

The Relationship between Opportunities for Professional Development and Counterproductive Work Behaviors: The Mediating Role of Affective Well-Being and Moderating Role of Task-Contingent Conscientiousness

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Abstract: In extant literature, considerable research has focused on the provoking effect of unfavorable work situations on counterproductive work behaviors (CWB) (i.e., abusive supervision→trigger CWB). Adopting the perspective of positive organizational scholarship and drawing on affective event theory (AET), this study examined the inhibitory effect of perceptions of favorable work situation on counterproductive work behaviors (i.e., uplifts affective events→affective well-being→inhibit CWB). Hierarchical linear modeling was used to test the hypotheses in a sample of 65 middle school teachers in China who completed daily diary method surveys over 15 consecutive working days, and got within-individual observations (level 1, N = 975) were nested at the between-individual observations (level 2, N = 65). Results suggested that, (1) Opportunities for professional development were negatively related to CWB, (2) Affective well-being was negatively related to CWB, and (3) Affective well-being partially mediated the relationship between opportunities for professional development and CWB. Further, (4) Task-contingent conscientiousness negatively moderated the negative relationship between affective well-being and CWB. In the end, we discuss the implications of the findings for both theory and practice.

Keywords: CWB; opportunities for professional development; affective well-being; task-contingent conscientiousness; daily diary study

1 Introduction

Teaching is known for having many job demands and is stressful [1]. The teaching profession is even more stressful compared to other human service-related occupations [2], which may lead to emotional exhaustion among teachers [1]. If emotional exhaustion or burnout is not mitigated, it could result in counterproductive work behavior [3]. Counterproductive work behavior (CWB) refers to intentional, harmful and unlawful behaviors that hurt the organization, other members of the organization, or both [4,5]. As voluntary employee behaviors, CWB exists in all kinds of organizations [6], and have negative consequences for organizations and employees [7]. Some studies have estimated that CWB costs organizations billions of dollars annually [8,9]. Employees being the target of CWB reported lower levels of job satisfaction, higher levels of job stress and intentions to quit [10,11]. As a result, a great deal of research has been devoted to identify the predictors of CWB.

In the extant literature, the emotion-centered model of voluntary behavior proposed by Spector et al.



is broadly used to explain the occurrence of CWB [5]. The model states that CWB is the outcome of the interaction between an individual and the environment. Specifically, the model argues that the unfavorable work environments (e.g., organizational constraints, role stressors, interpersonal conflict, injustice and psychological contract violation) trigger or provoke the employee to take CWB because of negative emotions. Following the tenets of the emotion-centered model, numerous studies examined the provoking effects of unfavorable aspects of work environments or negatively perceived specific events on CWB. Research showed that abusive supervision, injustice, workplace ostracism and psychological contract breach are positively related to employees CWB in the workplace [12–14].

Recently, positive organizational scholarship (POS), however, states “just as positive psychology focuses on exploring optimal individual psychological states rather than pathological ones, scholars should focus attention on optimal organizational states.” [15]. Inspired by POS, the aim of this study is to explore the inhibitory effect of positive perceptions of work situation, namely opportunities for professional development, on teachers’ CWB. Based on the affective events theory [16], we propose that opportunities for professional development have the inhibiting effect on teachers’ CWB through positive emotions, and task-contingent conscientiousness. We furthermore explore the potential mechanism to augment the inhibitory effect of opportunities for professional development on CWB via affective well-being. The research model is shown in Fig. 1 below.

