

# You are a helpful co-worker, but do you support your spouse? A resource-based work-family model of helping and support provision



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## ABSTRACT

Drawing from the literature on behavioral spillover effects, the work-home resources model and research on helping at work, we investigate how help provision at work spills over to influence the provision of spousal support at home by examining a resource generation mechanism and a resource depletion mechanism. Across two experience-sampling studies, we collected data from employees and their spouses multiple times per day in different domains for ten workdays. Results from our two-study examination supported both the resource generation mechanism and the resource depletion mechanism. On days when employees helped colleagues more, they reported higher positive affect, which led to higher support provision to their spouses; meanwhile, higher levels of helping translated in less time for the family, which led to lower support provided to spouses. In Study 2, we tested and found that prosocial motivation enhanced the resource-generating effect of help provision. Theoretical and practical implications are discussed.

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## 1. Introduction

The past three decades have witnessed a surge of research on helping behaviors in the workplace, including but not limited to, altruistic behaviors (Organ, 1988), organizational citizenship behaviors toward individuals (OCB-I, L. J. Williams & Anderson, 1991), and prosocial organizational behaviors (Brief & Motowidlo, 1986). Helping other people at work enhances both individual and organizational performance (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009; Spitzmuller, Van Dyne, & Ilies, 2008). Research has also documented the benefits of helping behaviors in the workplace for helpers themselves (Grant & Sonnentag, 2010; Sonnentag & Grant, 2012). Nevertheless, despite the prevailing belief in the “bright side” of helping others at work, helping behaviors may very well be a double-edged sword. Some recent studies pointed to the potential negative consequences of providing help for those who do so, such as higher fatigue, lower work progress, and lower career advancement (Bergeron, Shipp, Rosen, & Furst, 2013; Bolino, Hsiung, Harvey, & LePine, 2015; Koopman, Lanaj, & Scott, 2016). Thus, a more balanced and comprehensive

understanding of the consequences of helping others at work is needed. Herein, we take such a balanced perspective by examining both positive and negative consequences of helping at work for the help providers and their spouses.

To date, research on the consequences of helping colleagues at work has largely focused on work-related outcomes (see N. P. Podsakoff et al., 2009, for a review). With some notable exceptions (see Halbesleben, Harvey, & Bolino, 2009, for an exception), research on how helping behaviors at work influence individuals' family lives is relatively scarce, which is surprising because the work-family literature has extensively discussed spillover processes between the work and family domains. This stream of research suggests that work experiences or the effects of work events on employees' feelings or attitudes or behaviors spill over to influence the family domain, creating similar outcomes in both domains (e.g., D. S. Carlson, Kacmar, Wayne, & Grzywacz, 2006; Edwards & Rothbard, 2000; Hanson, Hammer, & Colton, 2006; Lambert, 1990). Building on the spillover perspective in the work-family research field, we examine whether helping behaviors at work influence employees' behaviors at home, with a special emphasis on employees' provision of social support to their spouses. This study thus goes beyond a focus on work-related consequences of helping behaviors by examining their implications for fulfilling the family role.

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We believe support provision to one's spouse is a highly relevant outcome in this context, as social support is critical to the functioning of marital relationships (Cutrona, 1996) and reduces spouses' family-to-work conflict (Michel, Mitchelson, Pichler, & Cullen, 2010). In this study, we focus on employees' social support provision to their spouses with a particular emphasis on emotional support (e.g., showing care and concern) because such support was found to be the strongest predictor of spouses' perception of being supported (Cutrona, 1996) and receiving emotional support from family members makes a unique contribution to one's well-being beyond the effect of instrumental support (i.e., assisting with child care and other family responsibilities) (Erickson, 1993; Lapierre & Allen, 2006). In addition, a meta-analysis showed that emotional support received from spouses is beneficial for one's work life (Wayne, Randel, & Stevens, 2006). Thus, the present study focuses on emotional support provision as a behavioral outcome in the family domain.

As mentioned, work-to-family spillover can involve feelings, attitudes or behaviors from work that spill over across the work-family boundary and thus influence employees' family lives (e.g., Edwards & Rothbard, 2000; Lambert, 1990). Previous work-family research mostly focused on affective and attitudinal spillover (e.g., Ilies, Wilson, & Wagner, 2009; Judge & Ilies, 2004; Williams & Alliger, 1994); as a consequence, the behavioral spillover effect and the psychological mechanisms by which it is realized remain largely unexplored. Our aim in this paper is to bridge this research gap and extend theory and research on work-family spillover by investigating whether and how a specific work behavior – help provision – spills over to the family domain and influences a similar behavioral construct, the provision of support to one's spouse. Our conceptual argument starts from the notion that helping behaviors have the potential to impact employees and their family lives both negatively and positively. Accordingly, we propose and test two mechanisms (i.e., resource depletion and resource generation) that explain how helping behaviors at work spill over to the family domain and influence spousal support provision at home.

The work-home resources model (ten Brummelhuis & Bakker, 2012) offers an integrative framework for examining the depleting and enriching processes underlying work-family spillover simultaneously. Ten Brummelhuis and Bakker depicted the work-family dynamic as comprised of processes whereby demands and resources in the work domain influence individuals' behaviors in the family domain, due to resource depletion and resource generation, respectively. Consistent with their resource perspective, and based on research on the consequences of helping behaviors at work, we identify two helping-related personal resources (i.e., positive affect and time) that explain how helping behaviors at work influence support provision at home, both positively and negatively. The resource generation mechanism comprises a process by which individuals develop positive affect (a resource) through helping co-workers at work, leading to an increase of supportive behaviors toward spouses at home. In contrast, the resource depletion mechanism emphasizes that helping colleagues at work consumes individuals' time, an important resource in balancing work and family, leaving them less time to spend at home and thus decreasing the extent to which they engage in supportive behaviors toward spouses. To examine these two resource-related mechanisms, we emphasized the within-individual processes because positive affect and time are volatile resources which are fleeting in nature and thus are best captured using an experience-sampling design (ten Brummelhuis & Bakker, 2012).

Understanding that enacting helping behaviors at work can be both resource-generating and resource-depleting begs the important question of who is more likely to harvest the resources that

may result from helping colleagues. Bolino, Harvey, and Bachrach (2012) suggested in their theoretical work that OCB is more rewarding when it is consistent with employees' chronic self-concept orientation. Specifically, helping colleagues at work, a type of OCB, should benefit the helpers more if the helpers have higher other-orientation (Grant, Parker, & Collins, 2009). In this study, we focus on an individual characteristic that reflects individuals' other-orientation – prosocial motivation, which describes individuals' desire to benefit others (Grant & Wrzesniewski, 2010; Rioux & Penner, 2001). We intend to provide empirical evidence for the proposition in Bolino and colleagues' (2012) work by testing the cross-level moderating effect of prosocial motivation on the resource-generating effect of helping colleagues, that is, whether the within-individual relationship between helping and positive affect is conditional on individuals' level of prosocial motivation. Fig. 1 shows our conceptual model in full.

We test our model in two studies using experience-sampling methodology with data collected from multiple sources (i.e., focal employees and their spouses) at different time points (i.e., multiple surveys at work and at home everyday) in different countries (i.e., the United States and China). Our two-study examination aims to contribute to the literature from four main perspectives. First, integrating the helping literature and the work-family literature, our studies answer the call for research on whether helping behavior at work “has downstream effects on behaviors at home (such as helping the spouse or children)” (Koopman et al., 2016, p. 35) and further contribute to research on the consequences of helping by investigating its positive and negative effects on employees' family lives. Second, our research serves as an empirical test of the notion that helping is more rewarding for more prosocial individuals (Bolino et al., 2012) and explores the boundary condition of the “doing good-feeling good” effect. Third, building on the work-home resources model (ten Brummelhuis & Bakker, 2012) and integrating the conflict and enrichment perspectives in the work-family literature (Greenhaus & Beutell, 1985), this article contributes to research on the work-family behavioral spillover effect, by uncovering a work-to-family enriching path and a work-to-family depleting path, linking behaviors in the work domain to behaviors in the family domain. Fourth, this paper also extends the work-home resources model (ten Brummelhuis & Bakker, 2012) by suggesting a novel way to examine work-family phenomena by considering that the same work experience can simultaneously be resource generating and resource depleting, affecting the family domain differently.

## 2. Literature review and hypotheses

Work-family scholars have long asserted behaviors in one domain may spillover to influence the other domain, with individuals enacting similar behaviors in both domains. This process is called the behavioral spillover effect. Edwards and Rothbard (2000) proposed two pathways to explain the behavioral spillover effect. An indirect pathway suggests that behaviors may “become ingrained as habits or scripts that influence behaviors across domains” (Edwards & Rothbard, 2000, p. 187). That is, individuals' behavioral tendencies might be changed because of work behaviors and these changes affect how they interact with their family members. Such processes establish in a longer term as they are explained through structural resources (e.g., interpersonal skills) that take substantial amounts of time to develop (ten Brummelhuis & Bakker, 2012). To capture such long-term processes, most research to date has studied work-family behavioral spillover based on between-individual differences. For example, parents who are teachers or nurses are more likely to pick up

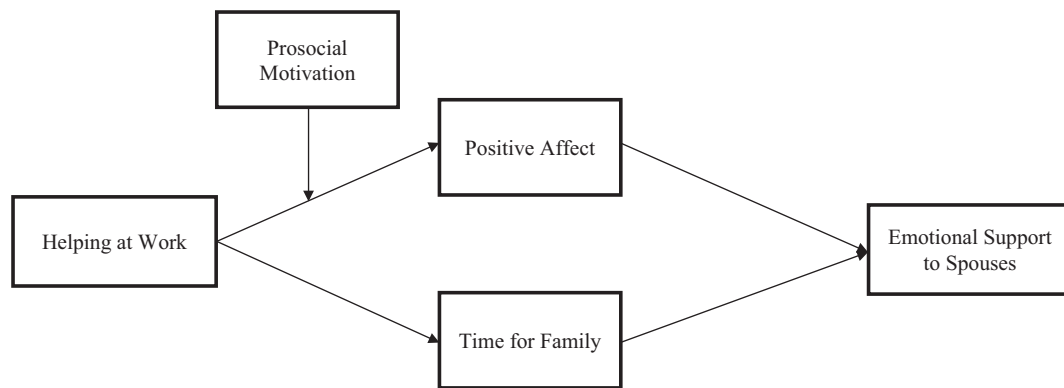


Fig. 1. Conceptual model.

person-oriented skills and apply those to their interactions with children by showing more person-oriented behaviors, compared to parents who are computer operators or engineers (Ispa, Gray, & Thornburg, 1984). Therefore, between-individual studies delineate how behavioral tendencies develop over time and across domains.

