The Bright, Dark, and Grey Sides of Risk Takers at Work: Criterion Validity of Risk Propensity for Contextual Performance at Work

Don C. Zhang[1], Clare L. Barratt[2], & Rachel Williamson Smith[3]

[1]Department of Psychology, Louisiana State University

[2]Department of Psychology, Bowling Green State University

[3]Department of Management, Georgia Southern University

Author Note

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Abstract

Although risk takers are traditionally seen as liabilities, a growing body of research suggests that risk takers may be critical for organizational achievements because of their courage and willingness to take risks for the benefit of others. Despite the prevalence of risk taking in studies of strategic management and organizational behavior, we know very little about the implication of risk propensity on employee work performance. In this paper, we conceptualize contextual performance–behaviors that fall outside of normal job expectations–as a form of workplace risk taking. Results from a three-wave study of working adults revealed that risk propensity positively predicted both counterproductive work behaviors (CWBs) and pro-social rule-breaking behaviors (PSRBs) above the Big Five personality traits. We also found an indirect effect of risk propensity on organizational citizenship behaviors (OCBs) and PSRBs via an increased willingness to take risks at work. Taking an item-level approach, we found that the predictive validity of risk propensity was greater for specific performance items that independent judges rated as riskier. Our findings suggest that risk takers are more likely to engage in pro-social and counterproductive behaviors–particularly those that are rule-breaking or have elevated risks–in part due to an increased willingness to take risks at work.

Keywords: risk propensity, risk perception, personality, counterproductive work behaviors, organizational citizenship behaviors, prosocial rule breaking

The Bright, Dark, and Gray Sides of Risk Takers at Work:

Criterion Validity of Risk Propensity for Contextual Work Performance

"You cannot succeed without the risk of failure. You cannot have a voice without the risk of criticism. You cannot love without the risk of loss. You must go out and you must take these risks" - Charlie Day, Merrimack College Commencement Speech, 2014.

The concept of 'ideal' employees has traditionally been those that follow the rules, play it safe, and do as they are told (Schmit & Ryan, 1993). Accordingly, employees that take risks are often seen as liabilities, rather than assets for the organization (Ashton, 1998). Multiple corporate catastrophes, such as the financial crisis of 2008 and the Enron scandal, can be attributed–in part–to the reckless risk taking of bankers, leaders, and employees (Roberts, 2019). Contrary to conventional wisdom, organizational scholars are recognizing the bright side of risk taking at work (e.g., Detert & Bruno, 2017; Thoroughgood et al., 2020). This recognition is exemplified in several popular press books highlighting the value of taking risks by breaking rules and advocating for change (e.g., *Rebel Talent*; *Rule Makers, Rule Breakers;* Gelfand, 2019; Gino, 2018). As suggested in the opening quote, risk takers are critical for innovation, courage, and the fight for social justice: some of the greatest organizational achievements—and catastrophes — can be attributed to risk takers. Indeed, an appetite for risks (i.e., risk propensity) is neither a positive nor a negative trait. Instead, it can be conceived as an individual capacity that enables employees to *take risks at work*, for better or worse.

Although individual differences in risk propensity is occasionally included in organizational research (e.g., Baer et al., 2021; Colquitt et al., 2007), it has yet to be considered as a unique personality predictor of *employee performance at work*. Management scholars have predominantly focused on the risk propensity of executives and entrepreneurs (Brenner, 2015;

Hoskisson et al., 2017; Stewart & Roth, 2001). CEO risk taking, for example, has been linked to positive outcomes such as innovation and organizational change as well as negative outcomes such as illegal and unethical activities (Baucus & Near, 1991; Knight et al., 2001). And while risk propensity was associated with individual engagement in entrepreneurship, it did not lead to more entrepreneurial success (Kerr et al., 2019). Outside of organizational settings, research has linked risk propensity to various pro- and anti-social risky behaviors (Do et al., 2017; Mishra & Lalumière, 2009; Zhu et al., 2022). Given the heterogeneity of the risk-taking behaviors, it remains unclear whether risk takers are beneficial or detrimental for work performance.

The scarcity of research on risk taking in work settings is also surprising considering that both personality and organizational scholars have long speculated that risk propensity may fall outside of the Big Five traits -- the dominant model of personality in organizational psychology (Hough et al., 2015). In their lexical study of personality traits, for example, Paunonen and Jackson (2000) identified risk propensity as one of several traits that do not fit within the Big Five framework, the dominant model of personality (also see: Ashton, 1998). Consistent with this work, a recent meta-analysis of 133 independent samples found that the Big Five accounted for only 22% of the total variance in risk propensity, and that risk propensity explained an additional 3% to 10% of the variance for various adaptive (e.g., entrepreneurship) and maladaptive (e.g., reckless driving) risky behaviors beyond the Big Five (Highhouse et al., 2022). Thus, the time is ripe to reinvigorate the research on risk propensity as a unique personality predictor of work performance.

In this paper, we examined risk propensity as a unique predictor of three contextual performance outcomes: organizational citizenship behaviors (OCBs), counterproductive work behaviors (CWBs), and prosocial rule breaking (PSRBs). Much like risky behaviors, these

contextual performance behaviors each have personal and professional benefits, costs, and elements of uncertainty. Although one could imagine that some risks are involved in everyday life (e.g., there is a risk of getting struck by lightning while commuting to work), we argue that the risks are amplified in extra-role performance behaviors. Unlike task performance behaviors, which are expected because they are formally prescribed as part of the job, extra-role behaviors tend to fall outside of the norms and expectations of the workplace. Accordingly, work behaviors that deviate from work norms and expectations – regardless of their organizational valence – carry elevated risks (Molho et al., 2020).

CWBs and PSRBs, unsurprisingly, both carry substantial social and professional risks such as disciplinary actions, or worse, termination. Although OCBs are generally desired by the organization, recent research has found that even these helping behaviors can result in negative social and professional consequences such as coworker envy, stigmatization, job creep, and work-family conflict (see Bolino et al., 2013, for a review). It is possible, therefore, that employees refrain from extra-role helping behaviors for the same reason that they refrain from rule-breaking behaviors – an aversion toward social and professional risks. Although an aversion toward risks is universal in human decision making (Kahneman & Tversky, 1979), a growing body of research has found evidence that people differ in their general tendency to take risks (i.e., risk propensity, Zhang et al., 2019). As we noted in the introductory remarks, risk propensity enables employees to take risks at work, which can be expressed as a variety of productive and counterproductive work behaviors. Considering the risky nature of contextual performance, we argue that individual differences in *risk propensity* may serve as a common dispositional predictor for all forms of contextual performance via an increased willingness to

take risks at work. In other words, risk takers are more likely to engage in contextual performance behaviors because they are more willing to take risks at work.

To further support our theoretical rationale that risk takers engage in more contextual performance behaviors because they are risky, we conduct an item-level analysis with an independent sample to show the magnitude of the predictive validity will be greater for individual contextual performance outcomes that external raters judge as riskier. Finally, given the uniqueness of risk propensity as a personality trait (Highhouse et al., 2022; Paunonen & Jackson, 2000), we posit that risk propensity will explain incremental variance for willingness to take risks as well as contextual performance above the Big Five. Together, our findings shed light on the role of risk propensity as a unique personality predictor of work performance and the underlying mechanism of divergent contextual performance outcomes: *the willingness to take risks at work* (Figure 1).

We make several theoretical and empirical contributions to the literature on contextual performance and personality at work. First, scholars often evoke the idea of 'risks' associated with engaging in OCBs, CWBs, and PSRBs. Yet, the theoretical implications of these discussions have not been formally realized. We contribute to the literature by conceptualizing these cost-benefit tradeoffs as manifestations of workplace risk taking and develop a model to test the relationship between dispositional risk taking and the manifestation of risk taking at work, operationalized as three contextual performance outcomes (i.e., OCBs, CWBs, and PSRBs).

Second, we introduce a relatively novel construct in organizational research, *risk propensity*, as a personality predictor of contextual performance. In addition to responding to the call to explore personality predictors outside of the Big Five (Hough et al., 2015), we also shed light on the shared mechanisms underlying various forms of contextual performance: *the*

willingness to take risks at work. Relatedly, we add to a growing body of research examining both the dark and bright sides of personality at work (Smith et al., 2018), which suggests certain personality traits can exhibit both positive and negative influences on organizational outcomes. We contribute to this literature by examining the degree to which risk propensity leads to bright (vs. dark) outcomes.

Finally, we make a methodological contribution by illustrating how item-level analyses of the criterion can be used to support the predictive hypotheses of work performance. This novel approach addresses a common criticism of personality research where the criterion is a redescription of the predictor (Dalal & Carpenter, 2018) by focusing on meaningful differences across specific behaviors within the criterion (i.e., perceived risks across behaviors) and how these differences impact the magnitude of the prediction. This approach simultaneously responds to the call for more research into understanding performance differences across situations (Dalal et al., 2014) and converges on Paul Meehl's recommendations on improving the precision of theory-testing to go beyond tests of significance (Meehl, 1967) as it allows researchers to formulate and test theory-driven predictions on the *size* – rather than simply the *presence* – of an effect.

Background

Risk scholars have traditionally conceptualized risk taking as a domain-specific phenomenon such that individuals may be risk-seeking in one domain (e.g., investment) but risk-averse in another (e.g., career) (Hanoch et al., 2006; Weber & Milliman, 1997). This view has led to the development of several domain-specific risk-taking measures (e.g., Nicholson et al., 2005; Weber et al., 2002), which are frequently used in organizational scholarship (e.g., Howard et al., 2017). Variation in risk taking across situations, however, does not preclude the existence of a

general disposition (Fleeson, 2004). Indeed, several recent psychometric investigations have found evidence of a *general risk factor* that accounts for risk taking across domains (Frey et al., 2017; Highhouse et al., 2017). Emergent research has also revealed that risk taking shares a number of similar characteristics with other dispositions such as developmental stability and genetic determinants (Mata et al., 2018). Collectively, these findings have cemented the standing of risk propensity as a stable personality trait.

Although organizational scholars have long been interested in the role of risk propensity in the performance of managers and entrepreneurs, there is less research on the impact of risk propensity on employee performance. Past research has found that risk takers are more creative (Madjar et al., 2011), more likely to pursue self-employment (Roszkowski & Grable, 2009), less likely to adhere to safety protocols (Ashton, 1998), and more likely to suffer work injuries (Westaby & Lowe, 2005). In one of the only studies on risk propensity and job performance, Moscoso and Salgado (2004) found that risky personality style was negatively associated with both task and contextual performance. However, the authors used a dysfunctional personality measure based on the DSM-IV (American Psychiatric Association, 1994) and their measure of risky personality style corresponded to antisocial personality disorders rather than risk propensity in a non-clinical setting. Ashton (1998) also found that risk propensity positively predicted theft, vandalism, and alcohol use at work. In addition to using a relatively narrow set of criteria measures, their sample consisted of 131 undergraduates, which limits the generalizability and robustness of their results to employee risk taking behaviors. In sum, past research has primarily focused on the liability of risk takers at work, while paying less attention toward the benefits of risk taking for work performance.

Contextual performance as a form of workplace risk taking

Naturalistic risk is defined as outcome variance and a prospect of loss. A gamble where the outcome has a 50% chance of winning $200 and 50% chance of winning nothing is riskier than one that has a 100% chance of winning $100 (Bernoulli, 1954). The second component of risk is the prospect of loss, harm or disappointment (Fox & Tannenbaum, 2011). Baird and Thomas (1985), for example, defined strategic risks as those that "may result in corporate ruin" (p. 231). Likewise, Sitkin and Pablo (1992) noted that, in addition to uncertainty of an outcome, risk also entails "potentially significant and/or disappointing outcomes" (p. 10). Together, risky workplace behaviors are those that entail uncertainty in the outcome and that has both potential benefits *and* negative personal or professional costs.

