

When feeling poorly at work does not mean acting poorly at work: The moderating role of work-related emotional intelligence

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Abstract It is important, both theoretically and for applied reasons, to understand who is likely to engage in counterproductive work behaviors. It is known that such behaviors are more likely to be exhibited by unhappy employees (i.e., those high in job negative affect), but this should be particularly true for individuals low in work-related emotional intelligence. The current study ($N = 91$) examined moderation-related hypotheses of this type in relation to five counterproductive work behaviors—abuse, sabotage, theft, withdrawal, and production deviance—among a sample of employees working at least 20 h per week. These behaviors varied positively by job negative affect and negatively by work-related emotional intelligence. In addition, the two predictors interacted for all five outcomes such that the highest levels of counterproductive work behavior were observed among employees who were high in job negative affect and low in emotional intelligence. The discussion focuses on implications for understanding counterproductive work behaviors and on the value of assessing work-related emotional intelligence as an ability that differs by employees.

Keywords Work · Emotional intelligence · Job affect · Counterproductive work behavior

Introduction

Employees sometimes engage in hostile, destructive behaviors that undermine organizational functioning, generally termed counterproductive work behaviors (CWBs). Such behaviors typically occur when jobs are stressful, producing high levels of job negative affect (JNA) as a result. Given the emotionally reactive nature of CWBs, people who can better understand their emotions, while controlling them, should be in a better position to mitigate their problematic influences. That is, the relationship between JNA and CWBs should become attenuated at higher, relative to lower, levels of work-related emotional intelligence (W-EI). In addition to making a case for these predictions, the introduction explains how individual differences in W-EI can be assessed.

Counterproductive work behaviors

Counterproductive work behaviors encompass distinct, yet correlated, actions intended to harm an organization and members within it (Spector et al. 2006a). Although intent to harm is present, the behaviors are often fairly impulsive (Skarlicki and Folger 1997), including abuse, bullying, theft, and sabotage (Jermier et al. 1994). Such behaviors represent a serious threat to organizations. In 2011, for example, the U.S. Chamber of Commerce estimated that 75 % of employees steal from the workplace at an estimated cost of \$20 billion annually (Reifler 2008). The occurrence of CWBs has also been linked to pronounced losses in productivity, insurance costs, and organizational turnover (LeBlanc and Kelloway 2002).

Preventing CWBs requires understanding the factors that predict their occurrence and progress has been made in this area. Employees are more likely to engage in CWBs

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when placed under organizational constraints, when their roles are ambiguous, and when they are overloaded by job tasks (Herscovis et al. 2007; Krischer et al. 2010). Workplaces characterized by incivility (i.e., a lack of common courtesy: Andersson and Pearson 1999) and perceived injustice (Berry et al. 2007) are also workplaces in which higher levels of CWB occur. In addition, interpersonal conflict at work has been linked to CWBs (Spector et al. 1988). Although these factors, and a number of other major predictors of CWB, differ in various ways (e.g., more organizational vs. more interpersonal), an important insight is that all of them can be considered job stressors—that is, events and conditions that render one’s job more difficult, uncertain, and potentially threatening (Fox et al. 2001).

Following the stress and emotion literature (Lazarus and Folkman 1984), furthermore, stressors are likely to engender CWBs primarily through the mechanism of negative affect (Matta et al. 2014; Spector and Fox 2002). Consistent with this point, employees engage in CWBs when they experience negative affect (e.g., anxiety, distress, anger) on the job (Dalal et al. 2009; Matta et al. 2014). Even more to the point, Fox et al. (2001) found that negative affect mediated the relationship between four job stressors (e.g., organizational constraints) on the one hand and two categories of CWB (organizational and personal) on the other hand (also see Roy et al. 2012; Yang and Diefendorff 2009). As Fox et al. (2001) emphasize, then, CWBs (in part) represent an emotional response to conditions at work deemed to be stressful or frustrating (also see Spector 2011, for a more recent analysis). Such considerations led us to hypothesize positive relationships between job negative affect and counterproductive work behaviors.

Hypothesis 1: JNA will positively predict CWBs

Although it is common to emphasize the functionality of emotion-driven behavior (e.g., Frijda 1986), we are inclined to agree with Parrott (1995, 2001) that there are many cases in which acting in an emotional manner is decidedly problematic. Negative emotions, in particular, often lead us to engage in behaviors that seem desirable in the short-term, but create long-term costs (Baumeister et al. 1994; Berkowitz 1993). Included in this category are common stress-related behaviors like eating and drinking too much (Schmeichel and Inzlicht 2013), but also CWBs on the job (Bies et al. 1997; Neuman and Baron 1998). For example, abusing co-workers will tend to undermine working relationships and production deviance will often harm one’s work record (Andersson and Pearson 1999). Similarly, it is difficult to make a case for the long-term utility of behaviors such as sabotage or theft, which would result in condemnation if detected (Jermier et al. 1994).