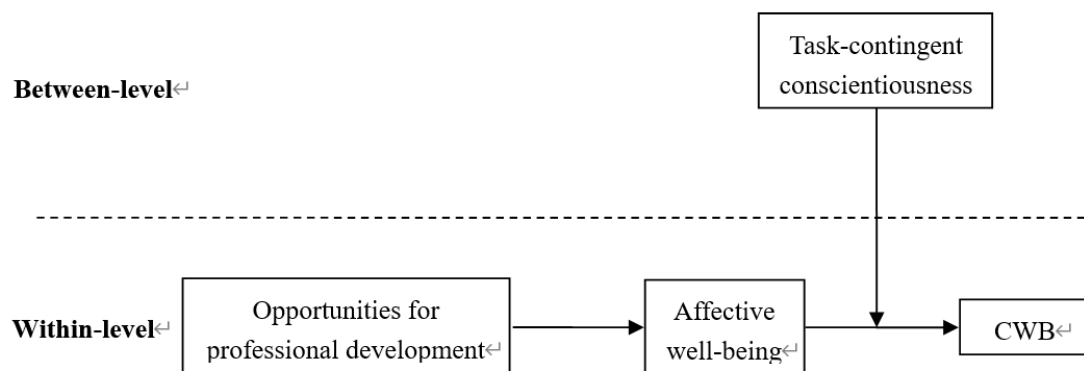


Figure 1: The overall framework of the research

2 Literature Review and Hypotheses

2.1 Affective Event Theory

AET was proposed to explain the relationships between affective events deriving from work environments, affective experiences at work, and attitudes and behaviors in the workplace. Specifically, AET states that affective events experienced by individuals at work can induce their positive or negative emotions at work, which in turn affect their job attitudes and behaviors [16]. AET further argues that affective events at work can be categorized as (a) hassles or negative affective events, and (b) uplifts or positive affective events. The former will hinder the fulfillment of goals and induce negative effects, and the latter are helpful to the achievement of goals, which may induce positive effects. The basic propositions of AET are supported by numerous empirical studies [17].

2.2 The Relationship between Opportunities for Professional Development and CWB

Opportunities for professional development refer to opportunities to learn and develop oneself on a professional level [18]. In the era of boundaryless careers, skill development or knowing-how competencies are the key for employability, job security, and career success [19–21]. Within the framework of AET, opportunities for professional development are favorable work situation that can induce employees’ emotional responses. When employees perceive personal growth at work, they will experience positive affective events, which contribute to employees’ positive job attitudes and behaviors and inhibit their negative job attitude and

behaviors. Thus, we expect that opportunities for professional development is negative related to CWB. Empirically, Jensen et al. [22] showed that employees would be more likely to engage in CWB when an organization violated psychological contracts (i.e., not providing employees with opportunities for training and development). Colbert et al. [23] further demonstrated that positive perceptions of the developmental environment are negatively related to work deviant behaviors (i.e., withholding effort). Based on the job-demands resources model, Balducci et al. [24] examined the effects of the job resources (i.e., decision autonomy, social support and promotion prospects) on CWB, and found that job resources were negative associated with CWB. Taken together, we hypothesize that:

Hypothesis 1 (H1). *Positive perceptions of opportunities for professional development are negatively related to teacher's CWB.*

2.3 The Relationship between Affective Well-Being and CWB

Extant studies investigated the triggering effects of negative emotions on CWB [25,26], few studies to date has examined the inhibitory effects of positive emotions on CWB directly. According to AET, there are theoretically at least two reasons why positive emotions are negatively associated with CWB. First, affective well-being induces individuals' approach tendencies to remain in the situation, which will suppress individuals' deviance behaviors. Furthermore, people in good moods will engage in behaviors that will support their moods. For example, people in positive affective states choose to engage in an altruistic behavior rather than a deviance behavior as a means of making themselves continue to feel good [27]. Second, affective well-being have undoing effects on negative emotions, and are able to "loosen the hold that (no-longer-relevant) negative affects gain on an individual's mind and body by dismantling or undoing the psychological and physiological preparation for specific action." [28]. Applying this theorizing, we posit that positive effects may be to relieve action readiness of negative emotions for CWB. With samples from profit organizations, two studies found that positive effects were negatively associated with employees' CBW [29,30]. Taken together, the second hypothesis is that:

Hypothesis 2 (H2). *Affective well-being is negatively related to teacher's CWB.*

2.4 The Mediating Role of Affective Well-Being

The workplace is an environment that can evoke individuals' strong emotional reactions, as it is the source of both physical and psychological need fulfillment [31]. Within the framework of AET, affective experiences at work thus, serves as important mediators that link work situations or affective events to individuals' job attitudes and behaviors [16,17]. Opportunities for professional development are job resources valued by individuals [32]. When individuals learn new things and develop themselves on a professional level, they will perceive the positive work situations and experience positive work events at work, which trigger individuals' positive effects. As argued by hypothesis 2, affective well-being can inhibit individuals' CWB. Hence, we expect that affective well-being mediate the negative relationship between opportunities for professional development and teachers' CWB.

