The Role of Individual Differences in the Prediction of Cooperation, Deviance, and Performance

Pletzer, J.L.

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CHAPTER 3
SELFISHNESS FACILITATES DEVIANCE: THE LINK BETWEEN SOCIAL VALUE ORIENTATION AND DEVIANT BEHAVIOR

Abstract

Personality has long been acknowledged as an important predictor of norm-violating deviant behavior. The present study tested the relation between such behaviors and a narrow personality facet called social value orientation. In short, social value orientation describes individual differences in social preferences, and we hypothesized that individuals with selfish (versus prosocial) orientations are more likely to violate norms and to act deviantly. Results of three studies (total $N = 557$) revealed that individuals who primarily focus on personal gains in an absolute or relative sense (i.e., individualists and competitors) report higher levels of workplace deviance (Studies 1, 2, and 3) and also act more deviantly (Studies 2 and 3) than those who value equality and collective outcomes (i.e., prosocials). A meta-analysis of the results across all three studies revealed a large difference in self-reported workplace deviance between prosocials and proselfs ($d = 0.463$). These results provide evidence for the utility of social value orientation in predicting and preventing deviant behavior. Organizations could therefore include a measure of these individual differences in their assessment procedure to screen applicants' proneness to deviant behavior. Limitations and ideas for future research are discussed.

Keywords: Counterproductive work behavior, interpersonal, organizational, social value orientation

Introduction

Norm violations are pervasive in human life. For example, research has shown that most individuals violate norms and rules when it benefits themselves (Ariely & Jones, 2012). And while large scandals caused by norm violations, and by workplace deviance as one organizational form of such norm violations more specifically, of individuals in powerful positions regularly make headlines (e.g., Enron, Volkswagen, Uber), norm violations and deviant behavior of less powerful individuals can be equally costly for organizations and for society at large. For example, a plethora of research has shown that workplace deviance (e.g., fraud, wasting time, etc.) is an omnipresent and expensive problem for organizations (e.g., Dunlop & Lee, 2004; Murphy, 1993); it can lead to higher turnover rates, bankruptcy, an impaired business reputation, and to decreased task performance (e.g., Kaptein, 2008; Levy & Tziner, 2011; Sackett, 2002). Given these huge costs, improving the prediction and prevention of such deviant behaviors is an important priority for research and practice.

In fact, contemporary social, personality, and especially organizational psychology research has contributed to a growing body of research about the precursors and causes of workplace deviance (e.g., Berry, Ones, & Sackett, 2007). For example, leadership behavior and styles (e.g., Mitchell & Ambrose, 2007; Resick, Hargis, Shao, & Dust, 2013; Tepper et al., 2009), demographic characteristics (e.g., Ng, Lam, & Feldman, 2016), and employee personality (e.g., De Vries & Van Gelder, 2015; O'Neill & Hastings, 2011) have been shown to be related to levels of workplace deviance in an organization. Personality is an important predictor of workplace deviance, but relying only on broad personality dimensions is not optimal when predicting workplace deviance for a number of reasons, including increased efficiency in predicting criteria and higher conceptual resemblance with criteria (e.g., Hastings & O'Neill, 2009). Hence, the goal of the present study is to advance the prediction and prevention of norm violations, and especially of workplace deviance, by introducing a narrow personality characteristic that is novel in the prediction of deviant behavior (i.e., *social value orientation* (SVO)). The present study thereby contributes to current knowledge on how individual differences help to predict and prevent the occurrence of deviant behavior.

Workplace Deviance

One common norm violation is workplace deviance, which is often also referred to as counterproductive work behavior and which is defined as voluntary acts by employees that violate organizational norms and thereby harm the wellbeing of the organization or its employees (Robinson & Bennett, 1995). Workplace deviance can vary from minor (e.g., arriving too late to work, littering) to severe (e.g., fraud, theft), and two forms are commonly

distinguished: interpersonal and organizational workplace deviance. Interpersonal workplace deviance describes behaviors that are harmful to other individuals in the organization (e.g., insulting colleagues), whereas organizational workplace deviance describes behaviors that directly harm the organization (e.g., fraud; Bennett & Robinson, 2000). According to Kish-Gephart, Harrison, and Treviño (2010), workplace deviance has three antecedents: the organizational environment, the issue itself, and stable individual differences. The present study focuses on the latter, contending that organizations and society at large would fare better if they were to understand and be aware of individual differences which incline people away from detrimental behaviors that impinge upon the success and cohesion of these organizations and of society (Dunlop & Lee, 2004).

In employee selection contexts, personality is the most commonly assessed individual difference (Ryan et al., 2015). Broad personality factors (e.g., Big Five Conscientiousness or Agreeableness) correlate moderately with workplace deviance (Berry et al., 2007; Salgado, 2002). Yet, recent research has revealed that the criterion-related validity of personality can be increased by focusing on narrow facets rather than broad personality factors (e.g., Ashton, Paunonen, & Lee, 2014; Pomerance & Converse, 2014). One reason for the less than optimal criterion-related validity of global personality measures is that the underlying facets suppress each other's effects on the criterion (Hastings & O'Neill, 2009). Ashton and colleagues (2014) also argue that due to the higher conceptual correspondence between certain personality facets and specific criteria, such as workplace deviance, an exclusive reliance on global personality factors can be counterproductive. In addition to the higher effectiveness and efficiency in predicting criteria, Hastings and O'Neill (2009) conclude that facet-level measurement of personality characteristics is more defensible in employment decisions because it signals applicants that tests are relevant to the job in question. A narrow focus on deviant-related personality facets therefore seems to be warranted and desirable (O'Neill & Hastings, 2011). While narrow facets from the predominant personality models have already been investigated as predictors of norm-violating deviant behavior (e.g., anger from the Big Five; Hastings & O'Neill, 2009), we believe that SVO is a novel and promising personality facet that might further contribute to the understanding and prediction of such behavior.

Social Value Orientation

Research on SVO is based on experimental games and challenged the widely held belief that humans only make decisions according to selfish principles based on economic rationality (e.g., Luce & Raiffa, 1957) by showing that some individuals do not just pay attention to their own outcomes in interdependent situations, but also to the outcomes of others (Messick &

McClintock, 1968). Building on this, SVO can be assumed to reflect an individual's sense of fairness and equality in interdependent situations and is defined as a stable personality characteristic which describes the weights individuals attach to their own and others' outcome in interdependent situations (McClintock, 1972).