For such reasons, emotionally intelligent people will often resist engaging in CWBs precisely because they are better able to act wisely in the context of their emotions (Mayer and Salovey 1997). Although this idea is intuitive, the construct of emotional intelligence (EI) has been somewhat controversial in the personnel selection and organizational literatures (Jordan et al. 2006). One reason for this is that Goleman and others (e.g., consultants) have made unsubstantiated claims concerning the importance of EI in the workplace (Zeidner et al. 2004). Another reason is that some definitions of EI are insufficiently grounded in basic emotional skills or are too broad (Daus and Ashkanasy 2005). In addition, self-report measures of EI have proliferated despite their irrelevance in assessing EI in ability-related terms (Mayer et al. 2008). Finally, some have been disappointed with evidence for the predictive validity of EI (e.g., Matthews et al. 2012), though there are more optimistic appraisals (e.g., Jordan et al. 2006). Our own view is that EI should matter quite a bit in the workplace given a sufficiently tuned assessment instrument. We briefly review developments of this type before returning to the JNA/CWB interface.

Work-related emotional intelligence

Emotional intelligence is defined as the ability to perceive, understand, and manage emotions for productive purposes (Mayer and Salovey 1997). Although one might think of perception, understanding, and management as separate skills, they are not, as they all support each other and define a global EI construct (Mayer et al. 2008). In this respect, for example, perceiving emotions may be necessary for emotional understanding, which may in turn be necessary for emotion management (Joseph and Newman 2010).

Part of the confusion in the EI literature occurred because people created self-report measures purported to assess it. They cannot assess it because EI is defined in ability-related terms and must therefore be assessed using ability-based tests (Mayer et al. 2008). As a related point, concerns about a large overlap between personality traits and EI will only apply to self-report questionnaires (Daus and Ashkanasy 2005). Of the ability-based tests, the most often used are from Mayer and his colleagues (Mayer et al. 1999, 2003). These tests possess good levels of reliability (Mayer et al. 2003), but their predictive validity in the organizational realm does not appear to be particularly high (Zeidner et al. 2004), though there is some predictive validity (Joseph and Newman 2010; O’Boyle et al. 2011).

The Mayer tests include a number of activities such as discerning the emotions present in abstract paintings or indicating how characters might prolong pleasant feelings if they sought to do so (Mayer et al. 2003). The skills assessed might or might not overlap with those that would

be useful in the workplace (Zeidner et al. 2004). For example, the ability to read abstract paintings may have little relevance to most workplaces. To rectify such concerns, Krishnakumar et al. (2016) created and validated a measure in which the perceptual, understanding, and management features of EI (Mayer and Salovey 1997) were applied to the workplace context. This tailoring should result in higher levels of predictive validity for workplace outcomes according to the frame-of-reference literature (e.g., Hunthausen et al. 2003; Shaffer and Postlethwaite 2012).

Of additional importance, the workplace EI (or W-EI) measure (Krishnakumar et al. 2016) uses the situation judgment test (SJT) method because this method clearly results in tests that are both reliable and valid in predicting workplace outcomes (Lievens et al. 2008; Sternberg and Hedlund 2002; Whetzel and McDaniel 2009). These precedents resulted in a W-EI measure that predicted substantial variance in a number of workplace outcomes. For example, total W-EI scores predicted teamwork and leadership performance at the $r = .5$ level (Krishnakumar et al. 2016; see method section for further details). Now that there is an ability-related W-EI assessment with promising features, it is important to better understand W-EI's scope of operation and prediction.

A moderating role for work-related emotional intelligence

Emotions evolved as primitive action control systems (Panksepp 1998). Their mode of operation is reflexive, if not impulsive, and they are associated with basic actions like fighting, fleeing, or freezing (Lang et al. 1997). Young children more or less have this behavioral repertoire (Panksepp 1998). As we age, however, we learn to understand our emotions and control them (Izard et al. 2011). Not everyone gains this knowledge to the same extent, though, as there are pronounced individual differences in emotional intelligence even in adulthood (Mayer and Salovey 1997). A person who is low in emotional intelligence will essentially be at the mercy of their emotions: If they feel strong emotions, but cannot understand them, they will often engage in impulsive emotional behaviors (Cyders and Smith 2008). By contrast, a person who is high in emotional intelligence has the requisite knowledge to experience emotions without acting on them (Gratz and Roemer 2004). They should be able to use this knowledge to down-regulate problematic behaviors such as emotional aggression (Robinson et al. 2013).

Stated simply, low EI people have emotions, but not the knowledge required to control their influence (Gratz and Roemer 2004). By contrast, people high in EI have emotions as well as the knowledge required to control their

influence (Mayer and Salovey 1997). The latter configuration should result in greater rationality in the context of emotional arousal (Strack and Deutsch 2004), as manifest in lesser tendencies to engage in impulsive behaviors when upset (Metcalf and Mischel 1999). Because CWBs are often if not typically impulsive reactions to feeling upset (Spector 2011; Spector et al. 2006a), people higher in W-EI should be less prone to CWBs even when a job is stressful or frustrating. That is, JNA/CWB relationships should be stronger at lower levels of W-EI than at higher levels of W-EI. Such considerations led to key predictions for the study:

Hypothesis 2: W-EI will attenuate the relationship between JNA and CWBs

Hypothesis 2, in other words, predicts that W-EI and JNA will interact, with the most frequent CWBs exhibited by employees high in JNA and low in W-EI. Negative feelings will positively predict CWBs at lower levels of W-EI, but JNA will be a weaker predictor at higher levels of W-EI. The interactive hypotheses also possess implications for the predictive value of W-EI. W-EI will be a strong inverse predictor of CWBs among employees with high levels of JNA. If the workplace is more congenial, however, W-EI will be a weaker predictor.

