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The Moderating Role of Negative Affect in the Relationship Between Counterproductive Work Behavior and Turnover Intentions: Evidence from the Steel Industry

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Abstract
Negative affectivity has been extensively recognized as a predictor of adverse workplace outcomes. However, its moderating influence on the relationship between counterproductive work behavior (CWB) and turnover intentions remains underexplored, especially in the case of very specific working conditions typical for heavy industry. A deeper understanding of this dynamic is essential for informing organizational strategies aimed at enhancing employee well-being and operational efficiency. This study investigates the moderating role of negative affect in the association between CWB and turnover intentions, to elucidate the impact of emotional dispositions on workplace behavior. Employing a correlational research design, data were collected from employees in the Iranian steel industry. The study utilized validated instruments, including the Turnover Questionnaire, the Job-Related Affective Well-Being Scale, and the Counterproductive Work Behavior Inventory. To analyze the data, the following statistical techniques were employed: hierarchical regression, moderation analysis, and Structural Equation Modeling (SEM). The findings reveal that negative affect significantly moderates the relationship between CWB and turnover intentions. Specifically, individuals exhibiting higher levels of negative affect were more prone to engage in CWBs, which in turn were positively associated with increased turnover intentions and reduced workplace satisfaction. These results contribute to the theoretical discourse on the emotional determinants of organizational behavior, specifically in the context of the steel industry's very specific working conditions, highlighting the critical role of affective traits in shaping employee conduct. Furthermore, the study offers practical implications for organizational policy, advocating for targeted interventions in emotional regulation, conflict management, and the cultivation of a supportive work environment to mitigate counterproductive behaviors and reduce employee attrition.

Keywords
steel industry, heavy industry, negative effect, counterproductive work behavior, turnover intention

Introduction

Counterproductive Work Behavior (CWB) remains a central concern in organizational research due to its detrimental effects on productivity, workplace cohesion, and financial performance (Szostek et al., 2022; 2023; 2024). Behaviors such as theft, sabotage, verbal aggression, and non-cooperation disrupt organizational functioning and contribute to employee dissatisfaction (Christian & Ellis, 2014; Spector & Fox, 2002; Szostek et al., 2020; Lee et al., 2022). Despite extensive research, CWBs persist across industries, driven by a complex interplay of environmental stressors, personality traits, and affective dispositions (Grijalva & Newman, 2015). These phenomena do not occur in a very specific organizational environment of heavy industry, specifically the steel industry, which is the direct subject of investigation in the current research.

This complexity necessitates a shift from reactive management to proactive strategies that address underlying behavioral drivers. As organizations scale and operational complexity increases, the systemic impact of CWBs becomes more pronounced, reinforcing the need for comprehensive behavioral interventions.

While environmental factors such as job stress, conflict, and perceived injustice are well-established antecedents (Meier & Spector, 2013; Fida et al., 2014), individual traits—particularly negative affectivity—play a critical role. Defined as a stable tendency to experience negative emotions, negative affectivity predisposes employees to perceive their work environment unfavorably, increasing the likelihood of CWBs (Watson & Clark, 1984; De Clercq et al., 2021). Its influence extends beyond individual behavior, affecting team dynamics and organizational climate.

Measurement of CWBs often relies on self-reports and supervisor assessments, which are susceptible to bias and underreporting (Carpenter et al., 2021). Subtle behaviors, such as passive resistance or effort withdrawal, often go unnoticed, limiting the accuracy of workplace assessments. Addressing these limitations requires multi-source data collection and longitudinal designs to capture the full spectrum of CWBs and their antecedents.

A notable gap in the literature concerns the interaction between emotional traits and behavioral intentions—specifically, the moderating role of negative affectivity in the relationship between CWB and turnover intention. Turnover intention, a key indicator of organizational disengagement, has been linked to CWBs, particularly under emotional strain. However, the moderating effect of Negative Affect remains underexplored, especially in high-stress sectors such as manufacturing and heavy industry.

This study addresses this gap by examining how negative affect moderates the relationship between CWB and turnover intention in the Iranian steel industry. Given the emotional demands of such environments, understanding this interaction is essential for developing targeted interventions.

The paper contributes twofold: first, by clarifying the role of negative affectivity as a moderating variable in workplace behavior, with an empirical investigation conducted in the specific organizational environment of heavy industry; and second, by offering practical implications for international HRM, emphasizing emotional regulation to reduce CWBs and turnover.

To reach these contributions, a correlational study was conducted with steel industry employees using standardized instruments and Structural Equation Modeling (SEM) for hypothesis testing.

The paper is structured as follows: Section 2 reviews the literature and theoretical framework; Section 3 outlines the methodology; Section 4 presents the results; Section 5 discusses implications and future research directions.

