

# **Compulsory Citizenship Behaviour and Work-family Conflict:**

## **The role of Proactive Personality**

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### **Abstract**

The purpose of this study is to test the factors that impact the effects that compulsory citizenship behaviour (CCB) has on work-family conflict based on the theory of Conservation of Resources. Data were collected from 505 employees from 13 high-tech enterprises in China. It revealed that (1) employees' compulsory citizenship behaviour is positively related to levels of work-family conflict, (2) work stress mediates the relationship between CCB and work-family conflict, and (3) proactive personality moderates the effects of compulsory citizenship behaviour on employees' work stress and work-family conflict, with the relationship more positive when proactive personality is high. The study contributes to the CCB literature through its identification of work stress as an important psychological mediation mechanism that amplifies the mechanism through which CCB has an effect on employees. The results provide a deeper understanding of important boundary conditions (in this case proactive personality) that impact the CCB to employee's work-family conflict relationship. The findings also enrich the proactive personality literature. Paradoxically if organizations attempt to foster citizenship behaviors by selecting people with the sort of proactive personality that might assist citizenship, they end up exacerbating the impact on

work stress and work-family conflict. Theoretical and practical implications, limitations and promising avenues for future study are discussed.

**Keywords** Compulsory citizenship behaviour · Work-family conflict · Proactive personality · Work stress

## **Introduction**

The literature has paid close attention to relationships between organizational citizenship and other work related predictors or outcomes, although less attention has been paid to the nature of citizenship behaviour itself (Podsakoff et al., 2000). Consequently, there continues to be some re-conceptualisation of the construct, both as the nature of work continues to evolve and as the employee cohorts themselves represent different generational or cultural segments. Rather than reflecting spontaneous choices, the cognitive nature of citizenship behaviours is now given more attention with employees seen as engaging in cognitive calculations about perceived pressures and management measures in the workplace (Kabasakal et al., 2011; Alkan and Turgut, 2015; He et al., 2018). The context too has changed. OCBs are viewed increasingly not just as some voluntary benefit that might befall the organization, but now serve as required behaviours in many business settings (Bolino et al, 2013). The notion of emotional labour both creates opportunity for potentially negative controls (whether explicit or implicit) that will impact both the nature of OCBs and the pathways between them and other antecedents and outcomes (Spector et al., 2011). For example, Vigoda-Gadot (2006, 2007) introduced the notion of “compulsory citizenship behaviours” (CCBs). These behaviours, though of a citizenship nature, are not based on an individual’s genuine, initiative and free will. There continues to be calls for more researches into CCB in order to better understand both the benefits and costs of citizenship behaviours (Ahmadian et al., 2017).

The research need can be positioned as follows. Early researches examined the negative impacts of CCB, such as its damaging effects on work attitudes and behaviour (Vigoda-Gadot, 2007), but research exploring the relationship between CCB and work-family conflict remains scarce (for an exception see Liu et al., 2017), despite the problem of work-family conflict being a

common and prominent issue in China. Specifically, there has been few research exploring the mechanisms through which CCB and related variables impacts work-family conflict. The construct of CCB fits in well with the work context of China, with culture, the legal and regulatory context and economic institutions long being seen as important influencing factors of various forms of discretionary behaviour and OCBs (Farh et al., 1997; Farh et al., 2004). Not surprisingly CCBs have formed the subject of a number of recent studies (Liu et al., 2017; He et al., 2018; Shu et al., 2018; He et al., 2019). The country has high levels of traditionality, collectivism and power distance. Managers tend to emphasise gaining competitive advantage through low costs and quick response and many job positions do not clearly define the boundaries of extra role behaviour. Therefore, employees are more likely to be expected to obey superiors' orders, and conform to group normative behaviour. Terms, such as "work overtime", "being volunteered", and other phrases are widely circulated in the popular press and reflect employees' helplessness to withstand the increasing employment pressure in the workplace (Zhao et al., 2013; Zhao, 2014). Within the Chinese context, family has also always been a very important factor. Overwork is often perceived as sacrificing oneself for the good of the family (Yang et al., 2000). Employees in China are frequently exposed to external pressures and forced to adopt CCBs (Liu et al., 2017) and commonly face difficulties in balancing work and family because of increasing female participation in the labor force, dual income couples, a higher birth rate and large pension debts (Zhang et al., 2013). Together, these cultural and social factors mean that it is timely to explore the relationship between CCB and work-family conflict in a Chinese background.