Contextual performance encompasses work behaviors outside of one's formal job responsibilities. It typically includes OCBs, which are voluntary behaviors that contribute to organizational effectiveness (Organ, 1994), and CWBs, which are voluntary behaviors that harm the organization (Robinson & Bennett, 1995). More recently, scholars have included a third dimension of contextual performance, prosocial deviance (aka PSRBs), which includes behaviors that violate organizational norms but are potentially beneficial to organizational stakeholders (e.g., co-workers, customers) (Dahling et al., 2012).

Similar to other risk-taking behaviors, there are both benefits and costs to engaging in contextual performance (Bergeron et al., 2013; Deery et al., 2017; Koopman et al., 2016), as well as considerable uncertainty in the distribution of those outcomes (Choi, 2007; Spector & Fox, 2010; Van Dyne & LePine, 1998). Engagement in OCBs has professional benefits such as image maintenance (Bolino, 1999), favorable performance evaluations, and promotion opportunities (Podsakoff et al., 1993) and costs such as job creep (Van Dyne & Ellis, 2004), work-family

conflict (Halbesleben et al., 2009), and role overload (Bolino & Turnley, 2005). Engaging in OCBs may have performance costs, especially when resources are allocated toward extra-role, rather than task-relevant performance (Nielsen et al., 2012; Spanouli & Hofmans, 2020). OCBs also carry potential negative social consequences. Employees that engage in prosocial behaviors, for example, may be the recipient of co-worker envy and career delays (Bergeron et al., 2013; Sun et al., 2020). In their comprehensive review of the 'dark' side of OCBs, Bolino et al., (2013) more thoroughly examined both the personal and professional costs of OCBs (also see Bolino & Grant, 2016).

Turning to counterproductive and deviant behaviors, Spector (2011) noted that CWBs are a "response to incentives (wanting something) and opportunities for achieving goals" (p. 345). Like OCBs, engaging in CWBs comes with a number of benefits such as personal revenge (Hung et al., 2009) and financial gains (Greenberg, 2002). Also, like OCBs, there are a number of potential costs associated with CWBs such as punishment and retaliation (Marcus-Newhall et al., 2000). In fact, research has shown individuals are more likely to engage in passive forms of CWB than active and direct forms in an attempt to maximize a CWB's harmful effect while minimizing the potential of punishment for such behavior (Baron & Neuman, 1996; Mazar & Hawkins, 2015). Although productive deviance[1] (e.g., prosocial rule-breaking, employee voice) has some pro-social aims, there are – nevertheless – similar risks and consequences as CWBs because they are often in violation of organizational policies and norms. In their review, Detert and Bruno (2017) noted that underlying these constructive yet deviant behaviors is the need for courage, which requires a tolerance for risks (Howard et al., 2017; Kafashan et al., 2016).

[1] These outcomes have been classified under the umbrella term 'constructive deviance' by Valdera et al. (2013), and include other proactive behaviors involving risks such as voice and organized dissent.

In addition to the potential negative consequences, there is also considerable uncertainty in the outcomes associated with engaging in contextual performance. It is usually unclear whether engaging in these extra-role behaviors will result in positive outcomes such as promotion, financial gains, and social recognition, or negative outcomes such as envy, retaliation, or ostracism. Unlike task performance, which is expected of employees, contextual performance is necessarily more uncertain with respect to the outcomes and tends to be associated with greater personal and professional risks. Taken together, all three contextual performance behaviors exhibit two central elements of risk-taking behavior: outcome variance and prospect of harm. Thus, we argue that these behaviors can be conceptualized as different manifestations of *risk taking at work*.

According to Sitkin and Pablo (1992), individual differences in risk propensity is a central determinant of risk taking behaviors. Although their model was developed with managerial risk taking in mind, their propositions are generalizable to work settings. Past research has found that individual differences in risk propensity predicted a wide range of risky behaviors across personal and professional domains (Dohmen et al., 2011). Just CEOs high in risk propensity are more likely to take risks in the boardroom, employees who are high in risk propensity are also more likely to take risks at work. Furthermore, the workplace can be seen as a context by which individual personality dispositions are manifested. For example, conscientiousness is expressed at work as engaging in orderly conduct or completing work in a timely manner (Huang & Ryan, 2011). The behavioral expression of conscientiousness can be thought of as employees acting in a generally conscientious manner at work. Accordingly, we anticipate that risk propensity will be positively associated with the three contextual performance outcomes and that this relationship is mediated by a willingness to take risks at work.

Hypothesis 1. Risk propensity will positively predict (a) OCBs; (b) CWBs; and (c) PSRBs.

Hypothesis 2. Willingness to take risks at work will mediate the relationship between risk propensity and contextual performance outcomes ([a]OCBs, [b]CWBs, [c]PSRBs).

Incremental validity over the Big Five

We have thus far argued that risk propensity would predict a wide range of contextual performance outcomes. The utility of novel constructs, however, require demonstration of incremental prediction over existing predictors (Harms & Credé, 2010). Evidence of incremental prediction of dispositional traits above the Big Five is also critical to establish the uniqueness and utility of new predictors in work settings (e.g., Cortina et al., 2000). Furthermore, organizational scholars have recently begun to focus on personality traits outside of the Big Five (Hough et al., 2015).

Although past research has found that risk propensity is related to the Big Five such that risk takers tend to be extraverted, disagreeable, and reckless (Joseph & Zhang, 2021), the concept of risk propensity: a tolerance for outcome variability and attraction toward gains (vs. losses), is absent in the Big Five framework. This is supported by a meta-analytic investigation showing the uniqueness of risk propensity from the Big Five (Highhouse et al., 2022). Given our theoretical rationale that contextual performance outcomes are manifestations of risk taking at work, and that risk taking has been shown to fall outside of the Big Five, we expect that individual differences in risk propensity will provide incremental validity for workplace risk taking and contextual work performance above the Big Five traits.

Hypothesis 3. Risk propensity will explain incremental variance for (a) willingness to take risks at work and b) contextual performance outcomes (OCBs, CWBs, and PSRBs) above and beyond the Big Five personality traits.

Item-level predictive validity of risk propensity

Although research has typically ignored item-level characteristics in the prediction of work performance (c.f. Carpenter et al., 2016), we argue that variations in item-level characteristics provide important insights to the predictive role of risk propensity. When considering items from common OCB scales (Fox et al., 2012), the behavior "went out of the way to give co-worker encouragement or express appreciation" likely carries fewer risks to an employee than a more proactive behavior such as "volunteering for extra work assignments," where an employee may experience envy from coworkers or suffer performance loss due to resources (e.g., time, energy) diverted away from essential job tasks. Similarly, in examining items in common CWB scales (Robinson & O'Leary-Kelly, 1998), "criticized people at work" likely carries much less risk than more overt behaviors such as "damaged property belonging to my employer." If risk propensity is expected to predict behaviors because they are risky, then we also expect its predictive validity to be stronger (vs. weaker) for specific behaviors that are more (vs. less) risky.

The riskiness of specific behaviors reflects *risk perceptions* (Slovic, 1987), which can be defined as "the decision maker's assessment of the risk inherent in a situation" (Sitkin & Pablo, 1992, p. 12). Traditional theories of risk taking consider risk perception as an individual characteristic (Weber & Milliman, 1997). According to this view, the perceived risk of a situation or behavior depends on an individual's unique background and experiences as well as contextual factors (Blais & Weber, 2006). Employees may, for example, perceive the risks associated with

speaking up at work as a function of work politics and supervisor relationships. This view posits that the riskiness of a behavior *depends on who you ask.*

Despite the individual-level variation, there is still considerable variability in perceived risks that can be generalized across people (Slovic, 1987; Weber et al., 2002). Going skydiving, for example, is generally perceived as riskier than driving slightly over the speed limit. Likewise, stealing from your company is expected to be riskier than criticizing a colleague at work. Using generalizability theory, Wang (2017) found that situational effects contributed more variance to risk perceptions than person effects and person x situation effects. This work suggests that, in addition to person-level variation, risk perceptions can also be generalized across people to reflect the degree of risk associated with a behavior *regardless of who you ask.*

Variation in risk perceptions across different contextual performance behaviors affords greater understanding of the criterion space, which allows for greater theoretical alignment between the predictor and criterion (Day & Schleicher, 2006). Based on trait-activation theory (Tett & Guterman, 2000), individual difference characteristics are 'activated' when the situation is theoretically aligned with the predictor. The predictive validity of extraversion, for example, is maximized in socially rich situations. As reviewed previously, individual differences in risk propensity are expected to predict risky behaviors. Based on the trait-activation perspective, we expect the predictive efficacy of risk propensity to be greater when the target behavior is more (vs. less) risky. Accordingly, the predictive validity of risk propensity on contextual performance should be maximized for behaviors that carry the most risks.

Hypothesis 4. The predictive validity of risk propensity for contextual performance behaviors (i.e., items) will be higher for items that external raters perceive to be as more (vs. less) risky.

Method

Pre-survey Screening

We first obtained a database of attentive working adults through a pre-screening survey on Amazon Mechanical Turk (MTurk; n = 3981), which included a question that asked the participant to indicate their current employment status. Participants were given six options[2] and were not given any information about the purpose of the survey. Only participants with 95% approval rate or higher were allowed to participate. To check for automated responding (i.e., bots, survey farms), we also asked participants to describe, in a short sentence or two, their last workday. We manually reviewed the open-ended responses and excluded blank responses and non-sense answers (e.g., "thank you"; "good"). This process yielded 2,199 (55%) respondents that passed the attention check question and indicated that they were currently employed full time.

Given that the screening survey was administered independently of the subsequent paid study, and we did not disclose any information about how their responses would be used, there is little motivation for the respondents to misrepresent their employment status. Although the use of convenient samples can be a concern regarding the integrity of the data, we believe that our multi-step screening approach has sufficiently minimized illegitimate responses and that the findings can be generalized to a broader population of working adults (Highhouse & Zhang, 2015). The non-attributable nature of our data collection also minimizes socially desirable responding, which could underestimate the frequency of reported CWBs (i.e., floor effects, Berry et al., 2012).

[2] Employed full time; employed part-time; unemployed and looking; unemployed and not looking; student; retired

Participants: Sample 1

The research survey was advertised on Amazon MTurk. Only workers selected in the previous screening process were allowed to view the survey. The surveys were administered at three separate time points, with approximately 1 month between each survey administration to minimize common method variance (Conway & Lance, 2010). The predictor variable (risk propensity) and control variables (demographic variables) were administered at Time 1; the mediator variable (willingness to take risks at work) was administered at Time 2; and outcome variables (OCB, CWB, and PSRB) were administered at Time 3.

Sample Size Planning

A priori power analysis based on an estimated effect size of $|r| = .24$ suggested a sample size of 142 to achieve 90% power. We based our effect size on the meta-analytic findings of (Highhouse et al., 2022), where the criterion validity of risk propensity ranged from 0.24 to 0.38 for adaptive and maladaptive risky behaviors respectively. In a simulation study, however, Schönbrodt and Perugini, (2013) suggested that a sample size of 250 is ideal for observed correlational effects to stabilize. Therefore, we aimed to obtain at least a sample of 250 participants to be adequately powered for our primary hypotheses on the criterion validity of risk propensity.

To account for survey attrition, we gathered data from double the number of participants needed in the final sample. Completed responses were obtained from 538 MTurk workers at Time 1, 325 workers at Time 2, and 258 workers at Time 3. We further excluded participants who missed more than one of five attention check questions (e.g., “please leave this question blank”) throughout the survey or indicated that they were no longer employed full-time (Huang et al., 2015). The final sample size was 244, which was slightly less than the ideal sample size to

observe stable correlational effect sizes of 250. The final sample size was, however, adequately powered for detecting small and medium effects in a mediation analysis for the a' and b' paths, respectively (Fritz & MacKinnon, 2007).