Hypothesis 3 (H3). *Affective well-being mediates the negative relationship between opportunities for professional development and teachers' CWB.*

2.5 The Moderating Role of Task-Contingent Conscientiousness

Task-contingent conscientiousness is a stable personality trait, describing the extent to which an individual is able to adjust the level of responsibility according to the difficulty and urgency of the task [33]. We think that task-contingent conscientiousness moderates the relationship between affective well-being and CWB. First, positive personality had a positive relationship with well-being [34]. Zellars et al. [35] argued that a combination of positive effects and conscientiousness is the effective way for individuals to cope with job stressors. They found that individuals with high levels of both positive effects and conscientiousness experienced the lowest emotional exhaustion, depersonalization, and job tension. Given that CWB closely correlates with emotional exhaustion, depersonalization, and job tension [36,37], we think that task-contingent conscientiousness will also moderate the relationship between positive

effects and CWB, such that as task-contingent conscientiousness increases, the negative relationship between positive emotions and CWB strengthens. Empirically, Yang et al. [26] found that conscientiousness was able to suppress the potential of negative emotions to provoking individuals' CWB. In other words, task-contingent conscientiousness may augment the negative relationship between affective well-being on CWB. Therefore, the fourth hypothesis is that:

Hypothesis 4 (H4). *Task-contingent conscientiousness moderates the negative relationship between affective well-being and CWB, such that the negative relationship is stronger when task-contingent conscientiousness is higher.*

3 Method

3.1 Research Design

Previous study has shown that opportunities for professional development, positive emotions and counterproductive behaviors meaning fully within-person variation over short periods of time [38,29]. Daily diary method (DD) requires a certain number of participants to report their experience repeatedly at prescribed times. Thus, DD is seen as being ideally suited to investigating phenomena that fluctuate over time at the within-person level [39–41]. Moreover, daily diary method can reduce the bias from retrospective reports. Real time or “online” reports of current affect and experiences are considered more accurate than memory-based reports [42]. In view of the above strengthens of DD, we employed this method to examine the hypotheses.

3.2 Participants and Procedures

The sample for this study consisted of teachers from two public middle schools located at central China. The two schools have 140 teachers in total, and 65 teachers agreed to participate (response rate 46.4%). Of this sample, 58.5% were female and 56.9% had a bachelor's degree or above. The average age was 37.97 years old ($SD = 8.62$), average organizational tenure was 9.28 years ($SD = 7.59$). The study took place over the course of a 3-week period during which no major holidays occurred.

Using daily diary study, 65 participants were asked to complete a survey each day that they attended work. As part of their first module, each participant completed a survey that assessed task-contingent conscientiousness and control variables. Daily surveys were available only from 2:00 p.m. to 5:00 p.m. Through this procedure, we obtained 65 individual observations and 975 intra-individual observations.

3.3 Instruments

3.3.1 Opportunities for Professional Development

Each day, participants were asked to indicate the extent to which they learn new things and develop themselves on a professional level. The three-item scale developed by Bakker et al. [43] was used to measure daily perceptions of opportunities for professional development in the work place. A sample item is “Today, my job offers an opportunity to learn new things”. All responses were made on a seven-point Likert scale ranging from 0 (*strongly disagree*) to 6 (*strongly agree*). The average (across 15 consecutive working days) coefficient alpha for this scale was 0.81.

3.3.2 Affective Well-Being

A 10-item scale developed by Watson et al. [44] was used to assess participants' daily affective well-being. Sample adjectives included “interested,” “excited,” and “enthusiastic.” Participants were asked to rate the extent to which these words describe themselves on a five-point Likert scale ranging from 0 (*little or not at all*) to 4 (*a lot*). The average (across 15 consecutive working days) coefficient alpha for this scale was 0.92.

3.3.3 CWB

Every day, participants were asked to the extent to which they display the counterproductive

behaviors directed at the organization. The six-item scale developed by Dalal et al. [29] was used to measure counterproductive behaviors directed at the organization. Sample items are “Today, I don’t work hard enough”, and “Today, I spend my time on things that are not related to my work”. Responses were given using a seven-point Likert scale ranging from 0 (strongly disagree) to 6 (strongly agree). The average (across 15 consecutive working days) coefficient alpha for this scale was 0.88.

3.3.4 Task-Contingent Conscientiousness

This variable was measured with a six-item scale developed by Minbashian et al. [33], which asked participants to recall and rate their experience of dealing with complex tasks. Sample item is “When faced with difficult tasks, I tend to work harder on them than on other tasks”. Responses were given using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency of this scale was 0.81.

3.3.5 Control Variables

Previous studies have shown that certain socio-demographic variables can affect CWB [45]. Therefore, these variables were treated as potential control variables in the current research. We captured the following socio-demographic variables: gender (1 = male; 2 = female), age, organizational tenure, education (0 = associate degree; 1 = bachelor’s degree; 2 = master’s degree or above), and marital status (1 = married; 2 = unmarried).

