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Cooperation Versus Competition: How Do Helping Coworkers Affect Work–Family Conflict?

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Abstract

Although studies pay increasing attention to how organizational citizenship behavior (OCB) affects work–family conflict, most research ignores the boundary conditions and underlying mechanisms of this relationship. Drawing on goal interdependence theory and conservation of resources theory, this research sees two types of goal interdependence as important boundary conditions of how helping behavior affects work–family conflict. We use a combination of quantitative and qualitative methods to test our theoretical model. Specifically, using two-wave survey data collected from 386 employees and 90 supervisors in a manufacturing company, our quantitative study shows that the interaction of helping behavior with cooperative goal interdependence is positively associated with work–goal progress, whereas its interaction with competitive goal interdependence is negatively associated with work–goal progress. In turn, work–goal progress is negatively associated with work–family conflict. The results further reveal that the indirect effect of helping behavior on work–family conflict via work–goal progress is positive and significant only when the level of competitive (cooperative) goal interdependence is high (low). We use 196 employees from the same organization to conduct our qualitative study, the results of which further substantiate and extend the findings from our quantitative study. Finally, we discuss the theoretical and practical implications of our findings.

摘要

尽管组织公民行为 (OCB) 如何影响工作-家庭冲突受到越来越多的关注, 但大多数研究都忽视了这种关系的边界条件和潜在机制。根据目标互依理论和资源保存理论, 本研究将两种类型的目标互依视为助人行为影响工作-家庭冲突的重要边界条件。我们采用定量和定性相结合的研究方法来检验我们的理论模型。定量研究的样本来自一家制造型企业, 我们通过多时段问卷调查共收集 386 名员工和 90 名领导的配对数据。结果表明, 助人行为与合作目标互依性的交互作用与工作-目标进展正相关; 助人行为与竞争目标互依性的交互作用与工作-目标进展负相关; 工作-目标进展与工作-家庭冲突呈负相关。此外, 只有当竞争 (合作) 目标互依性水平较高 (低) 时, 助人行为通过工作-目标进展对工作-家庭冲突的间接效应才是正向显著的。其后, 我们用来自同一组织的 196 名员工为样本展开定性研究 (访谈), 进一步证实和扩展了我们定量研究的结果。

Keywords: goal interdependence; helping behavior; work–family conflict; work–goal progress

关键词: 助人行为; 目标互依性; 工作-目标进展; 工作-家庭冲突。

Introduction

Research has long focused on the ‘bright side’ of helping behaviors in the workplace. However, through in-depth research, many studies have affirmed that helping others at work as an extra-role behavior may have personal costs for employees (Bolino, Klotz, Turnley, & Harvey, 2013; Halbesleben, Harvey, & Bolino, 2009). Today, amid organizationally induced obligations to ‘go the extra mile’, employees continue to face increasing pressure to help their coworkers (Bolino, Turnley, Gilstrap, & Suazo, 2010). Although the job-holder and organizational-member roles are highly important,

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nonwork roles (e.g., family, spouse, and leisure) are also an integral part of employees' lives (Allen, 2000). Inevitably, the pressure to 'go the extra mile' affects employees' balance between their work and family life. Especially in China, where family is highly valued, employees may commonly face great difficulties in balancing between work and family roles (Chen, Xu, Sparrow, & Cooper, 2023) due to the increase in female participation in the workforce, the liberalization of the three-child policy, and the aging population. The work–family literature has confirmed that work–family conflict not only leads to poor health and well-being (Li, Shaffer, Wang, & Huang, 2021; Wattoo, Zhao, & Xi, 2018) but also explains increased turnover intention and poor work attitudes and performance (Piszczek, Martin, Pimputkar, & Lauhié, 2021). Therefore, exploring how helping others at work affects work–family conflict, especially in the Chinese background, has become timely and crucial.

To date, existing research on the consequences of helping coworkers at work has largely focused on work-related outcomes (Aggarwal & Singh, 2016). As far as we know, few studies have explored how helping behavior affects work–family conflict. Specifically, on the basis of only the resource-depletion perspective, research has corroborated that employees who extend beyond their normal job duties by helping others at work are likely to report high work–family conflict (Bolino & Turnley, 2005; Halbesleben et al., 2009).

Although the extant research has been valuable, our knowledge of the relationship between helping behavior and work–family conflict may still be incomplete because helping others at work does not always lead to resource consumption (Koopman, Lanaj, & Scott, 2016). The conservation of resources (COR) theory asserts the importance of environmental conditions that can 'create fertile or infertile ground' for creation, maintenance, limitation, and consumption of resources (Hobfoll, Halbesleben, Neveu, & Westman, 2018). Thus, whether helping colleagues at work should be regarded as a loss or an investment of personal resources may depend on the external environment in which a helping behavior occurs. However, surprisingly, existing studies have ignored the external environment when exploring the effects of helping behavior on work–family conflict. To the best of our knowledge, little is known about the potential mechanisms through which helping behavior affects work–family conflict. Related to this, investigating the boundary conditions and internal mechanisms is particularly important, because doing so helps managers identify ways to better leverage citizenship behavior or reduce the detrimental effects of engaging in such behavior on employees' work–family balance.

Our research, therefore, attempts to investigate when and how helping others at work affects employees' work–family conflict. Deery, Rayton, Walsh, and Kinnie (2017) speculated that this relationship may be influenced by the interdependent relationship between team members' goals. The goal interdependence theory proposes that the type of goal interdependence determines the outcomes of the interaction (e.g., helping) among team members (Deutsch, 1949; Tjosvold, 1986, 1989), especially work–goal progress, or the extent to which individuals perceive that they have made progress toward, or accomplished, their goals at work (Wanberg, Zhu, & Van Hooft, 2010). When goals are structured cooperatively (i.e., cooperative goal interdependence), one's progress toward the goal means that others have also moved toward their goals (Wong, Tjosvold, & Yu, 2005). In such a situation, helping others undertake additional tasks or deal with work-related problems may also be beneficial to actors in terms of goal achievement. This means that helping behavior in a cooperative situation is an investment of current resources to earn future resource acquisition. When goals are structured competitively (i.e., competitive goal interdependence), one's progress toward the goal is perceived by others as a threat in achieving their own goals (Wong et al., 2005). In this situation, helping behavior that benefits others (i.e., competitors) may just be an actual (or potential) loss of current resources, because doing so will not promote or even hinder actors' goal achievement. Consequently, the level of work–goal progress as an outcome of resource investment/consumption may directly determine whether employees conserve resources by reducing the time and energy spent in other areas (e.g., family) to make themselves fully committed to achieving their work goals. Therefore, by integrating goal interdependence theory with COR theory, we consider two types of goal interdependence as conditional factors to study how helping behavior affects work–family conflict via work–goal progress.

In summary, this study contributes to the literature in three major ways. First, our research presents a full picture of how helping others at work affects work–family conflict through the lens of resource consumption and resource investment by integrating goal interdependence and COR theories. This approach expands our knowledge and understanding of the link between helping behavior and work–family balance to a certain extent. Second, given that helping others at work is a double-edged sword (Gabriel, Koopman, Rosen, & Johnson, 2018; Koopman et al., 2016; Lin, Ilies, Pluut, & Pan, 2017), a more appropriate question should be, ‘under what conditions does helping behavior reduce or trigger work–family conflict’? Our research attempts to answer this question by focusing on the goal interdependence type as an important boundary condition of this relationship. In contrast with prior research that centered on individual characteristics (Bolino & Turnley, 2005; Chen et al., 2023; Halbesleben et al., 2009), our research extends knowledge about the boundary conditions from individual factors to environmental factors. Third, our research advances the literature on OCB and work–family conflict by examining work–goal progress as an internal mechanism that links helping behavior and work–family conflict. A complementary in-depth interview study is also conducted to deepen our understanding of how helping behavior affects work–family conflict.