The average age of the final sample was 35.71 (SD = 9.23), 47% were male, 78% were Caucasian, everyone was employed, and 57% worked full-time. Participants held a variety of occupations. The most frequent occupations reported were IT Project Managers (n = 8), Administrative Service Managers (n = 6), Computer and Information Systems Managers (n = 5), Customer Service Representatives, Registered Nurses, Administrative Assistants, and Accountants (ns = 4).

Participants: Sample 2

We also gathered a separate sample of full-time employees to serve as judges for the perceived risk of OCB, CWB, and PSRB items on Prolific.co, an online research crowdsourcing website. To ensure high-quality respondents, we only allowed participants with a 95% approval rating or higher. We also used an open-ended attention check question by asking participants to describe one potential risk associated with violating workplace policies. We removed one participant who did not provide a response to the open-ended quality check question. Our final sample consisted of 19 employed adults. The average age of the participants was 31.47 (SD = 7.21), 68% were female. All but one rater was Caucasian.

Measures

We used self-report measures for workplace performance measures to ensure full content coverage (Carpenter et al., 2017). As Carpenter & Berry (2017) and Berry et al. (2012) noted, observer reports (e.g., supervisor reports) of extra-role behaviors tend to overlook private behaviors, particularly those that are socially undesirable. As a result, observers may under-

report behavior that has the greatest risk (i.e., negative consequences), and therefore, is not suitable for our research. Although many have viewed self-reports of extra-role behaviors with skepticism, meta-analytic research comparing self- and other-reports of OCB (Carpenter & Berry 2017) and CWB (Berry et al., 2012), found self- and other-ratings to be moderately to strongly correlated with each other and exhibit a similar pattern of relationships with common correlates. Further, other-reports generally accounted for little incremental variance beyond self-reports in both studies. Such results support the use of self-report measures of extra-role behavior as a viable alternative to other-reports for this study. Although less attention has been paid toward comparing self vs. other-reports of PSRBs, we believe that the general conclusions regarding OCB and CWB apply for PSRB as well.

Big Five personality

Big Five personality traits were measured using the 20-item Mini-IPIP (Donnellan et al., 2006) Respondents read each item and indicated their level of agreement using a 5-point scale (1 = strongly disagree; 5 = strongly agree). Example items included: “am the life of the party” (Extraversion); “sympathize with others feelings" (Agreeableness); “get chores done right away” (Conscientiousness); “have frequent mood swings” (Neuroticism); “have a vivid imagination” (Openness to experience).

Risk propensity

We used the eight-item General Risk Propensity Scale (GRiPS; Zhang et al., 2019) to measure risk propensity. Respondents read each item and indicated their level of agreement using a 5-point scale (1 = strongly disagree; 5 = strongly agree). An example item is “I am a believer of taking chances.”

Willingness to take risks at work

We used the eight-item measure of willingness to take risks at work (Dewett, 2006). Respondents read each item and indicate their level of agreement using a 5-point scale (1 = strongly disagree; 5 = strongly agree). An example item is "I am willing to go out on a limb at work and risk failure when I have a good idea that could help me become more successful."

Organizational citizenship behaviors

OCBs were measured using the 20 item OCB-checklist developed by Spector and Fox (2010). Respondents read each item and indicated the frequency in which they engaged in each behavior using a 5-point scale (1 = never, 5 = every day). Example items included "went out of the way to give co-worker encouragement or express appreciation" and "volunteered for extra work assignments".

Counterproductive work behaviors

We used the nine-item measure developed by Robinson and O'Leary-Kelly (1998) to measure CWBs. Respondents read each item and indicated the frequency in which they engaged in each behavior using a 5-point scale (1 = almost never to 5 = daily). Example items included "damaged property belonging to the employer" and "criticized people at work."

Prosocial rule-breaking behaviors

We used the 13-item measure of prosocial rule breaking behavior developed by Dahling et al. (2012). Respondents read each item and indicated their level of agreement using a 5-point scale (1 = strongly disagree to 5 = strongly agree). An example item is "I ignore organizational rules to "cut the red tape" and be a more effective worker."

Item-level risk perceptions

Risk perceptions for each performance item was gathered from Sample 2. We presented the respondents with the OCB, CWB, and PSRB items in their original form. To assess the *risk perceptions*, we used the following instructions adapted from Weber et al. (2002):

"Often, you make decisions at work that may incur some personal, financial, or professional risks. In this study, we are interested in your gut level assessment of how risky the following behaviors are. In other words, to what degree do these behaviors carry some personal or professional risk?"

For each behavior, participants are provided a one-item measure of perceived risk on a 7-point Likert scale (1 = not at all risky; 2 = slightly risky; 3 = somewhat risky; 4 = moderately risky; 5 = risky; 6 = very risky; 7 = extremely risky). A single item measure of risk perception has also been shown to be construct valid and comparable to multi-item measures (Ganzach et al., 2008). Using the *irr* package in R (Gamer et al., 2015), we found an ICC_1 of .66 [95% C.I. = .57; .75], which suggests that the raters had good agreement on the perceived risks associated with each contextual performance behavior.

Control Variables

We controlled for the Big Five traits in our mediation model because we hypothesized that risk propensity would explain unique variance above and beyond the Big Five. A detailed review of the theoretical linkages between the Big Five traits and risk taking is provided by (Lauriola & Weller, 2018). We also considered age and sex as demographic controls. According to theories from behavioral ecology, risk-seeking behaviors are attributed to the need to gain access to mating opportunities, which results in greater inter-sex and intra-sex and competition. This theoretical framework posits an age and sex difference such that young males are most risk-

seeking compared to females and older adults because of sex differences in reproductive functions and developmental differences in reproductive needs (Byrnes et al., 1999; Josef et al., 2016; Mishra, 2014).

Some scholars have, however, cautioned against liberal use of demographic control variables and instead, recommend taking a "less is more" approach (Bernerth & Aguinis, 2016). Inclusion of non-relevant control variables introduces additional degrees of freedom in regression models, which weakens its ability to identify meaningful predictors. Furthermore, risk propensity is conceptualized as a stable individual disposition and is genetically determined (Zyphur et al., 2009). The observed associations with organizational outcomes such as contextual performance, therefore, are less susceptible to issues of endogeneity (Antonakis et al., 2010). In the present study, sex was weakly correlated with risk propensity (r = -0.18, p < .01). Sex was not significantly correlated with OCB (r = 0.01, p = .90) or CWB (r = -0.05, p = .23) and was weakly correlated with the PSRB (r = 0.14, p < .01). Similarly, age was significantly correlated with risk propensity (r = -.23, p < .01), but was not significantly correlated with any of the work performance measures. For comprehensiveness, we report our results with and without the inclusion of age and sex as control variables, in addition to the Big Five personality traits.

Construct Validity

We examined the construct validity of the study's predictor, mediator, and outcome constructs using a series of confirmatory factor analyses (CFAs) with maximum likelihood estimation with robust standard errors in *R* using the *lavaan* package (Rosseel, 2012) (Table 1). A five-factor model exhibited poor fit with the data. A four-factor model where the predictor (risk propensity) and mediator (willingness to take risks) were combined fit the data even worse. We next adjusted our model by considering the target of the contextual performance behaviors (e.g.,

individual vs. organizationally focused). We tested a follow-up model where we separated OCB and CWB into those targeted at individuals vs. organizations, and we also separated PSRB into the three sub-dimensions (customer, co-worker, and efficiency) theorized by the authors of the scale. This new nine-factor model was a significant improvement from the five-factor model. After reviewing the item content, we allowed three pairs of OCB items and one pair of CWB items to covary[3]. We also removed the CWB item "griped with a coworker" because we do not see work-related minor complaints as counterproductive, and subsequent measures of CWB have removed this item from their measure (e.g., CWB-Checklist, Spector et al., 2006). The final revised nine-factor model was further improved (RMSEA = .032, SRMR = .057, CFI = .933, TLI = .929, $\chi^2/df = 1.57$). Although not all fit indices met the criteria for excellent fit, we feel that the overall results demonstrate adequate discriminant validity of our constructs and is acceptable for the statistical approach of this study (i.e., regression analysis).

We also explicitly examined the discriminant validity of risk propensity and willingness to take risks at work as distinct constructs. A two-factor model fit the data significantly better (RMSEA = .045, SRMR = .031, CFI = .979, TLI = .978) than a one-factor model (RMSEA = .219, SRMR = .272, CFI = .523, TLI = .450). Thus, risk propensity can be meaningfully distinguished from willingness to take risks at work.

Common Method Variance

Despite separation of time points, self-report measures were used for all of the constructs. Thus, we tested a higher-order CFA model to examine the presence of common method variance whereby all the self-report items were allowed to load onto an unobserved latent factor in

[3] 1) "Took time to advise, coach, or mentor a co-worker" with "Helped co-worker learn new skills or shared job knowledge."; 2) "Offered suggestions to improve how work is done" with "Offered suggestions for improving the work environment"; 3) "Lent a compassionate ear when someone had a personal problem." With "Lent a compassionate ear when someone had a work problem."

addition to their respective constructs (Johnson et al., 2011). This model was slightly worse than the final model without method factors. None of the items had significant loadings on the higher-order method factor. Thus, it is unlikely that the observed associations between our hypothesized variables can be attributed solely to common method variance.

Results

Table 2 contains the means, standard deviations, correlations, and internal consistencies of the study's variables. We found a modest positive correlation between OCB and CWB (r = .14, p < .01) as well as between CWB and PSRB (r = .38, p < .01). Thus, employees who engage in prosocial and helping behaviors were slightly more likely to also engage in counterproductive behaviors. These results are consistent with our theoretical rationale as well as past research suggesting the overlapping, rather than opposing, nature of extra-role behaviors regardless of its organizational valance (Fox et al., 2012). Finally, we found that willingness to take risks at work was positively associated with both OCB (r = .16, p < .01) and PSRB (r = .20, p < .01), but not CWBs (r = .04, p = .31), generally supporting the idea that prosocial extra-role performance is linked to risk taking at work.

Predictive Validity of Risk Propensity

We examined the predictive validity of risk propensity for the three criterion outcomes using multiple regression (Hypothesis 1). Tables 3 through 5 contains the results of our regression analysis with (Model 2) and without (Model 1) demographic controls. Without controlling for sex and age, we found that risk propensity positively predicted CWB (b = 0.036, p = .022) and PSRB (b = 0.091, p < .001). The predictive validity of risk propensity on OCB was positive, but not significant (b = 0.036, p = .062). When controlling for sex and age, we found that risk propensity positively predicted OCB (b = 0.042, p = .045), CWB (b = 0.034, p = .040),

and PSRB ($b = 0.076$, $p < .001$). However, the overall regression model with the inclusion of sex and age as predictors was only significant for PSRB, and not OCB or CWB. Taken together, we find support for Hypotheses 1b (CWB) and 1c (PSRB), and weak support for Hypothesis 1a (OCB).

Mediating Role of Willingness to Take Risks at Work

We used mediation analysis to examine the indirect effect of risk propensity on the three contextual performance outcomes via willingness to take risks at work (Hypothesis 2). Table 6 contains the results. We found a significant indirect effect of risk propensity on OCB ($b = 0.013$ [95% C.I.: 0.003, 0.030]) and PSRB ($b = 0.021$, [95% C.I.: 0.008, 0.039] via an increased willingness to take risks. The indirect effect of risk propensity on CWB ($b = 0.002$, [95% C.I.: -0.006, 0.010], however, was not significant as the 95% confidence interval included zero. Together, Hypotheses 2a (OCB) and 2c (PSRB) were supported, but not 2b (CWB).

