. https://doi.org/10.1521/pedi\_2016\_30\_237.
- Costa, P., Jr., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: Robust and surprising findings. *Journal of Personality and Social Psychology*, 81(2), 322–331. https://doi.org/10.1037/0022-3514.81.2.322.
- Crossley, L., Woodworth, M., Black, P. J., & Hare, R. (2016). The dark side of negotiation: Examining the outcomes of face-to-face and computer-mediated negotiations among dark personalities. *Personality and Individual Differences*, 91, 47–51. https://doi.org/10.1016/j.paid.2015.11.052.
- Delk, L. A., Bobadilla, L., & Lima, E. N. (2017). Psychopathic traits associate differentially to anger, disgust and fear recognition among men and women. Journal of Psychopathology and Behavioral Assessment. https://doi.org/10.1007/s10862-016-9561-y.
- Eisenbarth, H., Demetriou, C. A., Kyranides, M. N., & Fanti, K. A. (2016). Stability subtypes of callous-unemotional traits and conduct disorder symptoms and their correlates. *Journal of Youth and Adolescence*, 45(9), 1889–1901. https://doi.org/10.1007/s10964-016-0520-4.
- Eisenbarth, H., Lilienfeld, S. O., & Yarkoni, T. (2015). Using a genetic algorithm to abbreviate the Psychopathic Personality Inventory-Revised (PPI-R). *Psychological Assessment*, 27(1), 194–202. https://doi.org/10.1037/pas0000032.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big Five personality domains. *Journal of Research in Personality*, 37(6), 504–528. https://doi.org/10.1016/S0092-6566(03)00046-1.
- Hassall, J., Boduszek, D., & Dhingra, K. (2015). Psychopathic traits of business and psychology students and their relationship to academic success. Personality and Individual Differences, 82, 227–231. https://doi.org/10.1016/j.paid.2015.03.017.
- Heilbrun, A. B. (1979). Psychopathy and violent crime. Journal of Consulting and Clinical Psychology, 47(3), 509-516.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87(3), 530–541. https://doi.org/10.1037/0021-9010.87.3.530.
- LaLiberte, B. V., & Grekin, E. R. (2015). Direct and indirect relationships between Factor 2 psychopathy, behavioral activation, positive alcohol expectancies, and alcohol use. *Personality and Individual Differences*, 87, 261–266. https://doi.org/10.1016/j.paid.2015.08.023.
- Lilienfeld, S. O., Patrick, C. J., Benning, S. D., Berg, J., Sellbom, M., & Edens, J. F. (2012). The role of fearless dominance in psychopathy: Confusions, controversies, and clarifications. *Personality Disorders: Theory, Research, and Treatment*, 3(3), 327–340. https://doi.org/10.1037/a0026987.
- Lilienfeld, S. O., Watts, A. L., & Smith, S. F. (2015). Successful psychopathy: A scientific status report. Current Directions in Psychological Science, 24(4), 298–303. https://doi.org/10.1177/0963721415580297.
- Lilienfeld, S. O., & Widows, M. R. (2005). Psychopathy personality inventory revised (PPI-R). Professional manual. Lutz: Psychological Assessment Resources. Lynam, D. R., Hoyle, R. H., & Newman, J. P. (2006). The perils of partialling: cautionary tales from aggression and psychopathy. Assessment, 13(3), 328–341. Marcus, D. K., Fulton, J. J., & Edens, J. F. (2013). The two-factor model of psychopathic personality: Evidence from the Psychopathic Personality Inventory.
- Personality Disorders: Theory, Research, and Treatment, 4(1), 67–76. https://doi.org/10.1037/a0025282.

  Miller, J. D., & Lynam, D. R. (2012). An examination of the Psychopathic Personality Inventory's nomological network: A meta-analytic review. Personality
- Disorders: Theory, Research, & Treatment, 3(3), 305–326.

  Miller, J. D., Wilson, L. F., Hyatt, C. S., & Zeichner, A. (2015). Psychopathic traits and aggression: Which trait components predict aggressive responding in a
- laboratory task? Personality and Individual Differences, 87, 180–184. https://doi.org/10.1016/j.paid.2015.08.008.
- Millon, T., Simonsen, E., Birket-Smith, M., & Davis, R. D. (2003). Psychopathy: Antisocial, criminal, and violent behavior. New York: Guilford Press.
- Muris, P., Merckelbach, H., Otgaar, H., & Meijer, E. (2017). The malevolent side of human nature. Perspectives on Psychological Science, 12(2), 183–204. https://doi.org/10.1177/1745691616666070.
- Neumann, C. S., Hare, R. D., & Pardini, D. A. (2015). Antisociality and the construct of psychopathy: Data from across the globe. *Journal of Personality*, 83(6), 678–692. https://doi.org/10.1111/jopy.12127.
- Ng, T., Eby, L. T., & Sorensen, K. L. (2005). Predictors of objective and subjective career success: A meta-analysis. Personnel Psychology, 58(2), 367–408. https://doi.org/10.1111/j.1744-6570.2005.00515.x.
- Niess, C., & Zacher, H. (2015). Openness to experience as a predictor and outcome of upward job changes into managerial and professional positions. *PLoS ONE*, *10*(6), e0131115. https://doi.org/10.1371/journal.pone.0131115.