W-EI is a global construct, not one specific to perception, understanding, or management branches (Krishnakumar et al. 2016). Indeed, there are theoretical reasons for thinking that each branch captures relevant skills. Perceiving emotions accurately is crucial to mitigating their unwanted influence (Teper et al. 2013). Understanding emotions is often considered the core to emotional intelligence (Wranik et al. 2007). And emotion management captures behavioral knowledge that should be useful in handling stressful situations (MacCann and Roberts 2008). Accordingly, we averaged across the W-EI branches in our primary analyses. However, supplemental analyses will also be performed. If we are correct, each branch score will act similarly in attenuating the relationship between JNA and CWBs.

There are multiple different types of CWB that should be distinguished (Chen and Spector 1992; Gruys and Sackett 2003). Some CWBs primarily target individuals (e.g., abuse), whereas others primarily target the organization (e.g., theft). Some CWBs are approach-related or active (e.g., sabotage), whereas some are avoidance-related or passive (e.g., withdrawal). Types of CWB also vary in their frequency (Matta et al. 2014) and antecedents (Bowling and Gruys 2010). In the present study, we therefore assessed five different CWBs in order to examine the generalizability of the model: abuse, sabotage, theft, withdrawal, and production deviance (Spector et al.

2006b). The study focused on student workers for the sake of convenience and because findings concerning student workers should generalize to other worker samples as well (Fox et al. 2001).

Method

Employees and procedures

A sizable group of students work many hours and we sought such a sample. Of a large group of undergraduates seeking course credit for their psychology classes, we recruited a sample of 91 (53 % female; M age = 21.14) who were working at least 20 h/week. These employees had been at their current jobs for an average of 15.23 months and they held a diversity of positions in accounting, customer service, health care, manufacturing, office management, etc. We also administered a factual autonomy scale (FAS: Spector and Fox 2003), which assesses (among other things) how often employees are told what to do on the job (reverse-scored). The autonomy mean was 3.57 along a 1–5 scale, a mean comparable to that reported for full-time support personnel at the University of South Florida (Spector and Fox 2003).

Qualified participants were emailed a link to a secure Qualtrics-programmed website. They were told that the study pertained to work experiences, that their responses would be confidential, and that any write-up of the research would omit identity-related information (Cohen et al. 2013). Employees then completed the measures below and were awarded course credit.

Work-related emotional intelligence assessment

The NEAT (Krishnakumar et al. 2016) was designed to assess work-related emotional intelligence. It does not ask people about their self-perceived EI levels but rather assesses them in ability-related terms (Mayer et al. 2008). It adopts the somewhat consensual idea that EI is composed of abilities related to perceiving emotions, understanding them, and emotion management—overlapping abilities defining a higher-order EI construct (Joseph and Newman 2010). Scenarios are used, following the situational judgment test literature (Whetzel and McDaniel 2009), relevant assessments of practical intelligence (Sternberg and Hedlund 2002), and the general-purpose EI scales of MacCann and Roberts (2008).

In particular terms, the NEAT includes 30 workplace scenarios (e.g., “Jake and his employees are rushing toward a tight deadline. Unfortunately, the computers crash while attempting to meet the deadline”), all of which are 1–2 sentences. Each scenario is paired with 4 items, each of

which is rated separately. For 10 scenarios, participants rate the extent to which (1–5) a protagonist would feel 4 different emotions (perception). For 10 other scenarios, they rate the extent to which (1–5) a protagonist would feel 4 different combinations of emotions (understanding). For the final 10 scenarios, participants rate the effectiveness (1–5) of various responses to the situation (management). Ratings are scored with respect to norms collected from a sample of 30 MBA students with an average of 8.15 years of full-time work experience. The Mayer et al. (2003) scoring procedures are used such that each rating is given a score that reflects the percentage of the expert MBA sample (e.g., 27.13 %) giving that same rating (e.g., 2 on the 5-point scale). Such scores are averaged across items for a scenario, then across scenarios of a given type (e.g., management), and then across the three types of scenarios. That is, the NEAT assigns a total score composed of the complimentary skills of perception, understanding, and management (Joseph and Newman 2010; Mayer and Salovey 1997). Example scenarios, items, norms, and scoring procedures are shown in Table 1.

The properties of the NEAT have been extensively investigated (Krishnakumar et al. 2016) and the following points can be made. Perception, understanding, and management scales are unidimensional, with reliabilities routinely exceeding .75. These three abilities are highly inter-correlated (r s typically $> .50$) and define a higher-order EI construct in structural equation terms, with total score reliabilities in the .92 range. Means (around .3000) and standard deviations (around .0500) are highly stable from sample to sample. People who are emotionally reactive (i.e., high in neuroticism) and less interested in others (i.e., low in agreeableness) generally obtain lower NEAT scores, a profile that is precisely what one might expect from the personality trait literature (e.g., Jang et al. 2001). People with higher ACT scores obtain higher NEAT scores, consistent with an ability-related conception (Austin 2010) of what the NEAT assesses. As is desirable, there are moderate to large positive correlations between the NEAT and other ability EI tests. For example, the NEAT correlates at $r = .69$ with the STEU and at $r = .59$ with the STEM, the general-purpose EI measures of MacCann and Roberts (2008). Finally, higher levels of EI, as assessed by the NEAT, predict a number of work-related outcomes, including satisfaction with interpersonal features of a job, teamwork effectiveness, leadership performance, and task performance, even after controlling for personality traits and cognitive ability. In sum, the NEAT displays good evidence for convergent, discriminant, and predictive validity (Krishnakumar et al. 2016). Previous studies have not, however, examined job negative affect or reactions to it, the focus of the present investigation.

