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Managing the work-home interface by making sacrifices: Costs of sacrificing psychological needs

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Abstract

Research has suggested that sacrifices are made to manage the work-home interface. They have been however, related to various deleterious effects. Drawing from self-determination theory, we argue that the sacrifice of psychological needs is worse than the sacrifice of activities such as maintenance and leisure in terms of personal functioning. The present two studies investigate whether sacrifices made in one life sphere to attend matters in another are negatively related to well-being and satisfaction, through enhanced work-family conflict, and whether all sacrifices are created equal. One transversal (n = 141) and one three-wave prospective (n = 78) study were conducted among convenience samples of workers who answered online surveys. Results revealed that personal psychological need sacrifices were negatively related to well-being via family to work conflict (FWC) and work to family conflict (WFC), over and beyond other types of sacrifice. In addition, personal psychological need sacrifices led to decreased life and professional satisfaction over 3 months, via FWC and WFC. Hence, need sacrifices, especially those made in the personal sphere, come at a cost and may not be the best long-term strategy to manage one's work-home interface.

Keywords Sacrifice · Psychological need sacrifices · Work-family conflict · Well-being

Successfully managing the work-family interface require time, energy and sometimes plain luck. To fulfill professional demands and non-work responsibilities, workers need some leeway to navigate between these requests while preserving their physical and mental health. The capacity to negotiate between work and non-work demands can be acquired by using organizational and public work-family balance policies, requesting personal arrangements with one's supervisor or colleagues, and soliciting help from one's personal network. However, even when work-family balance policies and arrangements exist, less than 50% of American workers use them (Society for Human Resources Management, 2015). Hence, it is often up to the workers to develop strategies that will help them juggle their professional and personal responsibilities. Sometimes, this will involve prioritizing one life sphere over the other or sacrificing one life facet over another. For instance, to finish an important work report, workers may report sacrificing a couple of hours of sleep; to spend more meaningful family time workers may sacrifice part of their social life; and trade-offs on healthy meals can be made to make it in time for soccer practices.

Based on the Self-determination theory framework (Deci & Ryan, 2000; Ryan & Deci, 2017), and Holding et al.'s (2020) previous work, we propose that through these sacrifices, workers may well be sacrificing their basic psychological needs—at work and in their personal life—in order to create the necessary leeway to better fulfill roles, responsibilities, or goals in the alternate domain. For instance, workers may turn in a less than perfect report—a sacrifice of competence at work –to spend more time with their families. When returning from maternity or parental leave early and sending their child to nursery because of the increased financial toll, workers may sacrifice their need for autonomy as they act against their values. The need for relatedness can

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be compromised in their personal life if they prioritize work activities over time spent with loved ones.

These sacrifices are intended to facilitate fulfillment of goals and responsibilities, lower perceived work-family conflict, and enhance life quality (Dahm et al., 2019). Although those trade-offs may provide the necessary wiggle room to manage, somewhat successfully, the incoming demands and requirements from both life spheres, do they do so while preserving workers' well-being? Research suggests that sacrificing professional activities to fulfill family demands, or vice-versa, may have deleterious effects on workers' psychological well-being and increase work-family conflict (e.g., Dahm et al., 2019; Kossek et al., 2001; Mickel & Dallimore, 2009; Wang, 2020; Wang et al., 2020). Past research has focused on the sacrifices of leisure activities, self-reported sleep, physical activities, and so on and found that they negatively contribute to workers' well-being. We argue, however, that trade-offs affecting workers' psychological need satisfaction can be even more deleterious. Based on the premises of self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017) and recent work from Holding et al. (2020), we propose that sacrificing basic psychological needs to manage the work-personal interface will have detrimental effects on individuals' well-being, as well as enhanced work-family conflicts. Hence, there are two primary purposes for this investigation. First, we examine the sacrifices that workers report making to fulfill their professional and personal demands and responsibilities in relation to work-family conflict, psychological well-being, and satisfaction with one's life and work. Second, we compare how different types of sacrifice relate to work-family conflict and psychological well-being to identify which ones are more (or less) detrimental for workers. The present research contributes to existing knowledge by extending the rare research on sacrifices workers impose on themselves to manage their work-life interface better. Another significant contribution lies in the introduction and integration of Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017) within the work-life interface literature: the addition of a motivational component (i.e., psychological needs) provides new insights into workers' strategies to juggle work and non-work requests and further our understanding of the results that follow.