Theoretical Background and Hypotheses Development

Two Types of Goal Interdependence as Boundary Conditions

Based on the goal interdependence and COR theories, we propose that helping behavior is positively (negatively) associated with work–goal progress when the level of cooperative (competitive) goal interdependence is high. Alper, Tjosvold, and Law (1998) elucidated that team members generally ‘swim or sink’ together when the relationship between their goal attainments is cooperative. Therefore, under the condition of cooperative goal interdependence, assisting others with additional or challenging tasks not only directly helps others move toward reaching their work-related goals but also indirectly helps actors themselves reach their own work-related goals. In other words, helping others at work in a cooperative situation is an investment of current resources (e.g., time and energy) in exchange for the opportunity to gain more resources, that is, achieving a high level of work–goal progress. In support of this view, Ellington, Dierdorff, and Rubin (2014) argued that helping others in interdependent contexts that foster social norms of cooperation is likely to benefit actors, as they are dependent upon others to successfully complete their own work tasks. Similarly, many scholars suggested that team members with cooperative goals can have a vested interest in assisting each other reach their goals because others’ goal achievements contribute to their own goals (Johnson & Johnson, 2005). Thus, helping behavior, coupled with cooperative goal interdependence, may be positively related to work–goal progress.

By contrast, team members have a ‘win–lose’ relationship when their goal attainments are incompatible with one another (i.e., competitive goal interdependence, Alper et al., 1998). As suggested earlier, assisting others at work may directly help others make progress toward their work-related goals. In the condition of competitive goal interdependence, this may in turn propel help providers to carry out relatively low in work–goal progress or fail to achieve their own work-related goals. Supporting this argument, Yi-Feng, Tjosvold, and Peiguan (2008) argued that in competition, others’ successful goal attainments will make target employees less likely to reach their goals. Furthermore, helping others in a competitive situation competes for time, energy, and other resources (i.e., an actual loss of resources, not an investment), prompting actors reduce the amount of resources available for ongoing work-related progress (Koopman et al., 2016). In other words, helping behavior in competitive situations may come at the expense of actors’ work–goal progress (Koopman et al., 2016). Based on these research arguments, we propose that

Hypothesis 1a (H1a): Helping behavior is positively associated with work–goal progress when the level of cooperative goal interdependence is high (vs. low).

Hypothesis 1b (H1b): Helping behavior is negatively associated with work–goal progress when the level of competitive goal interdependence is high (vs. low).

The Effect of Work–Goal Progress on Work–Family Conflict

In line with COR theory, we further propose that work–goal progress is negatively associated with work–family conflict. Specifically, work–goal progress represents the ‘small wins’ (Weick, 1984) experienced by employees during their goal pursuit and sends them a signal that they are advancing well toward the achievement or completion of their work-related goals (Brunstein, 1993). In other words, a high level of work–goal progress, to some extent, means that employees are likely to win more resources (Holtschlag, Masuda, Reiche, & Morales, 2020), such as material rewards, recognition from leaders, position promotion, and so on. From the perspective of future resource acquisition, these employees tend to believe that they will develop resource surpluses in the near future (Hobfoll, 1989). In addition, as these employees are close to achieving their work-related goals, they may think that they do not need to spend additional time and energy on this matter. Based on the two aspects mentioned above, it may not be necessary for them to conserve resources by reducing the time, energy, or material resources they need to use to solve family problems or undertake family responsibilities (Hobfoll, 1989, 2011; Hobfoll et al., 2018). Therefore, these employees are likely to experience less work–family conflict.

By comparison, employees may lose an opportunity to gain future resources because of a low level of work–goal progress, which is a potential loss of resources. One principle of the COR theory is that ‘people must invest resources in order to protect against resource loss, recover from losses, and gain resources’ (Hobfoll et al., 2018: 3). In line with this principle, these employees are likely to conserve personal resources by reducing the time and energy spent in the home domain and then investing these resources in the work domain in order to offset the possibility of future loss (Hobfoll, 1989). This means that employees who lack work–goal progress are likely to have to set their whole mind and heart on work (Schmidt & DeShon, 2007) at the expense of family time or obligations.

In addition, Wanberg et al. (2010) confirmed that low perceived progress toward a goal on any given day is related to extra effort the following day. In view of this finding, when employees perceive low progress toward work goals, they may attempt to accelerate such progress by working nights or weekends (Schmidt & DeShon, 2007) or by bringing work-related tasks at home (Bolino & Turnley, 2005). To a certain extent, this scenario prevents employees from successfully participating in family activities or executing their family roles, thereby triggering work–family conflict (Deery et al., 2017; Johnson & Allen, 2013; Matthews, Winkel, & Wayne, 2014). For these reasons, we propose that

Hypothesis 2 (H2): Work–goal progress is negatively associated with work–family conflict.

The Moderated Mediation Model

Hypothesis 1 suggests that helping behavior is positively (negatively) associated with work–goal progress when the level of cooperative (competitive) goal interdependence is high. Hypothesis 2 predicts work–goal progress is negatively associated with work–family conflict. Figure 1 reflects our overall theoretical model. Many scholars identify models of the above configuration as moderated mediation models (Ambrose, Schminke, & Mayer, 2013; Yam, Klotz, He, & Reynolds, 2017). Thus, we provide our final hypotheses, which specify the overall moderated mediation effects. Specifically, competitive situations ‘emphasize performance differences among team members, typically rewarding individuals with high performance and/or imposing sanctions on those with low performance’ (Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003: 572). Therefore, when employees perceive poor work–goal progress after helping others at work in a competitive situation, they may become more sensitive to this progress and have to work harder than before. This, to some extent, may make these employees perceive higher levels of work–family conflict. By contrast, cooperative interdependence emphasizes minimizing distinctions among team members (e.g., distinctions based on work–goal progress) because these distinctions may impede teamwork or information sharing (Beersma et al., 2003). Employees who make adequate progress toward their work goals after helping colleagues in a cooperative situation, therefore, may be more resilient in the face of work demands or choose to slow down the pace of work. In this situation, employees may experience lower levels of work–family conflict. Hence, we propose that

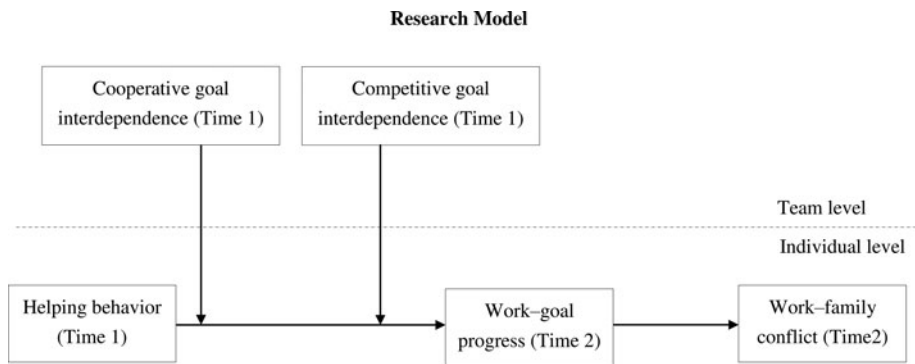


Figure 1. Research model

Hypothesis 3a (H3a): Helping behavior reduces work–family conflict through increased work–goal progress when the level of cooperative goal interdependence is high (vs. low).

Hypothesis 3b (H3b): Helping behavior promotes work–family conflict through decreased work–goal progress when the level of competitive goal interdependence is high (vs. low).

Quantitative Study

Participants and Procedures

We recruited participants from full-time employees and their supervisors working in 25 large subcorporations of a food producer in mainland China. These subcorporations are located in 25 cities, of which one belongs to 4 municipalities, 2 belong to 5 autonomous regions of minority nationalities, and 22 belong to 22 provinces throughout the country. We chose this manufacturing company for two main reasons. First, in the manufacturing industry, employees may often experience work–family conflict because of the prevalence of working overtime. Therefore, it is important for this industry to explore what factors affect work–family conflict. Second, compared to those in manufacturing industries, employees working in other industries, especially the service industry, need to interact with customers, which heightens the possibility of having more emotional experiences (Liu, Lu, Zhang, & Cai, 2021) and emotional labors (Gu & Wang, 2021). This means that employees in the service industry may experience work–family conflict not only because of working overtime but also because of negative mood spillover related to their work (Gu & Wang, 2021; Krannitz, Grandey, Liu, & Almeida, 2015). In the current work, only explore work–goal progress as an internal mechanism through which helping behavior affects work–family conflict in the goal interdependence context. Therefore, the manufacturing industry may be more suitable or conducive to testing our theoretical research framework.