The specific research problem is as follows. Until recently there has been little research exploring the mechanisms through which CCB and other related variables impacts work-family

conflict, and even these recent studies (Chang et al., 2017; Liu et al., 2017) argue that we do not have sufficient insight into the mechanisms that underpin the effect of organizational citizenship pressure on work-family conflict. The purpose of our study is to help unravel some of the important boundary conditions and mechanisms that shape the relationship between CCB and work-family conflict. CCB often arises when managers or co-workers in a position of power distribute duties to employees beyond the scope of job descriptions, yet the display of positive behaviors is expected as core. We argue that CCBs have a dark side, and that work stress acts as a mediating variable in the relationship between CCB and work-family conflict. There are strong theoretical grounds to expect that this will create negative outcomes for employees and that work stress will mediate these outcomes. Based on Conservation of Resource (COR) theory, the principal ingredient in the stress process is 'resource loss' and a process through which the need to achieve some kind of resource gains takes on increased importance in the context of perceived loss (Hobfoll, 2001). The requirement to display CCB means that employees need to put extra energy and time into their extra-role work, beyond their formal job task and without pay. Thus, they become more vulnerable to negative and ongoing 'stress sequels' or 'loss spirals', and these inevitably lead to more work-family conflict.

However, also in line with COR theory, we know that the extent to which CCB influence work stress is dependent on important individual differences. Personality is viewed as a resource, and it may also influence individual's response to the resource loss (stress). We know from the work of Zhang et al. (2011) that personality plays a role in four subtypes of OCB, and altruistic OCB in particular. It is reasonable to assume that personality should also effect or shape how employees deal with the darker aspects of OCB i.e. the CCB-stress relationship. We propose that the extent to which CCB influences work-family conflict via work stress will be contingent on the role of

proactive personality. Proactive personality is defined as “a relatively stable tendency to effect environmental change” (Bateman and Crant, 1993). Crant et al. (2017) pointed out that high proactive personality individuals tend to control, improve, or create a new environment, instead of passively adapting to the unfavorable situation. Many organizations, especially for high-tech ones, are seeking new ways of differentiating themselves from competitors in order to gain competitive edge (Modransky et al., 2020), inevitably increasing the call upon individuals to be proactive.

To summarise, the purpose of the study is to use COR theory to help unravel some of the boundary conditions and mechanisms that shape the relationship between CCB and work-family conflict. The study develops a moderated mediation model to advance our theoretical understanding of the CCB to work-family conflict relationship. We test to see if there is a mediating effect of work stress on the relationship, and a moderating influence of proactive personality on the relationship. The article discusses the results, along with the theoretical implications, practical implications, limitations, and suggestions for future research. The research model is shown in Figure 1.

### **Compulsory Citizenship Behaviour and Work-family Conflict**

There is both theoretical and practical value in researching the mechanisms and boundary conditions of the relationship between CCB and work-family conflict. We now explain the theory behind this relationship in more detail and develop the research hypotheses. Work and family are two core areas of life, each bringing their own (generally different) needs. Work-family conflict represents a particular inter-role conflict which results from the incompatibility between the work and family domains (Shang et al., 2018). There are potentially three forms of conflict: time-based, strain-based, and behaviour-based (Greenhaus and Beutell, 1985). Employees who have to

display CCBs find that their self-resources become drained, and are therefore more likely to experience one of the above conflicts. Time-based conflict results because displaying CCBs consumes an employee's personal and otherwise non-work time. As time and energy are finite, Sieber's (1974) scarcity hypothesis argues that CCB which forces employees to engage in duties beyond their job description costs them more energy. This creates higher levels of job burnout and stress (Vigoda-Gadot, 2007). Finally, as modern families now represent a more rational and equalised family existence, being obliged to display CCB as an involuntary and submissive way of solving the problem of dealing with authority leads to behaviour-based conflicts.

The literature on stress and job performance shows that OCB often negatively affects work-family conflict (Bragger et al., 2005). Given the relationship between CCB and OCB is seen as a continuum along an axis of the degree of voluntariness (Zhang et al., 2011), then consistent with previous studies on the negative effects of abusive supervisors (Carlson et al., 2012; Hoobler and Hu, 2013), we suggest that employees who are forced to display CCBs would face the difficulty of balancing work and family, leading to work-family conflict. For example, in a 3-wave web-based survey of 312 employees in China, Liu, Zhao and Sheard (2017) found that the positive impact of citizenship pressure on work-family conflict was mediated by CCB, and job autonomy mitigated (moderated) this mediation effect. Therefore, we hypothesise that individuals who report more CCB will also report more work-family conflict.

Hypothesis 1. Compulsory citizenship behaviour is positively related to employees' work-family conflict.