Table 1 The NEAT: example items, MBA norms, hypothetical responses, and scoring

Norms	1 (%)	2 (%)	3 (%)	4 (%)	5	Resp.	Score
Perception item: there have been widespread layoffs in Margie's organization recently. Rate the extent to which Margie would experience the following emotion in this situation							
Anxiety	0	0	0	21	79	4	.21
Anger	3	21	52	24	0	4	.24
Fear	0	3	3	38	55	5	.55
Confusion	7	21	34	28	10	1	.07
							<i>M</i> = .2675
Understanding item: Jim had a co-worker take credit for what he had accomplished. Rate the likelihood that Jim would experience both of the following emotions simultaneously							
Disgust and sadness	0	17	21	38	24	4	.38
Confusion and regret	17	17	28	28	10	5	.10
Anxiety and confusion	7	24	28	31	10	3	.28
Anger and disgust	4	7	14	24	52	4	.24
							<i>M</i> = .2500
Management item: Chloe was demoted at her job. Rate the effectiveness of the following way that Chloe could deal with the situation							
Coast in the new position	39	32	18	7	4	4	.07
Seek other work	4	14	31	41	10	3	.31
Blame the management	52	38	10	0	0	3	.10
Quietly continue to work and cry later	28	24	28	17	4	3	.28
							<i>M</i> = .1900

Norms reflect the percentage of MBA students that gave each response and have been rounded for presentation purposes

Resp responses of a hypothetical participant, *Score* the score the participant would receive

The NEAT primarily assesses W-EI in global, higher-order terms (Krishnakumar et al. 2016) and the same was true in the present study. Specifically, correlations among the branches were substantial (perception and understanding: $r = .66$, $p < .001$; perception and management: $r = .63$, $p < .001$; understanding and management: $r = .57$, $p < .001$), indicating that people receiving high W-EI scores for one facet received high W-EI scores for the other facets as well. It seemed likely to us that it is what is shared among the branches (i.e., global EI) that matters the most and we therefore computed a global W-EI score by averaging across all of the items ($M = .2946$; $SD = .0524$; $\alpha = .93$). Secondary analyses will be conducted with individual branches, however.

Job negative affect

We sought to assess the extent to which people experienced negative affect at their jobs and used a Spector (2006) scale in doing so. Specifically, employees were asked to indicate how frequently (1 = never; 5 = extremely often) they felt 15 markers of negative affect (e.g., angry, frustrated, disgusted) while at work and these frequency ratings were averaged ($M = 2.43$; $SD = .74$; $\alpha = .91$). The time frame was the last 30 days, thus capturing a sufficient time

window while avoiding the ambiguity associated with trait-based reports of affect (Spector 2006; Spector et al. 1988).

Counterproductive work behaviors

Counterproductive work behaviors (CWBs) are intentional actions or inactions that detract from job performance, cause interpersonal difficulties, and/or are costly to the company (Bennett and Robinson 2003; Spector 2011). We sought to assess CWBs in comprehensive terms—i.e., in terms of its distinct types (Sackett and DeVore 2002). We did so using Spector's well-validated (Barbaranelli et al. 2013; Fox et al. 2001; Ilie et al. 2012; Sprung and Jex 2012) 32-item checklist (Fox and Spector 1999; Spector et al. 2006a, b), which has been used in many studies (Berry et al. 2012; Dalal 2005) and itself integrates items from a number of previous inventories (e.g., Fox and Spector 1999; Hollinger 1986; Neuman and Baron 1998; Robinson and Bennett 1995; Skarlicki and Folger 1997; Spector 1975). Employees, who are in a unique position to report on many if not most CWBs (such as covert thieving), reported on the frequency (1 = never; 5 = every day) with which they engaged in Abuse (e.g., "hit or pushed someone at work"; 17 items; $M = 1.42$; $SD = .69$; $\alpha = .96$), Sabotage (e.g., "purposely damaged a piece of equipment or

property”; 3 items; $M = 1.34$; $SD = .72$; $\alpha = .88$), Theft (e.g., “stolen something belonging to your employer”; 5 items; $M = 1.28$; $SD = .64$; $\alpha = .93$), Withdrawal (e.g., “came to work late without permission”; 4 items; $M = 1.55$; $SD = .65$; $\alpha = .84$), and Production Deviance (e.g., “purposely worked slowly when things needed to get done”; 3 items; $M = 1.33$; $SD = .60$; $\alpha = .84$) at their places of employment.

Note that the CWB items are written in such a way that the behaviors are more intentional than accidental, yet often appear motivated by hostile feelings and their attendant impulsive manifestations (Berkowitz 1993; Spector 2011). It is also worth pointing out that self-reports of CWB correlate highly with coworker reports of CWB (de Jonge and Peeters 2009; Penney and Spector 2005), but self-reports are more sensitive when less visible forms of behavior are involved (Berry et al. 2012; Fox et al. 2007). Even so, a meta-analysis showed that the correlates of self-reported CWB were practically identical ($r = .87$) to the correlates of other-reported CWB (Berry, et al. 2012), indicating that similar results tend to occur regardless of CWB reporter source (Berry et al. 2012).