Before conducting this survey, we contacted the chosen organization’s general HR manager to obtain his permission and help. We initially sent online questionnaire links to 536 employees and 107 supervisors via the enterprise e-mail. The employee participants in each work team are mainly responsible for equipment, materials, production, quality, and operations management. Their immediate supervisors are the supervisors of the work teams. There are no upper and lower relations among work teams. All the participants were informed of the anonymity, confidentiality, and voluntary nature of this study. In addition, they were told that there would be a lucky draw after completing every questionnaire, so they were asked to write down their telephone number in order to make it easier for us to distribute rewards. All the participants completed the questionnaires during their work time.

To reduce common-method variance, we conducted our survey during two time periods two weeks apart. In the first survey, we measured helping behavior, goal interdependence, and demographic information. In the second survey, we measured work–goal progress and work–family conflict. We matched the two-wave survey data according to the telephone numbers provided by the employee

participants in the two surveys. Further, we matched the data from employees and their supervisors according to the contact information (including telephone number) of team members provided by the organization's general HR manager. In total, we obtained effective data from 386 employees and 90 supervisors, resulting in response rates of 72.0% for employees and 84.1% for supervisors. In the subordinate sample, 47.4% were male ($SD = 0.59$) with an average age of 35.58 years ($SD = 5.83$), an average job tenure of 10.23 years ($SD = 5.97$).

Measures

All measures were originally developed in English and all participants were Chinese. We thus followed the commonly used back-translation procedure (Brislin, 1980) to translate the measures. Specifically, all measures were first translated from English into Chinese by two management scholars and then back-translated into English by two other scholars. Finally, we compared the original and back-translated versions of each measure and then made modifications to resolve the minor discrepancies. Respondents answered our questionnaires on a scale of 1 (strongly disagree or not at all) to 5 (strongly agree or very much).

Helping behavior

Based on the four-item scale ($\alpha = 0.81$) from Podsakoff, MacKenzie, Moorman, and Fetter (1990), we asked supervisors to assess employees' helping behavior at work based on their observations. A sample item was 'Offers assistance to coworkers to solve work-related problems'.

Goal interdependence (cooperation vs. competition)

Following the goal interdependence scale developed by Alper et al. (1998), we asked employees to evaluate the level of cooperative and competitive goal interdependence. The cooperation subscale included five items ($\alpha = 0.74$). A sample item was 'Our team members "swim or sink" together'. The competition subscale also included five items ($\alpha = 0.77$). A sample item was 'Team members' goals are incompatible with each other'.

Work-goal progress

Based on the three-item measure ($\alpha = 0.81$) used in previous research (Koestner, Powers, Carbonneau, Milyavskaya, & Chua, 2012), we asked employees to rate their perceived progress toward work goals. A sample item was 'I have made a lot of progress toward my work goals'.

Work-family conflict

Following the nine-item measure ($\alpha = 0.88$) developed by Carlson, Kacmar, and Williams (2000), we asked employees to assess work-family conflict. A sample item was 'The time I must devote to my job keeps me from participating equally in household responsibilities and activities'.

Control variables

We controlled for age, gender, and education as they are either theoretically relevant in the Work-Home Resources (W-HR) model or may influence the work-family balance (Aw, Ilies, Li, Bakker, & Liu, 2021). For instance, given that women often need to bear a larger portion of the household work, gender has been noted to play an important role in the conflict and tension between work and family roles (Byron, 2005; Shockley, Shen, DeNunzio, Arvan, & Knudsen, 2017). Age may influence employees' experience of work-family conflict, as older employees may be better at managing the work-family boundary (Allen & Finkelstein, 2014; Aw et al., 2021). In addition, according to the COR theory, individuals with rich emotional resources (e.g., positive affect [PA]) are not only less likely to be affected by resource loss but can also better coordinate the allocation of resources between work and family domains (Hobfoll, 2001). Existing research indicates that negative affect (NA) and PA could influence work-family conflict (Lin et al., 2017; Williams & Alliger, 1994). Therefore, we controlled for employees' negative and positive affect using the PA and NA Schedule (Watson, Clark, &

Tellegen, 1988). The PA ($\alpha = 0.85$) and NA ($\alpha = 0.84$) scales included 20 emotion terms, with 10 terms per scale. In the second survey, we specifically asked employees ‘during the past two weeks, to what extent do you feel this way?’ (1 not at all to 5 very much).

Data Analysis

First, we conducted a confirmatory factor analysis (CFA) to model all five key variables (helping behavior, cooperative goal interdependence, competitive goal interdependence, work–goal progress, and work–family conflict). The results confirm an acceptable fit ($\chi^2 = 555.10$, $df = 285$, $RMSEA = 0.05$, $CFI = 0.93$, $TLI = 0.92$, $IFI = 0.93$). We also constructed alternative models, but they did not fit our data better than our baseline model (see Table 1). The results suggest that the focal variables were empirically distinct.

Second, we examined whether our data justify aggregation of team-level construct (i.e., cooperative and competitive goal interdependence) by calculating Rwg and ICCs. The mean Rwgs for cooperative and competitive goal interdependence were 0.89 and 0.77, respectively. These results indicate good interrater agreement. For the cooperative goal interdependence scale, ICC (1) was 0.25, ICC (2) was 0.40, and there was significant between-group variance: F -values = 1.41, $p = 0.019$. For the competitive goal interdependence scale, ICC (1) was 0.23, ICC (2) was 0.37, and there was significant between-group variance: F -values = 1.64, $p = 0.001$. These results provide sufficient evidence to aggregate cooperative/competitive goal interdependence at the team level (LeBreton & Senter, 2008).

Finally, as our data has a multilevel structure, we used Mplus 7.11 to estimate our multilevel model (Muthén & Muthén, 2012). For hypothesis testing, we modeled our within-level predictors using random slopes and group-mean centering as well as we grand-mean centered our between-level moderators (Bliese, 2000; Enders & Tofghi, 2007). In addition, based on recommendations from Preacher, Zyphur, and Zhang (2010), we used a parametric bootstrap procedure to test our moderated mediation hypotheses. Specifically, we calculated the indirect effect of helping behavior on work–family conflict via work–goal progress at conditional (± 1 SD) values of cooperative/competitive goal interdependence. In order to test the significance of the indirect effect at high and low values (± 1 SD) of our moderators, we utilized the Monte Carlo procedure with 20,000 replications to compute bias-corrected confidence intervals (CIs) for each indirect effect (Selig & Preacher, 2008).

Table 1. Results of confirmatory factor analyses

Model	χ^2	df	CFI	TLI	IFI	RMSEA
Null model (all indicators are independent)	4,067.16	325	–	–	–	–
Baseline Model (Five factors: helping behavior; cooperative goal interdependence; competitive goal interdependence; work–goal progress; work–family conflict)	555.10	285	0.93	0.92	0.93	0.05
Model 1 (Four factors: helping behavior; goal interdependence; work–goal progress; work–family conflict)	1,002.46	289	0.81	0.79	0.81	0.08
Model 2 (Three factors: combining helping behavior with goal interdependence; work–goal progress; work–family conflict)	1,505.36	292	0.68	0.64	0.68	0.10
Model 3 (Two factors: combining helping behavior with goal interdependence; combining work–goal progress with work–family conflict)	1,875.92	294	0.58	0.53	0.58	0.12
Model 4 (One factor: all key variables are combined into one factor)	2,157.09	295	0.50	0.45	0.51	0.13

Notes: $n = 386$ at the individual level. χ^2 = normal-theory weighted least-squares Chi-square. CFI, comparative fit index; TLI, Tucker–Lewis fit index; IFI, incremental fit index; RMSEA, root-mean-square error of approximation.

Results

Means, standard deviations, and the correlation coefficients among the variables are given in Table 2. Table 3 presents the results of our multilevel path analyses. As shown in Table 3, the effect of helping behavior on work–goal progress is non-significant ($\gamma = -0.127$, $SE = 0.074$, $p = 0.086$), and its effect on work–family conflict is non-significant ($\gamma = -0.043$, $SE = 0.100$, $p = 0.669$). The cross-level interaction of helping behavior with cooperative goal interdependence is positively related to work–goal progress ($\gamma = 0.633$, $SE = 0.240$, $p = 0.008$), whereas its cross-level interaction with competitive goal interdependence is negatively related to work–goal progress ($\gamma = -0.523$, $SE = 0.144$, $p = 0.000$). The results of simple slope tests (Figure 2a) show that the effect of helping behavior on work–goal progress is positive and non-significant (simple slope: $b = 0.053$, 95% CI = $-0.119, 0.226$) under the condition of high cooperative goal interdependence, whereas the effect is negative and significant (simple slope: $b = -0.308$, 95% CI = $-0.467, -0.148$) under the condition of low cooperative goal interdependence. Meanwhile, the effect of helping behavior on work–goal progress is negative and significant (simple slope: $b = -0.407$, 95% CI = $-0.587, -0.227$) under the condition of high competitive goal interdependence, while the effect is positive and non-significant (simple slope: $b = 0.153$, 95% CI = $-0.019, 0.325$, Figure 2b) under the condition of low competitive goal interdependence. These results support Hypothesis 1b, but only partially supports Hypothesis 1a. As shown in Table 3, the effect of work–goal progress on work–family conflict is negative and significant ($\gamma = -0.235$, $SE = 0.081$, $p = 0.004$), which supports Hypothesis 2.

