

# Does Compulsory Citizenship Behavior Necessarily Reduce Employee's Work Well-Being? The Role of Relative Deprivation and Resource Compensation Based on Compulsory Citizenship Behavior

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**Purpose:** On the basis of previous research results, the opinion that compulsory citizenship behavior (CCB) leads to negative impacts over employees and organizations prevails. However, the latest researches negate the absence of rewards and favorable evaluation from organizational system for CCB. Instead, CCB is likely to be awarded by incentive allocation and recognitive affirmation. In the case of the resource compensation based on CCB, will the expected utility of CCB still show the consistence with the traditional CCB researches, imposing negative effects over employees and organizations?

**Methods:** This research explored the mechanism and boundary condition based on self-determination theory (SDT) and relative deprivation theory (RDT) to avert the negative effects of CCB, hoping to explain the above question. Time-lagged survey data from 227 employees tested the moderated mediation model, and the results verified the hypotheses.

**Results:** With resource compensation after the delivery of CCB, employees will not feel relative deprivation caused by reluctant false citizenship behaviors. In addition, relative deprivation expresses the gap between expectation and reality, low psychological discrepancy will not deeply undermine employees' work well-being.

**Keywords:** CCB, relative deprivation, work well-being, resource compensation based on CCB

## Introduction

Economic globalization brings both opportunities and challenges, which compels companies to boost productivity without inflating costs in pursuit of competitive advantages. In most cases, organizations tend to realize employees' maximum potential by assigning heavy responsibilities and imposing pressure,<sup>1</sup> aiming to foster organizational effectiveness and growth. Therefore, the existence of CCB is common in Chinese and western organizations. Traditional Chinese Confucius cultural characteristics, including high collectivism and power distance are highly compatible with the concept of CCB,<sup>2</sup> so its expression is more prominent than that of western society. However, not all the employees are willing to be "good soldiers", more of them tend to follow organizational management and protocols, and become "good actors" in reality.<sup>3</sup> The existence of "involuntary strugglers" also reflects the constant and widespread compulsion within the organizations, such as "forced to be employed",

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“forced to work overtime”, and “forced to donate”. At present, the research results on CCB mainly focus on the discussion of its dependent variables. Despite existing the disparity of views, overall implication is that “the impacts of CCB on employees and organizations are basically negative”.<sup>4</sup> Therefore, apparent conflict on the effects of CCB between practical and theoretical circles reveals that (1) Are enterprises unable to dialectically consider the harm of CCB due to the blind pursuit of short-term performance? (2) Except for the inevitable empirical bias, does it also imply the existence of a certain mechanism?

Vigoda-Gadot<sup>3</sup> systematically expounded the connotation and structure of CCB after re-dividing the boundaries of citizenship behavior theory, namely extra-role labors against employees’ real willingness engaged due to the pressure perception of external environment or special purposes. Employees will not perform this kind of act if they have free choices, while organizational citizenship behavior is an extra-role behavior based on employees’ voluntariness.<sup>5</sup> Subsequent research confirmed the rationality of CCB definition through empirical tests, and discussed its inducing factors from different perspectives, further improved the theoretical connotation of CCB. One is negative leadership style, that is, workplace authority forces subordinates to undertake additional labor through destructive means, which significantly enhances employees’ passiveness in implementing citizenship behavior.<sup>6</sup> The other is impression management,<sup>7</sup> that is, employees defend potential risks and penalties when their working environment is under the threat of uncertainty. In this sense, CCB will be used as a political mean to increase extra-role performance to repair their own image, thereby protecting vested interests and status.

As an extended concept based on traditional citizenship behavior, CCB also belongs to individuals’ extra-role behaviors beyond the scope of job responsibilities,<sup>3</sup> so it was originally regarded as a kind of behaviors that cannot be rewarded by organization’s compensation system.<sup>8</sup> Although it is acknowledged by some researchers that CCB shall not be defined as a sacrificing and unrewarding behavior,<sup>9</sup> employees earn positive evaluation and capital returns through

organization’s recognition with CCB, which may further bring substantial economic benefits.<sup>10</sup> Some studies have also stated that although CCB is contrary to individuals’ will, it compels them to make gratuitous and obligatory contributions by exerting pressure, thus temporarily creating an illusion of selfless dedication in organizations,<sup>6</sup> which may increase job engagement and work-family enrichment.<sup>11</sup> However, empirical researches have not yet confirmed that buffer effect of resource compensation based on CCB can reduce employees’ perception of being forced to implement citizenship behavior, then further reduce the adverse effects of CCB.

SDT believes that individuals’ behavior choices are driven by autonomous motivation or controlled motivation,<sup>12</sup> and controlled motivation can activate negative psychological effects. Therefore, since employees’ implementing CCB out of controlling motivation and internalizing controlled motivation will weaken CCB’s negative connotation, SDT can be used to rationalize the impact of CCB on employees’ psychology and attitude toward work. RDT believes that individuals perform cognitive and emotional evaluation based on the process of social comparison, the imbalance between value expectation and value ability may cause certain psychological barriers.<sup>13</sup> Therefore, RDT can be used to explain the role of CCB in widening the gap between value expectation and value ability, as well as the role of resource compensation based on CCB in reducing the gap between value expectation and value ability. In conclusion, based on SDT and RDT, this research explored the conditions where CCB’s side effects on employees’ work well-being through reducible or avoidable relative deprivation. As shown in Figure 1, this research proposed that when employees get resource compensation based on CCB afterwards, namely social material resources or emotional resources,<sup>14</sup> the alleviation of relative deprivation due to CCB will not lead to a significant decline of work well-being.