Incremental Validity Over Big Five

We first examined the incremental validity of risk propensity for predicting willingness to take risks at work. After controlling for the Big Five, risk propensity explained incremental variance for predicting willingness to take risks at work ($b = 0.133$, $\Delta R^2 = 0.028$, $p < .001$) (Table 7). The results were consistent with the inclusion of sex and age as controls. Tables 3 through 5 contains the results of the regression analysis for each of the contextual performance variables (OCB, CWB, and PSRB). After controlling for the Big Five, we found that risk propensity explained incremental variance for CWB ($b = 0.034$, $\Delta R^2 = 0.007$, $p = .044$) and PSRB ($b = 0.076$, $\Delta R^2 = 0.014$, $p < .001$), but not OCB ($b = 0.133$, $\Delta R^2 = 0.002$, $p = .290$). These results were consistent with sex and age included as controls (Model 5). Taken together, risk

propensity explained incremental variance above the Big Five for CWB, PSRB, and willingness to take risks at work. Thus, Hypothesis 3a was supported and 3b was partially supported.

Item-Level Risk Perception and Predictive Validity

We examined the association between item-level risk perception and the predictive validity of risk propensity for contextual performance using bivariate correlation and regression analysis. Here, we should note that the sample size of this analysis is based on the total number of items across the two contextual performance scales (N_{items} = 42). In a similar study, Carpenter et al. (2017) used an item-level dataset of (N_{items} = 19) and found that item-level observability accounted for 39% of the variance in item-level self-observer correlations. Our a priori power analysis based on their effect size suggested a sample size of 30 to achieve 90% power. Thus, our dataset of 42 items is adequately powered to test our hypothesis.

We found that the predictive validity (i.e., bivariate correlation) of risk propensity with each performance item was positively associated with the perceived risk of that item rated by external judges (r = .52, p < .001) (Figure 2). Multiple regression analysis showed that after controlling for the source of the items (OSB vs. PSRB vs. CWB), the item-level risk perception explained incremental variance for the item-level predictive validity of risk propensity (b = .068, ΔR^2 = 0.182, p < .001). Together, Hypothesis 4 was supported.

Additional Analyses

Given our lack of significant findings regarding the incremental validity of risk propensity in predicting OCB beyond the Big Five, we examined the incremental validity of willingness to take risks at work. Our results show that after controlling for the Big Five, willingness to take risks at work explained incremental variance for OCBs above and beyond the Big Five (b = .096, ΔR^2 = 0.024, p < .001).

We also report our primary analyses for specific dimensions of contextual performance because of the factor structure exhibited by each measure. These results are presented in Tables 3 through 5. We found risk propensity predicted both OCBs and CWBs targeted at the organization (i.e., OCB-O, $b = .047$, $p < .05$, and CWB-O, $b = .034$, $p < .05$), but not individuals. Risk propensity also explained incremental variance over the Big Five for CWB-O ($b = .038$, $\Delta R^2 = 0.010$, $p < .001$) but not OCB-O ($b = .028$, $\Delta R^2 = 0.003$, $p = .203$). Finally, the predictive and incremental validity for PSRB were similar across the specific domains (e.g., customer), with the strongest predictions for the efficiency dimension of PSRB and the weakest prediction for co-worker dimension.

We also used an alternative approach to explore differential prediction of risk propensity on item-level outcomes by examining the cross-level interaction between risk propensity and item-level risk perception and behavioral intention using multi-level modeling[4]. The detailed results can be found in the online supplemental materials. Overall, using this approach, we found that participants were less likely to engage in specific items that independent raters judge as riskier. However, we did not find the cross-level interaction between item-level risk perception and person-level risk propensity on item-level behaviors. The relationship between item-level risk perception and behaviors was not moderated by individual differences in risk propensity.

Discussion

In this paper, we conceptualize extra-role performance (i.e., contextual performance) as manifestations of risk-taking in the workplace and examined the predictive role of risk propensity. We found general support that risk-seekers were more likely to engage in both anti-social and pro-social contextual performance behaviors – particularly those that are rule-breaking

[4] We thank reviewer 2 for this suggestion.

(e.g., PSRB and CWB). Although the relationship between risk propensity and OCBs was weak, our results show that the association is strengthened when focusing only on OCBs directed at organizations. Our theorizing is further supported by the observed mediating role of willingness to take risks at work for both OCBs and PSRBs as well as our item-level analysis showing that the predictive validity of risk propensity for all three performance constructs was greater for specific behaviors (i.e., items) that independent raters judge as more (vs. less) risky. The combination of these methodological and statistical approaches points to risk-taking as a viable common mechanism for these relatively distinct performance constructs. We also illustrate the predictive utility of risk propensity as a personality construct in the study of work performance, as risk propensity explained incremental variance above the Big Five for CWB, PSRB, and willingness to take risks at work.

Our findings are consistent with a recent meta-analysis (Highhouse et al., 2022) showing the uniqueness and incremental predictive validity of risk propensity for both adaptive and maladaptive real world behaviors. Also similar to meta-analytic findings where the incremental validity of risk propensity was greater for adaptive (vs. maladaptive) outcomes (Highhouse et al., 2022), we found that the incremental validity for PSRBs exceeded that of CWBs. The predictive efficacy for OCBs, however, were weak and inconsistent. Interestingly, we did not find willingness to take risks at work to be correlated with CWBs, nor did it mediate the association between risk propensity and CWBs. Thus, it is possible that the association between risk propensity and counterproductivity may be better explained by other mechanisms such as disinhibition. Indeed, facet-level examination shows that the responsibility (a facet of conscientiousness) of the Big Five is the strongest personality correlate of risk propensity (Joseph & Zhang, 2021).

In our study, risk propensity did not predict contextual performance targeted at individuals (i.e., OCB-I and CWB-I). One potential explanation is that individually targeted behaviors are less risky. Considering the risks and benefits outlined in our review, one might suspect that behaviors targeted at organizations are slightly riskier than those targeted at individuals. This is especially true for CWBs as organizationally focused CWBs (e.g., theft) are usually directly actionable, whereas negative consequences of interpersonal-focused CWBs (e.g., bad-mouthing a colleague) are unlikely to escalate to the organizational level[5]. Another potential explanation is that behaviors targeted at individuals tend to be more overt, which increases their observability and potential for consequences (positive or negative). From a situational strength perspective, the salience of consequences may weaken the role of dispositional factors for predicting workplace behaviors (Meyer et al., 2010). Meyer et al. (2009), for example, found that the relationship between conscientiousness and job performance was weaker when errors were more likely to be recognized and penalized. Finally, it is also possible that the inconsistent main effects are due to sampling error. Substantive interpretation of the inconsistent main effects, therefore, is somewhat speculative.

Theoretical Implications

By conceptualizing extra-role behaviors as manifestations of risk taking at work, we broaden the theoretical understanding of contextual performance as well as potential common antecedents. This new theoretical lens has several implications for future theory building. First, it enables future research to explore other dispositional antecedents of prosocial and anti-social behaviors at work. For example, individual difference characteristics such as sensation-seeking

[5] We found that the risk perception of CWB-O was slightly higher (M = 5.87) than CWB-I (M = 5.50). We also found the perceived risk of OCB-O was slightly higher (M = 2.10) than OCB-I (M = 1.89). Though, these differences are not statistically significant because they are based on only a small sample of behaviors and should not be interpreted as supporting evidence.

and self-control have been shown to predict risk taking in a variety of contexts (Mishra & Lalumière, 2011) and have been hinted as potential personality correlates of both OCB and CWB (Alaybek et al., 2022; Dalal & Carpenter, 2018).

This research also connects the literature on workplace courage and constructive deviance that have attempted to understand underlying mechanisms for norm-violating behaviors with prosocial aims. Valedera et al. (2013), for example, suggested that risk propensity may serve as an antecedent to constructive deviance. Moreover, Thoroughgood et al. (2021) advanced the construct oppositional courage, which reflect prosocial behaviors in the context of social justice that carry significant risks (also see Howard et al. 2017). However, unlike the previously mentioned constructs, risk taking is agnostic with respect to organizational and social desirability: employees take risks for both pro-social and anti-social (e.g., self-serving) aims. It would be hard-pressed to argue that it takes "courage" or that it is "constructive" to steal from an employer for personal gains. In fact, we speculate that employees who steal may be perceived as cowardly, despite their willingness to take risks. For this reason, we argue that risk taking is a more parsimonious approach to understanding constructive deviance and courageous behaviors, as well as more destructive and anti-social forms of risk taking. The distinction between heroes and villains may be found in other individual (e.g., altruism) or situational (e.g., culture) factors.

Despite the dispositional component, risk taking behaviors are still highly sensitive to situational factors (Figner & Weber, 2011). Classic findings from psychology and decision-making, for example, show people are more risk seeking when striving to reach a goal, and more risk averse when avoiding failure (Highhouse & Yüce, 1996; Schneider & Lopes, 1986). These findings suggest that employees' risk taking may differ depending on whether they are striving

for achievement (e.g., seeking promotion) or avoiding failure (e.g., avoiding layoffs). Indeed, the risk literature may serve as fertile ground for generating new theories of workplace performance.

Although an item-level approach has been demonstrated to be fruitful in some organizational contexts (e.g., Carpenter et al., 2017), its implementation is still limited. Our paper shows the potential of item-level analysis as a theory-testing method for establishing relationships between dispositional variables and work-related outcomes. For example, just as not every behavior is equally risky, it is possible that not every citizenship behavior is equally helpful and that not every counterproductive behavior is equally deviant. These item-level variations, as we illustrate in this paper, are theoretically meaningful and can facilitate more nuanced test of personality-behavior associations and within-person performance dynamics.

Practical Implications

Our findings also have practical implications for employee selection and individual differences at work. First, our findings raise the questions: are risk takers assets or liabilities for the organization? And should managers hire risk takers? Our findings suggest that hiring risk takers is perhaps a risky proposition. Although risk takers may be equipped for driving social change and technological innovations, they are also more likely to take unethical and counterproductive risks. The observed associations in this study, however, were modest. For this reason, there are likely situational boundary conditions that amplify the positive impact of risk taking while minimizing the liabilities. It is possible that the appetite for risks can be directed toward virtue under proper management. Furthermore, we suspect that the predictive utility of risk propensity may be greater for riskier behaviors such as whistle blowing, oppositional courage, safety violation, and other more “extreme” manifestation of workplace risk taking. Indeed, our item-level analyses suggest that riskier behaviors may be better predicted by risk

propensity. This is not surprising due to the greater conceptual alignment between the predictor and criterion.

Limitations and Future Directions

Our research has several limitations. First, the use of convenient sample has historically been scrutinized in the social sciences. Despite our efforts to maximize the quality of our data via multiple screening procedures and diverse quality check questions, it remains a possibility that the survey data is susceptible to low-effort responding. And although we felt the use of self-reports was necessary for the research goals, it is nonetheless a potential weakness for the generalizability of our findings. Thus, it is critical to replicate and extend our findings with diverse samples, measures, and methodologies. A related limitation of this paper is the coverage of the construct space related to workplace risk taking. Future research should extend this work by including a broader set of contextual performance such as employee voice, innovation, and whistle blowing, which fall broadly under the umbrella of constructive deviance (Vadera et al., 2013).