To test moderated mediation, we calculate conditional indirect effects of helping behavior on work–family conflict via work–goal progress (Hypotheses 3a and 3b) at high and low values (± 1 SD) of our moderators (Edwards & Lambert, 2007). Specifically, the indirect effect is negative (-0.013) and non-significant (95% CI = $-0.053, 0.028$) for high cooperative goal interdependence. However, the indirect effect is positive (0.072) and significant (95% CI = $0.017, 0.128$) for low cooperative goal interdependence. The difference between these two effects is -0.085 and significant (95% CI = $-0.152, -0.017$). Based on this difference, Hypothesis 3a is supported to some extent.

Furthermore, the indirect effect is positive (0.096) and significant (95% CI = $0.025, 0.167$) for high competitive goal interdependence. However, the indirect effect is negative (-0.036) and non-significant (95% CI = $-0.079, 0.008$) for low competitive goal interdependence. The difference between these two effects is 0.132 and significant (95% CI = $0.036, 0.226$). Thus, the results support Hypothesis 3b.

Following scholars' recommendations (Becker, 2005), we reran our analyses without any control variables. As shown in Table 4, the results are similar to those found with the control variables included, which indicates that the reported effects are robust.

Discussion

We found that helping behavior has no significant direct effect on actors' progress toward their own work goals. The interaction of helping behavior with cooperative goal interdependence is positively associated with work–goal progress, whereas its interaction with competitive goal interdependence is negatively associated with work–goal progress. However, the effect of helping behavior on work–goal progress is negative and significant only under the condition of high competitive or low cooperative goal interdependence. Furthermore, the indirect effect of helping behavior on work–family conflict via work–goal progress is positive and significant only under the condition of high competitive or low cooperative goal interdependence. Why? To answer this question and to explore possible unknown mechanisms, we conducted a complementary, qualitative interview-based study. In this study, we asked 196 employees to reflect on how they help others at work, whether their work goals are competitive or cooperative, and how helping behavior in such a situation affects their performance in the work and family domain.

Qualitative Study

Samples and Procedures

To avoid the effects of other factors (e.g., industry type or organizational culture) on the results, our interviewees were from the organization used in our quantitative study. Given the COVID-19

Table 2. Mean scores, standard deviations, and correlations among the key variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Age	35.58	5.83	1								
2. Gender [†]	0.58	0.59	-0.16**	1							
3. Education [‡]	1.59	0.64	-0.28***	0.05	1						
4. Positive affect	3.58	0.60	12**	-0.07	-0.04	1					
5. Negative affect	1.79	0.53	-0.10	-0.01	0.07	-0.33***	1				
6. Helping behavior	4.32	0.47	-0.01	-0.11*	0.03	-0.06	0.06	1			
7. Work-goal progress	4.47	0.56	0.01	-0.01	-0.05	0.34***	-0.32***	-0.06	1		
8. Work-family conflict	2.32	0.85	0.01	-0.17**	-0.02	-0.30***	0.37***	0.04	-0.28***	1	
9. Cooperative goal interdependence	4.49	0.52	0.07	-0.00	-0.04	0.09	0.07	0.02	0.15*	0.12*	1
10. Competitive goal interdependence	2.53	0.93	-0.04	0.06	0.05	-0.07	0.02	-0.02	-0.20***	0.10	-0.02

Notes: $n = 386$ at the individual level. $N = 90$ at the team level. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

[†]Dummy-coded: 0 for male, 1 for female.

[‡]Dummy-coded: 1 for lower than college certificate degree, 2 for college certificate degree, 3 for Bachelor degree, 4 for Master degree, 5 for higher than Master degree.

Table 3. Results of multilevel path analysis for the model in Figure 1 (with control variables)

Variable	Work-goal progress		Work-family conflict	
	γ	SE	γ	SE
Intercept	4.404***	0.289	2.739***	0.567
Level 1 controls				
Age	-0.007	0.005	0.001	0.008
Gender	0.003	0.047	-0.276***	0.058
Education	-0.018	0.047	-0.074	0.068
Positive emotion	0.226***	0.043	-0.260**	0.079
Negative emotion	-0.276***	0.073	0.419***	0.086
Level 1 IVs				
Helping behavior	-0.127	0.074	-0.043	0.100
Work-goal progress			-0.235**	0.081
Level 2 IVs				
Cooperative goal interdependence	0.303**	0.090		
Competitive goal interdependence	-0.193**	0.060		
Helping behavior \times Cooperative goal interdependence	0.633**	0.240		
Helping behavior \times Competitive goal interdependence	-0.523***	0.144		
Indirect effects				
Indirect effect (at high cooperative goal interdependence)			-0.013	0.024
Indirect effect (at low cooperative goal interdependence)			0.072*	0.034
Indirect effect difference (cooperative)			-0.085*	0.041
Indirect effect (at high competitive goal interdependence)			0.096*	0.043
Indirect effect (at low competitive goal interdependence)			-0.036	0.027
Indirect effect difference (competitive)			0.132*	0.058

Notes: $n = 386$ at the individual level. $N = 90$ at the team level. γ values reflect unstandardized coefficients. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

pandemic, we opted to conduct telephone interviews. We recruited and interviewed 196 employees to obtain sufficient data. The average length of an interview was about 15 minutes. Table 5 presents detailed background information on the interviewees. Of the interviewees, 51.0% were male ($SD = 0.50$), and 93.9% were married, with an average age of 37.97 years ($SD = 5.58$). Nearly 30% of the interviewees' parents were in poor health, 91.8% interviewees had children, and 55.1% needed to spend three or more hours per day taking care of their parents and children. These data show that Chinese employees are facing great pressure to balance work and family.

We created an interview protocol aimed at eliciting discussion about and examples of helping behavior and its consequences (Figure 3). First, we attempted to understand whether helping behavior was common in the organization and to determine the relationship between team members' work goals. All interviewees stated that they helped their colleagues at work, and 98.5% stated that team members had consistent or relative work goals. Next, to understand the effects of helping behavior on employees' performance in work and family domains, we asked interviewees the following questions: 'In this situation you stated above, how does helping other team members at work affect your work-goal progress?', 'How do you usually allocate time and energy between the work and family domain when your work-goal progress is fast or slow?', and so on. Following Zhang, Liao, Li, and Colbert (2020), we conducted a thematic analysis of these responses. The themes identified fell under four broad umbrella structures that