SVO is commonly measured with either the Triple Dominance Measure (Van Lange, Otten, De Bruin, & Joireman, 1997), or with the SVO Slider Measure (Murphy, Ackermann, & Handgraaf, 2010).[1] In these tasks, participants are asked to allocate resources (i.e., points) between themselves and a hypothetical person. Based on their decisions, individuals are classified into one of three different SVOs: 1) prosocials, who maximize or equalize joint outcomes; 2) individualists, who maximize their own outcome regardless of the other's outcome; and 3) competitors, who maximize the difference between their own and the other's outcome. Individualists and competitors are often combined to form a proself group (e.g., Van Lange & Liebrand, 1989). Using the SVO Slider measure, SVO can also be measured on a continuum, with higher scores indicating higher levels of prosociality. Within the broader personality frameworks, SVO correlates most strongly with HEXACO Honesty-Humility and with Big Five Agreeableness (Hilbig et al., 2014).

Individual differences in SVO have reliably been shown to predict decision-making in situations in which the outcomes of two or more individuals depend on the actions of all individuals involved (i.e., in social dilemmas), indicating that prosocials cooperate more with others than individualists or competitors (Balliet et al., 2009; Pletzer et al., 2018). Previous research has also demonstrated the ecological validity of SVO by showing that prosocials are more likely to engage in environmentally friendly behavior (e.g., Cameron, Brown, & Chapman, 1998; Joireman, Lasane, Bennett, Richards, & Solaimani, 2001), donate more to noble causes (e.g., McClintock & Allison, 1989; Van Andel, Tybur, & Van Lange, 2016), are more likely to volunteer (e.g., Van Lange, Schippers, & Balliet, 2011), and have also been shown to be more concerned with the goals of other departments at work (e.g., Nauta, De Dreu, & Van Der Vaart, 2002).

Social Value Orientation and Workplace Deviance

The occurrence of workplace deviance can be best explained with social exchange theory (e.g., Cook & Rice, 2003; Cropanzano & Mitchell, 2005; Emerson, 1976). Social exchange theory is based on the premise that human interactions are built upon the contingent exchange of material and social resources and posits that a subjective cost-benefit analysis governs the formation of human relationships (e.g., Cook & Rice, 2003; Cropanzano & Mitchell, 2005; Emerson, 1976). In a social context, individuals engage voluntarily in

interactions with others from which they then expect returns. As such, employees clearly have social exchange relationships with their coworkers and supervisors at work: information, help, or even a sense of belonging are resources exchanged on an interpersonal level at work. However, an exchange relationship can also exist with organizations or employers: employees receive compensation or bonuses in exchange for performance at work. In addition, employees with a high quality social exchange relationship with their employer have been found to exhibit more pro-organizational behavior and show higher levels of mutual respect, trust, and job satisfaction (Stamper, Masterson, & Knapp, 2009). Importantly, in such cases, the occurrence of workplace deviance can be conceptualized as employees' violation of social exchange norms in their relationship with coworkers and supervisors or with the organization. The question that then arises is which individual differences incline individuals to be more likely to violate these norms?

Here, we propose that individual differences in SVO influence the likelihood that individuals violate these social exchange norms. Prosocials, who per definition value equality and fairness in outcomes, should perceive deviant behaviors as unacceptable because these violate their inherent fairness perceptions and disrupt the contingent, positive exchange of resources and rewards. Prosocials should therefore largely refrain from acting deviantly. Proselfs, who pursue relative or absolute gains compared to others, do not approach situations with fairness and equality in mind (Van Lange, 1999) , and should therefore not perceive deviant behavior as disrupting fair social exchange processes. Acting deviantly might be in their best interest. For example, whereas prosocials' internalized fairness values should make them aware that coming too late to work harms coworkers and the organization, proselfs simply focus on their own resource gain (i.e., individualists) or might even want to actively hurt their organization by engaging in deviant behavior if this were to serve their own goals (i.e., competitors). Based on this reasoning, we expect proselfs to behave more deviantly at work than prosocials.

In line with this theory-based expectation, some evidence suggests that SVO predicts workplace behaviors. Van Dijk and De Cremer (2006) showed that proself leaders made more self-beneficial decisions than prosocial leaders. In addition, prosocials have been found to be better at problem solving due to their increased interdepartmental cooperation (Nauta et al., 2002) and their greater tendency to use cooperative heuristics in negotiations than proselfs (De Dreu & Boles, 1998). Prior research also indicates that prosocials use less strategic misrepresentation and lying when making decisions that influence their own and another's outcome (Steinel & De Dreu, 2004). Peterson (2002) also found that organizations suffer from

higher levels of workplace deviance when employees are primarily concerned with their own outcomes, and Hastings and O'Neill (2009) demonstrated that the narrow personality trait of cooperation negatively predicts workplace deviance. In addition, among the broad personality traits, HEXACO Honesty-Humility is the strongest predictor of levels of workplace deviance (Lee, Ashton, & De Vries, 2005), which itself is predictive of choices on the SVO measures (Hilbig et al., 2014). Based on social exchange theory and the above findings on SVO in the workplace, the following hypothesis is formulated:

Hypothesis 1: Proselfs report higher levels of workplace deviance than prosocials.

As mentioned above, SVO is highly predictive of behavior in situations in which outcomes depend on the actions of two or more involved individuals (i.e., social dilemmas; Balliet et al., 2009). Prosocials value fairness and equality in outcomes, whereas selfish individuals either do not care about the other individuals involved (i.e., individualists) or actively want to harm them (i.e., competitors). Because SVO is an inherent social construct measuring behavioral tendencies and goals in interdependent social situations (Van Lange, 1999), we expect that the effect on interpersonal, as opposed to organizational, workplace deviance to be even larger when comparing prosocials and proselfs. In addition, the social exchange relationship between employees and their coworkers or supervisors should be influenced more strongly by individual differences in SVO than the social exchange relationship between employees and their organization because such interpersonal relationships might be more salient in everyday working life. Thus, the following hypothesis is formulated:

Hypothesis 2: The effect size will be larger when comparing prosocials' and proselfs' levels of interpersonal workplace deviance than when comparing their levels of organizational workplace deviance.