Literature Review and Hypothesis Development

Theoretical Framework

Contemporary workplace environments have become increasingly complex and demanding, compelling organizations to continuously adapt to address emerging challenges. These challenges have been further amplified by the rapid digital transformation of organizational processes, which now permeates even traditionally relatively stable sectors such as heavy industry and manufacturing (Cramarenco et al., 2023; Lazaroiu et al., 2024a; 2024b; Kliestik et al., 2024). Within this evolving context, occupational stress emerges as a critical determinant of employee outcomes, originating from factors such as excessive workload, interpersonal conflict, and role ambiguity—all of which exert adverse effects on individual behavior (Anra & Setiawan, 2022; Lazaroiu & Rogalska, 2023).

Empirical evidence consistently demonstrates a robust positive association between job stressors and counterproductive work behaviors (CWB) (Striler et al., 2021; Meier & Spector, 2013), underscoring the relevance of stress-based theoretical frameworks in explaining deviant workplace conduct. Among these, Spector's (1998) job stress theory provides a particularly salient foundation for conceptualizing research variables in this domain. The theory posits that environmental stressors precipitate negative affectivity and other adverse emotional states—such as aggression and anxiety—which subsequently induce job strain. Job strain may manifest across psychological, physiological, or behavioral dimensions. This conceptualization aligns with the stimulus–response

paradigm, wherein stressors function as stimuli and strain constitutes the response. Within this framework, workplace incivility is often operationalized as a stressor, whereas CWB is a behavioral strain.

Behavioral strains serve as coping mechanisms, which may either directly attenuate stress (e.g., through problem-solving strategies or supervisory consultation) or alleviate associated negative emotions (e.g., via avoidance behaviors, substance use, or withdrawal from the work environment). The former approach is generally regarded as more adaptive and conducive to organizational functioning.

Given the pivotal role of emotional regulation in shaping workplace dynamics, it is imperative to investigate how specific affective states—particularly negative affect—mediate or moderate the relationship between stressors and CWBs. Furthermore, the interaction between turnover intention and CWBs remains insufficiently explored, especially with respect to the moderating influence of negative affect. Elucidating these relationships has significant implications for the development of managerial interventions to mitigate dysfunctional behaviors and foster a resilient organizational culture.

Turnover Intention and Its Behavioral Consequences

Job stressors—such as role ambiguity, role conflict, excessive workload, job constraints, and interpersonal discord—are well-documented antecedents of counterproductive work behaviors (CWB) (Chen & Spector, 1992; Fox & Spector, 1999; Fox et al., 2001; Miles et al., 2002). These stressors exert a profound influence on employees' turnover intentions, frequently culminating in elevated attrition rates. *Turnover intention*, defined as an employee's deliberate and conscious decision to leave the organization, typically arises from emotional dissatisfaction and persistent workplace stressors (Chen et al., 2011). Contemporary labor market dynamics—characterized by talent scarcity and demographic shifts such as workforce aging—further exacerbate turnover risks.

Turnover intention occupies a critical position in both theoretical discourse and managerial practice due to its substantial economic implications, including recruitment and training costs, productivity losses, and organizational instability. Given the considerable costs associated with voluntary turnover, identifying and understanding the determinants of turnover intention is imperative, particularly in highly competitive, rapidly evolving business environments. Consequently, the early detection of turnover indicators constitutes a strategic priority for organizations seeking to mitigate these risks.

A growing body of literature highlights the significant interplay between counterproductive behaviors—such as theft, sabotage, and interpersonal aggression—and turnover intention (Wang et al., 2021; Pearson, 2010; Griffin, 2010; Laschinger et al., 2009). These behaviors are closely associated with employees' affective states, particularly negative emotions such as anger, anxiety, and stress. For instance, workplace ostracism frequently precipitates adverse emotional responses, which mediate the relationship between organizational stressors and both CWB and turnover intention (Zhu & Zhang, 2021; Xue et al., 2022). Moreover, emotional exhaustion and job-related conflict consistently emerge as salient predictors of turnover intention, underscoring the centrality of psychological well-being in attenuating the detrimental effects of occupational stress and job dissatisfaction.

Negative Affect and Its Role in Workplace Behavior

In recent years, scholarly attention has increasingly focused on the influence of affective states—particularly positive and negative affect—on individual performance and organizational outcomes (Choi et al., 2024; Hung et al., 2022). Positive affect is generally associated with heightened enthusiasm, stronger interpersonal relationships, and enhanced problem-solving capabilities. Conversely, negative affect correlates with psychological distress, diminished stress-coping capacity, and a greater propensity for counterproductive work behaviors (CWB) (Elshaer et al., 2022; Shiota et al., 2021; Spindler et al., 2009).