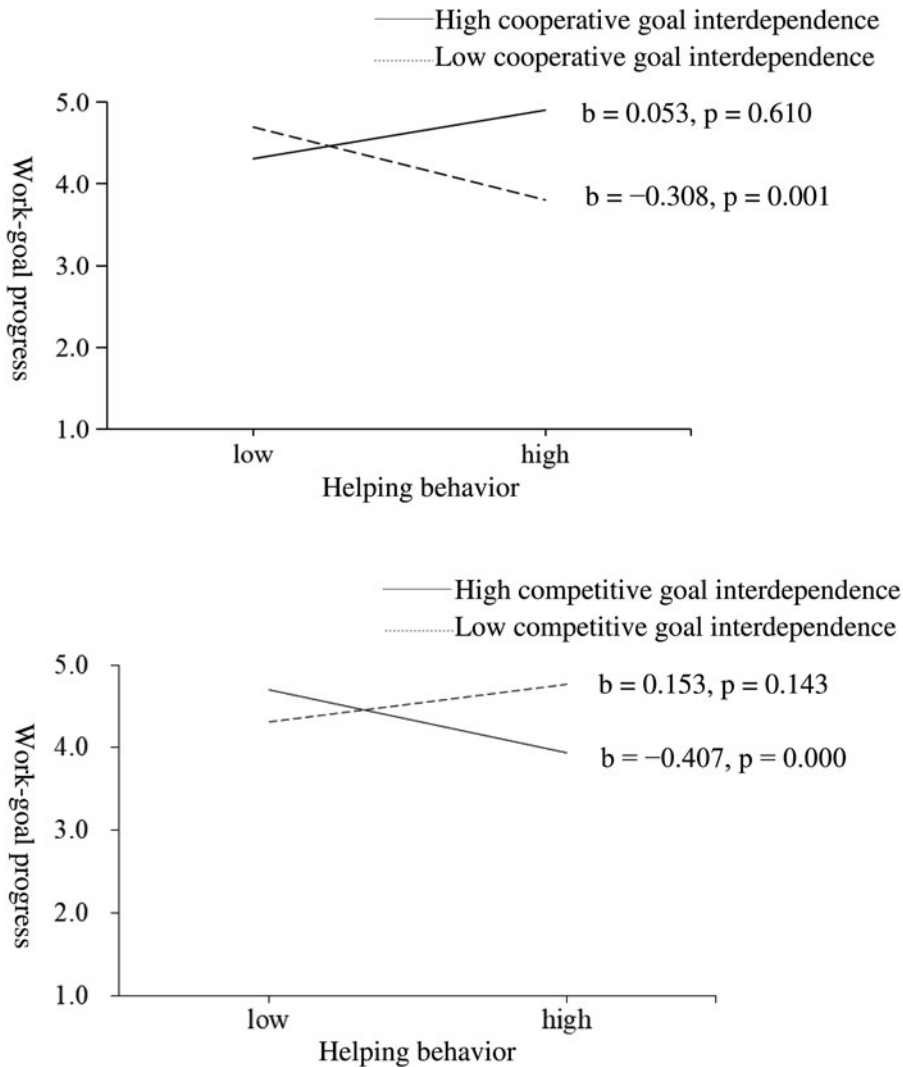


Figure 2. (a) The effect of helping behavior on work–goal progress under the condition of cooperative goal interdependence and (b) the effect of helping behavior on work–goal progress under the condition of competitive goal interdependence

captured helping behavior, goal interdependence, work outcome, and work–family balance. We generated 12 specific categories under these four umbrella constructs that captured the themes emerging from our responses. Figure 3 summarizes the themes that emerged from our data.

Analyses and Findings

Helping behavior is widespread in the organization

We asked the interviewees this question: ‘Have you ever helped other team members at work? Please give some examples’. All interviewees said that they had helped others, such as helping colleagues print materials, helping new colleagues be familiarized with the work environment, providing some suggestions to colleagues when they encountered difficulties in life, and so on. For example, Interviewee 113 answered: ‘I often help my coworkers. Recently, our company had many new employees. I helped them understand our organizational culture, know the workflow, and make them feel at home’. Interviewee 126 answered: ‘I helped others at work, such as helping my colleagues solve problems between husband and wife and helping them learn new things’.

Table 4. Results of multilevel path analysis for the model in Figure 1 (without control variables)

Variable	Work-goal progress		Work-family conflict	
	γ	SE	γ	SE
Intercept	4.427***	0.031	2.321***	0.053
Level 1 IVs				
Helping behavior	-0.163	0.154	-0.041	0.123
Work-goal progress			-0.436***	0.089
Level 2 IVs				
Cooperative goal interdependence	0.300**	0.102		
Competitive goal interdependence	-0.223**	0.067		
Helping behavior \times Cooperative goal interdependence	0.612*	0.322		
Helping behavior \times Competitive goal interdependence	-0.483**	0.140		
Indirect effects				
Indirect effect (at high cooperative goal interdependence)			-0.005	0.096
Indirect effect (at low cooperative goal interdependence)			0.147*	0.064
Indirect effect difference (cooperative)			-0.152*	0.077
Indirect effect (at high competitive goal interdependence)			0.184*	0.095
Indirect effect (at low competitive goal interdependence)			-0.042	0.070
Indirect effect difference (competitive)			0.225**	0.084

Notes: $n = 386$ at the individual level. $N = 90$ at the team level. γ values reflect unstandardized coefficients. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; two-tailed tests.

The level of cooperative goal interdependence is high in the organization

To understand the relationship between team members' work goals, we asked the interviewees the following questions: 'What is the relationship between the achievement of your and others' work goals in the team? Do team members hope others to achieve their own work goals? Why?' Of the 196 interviewees, 190 discussed how the attainment of team members' work goals affects each goal, with four primary themes emerging from their responses.

First, when answering the above questions, 11 respondents mentioned that team goals are higher than personal goals, and the latter should be oriented to the former. We labeled this theme 'team first'. Second, 39 interviewees clearly described the consistency among team members' work goals. For example, Interviewee 49 said, 'We have consistent work goals, and we cooperate with one another to achieve our team goals'. Similarly, Interviewee 129 said, 'Under the overall organizational operation, we work toward a unified annual cost target'. We labeled this theme 'consistent goals'. Third, 31 interviewees described the correlation between their goals and other team members' goals. For example, Interviewee 20 said, 'Our work goals are decomposed by team objectives and are interrelated'. Interviewee 129 said, 'The realization of individual work goals can support the realization of the team goals. Meanwhile, it is also related to the realization of other team members' goals'. We labeled this theme 'interrelated goals'. Fourth, 81 interviewees clearly expressed that the achievement of team members' work goals was complementary. For example, Interviewee 27 said, 'I think team members' work goals complement one another. The realization of teamwork goals depends on everyone's efforts. Although we have our own work goals, these goals also intersect with others' work more or less'. We labeled this theme 'complementing one another'. Notably, 46 respondents said that the relationship among their work goals was both competitive and cooperative. We further asked the 46 respondents this question: 'Which relationship is more obvious?' Only two interviewees mentioned 'more competing relationships', whereas 43 interviewees mentioned 'more cooperative relationships'. The above

Table 5. Background information about the interviewees (*n* = 196)

	Frequency	Percentage (%)
Gender		
Male	100	51.0
Female	96	49.0
Marital status		
Married	184	93.9
Unmarried	12	6.1
Job type		
Ordinary staff	65	33.2
Technical staff	28	14.3
First-line managers	48	24.5
Middle managers	30	15.3
Others	25	12.7
Age of parents		
Under 50 years old	5	2.6
51–60 years old	50	25.5
61–70 years old	94	48.0
71–80 years old	41	20.9
81–90 years old	3	1.5
Over 90 years old	1	0.5
Other	2	1.0
Health of parents		
Need to be cared for	16	8.2
Bad	42	21.4
General	75	38.3
Very healthy	61	31.1
Other	2	1.0
Number of children		
Zero	16	8.2
One	93	47.4
Two	81	41.3
Three	4	2.0
More than three	2	1.0
Age of the youngest child		
0–3 years old	50	25.5
4–6 years old	40	20.4
7–12 years old	60	30.6
13–18 years old	23	11.7
Over 18 years old	23	11.7
Time needed to care for parents and children every day		

(Continued)

Table 5. (Continued.)

	Frequency	Percentage (%)
About one hour	36	18.4
About two hours	52	26.5
About three hours	58	29.6
About four hours	22	11.2
About five hours	14	7.1
More than five hours	14	7.1