This research may innovate in some certain perspectives. First, SDT was originally used in CCB field to explore the negative impact of lacking autonomous

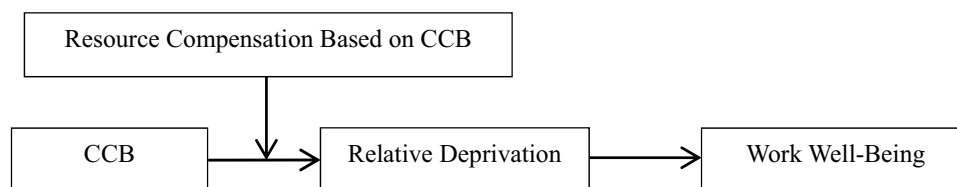


Figure 1 Theoretical model.

motivation,<sup>12</sup> while this research expanded SDT through the perspective of RDT and supported the moderating effect of resource compensation based on CCB. Second, resource compensation based on CCB will not only affect employee's perception of CCB's compulsion,<sup>14</sup> but also affect employees' subsequent psychological state and attitude toward work. These findings enriched the research on CCB. Third, with the establishment of theoretical basis and empirical model, the potential mechanism of relative deprivation, mediating process is presented to contribute to the fairness literature.<sup>15</sup> Last, this research furnished theoretical explanation and provided empirical evidence of work well-being' antecedent variables.<sup>16</sup> It is confirmed that CCB does not necessarily reduce employee's work well-being through the mediating path of relative deprivation under the contingency of resource compensation based on CCB.

## Theoretical Background

### SDT

SDT examines the degree of self-motivation of individuals' behavior choices.<sup>12</sup> The fulfillment of individuals' psychological needs will bring higher work well-being and job performance. Otherwise, it will lead to mental disorders, such as anxiety and hostility.<sup>17</sup> The basic psychological needs are the "gaps" perceived by the individual, which can be embodied in physical and psychological aspects.<sup>18</sup> In order to continuously experience the value of self-growth, individuals will maintain the three basic psychological needs of autonomy, competence, and relationship simultaneously at the ideal functional level.<sup>19</sup> Autonomy demand refers to the needs of the individual's ability to independently choose the activities to be engaged in rather than to be controlled by others. Satisfied autonomy needs will result in the experience of freedom; Competence demand refers to the needs of the individual's ability to complete challenging tasks and obtain desired results. When competence needs are met, individuals will experience a sense of goal control and accomplishment; Relationship demand refers to the needs to establish and maintain mutual contact. Relationship needs achievers can feel social support from others. The above three basic psychological needs are considered to be universally shared needs of individuals.<sup>20</sup>

Based on the three basic psychological needs of autonomy, competence, and relationship moderating the process of external environment stimulus, Deci et al<sup>21</sup> defined the

motivation generated by the satisfaction of internal needs as autonomous motivation and the motivation generated by the satisfaction of external needs as controlled motivation. Ryan et al<sup>22</sup> compared the satisfaction of an individual's internal and external goals, and pointed out that the main focus of SDT is the difference between autonomous motivation and controlled motivation. The former is accompanied by self-selection, while the latter is more subject to external control. Autonomous motivation is internal motivation. Execution of the target task itself will produce positive emotional experience and meet internal needs for individuals,<sup>23</sup> thus presenting a highly active state. If individuals believe that their behavior is caused by internal factors, they will have a perception of internal causality, while paying attention to the satisfaction of internal psychological needs can improve individuals' well-being.<sup>24</sup> On the contrary, controlled motivation means that individuals take actions for external needs, so it is easy to feel that the behaviors will not be controlled by themselves, but obey the rules of the outside world.<sup>25</sup> If individuals believe that their behaviors are caused by external reasons, they will perceive external causality, while focusing on external values may lead to anxiety.<sup>26</sup>

The interrelationship between autonomous motivation and controlled motivation is important for exploring individuals' behavior and management. Attribution theory and behavior theory even put forward tit-for-tat views on this issue. The former believes that controlled motivation may shift the purpose of an individual's activities from internal will to external incentives, thereby weakening autonomous motivation,<sup>27</sup> The latter believes that controlled motivation internalizes individuals' behavioral value, thereby enhancing autonomous motivation.<sup>28</sup> SDT holds that controlled conditions will not only harm internal value but also strengthen internal ambitions due to external rule internalization. According to the main principle of SDT, whether weakened or satisfied, autonomous motivation's dependence on three psychological needs of autonomy, competence, and relationship can better explain the contradictory effects of both weakening and promotion of controlled motivation on autonomous motivation.<sup>29</sup> Specifically, when external incentives make individuals feel that they are exposed to a controlled situation with a sense of powerlessness, they will reduce the basic psychological needs and autonomous motivation.<sup>30</sup> In case external feedback of supporting information are provided to meet individuals' basic psychological needs, they will strengthen autonomous motivation instead of damaging it.<sup>31</sup>

Therefore, only external factors that can be used to meet individuals' basic psychological needs will improve their internal motivation. As far as the research theme of this article is concerned, employees who perform CCB in order to meet organizational requirements will feel a strong sense of compulsion, but resource compensation obtained by performing CCB tasks is also a recognition of their behaviors, which can offset the negative effects of the sense of compulsion to a certain extent.