Second, our study used a relatively short measure of the Big Five, which may have limited the construct coverage of the measure. It is worth mentioning, however, that even a longer measure (e.g., BFI-2) still only accounted for roughly 40% of the total variance in risk propensity (Joseph & Zhang, 2021). Nevertheless, future research should examine the incremental validity of risk propensity in work settings over a more comprehensive measure of the Big Five. Related to this point, future research on risk taking at work may consider the role of dark traits (Moshagen et al., 2018), which are linked to both laboratory studies of risk taking (Campbell et al., 2004) and workplace deviance (Ellen et al., 2021). For this reason, it is possible that the association between risk propensity and counterproductivity may be better explained by

the disinhibition component of risk propensity (Reynolds et al., 2013) that stem from the darker side of personality, rather than an attraction to risk and uncertainty. Furthermore, the magnitude of the predictive validity was modest. In fact, we found that willingness to take risks at work was a stronger predictor of work performance, which begs the question of whether we need risk propensity at all[6]. However, this is to be expected because willingness to take risks at work is a more proximal and contextualized construct. Indeed, the predictive and theoretical utility of a construct (e.g., general mental ability) is not necessarily diminished by the presence of more proximal predictors (e.g., training success).

Finally, our study treated risk perception as an item-level phenomena. This approach does not consider how employees' perception of risks may influence their performance. We believe that individual risk perceptions boast considerable potential for future research for understanding within-person dynamics of work performance. Although our hypothesis regarding the item-level predictive validity of risk propensity was supported using the originally intended analysis, we did not find converging results using multi-level modeling. It is worth mentioning that unlike typical multi-level models, the within-person predictor (risk perception) was reported by independent judges, rather than the participants. Thus, future research should further explore this analytical approach by incorporating the participants in the judgment of risk perceptions to further understand how the influence of risk perceptions influence behaviors as well as the role of risk preference. Future research, for example, should examine organizational determinants and outcomes of perceived risks at work. In other words, when are helping behaviors risky, and for whom? Nevertheless, our statistical approach does show that, at the between-person level, the predictive accuracy of risk propensity was strengthened for outcomes that are riskier.

[6] We thank reviewer 2 for this observation.

Future research can also draw on the risk-return framework (Weber & Milliman, 1997) to examine how risk perceptions may differ across demographic groups such as race and gender. Existing research has noted gender differences in reaction to citizenship behaviors. Men and women, for example, are treated differently for performing citizenship behaviors (Kidder & Parks, 2001). Similarly, risk research has also observed gender differences in the manifestation of risk attitudes across domains (Zhang et al., 2019). Women, for example, are more willing to take social risks, which tends to be more aligned with OCBs (Jang et al., 2021), whereas men are more willing to take unethical risks, which is more aligned to CWBs (Harris et al. 2006). These differences in the perceived risk and rewards of extra-role behaviors may add a new lens to understanding the gender differences in workplace behaviors.

Conclusion

In this paper, we sought to examine the bright and dark side of risk taking at work. Our findings corroborated with our theorizing that risk-propensity serves as a double-edged sword for organizations. Although risk takers may be deviant and self-serving at times, their appetite for risks also enables pro-social forms of risk-taking. Ultimately, having risk takers at work is a risky proposition, but one from which organizations may nonetheless benefit.

References

Alaybek, B., Dalal, R. S., & Dade, B. (2022). Individual Differences in Judgment and Decision-Making: Novel Predictors of Counterproductive Work Behavior. *Journal of Business and Psychology*. https://doi.org/10.1007/s10869-022-09843-x

American Psychiatric Association. (1994) Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Antonakis, J., Bendahan, S., Jacquart, P., & Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, *21*(6), 1086–1120. https://doi.org/10.1016/j.leaqua.2010.10.010

Ashton, M. C. (1998). Personality and job performance: The importance of narrow traits. *Journal of Organizational Behavior*, *19*(3), 289–303. https://doi.org/10.1002/(SICI)1099-1379(199805)19:3<289::AID-JOB841>3.0.CO;2-C

Baer, M. D., Sessions, H., Welsh, D. T., & Matta, F. K. (2021). Motivated to "roll the dice" on trust: The relationships between employees' daily motives, risk propensity, and trust. *Journal of Applied Psychology*. https://doi.org/10.1037/apl0000959

Baird, I. S., & Thomas, H. (1985). Toward a Contingency Model of Strategic Risk Taking. *The Academy of Management Review*, *10*(2), 230. https://doi.org/10.2307/257965

Baron, R. a., & Neuman, J. H. (1996). Workplace violence and workplace aggression: Evidence on their relative frequency and potential causes. *Aggressive Behavior*, *22*(3), 161–173.

Baucus, M. S., & Near, J. P. (1991). Can illegal corporate behavior be predicted? An event history analysis. *Academy of Management Journal*, *34*(1), 9–36.

Bergeron, D. M., Shipp, A. J., Rosen, B., & Furst, S. A. (2013). Organizational citizenship behavior and career outcomes: The cost of being a good citizen. *Journal of Management*, *39*(4), 958–984.

Bernerth, J. B., & Aguinis, H. (2016). A Critical Review and Best-Practice Recommendations for Control Variable Usage. *Personnel Psychology*, *69*(1), 229–283. https://doi.org/10.1111/peps.12103

Bernoulli, D. (1954). Exposition of a new theory on the measurement of risk. *Econometrica: Journal of the Econometric Society*, 23–36.

Berry, C. M., Carpenter, N. C., & Barratt, C. L. (2012). Do other-reports of counterproductive work behavior provide an incremental contribution over self-reports? A meta-analytic comparison. *Journal of Applied Psychology*, *97*(3), 613.

Blais, A.-R., & Weber, E. U. (2006). A Domain-Specific Risk-Taking (DOSPERT) scale for adult populations. *Judgment and Decision Making*, *1*(1), 15.

Bolino, M. C. (1999). Citizenship and impression management: Good soldiers or good actors? *Academy of Management Review*, *24*(1), 82–98.

Bolino, M. C., & Grant, A. M. (2016). The Bright Side of Being Prosocial at Work, and the Dark Side, Too: A Review and Agenda for Research on Other-Oriented Motives, Behavior, and Impact in Organizations. *Academy of Management Annals*, *10*(1), 599–670. https://doi.org/10.5465/19416520.2016.1153260

Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, *34*(4), 542–559.

Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology*, *90*(4), 740.

Brenner, S. (2015). The risk preferences of U.S. executives. *Management Science*, *61*(6), 1344–1361.

Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*, *125*(3), 367.

Campbell, W., Goodie, A., & Foster, J. (2004). Narcissism, confidence, and risk attitude. *JOURNAL OF BEHAVIORAL DECISION MAKING*, *17*(4), 297–311. https://doi.org/10.1002/bdm.475

Carpenter, N. C., & Berry, C. M. (2017). Are Counterproductive Work Behavior and Withdrawal Empirically Distinct? A Meta-Analytic Investigation. *Journal of Management*, *43*(3), 834–863. https://doi.org/10.1177/0149206314544743

Carpenter, N. C., Rangel, B., Jeon, G., & Cottrell, J. (2017). Are supervisors and coworkers likely to witness employee counterproductive work behavior? An investigation of observability and self–observer convergence. *Personnel Psychology*, *70*(4), 843–889. https://doi.org/10.1111/peps.12210

Carpenter, N. C., Son, J., Harris, T. B., Alexander, A. L., & Horner, M. T. (2016). Don't Forget the Items: Item-Level Meta-Analytic and Substantive Validity Techniques for Reexamining Scale Validation. *Organizational Research Methods*, *19*(4), 616–650. https://doi.org/10.1177/1094428116639132

Choi, J. N. (2007). Change-oriented organizational citizenship behavior: Effects of work environment characteristics and intervening psychological processes. *Journal of*

Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, *28*(4), 467–484.

Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, *92*(4), 909–927. https://doi.org/10.1037/0021-9010.92.4.909

Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, *25*(3), 325–334.

Cortina, J. M., Goldstein, N. B., Payne, S. C., Davison, H. K., & Gilliland, S. W. (2000). The Incremental Validity of Interview Scores Over and Above Cognitive Ability and Conscientiousness Scores. *Personnel Psychology*, *53*(2), 325–351. https://doi.org/10.1111/j.1744-6570.2000.tb00204.x

Dahling, J., Chau, S., Mayer, D., & Gregory, J. (2012). Breaking rules for the right reasons? An investigation of pro-social rule breaking. *Journal of Organizational Behavior*, *33*(1), 21–42.

Dalal, R. S., Bhave, D. P., & Fiset, J. (2014). Within-Person Variability in Job Performance: A Theoretical Review and Research Agenda. *Journal of Management*, *40*(5), 1396–1436. https://doi.org/10.1177/0149206314532691

Dalal, R. S., & Carpenter, N. C. (2018). The other side of the coin? Similarities and differences between organizational citizenship behavior and counterproductive work behavior. *The Oxford Handbook of Organizational Citizenship Behavior*, 69–90.

Day, D. V., & Schleicher, D. J. (2006). Self-monitoring at work: A motive-based perspective. *Journal of Personality*, *74*(3), 685–714.

Deery, S., Rayton, B., Walsh, J., & Kinnie, N. (2017). The costs of exhibiting organizational citizenship behavior. *Human Resource Management*, *56*(6), 1039–1049.

Detert, J. R., & Bruno, E. A. (2017). Workplace courage: Review, synthesis, and future agenda for a complex construct. *Academy of Management Annals*, *11*(2), 593–639.

Dewett, T. (2006). Exploring the Role of Risk in Employee Creativity. *The Journal of Creative Behavior*, *40*(1), 27–45.

Do, K. T., Guassi Moreira, J. F., & Telzer, E. H. (2017). But is helping you worth the risk? Defining Prosocial Risk Taking in adolescence. *Developmental Cognitive Neuroscience*, *25*, 260–271. https://doi.org/10.1016/j.dcn.2016.11.008

Dohmen, T., Falk, A., Huffman, D., Sunde, U., Schupp, J., & Wagner, G. G. (2011). Individual Risk Attitudes: Measurement, Determinants, and Behavioral Consequences. *Journal of the European Economic Association*, *9*(3), 522–550. https://doi.org/10.1111/j.1542-4774.2011.01015.x

Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: Tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, *18*(2), 192.

Ellen, B. P. I., Alexander, K. C., Mackey, J. D., McAllister, C. P., & Carson, J. E. (2021). Portrait of a workplace deviant: A clearer picture of the Big Five and Dark Triad as predictors of workplace deviance. *Journal of Applied Psychology*, *106*(12), 1950–1961. https://doi.org/10.1037/apl0000880

Figner, B., & Weber, E. U. (2011). Who Takes Risks When and Why?: Determinants of Risk Taking. *Current Directions in Psychological Science*, *20*(4), 211–216. https://doi.org/10.1177/0963721411415790

Fleeson, W. (2004). Moving Personality Beyond the Person-Situation Debate: The Challenge and the Opportunity of Within-Person Variability. *Current Directions in Psychological Science*, *13*(2), 83–87. https://doi.org/10.1111/j.0963-7214.2004.00280.x

Fox, C. R., & Tannenbaum, D. (2011). The elusive search for stable risk preferences. *Frontiers in Psychology*, *2*. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3216019/

Fox, S., Spector, P. E., Goh, A., Bruursema, K., & Kessler, S. R. (2012). The deviant citizen: Measuring potential positive relations between counterproductive work behaviour and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology*, *85*(1), 199–220. https://doi.org/10.1111/j.2044-8325.2011.02032.x

Frey, R., Pedroni, A., Mata, R., Rieskamp, J., & Hertwig, R. (2017). Risk preference shares the psychometric structure of major psychological traits. *Science Advances*, *3*(10). https://doi.org/10.1126/sciadv.1701381

Fritz, M. S., & MacKinnon, D. P. (2007). Required Sample Size to Detect the Mediated Effect. *Psychological Science*, *18*(3), 233–239. https://doi.org/10.1111/j.1467-9280.2007.01882.x

Gamer, M., Lemon, J., Ian, F., & Puspendra, S. (2015). *Irr* (0.84) [R]. https://cran.r-project.org/web/packages/irr/irr.pdf

Ganzach, Y., Ellis, S., Pazy, A., & Ricci-Siag, T. (2008). On the perception and operationalization of risk perception. *JUDGMENT AND DECISION MAKING JOURNAL*, *3*(4).