### **Mediating Role of Work Stress**

However, the CCB to work-family conflict relationship will be mediated by the level of reported stress. We use the theory of Conservation of Resources (COR) to support this likely mediation. COR theory states that individuals strive to retain, protect, and build resources because of their limited resources (Hobfoll, 2001). It is the actual (or potential) loss of these valuable resources that is seen as enough of a threat to generate stress. An employee's stress arises from their understanding (cognition) of the current resource, and the future possibility of its loss (Hobfoll et al., 2012). Organizations that compel employees to display CCB for the purpose of increasing organizational productivity are offering no formal or predictable rewards. Stress levels should be expected to increase if employees are forced to devote their otherwise free time and effort into their extra-role jobs instead of their personal time. Without receiving corresponding remuneration, this diversion of effort leads to a loss of resources (Chen and Yu, 2013). The consequences are clearly negative: higher levels of burnout, stronger willingness to leave the organization, and lower levels of in-role performance (Vigoda-Gadot, 2007). As employees struggle to distinguish between OCBs from CCBs in their in-role behaviors (Tepper et al., 2001), the resulting role ambiguity requires more energy to cope with it and impairs the meaning. The deleterious effects inevitably lead to work pressure (Amiruddin, 2019). Those employees who experience stress have less time and energy for their family, may feel unable to balance their work and family responsibilities, and as several studies have shown, experience increasing work-family conflict (Byron, 2005; Ford et al., 2007; Chang et al, 2017; Liu et al., 2017). We therefore propose that work stress will bridge the linkage between CCB and work-family conflict.

Hypothesis 2. Work stress mediates the relationship between compulsory citizenship behaviour and work-family conflict.

### **Moderating Role of Proactive Personality**



However, there are grounds to assume that the negative impacts of stress might be moderated - in either a negative or positive direction - by individual factors, i.e. it operates as a moderated mediation. There are of course a range of potentially relevant factors. Looking across these, intrinsic motivations clearly should play an important role in influencing the level of stress perceived in an environment where CCBs are required – the literatures on the learning organization (Senge, 1991), the empowerment of employees (Conger and Kanungo, 1988), and high-involvement work systems (Lawler, 1992) all attest to this. This body of research would argue that those employees who only passively accept requests for CCBs will in reality contribute little added value to their work. When an organization demands CCBs from its employees, it represents a problematic strategy for the organization, not only for individuals. Whilst there might be pressure for CCBs from the organization, in this situation the organization finds that it has actually become more reliant on its employees to identify and solve problems, i.e. although the citizenship behaviours are compulsory, the organization still needs the employee to display proactive behaviours in order to achieve organizational goals. This is particularly so for knowledge employees. These employees have work role characteristics such as higher autonomy and the need for a creative labour process. Organizations need employees to display initiative to improve the organization's capacity to obtain and maintain lasting competitive advantage (Wu, 2002). They have either directly or indirectly resource the organization with a cadre of employees who will be more proactive. The paradox is that such employees may well feel the display of OCBs not to be at their own discretion.

Reflecting the importance of intrinsic individual motivations, we have chosen proactive personality as an important moderator. It is particularly relevant we believe in a CCB context. Cunningham and Rosa (2008) argue that the nature of stressors may affect the effects of proactive

personality. CCB is not actually spontaneous at all. Indeed, it represents an effort that employees must invest in their work and in the members of the organization, caused by excessive social and managerial pressure. Faced with interpersonal stressors, high proactive personality employees should be expected to feel less job satisfaction and therefore to perform poorly (Harvey et al., 2006). This assertion is in line with the observation that different personality types have different relative stress sensitivities (Sarason, 1972, 1975). Compared with peers with low proactivity, proactive individuals are more likely to experience burnout in the form of depersonalization and a reduced sense of achievement when faced with multiple types of role conflicts (Zhang et al., 2019). In short, employees with high proactivity will experience more stress when the above situations occur. Thus, we hypothesise that a proactive personality will moderate the relationship between CCB and work stress.

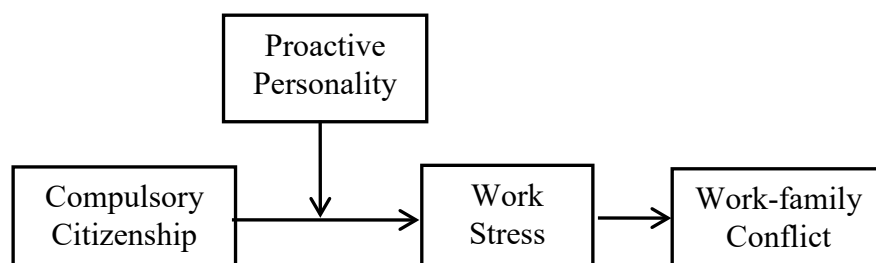
Hypothesis 3. Proactive personality moderates the effects of compulsory citizenship behaviour on work stress, such that the relationship will be stronger for proactive individuals than for less proactive individuals.