## RDT

Relative deprivation is defined as a subjective psychological structure,<sup>32</sup> in which the perception of the gap between expecting gains and actual gains will lead to the negative feelings of unbalance in the process of comparing with other corresponding referents.<sup>13</sup> From the perspective of social psychology, term "deprivation" is derived from absolute conditional disadvantages measured by objective criteria,<sup>33</sup> which belongs to objective social phenomenon. But relative deprivation reveals the negative attitudes from subjective comparison with relative conditions.<sup>34</sup> It is a relatively weak psychological feature. Individuals compare their own gains and losses with other referents, and the relative gap produced by comparing process breed employees' perception of unfair treatment. They will perceive their condition unfavorable. Therefore, negative feelings and emotional experiences will arise spontaneously.<sup>35</sup> Subsequently, some researchers expanded the origin of relative deprivation and pointed out that relative deprivation cannot be solely explained by the comparison with other reference objects, but also by the gap between value expectation and value capacity.<sup>13</sup> Sociologist Smith et al<sup>36</sup> systematically expounded relative deprivation as a subjective attitude towards deprivation compared to a horizontal or vertical referent. This cognitive feeling stems from the subject consciousness whose demands failed to be satisfied.<sup>37</sup>

Previous researches recognized two distinctive conditions for relative deprivation, namely "subjective comparison with other referents" and "measurement of the gap between value expectation and value capacity". In the horizontal comparative model with other referents, underlining mechanism of the process of relative deprivation is a "relative" subjective perception, which is essentially negative subjective feelings of individuals' horizontal comparison with reference standards.<sup>34</sup> When employees perceive the impairment of their relative interests, they will lose mental balance.<sup>35</sup> On the contrary, when

comparison yields satisfaction, relative deprivation will decrease. This non-adaptive cognition is mainly decided by subjectively evaluating and judging the loss of self-interest based on referents, but has nothing to do with objective resources possession or benefits distribution.<sup>38</sup> Subjective consciousness suffers loss and frustration due to inferiority to reference standards, then negative emotional process will be experienced.<sup>35</sup> In brief, horizontal relative deprivation is a negative evaluation caused by interpersonal comparison,<sup>34</sup> and the intensification of psychological stress and emotional quandaries evokes a more unstable mental state.<sup>39</sup>

Vertical relative deprivation reveals the difference between value expectation and value capacity.<sup>13</sup> Value expectation is the general value status expected by individuals, while value capacity is their current retainment. When expectation faces failure or a low satisfaction level, relative feeling of interest loss is not derived from the comparison process with referents, but related to the perceived difference.<sup>40</sup> In other words, when the gap between expectation and reality expands and fails to be accepted, relative feeling of interest loss will cause serious psychological maladjustment,<sup>41</sup> even mental trauma and emotional disorders. Once employees' psychological tolerance is exceeded, it may lead to conflicts within organization and increase the possibility of behavioral deviation,<sup>42</sup> undermining organizational stability and harmony. However, in case employees can get resource compensation after implementing CCB, considering that the relative deprivation at this moment mainly reflects individuals' self-cognition of their current situation, it shows similarity to the function of individuals' frustration expectation. Therefore, it is more appropriate to explore employees' work well-being through the bilateral interactive perspectives of value expectation and value ability.

## Hypothetical Reasoning The Moderating Effect of Resource Compensation Based on CCB

Employees maintain balance of contractual relationships through social exchange principles with organizations in the workplace, and the most satisfying of which is fairness.<sup>43</sup> However, according to the controlled motivation of SDT, CCB emphasizes that being placed in an "involuntary" passive situation, external pressure leaves organizational members no choice but to accept citizenship behavior,<sup>5</sup> thus implicates strong deprivation meaning.



Cognitive expression of the dissatisfaction with stressful working environment will easily cause distorted extreme psychology<sup>44</sup> associated with individuals' cost, such as increased job stress, strain and conflicts, and intention to quit.<sup>45</sup> Therefore, based on the controlled motivation connotation of SDT, this research proposes a possible path for CCB to negatively affect employees' work well-being through the mediating effect of relative deprivation.

While according to SDT, if employees reap economic or emotional resource after delivering CCB, subsequent negative results can be avoidable. For example, employees providing extra-role services to organizations gain performance evaluation and promotion, or at least priority in material rewards even spiritual appreciation,<sup>10</sup> they will be convinced that the forced devotion in informal work task is effectively rewarding and appropriate. Strong feedback from social exchanges allow employees to fully experience respect within the organization, adequate resources or supporting returns in formal or informal channels will reduce their insecurity awareness against CCB.<sup>14</sup> Also, employees will adopt a more tolerant attitude toward citizenship pressure from CCB and tend to reduce the unfairness perception, which is consistent with the concept of the gap between expectations and reality in RDT. This also means that, as an internalized controlled motivation, resource compensation based on CCB will weaken the negative impact of controlled motivation by satisfying the basic psychological needs of employees.

Consistent with above reasoning logic, this research argued that on the grounds of the core principle of SDT, although employees are not willing to implement CCB due to their inhospitality for undertaking unnecessary responsibilities, in case substantial resource compensation based on CCB will be offered to enhance their feelings of balance, employees may be more inclined to tolerate this compulsory citizenship pressure. Consequently, considering the deprivation nature of CCB, this research introduced RDT and proposed that resource compensation based on CCB will function in the form of material reward or spiritual recognition after the delivery of CCB, buffering employees' impulsion perceptions and relative deprivation by shortening the gap between expectations and reality. Therefore, this research proposed the following hypothesis:

Hypothesis 1: Resource compensation based on CCB plays a moderating role between CCB and relative

deprivation. When resource compensation based on CCB is low, the positive impact of CCB on relative deprivation will be enhanced. When resource compensation based on CCB is high, the positive impact of CCB on relative deprivation will be abated.