Study Overview

The goal of the present study is to introduce the personality characteristic of SVO as a predictor of norm-violating deviant behaviors and to test its predictive value in three studies. In Study 1, we examine the SVO's predictive validity for self-reported workplace deviance. In Study 2, we again test SVO's predictive validity but use a different measure and include a behavioral measure of deviance. In addition, we examine the incremental predictive validity of SVO over and above the broad personality dimension that predicts workplace deviance most strongly (i.e., HEXACO Honesty-Humility). Finally, in Study 3 we seek to corroborate the findings of Studies 1 and 2 regarding self-reported workplace deviance and use a different behavioral measure of deviance to further substantiate our findings.

Method Study 1

Participants and Procedure

A total of 180 participants were recruited online via social media. To avoid social desirable responding, participation was voluntary and not compensated. Participants whose SVO could not be classified ($n = 34$) and who showed a repetitive pattern in their responses (i.e., always responding with a 5; $n = 2$) were excluded, resulting in a final sample of 144 participants (65% female; due to technical difficulties, this percentage only represents 35 of the 144 participants). All participants were currently employed and held a wide variety of jobs at various levels, ranging from a cashier to an engineer. On average, they were 28.48 years old ($SD = 9.88$), worked 37.84 hours ($SD = 17.31$) per week, had been employed for 8.94 years ($SD = 9.43$), and had held their current job for 4.35 years ($SD = 5.95$). Participants were assured that all responses would be treated anonymously and confidentially, and provided informed consent prior to participation and were debriefed afterwards. Ethical approval for all studies was obtained from the first author's university's ethical review board.

Measures

Social Value Orientation. Participants' SVO was assessed with the Triple Dominance Measure (TDM; Van Lange, Otten, De Bruin, & Joireman, 1997). For nine items, participants had to choose between three outcome distributions of points for the self and for a hypothetical other, representing the three major SVOs. They were instructed to choose the option they prefer the most. Participants were classified as prosocials ($n = 81$), individualists ($n = 42$), or competitors ($n = 21$) if they made six consistent choices ($n = 34$ unclassified). Individualists and competitors were combined to form a proself group ($n = 63$). Being proself was coded as 0, prosocial as 1.

Workplace deviance. Bennett and Robinson's (2000) 19-item questionnaire was used to measure self-reported workplace deviance. While some studies assess workplace deviance with supervisor or colleague ratings (e.g., Neves & Story, 2015), the use of a self-report measure is in line with the argument that workplace deviance is usually a hidden behavior of which supervisors and colleagues are not aware (Berry et al., 2012; Jones, 2009) (Berry et al., 2007; Jones, 2009). In addition, previous research has shown that self-reports measure organizational behaviors accurately (Spector, 1994) and that workplace deviance can be validly assessed with a self-report measure when participants are guaranteed anonymity and confidentiality of their responses (e.g., Bennett & Robinson, 2000). Participants indicated how often they engaged in certain deviant behaviors during the past year on a scale ranging from 1 = *never* to 7 = *daily* ($\alpha = .87$). The questionnaire consists of two subscales measuring interpersonal (7 items; $\alpha = .85$)
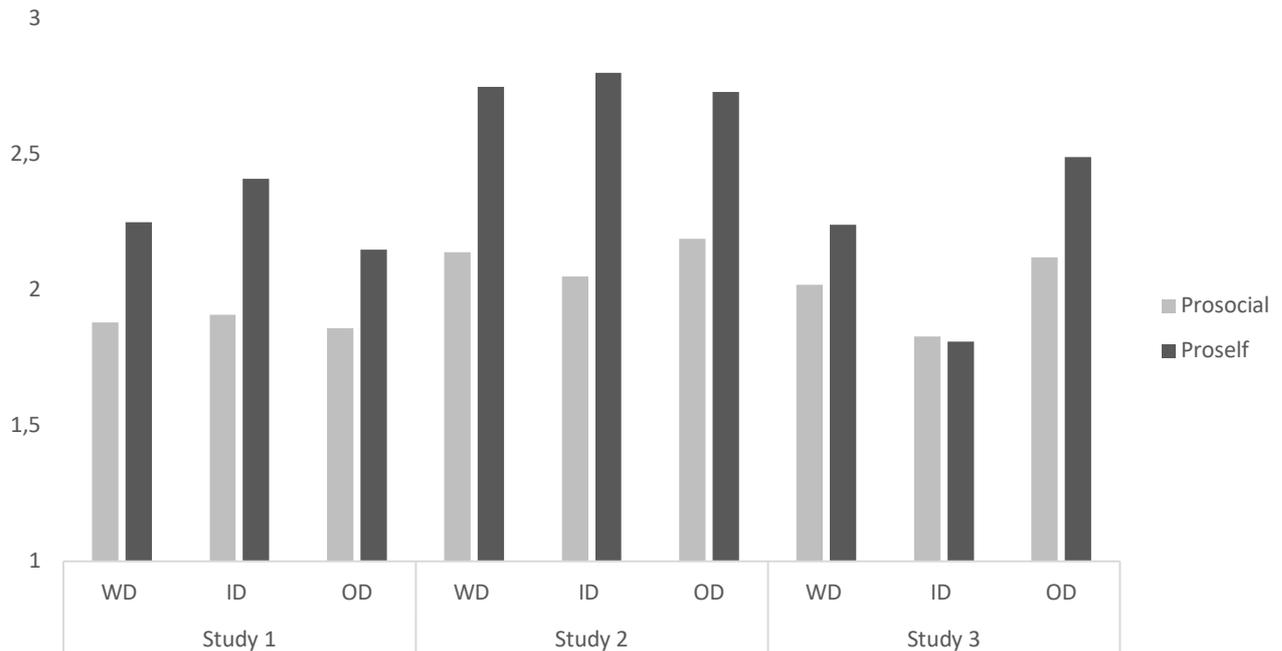
and organizational workplace deviance (12 items; α = .81). A sample item of interpersonal workplace deviance is "*Made fun of someone at work*" and "*Taken property without permission*" of organizational workplace deviance. We ran a confirmatory factor analysis (CFA; N = 178) to test the two-factor structure of workplace deviance against a one-factor structure. The two-factor structure of workplace deviance (*CFI* = .788; *TLI* = .760; *RMSEA* = .092; *SRMR* = .085; χ^2 = 378.47, p < .001) fit the data better than the one-factor structure (*CFI* = .634; *TLI* = .589; *RMSEA* = .120; *SRMR* = .104; χ^2 = 544.09, p < .001). A maximum likelihood ratio difference test for χ^2 showed a highly significant difference between the one- and the two-factor structure ($\Delta\chi^2$ = 165.62, p < .001), indicating that a two-factor representation of workplace deviance is preferred above a one-factor representation.[2]