### **The Moderated Mediation Model**

Thus far, we have hypothesised that work stress mediates the relationship between CCB and work-family conflict, and that a proactive personality moderates the relationship between CCB and work stress. Taking these arguments together, as a final proposition, it is logical to predict that proactive personality also moderates the indirect effect that CCBs have on work-family conflict. Organizations place many restrictions on several aspects of subordinates' work and life. This should mean that employees with a high proactive personality are more negatively affected by a stronger and more direct negative effect on their work and family. Therefore, the mediation

effect of work stress between CCB and work-family conflict is moderated by proactive personality.

Hypothesis 4. Proactive personality moderates the indirect effect of compulsory citizenship behaviour on work-family conflict via work stress, such that the indirect effect is stronger among employees possessing high proactive personality.



**Figure 1** Hypothesised model of relationships

## Methods

### Sample and Procedure

Data were collected from employees in 13 high-tech companies in the four cities of Beijing, Shenzhen, Guangzhou, and Chengdu. We sought responses from Chinese technology employees who worked mainly in research and development roles. This was a suitable population to examine as they are known to struggle with the industry's "996" schedule which requires employees to work from 9am to 9pm, six days a week.

We contacted the 13 HR managers from the selected technology companies and explained the purpose of the research and the survey procedures. The questionnaire was uploaded to a survey program and an e-mail was sent to employees to invite them to participate in the study. An assurance of confidentiality was provided by informing employees that all the data would be used

for research purposes only. In order to encourage participation, participants were given a small financial bonus for each survey completed. Completion of the questionnaires took less than 10 minutes. The final sample included 505 effective responses from 571 workers, a response rate of 88%. The respondents represent a young and educated group of employees. 50% were female. 63% of respondents were aged between 26 and 30 years old. Average tenure with the organization was 4.3 years. 35% held doctoral degrees, 24% had earned master degrees, 59% had completed bachelor degrees, 12% had a technical college diploma, and the rest had obtained senior high graduate or below. 63% of respondents were married, 35% were unmarried, 2% were divorced, and less than 1% were widowed.

### **Measures**

All items were rated using a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). A Chinese bilingual translator and a native English speaker with a good command of Chinese translated the questionnaire according to the "translation back translation" procedure (Brislin, 1980) and refined the Chinese translation through discussion. A pilot study gathered feedback on the questionnaire from 30 volunteers and the authors amended the questionnaires to form the final version.

### **Compulsory Citizenship Behaviour**

Five items from the scale used by Vigoda-Gadot (2007) were used to measure CCBs. This scale has been proved to be effective in the Chinese context (Peng and Zhao, 2011). A sample question is "The management in this organization puts pressure on employees to engage in extra-role work activities beyond their formal job tasks". Cronbach's alpha coefficient of reliability for the scale was 0.80.

### **Work Stress**

Four items from House and Rizzo's (1972) scale - the short scale version developed by Vigoda-Gadot (2007) - were used to measure work stress. An example item is "I work under a great deal of tension". Cronbach's alpha coefficient of reliability for the scale was 0.78.

### **Work-family Conflict**

Three dimensions of work-family conflict developed by Carlson et al. (2000) were measured: (1) time work interference with family direction. (TWIF), (2) strain work interference with family direction (SWIF), and (3) behaviour work interference with family direction (BWIF). There are three items for each dimension, nine items in all. A sample item is "My work keeps me from my family activities more than I would like". Cronbach's alpha coefficient of reliability for the scale was 0.93."

### **Proactive Personality**

Ten items from the scale proposed by Seibert et al. (1999), based on the original Bateman and Crant (1993) scale, were used. An example item is "I am constantly on the lookout for new ways to improve my life". Cronbach's alpha coefficient of reliability for the scale was 0.89.

### **Control Variables**

We controlled for the demographic variables of age, gender, education and marital status.

## **Results**

### **Common Method Variance Test**

In order to check for the issue of common method variance (CMV), we adopted Harman's single factor test to check deviation between the self-report variables of employees. The results showed

that the variance explained by the largest common factor was 33.06%, which was less than the critical value of 40%, indicating that CMV was not a serious problem.