Empirical evidence consistently demonstrates a strong association between negative affect and CWB, with employees experiencing elevated levels of negative affect more likely to engage in disruptive behaviors such as theft, sabotage, and interpersonal conflict (Shen & Lei, 2022; Zhu & Zhang, 2021). This relationship is well explained by the stressor–emotion model, which posits that job stressors intensify negative emotional states, thereby precipitating CWBs as maladaptive coping mechanisms (Kim et al., 2023). Job demands—including excessive workload, role ambiguity, and interpersonal discord—are among the most salient stressors that exacerbate negative affect and, consequently, increase the incidence of CWBs (Fox & Spector, 1999; Miles et al., 2002). Beyond their immediate behavioral manifestations, CWBs undermine organizational performance and perpetuate a toxic workplace climate, reinforcing a self-sustaining cycle of negativity (Spector & Fox, 2005).

Negative affect also emerges as a significant predictor of turnover intention. Employees who frequently experience adverse emotional states exhibit a heightened likelihood of voluntary separation (Chen et al., 2011). Turnover intention often mediates the relationship between negative workplace experiences and broader organizational outcomes, including reduced employee engagement and productivity (Lin & Liu, 2017). Factors such as workplace ostracism, emotional exhaustion, and perceived injustice are key antecedents of negative affect, further amplifying CWBs and turnover intentions (Zhu & Zhang, 2021; Chung & Yang, 2017; Caesens &

Stinglhamber, 2019). For instance, ostracized employees may disengage from their roles, resort to counterproductive behavior, or ultimately seek alternative employment to alleviate emotional distress (Ferris et al., 2015).

The interplay between negative affect, CWBs, and turnover intention carries substantial implications for organizational dynamics. Employees who exhibit CWBs or intend to leave impose indirect costs by disrupting team cohesion, increasing workloads for remaining staff, and inflating recruitment and training expenditures (Meier & Spector, 2013). These disruptions underscore the strategic necessity of addressing emotional well-being within organizational settings. Evidence-based interventions—such as emotional intelligence development, supportive leadership practices, and inclusive workplace policies—have demonstrated efficacy in mitigating negative affect and its adverse consequences (Goleman, 1998; Ashkanasy & Daus, 2005).

Collectively, these findings highlight the imperative of fostering psychological resilience and emotional regulation among employees. Proactive measures aimed at reducing negative affect can enhance workplace harmony, lower turnover rates, and promote a culture of psychological safety, thereby contributing to sustainable organizational performance.

Exploring the Moderating Impact of Negative Affect on the Relationship Between Counterproductive Work Behaviors and Turnover Intention

Recent scholarship has increasingly examined the mediating and moderating roles of affective states—particularly negative affect—in shaping workplace behaviors and outcomes (Koopman et al., 2021; James et al., 2021; Zhou et al., 2015). Negative affect, encompassing emotions such as anger, frustration, and anxiety, is consistently associated with counterproductive work behaviors (CWBs) (Shen & Lei, 2022; Zhu & Zhang, 2021). Employees exhibiting elevated negative affect are more likely to engage in disruptive behaviors, including theft, sabotage, and interpersonal conflict. This relationship is well explained by the stressor–emotion model, which posits that job stressors intensify negative emotional states, thereby precipitating CWBs as maladaptive coping mechanisms (Kim et al., 2023).

Moreover, negative affect constitutes a significant predictor of turnover intention, defined as an employee's deliberate inclination to leave the organization. Persistent negative emotions erode job satisfaction, thereby increasing the risk of attrition. Empirical evidence demonstrates that negative affect mediates the relationship between workplace stressors and turnover intention, with emotionally strained employees exhibiting a heightened propensity to consider voluntary separation (Chen et al., 2011). Workplace ostracism, for instance, has been shown to amplify feelings of anger and frustration, resulting in elevated CWBs and stronger turnover intentions (Zhu & Zhang, 2021; Chung & Yang, 2017). Similarly, emotional exhaustion—often a consequence of prolonged stress—exacerbates negative affect, reinforcing the link between job stressors and turnover intention (Caesens & Stinglhamber, 2019).

The theoretical and empirical evidence underscores the critical role of affective states in shaping organizational dynamics. The stressor–emotion framework provides a robust foundation for understanding these interactions, particularly in high-stress environments. Negative affect not only amplifies the likelihood of CWBs as a coping strategy but also diminishes job satisfaction, thereby increasing turnover risk. These dual effects highlight the strategic importance of examining negative affect as a moderating variable in the relationship between CWBs and turnover intention.