Results and Discussion Study 1

Because both workplace deviance and SVO have reliably been shown to be influenced by participants' age (Liu & Ding, 2012; Pletzer, Oostrom, & Voelpel, 2017; Shao, Resick, & Hargis, 2011), we controlled for age in all analyses. A one-way analysis of covariance (ANCOVA) shows a statistically significant difference in self-reported workplace deviance between prosocials and proselfs when controlling for age, $F(1, 141)$ = 8.925, p < .01, R^2 = .106. The significant effect is found for both interpersonal, $F(1, 141)$ = 8.002, p < .01, R^2 = .094, and organizational workplace deviance, $F(1, 141)$ = 5.379, p = .022, R^2 = .068. The estimated marginal means reveal that proselfs indicated to behave more deviantly on the overall scale and on both subscales (see Figure 1). Hypothesis 1 can therefore be confirmed. In addition, unclassified individuals (n = 34) take an intermediate position (estimated marginal mean: M = 2.11, SE = 0.14) and both pairwise comparisons with prosocials (p = .152) and proselfs (p = .421) are non-significant, providing further evidence that SVO drives the difference in self-reported workplace deviance. The effect size comparing prosocials and proselfs was larger for interpersonal (R^2 = .094) than for organizational (R^2 = .068) workplace deviance, providing initial support for Hypothesis 2.

Figure 1
Estimated Marginal Means (controlling for age) for Overall, Interpersonal, and Organizational Workplace Deviance for Prosocials and Proselfs for Study 1, 2, and 3.

Note. WD = Overall workplace deviance; ID = Interpersonal workplace deviance; OD = Organizational workplace deviance.

The results of Study 1 indicate that SVO is associated with self-reported workplace deviance and provide preliminary evidence that organizations would benefit from hiring individuals who are predisposed to cooperate with each other and who value fairness and equality in outcomes to avoid the occurrence of workplace deviance. However, the first study suffers from two limitations. First, while the TDM is the most commonly used SVO measure, we had to exclude participants because their SVO could not be classified. In Study 2, we want to overcome this issue by using a newer SVO measure (i.e., the SVO Slider measure; Murphy et al., 2010) which can classify all participants and will provide a continuous measure of SVO. Second, workplace deviance was only assessed with self-reports. Even though self-reports of workplace deviance seem to validly assess the phenomenon of interest (Bennett & Robinson, 2000; Spector, 1994), we cannot rule out that the findings for self-reported workplace deviance are due to a response bias unique to either prosocials or proselfs. We will therefore replicate and extend this study by including a behavioral measure of deviance (Fischbacher & Föllmi-Heusi, 2013) to overcome the limitation of common method bias and of obtaining only subjective self-report data. More specifically, we will examine the relationship between SVO and a behavioral measure of norm-violating deviant behavior in which participants can increase

their gain by disobeying instructions (i.e., by acting deviantly). In the second study, we aim to corroborate Hypotheses 1 and 2 and additionally hypothesize the following:

Hypothesis 3: Proselfs behave more deviantly than prosocials.

Furthermore, we will examine if SVO explains incremental variance in workplace deviance over and above HEXACO Honesty-Humility, which is the strongest predictor of workplace deviance out of all Big Five and HEXACO broad personality factors (Lee et al., 2005). As mentioned above, SVO is a narrow personality characteristic, which generally enjoy a few advantages over broad personality dimensions in the prediction of deviant behavior (see the introduction for an elaborate discussion of these advantages). However, these advantages are only practically useful if SVO explains incremental variance in workplace deviance over and above Honesty-Humility. We investigate this in Study 2.

Method Study 2

Participants and Procedure

A total of 331 participants completed an online self-report questionnaire and participated in a behavioral measure of deviance in exchange for $1. They were recruited online through the crowdsourcing platform CrowdFlower, were guaranteed anonymity and confidentiality of their responses, provided informed consent prior to participation, and were debriefed afterwards. Because we used a different SVO measure than in Study 1, no participants had to be excluded because their SVO could not be classified (Murphy, Ackermann, & Handgraaf, 2010). However, 59 participants were excluded because they did not answer attention test questions correctly (i.e., "Please select daily on this question"). The final sample therefore consisted of 272 participants (45% female). On average, participants were 35.33 years old ($SD = 11.29$), worked 36.23 hours per week ($SD = 12.87$), had been employed for 12.37 years ($SD = 10.68$), and had held their current jobs for 5.62 years ($SD = 5.27$).

Measures

Social Value Orientation. Participants' SVO was assessed with the online version of the SVO Slider measure (Murphy et al., 2010). Six items posed a resource allocation task in which participants had to make a choice between a payoff for themselves and another person on a defined continuum. Participants were instructed to choose the option that best represents their preferences for joint distribution of outcomes and were classified as prosocials ($n = 155$), individualists ($n = 111$), or competitors ($n = 6$). Individualists and competitors were again combined to form a proself group ($n = 117$). Using the Slider measure, SVO can also be treated as a continuous variable (higher values indicating more prosocial values, which aligns with the categorical SVO coding: 0 = proself, 1 = prosocial).

Workplace deviance. The same measure as in Study 1 was used (Bennett & Robinson, 2000). Alpha coefficients of the overall scale (α = .96) as well as of the organizational (α = .95) and interpersonal workplace deviance scale (α = .93) were substantial. A CFA for the proposed two-factor structure of workplace deviance (*CFI* = .881; *TLI* = .866; *RMSEA* = .120; *SRMR* = .065; χ^2 = 740.70, *p* < .001) fit the data better than for a one-factor solution of workplace deviance (*CFI* = .865; *TLI* = .849; *RMSEA* = .127; *SRMR* = .069; χ^2 = 821.68, *p* < .001). A maximum likelihood ratio difference test for χ^2 between the two estimations was highly significant ($\Delta\chi^2$ difference = 80.98, *p* < .001), again favoring the two-factor solution.