### Confirmatory Factor Analysis

To further test common method variance confirmatory factor analysis was performed to verify the distinctiveness of variables. Model fit was assessed by the model's overall chi-squared, root-mean-square error of approximation, comparative fit index, Tucker–Lewis index and standard root mean-square residual. The results (see Table 1) showed, the four-factor model of compulsory citizenship behaviour, work stress, proactive personality, work-family conflict fitted the data better than the other three models. The results supported the validity of the four constructs.

**Table 1** Results of Confirmatory Factor Analyses

Model	$\chi^2$	df	$\chi^2/df$	RMSEA	CFI	TLI	SRMR
Four-factor model: CCB,WS,PP,WFC	725.75	338	2.15	0.05	0.92	0.91	0.05
Three-factor model: CCB,WS+PP,WFC	1271.61	341	3.73	0.07	0.81	0.79	0.16
Two-factor model: CCB,WS+PP+WFC	1865.27	343	5.44	0.09	0.7	0.66	0.15
One-factor model: CCB+WS+PP+WFC	1954.14	344	5.68	0.1	0.68	0.65	0.15

*N* = 505. “+” represents two factors merged into one

Abbreviations: CCB, compulsory citizenship behaviour; WS, work stress; PP, proactive personality; WFC, work-family conflict

### Descriptive Statistics

The descriptive statistics and correlations among CCB, work stress, work-family conflict, proactive personality and other variables are shown in Table 2. Work-family conflict was

significantly correlated with CCB ( $r = 0.64, p < 0.01$ ), work stress ( $r = 0.69, p < 0.01$ ) and CCB was significantly correlated with work stress ( $r = 0.60, p < 0.01$ ).

**Table 2** Means, standard deviations, and correlations among study variables

No	Variable	M	SD	1	2	3	4	5	6	7	8
1	Gender	1.50	0.50								
2	Age	2.82	1.40	0.10*							
3	Education	3.11	0.73	-0.16**	-0.14**						
4	MS	1.70	0.58	0.18**	0.54**	-0.03					
5	CCB	4.03	1.33	-0.01	0.09*	-0.05	0.09*	(0.80)			
6	WS	3.90	1.25	-0.10*	-0.02	0.03	-0.02	0.60**	(0.78)		
7	PP	5.01	0.86	-0.05	0.02	0.08	-0.01	0.11*	0.09	(0.93)	
8	WFC	3.99	1.31	-0.07	0.05	-0.02	0.01	0.64**	0.69**	0.11*	(0.89)

$N = 505$ . \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Alpha coefficients are on the diagonal, in parentheses

Abbreviations: MS, marital status

### Hypotheses Testing

As shown in Table 3, CCB had a positive direct relationship with work-family conflict ( $\beta = 0.63, p < 0.001$ , Model 6), thus supporting Hypothesis 1.

To test the mediation effect of work stress on the relationships between CCB and work-family conflict, we adopted the procedure proposed by Preacher and Hayes (2008). After controlling for the effects of gender, age, education, and marital status, CCB was significantly correlated with

work stress ( $\beta=0.57, p <0 .001$ , Model 2). Further controlling for the effect of CCB, work stress was significantly correlated with work-family conflict ( $\beta=0.50, p <0 .001$ , Model 8). Bootstrap results (bootstrap sample size = 1,000) also confirmed the indirect effect was significant, with a bootstrapped 95% bias-corrected CI around the indirect effect of CCB on work-family conflict [0.40, 0.56], excluding zero. Hypothesis 2 therefore received support.

To test for the moderating effect of proactive personality in Hypothesis 3, the interaction between CCB and proactive personality was significantly correlated with work stress ( $\beta=0.14, p <0 .001$ , Model 4) as summarised in Table 3. To illustrate the moderating effect, we plotted the interaction effect at low and high proactive personality, namely, 1 SD  $\pm$  the mean of proactive personality. Figure 2 shows that the effect of CCB on work stress was stronger for the employees with high proactive personality. Thus, Hypothesis 3 was supported.

**Table 3** Results of the mediating effect of work stress and the moderating effect of proactive personality

	WS				WFC			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Gender	-0.21	-0.18	-0.18	-0.18*	-0.18	-0.14	-0.03	-0.06
Age	0	-0.05	-0.05	-0.04	0.06	0.01	0.06	0.04
Education	0.02	0.07	0.07	0.05	-0.04	0.01	-0.06	-0.02
MS	-0.04	-0.05	-0.05	-0.08	-0.07	-0.09	-0.04	-0.06
CCB		0.57***	0.57***	0.56***		0.63***		0.34***
WS							0.72***	0.50***
PP			0.01	0.01				