Building on these insights, the present study investigates the moderating role of negative affect in this relationship, extending prior research by incorporating both self-reported and colleague-reported measures of CWB. Accordingly, the following hypotheses are proposed:

Hypothesis 1: Negative affect moderates the relationship between turnover intention and counterproductive work behavior (self-reported).

Hypothesis 2: Negative affect moderates the relationship between turnover intention and counterproductive work behavior (colleague-reported).

Methods

General Background

This study explores the relationship between counterproductive work behavior (CWB) and turnover intentions, with particular emphasis on the moderating influence of negative affectivity. Employing a cross-sectional research design, the investigation draws on data collected from employees operating across a broad spectrum of organizational sectors. A non-probabilistic sampling strategy was adopted to ensure sample heterogeneity, thereby enhancing the generalizability of findings across diverse workplace environments.

The empirical framework integrates psychometrically validated instruments, including Likert-type scales, to operationalize key constructs such as negative affect, CWB, and turnover intention. Both self-reported and peer-

reported data were used to mitigate common-method bias and enhance the reliability of the results. All measurement tools underwent rigorous reliability and validity assessments prior to statistical analysis.

By examining the emotional antecedents of workplace deviance and voluntary turnover, this research contributes to the literature on organizational behavior and human resource management. It offers nuanced insights into the psychological mechanisms underpinning employee disengagement and provides evidence-based implications for managerial interventions aimed at fostering healthier work environments.

Structural Equation Models

To further validate the theoretical model and test the moderating effect of negative affectivity, SEM was employed in AMOS software. The SEM approach was chosen due to its ability to assess multiple relationships simultaneously and to provide model fit indices, ensuring robust analysis. What is more, the SEM framework is currently considered the most commonly accepted method for incorporating latent variables (Rollnik-Sadowska et al., 2023; Adamek & Solarz, 2023; Łucjan et al., 2024; Rudawska & Nickell, 2024; Chatzoudes et al., 2024; Zada et al., 2024).

Given the study's focus on the moderating role of negative affectivity and the complex nature of the hypothesized relationships, SEM enabled a nuanced examination of the theoretical framework while ensuring robust findings. Model fit was evaluated using several indices, including χ^2/df, RMSEA, CFI, and TLI, where acceptable thresholds are $\chi^2/df < 3$, RMSEA < 0.08, and CFI and TLI > 0.90.

Hierarchical Regression Analysis

In addition to SEM, hierarchical regression analysis was performed using SPSS software to examine the moderating effect of negative affectivity on the relationship between turnover intention and CWBs. Interaction terms were created by centering the predictor and moderator variables to reduce multicollinearity.

Population and sample selection of subjects

The participants were 319 employees of the Iranian steel industry. Due to limited direct access to employees through the organization, a convenience sampling method was utilized. The sample size was calculated using Cochran's formula to ensure adequate representation. Of the participants, 96% were male, 89% were married, and 83% held a bachelor's degree or higher. The average age of participants was 39.42 years (SD = 7.28), and the average tenure was 14.48 years (SD = 5.69).

Instruments: Their Reliability and Validity

To measure the key variables in this study, several established and reliable instruments were utilized, including: a) Turnover Questionnaire: To measure turnover intention, the questionnaire introduced by Takleab et al. (2005) was utilized. This questionnaire consists of two questions with a 7-point response scale (1 = Strongly Disagree to 7 = Strongly Agree). The second question is reverse-scored to control for response bias (7 = Strongly Disagree to 1 = Strongly Agree). Takleab et al. (2005) confirmed the construct validity of these two questions through confirmatory factor analysis, ensuring the stabilization of error variance. The questionnaire was translated into Persian by Golparvar et al. (2011) and adapted for use in this study through a rigorous, two-step process: translation followed by expert validation, ensuring content accuracy and cultural relevance. Details of the reliability and validity coefficients are provided in Table 1.

Tab. 1. Psychometric Characteristics of Research Instruments

Research Instrument	Developer	Translator (Iran)	Reliability in initial Study	Guttman	Cronbach's Alpha	Test-Retest	Validity Coefficient
Turnover Intention	Tekleab et al., (2005)	Golparvar et al., (2011)	0.86	0.76	0.77	0.79	0.55
JAWS	Van Katwyk et al. (2000),	Sabahi et al., (2009)	0.94	0.81	0.84	0.83	0.55
CBI	Fox, Spector, & Miles (2001)	Sabahi et al., (2009)	0.78	0.79	0.84	0.81	0.59

Job-Related Affective Well-Being Scale (JAWS): The Job-Related Affective Well-Being Scale (JAWS), developed by Van Katwyk et al. (2000), measures a wide range of emotions employees experience in the workplace. The scale consists of 30 items, divided into two subscales: 15 items measuring displeasurable affect and 15 items measuring pleasurable affect. Responses are recorded using a five-point Likert scale ranging from "Never" to "Almost Always." The reliability and validity of the questionnaire have been reported as acceptable in

prior studies, including Sabahi et al. (2009). Details of the reliability and validity coefficients for this scale are presented in Table 1.