Alternatively, certain behaviors at work are transferred to the home domain more directly and in the short term, i.e., without the development of habits or scripts. Such processes can be elucidated by a within-individual approach, as taken by some recent studies, where the focus lies on how, for a given individual, enacting a certain behavior at work is related to his or her engagement in a similar behavior at home that day (essentially controlling for individuals' general behavioral tendencies). Research has supported this daily behavioral spillover effect by showing that employees' daily surface acting at work positively predicted their daily surface acting at home (Sanz-Vergel, Rodríguez-Muñoz, Bakker, & Demerouti, 2012), and daily experiences of heightened interpersonal conflict at work were related to more interpersonal conflict at home (Sanz-Vergel, Rodríguez-Muñoz, & Nielsen, 2015). However, these studies did not examine the mechanisms through which such short-term behavioral spillover effects occurred. The mechanisms explaining daily behavioral spillover from the work domain to the family domain thus remain largely unknown.

The work-home resources model (ten Brummelhuis & Bakker, 2012) sheds light on how the behavioral spillover effect can occur on a daily basis. According to this model, volatile personal resources (that is, resources that fluctuate from day to day, including mood, attention, and time) are the key mechanisms linking individuals' daily experiences at work and at home. On a given day, an employee's work experiences may lead to gains and losses in personal resources, ultimately impacting employees' functioning in the family domain. Resourceful work experiences (i.e., job resources) generate personal resources, and this gain in personal resources will facilitate an employee's participation in family responsibilities that day, causing work-family enrichment. In contrast, demanding work experiences (i.e., job demands or stressors) deplete personal resources, and this loss in personal resources will hamper an employee's participation in the family role that day, causing work-family conflict. In essence, the work-home resources model emphasizes the need to understand how aspects of the work domain relate to an individual's personal resources, such as affect and time. As alluded to earlier, research findings are inconclusive as to whether providing help to co-workers is a resourceful or demanding work experience, and we therefore set out to examine both the resource-generating and resource-depleting features of helping behaviors for the employees who enact them.

### 2.1. Helping at work is resource generating

The work-home resources model conceptualizes the receipt of help and support at work as a job resource that leads to the development of personal resources and as such provides the basis for enrichment processes (ten Brummelhuis & Bakker, 2012). Empirical studies indicate that support in the work environment can be considered a job resource also from the helpers' perspective. That is, employees may also gain personal resources from helping co-workers, in particular affective resources. A substantial body of research notes that helping others has a mood regulatory function; it can help individuals both improve their mood and maintain a good mood (e.g., M. Carlson, Charlin, & Miller, 1988; Cialdini & Kenrick, 1976). Laboratory studies showed that simple acts, such as helping the experimenters to sort papers or giving directions, boosted individuals' positive mood (Williamson & Clark, 1989; Yinon & Landau, 1987). Field studies using full-time employees also found a "doing good-feeling good" effect, such that helping behaviors at work were related to higher positive affect (e.g., Conway, Rogelberg, & Pitts, 2009; Glomb, Bhave, Miner, & Wall, 2011; Koopman et al., 2016). Although these studies examined short-lived effects of helping behaviors on positive affect (in the lab or in the work domain), there is also research supporting the proposition that affective resources gained through helping at work have longer-lasting effects (beyond the workday) and result in positive affect at home. For instance, Sonnentag and Grant (2012) found that on days when employees perceived having more positive influences on others at work, they experienced higher positive affect at home because they reflected on the positive aspects of their workday during after-work hours. Thus, research is generally supportive of the notion that helping co-workers can be a positive work experience for employees. Based on these theoretical considerations and empirical findings, we expect that helping behaviors exerted at work on a particular day are resource generating and will increase positive affect on that same day.

**Hypothesis 1.** On days when individuals help colleagues more at work, they experience higher positive affect, compared to days when they help colleagues less.

As positive affect tends to spill over between work and family (e.g., Judge & Ilies, 2004; Song, Foo, & Uy, 2008), the work-home resources model posits that the affective resources gained through experiences in the work domain can, as energies, improve behavioral outcomes in the family domain. Positive affect is a fundamental resource that facilitates individuals' approach behaviors (Watson, Wiese, Vaidya, & Tellegen, 1999), thus prompting individuals to engage with their family members. We therefore predict that when employees experience heightened positive affect, they

are more likely to provide emotional support to their spouses. There are at least two explanations for why positive affect would cause individuals to adopt a helping approach to their spouses.

First, individuals are more *able* to provide emotional support to their spouses when they experience higher positive affect. Theoretically, positive affect is related to individuals' broader scope of attention (Fredrickson & Branigan, 2005) and it helps individuals shift their attention from the ongoing positive state to other information, even negative (Aspinwall, 1998; Carver, 2003), such as a spouse who is in need of social support. Thus, positive affect enables individuals to be more attentive to the needs of their spouses, forming the prerequisite of support provision. Second, when individuals have higher positive affect, they are more *willing* to provide emotional support to their spouses. In spite of the various positive influences that interpersonal interactions can bring on the helpers, such as a sense of power and status (Nadler, Halabi, Harapz-Gorodeisky, & Ben-David, 2010) and a sense of self-competence (Sonnentag & Grant, 2012), helping or supporting others also entails substantial resource costs for providers (Hobfoll, Freedy, Lane, & Geller, 1990). Subsequently, individuals are more willing to invest in their spouses when they have sufficient resources at their disposal (Granrose, Parasuraman, & Greenhaus, 1992).

Integrating the arguments above, it is evident that employees' positive affect is a key personal resource through which the spillover effect of help provision in the work domain to support provision in the family domain occurs. Consistent with the work-home resources model, which explains the effect of work experiences on behavioral outcomes in the family domain through changes in personal resources, we propose that heightened positive affect mediates the relationship between helping behaviors at work and emotional support provision at home.

**Hypothesis 2.** On days when individuals experience higher positive affect, they provide more support to their spouses, compared to days when they experience lower positive affect.

**Hypothesis 3.** There is a positive indirect effect from daily helping at work to daily emotional support provision at home through individuals' enhanced positive affect.

## 2.2. Helping at work is resource depleting

Although helping colleagues at work can generate resources, such as positive affect, as we explained above, it also places demands on another personal resource – time – for the employee enacting helping behaviors at work. Helping colleagues is time consuming because it is a process involving understanding the nature of the help needed and striving toward a resolution to the problem at hand (Grodal, Nelson, & Siino, 2015). The work-home resources model conceptualizes time as a volatile resource due to its fleeting nature and the fact that, once used, it cannot be used for other purposes (ten Brummelhuis & Bakker, 2012). Some research on OCB is built on the notion of time scarcity, contending that employees have to make decisions about time allocation to various activities (Bergeron, 2007; Nielsen, Bachrach, Sundstrom, & Halfhill, 2012). Following a resource allocation framework, Bergeron et al. (2013) found support for a trade-off between time spent on task performance and on OCB. In a recent experience-sampling study, Koopman et al. (2016) found that employees felt that their engagement in helping behaviors toward co-workers slowed down their work goal progress on a daily basis, thus providing further evidence for the notion that helping colleagues at work is time consuming and takes time away from other activities.

We extend this resource allocation argument to the relationship between helping behaviors at work and family performance. Given that time is limited, in order to help colleagues, employees have to sacrifice their time for other work-related activities, such as time for core tasks, time for breaks, et cetera. The resulting perception of slower work progress (Koopman et al., 2016) may in turn prompt employees to spend more total time at work during a particular day; that is, individuals are likely to stay late to help their colleagues find resolutions or to catch up with their own task progress because they helped others earlier, and this results in less time being available for their families. Consistent with this claim, and particularly relevant to our study, Bolino and Turnley (2005) found that employees' engagement in OCB came at the expense of family time such that they suffered from heightened time-based work-family conflict. Thus, helping colleagues may consume time at work that in turn cannot be spent in the family domain.

In essence, we are proposing that the enactment of helping behaviors is demanding for employees in that it requires a considerable amount of resources, in particular time, to be invested in another person. In line with the work-home resources model, which posits that time is a personal resource that may become depleted in the process of attending to demanding work aspects, we argue that helping colleagues at work is resource depleting and thus leaves individuals less time to spend at home.

**Hypothesis 4.** On days when individuals help colleagues more at work, they have less time for the family, compared to days when they help colleagues less.

Scholars of work-life balance generally encourage employees to spend more time interacting with their family members for higher quality family lives (e.g., Greenhaus, Collins, & Shaw, 2003). Time constitutes an instrumental resource that facilitates role performance, and its depletion due to work activities may therefore hamper spousal support provision at home (ten Brummelhuis & Bakker, 2012). Although employees' time spent at home, by itself, is not sufficient to engender social or emotional support to spouses, it is a necessary condition for supportive behaviors to happen. It is only when employees spend time at home with their spouses that they are able to detect their spouses' needs and provide emotional support. Conceptual work on the determinants of spousal support provision identified time as a critical resource for individuals to be able to provide spousal support (Granrose et al., 1992). Directly testing this proposition, Iida, Seidman, Shrout, Fujita, and Bolger (2008) found that the likelihood of providing support to one's partner increased eight percent with every additional 1.8 hours spent together. Furthermore, Unger, Niessen, Sonnentag, and Neff (2014) found a positive relationship between time spent with relationship partners and partners' perceptions of being supported. We therefore expect that the quantity of time for the family relates positively to emotional support provision at home.

The work-home resources model considers the depletion of time (as a personal volatile resource) one of the core mechanisms underlying interference between the work and family domains (ten Brummelhuis & Bakker, 2012). When helping colleagues consumes time at work that in turn cannot be spent in the family domain, employees experience time-based work-family conflict. This form of work-family conflict occurs when time pressures from the work domain make it physically or psychologically impossible for employees to comply with expectations from the family domain (Greenhaus & Beutell, 1985) and it is associated with – or reflected in – difficulties with providing spousal support at home (Adams, King, & King, 1996). Thus, whereas we proposed that heightened positive affect will explain the positive spillover of helping behaviors from work to family, we argue that help provision at work is negatively related to support provision at home



through a resource-depleting mechanism. That is, we hypothesize that reduced time for the family, indicated by how many hours employees spend with their spouses after work on a given day or how late employees leave office that day, mediates the relationship between helping behaviors toward colleagues and emotional support provision to spouses.

**Hypothesis 5.** On days when individuals have less time for the family, they provide less emotional support to their spouses, compared to days when they have more time for their family.