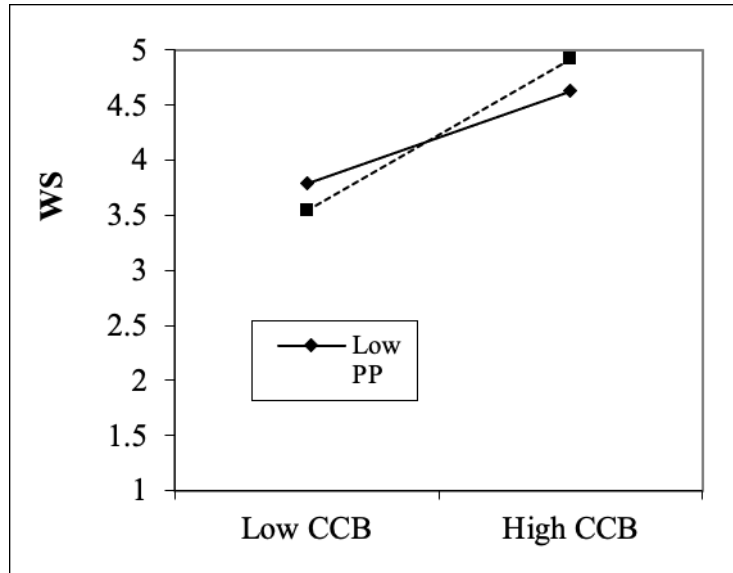


CCB\*PP

0.14\*\*\*

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$N = 505$ . \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$



**Figure 2** Plot of the interaction between CCB and PP on WS

We also examined the moderated mediation effect. We calculated the indirect effect of CCB on work family conflict via work stress to check for plus or minus one standard deviation of proactive personality, and verified the difference of the above indirect effects between groups. As described in Table 4, the difference of the indirect effect was significant between low and high proactive personality ( $\beta_{diff} = 0.11$ ,  $SE = 0.05$ , 95% bias-corrected CI[0.05,0.19], not containing zero). Hence, Hypothesis 4 was supported.

**Table 4** Bootstrapping Estimates for Moderated Mediation

Dependent variable	Levels of PP	$\beta$	SE	Boot LL 95% CI	Boot UL 95% CI
WFC	Low(-1SD)	0.21	0.04	0.16	0.28
	High(+1SD)	0.32	0.04	0.25	0.39

Difference	0.11	0.05	0.05	0.19
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## Discussion

The study has revealed important mechanisms that shape the relationships between CCB and work-family conflict. Both Hypothesis 1 and Hypothesis 2 were supported in this study. As we would expect, CCB is positively related to employees' work-family conflict and this relationship is mediated by the level of perceived work stress. It is necessary and useful to confirm this. The real value of the study, however, lies in revealing a series of important boundary conditions in this relationship.

Both Hypotheses 3 and 4 were also supported. This study sheds light on an important issue for both organizations and researchers. First, the level of voluntariness of citizenship behaviours will impact both levels of stress and work-family conflict. However, second, this impact is moderated by personality in such a way that those who are more proactive will be even more negatively impacted. A proactive personality was seen to moderate the effects of the CCB on employees' work stress and work-family conflict, such that high proactive personality employees actually increased their work stress and work-family conflict to a greater degree in response to their CCB than was seen for low proactive personality employees.

The requirement to display CCBs which is stressful and detrimental to work-family conflict can be seen as damaging enough, but paradoxically it also seems that if organizations attempt to foster citizenship behaviours (whether knowingly or not) by selecting people who have the sort of proactive personality that might be assumed to assist citizenship, they actually end up exacerbating this effect. An interesting question remains about this finding. Why should the

moderation operate in the direction found? The finding might seem paradoxical. A high proactive personality might be expected to buffer against stressful job demands (Parker and Sprigg, 1999). Several studies have found positive - not negative - relationships between proactive personality and desirable outcomes at the individual, team and organization levels, such as creativity (Pan et al., 2018), job performance (Thomas et al., 2010) and team climate for innovation (Xu et al., 2019). We provided a theoretical explanation - using COR theory - as to why a negative relationship should be expected. We think there are three plausible explanations for this finding. First, high proactive personality individuals show initiative, take action and take it upon themselves to impact the world around them (Bateman and Crant, 1993). Compared to individuals with a low proactive personality, high proactive individuals experience greater conflict between their positive expectations and some negative restrictions of compulsory citizenship. It is possible of course that the direction of moderation depends on the type of stressor considered. Harvey et al. (2006) state that high proactive individuals experience higher negative effects when exposed to conflicts that are of an interpersonal nature. CCB is a behaviour caused by external pressures from “significant and powerful others”. As most knowledge workers in this study worked in teams, then an employee who puts in less effort would hurt their colleagues (Chiu and Tsai, 2007). If forced to display CCB, they will experience more work stress and work-family conflict than other employees.