HEXACO Honesty-Humility. We assessed Honesty-Humility as the strongest predictor of workplace deviance with 16 items from the 100 items HEXACO questionnaire (Lee & Ashton, 2016). Example items are "*I would never accept a bribe, even it were very large*" or "*I am an ordinary person who is not better than others.*" Cronbach's alpha was substantial (α = .84). Participants indicated their response on a five-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

Behavioral measure of deviance. To measure deviant behavior, we used an adapted version of the die-rolling task (Fischbacher & Föllmi-Heusi, 2013). Instead of receiving a cup and a die, participants were forwarded to an external website (random.org) where they could roll a virtual die. Participants could roll the die as often as they wanted to, but were explicitly instructed to roll it only once. They were told that if they rolled a six, their compensation would be doubled. A previous study using the same die-rolling task showed that cheating occurs by rolling the die repeatedly (Köbis, Van Prooijen, Righetti, & Van Lange, 2016). Therefore, unobtrusively to participants, we recorded how often they had rolled the die and operationalized deviant behavior as the number of times participants rolled the die because this constitutes disobeying instructions. Higher numbers of rolling the die indicate higher levels of cheating because instructions are disobeyed multiple times. Overall, participants rolled the die on average 3.55 times (*SD* = 5.59), ranging from 1 roll to 37 rolls.

Results and Discussion Study 2

Using the SVO Slider measure, it is possible to analyze the data using both a continuous and categorical measure of SVO. Hence, we tested the relationship between SVO and workplace deviance with both an ANCOVA and a linear regression, controlling for age in both analyses. The correlation analyses indicate that the continuous and categorical SVO variable significantly and negatively correlated with overall, organizational, and interpersonal workplace deviance (see Table 1).

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Table 1
Descriptive Statistics and Bivariate Correlations of Study 2

	Mean	SD	1.	2.	3.	4.	5.	6.	7.
1. SVO cont.	23.49	15.43	-						
2. SVO cat.	0.43	0.50	.893**	-					
3. WD	2.40	1.30	-.300**	-.247**	-				
4. OD	2.42	1.33	-.262**	-.210**	.977**	-			
5. ID	2.37	1.39	-.331**	-.283**	.937**	.840**	-		
6. Die throws	3.55	5.59	-.103	-.136*	.099	.066	.143*	-	
7. Age	35.33	11.29	.109	.080	-.176**	-.150*	-.200*	-.088	-
8. HH	3.35	0.58	.324**	-.324**	-.501**	-.463**	-.514**	-.153*	.327**

Note. $N = 272$. SVO cont. = Degree on the SVO Slider measure; SVO cat = SVO categorization (1 = prosocial, 0 = proself); WD = Workplace deviance; OD = Organizational workplace deviance; ID = Interpersonal workplace deviance; HH = HEXACO Honesty-Humility; * $p < .05$, ** $p < .01$.

The one-way ANCOVA controlling for age also showed a statistically significant difference in self-reported workplace deviance between prosocials and proselfs, $F(1, 269) = 16.089$, $p < .01$, $R^2 = .086$. These differences were significant for both organizational, $F(1, 269) = 11.348$, $p < .01$, $R^2 = .062$, and interpersonal workplace deviance, $F(1, 269) = 21.648$, $p < .01$, $R^2 = .112$. The estimated marginal means of workplace deviance are consistently higher for proselfs than for prosocials and are generally higher than in Study 1 (see Figure 1).[3] Similarly, the linear regression analysis revealed a significant effect of SVO on overall workplace deviance, $F(2, 269) = 16.723$, $p < .01$, $R^2 = .111$, as well as on organizational, $F(2, 269) = 12.279$, $p < .01$, $R^2 = .084$, and interpersonal workplace deviance, $F(2, 269) = 21.317$, $p < .01$, $R^2 = .137$. The regression coefficients indicate that individuals with a relatively more prosocial SVO show lower levels of workplace deviance (see Table 2). Hypothesis 1 is thus again supported.

Providing further preliminary support for Hypothesis 2, the effect sizes were larger for interpersonal ($R^2 = .112$ and $R^2 = .137$) than for organizational workplace deviance ($R^2 = .062$ and $R^2 = .084$), independent of the analytical method.

A one-way ANCOVA predicting behavioral deviance in the die game controlling for age found a statistically significant difference between prosocials and proselfs, $F(1, 269) = 4.593$, $p = .033$, $R^2 = .024$, indicating that proselfs (estimated marginal mean: $M = 4.38$, $SE = 0.51$) rolled the die more often than prosocials (estimated marginal mean: $M = 2.92$, $SE = 0.45$). The results of the linear regression analysis were nonsignificant, $F(2, 269) = 2.264$, $p = .106$, $R^2 = .017$ (see Table 2 for the regression coefficients). Hence, results regarding Hypothesis 3 are equivocal depending on the analytical method.

Table 2
Linear Regression Analyses of Study 2

	DV							
	WD		OD		ID		Die Throws	
IV	R^2	β	R^2	β	R^2	β	R^2	β
	.111		.084		.137		.017	
SVO cont.		-.024**		-0.21**		-.028**		-.034
Age		-.017*		-0.14*		-.021*		-.038

Note. N = 272; DV = Dependent variable; IV = Independent variable; SVO cont. = Degree on the SVO Slider measure; SVO cat = SVO categorization (1 = prosocial, 0 = proself); WD = Workplace deviance; OD = Organizational workplace deviance; ID = Interpersonal workplace deviance; β = Standardized Beta Coefficient; * *p* < .05, ** *p* < .01.

Lastly, we examined if SVO explains incremental variance in workplace deviance over and above HEXACO Honesty-Humility. A stepwise linear regression predicting overall workplace deviance with Honesty-Humility and SVO as independent variables and controlling for age was highly significant, $F(3, 268) = 33.456$, $p < .01$, $R^2 = .272$. SVO explained 2.1% of additional variance in workplace deviance over and above Honesty-Humility. The results were qualitatively similar for organizational workplace deviance, $F(3, 268) = 26.391$, $p < .01$, $R^2 = .228$, and for interpersonal workplace deviance, $F(3, 268) = 37.458$, $p < .01$, $R^2 = .295$. SVO explained 1.4% of additional variance over and above Honesty-Humility for organizational workplace deviance and 3.0% for interpersonal workplace deviance. A stepwise linear regression predicting behavioral deviance in the die rolling game with Honesty Humility and SVO controlling for age was marginally nonsignificant, $F(3, 268) = 2.588$, $p = .053$, $R^2 = .295$. SVO did not explain incremental variance over and above Honesty-Humility.