Results

Bivariate analyses

The ability to read, understand, and manage emotions might be functional in lessening the frequency with which negative affect occurs at work. Consistent with this idea, there was a significant yet modest inverse relationship between work-related EI (i.e., NEAT scores) and job negative affect ($r = -.22$, $p = .041$). People may engage in CWBs in part as a reaction to the negative affect elicited at work (Spector and Fox 2002). Consistent with this idea, job negative affect was a positive predictor of Abuse ($r = .49$, $p < .001$), Sabotage ($r = .47$, $p < .001$), Theft ($r = .35$, $p < .001$), Withdrawal ($r = .35$, $p < .001$), and Production Deviance ($r = .46$, $p < .001$). Employees higher in EI, we suggest, may typically be better employees. Consistent with this idea, NEAT scores were a negative predictor of tendencies toward Abuse ($r = -.48$, $p < .001$), Sabotage ($r = -.41$, $p < .001$), Theft ($r = -.51$, $p < .001$), Withdrawal ($r = -.28$, $p = .008$), and Production Deviance ($r = -.42$, $p < .001$). The latter correlations deserve special note given the corrosive nature of CWBs to workplace functioning (Spector et al. 2006a).

Multiple regression analyses

There was a modest inverse relationship between work-related EI and job negative affect (JNA), a source of

overlapping variance that could potentially explain why higher levels of W-EI were linked to less frequent counterproductive work behaviors. We suspected that this was not the case. That is, W-EI should still be inversely related to CWBs with levels of JNA controlled. The relevant results are displayed in the Step 1 multiple regressions of Table 2. In these multiple regressions, JNA was a consistent predictor of CWBs (β s ranging from .25 for theft to .41 for abuse) with levels of W-EI controlled. Further, consistent inverse relationships between W-EI and CWBs were obtained when controlling for JNA (β s ranging from $-.21$ for withdrawal to $-.39$ for abuse). Experiences of negative affect on the job and work-related EI are therefore distinctly consequential predictors of counterproductive work behaviors.

Even so, we also hypothesized that systematic interactions among the predictors would occur—i.e., that job negative affect would be a more consequential predictor of CWBs at lower levels of work-related EI. To examine this set of interactive hypotheses, we z-scored both of the predictors and then created a JNA by W-EI interaction term. All three predictors were simultaneously regressed in the prediction of the CWB outcomes (Aiken and West 1991). We report these results as Step 2 of Table 2. With one exception (JNA predicting theft), all of the main effects of the Step 1 analyses remained significant. Even so, W-EI and JNA also interacted to predict all five CWBs (β s ranging from $-.26$ for theft to $-.16$ for sabotage). Thus, the extent to which negative affect translated into CWBs varied as a function of work-related EI.

According to Hypothesis 2, job negative affect should be more predictive of CWBs at lower levels of W-EI. To determine whether this was the case, estimated means for the five distinct types of CWB were calculated as a function of prototypically low ($-1 SD$) versus high ($+1 SD$) levels of W-EI in combination with lesser ($-1 SD$) versus greater ($+1 SD$) levels of JNA (Aiken and West 1991). These estimated means (which follow from the regression results and do not have standard deviations) are graphed in Fig. 1 for the five forms of CWB: Abuse, Sabotage, Theft, Withdrawal, and Production Deviance. Although the specific nature of the interaction varied by the behavior involved, there was considerable convergence as well. As shown in Fig. 1, the highest levels of CWB were consistently observed among people low in W-EI who had more frequent JNA experiences.

We performed simple slopes analyses to better characterize the nature of the interactions. Specifically, we examined the magnitude of the JNA/CWB relation at a prototypically low ($-1 SD$) versus high ($+1 SD$) level of W-EI to determine whether this relationship was stronger as levels of W-EI decreased (Aiken and West 1991). The relevant results are shown in Table 3. In all cases, JNA was

Table 2 Job negative affect (JNA), work-related emotional intelligence (W-EI), and their interaction (JNA \times W-EI) as predictors of five counterproductive work behaviors; step 1 involves main effect predictors and step 2 adds the interaction term

CWB type	Step 1 statistics		Step 2 statistics		JNA \times W-EI
	JNA	W-EI	JNA	W-EI	
Abuse					
β	.41	-.39	.35	-.38	-.18
SE	.08	.09	.09	.08	.07
t	4.47	-4.49	4.09	-4.52	-2.51
p	<.001	<.001	<.001	<.001	.014
Full model	$R^2 = .38, F = 27.13, p < .001$		$R^2 = .42, F = 21.28, p < .001$		
R^2 change			$\Delta R^2 = .04, F = 6.30, p = .014$		
Sabotage					
β	.40	-.32	.35	-.31	-.16
SE	.09	.09	.09	.09	.07
t	4.43	-3.55	3.81	-4.52	-2.51
p	<.001	<.001	<.001	<.001	.030
Full model	$R^2 = .32, F = 20.39, p < .001$		$R^2 = .35, F = 15.81, p < .001$		
R^2 change			$\Delta R^2 = .04, F = 4.85, p = .030$		
Theft					
β	.25	-.46	.17	-.44	-.26
SE	.09	.09	.09	.08	.07
t	2.76	-5.07	1.92	-5.28	-3.73
p	<.007	<.001	.058	<.001	<.001
Full model	$R^2 = .32, F = 20.63, p < .001$		$R^2 = .41, F = 20.42, p < .001$		
R^2 change			$\Delta R^2 = .09, F = 13.93, p < .001$		
Withdrawal					
β	.31	-.21	.24	-.19	-.23
SE	.10	.10	.10	.10	.08
t	3.08	-2.11	2.37	-2.08	-2.91
p	.003	.038	.020	.041	.005
Full model	$R^2 = .17, F = 8.74, p < .001$		$R^2 = .24, F = 9.14, p < .001$		
R^2 change			$\Delta R^2 = .07, F = 8.44, p = .005$		
Prod. dev.					
β	.38	-.34	.33	-.33	-.17
SE	.09	.09	.09	.09	.07
t	4.24	-3.72	3.62	-3.72	-2.26
p	<.001	<.001	<.001	<.001	.027
Full model	$R^2 = .31, F = 20.22, p < .001$		$R^2 = .35, F = 15.81, p < .001$		
R^2 change			$\Delta R^2 = .04, F = 5.09, p = .027$		