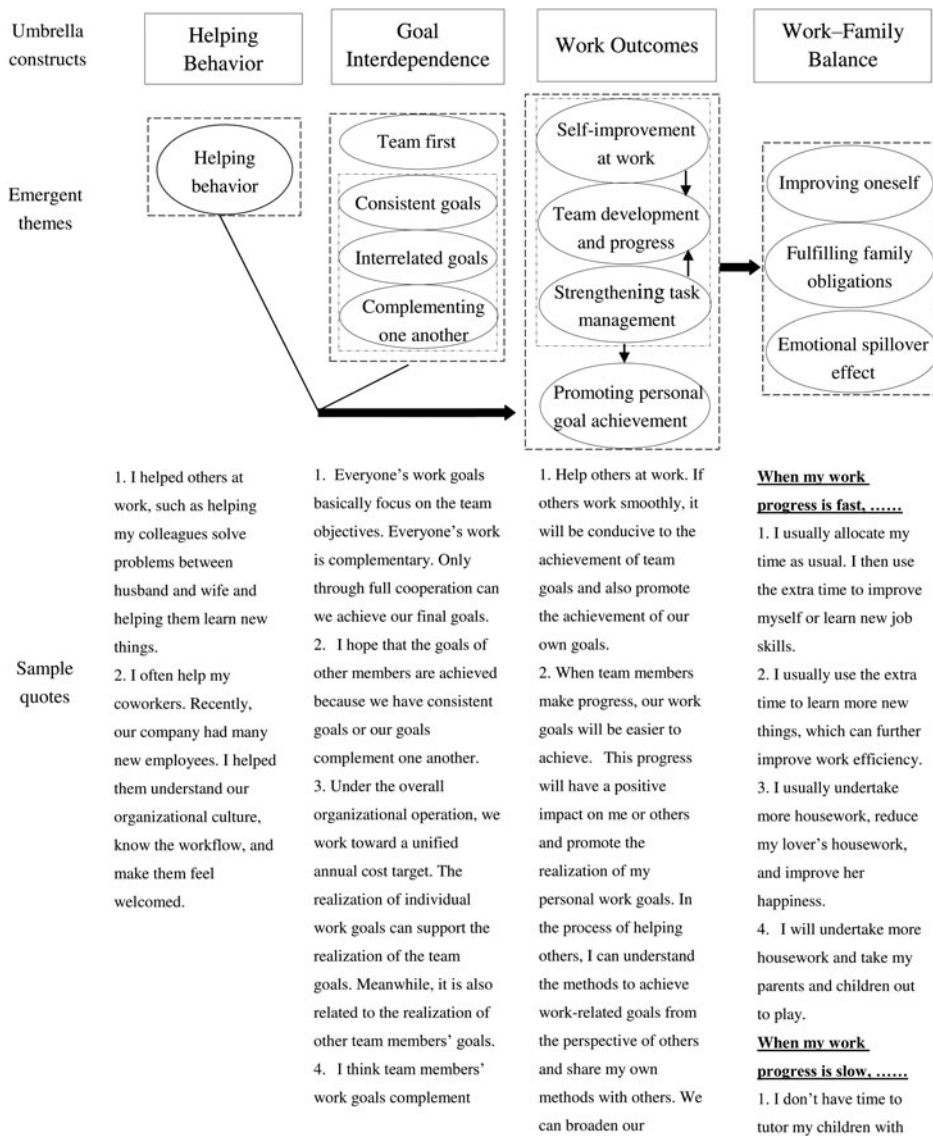


Figure 3. Results of thematic analyses (qualitative study)

Sample quotes	<p>one another. The realization of team work goals depends on everyone's efforts. Although we have our own work goals, these goals also intersect with others' work more or less.</p> <p>5. Interrelated. Based on the achievement of personal work goals, we can help others achieve their work goals. The achievement of others' work goals can also reflect the effectiveness of our own work.</p> <p>6. The realization of personal work goals is inseparable from the help and suggestions of others in the team. Team members help one another to promote our mutual growth and common progress.</p> <p>7. In the same team, through mutual cooperation and learning from one another, we can complete the task on time and according to the plan.</p>	<p>perspectives and share resources in the process of mutual learning, understanding, and discussion.</p> <p>3. The progress of team members can help improve the quality of work, enhance the combat effectiveness of the whole team, and shorten the time to achieve common goals.</p> <p>4. Helping others can promote the formation of team cohesion, the development of our own work, and the realization of our own goals.</p> <p>5. We can effectively and reasonably arrange our own work. We can try our best to assist team members on the premise that our own work will not be affected negatively.</p> <p>6. According to the importance of and the deadline for task completion, we can reasonably help others at work. I think that this will not negatively affect our own work-goal progress.</p>	<p>their homework and pick them up to school. I even miss meals.</p> <p>2. I have no time to accompany my children or take my parents to the hospital, which causes problems in children's education and parents' health.</p> <p>3. I spend less time with children and undertake less housework.</p> <p>4. I am often in a bad mood, which increases the possibility of quarreling with my wife.</p> <p>5. I usually complain about work problems with my other half, which can negatively affect our mood and easily arouse contradictions.</p>
Sample interview questions	<p>1. Have you ever helped other team members at work? Please give some examples.</p>	<p>1. What is the relationship between the achievement of your and others' work goals in the team?</p> <p>2. Do team members hope others to achieve their own work goals? Why?</p>	<p>1. In this situation you stated above, how do you think helping other team members at work will affect your work-goal progress?</p> <p>1. Does your work-goal progress affect the allocation of time and energy between the work and family domain? If so, how?</p> <p>2. Does your work-goal progress bring about or help solve some family conflicts? If so, how?</p>

Figure 3. Continued

interview content further confirms our quantitative study, which shows that the mean value of cooperation goal interdependence is 4.49 (SD = 0.52).

Helping colleagues at work is conducive to the progress of actors' work goals under the condition of cooperative goal interdependence

Next, we sought to understand the relationship between helping behavior and work-goal progress in a cooperative situation. Specifically, we asked, 'In this situation you stated above, how do you think helping other team members at work will affect your work-goal progress'? A total of 186 respondents thought that helping others at work did not have bad consequences for themselves. Meanwhile, 101 respondents expressed that helping others at work had a positive impact on themselves. All respondents further articulated how their work-goal progress had been influenced. Their answers reflected four themes.

First, 34 interviewees stated that when helping others at work in this situation, they acquired new knowledge, accumulated work experience, and improved their work ability. Specifically, Interviewee 47

said, 'It may not directly affect my work–goal progress. However, I can learn something different in helping others, which in turn promotes the achievement of my own work goals'. Similarly, Interviewee 50 said, 'In the process of helping others at work, I can learn and accumulate relevant experience, which is conducive to the development of my own work'. Interviewee 60 said, 'I can understand the methods to achieve work-related goals from the perspective of others and share my own methods with others'. We labeled this theme 'self-improvement at work'.

The second theme was 'team development and progress'. A total of 42 interviewees mentioned that helping others at work can help the team develop and improve in a cooperative situation, such as helping the team improve its competitiveness, cohesion, and work efficiency, as well as create a positive team climate. Specifically, Interviewee 57 said, 'The progress of team members can help improve the quality of work, enhance the combat effectiveness of the whole team, and shorten the time to achieve common goals'. Interviewee 182 said, 'Helping others at work is conducive to enhancing team cohesion, which helps carry out work tasks and achieve work goals'. Interviewee 60 said, 'It promotes the progress of our team and the achievement of its goals'.

Related to the tendency to avoid adverse consequences of helping behavior, the third theme was 'strengthening task management'. Eight respondents thought that they should pay more attention to task management when helping others at work. For example, Interviewee 73 said, 'We can effectively and reasonably arrange our own work. We can try our best to assist team members on the premise that our own work will not be affected negatively'. Interviewee 89 said, 'According to the importance of and the deadline for task completion, we can reasonably help others at work. I think that this will not negatively affect our own work–goal progress'.

Finally, 92 respondents mentioned that helping others at work can promote their own progress toward work goals. For example, Interviewee 111 said, 'Help others at work. If others work smoothly, it will be conducive to the achievement of team goals and also promote the achievement of our own goals'. Similarly, Interviewee 177 said, 'Helping others can promote the formation of team cohesion, the development of our own work, and the realization of our own goals'. Interviewee 178 further said, 'The progress of team members can help improve the quality of work, enhance the combat effectiveness of the whole team, and shorten the time to achieve common goals'. From these responses, we summarized this theme and labeled it 'promoting personal goal achievement'.

Interestingly, our interviews revealed that helping colleagues in a cooperative situation can directly promote the achievement of personal work goals (mentioned 92 times). Meanwhile, such behavior can also promote personal self-development (mentioned 34 times), team development and progress (mentioned 42 times), and task management (mentioned 8 times), which are also conducive to the realization of personal work goals. These processes are the concrete embodiments of helping coworkers as a form of resource investment in a cooperative situation.

Work–goal progress affects work–family balance

When asked about the ways in which work–goal progress had affected their family outcomes or resource allocation (e.g., 'Does your work–goal progress bring about or help solve some family conflicts? If so, how?'), the interviewees provided statements that could be coded into three themes. The first theme was 'improving oneself'. A total of 36 respondents clearly expressed that they still opted to give priority to their work even though they made rapid progress in their work. Most notably, 16 of the respondents said that they usually used the free time brought by high work–goal progress to improve themselves. Specifically, Interviewee 83 said, 'I usually allocate my time as usual. I then use the extra time to improve myself or learn new job skills'. Interviewee 159 said, 'I usually use the time to learn more new things, which can further improve work efficiency'.