**Hypothesis 6.** There is a negative indirect effect from daily helping at work to daily emotional support provision at home through individuals' reduced time for the family.

### 2.3. Prosocial motivation as a moderator

Our review of the literature suggests that resource-generating and resource-depleting effects of helping behaviors at work will ultimately influence support provision in the home domain. In line with the work-home resources model (ten Brummelhuis & Bakker, 2012), we have argued that changes in volatile resources, namely affect and time, explain the positive and negative spillover effects, respectively. Yet the work-home resources model further puts forward the notion that conditional factors make spillover effects between work and family more or less likely to occur. Among these conditional factors are personal characteristics that can explain why some individuals are better in gaining resources from work experiences than others. Here, we propose that prosocial motivation is an individual characteristic that may enhance the relationship between helping colleagues at work and the experience of positive affect.<sup>1</sup>

Bolino et al. (2012) were among the first to highlight the importance of self-concept for understanding OCB. Their notion that help provision is more effective and rewarding when it is consistent with the helpers' chronic self-concept is grounded in the self-concordance model (Sheldon & Elliot, 1999). This model suggests that engaging in behaviors that enable individuals to express their true interests and values enhances individuals' well-being. Applying this model to explain citizenship performance, Bolino et al. argued that, "if employees with prosocial motivation are engaging in OCBs that benefit other individuals, they are likely to experience positive affect" (2012, p. 134). Because individuals with higher prosocial motivation appreciate what they can contribute to other people, helping colleagues is aligned with their values and is thus a pleasant experience for them. Weinstein and Ryan (2010) provided indirect support for this argument by showing that individuals experienced better well-being when they helped others because they enjoyed and valued helping people compared to when they helped them because they were pressured to do so.

While the level of congruence between one's values and behaviors may explain why more prosocial individuals derive more positive affect from helping behaviors than less prosocial individuals, another explanation can be found in the positive interpersonal interactions that are likely to develop between a prosocial helper and the colleagues receiving help. People with higher prosocial motivation tend to be better helpers because they engage in perspective taking (Grant & Berry, 2011) and pay more attention to others' needs and preferences (De Dreu, 2006). That is, when giving help, such individuals are likely to show more genuine concerns about others, conduct more holistic analyses about help recipients'

situations, and provide more effective help. This is likely to induce appreciative reactions from colleagues, as help recipients can infer help providers' motives through the helping process (Batson & Shaw, 1991). When colleagues attribute higher prosocial motivation to the helper, they feel more grateful and admire the helper more (Weinstein, DeHaan, & Ryan, 2010), the experience of which may lead to more genuine expression of appreciation. Help recipients' expression of gratitude may in turn spark a positive spiral of interpersonal interactions between the helper and the recipient, making the experience of helping one's colleagues even more pleasant, further leading to heightened levels of positive affect. Thus, we expect that helping behaviors at work are particularly likely to generate affective resources for those people who have higher prosocial motivation.

**Hypothesis 7.** Prosocial motivation enhances the positive relationship between daily helping at work and positive affect, such that this relationship is stronger for individuals with higher prosocial motivation than for individuals with lower prosocial motivation.

## 3. Overview of studies

We tested our hypotheses in two experience-sampling studies. In Study 1, we collected data from a sample of university employees in the United States and provided a partial test of our model by investigating whether helping colleagues at work was both resource generating, indicated by higher positive affect (Hypothesis 1), and resource depleting, indicated by less time spent with spouses (Hypothesis 4). We also examined whether heightened positive affect and reduced time for the family predicted individuals' support provision to spouses in opposing ways (Hypotheses 2 and 5) and whether they mediated the relationship between helping at work and support provision at home (Hypotheses 3 and 6).

We then designed a second study to replicate the findings of the first study while addressing some of its limitations and to broaden our theoretical understanding of the spillover effect by investigating a boundary condition for the relationship between daily helping at work and positive affect. In Study 2, we reexamined the main within-individual relations in a multi-organization sample, with employees representing different occupations in China. To test the robustness of our findings, in this second study we controlled for before-work positive affect when testing the resource-generating effect, and we adopted an alternative measurement to examine the resource-depleting effect (i.e., employee reports indicating when they left work each day instead of spousal reports of how much time employees spent at home each day). Finally, we collected data on prosocial motivation as the moderator in our model and tested whether prosocial motivation enhanced the resource-generating effect of helping colleagues at work (Hypothesis 7). Together, Study 1 and 2 offer a comprehensive test of whether, how (i.e., resource generating and depleting mechanisms), and for whom (i.e., prosocial motivation as a conditional factor) helping colleagues at work is related to support provision to one's spouse at home.

## 4. Study 1

### 4.1. Participants

The data of this study were collected as part of a larger research project on employees' work and family life. With the exception of the score reflecting the focal employees' positive affect, none of the variables used in this study were used in other articles based on this dataset. We recruited participants through sending out invita-

<sup>1</sup> We thank an anonymous reviewer for suggesting us to integrate the theoretical work by Bolino et al. (2012) and to examine the boundary condition of when helping is more rewarding or depleting.

tion emails to full-time employees from a large Midwestern university in the United States. In the invitation email, we introduced the purpose of the study and specified that only employees whose spouses or significant others were willing to answer daily phone interviews were eligible to participate in this study. Employees who showed interest in the study were directed to an online registration webpage, where they could create a unique user ID and password. The first 150 registered participants were invited to proceed with the formal study.

Among these registered participants, six failed to complete the first phase of the study, which involved a Time 1 online survey measuring the focal participants' demographic information. Thirty-eight participants who had finished the Time 1 survey declined to continue with the second phase of the study, which involved daily surveys for two weeks, for various reasons including their spouses not being able to participate in the daily phone interviews. Hence, 106 employees finished the Time 1 online survey and proceeded to the daily survey phase. On average, these participants were 43.3 years old and 76% of them were female. They had been working at this university for 13.7 years and they worked on administrative jobs, communication and coordination work, academic research, information and technology, and others.

#### 4.2. Procedure

As introduced above, in the first phase of the study, the focal participants were requested to fill out a one-time online survey regarding their demographic information. The second phase of this study started one week after participants' completion of the first phase and lasted for two weeks (i.e., 10 workdays). On each day, the focal participants were requested to fill out one end-of-work online survey on an Internet interface and one paper-and-pencil survey at home. We sent out email reminders of the end-of-work survey to the focal participants every workday afternoon at 4 p.m., and restricted the access to this survey so that the focal participants could only access this end-of-work survey between 3 p.m. and 5 p.m. The end-of-work survey assessed the focal participants' helping behaviors at work that day. The focal participants were instructed to fill out the home survey at home between 7 p.m. and 9 p.m., and return the daily home surveys to the researcher via campus mail the next morning at work. The home survey assessed the focal participants' positive affect that evening. In total, we received 796 end-of-work surveys (out of 1060 possible surveys; response rate = 75%) and 867 evening surveys (response rate = 82%) from the focal participants.

As for the spouses' surveys, we hired a survey research company to call and interview the spouses every evening between 7 p.m. and 9 p.m. This survey assessed the focal participants' hours spent at home after work and how much emotional support the spouses received from the focal participants that evening. The spouses were also asked to remind the focal participants to complete their home surveys. Out of 1060 possible interviews, 621 interviews were conducted (response rate = 59%).

Because this study models the relationships among variables measured in different domains and rated by different people, we only included those records for which we were able to match focal participants' end-of-work surveys, home surveys and spouses' home surveys. In addition, because we performed within-individual analyses, we only included those couples that had at least two matched daily surveys. Therefore, our final sample consisted of 454 matched daily surveys from 86 couples (average matched daily surveys = 5.28 per participant).

#### 4.3. Measures

##### 4.3.1. Helping at work

Focal participants' helping behaviors at work were measured using four items from a scale measuring OCB-I developed by Lee and Allen (2002). They were asked to indicate how often they engaged in helping behaviors toward colleagues at work that day on a five-point scale (1 = "never"; 5 = "always"). An example is "Today, I willingly gave my time to help colleagues who had work-related problems." The average internal consistency reliability was 0.80.

##### 4.3.2. Positive affect

Focal participants' daily positive affect was measured in the evening home survey using the Positive and Negative Affect Schedule (PANAS, Watson, Clark, & Tellegen, 1988). The positive affect subscale from the PANAS consists of ten adjectives. Focal participants were instructed to rate the extent to which they felt each of the adjectives at that moment (1 = "very slightly or not at all"; 5 = "extremely"). Sample adjectives include "excited" and "enthusiastic." The average internal consistency reliability was 0.93.

##### 4.3.3. Hours at home

Focal participants' time spent at home was rated by their spouses. Spouses were asked to indicate, by the time of the daily telephone interview, how long the focal participants had been staying at home that day after work.

##### 4.3.4. Emotional support to spouses

Emotional support provided by the focal participants to their spouses was measured with four items that were used by Matthews, Conger, and Wickrama (1996) to measure "warm and supportive marital interaction." Spouses were required to indicate how frequently the focal participants engaged in supportive behaviors toward them that night on a four-point scale (0 = "never"; 3 = "three or more times"). Examples are "Tonight, s/he let me know how much s/he really cared about me" and "Tonight, s/he acted lovingly or affectionately toward me." The average internal consistency reliability was 0.77.

##### 4.3.5. Control variables

Because phone interviews with spouses were conducted daily between 7 p.m. and 9 p.m., and spouses were more likely to report longer hours focal participants spent at home and more emotional support received when they were interviewed at a later time, we controlled for the time when spouses were interviewed. This time variable ("spouse night survey time") was converted to a numeric variable in hours. For example, 19:30 was converted to 19.50 hours. A larger number indicates that the spouse was interviewed at a later time that day. In addition, because the extent to which work behaviors influenced focal participants' experiences at home might depend on the amount of time elapsed between the work survey and the home survey, we constructed a daily time lag variable in hours ("self-rating time lag") to capture the time elapsed between the time when focal participants responded to the daily afternoon work survey and the time when they responded to the daily evening home survey.