## Moderated Mediation

RDT states a subjective emotional experience based on psychological cognitive processes,<sup>32</sup> thus the structure of relative deprivation includes cognitive sources (failure of value expectations) and emotional cores (induced negative emotions).<sup>46</sup> In this sense, individuals detect the gap between their expectation and current status, then interpret the gap as unfairness after comparing their situation and conditions with other referents,<sup>13</sup> which will generate subjective feelings of exploitation and further trigger negative emotional experiences.<sup>47</sup> Therefore, relative deprivation is the result of cognitive dissonance, including negative emotional experience caused by relative interest damage.<sup>32</sup>

Psychological reaction to the perceived deprivation out of the gap between expectation and reality during the comparison with corresponding referents reminds individuals of the encountered predicament of imbalance and psychological inequality states or emotions.<sup>41</sup> This could even become the root of organizational instability and paralysis. Extending above logic, with the expanding contrast between employees' expectation and real situation, consequent frustration will seriously damage their physical and mental development,<sup>48</sup> then employees may experience strong psychological stress and their behaviors may suffer a negative impact in coping styles.<sup>42</sup> In summary, CCB is a special OCB and appears as an extra-role behavior, so it is excluded from organizations' formal reward system. According to RDT, when employees are forced to implement CCB without being rewarded, enlarged gap between expectations and reality will trigger a sense of relative deprivation and bring negative psychological feelings, such as work well-being.

When employees' devotion fails to realize the deserved benefit expectation, indicating more labor time and higher intensity contributed by employees but less resource compensation received, they will naturally feel that the organization owes them.<sup>49</sup> Deserved demand standard cannot be realized, and current situation becomes increasingly unable to meet the basic interests appeal,<sup>40</sup> then lasting emotions of dissatisfaction will bring more maladaptive consequences to mental health.<sup>48</sup> If subjective dissatisfaction cannot be released

through appropriate channels, extra burden will cause physical and mental discomfort, and increase employees' difficulty to maintain their original subjective work well-being,<sup>50</sup> which further constitutes a huge organizational hazard. Therefore, this research inferred that employees have a sense of relative deprivation due to being forced to implement CCB and fail to receive effective resource compensation. The decline of work well-being caused by relative deprivation will become an inevitable phenomenon. According to above reasoning process, this research proposes the following hypothesis:

Hypothesis 2: Resource compensation based on CCB plays a moderating role in the indirect impact of CCB on work well-being through relative deprivation. When resource compensation based on CCB is low, the indirect effect will be enhanced. When resource compensation based on CCB is high, the indirect effect will be abated.

## Methodology

### Sample Process

The surveys were conducted among full-time employees of 10 organizations in eastern region of China in this research. Since the questionnaire items are somehow sensitive and privacy-related, the cooperating organizations were selected to conduct the research, and human resources managers were invited to recommend employees to participate in the questionnaire survey. This research collected data through a three-phase time-lagged survey and ensure the three stages of questionnaire matched by coding survey participants. The entire process followed the Declaration of Helsinki. At the first phase, employees were asked to complete the questions related to demographic information and assess their perception of CCB. They were also informed that the survey process and the data obtained from the surveys was only used for academic purpose, and the surveys were ensured anonymous throughout the entire process, so they are willing to express their real thoughts without any scruples. After 3 months, they were asked to complete the questions about relative deprivation and resource compensation based on CCB at the second phase. After another 3 months, they were asked to answer the questions about work well-being at the third phase. The time interval of 3 months ensures more interaction possibilities between employees and leaders, as well as the changes in employees' perceptions and emotions.

A total number of 250 employees were invited to participate in the surveys, of which 23 employees withdrew halfway or gave invalid questionnaires. The remaining samples include 227 employees (questionnaire recovery rate reached 90.80%). As the items in this research is 23 in total, the principle of sampling quantity suggested by Pituch et al<sup>51</sup> is that the minimum sample size should be more than 5 times the number of items, so the sampling size in this research met the requirements. As can be seen in Table 1, samples' generalization was optimized in order to exclude contextual constraints,<sup>52</sup> the coverage of valid samples is wide and reasonable, sampling results supported follow-up empirical analysis.

### Measurement Scale

The items in scales of CCB, relative deprivation, work well-being, and resource compensation based on CCB need to be translated and re-translated to Chinese. Some appropriate adjustments to the language expression were made to ensure content validity. Subsequently, Likert 5-level scoring method was used for respondents' evaluation, and the higher the score means the greater the intensity.

**Table 1** Sample Characteristics

Variable	Category	Proportion
Gender	Male	44.36%
	Female	55.64%
Age	≤25	7.05%
	26–45	62.11%
	>45	30.84%
Education	PhD degree	14.54%
	Master's degree	57.71%
	Bachelor's degree	26.43%
	The rest	1.32%
Seniority	≤5	6.61%
	6–10	56.83%
	>10	36.56%
Position	Staff	88.55%
	Manger	11.45%

## CCB

The CCB single-dimensional measurement tool developed by Vigoda-Gadot<sup>53</sup> was selected in this research. Employees needed to self-assess their perceived CCB intensity of organization through five items. Sample items such as “Under the pressure from organization, I need to make extra efforts to meet job requirements”. This scale has been tested in both Chinese and Western organizational contexts, showing good reliability and validity, so it is a tool widely recognized and applied in academic community for research purpose. In this research, factor loading is 0.584–0.741 with standard fitting index ( $\chi^2/df=4.679$ , RMSEA=0.048, TLI=0.966, CFI=0.933), and Cronbach’s  $\alpha$  coefficient is 0.874.

## Relative Deprivation

This research adapted a seven-item scale developed and validated by Zhou et al,<sup>54</sup> involving five cognitive components and two emotional components. Sample items such as “I contributed a lot to this profession, but I can’t get corresponding recognition”. Employees were required to complete self-reporting of their perceived level of relative loss of interests in organizations. In this research, factor loading is 0.0555–0.827 with standard fitting index ( $\chi^2/df=2.245$ , RMSEA=0.023, TLI=0.934, CFI=0.989), and Cronbach’s  $\alpha$  coefficient is 0.757.