4 Results

4.1 Preliminary Analyses

We first conducted confirmatory factor analysis with Mplus7.0 to estimate the distinctiveness of the latent variables of interest at level 1. The results are displayed in Tab. 1. As shown by Tab. 1, the three-factor model distinguishing opportunities for professional development, positive emotions and CWB was the best fit to the data ($\chi^2 = 79.53$, $df = 48$, $TLI = 0.97$; $CFI = 0.98$; $RMSEA = 0.03$; $SRMR_{(within)} = 0.03$; $SRMR_{(between)} = 0.08$). These findings showed that the respondents were able to differentiate among latent variables.

Table 1: Confirmatory factor analysis to estimate the distinctiveness of the latent variables of interest at level 1

Model	χ^2	df	TLI	CFI	RMSEA	SRMR _(within)	SRMR _(between)
Three-factor Model ^a	79.53	48	0.97	0.98	0.03	0.03	0.08
Two-factor Model ^b	369.64	52	0.73	0.80	0.09	0.07	0.12
Two-factor Model ^c	750.72	52	0.40	0.57	0.12	0.12	0.23
Single-factor Model ^d	1008.31	54	0.21	0.41	0.14	0.13	0.24

Note: *a* = opportunities for professional development, affective well-being, CWB; *b* = opportunities for professional development + affective well-being, CWB; *c* = opportunities for professional development, affective well-being + CWB; *d* = opportunities for professional development + affective well-being + CWB.

Second, unrotated factor analysis was performed on within-individual measures to check common method bias [46]. The unrotated factor analysis results showed that the eigenvalue of four factors were greater than 1, and the variance explained by the first factor was 36.68%, less than the 50% criterion of serious common method bias [47].

We finally performed intra-individual variation test to estimate the within-variance in the three intra-individual variables. The null model results showed that within-individual variance in CWB was 0.45 ($p = 0.000$), for 30.00% of the total variance. The within-individual variance in affective well-being was 0.19 ($p = 0.000$), for 34.55% of the total variance. The within-individual variance in opportunities for professional development was 0.65 ($p = 0.000$), for 44.83% of the total variables. The results showed that the fluctuations in the within-individual measures were meaningful.

4.2 Descriptive Statistics and Correlations

As shown in Tab. 2, opportunities for professional development is negatively correlated with CWB ($r = -0.17, p = 0.000$), affective well-being is negatively correlated with CWB ($r = -0.18, p = 0.000$). Opportunities for professional development are also positively correlated with positive emotions ($r = 0.54, p = 0.000$). These results provide preliminary support for H1 to 3.

Table 2: Descriptive statistics and correlations among variables

	Mean	SD	1	2
Within-level variables				
1 opportunities for professional development	4.76	1.20	–	
2 affective well-being	3.29	0.77	0.54***	–
3 CWB	2.30	1.22	-0.17***	-0.18***
between-level variables				
1 task-contingent conscientiousness	3.99	0.47	–	

Note: $N = 975$ for within-subject data and $N = 65$ for between-subject data. *** $p < 0.001$.

4.3 Hypothesis Testing

Due to the within-individual observations (level 1, $N = 975$) were nested at the between-individual observations (level 2, $N = 65$), hierarchical linear modeling (HLM) was used to test our hypotheses. The results of HLM are shown in Tab. 3.

Table 3: Results of hierarchical linear modeling for within- and between-subject relationships

Variables	affective well-being	CWB			
	M3	M1	M2	M4	M5
Intercept (γ_{00})	3.34***	2.30***	2.30***	2.30***	2.30***
Controls					
Independent variable	0.16***				
OPD (β_{10})		-0.13**		-0.10*	-0.10
Moderator variable					
TCC (β_{01})					
Mediator variable					
AW(β_{20})			-0.26**	-0.23**	-0.19+
Cross-level interaction					
AW \times TCC(β_{12})					-0.33*
Model fitting index					
Model bias ($-2LL$)	1201.07	2178.56	2135.74	2110.50	2189.46
$\Delta-2LL$	149.95***	52.95***	87.81***	68.06***	11.37**
Δdf	3	3	3	4	1

Note: OPD = opportunities for professional development, AW = affective well-being, TCC = task-contingent conscientiousness; Control variables include gender, age, education, organization tenure, marriage; The coefficients in the table are non-standardized regression coefficients; Intra-individual predictors were centralized with individual mean to exclude the influence of inter-individual variance [48]. Full maximum likelihood estimation was used; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, +marginally significant.