#### 4.4. Analyses

In this study, the day-level data were nested within individuals. To test our hypotheses, we used Mplus 7 (Muthén & Muthén, 1998–2012) to conduct path analyses, by simultaneously examining the resource generation path and the resource depletion path, in the unconfated multilevel modeling framework (Huang, Chiaburu, Zhang, Li, & Grandey, 2015; Zhang, Zyphur, & Preacher,

2009). We group-mean centered all within-individual predictors (i.e., spouse night survey time, self-rating time lag, helping at work, positive affect at home, and hours at home). This centering strategy eliminates all between-individual variance in the predictors and hence the results reflect pure within-individual associations. We tested the hypotheses using random intercept – random slopes models. The effects of the control variables (i.e., spouse night survey time and self-rating time lag) were modeled using fixed slopes. We estimated the indirect effects (Hypotheses 3 and 6) and used a parametric bootstrapping approach with a Monte Carlo simulation with 20,000 replications to generate confidence intervals around the estimated indirect effects (Preacher, Zyphur, & Zhang, 2010). An indirect effect is significantly different from zero when the 95% CI does not include zero. To illustrate the effect sizes, we computed pseudo- $R^2$  values based on the procedure suggested by Hofmann et al. (2000) to assess the amount of within-individual variance in the outcome variables explained by our study variables. To estimate the effect sizes of the indirect effects, we followed Preacher and Kelley's (2011) recommendations to compute the magnitude of the indirect effect relative to the maximum possible indirect effect (i.e.,  $\kappa^2$ ). The benchmarks for small, medium, and large indirect effect sizes are 0.01, 0.09, and 0.25, respectively.

#### 4.5. Results

Table 1 provides the means, standard deviations, percentages of within-individual variance and correlations among the study variables. Results from Table 1 showed substantial within-individual variances among the study variables (i.e., all above 30%).

Table 2 presents the results of hypothesis tests. Hypothesis 1 posited a positive relationship between individuals' daily helping behaviors at work and positive affect. This positive relationship received support ( $\gamma = 0.12$ ,  $p < 0.05$ ). Daily helping behaviors explained 9% of the unique within-individual variance in positive affect. Hypothesis 2 proposed that positive affect would be positively related to emotional support to spouses, which was also supported ( $\gamma = 0.12$ ,  $p < 0.05$ ). Hypothesis 3 concerned a positive indirect effect of focal participants' daily helping of colleagues at work on emotional support provision to spouses via enhanced positive affect. Results showed that this indirect effect was 0.014 with a 95% CI of  $[-0.0003, 0.033]$  or a 90% CI of  $[0.002, 0.029]$  and a  $\kappa^2$  of 0.02. Thus, Hypothesis 3 was marginally supported.

Hypothesis 4 stated that individuals would have less time for their family on days when they helped colleagues more at work. As shown in Model 2, this negative relationship was supported ( $\gamma = -0.19$ ,  $p = 0.05$ ). Daily helping behaviors contributed 14% in explaining unique within-individual variance in employees' hours at home. Hypothesis 5 proposed a positive relationship between time spent at home and emotional support to spouses. Results supported that on days when individuals spent less time at home, they provided less emotional support to spouses ( $\gamma = 0.12$ ,  $p < 0.01$ ). Hypothesis 6 concerned a negative indirect effect from employees' daily helping at work to daily emotional support provision to spouses at home via reduced time spent at home. Results supported this hypothesis by showing that the indirect effect was  $-0.021$  with a 95% CI of  $[-0.052, -0.0002]$  and a  $\kappa^2$  of 0.04. Overall, 18% of the within-individual variance in emotional support to spouses was explained, with positive affect contributing 4% and hours at home explaining 7%.

#### 4.6. Discussion

Study 1 has provided evidence in support of the idea that daily helping at work is both resource generating and resource depleting and thus has opposing indirect effects on individuals' emotional support provision to their spouses. However, this study has two

main limitations. First, when testing the relationship between daily helping at work and positive affect, we did not control for before-work positive affect to rule out the possibility that individuals may start the work day with higher positive affect, which leads to more helping behaviors at work, and remain in a better mood throughout the day. Second, in examining the resource-depleting effect of daily helping at work, we adopted a somewhat imprecise operationalization of time as a resource depleted by helping colleagues, namely the time spent with the spouse at home. As pointed out by an anonymous reviewer, it is unclear whether individuals actually stayed late to compensate for the time taken from core tasks to help colleagues or they perhaps spent time after work to socialize with colleagues (i.e., having dinner or drinks) after providing help and then arrived home late. Therefore, we conducted a second experience-sampling study using a more sophisticated design with the intention to replicate the findings in Study 1, as well as to test the proposed interactive effect (Hypothesis 7). To address the aforementioned limitations, we controlled for before-work positive affect when we tested the relationship between daily helping at work and positive affect, and we operationalized time as the time point when employees left their workplace after work each day.

## 5. Study 2

### 5.1. Participants

We recruited participants by sending out email invitations to alumni of a university located in a major city in southern China and inviting them, as well as their spouses, to participate in a larger research project on employees' work and family life. In the invitation, we specified that only married couples, who were working full-time with the husband and the wife working in different organizations, were eligible to participate in this study. A total of 106 full-time employees (53 couples) registered to participate. One of our authors contacted them individually by phone to further introduce the purpose and procedure of this study. Participants were provided with unique user codes, which were used in every online survey. Four participants did not proceed to the daily surveys, leaving us with a final sample of 102 participants. On average, these participants were 30.1 years old. They held a wide variety of occupations (e.g., business analyst, engineer, programmer, relationship manager, teacher, and accountant) and had been working in their current organizations for an average of four years.

### 5.2. Procedure

Similar to Study 1, Study 2 consisted of two phases. In the first phase, participants participated in a one-time online survey in which we measured their demographic information and prosocial motivation. The second phase started one week after the completion of the first-time online survey and continued for two weeks (10 workdays). It consisted of four daily online surveys, including a morning survey before work, a noon lunch-break survey, an afternoon end-of-work survey and a bedtime survey. We sent the before-work survey at 7:30 a.m. and measured their momentary positive affect. The lunch-break survey was sent out at 12:00 p.m. to measure their helping behaviors in the morning. The end-of-work survey was sent out at 4:30 p.m. to assess their helping behaviors in the afternoon and their positive affect. We sent out the bedtime survey at 8:30 p.m. and reminded them to complete the survey before they went to bed. In this survey we measured the time when they got off work and left the office and the emotional support received from their spouses that night. In total, we received 962 morning surveys (out of 1020 possible surveys,

**Table 1**

Study 1: Means, standard deviations, percentages of within-individual variance and correlations among study variables.

Variables	M	Between-person SD	Within- person SD	Within-variance%	1	2	3	4	5	6
<i>Level 1 Control Variables</i>										
1 Self-rating time lag	4.13	0.42	0.87	81%	–	0.28**	0.17	0.07	0.06	0.05
2 Spouse night survey time	19.72	0.17	0.54	91%	0.27**	–	0.12	–0.13	–0.06	0.13
<i>Level 1 Main Variables</i>										
3 Helping at work	3.23	0.66	0.63	47%	0.01	–0.01	<b>(0.80)</b>	0.12	0.06	–0.01
4 Positive affect at home	2.46	0.71	0.52	34%	–0.06	0.11	0.16*	<b>(0.93)</b>	0.09	0.21*
5 Hours at home	1.97	0.70	1.06	70%	0.00	0.28**	–0.13*	–0.02	–	0.30**
6 Emotional support to spouses	1.19	0.54	0.48	46%	–0.05	0.21**	0.00	0.11*	0.29**	<b>(0.77)</b>

Note. SD = standard deviation.

The correlations above the diagonal represent between-individual correlations (computed using individuals' aggregated scores;  $N = 86$ ). The correlations below the diagonal represent within-individual correlations ( $N = 454$  daily surveys). Reliabilities were averaged across days and reported on the diagonal in bold.\*  $p \leq 0.05$ .\*\*  $p \leq 0.01$  (two-tailed).**Table 2**

Study 1: Results of hypothesis tests.

	b	s.e.	t
<i>Predicting positive affect at home</i>			
Self-rating time lag	–0.05	0.03	–1.70
Helping at work	0.12*	0.06	2.10
<i>Predicting hours at home</i>			
Spouse night survey time	0.58**	0.11	5.51
Helping at work	–0.19*	0.10	–1.96
<i>Predicting emotional support to spouse</i>			
Spouse night survey time	0.10	0.06	1.86
Helping at work	0.02	0.05	0.47
Positive affect at home	0.12*	0.05	2.37
House at home	0.12**	0.03	4.55

Note. Level 1  $N = 454$  matched daily surveys; Level 2  $N = 86$ .

s.e. = standard error.

\*  $p \leq 0.05$ .\*\*  $p \leq 0.01$  (two-tailed).

response rate = 94.3%), 946 noon surveys (response rate = 92.7%), 878 afternoon surveys (response rate = 86.1%) and 949 bedtime surveys (response rate = 93.0%). Similar to the procedure we used in Study 1, we only included records for which we were able to match the work surveys with the bedtime surveys provided by the spouse for more than two days. Therefore, our final sample consists of 737 daily matched surveys from 95 individuals (average matched daily surveys = 7.76 per participant).

### 5.3. Measures

All measures used in this study were originally developed in English. We followed the translation-back-translation procedure to translate these measures into Chinese (Brislin, 1980).

#### 5.3.1. Prosocial motivation

We measured participants' prosocial motivation in the one-time survey by adapting the scale developed by Grant (2008). Specifically, we asked them to indicate to what extent they agreed or disagreed with the statements describing the reasons why they helped colleagues at work on a 7-point scale (1 = "strongly disagree"; 7 = "strongly agree"). Sample items include "I help colleagues because I want to have a positive impact on them through my help" and "I help colleagues because I care about benefiting them through my help." The internal consistency reliability was 0.77.

#### 5.3.2. Helping at work

Participants' daily helping behaviors at work were measured twice per day (in the lunch-break survey and the end-of-work sur-

vey) using three items from the scale assessing task-focused interpersonal citizenship developed by Settoon and Mossholder (2002). This shorter scale was validated in the experience-sampling study by Lanaj, Johnson, and Wang (2016). We asked participants to indicate how often they engaged in helping behaviors that morning/afternoon at work on a six-point scale (0 = "never"; 5 = "five or more times"). An example is "This morning/afternoon at work, I went out of my way to help colleagues with work-related problems." The average internal consistency reliability was 0.92 for helping in the morning and 0.91 for helping in the afternoon. We used the average of morning helping and afternoon helping to assess individuals' daily helping behaviors.

#### 5.3.3. Positive affect

Participants' momentary positive affect was measured twice per day (in the before-work survey and the end-of-work survey) using the shortened scale of PANAS validated by MacKinnon et al. (1999). Participants were instructed to rate the extent to which they felt each of the adjectives at that moment (1 = "very slightly or not at all"; 5 = "extremely"). Sample adjectives used included "excited" and "enthusiastic." The average internal consistency reliability was 0.95 in both surveys. Before-work positive affect was used as a control variable in the analysis of daily helping at work predicting end-of-work positive affect.