The results of Study 2 corroborate our findings from Study 1: proselfs consistently report to behave more deviantly in the workplace than prosocials. Importantly, these findings hold even though we used a different measure for SVO than in Study 1 and paid individuals for their participation. Furthermore, the results remain statistically significant independent of whether a categorical or continuous measure of SVO is used, increasing the generalizability of our findings even more. The results also indicate that SVO explains variance in workplace deviance over and above the broad personality dimension of Honesty-Humility, which has been shown to be the strongest predictor of workplace deviance across all Big Five and HEXACO personality domain scales (Lee et al., 2005). This suggests that SVO is a narrow personality facet that helps to overcome the limitations associated with only relying on broad personality dimensions as predictors of workplace deviance, such as the suppressed effects of individual facets (Hastings & O'Neill, 2009), higher conceptual resemblance with criteria (Ashton, Paunonen, et al., 2014), and the higher criterion-related validity in job selection contexts

(Ashton, Paunonen, et al., 2014; Hastings & O'Neill, 2009; Pomerance & Converse, 2014). In addition, we corroborated the finding that proselfs report to be more deviant than prosocials with a behavioral measure of deviance when using the categorical classification of SVO. Here as well, proselfs deviated more from the given instructions than prosocials. This finding makes it unlikely that proselfs' self-reported levels of workplace deviance are due to a response bias unique to this group. However, these conclusions might be questioned when examining the results using the continuous SVO measure because they were nonsignificant. We also acknowledge that the die-rolling task we used in this study has a limitation: Although previous studies using the same task showed that cheating occurs by repeatedly rolling the die and not by lying about the outcome (Köbis et al., 2016), some participants might have rolled the die multiple times for other motives than cheating (e.g., out of curiosity or to check if the die was truly random). In addition, it is possible that some individuals who would usually act deviantly rolled a six on their first try, negating the necessity to be deviant. This might have confounded the results. Although we believe that this task is closely aligned with an important deviant behavior at work (i.e., disobeying instructions from supervisors) and the operationalization of deviant behavior at least correlated significantly with self-reported interpersonal workplace deviance ($r = .143$, $p = .019$), a more comprehensive task would ideally capture evidence of behavior that is more broadly related to the workplace. We therefore conducted a third study using a different behavioral measure of deviance to clarify the relation between SVO and behavioral differences in norm-violating deviance. By using a matrix task modelled after Mazar, Amir, and Ariely (2008) in which participants could increase their outcomes by lying about their performance, we aim to measure not only deviant selfish behavior, but also an overrepresentation of one's actual performance and dishonesty toward individuals in an authoritative position.

Method Study 3

Participants and Procedure

A total of 141 students (63% female) participated in this study for credits or for €5 in the lab. They could increase their compensation in the matrix task described below. One student had to be excluded from all analyses because he did not indicate his age. All participants provided informed consent before participation and were debriefed afterwards. Participants were on average 21.92 years old ($SD = 4.43$), worked 12.40 hours per week ($SD = 8.28$), and had been employed for an average of 4.22 years ($SD = 2.96$).

Measures

Social Value Orientation. As in Study 2, participants' SVO was assessed with the online version of the SVO Slider measure (Murphy et al., 2010). Participants were classified as prosocials ($n = 95$) or individualists ($n = 45$), but no one was classified as a competitor. Therefore, all analyses are based on the comparison between prosocials and individualists, or on the continuous SVO variable.

Workplace deviance. The same measure as in Study 1 and 2 was used to assess self-reported levels of workplace deviance (Bennett & Robinson, 2000). Alpha coefficients of the overall scale ($\alpha = .79$) as well as of the organizational ($\alpha = .72$) and interpersonal workplace deviance scale ($\alpha = .80$) were acceptable. A CFA for a two-factor structure of workplace deviance fit the data better ($CFI = .749$; $TLI = .716$; $RMSEA = .082$; $SRMR = .086$; $\chi^2 = 293.12$, $p < .001$) than a one-factor structure ($CFI = .575$; $TLI = .522$; $RMSEA = .106$; $SRMR = .106$; $\chi^2 = 393.09$, $p < .001$). A maximum likelihood ratio difference test for χ^2 between the two estimations was highly significant ($\Delta\chi^2 = 99.97$, $p < .001$), indicating that the two-factor solution of workplace deviance fit the data better.

Behavioral measure of deviance. We used a matrix task modelled after Mazar and colleagues (2008) to assess deviance and dishonesty. In this task, participants received a test and a response sheet. The test sheet consisted of 20 matrices each containing 12 three-digit numbers (i.e., 0.85, 7.34) between zero and ten. Participants had five minutes to find the two numbers that add up to exactly 10 in each matrix and received €0.50 for each solved matrix. Yet, only 10 of the 20 matrices were solvable. After five minutes, participants were instructed to throw the test sheet in a trash can, to indicate on the response sheet how many matrices they had solved, and to hand the response sheet to the experimenter. This presented them with the opportunity to lie about the number of matrices they had solved. Participants were paid in accordance with the number of solved matrixes they had indicated on the response sheet. After they had left, the experimenter retrieved the test sheet from the trash can and compared the reported with the actual number of solved matrices. The difference between the two was operationalized as the measure of norm-violating deviance. Five participants were excluded from this analysis because their test sheet could not be retrieved.

Results Study 3

A one-way ANCOVA controlling for age showed that prosocials and individualists marginally did not differ on self-reported workplace deviance when controlling for age, $F(1, 137) = 3.762$, $p = .054$, $R^2 = .043$. The difference was statistically significant for organizational workplace deviance, $F(1, 137) = 8.435$, $p < .01$, $R^2 = .063$, but not for interpersonal workplace

deviance, $F(1, 137) = 0.020$, $p = .889$, $R^2 = .024$. The estimated marginal means were higher for individualists than for prosocials for both overall and organizational workplace deviance, but not for interpersonal workplace deviance (see Figure 1). A linear regression showed similar results: SVO significantly predicted overall workplace deviance, $F(2, 137) = 3.270$, $p = .041$, $R^2 = .046$, and organizational workplace deviance, $F(2, 137) = 4.659$, $p = .011$, $R^2 = .064$, but not interpersonal workplace deviance, $F(2, 137) = 1.700$, $p = .187$, $R^2 = .024$. As in Study 2, individuals with a relatively more prosocial SVO were less likely to report (overall and organizational) workplace deviance (see Table 3 for correlations and Table 4 for regression coefficients).