Gelfand, M. (2019). *Rule makers, rule breakers: Tight and loose cultures and the secret signals that direct our lives*. Scribner.

Gino, F. (2018). *Rebel talent: Why it pays to break the rules at work and in life*. Pan Macmillan.

Greenberg, J. (2002). Who stole the money, and when? Individual and situational determinants of employee theft. *Organizational Behavior and Human Decision Processes*, *89*(1), 985–1003.

Harris, C. R., & Jenkins, M. (2006). Gender Differences in Risk Assessment: Why do Women Take Fewer Risks than Men? *Judgment and Decision Making*, *1*(1), 16.

Halbesleben, J. R., Harvey, J., & Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, *94*(6), 1452.

Hanoch, Y., Johnson, J. G., & Wilke, A. (2006). Domain specificity in experimental measures and participant recruitment an application to risk-taking behavior. *Psychological Science*, *17*(4), 300–304.

Harms, P. D., & Credé, M. (2010). Remaining issues in emotional intelligence research: Construct overlap, method artifacts, and lack of incremental validity. *Industrial and Organizational Psychology*, *3*(2), 154–158.

Highhouse, S., Nye, C. D., Zhang, D. C., & Rada, T. B. (2017). Structure of the Dospert: Is There Evidence for a General Risk Factor? *Journal of Behavioral Decision Making*. http://onlinelibrary.wiley.com/doi/10.1002/bdm.1953/full

Highhouse, S., Wang, Y., & Zhang, D. C. (2022). Is Risk Propensity Unique from the Big Five Factors of Personality? A Meta-Analytic Investigation. *Journal of Research in Personality*, 104206. https://doi.org/10.1016/j.jrp.2022.104206

Highhouse, S., & Yüce, P. (1996). Perspectives, perceptions, and risk-taking behavior. *Organizational Behavior and Human Decision Processes*, *65*(2), 159–167.

Highhouse, S., & Zhang, D. (2015). The New Fruit Fly for Applied Psychological Research. *Industrial and Organizational Psychology*, *8*(02), 179–183. https://doi.org/10.1017/iop.2015.22

Hoskisson, R. E., Chirico, F., Zyung, J. (Daniel), & Gambeta, E. (2017). Managerial Risk Taking: A Multitheoretical Review and Future Research Agenda. *Journal of Management*, *43*(1), 137–169. https://doi.org/10.1177/0149206316671583

Hough, L. M., Oswald, F. L., & Ock, J. (2015). Beyond the Big Five: New Directions for Personality Research and Practice in Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 183–209. https://doi.org/10.1146/annurev-orgpsych-032414-111441

Howard, M. C., Farr, J. L., Grandey, A. A., & Gutworth, M. B. (2017). The creation of the workplace social courage scale (WSCS): An investigation of internal consistency, psychometric properties, validity, and utility. *Journal of Business and Psychology*, *32*(6), 673–690.

Huang, J. L., & Ryan, A. M. (2011). Beyond Personality Traits: A Study of Personality States and Situational Contingencies in Customer Service Jobs. *Personnel Psychology*, *64*(2), 451–488. https://doi.org/10.1111/j.1744-6570.2011.01216.x

Hung, T.-K., Chi, N.-W., & Lu, W.-L. (2009). Exploring the relationships between perceived coworker loafing and counterproductive work behaviors: The mediating role of a revenge motive. *Journal of Business and Psychology*, *24*(3), 257–270.

Jang, S., Allen, T. D., & Regina, J. (2021). Office housework, burnout, and promotion: Does gender matter? *Journal of Business and Psychology*, *36*(5), 793–805.

Johnson, R., Rosen, C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher order multidimensional constructs. *Journal of Applied \ldots*, *96*(4), 744–761. https://doi.org/10.1037/a0021504

Josef, A. K., Richter, D., Samanez-Larkin, G. R., Wagner, G. G., Hertwig, R., & Mata, R. (2016). Stability and change in risk-taking propensity across the adult life span. *Journal of Personality and Social Psychology*, *111*(3), 430–450.

Joseph, E., & Zhang, D. C. (2021). Personality Profile of Risk Takers: An Examination of the Big Five Facets. *Journal of Individual Differences*.

Kafashan, S., Sparks, A., Rotella, A., & Barclay, P. (2016). Why Heroism Exists. *Handbook of Heroism and Heroic Leadership*, 36.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, *47*(2), 263–292.

Kerr, S. P., Kerr, W. R., & Dalton, M. (2019). Risk attitudes and personality traits of entrepreneurs and venture team members. *Proceedings of the National Academy of Sciences*, 201908375. https://doi.org/10.1073/pnas.1908375116

Kidder, D. L., & Parks, J. M. (2001). The good soldier: Who is s (he)? *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *22*(8), 939–959.

Knight, D., Durham, C. C., & Locke, E. A. (2001). The relationship of team goals, incentives, and efficacy to strategic risk, tactical implementation, and performance. *Academy of Management Journal*, *44*(2), 326–338.

Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the Bright and Dark Sides of Ocb: A Daily Investigation of the Benefits and Costs of Helping Others. *Academy of Management Journal*, *59*(2), 414–435. https://doi.org/10.5465/amj.2014.0262

Lauriola, M., & Weller, J. A. (2018). Personality and Risk: Beyond Daredevils- Risk Taking from a a Temperament Perspective. In *Psychological Perspectives on Risk and Risk Analysis: Theory, Models, and Applications* (pp. 3–36).

Madjar, N., Greenberg, E., & Chen, Z. (2011). Factors for radical creativity, incremental creativity, and routine, noncreative performance. *Journal of Applied Psychology*, *96*(4), 730–743. psyh. https://doi.org/10.1037/a0022416

Marcus-Newhall, A., Pedersen, W. C., Carlson, M., & Miller, N. (2000). Displaced aggression is alive and well: A meta-analytic review. *Journal of Personality and Social Psychology*, *78*(4), 670.

Mata, R., Frey, R., Richter, D., Schupp, J., & Hertwig, R. (2018). Risk Preference: A View from Psychology. *Journal of Economic Perspectives*, *32*(2), 155–172. https://doi.org/10.1257/jep.32.2.155

Mazar, N., & Hawkins, S. A. (2015). Choice architecture in conflicts of interest: Defaults as physical and psychological barriers to (dis)honesty. *Journal of Experimental Social Psychology*, *59*, 113–117. https://doi.org/10.1016/j.jesp.2015.04.004

Meehl, P. E. (1967). Theory-testing in psychology and physics: A methodological paradox. *Philosophy of Science*, *34*(2), 103–115.

Meyer, R. D., Dalal, R. S., & Bonaccio, S. (2009). A meta-analytic investigation into the moderating effects of situational strength on the conscientiousness-performance relationship. *Journal of Organizational Behavior*, *30*(8), 1077–1102.

Meyer, R. D., Dalal, R. S., & Hermida, R. (2010). A Review and Synthesis of Situational Strength in the Organizational Sciences. *Journal of Management*, *36*(1), 121–140. https://doi.org/10.1177/0149206309349309

Mishra, S. (2014). Decision-Making Under Risk Integrating Perspectives From Biology, Economics, and Psychology. *Personality and Social Psychology Review*, 1088868314530517. https://doi.org/10.1177/1088868314530517

Mishra, S., & Lalumière, M. (2009). Is the crime drop of the 1990s in Canada and the USA associated with a general decline in risky and health-related behavior? *Social Science & Medicine*, *68*(1), 39–48. https://doi.org/10.1016/j.socscimed.2008.09.060

Mishra, S., & Lalumière, M. L. (2011). Individual differences in risk-propensity: Associations between personality and behavioral measures of risk. *Personality and Individual Differences*, *50*(6), 869–873. https://doi.org/10.1016/j.paid.2010.11.037

Molho, C., Tybur, J. M., Van Lange, P. A., & Balliet, D. (2020). Direct and indirect punishment of norm violations in daily life. *Nature Communications*, *11*(1), 1–9.

Moscoso, S., & Salgado, J. F. (2004). "Dark Side" Personality Styles as Predictors of Task, Contextual, and Job Performance. *International Journal of Selection and Assessment*, *12*(4), 356–362. https://doi.org/10.1111/j.0965-075X.2004.00290.x

Moshagen, M., Hilbig, B. E., & Zettler, I. (2018). The dark core of personality. *Psychological Review*, *125*(5), 656.

Nicholson, N., Soane, E., Fenton-O'Creevy, M., & Willman, P. (2005). Personality and domain-specific risk taking. *Journal of Risk Research*, *8*(2), 157–176. https://doi.org/10.1080/1366987032000123856

Nielsen, T. M., Bachrach, D. G., Sundstrom, E., & Halfhill, T. R. (2012). Utility of OCB: Organizational Citizenship Behavior and Group Performance in a Resource Allocation Framework. *Journal of Management*, *38*(2), 668–694. https://doi.org/10.1177/0149206309356326

Organ, D. W. (1994). Personality and organizational citizenship behavior. *Journal of Management*, *20*(2), 465–478.

Paunonen, S. V., & Jackson, D. N. (2000). What is beyond the big five? Plenty! *Journal of Personality*, *68*(5), 821–835.

Podsakoff, P. M., MacKenzie, S. B., & Hui, C. (1993). Organizational citizenship behaviors and managerial evaluations of employee performance: A review and suggestions for future research. *Research in Personnel and Human Resources Management*.

Reynolds, E. K., Collado-Rodriguez, A., MacPherson, L., & Lejuez, C. (2013). Impulsivity, disinhibition, and risk taking in addiction. *Comprehensive Addictive Behaviors and Disorders*, *1*, 203–212.

Roberts, R. (2019). *Gambling with Other People's Money: How Perverse Incentives Caused the Financial Crisis*. Hoover Press.

Robinson, S., & Bennett, R. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal*, *38*(2), 555–572.

Robinson, S. L., & O'Leary-Kelly, a. M. (1998). Monkey See, Monkey Do: The Influence of Work Groups on the Antisocial Behavior of Employees. *Academy of Management Journal*, *41*(6), 658–672.

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, *48*, 1–36.

Roszkowski, M. J., & Grable, J. E. (2009). Evidence of lower risk tolerance among public sector employees in their personal financial matters. *Journal of Occupational and Organizational Psychology*, *82*(2), 453–463. https://doi.org/10.1348/096317908X337725

Schmit, M. J., & Ryan, A. M. (1993). The Big Five in personnel selection: Factor structure in applicant and nonapplicant populations. *Journal of Applied Psychology*, *78*(6), 966.

Schneider, S. L., & Lopes, L. L. (1986). Reflection in preferences under risk: Who and when may suggest why. *Journal of Experimental Psychology: Human Perception and Performance*, *12*(4), 535.

Schönbrodt, F. D., & Perugini, M. (2013). At what sample size do correlations stabilize? *Journal of Research in Personality*, *47*(5), 609–612. https://doi.org/10.1016/j.jrp.2013.05.009

Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the Determinants of Risk Behavior. *Academy of Management Review*, *17*(1), 9–38. https://doi.org/10.5465/AMR.1992.4279564

Slovic, P. (1987). Perception of risk. *Science*, *236*, 280–285.

Smith, M. B., Hill, A. D., Wallace, J. C., Recendes, T., & Judge, T. A. (2018). Upsides to Dark and Downsides to Bright Personality: A Multidomain Review and Future Research Agenda. *Journal of Management*, *44*(1), 191–217. https://doi.org/10.1177/0149206317733511

Spanouli, A., & Hofmans, J. (2020). *A Resource-Based Perspective on Organizational Citizenship and Counterproductive Work Behavior: The Role of Vitality and Core Self-Evaluations*. 28.