β beta (standardized), SE standard error, t t-value, p p value

a significant and strong predictor of CWBs at the low level of W-EI (β s ranging from .53 for abuse to .43 for theft). In all cases, by contrast, JNA was a weaker, and in fact non-significant, predictor of CWBs at the high level of W-EI (β s ranging from .19 for sabotage to .00 for withdrawal). In other words, negative affect on the job was a much more pronounced predictor of CWBs among employees lacking (or scoring low in) emotional intelligence.

Branch-level analyses

W-EI should be considered a global construct rather than one specific skill (Krishnakumar et al. 2016). Indeed, there should be cases in which specific EI components predict outcomes primarily because they tap a global EI factor (Joseph and Newman 2010). We sought to determine whether this was the case for the JNA/CWB relationship.

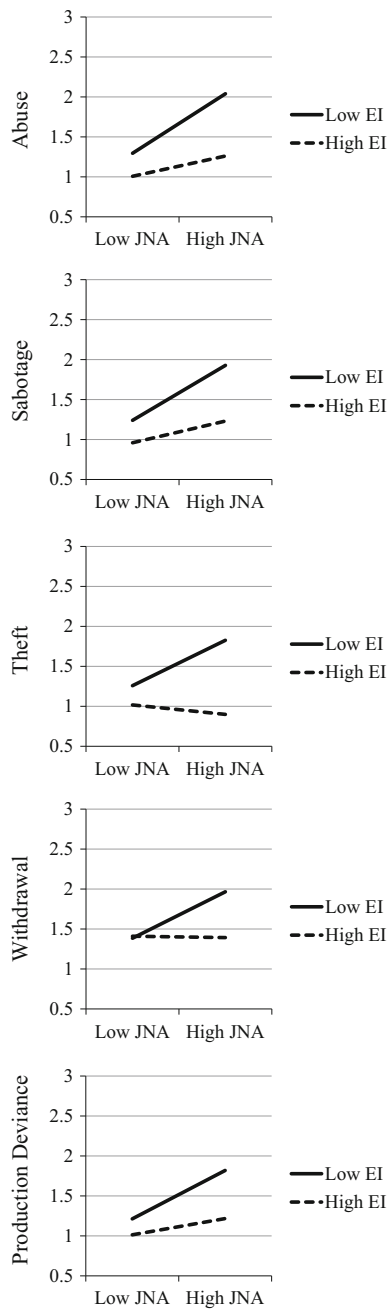


Fig. 1 Estimated means indicating that job negative affect (JNA) is a stronger predictor of abuse, sabotage, theft, withdrawal, and production deviance at lower (−1 SD), relative to higher (+1 SD), levels of work-related emotional intelligence (W-EI)

To simplify these analyses, we created a total CWB score by averaging across the CWB types (Barbaranelli et al. 2013; Berry et al. 2012). This CWB total score ($M = 1.40$; $SD = .63$) was reliable across items ($\alpha = .98$) and subscales ($\alpha = .96$).

We then performed three multiple regressions parallel to those reported in Table 2 (Aiken and West 1991), but with total NEAT scores replaced by one particular branch (e.g.,

Table 3 Simple slope results: job negative affect as a predictor of counterproductive work behaviors at low (−1 SD) versus high (+1 SD) levels of emotional intelligence (W-EI)

CWB type	Level	β	SE	t	p
Abuse	Low W-EI	.53	.09	5.48	<.001
	High W-EI	.18	.12	1.43	.156
Sabotage	Low W-EI	.51	.10	5.02	<.001
	High W-EI	.19	.13	1.42	.160
Theft	Low W-EI	.43	.09	4.42	<.001
	High W-EI	−.09	.13	−.77	.445
Withdrawal	Low W-EI	.47	.11	4.23	<.001
	High W-EI	.00	.14	.01	.991
Prod. deviance	Low W-EI	.50	.10	4.88	<.001
	High W-EI	.17	.13	1.25	.329

β beta (standardized), SE standard error, t t-value, p p value

perception). In the regression involving NEAT perception scores, the JNA by Perception interaction was significant, $t = -2.80$, $p = .006$, $\beta = -.20$. However, the JNA by Understanding interaction was also significant in the second regression, $t = -2.40$, $p = .019$, $\beta = -.19$, and the JNA by Management interaction was significant in the third, $t = -2.18$, $p = .032$, $\beta = -.19$. These results suggest that all components of W-EI matter, but perhaps in part because they all tap global W-EI (Krishnakumar et al. 2016). To provide results relevant to the last point, we computed residual scores for each branch that controlled for overall NEAT levels (Robinson 2007). None of these residual scores interacted with JNA to predict CWB tendencies, $ps > .150$. Accordingly, global W-EI seems to be the most pertinent CWB-protective factor.