## Work Well-Being

Subjective well-being scale of 18 items from the integrated perspective developed by Zheng et al<sup>55</sup> was used in this research, and six items were selected from the dimension of work well-being. Sample items such as “Overall, I am very satisfied with the work I am doing now”. Employees were asked to self-report their emotional experience and job satisfaction in the workplace. In this research, factor loading is 0.697–0.852 with standard fitting index ( $\chi^2/df=4.503$ , RMSEA=0.028, TLI=0.944, CFI=0.907), and Cronbach’s  $\alpha$  coefficient is 0.884.

## Resource Compensation Based on CCB

This research used five items of balanced reciprocal dimension in reciprocal norm scale developed by Wu et al<sup>56</sup> to constitute scale for “resource compensation based on CCB”, and the language expression is appropriately adjusted to meet the requirements of research scenario to evaluate resource compensation employees get after the execution of CCB. Sample items such as “If I am forced to take on more work than the company officially requires, the company will give me additional rewards”. In this

research, factor loading is 0.702–0.845 with standard fitting index ( $\chi^2/df=4.948$ , RMSEA=0.027, TLI=0.976, CFI=0.958), and Cronbach’s  $\alpha$  coefficient is 0.929.

## Control Variables

Relative deprivation and work well-being involved in this research have been confirmed correlated with demographic information variables in previous research. Therefore, gender,<sup>57</sup> age,<sup>58</sup> education,<sup>59</sup> seniority,<sup>37</sup> and position,<sup>60</sup> are set as control variables in the model test process.

## Hypothesis Testing

### Initial Analysis

Although this research has tried to avoid common method deviations by strictly controlling research procedures, avoiding leading questions, and setting up reverse options, etc, because all the data come from employees’ subjective reports, the possibility of artificial covariation cannot be completely excluded. Therefore, it is necessary to conduct the common method deviation test. Harman’s single-factor test extracted four factors with eigenvalues greater than 1, which cumulatively explained 65.500% of the variance variability. The explanation of the first factor was 38.670%, which was lower than the statistical standard of 50%. Therefore, there is no serious common method deviation in the data obtained in this research.

Confirmatory factor analysis was performed by AMOS to ensure discriminant validity among latent variables. The results are shown in Table 2: Fitting effect of the four-factor model ( $\chi^2/df=4.324<5$ , RMSEA=0.071<0.08, TLI=0.953>0.9, CFI=0.958>0.9) was up to standard and significantly better than other competitive models. Therefore, CCB, relative deprivation, work well-being, and resource compensation based on CCB are presented as four different variable concepts.

In addition, descriptive statistics and correlation analysis results are shown in Table 3. Correlation coefficients between CCB and work well-being ( $\beta=-0.674$ ,  $p<0.001$ ), CCB and relative deprivation ( $\beta=0.735$ ,  $p<0.001$ ), relative deprivation and work well-being ( $\beta=-0.657$ ,  $p<0.001$ ), resource compensation based on CCB and relative deprivation ( $\beta=-0.570$ ,  $p<0.001$ ), resource compensation based on CCB and work well-being ( $\beta=0.181$ ,  $p<0.01$ ) provide preliminary support for subsequent hypothesis testing. However, since most correlation coefficients are greater than 0.5, there may be multicollinearity problem between variables, multicollinearity test was required in subsequent regression analysis process.

**Table 2** Confirmatory Factor Analysis

Models	$\chi^2/df$	RMSEA	TLI	CFI
Four-factor model: CCB, relative deprivation, work well-being, resource compensation based on CCB	4.324	0.071	0.953	0.958
Three-factor model: CCB + Resource compensation based on CCB, relative deprivation, work well-being	4.363	0.122	0.764	0.788
Two-factor model: CCB + Relative Deprivation + Resource compensation based on CCB, work well-being	7.884	0.175	0.516	0.562
One-factor model: CCB + Relative deprivation + Work well-being + Resource compensation based on CCB	8.520	0.182	0.471	0.519

**Table 3** Descriptive Statistics and Correlation Analysis

	M	SD	1	2	3	4	5	6	7	8
Gender	1.556	0.476								
Age	2.238	0.569	-0.089							
Education	3.855	0.666	0.009	0.127						
Seniority	3.198	1.141	-0.070					0.520***	-0.026	
Position	2.251	1.032	-0.013	0.222**	0.015			0.412***		
CCB	3.615	0.743	-0.033	-0.013				-0.142*	-0.017	0.026
Relative deprivation	3.378	0.592	-0.048	-0.011	-0.108	-0.011	0.019	0.735***		
Work well-being	2.530	0.730	-0.024	0.010	0.041	0.055	0.029	-0.674***	-0.657***	
Resource compensation based on CCB	2.970	0.932	0.033	0.142*	0.073	0.110	0.126	-0.227**	-0.570***	0.181**

Note: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ .

Although the direct effect of CCB on employees' work well-being is not assumed in this research, the test is conducted by SPSS, and the results in Table 4 show that CCB significantly affects work well-being ( $\beta = -0.672$ ,  $p < 0.001$ ). The interaction between CCB and resource compensation based on CCB significantly affects work well-being ( $\beta = 0.136$ ,  $p < 0.05$ ), and the direction of the coefficient is different from the coefficient of CCB on work well-being ( $\beta = -0.678$ ,  $p < 0.001$ ), meaning that resource compensation based on CCB will weaken the negative impact of CCB on work well-being. In addition, VIF is less than 2, which proves that there is no multicollinearity problem between variables.<sup>61</sup>

### The Effect of the Interaction Between CCB and Resource Compensation Based on CCB on Relative Deprivation (H1)

To test H1, a hierarchical regression analysis was performed by SPSS. Prior to this, CCB and resource compensation based on CCB were centralized to reduce potential collinearity problem. As can be seen in Table 5, all control variables were entered in Model 1; CCB was entered in Model 2; Resource compensation based on CCB were entered in Model 3; Then interaction was entered in Model 4. The results showed that the coefficient is significant for relative deprivation ( $\beta = -0.172$ ,  $p < 0.05$ ), and the direction of the



**Table 4** Regression Analysis of CCB and Work Well-Being

	Work Well-Being							
	Model 1		Model 2		Model 3		Model 4	
	$\beta$	VIF	$\beta$	VIF	$\beta$	VIF	$\beta$	VIF
Control Variable								
Gender	-0.034	1.009	-0.069	1.010	-0.070	1.012	-0.076	1.024
Age	-0.047	1.415	-0.029	1.415	-0.033	1.429	-0.025	1.463
Education	0.052	1.029	-0.058	1.051	-0.059	1.052	-0.057	1.054
Seniority	0.046	1.592	0.023	1.594	0.023	1.594	0.019	1.619
Position	0.005	1.206	0.026	1.208	0.024	1.220	0.024	1.220
Independent Variable								
CCB			-0.672***	1.024	-0.666***	1.079	-0.678***	1.202
Moderator Variable								
Resource compensation based on CCB					0.222**	1.091	0.212**	1.212
Interaction Term								
CCB $\times$ Resource compensation based on CCB							0.136*	1.230
F	0.276		23.625***		26.981***		31.532***	
R <sup>2</sup>	0.006		0.462		0.473		0.494	

Note: \*\*\*p<0.001, \*\*p<0.01, \*p<0.05.

coefficient is different from the that of CCB on relative deprivation ( $\beta=0.532$ ,  $p<0.001$ ), meaning that resource compensation based on CCB will weaken the positive impact of CCB on relative deprivation. In addition, VIF is less than 2, which proves that there is no multicollinearity problem between variables.<sup>61</sup> Therefore, H1 is verified.

The schematic diagram of interaction effect is shown in Figure 2 to directly reflect the direction and trend of the moderating effect of resource compensation based on CCB. As can be seen from Figure 2: Under the condition of low resource compensation based on CCB, the regression slope of CCB to relative deprivation is higher and more inclined; Under the condition of high resource compensation based on CCB, the regression slope of CCB to relative deprivation is lower and more gradual. Therefore, this also further illustrates the inverse moderating effect of resource compensation based on CCB on the relationship between CCB and relative deprivation, H1 has been further verified by graphics.

## Moderated Mediation (H2)

In order to test H2, this research followed the BOOTSTRAP analysis method by Edward et al and the

statistical analysis software MPLUS by Hayes to conduct the indirect effect analysis. The results are shown in Table 6: When resource compensation based on CCB is high, the mediation model is not significant ( $\beta=-0.472$ , 95% CI=[-0.366, 0.072] contains 0); When resource compensation based on CCB is low, the mediation model is significant ( $\beta=-0.609$ , 95% CI=[-0.748, -0.479] does not contain 0). The moderated mediation index showed significant difference between these two conditions ( $\beta=0.137$ , 95% CI=[0.019, 0.261] does not contain 0). Therefore, the indirect impact of CCB on work well-being through relative deprivation is only significant under the condition of low resource compensation based on CCB. While under the premise of high resource compensation based on CCB, CCB will not reduce work well-being by strengthening employees' relative deprivation. H2 is verified by testing data.

Above results not only correspond to self-determination theory and relative deprivation theory of this research but also verify that resource compensation based on CCB will reduce the negative effects of CCB: On the one hand, self-determination theory implies that employees perform

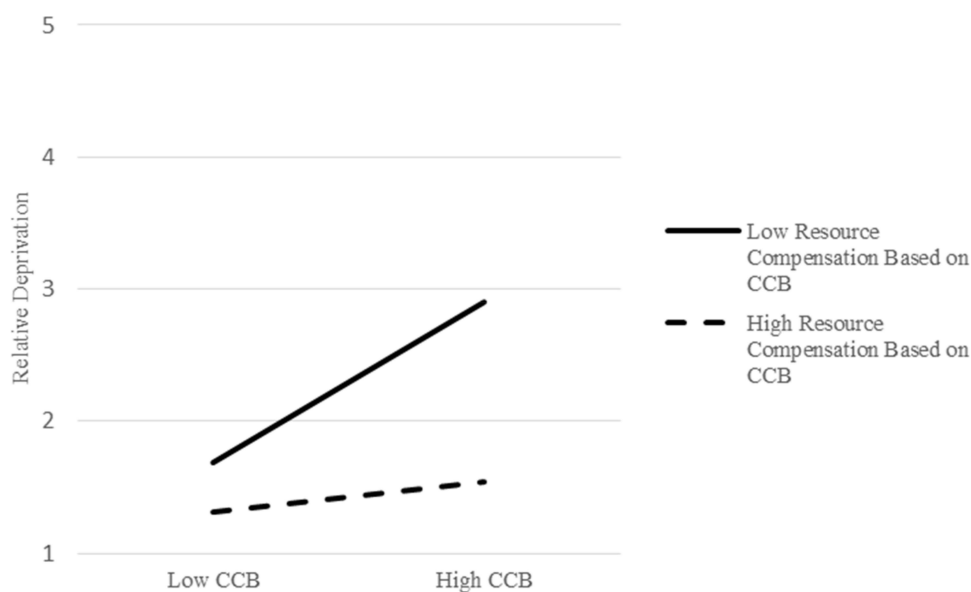
**Table 5** Regression Analysis of the Moderating Effect