#### 5.3.4. Time off work

In the bedtime survey, we asked participants to indicate what time (in hh:mm format) they got off work and left office that day. We used the same method as in Study 1 to convert this time variable into a numeric variable in hours. Therefore, a larger daily score indicates that participants left the office later that day.

#### 5.3.5. Emotional support to spouses

As we surveyed both the husbands and the wives, emotional support provision from a husband to his wife was rated by the wife in terms of emotional support received and vice versa. Emotional support provision was measured with two items that were previously used in a daily diary study by Kleiboer, Kuijer, Hox, Schreurs, and Bensing (2006). Spouses were required to indicate how frequently the focal participants engaged in supportive behaviors toward them since they had come back from work that night on a five-point scale (1 = "never"; 5 = "always"). The two items used are "S/he showed affection toward me tonight" and "S/he listened to me tonight." The average internal consistency reliability was 0.88.

#### 5.3.6. Control variables

As we mentioned earlier, when we tested the relationship between daily helping and positive affect, we controlled for



before-work positive affect. Additionally, for analyses predicting emotional support provision, we controlled for the time when spouses provided their assessment of emotional support received from the focal participants. Timestamps were recorded electronically in the database and this time variable was also converted to a numeric variable in hours.

#### 5.4. Analyses

In Study 2 the day-level data were also nested within individuals, we thus followed the same procedure used in Study 1 to test all the within-individual relationships (H1 to H6).<sup>2</sup> To test the cross-level moderation effect of prosocial motivation on the within-individual relationship between daily helping at work and positive affect, we grand-mean centered prosocial motivation and regressed the within-individual level intercept and slope on prosocial motivation. The tool developed by Preacher, Curran, and Bauer (2006) was used to conduct simple slopes analysis to understand the pattern of the moderation effect.

#### 5.5. Results

Table 3 provides the means, standard deviations, percentages of within-individual variance and correlations among the study variables. Similar to Study 1, results from Table 3 showed substantial within-individual variances among the study variables (i.e., all above 45%).

Table 4 presents the results of hypothesis tests. Overall, we replicated all the findings of Study 1. In support of Hypothesis 1, daily helping at work was positively related to end-of-work positive affect, after controlling for before-work positive affect ( $\gamma = 0.10$ ,  $p < 0.05$ ). Daily helping behaviors explained 4% of the unique within-individual variance in positive affect. Results also supported Hypothesis 2, which proposed a positive relationship between positive affect and emotional support to spouses ( $\gamma = 0.14$ ,  $p < 0.01$ ). Additionally, we found an indirect effect of 0.014 with a 95% CI of [0.0003, 0.0325] and a  $\kappa^2$  of 0.01, supporting a positive indirect effect of individuals' daily helping at work on emotional support provision to spouses via enhanced positive affect (Hypothesis 3).

Hypotheses regarding the resource-depleting effect of daily helping at work were again supported. First, we found that on days when individuals helped colleagues more, they got off work and left the office at a later point in time that day ( $\gamma = 0.12$ ,  $p < 0.05$ ), supporting Hypothesis 4. Daily helping behaviors explained 3% of the within-individual variance in the timing of when employees left their office every day. Second, results supported Hypothesis 5 that on days when employees left office at a later point in time, they provided less emotional support to their spouses that night ( $\gamma = -0.07$ ,  $p < 0.01$ ). Further, results supported a negative indirect effect of individuals' daily helping at work on emotional support provision to spouses via reduced time for the family (Hypothesis 6), indicated by leaving the office later, by showing that this indirect effect was  $-0.009$  with a 95% CI of  $[-0.022, -0.0002]$  and a  $\kappa^2$  of 0.01. This model explained 19% of the within-individual variance in emotional support to spouses. In particular, positive affect

accounted for 4% and time off work accounted for 2% of incremental within-individual variance in emotional support to spouses.

Finally, we tested Hypothesis 7, which stated that prosocial motivation would enhance the positive within-individual relationship between daily helping at work and positive affect. Results showed that prosocial motivation significantly predicted the slope of this relationship ( $\gamma = 0.09$ ,  $p < 0.05$ ), with 18% of the slope variance being explained by prosocial motivation. We present the interaction in Fig. 2. Results from simple slope analyses showed that, among individuals with lower prosocial motivation (i.e., 1 SD below the mean), daily helping at work was not resource generating, as it did not lead to higher end-of-work positive affect (simple slope = 0.003,  $p > 0.10$ ); while among individuals with higher prosocial motivation (i.e., 1 SD above the mean), daily helping at work was positively related to end-of-work positive affect (simple slope = 0.20,  $p < 0.05$ ). Although not hypothesized, tests of conditional indirect effects indicated that the indirect effect of daily helping at work on emotional support provided to spouses via enhanced positive affect was only significant among individuals with higher prosocial motivation (indirect effect = 0.028, 95% CI = 0.004, 0.061) but not among individuals with lower prosocial motivation (indirect effect = 0.0001, 95% CI =  $-0.017$ , 0.015; indirect effect difference = 0.028, 95% CI = 0.001, 0.066).

#### 5.6. Discussion

The findings from Study 2 replicate those from Study 1. Our hypotheses on the resource-generating and resource-depleting effects of helping colleagues at work were again supported, and we also corroborated the results from Study 1 that changes in the volatile resources of positive affect and time explained the spillover effect of helping behaviors at work to support provision at home. We replicated these findings while addressing some of the limitations of the first study, thereby refuting alternative explanations for our findings. Most importantly, Study 2 extends the earlier findings by testing and finding support for prosocial motivation as a boundary condition for the resource-generating effect of helping colleagues at work. It appears that helping behaviors enacted at work only increase positive affect (and in turn facilitate support provision at home) for those individuals who have higher prosocial motivation.

### 6. General discussion

Research on the consequences of helping behaviors at work has advanced substantially over the past twenty years (Bolino, Klotz, Turnley, & Harvey, 2013; Organ, Podsakoff, & MacKenzie, 2006). This stream of research has identified both costs and benefits for the individuals who provide help to their colleagues, yet little is known about the effects of helping behaviors beyond the workday and how engaging in such behaviors influences employees' family lives. Based on the existing literature on the consequences of helping for the helpers (Bergeron, 2007; Glomb et al., 2011; Nielsen et al., 2012), we examined both the demanding and resourceful aspects of helping behaviors by relating them to two personal resources, namely time and positive affect. Using two experience-sampling studies with participants from two countries (the United States and China) doing a wide variety of jobs, we found that helping colleagues at work is demanding (consumes time) and resourceful (enhances mood) at the same time.

We further integrated the demanding and resourceful aspects of helping behaviors with the literature on work-family spillover and examined how helping behaviors at work were related to spousal support provision at home on a daily basis. We drew on the work-home resources model (ten Brummelhuis & Bakker, 2012)

<sup>2</sup> As we collected data from both spouses in a marriage, our data in Study 2 contain daily measures nested within individual data, which nested within couple data. However, we decided to rely on 2-level analyses and retain a more parsimonious model for two reasons. First, we only found small within-couple variance among the predictors (i.e., 1% for helping at work, 0.1% for end-of-work positive affect, and 15% for time off work). Second, we also conducted 3-level HLM analyses and the results are identical to our existing findings. Therefore, we believe that the couple effect is not a severe concern that will change the conclusions of our study. Results of the 3-level HLM analyses are available from the first author.

**Table 3**

Study 2: Means, standard deviations, percentages of within-individual variance and correlations among study variables.

Variables	M	Between-person SD	Within - person SD	Within-variance %	1	2	3	4	5	6	7
<i>Level 2 Main Variable</i>											
1 Prosocial motivation	5.58	1.08	–	–	<b>(0.77)</b>	0.24*	–0.04	–0.05	0.08	0.09	0.09
<i>Level 1 Control Variables</i>											
2 Before-work positive affect	2.96	0.71	0.70	49%		<b>(0.95)</b>	–0.17	0.21*	0.49**	–0.10	–0.11
3 Spouse bedtime survey time	22.37	0.86	0.98	56%		–0.10*	–	0.05	0.09	0.31**	0.01
<i>Level 1 Main Variables</i>											
4 Helping at work	0.87	0.59	0.74	61%		0.09*	0.01	<b>(0.92)</b>	0.21*	0.12	–0.03
5 End-of-work positive affect	3.06	0.66	0.77	58%		0.23**	–0.05	0.10*	<b>(0.95)</b>	0.09	–0.20
6 Time off work	18.31	0.92	1.21	63%		0.05	0.13**	0.08*	0.06	–	0.03
7 Emotional support to spouses	3.31	0.89	0.84	47%		–0.02	–0.08	–0.06	0.07*	–0.08*	<b>(0.88)</b>

Note. SD = standard deviation.

The correlations above the diagonal represent between-individual correlations (computed using individuals' aggregated scores;  $N = 95$ ). The correlations below the diagonal represent within-individual correlations ( $N = 737$  matched daily surveys). Reliabilities were averaged across days and reported on the diagonal in bold.\*  $p \leq 0.05$ .\*\*  $p \leq 0.01$  (two-tailed).**Table 4**

Study 2: Results of hypothesis tests.

	b	s.e.	t
<i>Predicting end-of-work positive affect</i>			
Before-work positive affect	0.24**	0.06	4.27
Helping at work	0.10*	0.05	2.06
Prosocial motivation	0.05	0.08	0.60
Helping at work * Prosocial motivation	0.09*	0.04	2.08
<i>Predicting time off work</i>			
Helping at work	0.12*	0.06	2.09
<i>Predicting emotional support to spouse</i>			
Spouse bedtime survey time	–0.03	0.05	–0.61
Helping at work	–0.09	0.05	–1.72
End-of-work positive affect	0.14**	0.05	2.92
Time off work	–0.07**	0.03	–2.75

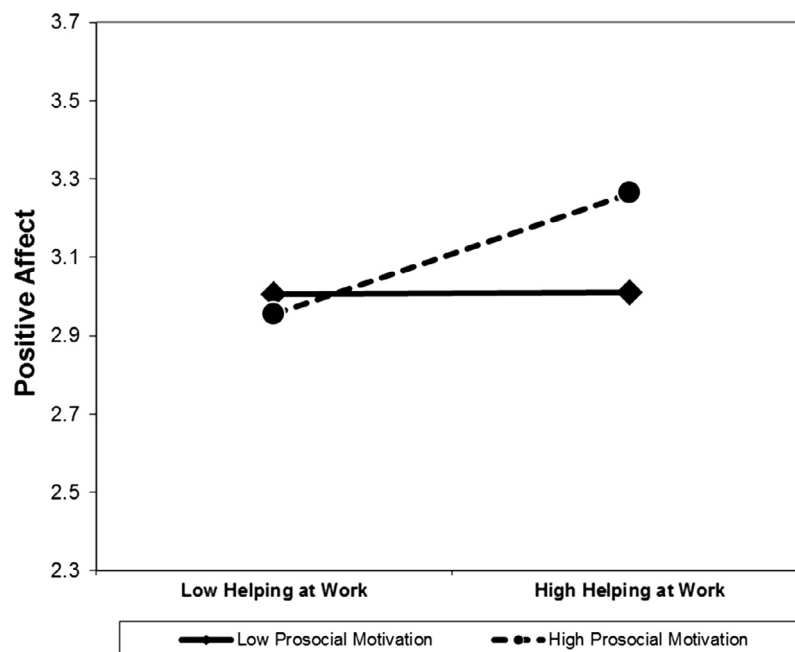
Note. Level 1  $N = 737$  matched daily surveys; Level 2  $N = 95$ .

s.e. = standard error.