Distributional considerations

Average levels of CWB tend to be fairly low, given their problematic nature (Dalal 2005). As a consequence, CWB distributions are typically skewed to some extent (Bennett and Robinson 2003). Nonetheless, researchers prefer to work with untransformed CWB means (Berry et al. 2007), possibly because transformations change the interpretation of the phenomenon to some extent (Tabachnick and Fidell 2007). In addition, regression-based procedures tend to be robust to moderate violations of normality (van Belle 2002).

Nonetheless, these issues deserve further comment. Micceri (1989) likened the normal distribution to a unicorn because it is not frequently found in nature. Consistent with this idea, Blanca et al. (2013) found that skew statistics routinely varied from −2.49 to 2.33 and kurtosis statistics routinely varied from −1.92 to 7.41 for the variable

distributions that they examined. One therefore needs some rules of thumb for how much skew or kurtosis needs to be present before alternative, often less powerful (O'Connor 2006), procedures are considered. Curran et al. (1996) suggest that skew values in the neighborhood of |2| are consistent with moderate normality as are kurtosis values in the neighborhood of |7| (also see Muthen and Kaplan 1985; van Belle 2002). By these rules of thumb, all CWB distributions have acceptable levels of kurtosis (abuse: 2.96; sabotage: 3.83; theft: 4.68; withdrawal: 1.32; production deviance: 3.71; total score: 3.41) and somewhat acceptable levels of skew (abuse: 1.96; sabotage: 2.21; theft: 2.46; withdrawal: 1.46; production deviance: 2.13; total score: 2.09). Accordingly, the multiple regression results presented above should be considered valid, especially given that departures from normality tend to reduce rather than increase power (Curran et al. 1996; Tabachnick and Fidell 2007).

We did, however, re-run the analyses by log-transforming the CWB scores, as log-transformations are frequently used to reduce positive skew (e.g., Ratcliff 1993). The log-transformations tended to reduce both skew (average skew = 1.58) and kurtosis (average kurtosis = 1.55) and resulted in parallel JNA by W-EI interactions, with interaction term p values ranging from .001 to .092. In an analysis of log-transformed total CWB scores, for example, the JNA by W-EI interaction was significant, $t = -2.23$, $p = .028$, $\beta = -.16$, and JNA was a stronger predictor at low (-1 SD), $t = 5.39$, $p < .001$, $\beta = .54$, relative to high ($+1$ SD), $t = 1.68$, $p = .096$, $\beta = .22$, levels of the W-EI continuum. These follow-up analyses corroborate the idea that job negative affect is a less consequential predictor of CWBs among emotionally intelligent employees.

Discussion

The findings support an affect-related perspective on CWBs (e.g., Fox and Spector 1999) in that employees who experienced more JNA were also more prone to CWBs. This was true for a diversity of CWBs, including those that involved acts of commission (e.g., sabotage) and omission (e.g., withdrawal). Of importance, however, these relationships were not significant at a high level of W-EI. Thus, at least certain people—namely, those high in W-EI—can tolerate feeling poorly at work without acting poorly at work. In addition to suggesting that the pernicious effects of JNA are not inevitable, our results suggest that W-EI might be a particularly important set of abilities for jobs that are very stressful, such as law enforcement or emergency management. The results may also have implications for understanding the locus of EI training benefits (Dassborough and Ashakansy 2003). Our results suggest that

such programs likely work because they teach skills related to tolerating JNA without acting impulsively.

The interactive results are also informative in another way. Although one might tout the advantages of W-EI, it must be recognized that boundary conditions for such benefits were evident. Specifically, there tended to be modest relationships between W-EI and the CWB measures among employees lucky enough to experience low levels of negative affect at their jobs. Such results make sense and again suggest that W-EI might be particularly important for stressful jobs or those associated with high JNA. This perspective on the results comports with other suggestions that EI may be particularly important for certain jobs (e.g., those in which emotion labor is expected: Joseph and Newman 2010) relative to others.

Additional considerations and broader implications

A number of studies have examined potential relationships between EI and job performance and relevant findings can be characterized as mixed (Farh et al. 2012; Joseph and Newman 2010). Part of the problem here is that EI may be more important in the prediction of extra-role behaviors (e.g., CWBs) than in the prediction of job (or task) performance narrowly defined (Ashkanasy and Daus 2005). Additionally, however, general-purpose measures of EI use materials that have uncertain relevance to the work domain (Roberts et al. 2010). By using work-related scenarios, in contrast, the W-EI measure should fare better in predicting work-related outcomes according to the situation judgment test (Whetzel and McDaniel 2009) and frame-of-reference (Shaffer and Postlethwaite 2012) literatures. The present results are consistent with this point as are additional results reported by Krishnakumar et al. (2016). In the latter investigation, W-EI (as assessed by the NEAT) predicted teamwork performance and leadership performance even after controlling for personality traits and cognitive ability. We suspect, but did not show, that similar forms of discriminant validity would characterize the present findings. In any case, the NEAT should have particular value in predicting workplace outcomes relative to more general EI measures such as the MSCEIT (Lievens and Chan 2010; Roberts et al. 2010).