The Counterproductive Work Behavior Inventory (CBI) is a questionnaire developed by Fox et al. (2001) to measure counterproductive behaviors. It assesses two primary dimensions: organizationally directed counterproductive behaviors (21 items) and interpersonally directed counterproductive behaviors (21 items). An additional 3 items evaluate behaviors that either directly harm organizational performance or indirectly impact individuals within the organization. The CBI was translated into Persian by Sabahi et al. (2014). Responses are recorded on a five-point Likert scale ranging from "Never" to "Every Day." Reliability and validity coefficients for the CBI are included in Table 1.

As shown in Table 1, the research instruments exhibit satisfactory levels of reliability and validity. For reliability, the acceptable threshold is above 0.70. The Job-Related Affective Well-Being Scale (JAWS) demonstrates a high-reliability coefficient of 0.94 for the Negative Affect subscale, as reported by Sabahi et al. (2009). In this study, the reliability coefficients range from 0.81 to 0.84, indicating that negative affectivity, as a stable personality trait, exhibits high reliability over time. Test-retest reliability coefficients underscore its enduring nature.

Guttman and Cronbach's alpha coefficients further confirm the scale's internal consistency, with values exceeding the acceptable threshold of 0.70. Temporal and item consistency coefficients for counterproductive behavior measures are also above 0.70. The self-assessed counterproductive behavior scale used in this study exhibits a test-retest reliability coefficient of 0.84, reflecting very high stability over time. Similarly, the coworker-assessed counterproductive behavior scale demonstrates reliability coefficients exceeding 0.70, as detailed in Table 1.

Procedure and analysis strategy

The research employed a structured data collection and analysis process to ensure the validity and reliability of findings. Data collection was conducted through a survey targeting employees from various organizational settings. Participants were assured of anonymity and confidentiality to encourage honest and accurate responses. To control for potential biases, such as social desirability, the survey incorporated validated scales for measuring key variables, including negative affect, counterproductive work behaviors (CWB), and turnover intention (Koopman et al., 2021; Chen et al., 2011). Additionally, a multi-source design was used, collecting both self-reported and colleague-reported data to enhance robustness.

Data analysis followed a multi-stage approach. First, preliminary checks, including descriptive statistics and reliability analyses, were conducted to assess the data's quality and internal consistency. Structural equation modeling (SEM) was then employed to test the hypothesized relationships, as it allows for simultaneous evaluation of direct and moderating effects while accounting for measurement error (Zhou et al., 2015). Moderation analysis was performed using interaction terms to examine the conditional effects of negative affect on the relationship between CWB and turnover intention. The statistical software used for these analyses ensured accuracy and facilitated the interpretation of complex interrelations among variables.

Results

Descriptive Analysis of Research Variables

Table 2 presents the descriptive statistics for the primary variables under investigation. As all constructs were measured using Likert-type scales, direct comparison of mean scores across instruments is methodologically appropriate.

Regarding counterproductive work behavior directed toward colleagues, self-reported scores are notably higher than those from peer evaluations. This discrepancy suggests that individuals may acknowledge behaviors that are either subtle or not readily observable by coworkers, highlighting potential limitations in third-party assessments. In contrast, the mean scores for counterproductive behavior directed toward the organization exhibit minimal divergence between self-reports and colleague reports, indicating greater inter-rater consistency in this domain.

The highest coefficient of variation is observed for colleague-reported organizational CWB, reflecting greater dispersion in perceptions across respondents. Conversely, the lowest coefficient of variation is associated with self-reported interpersonal CWB, suggesting more uniformity in individual self-assessments. Furthermore, the lowest standard error of measurement is for self-reported turnover intention, indicating a relatively high degree of precision in measuring this construct.