\*  $p \leq 0.05$ .\*\*  $p \leq 0.01$  (two-tailed).

to hypothesize a resource generation mechanism and a resource depletion mechanism explaining the daily occurrence of behavioral spillover from work to family. We found that employees' help provision at work was related to higher positive affect, which facilitated employees' support provision to their spouses; in contrast, helping behaviors at work were related to less time for the family (i.e., leaving their office at a later time and spending less time with the spouse), which hindered employees' support provision at home. Thus, helping others at work generated positive affect but depleted time, both of which are personal volatile resources that individuals need to perform effectively in their family role later in the day.

Additionally, we drew on the theoretical work by Bolino et al. (2012) and empirically tested whether help provision was more resourceful for employees with higher prosocial motivation – an indicator of having an other-orientation. Our results showed that the mood-enhancing effect of help provision at work was found among employees with higher prosocial motivation but not among

**Fig. 2.** Cross-level moderation effect of prosocial motivation on the helping – positive affect relation.

those with lower prosocial motivation. In essence, the results from these two studies suggest that helping behaviors can be considered both a demanding experience and a resourceful experience for employees with higher prosocial motivation but only a demanding experience for helpers with lower prosocial motivation. Taken as a whole, while helping colleagues depletes employees' time for the family, high prosocially-motivated employees' family lives are better shielded against this resource depletion effect as they also gain resources from helping colleagues, which enrich their family lives. However, low prosocially-motivated employees' family lives are mainly compromised when they provide more help to colleagues at work.

### 6.1. Theoretical contributions

Overall, this study makes four major contributions to the helping literature and the work-family literature. First, this study extends our knowledge of the consequences of helping colleagues for employees' family life. Although in three cross-lagged studies Halbesleben et al. (2009) consistently found that helping at work was positively related to work interference with family, no follow-up study has been conducted to examine actual family outcomes and investigate the reasons why helping at work would interfere with one's family life. Driven by the resource perspective inherent to the work-home resources model, we studied two types of resources, time and positive affect, to illustrate how helping co-workers might influence one's family life, focusing on a specific behavioral outcome in the family domain (i.e., emotional support provision to the spouse). Our results suggest that helping at work may indeed interfere with family life but can also enrich family life through facilitating spousal support provision. We thus believe a more balanced view on the effects of helping colleagues at work for employees' family life is needed.

Beyond expanding research on the consequences of helping for employees' family lives, our study also contributes to the increasing research effort on the boundary conditions of when or for whom helping is more beneficial or costly (e.g., Bolino et al., 2012; Koopman et al., 2016). Although Bolino and colleagues proposed that helping is more rewarding for helpers with higher prosocial value, empirical evidence for this proposition has been inconclusive. While Grant et al. (2009) found in their study that prosocial helpers benefitted more from helping colleagues by receiving better evaluation from their supervisors, the study by Lanaj et al. (2016) showed that helping colleagues depleted more regulatory resources for helpers with higher prosocial motivation. Our Study 2 supported Bolino and colleagues' idea by showing that helping colleagues generated more resources (i.e., positive affect) for prosocially motivated employees.<sup>3</sup> Our results also challenged the pervasiveness of the "doing good-feeling good" effect by showing that individuals with low prosocial motivation did not "feel good" after "doing good."

Third, we advance work-family spillover research by focusing on behavioral spillover, an understudied form of spillover (cf. affective and attitudinal spillover), and by examining the resource mechanisms explaining its daily occurrence. We conceptualized behavioral spillover from the work domain to the family domain as a daily process, thus going beyond the long-term perspective of behaviors ingrained into habits and scripts (Edwards &

Rothbard, 2000). Using theorizing on short-term work-family spillover processes from the work-home resources model, and adopting experience-sampling methodology, this study examined the resource mechanisms of how daily help provision to colleagues was related to employees' daily support provision to their spouses. Empirically, we were able to partial out the influence of individual differences through our within-individual design (by group-mean centering the predictors), which makes our results less susceptible to alternative theoretical explanations that center on personality differences (e.g., a prosocial person is just more helpful in both domains).

To note that, we did not find a direct within-individual relationship between daily helping at work and daily emotional support to spouses at home in either study ( $r_{\text{within}} = 0.00/-0.06$ ,  $p > 0.05$ ). However, the results jointly suggest that helping behaviors do spill over from work to family on a daily basis through the resource change mechanisms, with the resource-generating and resource-depleting mechanisms underlying this behavioral spillover effect cancelling each other out, such that "a null relationship between work and family constructs ... may result from countervailing positive and negative effects" (Edwards & Rothbard, 2000, p. 183). The finding that the resource-generating effect was only existent for employees with higher prosocial motivation, such that employees with lower prosocial motivation only experienced the resource-depleting effect of helping, further highlights the importance of identifying individual difference variables that can attenuate resource depletion and foster resource generation for the helpers.

Having highlighted the significant findings of the resource-generating process and the resource-depleting process of the spillover effect, we should acknowledge that the indirect effects found in both studies are small, with  $\kappa^2$  ranging from 0.01 to 0.04. However, we believe that these small indirect effects are important because, first, "what makes some effects seem important is not their magnitude but rather the methodologies of the studies that produced them" (Prentice & Miller, 1992, p. 160). The sophisticated designs in both studies, which involved multiple raters and multiple surveys at different time points in different domains, make our findings a more conservative test of the hypothesized relationships. Second, Prentice and Miller (1992) further underscored that "small effects in ongoing processes may accumulate over time to become large effects" (p. 163). In the context of this study, if employees are not mindful about the amount of help provided to their colleagues on a daily basis and keep sacrificing their family time for work, the negative spillover effects are likely to escalate, creating long-term impacts on their marriage. Therefore, we believe that the opposing indirect effects (i.e., the resource generation mechanism and the resource depletion mechanism) are theoretically and practically important.

Fourth, this study contributes to the work-home resources model in several important ways. Addressing some of ten Brummelhuis and Bakker's (2012) calls, we have (a) looked at an actual family outcome, (b) studied the work-family process with personal resources as the mechanisms linking the two domains, (c) examined conflict and enrichment processes simultaneously, and (d) explicitly considered the role of time and measured it when investigating daily behavioral spillover. We further believe that our results on how depleting and enriching processes can coincide constitute an important extension of the work-home resources model. Ten Brummelhuis and Bakker (2012) stated that "work-home enrichment and work-home conflict are two distinct processes, each having specific antecedents" (p. 552), yet our theorizing and results suggest that the same work experience can have both demanding (i.e., it consumes personal resources) and resourceful (i.e., it produces personal resources) aspects, resulting in work-family conflict and work-family enrichment at the same time. This particular finding makes it more interesting to focus on conditional

<sup>3</sup> As Lanaj et al. (2016) highlighted in their study that "prosocially motivated helpers are preoccupied with providing high quality help and may therefore overinvest a large amount of resources during each helping episode" (p. 10), we conducted additional analysis to test whether prosocial motivation exacerbated the resource-depleting effect of help provision in Study 2. However, the cross-level moderation effect of prosocial motivation on the relationship between help provision to colleagues and time off work was not significant ( $\gamma = 0.005$ , n.s.).

factors in work-family conflict and enrichment processes, a key feature of the work-home resources model; that is, not only is it important to examine in more detail the relative dominance of conflicting versus enriching processes, but the investigation of conditional factors may help us identify characteristics or situations for which enrichment outweighs depletion, such that helping colleagues becomes a mostly resource-generating work experience, countervailing its costs for helpers.

## 6.2. Strength, limitations and future directions

This study has a number of strengths related to the theorizing and the research design. First, we followed the work-home resources framework to conceptualize helping at work and support at home as fluctuating behaviors, and we also examined the two resources – positive affect and time – as volatile personal resources of employees. To do so, we used experience-sampling methodology, and we were thus able to tap into employees' daily experiences. We found that almost half of the variance in scores for helping at work and support provision at home was attributable to daily variations within persons, and this provides support for our conceptualization of help and support as fluctuating constructs and further suggests that behavioral spillover can be examined on a daily basis. Moreover, our repeated-measures design allowed us to focus on within-individual relationships among the study variables, hereby partialling out all between-individual differences that may have confounded the mediated relationships.

Second, we designed our studies to further minimize threats associated with common method variance (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In both studies, we collected data from two sources (i.e., employees and their spouses) and measured our constructs at multiple points in time (i.e., before-work, lunch break, end-of-work, bedtime) and in different domains (i.e., work and family). In Study 1, we used different methods to collect data, such as electronic surveys, paper surveys and phone interviews. Although we cannot make causal claims based on our data, we measured our constructs in accordance with the causal process depicted in the work-home resources model. In Study 2, we controlled for baseline resource level (i.e., before-work positive affect) and therefore our results gave us confidence in the effect of helping on enhanced end-of-work positive affect, as compared to before-work positive affect.

Despite these strengths in our research design, several limitations should be recognized to inform future research. First, although we argued that personal volatile resources are the key mechanisms linking the work domain and the family domain, we only examined two such resources: positive affect and time. We believe the other types of volatile resources that ten Brummelhuis and Bakker (2012) proposed (i.e., attention, physical energy, and cognitive energy) are also likely to be affected by helping behaviors at work and may in turn influence family behaviors. For instance, Bolino et al. (2015) argued that engaging in OCB, which includes helping, may deplete one's energy and cause individuals to feel worn out, tired and on edge. Future studies are therefore suggested to extend our focus and consider other helping-related resources and examine which is the most important mechanism driving the influence of helping at work on one's family life.