Further, other ability EI measures have been criticized because the relevant subscales do not correlate highly enough with each other to suggest a global EI factor (Zeidner et al. 2009). This was not true of the W-EI measure in that subscale inter-correlations were higher than $r = .55$. This feature of the test is desirable in assessing a global EI factor (Austin 2010) and, in fact, a global W-EI factor was implicated in the present results (e.g., as apparent in secondary analyses). Accordingly, we suggest that it will often make sense to average across the NEAT's

subscales when seeking to understand how W-EI functions at work.

We asked employees to indicate how frequently they had experienced negative affective states at work. According to the affect-mediation model of Fox et al. (2001), such reports should capture the influence of multiple job stressors such as organizational constraints, interpersonal conflict at work, and perceived injustices. If so, W-EI should also moderate the influence of such stressors on CWB, though this remains to be determined. In addition, though, it is likely that reports of JNA were influenced by dispositional factors as well. This is quite likely (Spector 2011) and suggests that it is not sufficient to recommend that people low in W-EI seek low stress jobs. Instead, we suggest that low W-EI workers should be prone to CWBs when they experience JNA regardless of whether that JNA is caused by objective features of the job or not.

There are important differences among CWB types. For example, some target individuals and others target the organization as a whole (Fox et al. 2007). In addition, CWBs differ notably in their frequency (Matta et al. 2014). It is for these reasons, among others (Bowling and Gruys 2010), that we analyzed CWB types separately. However, one should recognize that workers who engage in one form of CWB tend to engage in other forms of CWB as well (Gruys and Sackett 2003). Because this is true, we emphasize the convergent nature of the interactions rather than their statistical independence.

When one assessment method is used for both a predictor and an outcome, the size of the relationship can be inflated by method factors. This potential concern does not apply to the magnitude of relations between W-EI and CWB that we found in that W-EI was assessed as an ability, not an opinion about the self (Mayer et al. 2008). However, some justification for assessing CWBs by self-report seems desirable. Spector and Fox (2002) note that many, if not most, CWBs are covert in nature (e.g., theft, which is typically done without others watching) and these covert behaviors are probably best assessed by self-report, provided that such reports are treated confidentially, as we did. Even so, Berry et al. (2007) found strong correlations between self-reports of work deviance and informant reports. For this reason, one would expect similar results had we obtained supervisor or coworker reports of CWB (Berry et al. 2012). Regardless, it may be desirable to replicate the present results using informant-based reports in future research.

Emotional intelligence, we think, promotes greater flexibility and choice in the context of aroused emotions (Wranik et al. 2007). This does not mean that people higher in W-EI will always be less influenced by their emotions. Indeed, they may choose to follow their emotions when the resultant behaviors seem beneficial, as in the case of

organizational citizenship behaviors (Spector and Fox 2002). Furthermore, there may even be some circumstances under which high W-EI people engage in CWBs more frequently. Specifically, if a high W-EI person views CWBs as strategically useful, which can happen among Machiavellians, they may engage in such behaviors more often (Cote et al. 2011). These behaviors would be strategically chosen, however, rather than emotionally reactive (Cote et al. 2011). Because most CWBs are emotionally reactive (Spector et al. 2006b), and most people are low or moderate in Machiavellianism (Jones and Paulhus 2009), the relationship between W-EI and CWBs will tend to be negative rather than positive. The present results are consistent with this idea (also see Brackett and Mayer 2003; Lopes et al. 2005).

Limitations

The CWB levels observed were not very extreme. For example, the highest levels (found among those high in JNA and low in W-EI) were approximately 2 along a 1 (never) to 5 (every day) scale. The high CWB participants are not inveterate delinquents then. Regardless, even lower levels of CWB can be disruptive to organizational functioning (LeBlanc and Kelloway 2002) and some of the acts involved—such as physical abuse, theft, and sabotage—should be treated very seriously by organizations (Bowling and Gruys 2010).

The sample consisted of university students working at least 20 h per week. This sample cannot be considered representative of all employees, but it could be considered representative of young part-time employees, a fairly substantial component of the U.S. workforce (Conway and Briner 2002). It is also an important component of the workforce in that part-time employees, relative to full-time employees, are often equally committed to their jobs and equally valued by organizations (Johnson et al. 2008). In addition, Bennett and Robinson (2003) have called for CWB-focused research among part-time employees.

Some further sample-related points can be made. The students had diverse occupations, moderate to high levels of job autonomy, and reasonably long employment histories. These features at least encourage the idea that similar results would be found among non-student workers. This is particularly likely because the predictors of CWBs appear to be very similar among student and non-student workers (Berry et al. 2007). For example, Fox et al. (2001) found that relations among stressors, NA, and CWBs were practically identical in student and non-student samples. More generally, Highhouse and Gillespie (2009) have concluded that predictor/outcome relationships rarely vary by the nature of the sample in applied behavioral research. Accordingly, there are reasons for thinking that the present

findings would generalize. Nonetheless, further work with different samples (e.g., full-time workers) is warranted.

Conclusions

Job negative affect is a potent predictor of counterproductive work behaviors. We hypothesized that this would be less true at higher levels of work-related emotional intelligence than at lower levels. Interactions of this type were found for CWBs as diverse as abusive behaviors, production deviance, and withdrawal. Feeling poorly at work translates to acting poorly at work, these results suggest, primarily among people who lack the ability to make correct emotion-related inferences in the workplace.

Compliance with ethical standards

Conflict of interest All authors declare that they have no conflict of interest.

Ethical approval All procedures were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments.

Informed consent Informed consent was obtained from all individual participants included in the study.

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