The second theme was 'fulfilling family obligations', which captured how work–goal progress affected employees' time and energy investment in the family. A total of 95 respondents thought that the progress of work goals affected their fulfillment of family obligations, including taking care of their parents, spouses, and children. Specifically, Interviewee 186 said, 'In order to catch up with work progress, I don't have time to tutor my children with their homework and pick them up to school. I even miss meals'. Interviewee 6 said, 'When my work progresses rapidly, I usually undertake

more housework, reduce my lover's housework, and improve her happiness'. Interviewee 131 said, 'I often undertake more housework and take my parents and children out to play'.

Finally, the last theme was 'emotional spillover effect'. A total of 31 respondents mentioned 'emotion'. Slow work-goal progress might cause employees to go home late, thus being unable to participate in family activities or bringing work-related affairs and emotions to their family life. In turn, this scenario easily caused the other half's dissatisfaction or complaints and affected family harmony. For example, Interviewee 70 said, 'Due to the slow progress of work, I am often in a bad mood, which increases the possibility of quarreling with my wife'. Interviewee 190 said, 'When my work-goal progress is slow, I usually complain about work problems with my other half, which can negatively affect our mood states and easily cause contradictions'.

Overall, 195 interviewees stated that they spent more time and energy on their work when their work-goal progress was slow. Moreover, 112 respondents stated that they tended to spend three extra hours on their work to catch up with their work goals, of which 68 participants even divulged that they tended to spend five extra hours on these tasks. Some respondents were reluctant to sacrifice their working hours to fulfill their family obligations. Of course, most interviewees were willing to spend more time and energy to take care of their families and undertake housework. In other words, the progress of work goals had a great impact on how employees allocate time and energy between the work and family domains.

Discussion

The above qualitative analyses substantiated and extended the findings from our quantitative study. Our interviewees noted that under the condition of high cooperative goal interdependence, helping others at work was conducive to the realization of their own work goals. Our qualitative data also suggested some internal mechanisms (e.g., self-development at work) through which helping behavior in a cooperative situation affects work-goal progress, which provides guidance for future research. As we theorized, our interviewees also noted that work-goal progress greatly affected their allocation of time and energy between work and home life. We will discuss these findings in detail in the following session.

General Discussion

The findings from our quantitative and qualitative studies largely support our hypothesized model. Nevertheless, our quantitative study fails to demonstrate that helping behavior can promote work-goal progress under the condition of high cooperative goal interdependence. However, 51.5% of the respondents in our qualitative study expressed that helping others at work in a cooperative situation had a positive impact on the achievement of their own work-related goals. This type of behavior can not only directly promote the achievement of personal work goals (mentioned 92 times), but also indirectly benefit the realization of personal work goals through promoting self-development at work (mentioned 34 times), task management (mentioned 8 times), or team development and progress (mentioned 42 times). Our qualitative study finds that helping colleagues at work is conducive to the progress of actors' work goals under the condition of high cooperative goal interdependence.

In addition, our quantitative study fails to demonstrate that helping behavior can help reduce work-family conflict by promoting employees' progress toward their own work goals under the condition of high cooperative goal interdependence. On the basis of our qualitative analyses, we provide our explanation from the following two aspects. First, 47.4% of interviewees need to raise one child, 44.3% of interviewees need to raise two or more children, and 70.9% of the employees' parents are over 60 years old. These percentages show that most respondents not only have to bear certain economic pressures but also need to spend a lot of time and energy taking care of their children and parents. Economic pressures have forced these respondents to aspire for self-development at work. In other words, Chinese employees are under great pressure to balance family and work. Second, many interviewees are more concerned about the role of helping behavior in promoting personal self-development (mentioned 34 times) and strengthening task management (mentioned 8 times). In

the process of helping others, they may be more eager to improve their personal ability. In our interview, some respondents have stated that they still opt to prioritize completing their own work or improving their personal knowledge and skills even if their work goals progress rapidly. Thus, the desire for self-improvement may further make these respondents allocate more time for self-development rather than family life.

Our study identifies a negative and non-significant correlation between cooperative goal interdependence and competitive goal interdependence ($r = -0.021, p = 0.676$). How can this be explained? Indeed, some studies have confirmed that the correlation between the two is insignificantly negative (Tjosvold, Tang, & West, 2004) or even significantly positive (Latif, Tariq, Khan, Weng, & Sarwar, 2020). Although it seems that their concepts are contrary to each other, the two types of goal interdependence may actually coexist in a real work team. Our qualitative analyses further support this idea. Specifically, 46 respondents stated that their work objectives are both competitive and cooperative. A team is a formal group composed of individuals with complementary skills who cooperate with one another to achieve a common goal, which is characterized by a particularly high degree of interdependence (Gladstein, 1984; Sundstrom, De Meuse, & Futrell, 1990). Therefore, cooperative goal interdependence may obviously exist in any work team. Meanwhile, this team may also not lack competitive goal interdependence, because team members usually catch up with one another and compete for posts. Therefore, to some extent, a negative and non-significant correlation between cooperative and competitive goal interdependence makes sense.

Theoretical Contributions

Our research makes several distinct theoretical contributions to the literature. First, our research contributes to the work–family literature by simultaneously focusing on the resource-generating and resource-consuming processes of helping others at work in the goal interdependence context and their spillover effects onto the work–family balance. At present, most scholars have confirmed that helping behavior, as a resource-consuming behavior, leads to work–family conflict (Bolino & Turnley, 2005; Halbesleben et al., 2009). Meanwhile, Deery et al. (2017) found that altruistic behavior, such as helping colleagues with challenging tasks, is insignificantly associated with work–family conflict. Differently, our research adopts a balanced view on the effects of helping others at work. By integrating goal interdependence and COR theories, our model illuminates that helping behavior may be resource-consuming (resource-generating) under the condition of competitive (cooperative) goal interdependence. Our research supports the above-mentioned inconsistent contentions to a certain extent and helps provide a relatively complete understanding of how helping others at work affects work–family conflict.

Second, our research contributes to the literature on OCB and work–family conflict by considering two types of goal interdependence (i.e., cooperation vs. competition) as important boundary conditions of how helping behavior affects work–family conflict. To our knowledge, existing studies on the boundary conditions have only been limited to individual characteristics, such as gender (Bolino & Turnley, 2005), proactive personality (Chen et al., 2023), and conscientiousness (Halbesleben et al., 2009). Extending the existing research, our findings reveal that how the process of helping others at work, which then affects work–family conflict, largely depends on the type of goal interdependence. In addition, existing works have confirmed that task interdependence can account for the inconsistent relationship observed between helping behavior and performance outcomes (Bachrach, Powell, Collins, & Richey, 2006; Nielsen, Bachrach, Sundstrom, & Halfhill, 2012). However, based on goal interdependence theory (Deutsch, 1949; Tjosvold, 1989), at least two basic types of interdependence occur in organizations: cooperative and competitive goal interdependence. Therefore, from a theoretical standpoint, it is worth investigating in our research whether the two types of goal interdependence serve as important boundary conditions for whether helping behavior is beneficial or harmful. Meanwhile, Hobfoll (1988, 1998) pointed out that the COR theory should be viewed within context and can be best utilized when integrated with more specific theories that are developed on the micro level of resources in a given context (Hobfoll et al., 2018). Our resulting

framework from the integration of goal interdependence and COR theories highlights the important role played by work environment in determining whether a certain behavior is resource-generating or resource-consuming. To some extent, this advances our understanding of the COR theory.

Third, our research contributes to the literature on OCB and work–family conflict by investigating work–goal progress as an internal mechanism through which helping others at work affects work–family conflict. To our knowledge, little is known about the internal mechanisms through which helping colleagues at work affects actors’ work–family conflict. By integrating goal interdependence and COR theories, our study confirms that work–goal progress links the relationship between helping behavior and work–family conflict in the conditions of different goal interdependence types. Specifically, helping coworkers in the context of high competitive (or low cooperative) goal interdependence not only depletes actors’ personal resources, but also makes them lose the opportunity to obtain future resources (i.e., lacking work–goal progress). As a result, actors subsequently have to conserve resources by reducing the time and energy spent in the home domain.