H1 stated that opportunities for professional development are negatively related to CWB. Model 1 in Tab. 3 shows that opportunities for professional development is negatively related to CWB at daily level ($\beta_{10} = -0.13, p = 0.009$), after controlling for demographic variables. Thus, H1 was supported. H2 stated that affective well-being is negatively related to CWB. Model 2 in Tab. 3 shows that affective well-being is negatively related to CWB at daily level ($\beta_{10} = -0.26, p = 0.006$), after controlling for demographic variables. Thus, H2 was supported. H3 stated that affective well-being mediate the negative relationship between opportunities for professional development and CWB. As shown in Model 3 and Model 4,

opportunities for professional development are negatively related to affective well-being ($\beta_{10} = 0.16, p = 0.000$), and the significance of the relationship between opportunities for professional development and CWB decreases ($\beta_{10} = -0.10, p = 0.012$), when affective well-being is taken into the model, whereas positive emotion is negatively related to CWB ($\beta_{20} = -0.23, p = 0.013$). According to Baron et al's criteria [49], affective well-being partially mediate the relationship between opportunities for professional development and CWB at daily level. The R-Mediation program was used to estimate the indirect effect and its 95% confidence interval [50]. In the current study, the CI was $[-0.07, -0.01]$, excluding 0, with an average of -0.04 . It further confirmed the H3.

H4 stated the task-contingent conscientiousness moderates the relationship between daily affective well-being and daily CWB. As shown in Model 5, when the cross-level interaction is added to the equation, the main effect of affective well-being on CWB is no longer significant ($\beta_{01} = -0.19, p = 0.06$), whereas the cross-level interaction is significant ($\beta_{12} = -0.33, p = 0.024$). Thus, H4 was supported. To further validate the moderation of task-contingent conscientiousness on affective well-being-CWB association, we conducted simple slope test with MLR 2-way interaction macro (<http://quantpsy.org/interact/mlr2.htm>) developed by Preacher et al. [51]. The simple slope was -0.345 ($p < 0.05$) at high level of task-contingent conscientiousness ($+1sd = 0.47$), and it was -0.035 ($p > 0.05$) at low level of task-contingent conscientiousness ($+1sd = 0.47$). Fig. 2 showed the moderation of task-contingent conscientiousness on the effect of affective well-being on CWB. It provided further evidence for Hypothesis 4.

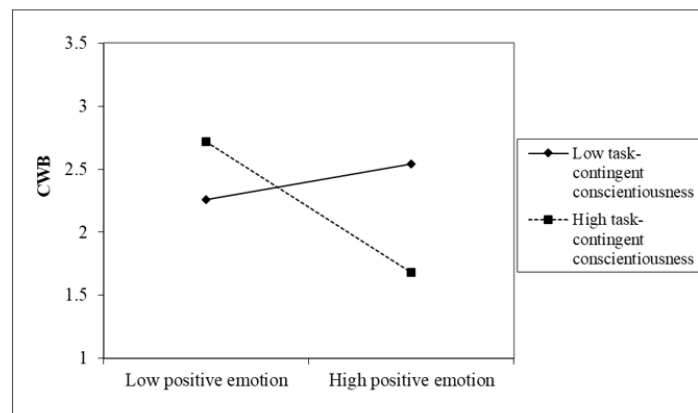


Figure 2: Moderation of task-contingent conscientiousness

5 Discussion

Although a considerable amount of research has investigated the triggering and provoking effects of unfavorable work situations on employees' counterproductive work behaviors, few studies have examined to date the inhibitory effects of favorable work situations or positive affective events on CWBs. Following positive organizational scholarship, we addressed a gap in the literature by examining the inhibitory effect of opportunities for professional development on CWB. Results of a daily diary method study of 65 middle school teachers in China who completed surveys over a three-week period revealed that (a) positive perceptions of opportunities for professional development and affective well-being have inhibitory effects on CWB, (b) affective well-being mediated the negative association between positive perceptions of opportunities for professional development and CWB, and (c) task-contingent conscientiousness moderated the negative relationship between affective well-being and CWB.