Second, high proactive personality individuals may view overload as an opportunity to overcome challenge, achieve growth and exhibit less negative affect (Crant et al., 2017). Considering that proactive people tend to garner more work control (Wen-Dong Li et al., 2014), we infer that such an effect however would depend on the tendency of proactive people to exert control over their ability to push back against stressful events. For example, proactive employees

are more likely to obtain high-quality leader-member exchange relationships, more trust and support from leaders (Lyon and Porter, 2010). However, perceived trust of leaders does not always have a positive impact. Leaders decide work arrangements according to the closeness of their relationship with subordinates and the employee's working ability. Leaders will let the employee accept more new tasks and even take on important responsibilities if the employee can meet their expectations (Graen and Scandura, 1987). This actually induces low job control instead. Proactive individuals, preferring by personality to take control of situations, may then experience more negative affect when confronted with stresses beyond their actual control (Park and DeFrank, 2018).

Third, CCB receives no reward. According to COR theory, employees will experience more stress and insecurity if they cannot get an expected return, which inevitably leads to more work stress as to those employees with high proactive personality. When opportunities are discovered, high proactive personality individuals show initiative, and persevere until they bring about meaningful change (Seiber et al., 1999). Therefore, they would be more strongly aware that they are being forced to display a reluctant behaviour compared with the low proactive personality, and therefore aware that many of their positive expectations are harder to satisfy due to the CCBs. This would be appraised as a threatening or otherwise demanding situation in which they have insufficient resources to cope with it. If employees are unwilling to participate in these activities, both their social and formal status in the organization would be jeopardized (Vigoda-Gadot, 2007).

### **Theoretical Implications**

This study's findings shed light on an important issue for both organizations and researchers. We think the findings extend the literature in four ways.

Firstly, the study enriches our understanding of extra-role behaviour and prosocial activities by dealing with a deviation from the traditional meaning of good citizenship behaviour, that of compulsory citizenship. As noted earlier, recently many OCBs that in reality are instrumental and have a mandatory nature have spread in organizations. As the range of citizenship behaviour is expanded across the dimension of voluntariness, then contrasting findings about OCB and its assumed positive contributions have started to emerge (Vigoda-Gadot, 2006, 2007). We have used COR theory to expand on how this development can threaten an employee's perceived resources and that CCBs serve as social cues and a source of stress. Our study shifts the previous CCB research concern about work outcomes (Vigoda-Gadot, 2006, 2007) to the domain of personal life (Zhao et al., 2014). Researchers have focused more on the structural difficulties and the conceptual essence of CCB, rather than its causes. The relatively few destructive consequences of CCB are more about organizational outcomes (Vigoda-Gadot, 2007; Ahmadian et al., 2017). Research on the relationship between CCB and individual outcomes – here we look at work-family conflict – is sorely needed. Our study suggests that CCBs that are not based on an individual's real, spontaneous “good will” increase employees' own work-family conflict and as such should be expected to negatively influence organization performance. By examining the effect of CCBs more comprehensively, the study reinforces our understanding of the darker and more destructive aspects of OCB, in contrast to the still dominant conventional and positive view of OCB.

Secondly, using a more general stress model (that of COR theory) offers useful theoretical guide for work-family studies. The role of family is essential to understanding work-family conflict but it has been paid limited attention by the role theory (Grandey and Cropanzano, 1999). We have used COR theory to theoretically construct a model and have then empirically tested

this model. This set of tests better connects the study of CCB and work-family conflict in a field setting by introducing a substantive mediator -work stress-to explain exactly how CCB impacts work-family conflict. Future research on both citizenship behaviour and work-family interface can take advantage of this.

Thirdly, this is the first study to examine how proactive personality may increase the effect of CCB on employees' work stress and influence work-family conflict subsequently. We developed an integrated moderated mediation model to advance our understanding of the influence of CCB on work-family conflict. Having used COR theory to justify the need to understand the role played by stress as a mediating factor, we build on the fact that according to COR theory once viewed as resources individual differences should be expected to also influence an individual's response to resource loss. We therefore present a unified work-family conflict model that integrates CCB, work stress, and proactive personality into a single model with both mediating and moderating processes. As predicted, proactive personality moderated the strength of the mediating mechanism that links CCB and work-family conflict through work stress. The study also demonstrated the direction and nature of this mediation. Employees with a high level of high proactive personality (a workforce segment given much prominence these days), the negative consequences of CCBs are in fact even more pronounced and perhaps more problematically for organizations. People, by dint of personality, have different degrees of reactivity to normatively stressful events or use different coping strategy for the stress (Sarason, 1972, 1975; Billings and Moos, 1981). This finding is consistent with the argument that proactive personality may not always lead to positive outcomes (Xie et al., 2018). Our results also indicated that proactive individuals have more work-family conflict when experiencing CCB – an issue which has not been addressed in previous research.