Tab. 2. Summary of Psychometric Measures (Descriptive data)

Measurement Type	Scale	Mean	Standard Deviation	Minimum	Maximum	Coefficient of Variation	Measurement Error
Self	Negative affect on the job	29.84	7.92	10	50	0.26	3.16
Self	Turnover intention	11.29	4.43	7	29	0.39	2.12
Colleague	Turnover intention	11.88	4.76	7	29	0.40	2.28
Self	Counterproductive behavior toward colleagues	27.02	5.72	22	62	0.21	2.49
Colleague	Counterproductive behavior toward colleagues	25.93	8.47	22	85	0.32	3.69
Self	Counterproductive behavior toward the organization	29.84	7.11	21	69	0.23	3.09
Colleague	Counterproductive behavior toward the organization	29.43	10.92	21	72	0.37	4.75

Correlation Analysis of Research Variables

Table 3 reports the internal correlation coefficients among the key research variables. Several correlations are notably strong, particularly in the domain of counterproductive work behavior (CWB) directed toward colleagues, whether assessed via self-report or peer-report. In both cases, coefficients exceed 0.70, suggesting high internal consistency and supporting the reliability of the measurement instruments.

Significant positive associations are also observed between negative affectivity and turnover intention, particularly within self-reported data. Furthermore, self-reported measures of CWB—both interpersonal and organizational—demonstrate statistically significant correlations with negative affect and turnover intention, underscoring the psychological interdependencies among these constructs.

Notably, self-reported turnover intention shows stronger correlations with other variables than peer-reported assessments, suggesting that individuals' subjective evaluations capture more nuanced emotional and behavioral dynamics. Overall, the majority of internal correlations are statistically significant, reinforcing the robustness of the measurement model and the theoretical coherence of the proposed relationships.

This analysis provides empirical support for the hypothesized associations and highlights the relevance of affective states in shaping workplace behavior and turnover propensity.

Tab. 3. Internal Correlation Coefficients Between Research Variables

	Negative affect	Turnover intention (Self)	Turnover intention (Colleague)	CWB (Self)	CWB (Colleague)	CWB towards the organization (Self)	CWB towards the organization (Colleague)	CWB towards colleagues (Self)	CWB towards colleagues (Colleague)
Turnover intention (Self)	0.28**	-	-	-	-	-	-	-	-
Turnover intention (Colleague)	0.11	0.31**	-	-	-	-	-	-	-
CWB (Self)	0.32**	0.42**	0.19*	-	-	-	-	-	-
CWB (Colleague)	0.22**	0.17*	0.49**	0.25**	-	-	-	-	-
CWB towards the organization (Self)	0.33**	0.48**	0.22**	0.82**	0.21**	-	-	-	-
CWB towards the organization (Colleague)	0.18*	0.13*	0.43**	0.25**	0.84**	0.25**	-	-	-
CWB towards colleagues (Self)	0.27**	0.42**	0.12	0.79**	0.29**	0.61**	0.19*	-	-
CWB towards colleagues (Colleague)	0.18**	0.14*	0.49**	0.27**	0.95**	0.15*	0.81**	0.28**	-

**=P<0.01

Moderation Analysis and Structural Model Evaluation

Table 4 presents the results of the moderation analysis examining the role of negative affect in the relationship between turnover intention and counterproductive work behavior (CWB). When turnover intention is assessed via colleague reports, neither the main effect nor the interaction term is statistically significant. However, when

turnover intention is self-reported, the direct effect remains non-significant, while the interaction effect is statistically significant.

Tab. 4. Negative Affect's Moderating Effect on the Relationship Between Turnover Intention and Counterproductive Behavior

Moderating Analysis	Main Effect	Interaction Effect	Criterion: Self-Reported CWB				Criterion: Colleague-Reported CWB			
			b	B	Adjusted R^2	ΔR^2	b	B	Adjusted R^2	ΔR^2
First	Turnover intention (Self-Reported)		05.-0	09.-0	19.0	-	15.-0	15.-0	01.0	-
	Negative affect		47.-0	28.-0	23.0	04.0	19.-0	49.-0	04.0	04.0
		Turnover intention × Negative affect (Self-Reported)	03.0	79.**0	27.**0	04.**0	13.0	41.0	05.0	01.0
Second	Turnover intention (Colleague-Reported)		08.0	22.0	04.0	-	25.0	29.0	24.0	-
	Negative affect		59.0	35.0	11.0	07.0	69.0	04.0	25.0	01.0
		Turnover intention × Negative affect (Colleague-Reported)	03.-0	14.-0	11.0	00.0	11.0	19.0	25.0	0.00

P=**<0.01

This pattern—where the interaction term is significant despite non-significant main effects—is particularly noteworthy. Such findings cannot be adequately captured by exploratory regression techniques (e.g., forward, backward, or stepwise selection) but require hierarchical regression modeling, which allows the inclusion of multiplicative interaction terms. This approach is conceptually analogous to a two-way ANOVA, wherein a significant interaction effect may exist independently of the main effects. Some scholars advocate prioritizing the interpretation of interaction terms in hierarchical regression, followed by examining main effects within the interaction context.