Work-family conflicts

As the dual-earner family is now the modal American family (Greenhaus & Kossek, 2014; Kossek, 2008), men and women are both participating in multiple life domains, including work, family, community, and self (Demerouti, 2012). Demands from these life spheres are competing for individuals' time and resources. When competing demands and responsibilities emerge from one's professional and personal life, work-life conflicts (WFC) occur (Greenhaus & Beutell, 1985). Hence, according to this perspective, WFC is the result of time scarcity, competing demands and high strain levels, and it is thus multidimensional (Carlson et al., 2000). For instance, workers can perceive WFC because the time invested in one sphere precludes them from investing a desired amount of time in the other sphere (time-based conflict). Conflict can also occur when workers perceive that they are too tired or emotionally drained from one sphere to participate as they would like in the other sphere (strain-based conflict). WFC is also bi-directional, meaning that conflicts can arise when work is impeding one's family life (e.g., a mandatory last-minute meeting is scheduled, which prevents a worker from attending a family event), but also when one's family responsibilities are interrupting work activities (e.g., a worker's aging parent needs to be accompanied to an important medical appointment, which precludes the worker from attending a work-related meeting; Carlson et al., 2000; Duxbury et al., 1992; Greenhaus & Beutell, 1985; Netemeyer, Boles, & MacMurrian, 1996).

The negative consequences of WFC are widely known (e.g., Allen et al., 2000). For instance, workers who report experiencing WFC also report reduced job and life satisfaction (e.g., Byron, 2005; Kossek & Ozeki, 1998; Liao et al., 2019), more psychological and physical ill-health (Frone, 2000), as well as lower levels of work (Liao et al., 2019; Netemeyer et al., 1996) and family commitment (Liao et al., 2019), lower levels of performance at work and in one's family (Liao et al., 2019) and increased turnover intentions (e.g., Yildiz et al., 2021). To minimize or avoid these consequences, workers use a variety of strategies to best meet their responsibilities (e.g., Hirschi et al., 2019). For example, one strategy available to workers is prioritizing actions in one life sphere over the other when demands from that life sphere are perceived as more urgent, important, or justified. In other words, workers can make sacrifices.

Sacrifices and WFC

Attending equally to responsibilities and demands from the professional and personal life spheres is not always possible and thus juggling both work and family demands can be challenging. Research on motivation conflict suggests that these situations—where more than one action is possible and that they have to compete for implementation—are challenging for individuals' self-regulation (Grund et al., 2016). At some point, workers are faced with decisions (Greenhaus & Powell, 2003) and may find it necessary to make sacrifices or trade-offs in order to fulfill demands and responsibilities emerging either from work or from the non-work domain. A sacrifice can be construed as "the destruction or surrender of something valued or desired for the sake of something having, or regarded as having, a higher claim or more pressing

claim" (Bahr & Bahr, 2001, p. 1240). Accordingly, a sacrifice entails the notions of priority and, to some extent, loss. Losses can be in terms of personal time, health, well-being, growth, development and independence (Mickel & Dallimore, 2009). These notions are explicit in Sturges (2008) definition of sacrifice: "acting, behaving in a way that prioritize one domain over the other, even though there might be potentially damaging consequences to the other life domain" (p. 126). Hence sacrifices are not meant to create work–nonwork balance. They are trade-offs, namely "work and family/personal life decisions made to better fulfill roles, responsibilities, or aspirations in the alternate domain" (Dahm et al., 2019, p. 480). Moreover, it is suggested that the neglected alternatives "retain their motivational strength" (Grund et al., 2016), suggesting that although they are momentarily put aside, the sacrificed action, role or responsibility will resurface and be implemented when the time and space are right.