Spector, P. E. (2011). The relationship of personality to counterproductive work behavior (CWB): An integration of perspectives. *Human Resource Management Review*, *21*(4), 342–352. https://doi.org/10.1016/j.hrmr.2010.10.002

Spector, P. E., & Fox, S. (2010). Counterproductive Work Behavior and Organisational Citizenship Behavior: Are They Opposite Forms of Active Behavior? *Applied Psychology*, *59*(1), 21–39. https://doi.org/10.1111/j.1464-0597.2009.00414.x

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior*, *68*, 446-460

Stewart Jr, W. H., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, *86*(1), 145.

Sun, J., Li, W.-D., Li, Y., Liden, R. C., Li, S., & Zhang, X. (2020). Unintended consequences of being proactive? Linking proactive personality to coworker envy, helping, and undermining, and the moderating role of prosocial motivation. *Journal of Applied Psychology*. https://doi.org/10.1037/apl0000494

Tett, R. P., & Guterman, H. A. (2000). Situation Trait Relevance, Trait Expression, and Cross-Situational Consistency: Testing a Principle of Trait Activation. *Journal of Research in Personality*, *34*(4), 397–423. https://doi.org/10.1006/jrpe.2000.2292

Thoroughgood, C. N., Sawyer, K. B., & Webster, J. R. (2020). Because you're worth the risks: Acts of oppositional courage as symbolic messages of relational value to transgender employees. *Journal of Applied Psychology*. https://doi.org/10.1037/apl0000515

Vadera, A. K., Pratt, M. G., & Mishra, P. (2013). Constructive deviance in organizations: Integrating and moving forward. *Journal of Management*, *39*(5), 1221–1276.

Van Dyne, L., & Ellis, J. B. (2004). Job creep: A reactance theory perspective on organizational citizenship behavior as over-fulfillment of obligations. *The Employment Relationship: Examining Psychological and Contextual Perspectives*, 181–205.

Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, *41*(1), 108–119.

Wang, Y. (2017). *DECOMPOSING VARIANCE COMPONENTS FOR RISK PERCEPTIONS USING GENERALIZABILITY THEORY*. Bowling Green State University.

Weber, E., & Milliman, R. (1997). Perceived risk attitudes: Relating risk perception to risky choice. *MANAGEMENT SCIENCE*, *43*(2), 123–144. https://doi.org/10.1287/mnsc.43.2.123

Weber, E. U., Blais, A.-R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, *15*(4), 263–290.

Westaby, J. D., & Lowe, J. K. (2005). Risk-Taking Orientation and Injury Among Youth Workers: Examining the Social Influence of Supervisors, Coworkers, and Parents. *Journal of Applied Psychology*, *90*(5), 1027–1035. https://doi.org/10.1037/0021-9010.90.5.1027

Zhang, D. C., Foster, G. C., & McKenna, M. G. (2019). Is the DOSPERT gender invariant? A psychometric test of measurement invariance. *Journal of Behavioral Decision Making*, *32*(2), 203–211. https://doi.org/10.1002/bdm.2105

Zhang, D. C., Highhouse, S., & Nye, C. D. (2019). Development and validation of the general risk propensity scale (GRiPS). *Journal of Behavioral Decision Making*, *32*(2), 152–167.

Zhu, W., Zhou, J., & Sosik, J. J. (2022). The child is parent of the adult: A longitudinal examination of the effect of adolescent destructive deviance on lifetime career success. *Journal of Business Research*, *144*, 535–544. https://doi.org/10.1016/j.jbusres.2022.02.009

Zyphur, M. J., Narayanan, J., Arvey, R. D., & Alexander, G. J. (2009). The genetics of economic risk preferences. *Journal of Behavioral Decision Making*, *22*(4), 367–377. https://doi.org/10.1002/bdm.643

Table 1. Fit indices of Confirmatory Factor Analysis

Model	RMSEA	SRMR	CFI	TLI	$\chi 2$	*df*	$\chi 2/df$
4 Factor Model	0.069	0.103	0.688	0.675	6067.460	1589	3.818
5 Factor Model	0.052	0.069	0.825	0.817	4096.800	1585	2.585
9 Factor Model	0.037	0.061	0.900	0.893	2854.695	1559	1.831
9 Factor Model with Modifications	0.032	0.057	0.933	0.929	2344.387	1496	1.567
9 Factor Model with Common Method Factor	0.032	0.065	0.930	0.923	2443.808	1512	1.616

Table 2. Means, Standard Deviations, Internal Consistencies, and Correlations of Study Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	
1. Age	35.71	9.22	-											
2. Sex	1.49	0.50	.05	-										
3. Risk Propensity	2.58	0.99	-.23**	-.18**	(.95)									
4. Extraversion	2.58	1.04	-.02	-.02	.22**	(.86)								
5. Agreeableness	3.82	0.86	.04	.30**	-.10*	.25**	(.78)							
6. Conscientiousness	3.68	0.89	.15**	.02	-.16**	.00	.10*	(.84)						
7. Neuroticism	2.61	0.96	-.12**	.19**	-.03	-.15**	.02	-.29**	(.82)					
8. Openness	3.85	0.85	-.09*	-.06	.12**	.16**	.18**	-.01	-.09*	(.78)				
9. Willingness to Take Risks at Work	2.63	0.74	.01	-.10*	.19**	.05	-.01	-.10*	-.02	.06	(.94)			
10. OCB	2.77	0.45	.02	.01	.08	.15**	.02	.02	-.09*	.04	.16**	(.94)		
11. CWB	1.44	0.36	-.01	-.05	.10*	-.05	-.07	-.13**	.10*	-.00	.04	.14**	(.81)	
12. PSRB	1.92	0.60	.02	-.14**	.15**	.05	-.03	-.14**	.01	.00	.20**	.08	.38**	(.95)

Note. M and *SD* are used to represent mean and standard deviation, respectively. * indicates $p < .05$. ** indicates $p < .01$. Internal consistencies are in diagonals.
OCB = organizational citizenship behaviors; CWB = counterproductive workplace behaviors; PSRB = prosocial rule-breaking behaviors.

Table 3. Predictive and Incremental Validity of Risk Propensity for OCB

	OCB - Total									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	2.673	0.055	2.562	0.128	2.701	0.165	2.638	0.177	2.551	0.206
Age			0.002	0.002					0.001	0.002
Sex			0.019	0.041					0.035	0.043
Extraversion					0.061	0.020**	0.056**	0.020	0.056**	0.021
Agreeableness					-0.009	0.024	-0.005	0.024	-0.011	0.026
Conscientiousness					-0.001	0.023	0.003	0.024	0.001	0.024
Neuroticism					-0.034	0.022	-0.033	0.022	-0.035	0.022
Openness					0.009	0.070	0.006	0.024	0.009	0.024
Risk Propensity	0.036	0.019	0.042*	0.021			0.022	0.021	0.027	0.022
Model R^2	0.006		0.008		0.028*		0.030*		0.032*	
	OCB - Organizational									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	2.673	0.058	2.593	0.134	2.713	0.173	2.631	0.185	2.560	0.214
Age			0.002	0.002					0.001	0.002
Sex			0.004	0.043					0.023	0.045
Extraversion					0.076**	0.021	0.070**	0.021	0.070**	0.021
Agreeableness					-0.023	0.025	-0.017	0.025	-0.022	0.026
Conscientiousness					-0.001	0.024	0.004	0.024	0.003	0.025
Neuroticism					-0.030	0.023	-0.029	0.023	-0.029	0.023
Openness					0.013	0.025	0.010	0.025	0.012	0.025
Risk Propensity	0.047*	0.021	0.051*	0.022			0.028	0.022	0.032	0.023
Model R^2	0.009*		0.011		0.035*		0.038*		0.039*	
	OCB - Interpersonal									
	Model 1		Model 2		Model 3		Model 4		Model 5	

	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	2.674	0.058	2.527	0.136	2.687	0.176	2.645	0.189	2.540	0.219
Age			0.002	0.002					0.001	0.002
Sex			0.037	0.043					0.050	0.045
Extraversion					0.042*	0.021	0.038	0.022	0.038	0.022
Agreeableness					0.008	0.026	0.011	0.026	0.002	0.027
Conscientiousness					-0.001	0.025	0.001	0.025	0.000	0.025
Neuroticism					-0.039	0.023	-0.039	0.023	-0.042	0.024
Openness					0.004	0.025	0.002	0.025	0.006	0.026
Risk Propensity	0.024	0.021	0.031	0.022			0.014	0.022	0.020	0.023
Model R^2	0.002		0.005		0.018		0.018		0.021	

Notes. * = $p < .05$, ** = $p < .01$

Table 4. Predictive and Incremental Validity of Risk Propensity for CWB

	CWB - Total									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.348	0.044	1.380	0.102	1.609	0.132	1.511	0.014	1.484	0.164
Age			0.000	0.002					0.001	0.002
Sex			-0.026	0.032					-0.033	0.034
Extraversion					-0.009	0.016	-0.017	0.016	-0.018	0.016
Agreeableness					-0.022	0.019	-0.016	0.019	-0.010	0.024
Conscientiousness					-0.043	0.019	-0.037	0.019	-0.037*	0.019
Neuroticism					0.027	0.173	0.028	0.017	0.032	0.018
Openness					0.008	0.019	0.003	0.019	0.003	0.019
Risk Propensity	0.036*	0.016	0.034*	0.017			0.034*	0.017	0.034*	0.017
Model R^2	0.009*		0.011		0.026*		0.034**		0.036*	
	CWB - Organizational									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.209	0.043	1.237	0.010	1.529	0.128	1.417	0.136	1.409	0.159
Age			-0.000	0.002					0.001	0.002
Sex			-0.008	0.032					-0.020	0.033
Extraversion					-0.021	0.015	-0.030*	0.016	-0.031*	0.015
Agreeableness					-0.009	0.019	-0.001	0.019	0.002	0.019
Conscientiousness					-0.049**	0.018	-0.043*	0.018	-0.043*	0.018
Neuroticism					0.027	0.017	0.027	0.167	0.030	0.017
Openness					-0.007	0.018	-0.012	0.018	-0.012	0.019
Risk Propensity	0.036*	0.016	0.034*	0.016			0.038*	0.016	0.038*	0.017
Model R^2	0.010*		0.010		0.034*		0.044**		0.045**	
	CWB - Interpersonal									
	Model 1		Model 2		Model 3		Model 4		Model 5	

	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.522	0.056	1.558	0.129	1.710	0.168	1.628	0.179	1.577	0.208
Age			0.001	0.002					0.002	0.002
Sex			-0.049	0.041					-0.048	0.043
Extraversion					0.006	0.020	-0.000	0.021	-0.002	0.021
Agreeableness					-0.039	0.024	-0.034	0.024	-0.026	0.026
Conscientiousness					0.035	0.023	-0.031	0.024	-0.032	0.024
Neuroticism					0.028	0.022	0.028	0.022	0.034	0.023
Openness					0.026	0.024	0.022	0.024	0.022	0.024
Risk Propensity	0.037	0.020	0.035	0.021			0.028	0.021	0.029	0.022
Model R^2	0.006		0.010		0.018		0.020		0.024	