Overall, we believe that this research constitutes a promising step toward understanding the internal mechanisms through which helping behavior affects work–family conflict in work contexts characterized by interdependence. In addition, Koopman et al. (2016) called for an in-depth investigation of the boundary conditions that determine whether performing citizenship is beneficial or detrimental for actors, especially in terms of perceptions on work–goal progress. To some extent, we also respond to Koopman et al.’s (2016) call to provide a relatively comprehensive understanding of the relationship between helping behavior and work–goal progress.

Practical Implications

As organizations are increasingly encouraging employees to work beyond the call of duty, employees and managers should be aware of the costs and benefits of helping others at work. Related to this, our research has several practical implications. First, helping colleagues at work is conducive to the progress of actors’ work goals under the condition of high cooperative or low competitive goal interdependence. Based on this point, organizations that encourage employees to help others at work should also obtain a correct and complete understanding of the influence helping behavior has on actors’ progress toward work goals. Specifically, when team members’ goal attainments are positively correlated, managers should help employees recognize that the requirement for mutual assistance between team members or cooperative effort with others is an effective means and a necessary means to accomplish work-related tasks. Managers should emphasize to their employees that helping others at work in cooperative situations, which is a resource investment aimed at achieving work-related goals, actually means helping themselves in attaining such goals. To a certain extent, this point encourages employees to move toward their work-related goals by helping colleagues with additional or challenging tasks. However, when the relationship between team members’ goals is competitive, managers should be aware that helping others at work is harmful to actors’ work–goal progress. As such, they should avoid blindly encouraging or asking employees to help their coworkers take on extra work or solve time-consuming, work-related problems. Managers should encourage employees to strengthen their task management. For example, managers can encourage employees to do their best to help other team members, on the premise that their own work has been completed. To evaluate employees’ work–goal progress objectively, managers should also consider and evaluate the levels of their helping behaviors. In addition, on days when employees foresee their slow or lack of progress toward work-related goals, they should opt for less time-consuming helping behaviors, such as providing guidance or advice instead of taking over considerable amounts of work themselves. In other words, to minimize the costs and maximize the benefits of helping, help should be given in a strategic way according to the needs of the actual working environment. Meanwhile, whether in a cooperative or competitive situation, employees should strive to learn new knowledge and skills while helping colleagues at work. To some extent, this goal can promote the benefits of helping others at work.

Second, work–goal progress is negatively associated with work–family conflicts. In view of this finding, managers should pay close attention to the well-being of employees who make poor progress

toward work goals. Specifically, given that employees who perceive a lack of goal progress may have a large number of accumulated tasks and experience pressure from work demands, managers can provide emotional support or encouragement to these employees and provide the necessary guidance and help for their work. This practice can not only help accelerate employees' progress toward their work goals but also make them perceive high levels of leader support or leader-member exchange (LMX), which are regarded as job resources. The COR theory posits that employees who experience resource loss can rely on extra resources to recharge themselves and mitigate the devastating effects of the resource loss (Hobfoll et al., 2018). Therefore, the above-mentioned practice can help employees lacking work-goal progress rely on extra job resources (e.g., leader support or LMX) to recharge themselves. In turn, this can give them more time and energy to undertake family responsibilities, even under the condition of competitive goal interdependence.

Finally, organizations that value citizenship should recognize that the relationship between helping behavior and work-family conflict is complex and depends significantly on goal interdependence types. In the context of high competitive or low cooperative goal interdependence, helping others at work is a loss or failed investment of resources that hinders actors' progress toward their work-related goals and may even impede their accomplishments in the family domain. Therefore, in such a situation, managers can directly provide helpers with additional work and resource support to help them recharge and achieve their work goals. In addition, managers should encourage employees to provide work guidance or help to their coworkers on the premise of achieving their own work goals, and then reward those who have already done so with short holidays for as long as they need to enable them to deal with family problems. Managers can also cultivate a culture of support and reciprocity in which, even if it is just a little help from others, one should return the favor with all he/she can when others are in need. This practice, to some extent, makes helping others at work become an effective and long-term investment of resources, even in the context of high competitive or low cooperative goal interdependence. In addition, our qualitative analyses show that most employees not only face great economic pressure but also strive to balance their work and personal lives given the circumstances. Some employees, who have made progress at work by helping other team members, may still focus on self-improvement, salary increase, or job promotion. As a result, they may not be able to fulfill their family obligations in a timely manner. Considering this situation, the organization should provide appropriate family support to employees.

Limitations and Future Research

Several limitations of this research should be noted. First, the generalizability of our findings may be limited because our sample comes from a company. Besides, many scholars conceptualize OCB as daily helping behavior that is ongoing, dynamic, and time-dependent (Bolino, Harvey, & Bachrach, 2012; Gabriel et al., 2018). A more appropriate empirical test of how helping behavior affects work-goal progress and work-family conflict may require experience-sampling methodology that can capture the dynamic processes of these relationships (Gabriel et al., 2018). Therefore, future research should use experience-sampling methodology to investigate and test our findings across different industries and cultures. In addition, a supervisor, as a third party, may have limited observations on his/her employees' helping behaviors toward their colleagues. Thus, to improve the accuracy of measurement, future research can ask other team members to evaluate the target employees' helping behavior.

Second, we focus on a specific type of OCB – helping behavior – to study how this behavior affects individuals under interdependent environments. However, other unique instances of citizenship behavior may have different role in our theoretical model. For example, compared with relational-focused OCB, task-focused OCB are more likely to conform to our theoretical model. Future research should explore and compare the effects of relational-versus task-focused OCB on individuals under interdependent environments. In addition, based on goal interdependence theory, this research focuses only on two different types of goal interdependence in the team as the boundary conditions of how helping behavior affects actors. However, to gain a deeper and more comprehensive understanding of the costs and benefits of helping behavior, future research should further explore the roles of

other contextual factors, such as differences in nature or team climate, organizational culture, or human resource management, in this process.

Third, on the basis of resource investment and resource consumption emphasized by the COR theory, we explain how helping coworkers affects actors' work-goal progress in the context of different goal interdependence types. We conduct a qualitative study to provide supplementary analyses, which helps further clarify the underlying resource investment processes in a cooperative situation. However, this study fails to reveal the underlying resource consumption processes in a competitive situation. Moreover, empirically testing these processes would be better. As one reviewer said, doing so can further advance the literature on OCB and work-goal progress and our understanding of COR theory. Therefore, future research could further identify and measure a model that distinguishes between resource investment and resource consumption mechanisms that link helping behavior to work-goal progress in different environmental conditions.

Finally, we do not explicitly explore the mediating mechanisms and boundary conditions of the relationship between work-goal progress and work-family conflict. On the basis of COR theory, we suggest that poor work-goal progress leads to work-family conflict because employees have to invest a substantial amount of resources to achieve their work goals. Consequently, these employees may feel stressed and exhausted. This means that two distinct underlying mechanisms, namely, work stress and ego depletion, may further explain how work-goal progress affects work-family conflict. Given that the research on the internal mechanisms through which factors in the work domain affect work-family conflict remains limited (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011), future research should thus focus on the underlying mechanisms that link work-goal progress with work-family conflict. In addition, our research ignores the boundary conditions of the relationship between work-goal progress on work-family conflict. According to the COR theory, future research should further explore the boundary conditions, such as LMX, supervisor work-family support, spouse's family identity, conscientiousness, or neuroticism.

Conclusion

This research focuses on when and how helping others at work affects employees' work-family conflict. The findings from our quantitative study reveal that helping coworkers at work is negatively associated with work-goal progress under the condition of high competitive or low cooperative goal interdependence. In turn, work-goal progress becomes negatively related to work-family conflict. Furthermore, the indirect effect of helping behavior on work-family conflict via work-goal progress is only positive and significant when the level of competitive goal interdependence is high rather than low or when the level of cooperative goal interdependence is low rather than high. Our qualitative analyses substantiate and extend the findings from our quantitative study. We find that helping colleagues at work is conducive to the progress of actors' work goals under the condition of high cooperative goal interdependence. Furthermore, Chinese employees are under great economic pressure from raising their children and supporting their parents. Meanwhile, the great desire for self-improvement generated in the process of helping others makes these employees focus on their work rather than on their family life. Overall, the relationship between helping behavior and work-family conflicts is complex and depends strongly on the levels of cooperative and competitive goal interdependence.

Data Availability Statement. Some or all data, models, or code generated or used during the study are available from the corresponding author by request.

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