In the present study, the analysis followed conventional practice by first evaluating main effects and subsequently testing the interaction term. The significant interaction effect accounts for 27% of the variance in CWB and contributes an additional 4% beyond the variance explained by the main effects alone. As shown in Table 4, when CWB is self-reported, the standardized regression coefficient for the interaction term reaches 0.79, indicating a substantial moderating influence of negative affect on the turnover intention–CWB relationship.

This suggests that individuals experiencing elevated negative affect, when contemplating job departure, are more likely to engage in counterproductive behaviors. Figure 1 illustrates this interaction: turnover intention (predictor) is plotted on the x-axis, and self-reported CWB (outcome) on the y-axis. The solid line represents individuals with high negative affect, while the dashed line corresponds to those with low negative affect. The figure reveals that CWB increases markedly among individuals with low negative affect when turnover intention is high, whereas this trend is less pronounced among those with high negative affect. These findings imply that negative affect amplifies the behavioral consequences of turnover intention.

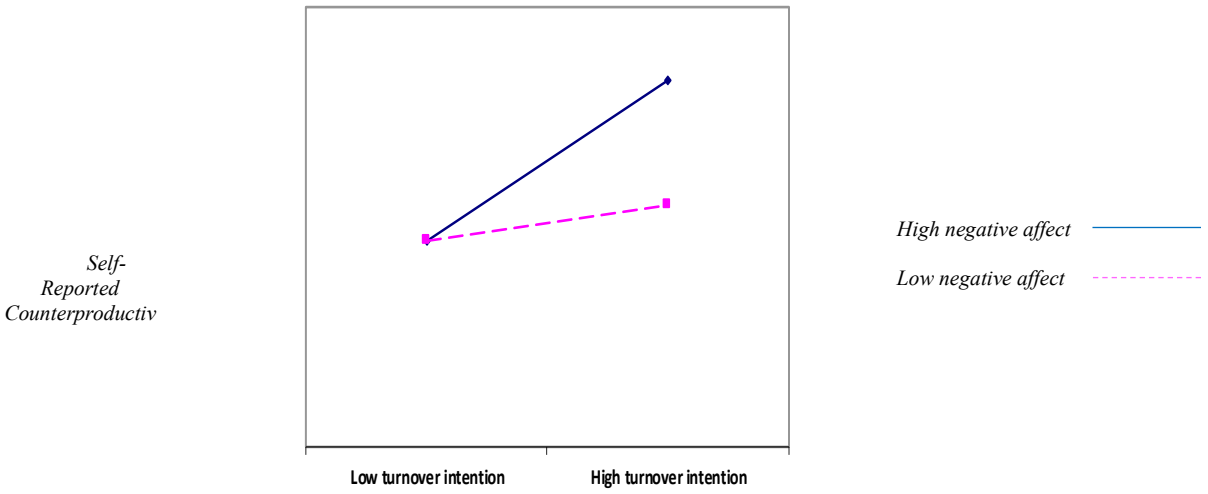

Fig 1. Moderating the Role of Negative Affect in Turnover Intention and CWB

Discussion

The principal contribution of this study lies in elucidating the moderating role of negative affectivity in the relationship between turnover intention and counterproductive work behaviors (CWBs) in the case of a very

specific steel production industry. The findings demonstrate that negative affectivity significantly amplifies CWBs, particularly when turnover intention is elevated. This result is consistent with prior research (e.g., Spindler et al., 2009), which has similarly identified negative affectivity as a catalyst for maladaptive workplace behaviors.

The significant interaction effect observed in the hierarchical regression analysis indicates that employees experiencing high levels of negative affectivity are more prone to engage in CWBs when contemplating job departure. This supports Beck's (1967) cognitive theory, which posits that individuals with heightened negative affectivity are more likely to interpret workplace events pessimistically and respond disproportionately to perceived stressors. Such cognitive distortions may manifest in retaliatory or disruptive behaviors, particularly under conditions of psychological strain.

From a managerial perspective, these findings underscore the importance of implementing organizational interventions that address both internal and external sources of emotional distress. Internally, fostering positive interpersonal relationships and promoting employee well-being can mitigate the adverse effects of negative affectivity (Striler et al., 2021; Singh et al., 2023; Thompson & Bruk-Lee, 2021; Chang & Smithikrai, 2010). Externally, reducing work-family conflict may further alleviate emotional strain and reduce the propensity for CWBs (Selvarajan et al., 2019).