  O'Boyle, E. H., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the Dark Triad and work behavior: A social exchange perspective.
- Journal of Applied Psychology, 97(3), 557-579. https://doi.org/10.1037/a0025679.
- O'Boyle, E. H., Forsyth, D. R., Banks, G. C., Story, P. A., & White, C. D. (2015). A meta-analytic test of redundancy and relative importance of the dark triad and five-factor model of personality. *Journal of Personality*, 83(6), 644–664. https://doi.org/10.1111/jopy.12126.

  Scherer, K. T., Baysinger, M., Zolynsky, D., & LeBreton, J. M. (2013). Predicting counterproductive work behaviors with sub-clinical psychopathy: Beyond the
- Five Factor Model of personality. Personality and Individual Differences, 55(3), 300–305. https://doi.org/10.1016/j.paid.2013.03.007.
  Schutte, N., Blickle, G., Frieder, R. E., Wihler, A., Schnitzler, F., Heupel, J., & Zettler, I. (2016). The role of interpersonal influence in counterbalancing
- psychopathic personality trait facets at work. Journal of Management. https://doi.org/10.1177/0149206315607967.
- Sedikides, C., & Campbell, W. K. (2017). Narcissistic force meets systemic resistance: The energy clash model. *Perspectives on Psychological Science*, 12, 400–421. https://doi.org/10.1177/1745691617692105.
- Seibert, S. E., & Kraimer, M. L. (2001). The five-factor model of personality and career success. *Journal of Vocational Behavior*, 58(1), 1–21. https://doi.org/10.1006/jvbe.2000.1757.

- Skeem, J. L., Polaschek, D. L. L., Patrick, C. J., & Lilienfeld, S. O. (2011). Psychopathic personality. *Psychological Science in the Public Interest*, 12(3), 95–162. https://doi.org/10.1177/1529100611426706.
- Smith, S. F., & Lilienfeld, S. O. (2013). Psychopathy in the workplace: The knowns and unknowns. Aggression and Violent Behavior, 18(2), 204–218. https://doi.org/10.1016/j.avb.2012.11.007.
- Spurk, D., Keller, A. C., & Hirschi, A. (2016). Do bad guys get ahead or fall behind? Relationships of the Dark Triad of personality with objective and subjective career success. Social Psychological and Personality Science, 7(2), 113–121. https://doi.org/10.1177/1948550615609735.
- Stoeber, J., & Gaudreau, P. (2017). The advantages of partialling perfectionistic strivings and perfectionistic concerns: Critical issues and recommendations. *Personality and Individual Differences*, 104, 379–386. https://doi.org/10.1016/j.paid.2016.08.039.
- Tassy, S., Deruelle, C., Mancini, J., Leistedt, S., & Wicker, B. (2013). High levels of psychopathic traits alters moral choice but not moral judgment. Frontiers in Human Neuroscience, 7, 229. https://doi.org/10.3389/fnhum.2013.00229.
- Ullrich, S., Farrington, D. P., & Coid, J. W. (2008). Psychopathic personality traits and life-success. Personality and Individual Differences, 44(5), 1162–1171. https://doi.org/10.1016/j.paid.2007.11.008.
- Uzieblo, K., Verschuere, B., Van den Bussche, E., & Crombez, G. (2010). The validity of the psychopathic personality inventory Revised in a community sample. Assessment, 17(3), 334–346. https://doi.org/10.1177/1073191109356544.
- West, S. G., Taylor, A. B., & Wu, W. (2012). Model fit and model selection in structural equation modeling. In *Handbook of structural equation modeling* (pp. 209–231). New York: Guilford Press.
- Wihler, A., Meurs, J. A., Momm, T. D., John, J., & Blickle, G. (2017). Conscientiousness, extraversion, and field sales performance: Combining narrow personality, social skill, emotional stability, and nonlinearity. *Personality and Individual Differences*, 104, 291–296. https://doi.org/10.1016/j.paid.2016.07.045.
- Yildirim, B. O., & Derksen, J. J. L. (2015). Clarifying the heterogeneity in psychopathic samples: Towards a new continuum of primary and secondary psychopathy. Aggression and Violent Behavior, 24, 9-41. https://doi.org/10.1016/j.avb.2015.05.001.