	Relative Deprivation							
	Model 1		Model 2		Model 3		Model 4	
	$\beta$	VIF	$\beta$	VIF	$\beta$	VIF	$\beta$	VIF
Control Variable								
Gender	-0.060	1.009	-0.030	1.010	-0.010	1.012	0.002	1.024
Age	0.011	1.415	-0.005	1.415	0.046	1.429	0.029	1.463
Education	-0.098	1.029	-0.003	1.051	0.007	1.052	0.004	1.054
Seniority	-0.018	1.592	0.002	1.594	0.004	1.594	0.011	1.619
Position	0.019	1.206	0.000	1.208	0.025	1.220	0.026	1.220
Independent Variable								
CCB			0.585***	1.024	0.507***	1.079	0.532***	1.202
Moderator Variable								
Resource compensation based on CCB					-0.279***	1.091	-0.259***	1.212
Interaction Term								
CCB $\times$ Resource compensation based on CCB							-0.172*	1.230
F	0.679		43.166***		79.214***		71.734***	
R <sup>2</sup>	0.015		0.541		0.717		0.725	

Note: \*\*\*p<0.001, \*p<0.05.

CCB out of controlled motivation, and the external incentives brought by resource compensation based on CCB will weaken the hidden controlling meaning contained in CCB through the internalization process, weakening the

negative impact of CCB on employees; On the other hand, relative deprivation theory implies that employees feel unfair in implementing CCB, but resource compensation based on CCB can narrow the gap between value



**Figure 2** Schematic diagram of interaction effect.

**Table 6** Moderated Mediation

Variable	Level	Effect	SE	95% CI	
				BootLLCI	BootULCI
Resource compensation based on CCB	High	-0.472	0.049	-0.366	0.072
	Low	-0.609	0.069	-0.748	-0.479
	Difference	0.137	0.062	0.019	0.261

expectation and value ability to ease the negative psychological feelings of employees.

## Discussion

Although CCB was originally conceptualized as a “forced and helpless” employees’ predicament,<sup>5</sup> some researchers did not consider this negative citizenship behavior as employees’ selfless dedication,<sup>9</sup> organizations would still assign financial and necessary mental rewards to this extra-role labor. Currently, the research on the consequences of CCB are logically negative, yet some studies achieved several solutions to reduce the impact to employees’ psychological state and work attitude. In the view of SDT and RDT, this research constructed a moderated mediation model between CCB, relative deprivation, work well-being, and resource compensation based on CCB, and collected 227 valid sample data through a three-phase time-lagged survey, and the obtained data analysis results showed that resource compensation based on CCB reversely moderates the positive relationship between CCB and relative deprivation; resource compensation based on CCB reversely moderates the indirect impact of CCB on work well-being through relative deprivation, the indirect impact is significant under the condition of low resource compensation based on CCB, but not significant under the condition of high resource compensation based on CCB. The results of the research indicated that employees who receive resource compensation based on CCB after the implementation of CCB have a lower relative deprivation, the relative low psychological gap between expectation and reality will not wreak havoc work well-being, indicating that resource compensation based on CCB is essential to solve the negative impact of CCB.

## Theoretical Implication

SDT is originally proposed in the framework of positive psychology, paying more attention to positive autonomous motivation that can improve employees’ work performance and their individual development,<sup>62</sup> while the

exploration of controlled motivation believes that if employees are forced to undertake extra-role tasks that are contrary to their will, lacking autonomous incentives will put negative impacts on the employees.<sup>44</sup> However, previous research have paid little attention to the adjustment of controlled motivation and the findings did not reveal in-depth on it.<sup>63</sup> In some real occasions, employees could get direct or indirect material and emotional resource returns from the organizations after implementing CCB,<sup>14</sup> but current research on the aftereffect of CCB rarely takes resource compensation based on CCB into consideration. Therefore, this research aimed to explore how SDT works in organizations, to show how employee’s work attitude may decline due to the high controlled motivation of CCB. Moreover, this research also analyzed the effect of resource compensation based on CCB, to show how the external motivating factors that meet the internal psychological needs of employees could alleviate the negative impact of CCB’ controlled motivation. In summary, the conclusions of this research not only expand the application of SDT in the field of organizational research, but also provide certain thinking on how to control the negative effects of CCB.

This research enhanced the understanding of the specific condition for the mediating effect of relative deprivation. In the field of organizational behavior research, the mediating role of relative deprivation in individuals’ attitudes and behaviors has been widely proved,<sup>15</sup> but literature explaining how external incentives affect the function and intensity of relative deprivation’s mediating effect still show relative scarcity. That is, when employees realize leaders’ extra-role expectations, their work well-being will not decrease as long as corresponding compensation can be offered, and lower relative deprivation cannot function as a mediator. This research revealed that the trade-off process between expectation and reality in RDT provides a potential supporting mechanism, indicating that relative deprivation triggered by CCB cannot exert the mediating effect under the condition of high resource compensation

based on CCB. Considering that CCB can be rewarded by some resource compensations, employees' expectation of fairness and justice of organizations' distribution can be realized.<sup>64</sup> With the benefits gained after CCB, narrowing the gap between expectation and reality will alleviate relative deprivation. Therefore, employees' psychological state and work attitude can avoid intensive affect, as well as the drastic decrease of consequent work well-being. Above research findings have better explained the mediating role of relative deprivation in the process of affecting employees' workplace attitudes or behaviors.