Sacrifices may come in many shapes (e.g., Hirschi et al., 2019; Wilton & Ross, 2017): minor (e.g., cutting back on social activities to finish a work-related project), major (e.g., deferring having children until one's career is settled), temporary (e.g., lowering performance at work until one's elderly parent is rehabilitating from an operation) or permanent (e.g., opting out of the workforce). Interestingly, research suggests that minor sacrifices seem to have the most negative impact on individuals, compared to more major trade-offs (Dahm et al., 2019), partly because minor sacrifices are more frequent and generally occur on a daily basis. For instance, when workers prioritize work goals, they may report sacrificing a variety of activities, such as sleep, exercise, leisure, relaxation (Barnett & Rivers, 1996), housework and caring for others (Csikszentmihalyi, 1997; Csikszentmihalyi & Lefevre, 1989). In order to get established in one's career, Sturges (2008) found that workers were willing to sacrifice their social life and the time available with their family or partner, leading to extra strain on their personal relationships and pressure on their interests and hobbies. Similarly, Bianchi (2000) and Aarntzen et al. (2019) revealed that working mothers will reduce their working hours and their "me-time" to spend more time with their children. Although sacrificing one life sphere to prioritize another is intended to increase work-family balance and satisfaction, results show that making trade-offs is actually positively related to anxiety (Mickel & Dallimore, 2009) and can result in blaming the professional or personal life sphere for having to sacrifice the other (Amstad et al., 2011). Similarly, Frone et al. (1992), as well as Gutek et al. (1991) revealed that sacrificing time at home to invest long hours in work-related activities increases reports of work-family conflict. Carr (2002) found that sacrificing aspects of one's professional life to prioritize the family sphere can lead to lower evaluations of career opportunity among women and men, as well as lower levels of positive affect and levels of self-acceptance. Hence, individuals are making sacrifices even if these come at a cost.

In addition to internal pressure to make sacrifice, some organizations expect sacrifices from their employees, such that employees are expected to "sacrifice family performance for the sake of work performance" (Kossek et al., 2001, p. 32). These authors also concluded that need sacrifice in goal pursuit comes at a cost; indeed, they found that family sacrifice was positively related to perceived WFC and negatively related to psychological well-being. Perception of a work-family climate for sacrifice was also found to be negatively related to work-family enrichment while being positively related to turnover intentions (Wang, 2020).

Why do sacrifices lead to negative outcomes?

Very few studies have investigated the underlying mechanisms explaining why sacrifices have detrimental consequences. Dahm et al. (2019) have suggested that sacrifices of the professional or personal domain compromise individuals' identity in that domain. Sacrifices move "the actual self further away from the ideal or ought self in that domain creating self-discrepancy" (p. 481). Since both professional and personal role are central to individuals' multifaceted self-concepts, compromises benefiting one role over the other will produce self-discrepancy (Higgins, 1987), which in turn leads to negative outcomes. Two studies support these claims. Indeed, Dahm et al. (2019) revealed that sacrifices made in the work sphere are positively related to professional self-discrepancy and sacrifices made in the personal sphere are positively related to personal/family self-discrepancy. Moreover, self-discrepancy mediated the relationships between sacrifices and self-conscious emotions (guilt, shame and pride) and satisfaction, such that sacrifices are positively related to shame and guilt, while negatively related to pride and satisfaction, through their positive relationship with self-discrepancy. In addition, the authors found that sacrifices made in the personal life sphere not only move the actual personal/family self away from the ideal self-concept, they also enhance professional self-discrepancy (although the reverse is not true). Hence, compromises to one's self-concept seem to partly explain why sacrifices made to accommodate one life sphere over the other lead to negative outcomes. An additional explanation is provided by the literature on motivational conflict. Indeed, Fries and Dietz (2007) revealed that lingering motivational strength of the sacrifice alternative leads to self-regulation impairments. Thus, the responsibilities and roles that are put aside when trying to resolve WFC create motivational interference during the execution of the role that was privileged which was found to be associated with emotional exhaustion in teachers (Grund et al., 2016).

We believe that Self-determination theory can provide an additional explanation and offer a promising new perspective on how to understand sacrifices in the work-personal interface context and more specifically why they can be detrimental to workers' well-being (Ryan & Deci, 2017).

Psychological need sacrifices

Self-determination theory (SDT—Ryan & Deci, 2017) posits the existence of three fundamental psychological needs. The need for autonomy refers to having significant choices and acting coherently with one's values, the need for competence is defined as the need to have an impact on our environment, and the need for relatedness refers to having significant, respectful relationships. When satisfied, these needs lead to optimal functioning, personal growth and thriving (Ryan & Deci, 2017). When not satisfied or frustrated, research has demonstrated that ill-being follows.