As a second limitation, we did not distinguish among specific helping behaviors and our study therefore does not offer insights into potential differences between different helping behaviors in terms of their depleting and enriching nature. We recommend researchers to use measures that tap into different types of helping behaviors. House (1981) distinguished among emotional support (e.g., caring for co-workers' feelings), instrumental support (e.g., taking over work), informational support (e.g., giving advice on

how to handle certain tasks), and appraisal support (e.g., providing feedback on performance). These types of support are most likely not equally time consuming and may also be mood enhancing to different extents. Multidimensional measures of helping or support provision would allow for testing such propositions. Additionally, we only measured the frequency of helping colleagues and providing support to spouses on a particular day because we intended to test the behavioral spillover effect – that is, the more one enacts a behavior at work, the more s/he enacts a similar behavior at home. In addition to focusing on different contents of helping behaviors, as we mentioned above, future studies on how helping at work influences employees' family lives could also examine the quality of helping (e.g., effective helping behaviors may be more mood enhancing) and support provision (e.g., reduced time at home may lead to less useful support).

A third limitation relates to possible unmeasured mechanisms explaining why helping colleagues at work links to less time for the family. Although we argued that employees might stay late to compensate for the time taken from core tasks to help colleagues, we did not measure employees' task performance or work goal progress that day (Koopman et al., 2016). Yet the finding of more helping at work resulting in less time for the family is robust as we found consistent results across two studies, in which we operationalized time for the family in two different ways. Nevertheless, we encourage future research to delve into how employees allocate their time across core tasks, helping co-workers and the family, and how individual and contextual factors influence employees' resource allocation decisions.

Finally, although we tested prosocial motivation as a boundary condition that enhances the resource-generating effect of helping others at work, it would be a fruitful research endeavor to identify other conditional factors for the behavior spillover effects. To extend our findings, it seems particularly imperative to identify personal characteristics or situational variables that buffer the resource-depleting effects. In addition to explaining differences between individuals, as our second study has done, day-level variables have the potential to explain why depleting and enriching processes are more likely to occur on some days than on other days. Future studies can explore additional between-individual and intraindividual factors as potential moderators of the relationships between helping behaviors and family outcomes.

## 6.3. Practical implications

As organizations increasingly encourage employees to work beyond the call of duty and endorse the value of a help-giving culture, employees and managers should be aware of both the bright side and the dark side of giving help to others at work. The results of this study unveil a dilemma of helping colleagues at work. Because of helping, employees may need to make a trade-off between time for work and time for family; but meanwhile, helpers may capitalize on the good mood brought by helping co-workers to nurture their spousal relationships. To maximize the benefits and minimize the costs of helping, help should be given in a strategic way; that is, on days when employees foresee time-based work interference with family, they should opt for less time-consuming helping behaviors, such as giving guidance or making suggestions instead of taking over considerable amounts of work. Moreover, when asking for help, it is important that employees are careful not to interrupt their colleagues' work, as work interruptions influence colleagues' work progress (Jett & George, 2003) so that they might end up spending longer hours at work as a result.

For organizations, designing employee support programs (see Grant, Dutton, & Rosso, 2008) requires that careful attention is being paid to how help giving behaviors fit into employees' work



schedules and how the demanding nature of helping can be alleviated. Specifically, while cultivating a helping culture, managers should acknowledge the time-depleting effects of helping and assist employees in integrating citizenship behaviors with in-role performance. This is especially important for employees with low prosocial motivation, as their family lives seem to be negatively impacted by helping colleagues without gaining any benefit from it. While helping colleagues is beneficial to employees who are more prosocial, it is crucial for managers to understand that those who are less prosocial need the freedom to decline any unwanted request for help. Finally, as a helping culture asks from employees that they manage their work hours in an efficient way, organizations can provide employees with time management training to enhance their skills of setting priorities and scheduling (Macan, 1994) and managers should offer employees considerable autonomy in controlling their time and managing their workdays.

## 7. Conclusion

Using two multi-source, repeated-measures studies, we make contributions to the literature on work-family spillover and helping by examining the daily spillover effect of how helping behaviors enacted in the work domain influence spousal support provision in the family domain, as well as who benefits more from helping colleagues. We proposed and tested a model that distinguishes between resource generation and resource depletion mechanisms linking helping at work to support provision at home and examined the moderating influence of prosocial motivation on the resource-generating effect. Our results suggest that helping behaviors consume time resources but produce positive affective resources, especially among employees with high prosocial motivation. Integrating the work-family conflict literature and the work-family enrichment literature, this study introduces a new way of thinking that some work experiences can be both resource generating, leading to work-family enrichment, and resource depleting, resulting in work-family conflict, at the same time.

## References

- Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81(4), 411–420. <http://dx.doi.org/10.1037/0021-9010.81.4.411>.
- Aspinwall, L. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion*, 22(1), 1–32. <http://dx.doi.org/10.1023/A:1023080224401>.
- Batson, C. D., & Shaw, L. L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry*, 2(2), 107–122. [http://dx.doi.org/10.1207/s15327965pli0202\\_1](http://dx.doi.org/10.1207/s15327965pli0202_1).
- Bergeron, D. M. (2007). The potential paradox of organizational citizenship behavior: Good citizens at what cost? *Academy of Management Review*, 32(4), 1078–1095. <http://dx.doi.org/10.5465/amr.2007.26585791>.
- Bergeron, D. M., Shipp, A. J., Rosen, B., & Furst, S. A. (2013). Organizational citizenship behavior and career outcomes: The cost of being a good citizen. *Journal of Management*, 39(4), 958–984. <http://dx.doi.org/10.1177/0149206311407508>.
- Bolino, M. C., Harvey, J., & Bachrach, D. G. (2012). A self-regulation approach to understanding citizenship behavior in organizations. *Organizational Behavior and Human Decision Processes*, 119(1), 126–139. <http://dx.doi.org/10.1016/j.obhdp.2012.05.006>.
- Bolino, M. C., Hsiung, H.-H., Harvey, J., & LePine, J. A. (2015). “Well, I’m tired of trying!” Organizational citizenship behavior and citizenship fatigue. *Journal of Applied Psychology*, 100(1), 56–74. <http://dx.doi.org/10.1037/a0037583>.
- Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, 34(4), 542–559. <http://dx.doi.org/10.1002/job.1847>.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology*, 90(4), 740–748. <http://dx.doi.org/10.1037/0021-9010.90.4.740>.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 11(4), 710–725. <http://dx.doi.org/10.2307/258391>.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology: Methodology* (pp. 349–444). Boston, MA: Allyn and Bacon.
- Carlson, M., Charlin, V., & Miller, N. (1988). Positive mood and helping behavior: A test of six hypotheses. *Journal of Personality and Social Psychology*, 55(2), 211–229. <http://dx.doi.org/10.1037/0022-3514.55.2.211>.
- Carlson, D. S., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work–family interface: Development and validation of a work–family enrichment scale. *Journal of Vocational Behavior*, 68(1), 131–164. <http://dx.doi.org/10.1016/j.jvb.2005.02.002>.
- Carver, C. (2003). Pleasure as a sign you can attend to something else: Placing positive feelings within a general model of affect. *Cognition and Emotion*, 17(2), 241–261. <http://dx.doi.org/10.1080/02699930302294>.
- Cialdini, R. B., & Kenrick, D. T. (1976). Altruism as hedonism: A social development perspective on the relationship of negative mood state and helping. *Journal of Personality and Social Psychology*, 34(5), 907–914. <http://dx.doi.org/10.1037/0022-3514.34.5.907>.
- Conway, J. M., Rogelberg, S. G., & Pitts, V. E. (2009). Workplace helping: Interactive effects of personality and momentary positive affect. *Human Performance*, 22(4), 321–339. <http://dx.doi.org/10.1080/08959280903120279>.
- Cutrona, C. (1996). Social support as a determinant of marital quality. In G. Pierce, B. Sarason, & I. Sarason (Eds.), *Handbook of social support and the family* (pp. 173–194). US: Springer.
- De Dreu, C. K. W. (2006). Rational self-interest and other orientation in organizational behavior: A critical appraisal and extension of Meglino and Korsgaard (2004). *Journal of Applied Psychology*, 91(6), 1245–1252. <http://dx.doi.org/10.1037/0021-9010.91.6.1245>.
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25(1), 178–199. <http://dx.doi.org/10.2307/259269>.
- Erickson, R. J. (1993). Reconceptualizing family work: The effect of emotion work on perceptions of marital quality. *Journal of Marriage and Family*, 55(4), 888–900. <http://dx.doi.org/10.2307/352770>.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19(3), 313–332. <http://dx.doi.org/10.1080/02699930441000238>.
- Glomb, T. M., Bhawe, D. P., Miner, A. G., & Wall, M. (2011). Doing good, feeling good: Examining the role of organizational citizenship behaviors in changing mood. *Personnel Psychology*, 64(1), 191–223. <http://dx.doi.org/10.1111/j.1744-6570.2010.01206.x>.
- Granrose, C. S., Parasuraman, S., & Greenhaus, J. H. (1992). A proposed model of support provided by two-earner couples. *Human Relations*, 45(12), 1367–1393. <http://dx.doi.org/10.1177/001872679204501206>.
- Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93(1), 48–58. <http://dx.doi.org/10.1037/0021-9010.93.1.48>.
- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73–96. <http://dx.doi.org/10.5465/amj.2011.59215085>.
- Grant, A. M., Dutton, J. E., & Rosso, B. D. (2008). Giving commitment: Employee support programs and the prosocial sensemaking process. *Academy of Management Journal*, 51(5), 898–918. <http://dx.doi.org/10.5465/amj.2008.34789652>.
- Grant, A. M., Parker, S., & Collins, C. (2009). Getting credit for proactive behavior: Supervisor reactions depend on what you value and how you feel. *Personnel Psychology*, 62(1), 31–55. <http://dx.doi.org/10.1111/j.1744-6570.2008.01128.x>.
- Grant, A. M., & Sonnentag, S. (2010). Doing good buffers against feeling bad: Prosocial impact compensates for negative task and self-evaluations. *Organizational Behavior and Human Decision Processes*, 111(1), 13–22. <http://dx.doi.org/10.1016/j.obhdp.2009.07.003>.
- Grant, A. M., & Wrzesniewski, A. (2010). I won’t let you down... or will I? Core self-evaluations, other-orientation, anticipated guilt and gratitude, and job performance. *Journal of Applied Psychology*, 95(1), 108–121. <http://dx.doi.org/10.1037/a0017974>.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *The Academy of Management Review*, 10(1), 76–88. <http://dx.doi.org/10.2307/258214>.
- Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work–family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510–531. [http://dx.doi.org/10.1016/S0001-8791\(02\)00042-8](http://dx.doi.org/10.1016/S0001-8791(02)00042-8).
- Grodal, S., Nelson, A. J., & Siino, R. M. (2015). Help-seeking and help-giving as an organizational routine: Continual engagement in innovative work. *Academy of Management Journal*, 58(1), 136–168. <http://dx.doi.org/10.5465/amj.2012.0552>.
- Halbesleben, J. R. B., Harvey, J., & Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, 94(6), 1452–1465. <http://dx.doi.org/10.1037/a0017595>.
- Hanson, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and validation of a multidimensional scale of perceived work–family positive spillover. *Journal of Occupational Health Psychology*, 11(3), 249–265. <http://dx.doi.org/10.1037/1076-8998.11.3.249>.
- Hobfoll, S. E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources: Social support resource theory. *Journal of Social and Personal Relationships*, 7(4), 465–478. <http://dx.doi.org/10.1177/0265407590074004>.