This research also helped to interpret the disparities in practical and theoretical areas, and provided solutions to eliminate the potential negative consequences of CCB by emphasizing the importance of resource compensation based on CCB. In the practice of organizational management, leaders intend to use authoritative method to urge employees to perform extra-role behaviors, while employees also hope to maintain their own survival needs within organizations through extra-role behaviors. Therefore, both leaders and employees expect certain positive characteristics of CCB. However, in the field of theoretical research, CCB's "negativity bias" distorted by negative cognitive factors has taken the mainstream in public opinions.<sup>4</sup> Therefore, there are distinct differences in the understanding of CCB in terms of management practice and theoretical research, which means that the existence of boundary mechanisms shall not be ignored. Although some researchers argued that CCB and work well-being co-occur and their internal links are not presented in negative due to various emotional events, these internal links rarely have been verified. This research presented an empirically explanation that the co-occurrence of CCB and work well-being can be partly attributed to the existence of resource compensation based on CCB. Benefits returned for CCB compensate the loss of psychological costs caused by being forced to perform organizational citizenship behavior,<sup>14</sup> and ease the negative impacts on work well-being.

## Practical Implication

Although it may be unrealistic to thoroughly eliminate the negative effects of CCB on employees' mental state and work attitudes, managers shall pay attentions to the inducing effect of CCB on employees' psychological imbalance crisis although it benefits organizations' economically. Excessive emphasis on citizenship behavior may inadvertently breed employees' feeling of being

exploited, and their work well-being will consequently decline. However, in the real workplace, there are very few autonomously motivated work. Most work requires controlled motivation to mobilize employees to perform organizational goals and tasks, and it is impossible to be independent of external influence. Therefore, the use of external incentives is a necessary strategic choice, which can purposefully connect two different types of motivations and promote the transformation to internal awareness. Considering resource compensation based on CCB, as a necessary feedback tool, will effectively dilute employees' CCB-related dissatisfaction and minimize the cost of organizational development.<sup>14</sup> Therefore, organizations shall provide employees involved in CCB resource compensation accordingly, such as formal resource compensation (economic incentives or promotion) and informal resource compensation (working meals and transportation subsidies), then narrow down the gap between value expectation and value capacity, which can be summarized as an important management mode to minimize the side effects of CCB.

With the enthusiastic pursuit of optimal performance and maximum outputs, unilateral motivation for employees to make extra efforts will impede organizations' sustainable development. Therefore, harmonious labor relations and human-based management philosophy need to be applied to truly achieve the stable development of both employees and organization.<sup>9</sup> On the one hand, managers should add the concept of autonomy in the organizational culture to build a reasonable management mechanism, optimize communication channels to explain the important value of specific tasks to organizations' vision to employees, and clarify their job responsibilities, so as to encourage voluntary citizenship behavior and achieve effective leadership style without violating employees' willingness;<sup>6</sup> On the other hand, in order to maintain employees' good physical and mental state, managers should pay attentions to employees' psychological demands and carry out cognitive guide to their perception of role stress, and mental health construction, eliminate their anxiety about getting rewards or avoiding punishment,<sup>7</sup> thereby guiding them to form a positive work attitude.

## Limitations and Future Directions

Although this research tested the theoretical model in the general form of variables, CCB and work well-being both have different dimensions. These unique dimensions may

not stay consistent with the theoretical inference of this research. For example, some researchers have distinguished different types of CCB, such as stress-based citizenship behavior, tool-based citizenship behavior, perceptual citizenship behavior,<sup>65</sup> and work well-being, such as emotional exhaustion, job satisfaction, emotional commitment.<sup>66</sup> Future research should consider different consequences or antecedents of these behavioral or psychological structures in the premise of resource compensation.

This research showed that resource compensation obtained from participating in forced behaviors affects employees' possible psychological state and work attitude.<sup>14</sup> Previous research tended to focus on the horizontal approach of relative deprivation, saying that CCB concept would lower employees' work well-being. This research focused on the vertical approach of relative deprivation, showing that resource compensation based on CCB would mitigate the psychological loss by narrowing vertical gaps. Although these two approaches are similar, their results differentiate. Therefore, these two viewpoints or other operational mechanisms can be analyzed simultaneously in the future in order to outline a better understanding of RDT.

The research results indicated that the effect of CCB associated with resource compensation does not cause serious harm to employees' work well-being, but its quantitative analysis showed a negative effect from CCB to work well-being, meaning that the basic psychological mechanism that controls the link between CCB and work well-being is crucial. Therefore, future research should continue to explore these boundary conditions to control the loss of employees' psychological resources by working situations. In addition, CCB is considered as an independent variable in this research, other forms of improper behavior may also lead to the same results.

## Conclusions

Drawing with the reference to SDT and RDT, this research explained the impacting mechanism of CCB and its resource compensation on employees' mental state and work attitude. The results confirmed that employees receive resource compensation after implementing CCB can alleviate the forced perception caused by CCB, and will not perceive neither strong relative deprivation, nor low work well-being. Although relevant research proposing to inhibit the negative consequences of CCB is still in infancy, this research discussed how to alleviate the negative effects of CCB on

employees based on SDT, and discussed the moderating process of resource compensation based on CCB based on RDT, hoping to contribute to a more comprehensive understanding of CCB and control its negative impact on employees. Follow-up scholars can continue to refine the connotations of CCB, relative deprivation, and work well-being under the premise of considering resource compensation, and continuously enrich related theoretical model explorations based on SDT and RDT.

## Ethical Approval

This research was approved by the ethical review committees of Jiangsu University and Hainan University in China.

## Informed Consent

Respondents agreed to participate in this research and gave informed consent.

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## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## Disclosure

The authors report no conflicts of interest in relation to this work.

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