5.1 Theoretical Implications

This study extends existing knowledge and provides theoretical implications in three ways. First, this study enriches the research perspective of CWB. Though scholars have accumulated a body of knowledge

about inducing factors of CWB, much less is known about the inhibiting factors of CWB and the underlying mechanisms by which these factors inhibit CWB. By a positive organizational scholarship, we investigated situational, emotional and personality inhibitors of CWB. Consistent with Colbert et al. [23] study, we also found that positive perceptions of the work situations are negatively related to CWB. Unlike Colbert et al. [23], we further investigated the complicated relationship among the situational, emotional and personality inhibitors, and found that positive emotions mediated the inhibitory effect of the positive perceptions of the work situation (i.e., opportunities for professional development) on CWB, and task-contingent conscientiousness strengthened inhibitory effect of affective well-being on CWB.

Second, this study extends inhibitors of CWB. As mentioned earlier, few studies to date have examined the inhibitors of CWB. As far as current literature showed, only Colbert et al. [23] examined the inhibitors of workplace deviance, but an increasing number of researches were interested in the impact of positive factors on CWB. For example, Fine et al. [52] found that two positive situational variables, employee engagement and security control norms should be assessed and managed to help identify and minimize the risk of CWB, especially when integrity is low. Chernyak-Hai et al. [53] indicated negative relationships between perceived organizational distributive justice, overall and ethical climates and CWB. Further, Shantz et al. [54] showed that perceived organizational support compensate for relatively low levels of work engagement, which means when employees perceived that their work environment as supportive, they were likely to be less engaged in deviant behavior. Given the high weights of career growth and skill development, this study examined the inhibitory effect of opportunities for professional development on individuals' CWB using daily diary method, and found that opportunities for professional development were negatively related to CWB. By investigating the inhibitory effect of opportunities for professional development on CWB, thus, this study extends inhibitors of CWB.

Finally, this study provides implications for the AET. AET states that affective events experienced by individuals at work can induce their affective experiences at work, which in turn affect their job attitudes and behaviors [16]. Meanwhile, AET proposes that personality moderates the relationship between work events and affective experiences at work, and affects affective experiences at work directly [16]. Recently, some studies, however, found that personality also could moderate the relationship between affective experiences at work and job attitudes and behaviors [26,48,55]. For example, Yang et al. [26] showed that conscientiousness and agreeableness moderated the relationship between daily negative affects and CWB. Our study also demonstrates that task-contingent conscientiousness moderates the relationship between daily affective well-being and daily CWB. Combined with previous studies, our study provides new empirical evidence for perfecting AET.

5.2 Practical Implications

The results also provide some useful practical implications for organizations. To begin, given the negative association between opportunities for professional development and CWB, organizations are recommended to create work environments that are conducive to employee's learning and personal growth. Specifically, organizations can facilitate employees to develop themselves by setting multiple career paths, vesting in employee training, creating a learning culture within the organization, and implementing mentorship program. Second, our study showed that affective well-being is negatively related to CWB, and partially mediate the negative relationship between opportunities for professional development and CWB. The managerial implication from these results is that the organization can prevent CWB by improving the levels of positive affective experiences at work. Specifically, managers are recommended to create positive and healthy organizational culture through introducing emotional management training, and imbuing subordinates with positive emotions such as energy, enthusiasm, faith. Finally, this study demonstrated that there is inhibitory effect of affective well-being on CWB on employees with high task-contingent conscientiousness, whilst there is not inhibitory effect on employees with low task-contingent conscientiousness. The result suggests that in order to prevent CWB, organizations should implement a strict recruitment policy and recruit employees with positive personality traits such as task-contingent conscientiousness. Individuals with high task-contingent

conscientiousness can adjust the level of responsibility according to the difficulty and urgency of the task [56], and are more likely to show positive behaviors and less likely to engage in negative behaviors such as CWB in the workplace. Hence, organizations and managers are suggested to integrate task-contingent conscientiousness test into personality assessments in the employee recruitment and selection.

5.3 Limitations and Future Directions

Despite the theoretical and practical implications discussed above, our research has several limitations that suggest avenues for further research. First, although AET and a daily diary method can help us to determine the causal relationships between opportunities for professional development, affective well-being and CWB, we cannot exclude the possibility of other causal sequences of variables. In future research, it would be useful to manipulate key variables experimentally in order to verify the conclusions of this study. Second, we only collected data on employees' CWB using self-reports. One potential consequence of using self-report data is common method bias [46]. Recently, some researchers suggested to collect data on employees' CWB from third-party observers (e.g., leaders and colleagues) [57–59]. As CWB tends to be covert and remains difficult to observe and record objectively, we followed the common practices [60,61] to collect data of CWB. In future studies, self-report and other-report data on CWB could be collected to provide more robust evidence for any conclusions.

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Conflicts of Interest: The authors declare that they have no conflicts of interest to report regarding the present study.

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