- Hofmann, S. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to organizational research. In K. Klein & S. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 75–170). San Francisco: Jossey-Bass.
- House, J. S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley.
- Huang, J. L., Chiaburu, D. S., Zhang, X.-A., Li, N., & Grandey, A. A. (2015). Rising to the challenge: Deep acting is more beneficial when tasks are appraised as challenging. *Journal of Applied Psychology*, 100(5), 1398–1408. <http://dx.doi.org/10.1037/a0038976>.
- Iida, M., Seidman, G., Shrout, P. E., Fujita, K., & Bolger, N. (2008). Modeling support provision in intimate relationships. *Journal of Personality and Social Psychology*, 94(3), 460–478. <http://dx.doi.org/10.1037/0022-3514.94.3.460>.
- Ilies, R., Wilson, K. S., & Wagner, D. T. (2009). The spillover of daily job satisfaction onto employees' family lives: The facilitating role of work-family integration. *Academy of Management Journal*, 52(1), 87–102. <http://dx.doi.org/10.5465/amj.2009.36461938>.
- Ispa, J. M., Gray, M. M., & Thornburg, K. R. (1984). Childrearing attitudes of parents in person-oriented and thing-oriented occupations: A comparison. *The Journal of Psychology*, 117(2), 245–250. <http://dx.doi.org/10.1080/00223980.1984.9923685>.
- Jett, Q. R., & George, J. M. (2003). Work interrupted: A closer look at the role of interruptions in organizational life. *Academy of Management Review*, 28(3), 494–507. <http://dx.doi.org/10.5465/amr.2003.10196791>.
- Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology*, 89(4), 661–673. <http://dx.doi.org/10.1037/0021-9010.89.4.661>.
- Kleiboer, A. M., Kuijter, R. G., Hox, J. J., Schreurs, K. M. G., & Bensing, J. M. (2006). Receiving and providing support in couples dealing with multiple sclerosis: A diary study using an equity perspective. *Personal Relationships*, 13(4), 485–501. <http://dx.doi.org/10.1111/j.1475-6811.2006.00131.x>.
- Koopman, J., Lanaj, K., & Scott, B. (2016). Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal*, 59(2), 414–435. <http://dx.doi.org/10.5465/amj.2014.0262>.
- Lambert, S. J. (1990). Processes linking work and family: A critical review and research agenda. *Human Relations*, 43(3), 239–257. <http://dx.doi.org/10.1177/001872679004300303>.
- Lanaj, K., Johnson, R. E., & Wang, M. (2016). When lending a hand depletes the will: The daily costs and benefits of helping. *Journal of Applied Psychology*. <http://dx.doi.org/10.1037/apl0000118>.
- Lapierre, L. M., & Allen, T. D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: Implications for work-family conflict and employee well-being. *Journal of Occupational Health Psychology*, 11(2), 169–181. <http://dx.doi.org/10.1037/1076-8998.11.2.169>.
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 87(1), 131–142. <http://dx.doi.org/10.1037/0021-9010.87.1.131>.
- Macan, T. H. (1994). Time management: Test of a process model. *Journal of Applied Psychology*, 79(3), 381–391. <http://dx.doi.org/10.1037/0021-9010.79.3.381>.
- Mackinnon, A., Jorm, A. F., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the positive and negative affect schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. *Personality and Individual Differences*, 27(3), 405–416. [http://dx.doi.org/10.1016/S0191-8869\(98\)00251-7](http://dx.doi.org/10.1016/S0191-8869(98)00251-7).
- Matthews, L. S., Conger, R. D., & Wickrama, K. A. S. (1996). Work-family conflict and marital quality: Mediating processes. *Social Psychology Quarterly*, 59(1), 62–79. <http://dx.doi.org/10.2307/2787119>.
- Michel, J. S., Mitchelson, J. K., Pichler, S., & Cullen, K. L. (2010). Clarifying relationships among work and family social support, stressors, and work-family conflict. *Journal of Vocational Behavior*, 76(1), 91–104. <http://dx.doi.org/10.1016/j.jvb.2009.05.007>.
- Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Nadler, A., Halabi, S., Harapz-Gorodeisky, G., & Ben-David, Y. (2010). *Prosocial motives, emotions, and behavior: The better angels of our nature*. Washington, DC, US: American Psychological Association.
- Nielsen, T. M., Bachrach, D. G., Sundstrom, E., & Halfhill, T. R. (2012). Utility of OCB: Organizational citizenship behavior and group performance in a resource allocation framework. *Journal of Management*, 38(2), 668–694. <http://dx.doi.org/10.1177/0149206309356326>.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA, England: Lexington Books/D.C. Heath and Com.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <http://dx.doi.org/10.1037/0021-9010.88.5.879>.
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual- and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122–141. <http://dx.doi.org/10.1037/a0013079>.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31(4), 437–448. <http://dx.doi.org/10.3102/10769986031004437>.
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, 16(2), 93–115. <http://dx.doi.org/10.1037/a0022658>.
- Preacher, K. J., Zyzanski, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209–233. <http://dx.doi.org/10.1037/a0020141>.
- Prentice, D. A., & Miller, D. T. (1992). When small effects are impressive. *Psychological Bulletin*, 112(1), 160–164. <http://dx.doi.org/10.1037/0033-2909.112.1.160>.
- Rioux, S. M., & Penner, L. A. (2001). The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology*, 86(6), 1306–1314. <http://dx.doi.org/10.1037/0021-9010.86.6.1306>.
- Sanz-Vergel, A. I., Rodríguez-Muñoz, A., Bakker, A. B., & Demerouti, E. (2012). The daily spillover and crossover of emotional labor: Faking emotions at work and at home. *Journal of Vocational Behavior*, 81(2), 209–217. <http://dx.doi.org/10.1016/j.jvb.2012.07.003>.
- Sanz-Vergel, A. I., Rodríguez-Muñoz, A., & Nielsen, K. (2015). The thin line between work and home: The spillover and crossover of daily conflicts. *Journal of Occupational and Organizational Psychology*, 88(1), 1–18. <http://dx.doi.org/10.1111/joop.12075>.
- Settoon, R. P., & Mossholder, K. W. (2002). Relationship quality and relationship context as antecedents of person- and task-focused interpersonal citizenship behavior. *Journal of Applied Psychology*, 87(2), 255–267. <http://dx.doi.org/10.1037/0021-9010.87.2.255>.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482–497. <http://dx.doi.org/10.1037/0022-3514.76.3.482>.
- Song, Z., Foo, M.-D., & Uy, M. A. (2008). Mood spillover and crossover among dual-earner couples: A cell phone event sampling study. *Journal of Applied Psychology*, 93(2), 443–452. <http://dx.doi.org/10.1037/0021-9010.93.2.443>.
- Sonnentag, S., & Grant, A. M. (2012). Doing good at work feels good at home, but not right away: When and why perceived prosocial impact predicts positive affect. *Personnel Psychology*, 65(3), 495–530. <http://dx.doi.org/10.1111/j.1744-6570.2012.01251.x>.
- Spitzmuller, M., Van Dyne, L., & Ilies, R. (2008). *Organizational citizenship behavior: A review and extension of its nomological network*. The SAGE handbook of organizational behavior: Micro approaches (Vol. 1) London: SAGE Publications Ltd.
- ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work-home interface: The work-home resources model. *American Psychologist*, 67(7), 545–556. <http://dx.doi.org/10.1037/a0027974>.
- Unger, D., Niessen, C., Sonnentag, S., & Neff, A. (2014). A question of time: Daily time allocation between work and private life. *Journal of Occupational and Organizational Psychology*, 87(1), 158–176. <http://dx.doi.org/10.1111/joop.12045>.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070. <http://dx.doi.org/10.1037/0022-3514.54.6.1063>.
- Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology*, 76(5), 820–838. <http://dx.doi.org/10.1037/0022-3514.76.5.820>.
- Wayne, J. H., Randel, A. E., & Stevens, J. (2006). The role of identity and work-family support in work-family enrichment and its work-related consequences. *Journal of Vocational Behavior*, 69(3), 445–461. <http://dx.doi.org/10.1016/j.jvb.2006.07.002>.
- Weinstein, N., DeHaan, C., & Ryan, R. (2010). Attributing autonomous versus introjected motivation to helpers and the recipient experience: Effects on gratitude, attitudes, and well-being. *Motivation and Emotion*, 34(4), 418–431. <http://dx.doi.org/10.1007/s11031-010-9183-8>.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology*, 98(2), 222–244. <http://dx.doi.org/10.1037/a0016984>.
- Williams, K. J., & Alliger, G. M. (1994). Role stressors, mood spillover, and perceptions of work-family conflict in employed parents. *Academy of Management Journal*, 37(4), 837–868. <http://dx.doi.org/10.2307/256602>.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601–617. <http://dx.doi.org/10.1177/014920639101700305>.
- Williamson, G. M., & Clark, M. S. (1989). Providing help and desired relationship type as determinants of changes in moods and self-evaluations. *Journal of Personality and Social Psychology*, 56(5), 722–734. <http://dx.doi.org/10.1037/0022-3514.56.5.722>.
- Yinon, Y., & Landau, M. (1987). On the reinforcing value of helping behavior in a positive mood. *Motivation and Emotion*, 11(1), 83–93. <http://dx.doi.org/10.1007/BF00992215>.
- Zhang, Z., Zyzanski, M. J., & Preacher, K. J. (2009). Testing multilevel mediation using hierarchical linear models: Problems and solutions. *Organizational Research Methods*, 12(4), 695–719. <http://dx.doi.org/10.1177/1094428108327450>.