Finally, the findings offer a potential contribution to the study of CCB in non-western cultural backgrounds. It has not been the aim of this study to examine the impact of culture on OCBs. We have used this sample because China offers an ideal setting for researchers wishing to understand how and when CCB influences work-family conflict. There are likely cultural factors at play that impact the way in which individuals respond to CCBs. As we know, China is a country with a relative high power distance (Bao and Liao, 2019) and employees are assumed to be more likely submit to authority (Farh et al., 1997). The cultural context of the positive effect of CCB on work-family conflict provides an additional perspective that has not been widely considered in the work-family conflict literature. This helps managers gain clearer insight into the related management problems. We need to limit the negative effects of CCB if we are to decrease work-family conflict, but this also has especial potential benefits for organizations in China.

### **Practical Implications**

Our study shows that CCB can adversely influence work-family conflict, but the level of work stress and the possession of a proactive personality can moderate this relationship. Managers may reduce the probability of work-family conflict by reducing CCB, work stress, or by considering the role played by personality when assigning tasks.

Specifically, this research has several potential practical implications. We know that managers should encourage employees to perform OCB because of its intrinsic benefits (Koopman et al., 2016). It is tempting therefore for managers to consider selecting on the basis of proactive personality. However, proactive personality is not a panacea (Kisamore et al., 2014). Our findings also suggest that if managers, at least in high-tech enterprises, actively recruit employees with high proactive personality because of their positive contributions to their organizations, then the use of CCBs can become especially damaging. Managers should consider

inhibiting the requirement for CCBs, or perhaps more realistically reach an agreement with employees about the boundaries of their official role description and the point at which spontaneous behaviour begins. In similar vein, managers and organizations need to formulate appropriate rules and regulations that are felt to be fair and just to encourage employees to speak up when workloads are perceived to be too heavy and to develop mechanisms to deal with overload on the job (Vigoda-Gadot, 2006). These are especially important to those with a high proactive personality as they wish to fulfill their self-improvement expectations (Campbell, 2000). People with a proactive personality should respond well to opportunities to develop new skills, thereby producing more citizenship behaviour voluntarily and under conditions of high autonomy. The task of practitioners therefore needs to shift to providing employees with the antecedents that motivate employees to perform organizational citizenship behaviors, rather than to try to force compulsory citizenship behaviors. To achieve this, managers should highlight the quality of citizenship behavior when evaluating employee's work performance and only acknowledge behaviors that are really beneficial to the employees and organization. Further research in the area should assist practitioners more in making that an achievable task.

### **Limitations and Suggestions for Future Research**

There are of course limitations to our study. Despite the use of cautious statistical testing and support for our hypothesis, the study has a cross sectional research design and this limits our ability to claim any causation between compulsory citizenship behaviour and work-family conflict. Having shown that the variables under study are clearly associated, and theoretically likely linked in the direction we are suggesting, it remains now for longitudinal research designs and time-separated measurement of outcomes to affirm the relationships. We hope that our study provides the confidence to move now to more complex research designs.



Secondly, having identified these variables, future research should examine if there are further mediating and contextual variables that explain when, how and why CCB affects work-family conflict. For example, researchers might take into consideration the role played by cultural variables, such as collectivism, power distance and traditionalism. Mistreated employees usually yield to pressures under this kind of high cultural context (Xu et al., 2015). A multi-level model could also provide more insights on how the constructs work. Our findings only support the mediating effects of the variable of work stress. This is an important variable to consider, but other potential mediators could be explored so as to get a deeper understanding of why CCB influences work-family conflict.

Thirdly, our research sample is based on knowledge workers in 13 high-tech enterprises (chosen because of the likelihood that these settings would enable the impacts of proactive personality to be seen). Whilst we believe our findings generalize to other knowledge-intensive work settings, future research should examine whether our findings can be generalized to less knowledge-intensive work settings and also examine whether the strength of the moderating effect due to proactive personality remains consistent across different occupational settings.

### **Compliance with Ethical Standards**

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures were carried out in accordance with the recommendations of the ethics committee of Southwestern University of Finance and Economics with written informed consent from all subjects. All subjects gave written informed consent in accordance

with the 1964 Helsinki declaration. The protocol was approved by the ethics committee of Southwestern University of Finance and Economics.

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

### **Data Availability Statement**

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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