Notes. * = $p < .05$, ** = $p < .01$

Table 5. Predictive and Incremental Validity of Risk Propensity for PSRB

	PSRB - Total									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.383	0.012	1.756	0.168	2.321	0.221	2.099	0.234	2.031	0.271
Age			0.004	0.003					0.005	0.003
Sex			0.141**	0.053					-0.156**	0.057
Extraversion					0.030	0.026	0.013	0.027	0.011	0.027
Agreeableness					-0.022	0.032	-0.007	0.032	0.018	0.034
Conscientiousness					-0.096**	0.031	-0.083**	0.031	-0.085**	0.031
Neuroticism					-0.014	0.029	-0.013	0.029	0.007	0.029
Openness					-0.002	0.032	-0.012	0.032	-0.015	0.031
Risk Propensity	0.091**	0.026	0.087**	0.028			0.076**	0.028	0.076**	0.029
Model R2	0.022**		0.039**		0.023*		0.036**		0.055**	
	PSRB - Efficiency									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.416	0.078	1.476	0.179	2.316	0.236	2.022	0.250	1.888	0.288
Age			0.004	0.003					0.006*	0.003
Sex			-0.147*	0.057					-0.136*	0.060
Extraversion					0.025	0.028	0.002	0.029	-0.001	0.029
Agreeableness					-0.084*	0.034	-0.065	0.034	-0.043	0.036
Conscientiousness					-0.104**	0.033	-0.087**	0.033	-0.090**	0.033
Neuroticism					0.001	0.031	0.004	0.031	0.022	0.031
Openness					0.012	0.034	-0.001	0.034	-0.003	0.034
Risk Propensity	0.120**	0.028	0.116**	0.029			0.101**	0.030	0.104**	0.031
Model R^2	0.033**		0.049**		0.035**		0.056**		0.071**	
	PSRB - Coworker									
	Model 1		Model 2		Model 3		Model 4		Model 5	

	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.813	0.082	2.028	0.188	2.471	0.248	2.318	0.264	2.370	0.304
Age			0.003	0.003					0.004	0.003
Sex			-0.199**	0.060					-0.218**	0.064
Extraversion					0.029	0.030	0.018	0.030	0.015	0.030
Agreeableness					-0.014	0.036	-0.004	0.036	0.033	0.038
Conscientiousness					-0.089*	0.035	-0.080*	0.035	-0.081*	0.035
Neuroticism					-0.032	0.032	-0.031	0.032	-0.007	0.033
Openness					-0.026	0.035	-0.033	0.036	-0.040	0.036
Risk Propensity	0.066*	0.030	0.054	0.031			0.052	0.031	0.045	0.032
Model R^2	0.009*		0.032**		0.016		0.021		0.045**	
					PSRB - Customer					
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	SE	*b*	SE	*b*	SE	*b*	SE	*b*	SE
Intercept	1.886	0.093	1.834	0.215	2.179	0.280	1.978	0.298	1.870	0.346
Age			0.004	0.004	0.038	0.033			0.005	0.004
Sex			-0.075	0.068	0.048	0.041			-0.118	0.072
Extraversion					-0.093*	0.039	0.023	0.034	0.020	0.035
Agreeableness					-0.017	0.037	0.061	0.041	0.080	0.043
Conscientiousness					0.005	0.040	-0.081*	0.040	-0.084*	0.040
Neuroticism							-0.015	0.037	0.001	0.038
Openness							-0.004	0.040	-0.005	0.041
Risk Propensity	0.081*	0.034	0.083*	0.035			0.069*	0.035	0.071*	0.036
Model R^2	0.011*		0.016*		0.018		0.024*		0.033*	

Notes. * = $p < .05$, ** = $p < .01$

Table 6. Results of Mediation Analysis of Risk Propensity Predicting Contextual Performance

	b	SE	95% CI
a path			
Risk Propensity => WTR	0.145	0.036	[0.072, 0.214]
b paths			
WTR => OCB	0.092	0.039	[0.014, 0.167]
WTR => CWB	0.013	0.027	[-0.044, 0.063]
WTR => PSRB	0.141	0.039	[0.057, 0.216]
Direct effects			
RP => OCB	0.023	0.022	[-0.019, 0.066]
RP => CWB	0.035	0.018	[0.001, 0.070]
RP => PSRB	0.071	0.027	[0.019, 0.125]
Indirect Effects			
RP => WTR => OCB	0.013	0.007	[0.004, 0.030]
RP => WTR => CWB	0.002	0.004	[-0.006, 0.010]
RP => WTR => PSRB	0.021	0.008	[0.008, 0.039]

Notes. RP = risk propensity, WTR = willingness to take risks at work, OCB = organizational citizenship behaviors, CWB = counterproductive work behaviors, PSRB = prosocial rule-breaking behaviors.

Table 7. Predictive and Incremental Validity of Risk Propensity for Willingness to Take Risks at Work

	Willingness to Take Risks at Work					
	Model 1		Model 2		Model 3	
	b	SE	*b*	SE	*b*	SE
Intercept	2.839	0.272	2.845	0.286	2.320	0.332
Age					0.005	0.004
Sex					-0.109	0.070
Extraversion	0.026	0.032	-0.004	0.033	-0.003	0.033
Agreeableness	-0.012	0.039	0.014	0.039	0.029	0.041
Conscientiousness	-0.090*	0.038	-0.067	0.038	-0.072	0.038
Neuroticism	-0.029	0.036	-0.025	0.039	-0.008	0.036
Openness	0.047	0.039	0.030	0.039	0.028	0.039
Risk Propensity			0.133**	0.034	0.137**	0.035
Model R2	0.016		0.045**		0.053**	

Notes. * = $p < .05$, ** = $p < .01$

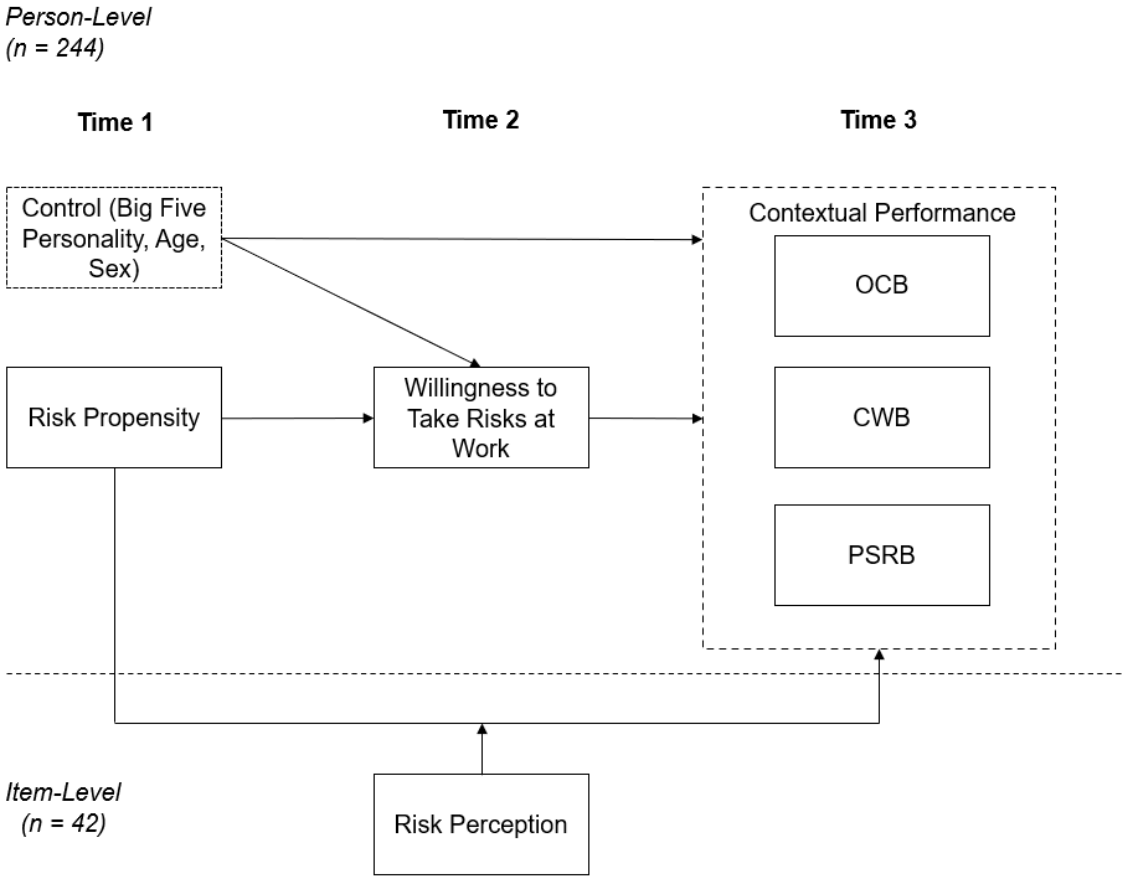

Figure 1. Hypothesized model of risk propensity, willingness to take risks at work, and contextual performance. OCB = organizational citizenship behaviors; CWB = counterproductive workplace behaviors; PSRB = prosocial rule breaking behaviors

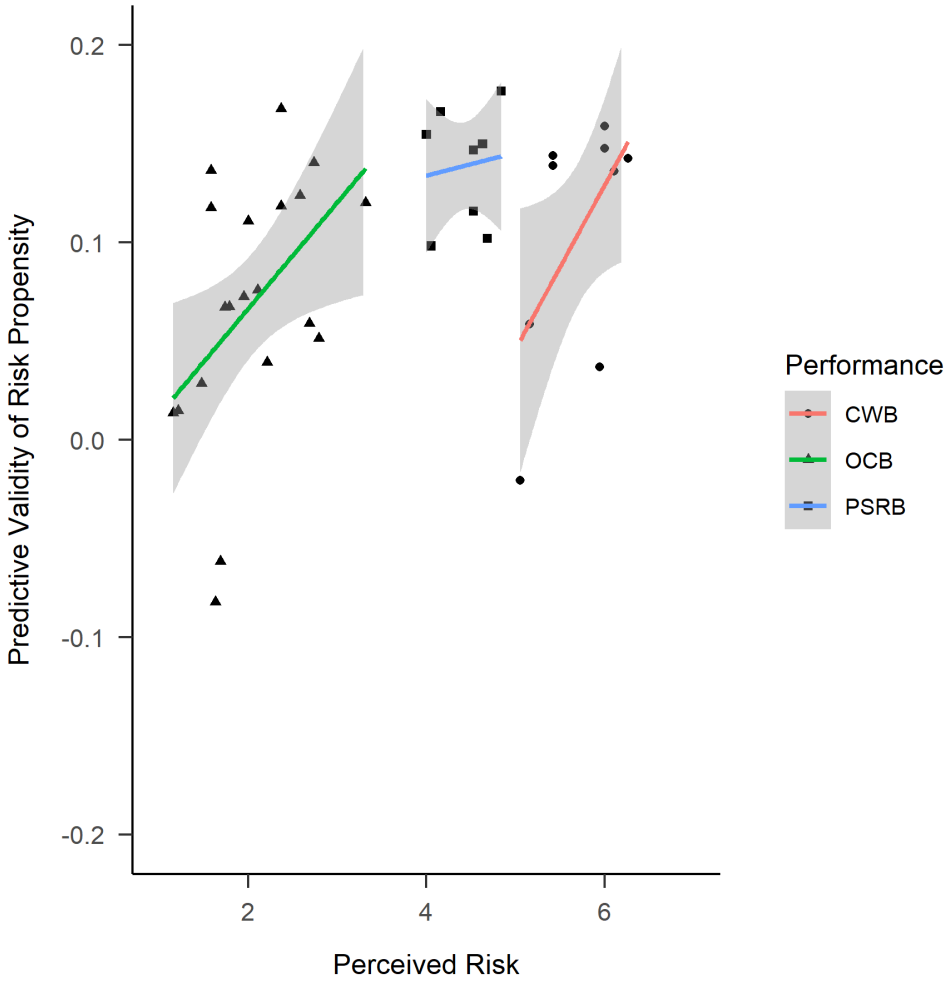

Figure 2. Scatter plot of item-level perceived risks and predictive validity (i.e., correlation coefficient) of the GRiPS. CWB = counterproductive work behavior, OCB = organizational citizenship behavior, PSRB = prosocial rule-breaking behavior