Table 3
Descriptive Statistics and Bivariate Correlations of Study 3

	Mean	SD	1.	2.	3.	4.	5.	6.
1. SVO cont.	27.53	30.84	-					
2. SVO cat.	0.68	0.50	.854**	-				
3. WD	2.09	0.64	-.158	-.140	-			
4. OD	1.84	0.91	-.236**	-.227**	.873**	-		
5. ID	2.24	0.71	.013	.035	.751**	.334**	-	
6. Matrix	0.68	2.43	-.147	-.176*	.023	.085	-.074	-
7. Age	21.92	4.43	-.073	-.151	-.131	-.072	-.156	.245**

Note. $N = 140$ (Matrices $N = 136$). SVO cont. = Degree on the SVO Slider measure; SVO cat = SVO categorization (1 = prosocial, 0 = proself); WD = workplace deviance; OD = Organizational workplace deviance; ID = Interpersonal workplace deviance; Matrix = Reported – solved number of matrices; * $p < .05$, ** $p < .01$.

Table 4
Linear Regression Analyses of Study 3

	DV							
	WD		OD		ID		Matrices	
IV	R^2	β	R^2	β	R^2	β	R^2	β
	.046		.064		.024		.080	
SVO cont.		-0.17*		-0.24**		0.00		-0.14
Age		-0.14		-0.09		-.016		0.24**

Note. $N = 140$ (Matrices $N = 136$); DV = Dependent Variable; IV = Independent Variable; SVO cont. = Degree on the SVO Slider measure; SVO cat = SVO categorization (1 = prosocial, 0 = proself); WD = Workplace deviance; OD = Organizational workplace deviance; ID = Interpersonal workplace deviance; β = Standardized Beta Coefficient; * $p < .05$, ** $p < .01$.

A one-way ANCOVA (controlling for age) predicting behavioral deviance in the matrix task showed that prosocials and proselfs marginally did not differ, $F(1, 133) = 3.413$, $p = .067$,

$R^2 = .084$. The estimated marginal means reveal that proselfs' levels of deviance were higher than prosocials' (proself $M = 1.55$, $SE = 0.38$; prosocial $M = 0.69$, $SE = 0.27$). The results of the linear regression analysis were statistically significant, $F(2, 133) = 5.780$, $p < .01$, $R^2 = .080$ (see Table 4 for the regression coefficients), indicating that proselfs behaved more deviantly than prosocials.

Meta-Analysis of Studies 1 through 3

To summarize the findings and provide an overview of the results across three studies, we conducted a fixed-effects meta-analysis using the estimated marginal means of workplace deviance for prosocials and proselfs from the ANCOVAs when controlling for age to examine the generality of our findings. Across three studies, proselfs ($n = 225$) reported higher levels of organizational ($d = 0.433$, 95% CI [0.261, 0.605], $p < .001$), interpersonal ($d = 0.405$, 95% CI [0.232, 0.577], $p < .001$), and overall workplace deviance ($d = 0.463$, 95% CI [0.291, 0.636], $p < .001$) than prosocials ($n = 331$). Together, these meta-analytic results provide further support for Hypothesis 1. However, across three studies the effect size was not larger for interpersonal than for organizational workplace deviance, $Q(1) = 0.053$, $p = .818$.[4] Hence, Hypothesis 2 was not supported.

General Discussion

The goal of the present study was to test the predictive validity of SVO for norm-violating deviant behaviors. Across three studies, we demonstrated that individual differences in SVO are associated with norm-violating deviant behavior: proselfs report higher levels of workplace deviance and act more deviantly than prosocials. The strength of this effect is exemplified by the fact that it holds in three independent studies which differed in terms of participant payment (unpaid vs. paid), demographic and work-related characteristics (percentage of females, mean age, working hours, and work experience), and measurement methods. The current results emphasize several new insights for the prediction and prevention of norm-violating deviant behavior.

Using social exchange theory (Cook & Rice, 2003; Cropanzano & Mitchell, 2005; Emerson, 1976), we argued that deviant behaviors can be understood as violating social exchange norms and that selfish dispositions are associated with a higher likelihood of disrupting those norms. Selfish individuals would therefore be more inclined to act deviantly. The current studies demonstrate that individual differences in SVO are predictive of norm-violating deviant behavior, and that SVO explains incremental variance in workplace deviance over and above Honesty-Humility, the strongest personality domain predictor of workplace deviance (Lee et al., 2005). Prosocials might have internalized that acting deviantly is a

violation of social and organizational norms and therefore largely refrain from such behavior. The threshold to act deviantly then seems to be lower for proselfs because they might not be as concerned with violating equality and fairness norms. Such rule-breaking might be especially prevalent in competitors, individuals who want to harm other involved individuals and who might therefore be even more likely than individualists to act deviantly.[5] Possibly, individualists might only act deviantly if it is in their own best interest, whereas competitors might violate organizational norms to harm others. For example, individualists might only come late to work if they have other things to take care of before, whereas competitors might deliberately come late to work to increase their colleagues' workload. Future research should examine this further. Importantly, we did not find evidence for our second hypothesis that SVO has a higher predictive validity for interpersonal than for organizational workplace deviance. This suggests that SVO is a powerful predictor irrespectively of the kind of deviant behavior being assessed and that proselfs are just generally more predisposed to act deviantly than prosocials, independently of the dimension of workplace deviance being assessed.

The cross-sectional results for workplace deviance were partly corroborated by using two behavioral measures of deviance: Proselfs disobeyed instructions to a significantly larger extent than prosocials and were more dishonest to increase their gain. This indicates a greater willingness to deviate from norms and rules to increase personal gains, signifying proselfs' strong focus on themselves and further emphasizing the robustness of the association between SVO and norm-violating deviant behavior. In fact, individual differences in SVO are generally predictive of norm-violating behaviors, independently of the specific behavior being assessed. The current findings also align with previous research showing that proselfs use strategic misrepresentation and lying more often than prosocials to achieve better outcomes for themselves in interdependent situations (Steinel & De Dreu, 2004). Our results extend this finding by demonstrating that this effect is not only limited to interdependent mixed-motive situations (i.e., to negotiations), but also holds for deviant and dishonest behaviors not directly targeting other individuals. Proselfs are more likely to violate social exchange norms with their coworkers and supervisors, but also with their organization. In addition to this, the current results might suggest that the occurrence of deviant behavior at work can be conceptualized as an interdependent situation between the employee and coworkers or between the employee and the organization. As such, workplace deviance might be closely aligned with defection or noncooperation in social dilemmas. Future research could examine if individuals who defect in social dilemmas are also more likely exhibit norm-violating and deviant behavior in other life situations. Previous research has already found that organizational citizenship behaviors are

perceived as social dilemmas in which individual short-term interests conflict with collective long-term interests (Joireman, Kamdar, Daniels, & Duell, 2006), and the same might apply to deviant behavior at work.