According to SDT, needs satisfaction, frustration, or unsatisfied psychological needs result from one's environment (Ryan & Deci, 2017). In professional settings, for instance, workers' supervisor management style, work climate, and perceived organizational support, as well as relationships with colleagues, can satisfy or thwart workers' need for autonomy, competency, and relatedness (Moreau & Mageau, 2012). For the past 40 years, the relationship between environment and psychological needs satisfaction has been confirmed in many specific settings (e.g., sports, school, romantic relationships, work), suggesting that individuals are somewhat at the mercy of their environment. Research also revealed that individuals could actively search for need-fulfilling environments, and recently, it has been suggested that individuals will voluntarily sacrifice some of their needs to achieve their goals.

Indeed, Holding et al. (2020) recently showed that individuals can willfully sacrifice their psychological needs in the attempt to achieve an important personal goal. Hence, they proposed that in addition to leisure and maintenance activities, individuals can sacrifice their psychological needs in order to attain their career goals. In two prospective studies with university students, they examined how psychological need sacrifices made to pursue career goals related to well-being and career goal progress. Their results show that psychological need sacrifices predicted increase in psychological distress and impaired goal progress over the school year, over and beyond the effect of sacrificing maintenance and leisure activities. These findings suggest that psychological need sacrifices are distinct from the sacrifice of maintenance and leisure activities, and contribute to further understand the costs of making sacrifice to pursue our goals, whether we aspire to a great career or to a wonderful family life.

Psychological need sacrifices could be important antecedents that lead to negative consequences for workers, even if these sacrifices are made to better juggle work and non-work responsibilities and demands. Workers can sacrifice fulfillment of their psychological needs at work when they decide, for instance, to be time-efficient by reducing interpersonal contacts with their colleagues (sacrifice of work relatedness) or by taking shortcuts in their work (sacrifice of work competence) to pick up their kids on time from day care. Workers can also sacrifice their need for autonomy at work to attend their non-work responsibilities (e.g., declining a work opportunity in line with their intrinsic aspirations).

At other times, workers can decide to prioritize their work-related demands and thus sacrifice fulfillment of their psychological needs in their non-work domain. For instance, workers can reduce the amount of time spent with their life partner (sacrifice of non-work relatedness), hastily help with their children homework (sacrifice of non-work competence), or unwillingly put aside their favorite sport or hobby (sacrifice of non-work autonomy), in order to satisfy work-related demands and responsibilities.

Hence, based on these premises, making sacrifices to manage the work-family interface can lead to diminished psychological well-being and lower levels of satisfaction. Indeed, making sacrifices with the intention to lower work-family conflict could backfire and lead to psychological distress, if while pursuing one's goal of work-family balance, psychological needs are sacrificed.

Two studies investigated how psychological need sacrifices contribute to work-life conflict and how their influence on workers' psychological well-being compares to other types of sacrifice. We expected to extend the results of Holding et al. (2020) and show that sacrificing psychological needs is just as common as sacrificing activities but that the results of need sacrifice are more damaging to personal functioning.

Study 1

Participants and procedure

Participants (n = 141) were recruited through professional social networks. Participants received an email invitation or viewed a post to participate in a study on workers' work-life balance experience. When accessing the online questionnaire (hosted on the Survey Monkey platform) via the hyperlink, participants first read the consent form, those who agreed continued to the questionnaire. The mean age of our sample was 40.75 years, a majority was female (63.1%), most participants were married or in a common-law union (60.3%, 17.7% single, 13.5% in a relationship, 5.7% divorced or separated, and 1.4% widowed) and 51.1% reported having

at least on child. A majority of participants worked full-time (78.7%) and more than half of our sample had more than 10 years of tenure in their current job (50.4%, 12.8% less than one year, 22.7% between 1 and 5 years, 12.1% between 6 and 10 years; 2.1% missing). Participants were Canadian (53.9%), French (30.5%) and Belgian (13.2%; 0.7% missing). No compensation was offered for participation.

Method

Measures

Sacrifices

A total of 15 items were used to assess sacrifices made to achieve work-life balance. The scale was adapted from the one used by Holding et al. (2020) in their study of sacrifices made by young adults to pursue their career goals. Participants were asked the question "In order to pursue your goal of balancing your work and personal life, how much during the last month, have you made the following sacrifices?". Hence, sacrifices are self-reported and no objective measures of, for instance, sleep duration or time spent on leisure activities were recorded. As in the original scale, five items assessed maintenance activities sacrifices (e.g., "Sleep"; $\alpha = 0.72$) and four items assessed leisure activities sacrifices (e. g., "Hobbies, leisure or fun activities"; $\alpha = 0.81$). The items measuring psychological needs sacrifices were doubled compared to the items used by Holding et al. (2020) so that half (three) of them assessed needs sacrifices made in one's personal life ("Feeling of being connected with people in my personal life"; $\alpha = 0.80$) and the other half (three) assessed needs sacrifices made in one's professional life ("Feeling of being competent at work"; $\alpha = 0.89$). Each need (autonomy, competence, and relatedness) from each life domain was thus assessed by one item. The ratings were made on a seven-point Likert scale ranging from 1 (*not at all*) to 7 (*very much*).