An intriguing aspect of the analysis is the lack of significant effects when turnover intention is assessed via colleague reports. This suggests that external evaluations may fail to capture the subjective emotional states that drive counterproductive behavior, reinforcing the value of self-report measures in assessing affective and behavioral constructs. For practitioners, this highlights the need to incorporate self-assessment tools into organizational diagnostics to obtain a more accurate understanding of employee sentiment and behavioral risk.

The moderating role of negative affectivity aligns with the existing literature, which suggests that individuals high in negative affectivity exhibit dichotomous thinking, perceiving moderately adverse events as severely negative (Beck, 1967). This cognitive bias increases the likelihood of impulsive and maladaptive responses to organizational challenges. The present findings further support the notion that negative emotional states influence perceptions of job-related stress and behavioral outcomes, particularly in the context of turnover intention (Fida et al., 2015; Zhu & Zhang, 2021).

Moreover, the data indicate that low levels of negative affectivity attenuate the relationship between turnover intention and CWBs, emphasizing the importance of cultivating a psychologically supportive work environment. Spector's (1998) affective model of workplace deviance suggests that negative affectivity functions as a trigger for behavioral arousal, which is necessary for the enactment of CWBs. This mechanism is conceptually similar to Schachter's two-factor theory (Aronson et al., 2005), wherein emotional arousal interacts with cognitive interpretation to produce behavioral outcomes. Without the arousal induced by negative affectivity, individuals may lack the impetus to engage in deviant workplace behaviors.

In conclusion, this study highlights the pivotal role of individual emotional traits—particularly negative affectivity—in shaping workplace behavior. The findings offer actionable insights for organizational leaders and human resource professionals, suggesting that emotional regulation strategies and targeted interventions can play a critical role in mitigating CWBs and reducing employee turnover.

Conclusions

This study underscores the pivotal role of negative affectivity in shaping counterproductive work behaviors (CWBs), particularly in the context of elevated turnover intention. Consistent with prior research (Spindler et al., 2009), the findings reveal that negative affectivity intensifies workplace dysfunction by heightening employees' sensitivity to stressors and fostering retaliatory responses. The interaction between emotional disposition and turnover intention creates a feedback loop wherein emotional vulnerability exacerbates behavioral deviance, thereby compounding organizational challenges.

By situating these findings within the stressor-emotion framework, the study advances existing theoretical models and highlights their practical relevance for organizational management. Specifically, it demonstrates that emotional traits not only influence individual behavior but also moderate the impact of attitudinal factors such as turnover intention. These insights offer actionable implications for human resource strategies aimed at mitigating CWBs and reducing employee attrition through emotional regulation and workplace climate interventions.

The results suggest promising avenues for future research. The significant interaction effect between negative affectivity and turnover intention points to the potential efficacy of emotional regulation training as a buffering mechanism. Investigating the impact of such interventions could yield valuable insights into behavioral mitigation strategies. Additionally, examining the interplay between individual traits and organizational climate—such as happiness-promotion initiatives—may inform more holistic approaches to workplace well-being.

Future studies should also explore dynamic feedback mechanisms among CWBs, turnover intention, and emotional states through longitudinal designs. Such approaches could illuminate causal pathways and temporal patterns underlying these relationships. Moreover, expanding the scope to include group-level phenomena, such

as collective affect or team emotional dynamics, would enrich the understanding of how individual and collective behaviors interact within organizational settings.

To reduce the influence of negative affectivity on workplace behavior, organizations should consider the following strategies:

1. Implement employee well-being programs to strengthen coping mechanisms and resilience.
2. Provide managerial training in emotional intelligence to identify and address early signs of emotional distress.
3. Foster open communication channels to encourage constructive expression of concerns.
4. Address external stressors, such as work-life conflict, through flexible work arrangements.

This study contributes meaningfully to the literature by demonstrating that negative affectivity not only predisposes employees to CWBs but also moderates the behavioral consequences of turnover intention. These findings emphasize the importance of emotional regulation in organizational contexts and offer a foundation for both theoretical advancement and practical application.

Despite its strengths, the study is subject to certain limitations. The reliance on self-report measures introduces potential method bias, although these instruments provide valuable subjective insights. Future research should incorporate multi-method approaches, including observational and peer-assessment tools, to enhance data robustness. Additionally, response biases, such as social desirability, may affect the accuracy of self-reported behaviors; incorporating control scales (e.g., the K scale from the MMPI or the Marlowe-Crowne Social Desirability Scale) can help mitigate this issue.

Finally, the study focused on turnover intention and CWBs in isolation from broader organizational stressors such as bullying or harassment. Future research should examine these factors and their interaction with emotional traits, as they play a significant role in shaping workplace dynamics. Investigating positive moderators—such as emotional intelligence or perceived organizational support—could further enrich the understanding of CWBs and inform more comprehensive intervention strategies.

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