Practical Implications

Overall, individual preferences for equal and fair outcome distributions in interdependent situations play a major role in explaining why individuals behave deviantly. Individual preferences for cooperation seem to be a strong preventive and protective factor against norm violations and against workplace deviance, and organizations would benefit from hiring individuals who prefer to cooperate with others. Thus, organizations can prevent the occurrence of workplace deviance by selecting job applicants who place higher values on equality and fairness in outcomes (i.e., prosocials). As such, organizations would benefit from acquiring knowledge about applicants' SVO in selection procedures to screen their proneness to deviant behavior, thereby minimizing the risk of deviant behavior. One way to achieve this would be to directly employ SVO measures in selection settings, which would result in increased efficiency compared to longer, broad personality questionnaires. However, organizations could also try to infer prosocial motives from their applicants through structured interviews, observation techniques, behavior in economic games, or possibly even through SVO-related judgments by former colleagues or supervisors.

This is especially true given that results of Study 2 demonstrate that SVO explains incremental validity in workplace deviance over and above Honesty-Humility, which is the personality domain that correlates most strongly with workplace deviance (Lee et al., 2005). Besides the explained incremental validity of SVO over and above Honesty-Humility, the current SVO measures are advantageous compared to regular personality questionnaires regarding the prediction of workplace deviance because they use a (forced) choice methodology and do not rely strongly on the value-laden connotations of language (Jackson, Wroblewski, & Ashton, 2000). In other words, SVO measures might be harder to fake in job selection settings than traditional personality questionnaires, such as the Big Five or the HEXACO (Ones & Viswesvaran, 1998).

It has also long been acknowledged that an ethical work climate leads to a reduced occurrence of unethical behavior at work (e.g., Kish-Gephart et al., 2010). In order to activate certain traits (i.e., trait activation theory; Tett & Burnett, 2003), it might be useful to frame work tasks in a way that emphasizes group goals and encourages cooperation between employees and supervisors to prevent the occurrence of workplace deviance. This might potentially amplify the positive effects of prosocial values and negate the negative effects of selfish values

on levels of workplace deviance. For example, employees who need to cooperate with one another to attain their goals might show lower levels of workplace deviance.

Limitations and Future Research

This study is not without limitations. First, results on the behavioral measures were slightly equivocal because statistical significance was dependent on the analytical approach of SVO (continuous or categorical). In addition, the behavioral measures of deviance did not significantly correlate with self-reported workplace deviance (except for interpersonal workplace deviance in Study 2). This could be due to the fact that our measures of behavioral deviance are implicit measures of deviance, which generally do not correlate highly with explicit measures (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Nosek, 2007). However, we believe that the overall results suggest that proselfs are more prone to deviate from norms and rules about destructive deviant behaviors than prosocials. Second and related to this, current SVO measures are relatively abstract and lack the overt significance to signal the usefulness of these tests to applicants. Because applicant reactions to selection tests are important to recruit the best candidates (Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993), it would be valuable to develop a context-specific SVO measure, such as a situational judgment test (McDaniel, Hartman, Whetzel, & Grubb, 2007). Such a contextualized SVO measure would possibly also result in higher validity and better prediction of workplace deviance than the current measures (Morgeson et al., 2007). Third, the effect of SVO on workplace deviance might be different in team settings: Previous research has shown that the presence of a few individuals with rather undesirable traits in teams can lead to desirable outcomes for the entire team (e.g., Narcissism; Goncalo, Flynn, & Kim, 2010). Regarding SVO, future studies could examine if a certain level of competitive drive (i.e., having one or two proselfs in a team) encourages positive behaviors, whereas a high concentration of proselfs in a team might lead to increased levels of deception and workplace deviance.

Concluding Remarks

The current findings suggest that SVO is not only relevant for predicting behavior in social dilemmas (Balliet et al., 2009), but also in dilemmas that individuals face at work. As such, individual differences in SVO predict norm violations – at work and in situations in which fairness values are pitted against selfish interests. Proselfs indicate higher levels of workplace deviance and are more likely to violate norms to gain (material) benefits than prosocials. SVO, which is a construct deeply rooted in decades of research on game theory and behavior in economic games, has the ability to predict behavior that is essential at the workplace.

Organizations could utilize this information to screen job applicants' SVO as it signals their proneness to deviant behavior in the workplace.

Footnotes

[1] Older studies have often also used the Ring Measure of SVO (Liebrand, 1984; Liebrand & McClintock, 1988), but this measure shows low test-retest reliability (Murphy et al., 2010).

[2] The two-factor structure of workplace deviance also fit the data better when only including the 144 participants that were included in the main analysis, $CFI = .757$; $TLI = .725$; $RMSEA = .101$; $SRMR = .095$; $\chi^2 = 374.73$, $p < .001$, than a one-factor structure of workplace deviance, $CFI = .601$; $TLI = .552$; $RMSEA = .129$; $SRMR = .114$; $\chi^2 = 518.73$, $p < .001$. The maximum likelihood ratio difference test for χ^2 between the two estimations was highly significant (χ^2 difference $= 144.00$, $p < .001$), indicating as well that the two-factor solution of workplace deviance fit the data better.

[3] The finding that levels of self-reported workplace deviance are generally higher in Study 2 than in Study 1 could be because participation was completely voluntary in Study 1, whereas participants were compensated for their participation in Study 2. Individuals who participate without compensation in a study are probably more prosocial, which might subsequently have become apparent in the lower levels of self-reported workplace deviance.

[4] The results were qualitatively the same when using the regular means: Across three studies, proselfs ($n = 225$) reported higher levels of organizational ($d = 0.447$, 95% CI [0.275, 0.619], $p < .001$), interpersonal ($d = 0.416$, 95% CI [0.243, 0.589], $p < .001$), and overall workplace deviance ($d = 0.474$, 95% CI [0.301, 0.647], $p < .001$) than prosocials ($n = 331$). The effect size was not larger for interpersonal than for organizational workplace deviance, $Q(1) = 0.063$, $p = .802$.

[5] Unfortunately, we could not test this because the number of competitors was really low in Study 1 and 2, and Study 3 did not contain any competitors at all. This limited the statistical power to detect a significant effect.