Work-family conflicts

The Work Family Conflict Scale (Carlson et al., 2000) was used to assess conflicts between work and family life. Only the strain-based conflict and time-based conflict dimensions were assessed. Six items assessed work to family conflicts. Specifically, three items assessed time-based work to family conflicts (e. g., "The time I must devote to my job keeps me from participating equally in household responsibilities and activities") and three items assessed strain-based work to family conflicts (e. g., "Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy"). Six items assessed family to work conflicts. Again, three items assessed time-based conflicts (e. g., "The time I spend on personal responsibilities often interfere with my work responsibilities") and three items assessed strain-based conflicts (e. g., " Due to stress at home, I am often preoccupied with personal matters at work"). Participants were asked to rate each statement on a five-point Likert scale ranging from 1 (*totally disagree*) to 5 (*totally agree*). For the sake of parsimony, the strain- and time-based dimensions were combined into a work to family conflict and a family to work conflict subscales. Internal reliability for both subscales was satisfactory (Cronbach alpha of 0.84 and 0.77, respectively).

Positive and negative affect

The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to assess positive and negative affect. Participants were asked to indicate how much they had felt, in the past month, the feelings and emotions listed. It was followed by a series of 20 items, half of them assessing positive affects (e.g., "interested"; $\alpha = 0.82$) and the other half assessing negative affect (e.g., "hostile", $\alpha = 0.89$). The ratings were made on a seven-point Likert scale ranging from 1 (*Very slightly or not at all*) to 7 (*Extremely).*

Results

Preliminary analyses were performed with SPSS v.25 (IBM Corp., 2017). Table 1 presents means, standard deviations, and correlations for all the variables. The hypothesized model comprised four exogenous variables (maintenance activities sacrifice, leisure activities sacrifice, psychological needs sacrifice—personal, and psychological needs sacrifice—professional) and four endogenous variables (work to family conflict, family to work conflict, positive affect and negative affect). The model included indirect paths from the sacrifice variables to positive and negative affect through work to family and family to work conflicts. Covariances were allowed between the sacrifice variables. The model was tested using maximum likelihood estimation with robust standard errors (MLR estimation). The goodness-of-fit was assessed using four indices: the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residuals (SRMR). Values above 0.90 and 0.95 for the CFI and TLI indicate a satisfactory and excellent fit, respectively (Hoyle, 1995), and values of 0.08 or less for the RMSEA and SRMR are deemed acceptable (Browne & Cudeck, 1993).

The model provided an excellent fit to the data [$\chi^2(15) = 17.04$, $p = 0.32$; CFI = 0.994; TLI = 0.990; RMSEA = 0.03; SRMR = 0.05]. Results are summarized in Fig. 1. Psychological need sacrifices in one's personal life

Table 1 Means, standard deviations and correlations for Study 1

Variables	*M*	SD	1	2	3	4	5	6	7	8
1. Sac. Maintenance	3.37	1.29	–							
2. Sac. Leisure	3.52	1.47	0.69**	–						
3. Sac. Pers. Needs	3.33	1.50	0.61**	0.65**	–					
4. Sac. Prof. Needs	3.10	1.69	0.42**	0.50**	0.66**	–				
5. Work-to-family conflict	2.74	0.74	0.54**	0.61**	0.53**	0.37**	–			
6. Family-to-work conflict	2.26	0.59	0.37**	0.29**	0.41**	0.27**	0.56**	–		
7. Positive affect	3.58	0.64	−0.21*	−0.09	−0.25**	−0.19*	−0.22**	−0.33**	–	
8. Negative affect	2.27	0.81	0.34**	0.25**	0.33**	0.22**	0.41**	0.45**	−0.25**	–

Sac. Maintenance sacrifice of maintenance activities, *Sac. Leisure* sacrifice of leisure activities, *Sac. Pers. Needs* sacrifice of psychological needs in personal life, *Sac. Prof. Needs* sacrifice of psychological needs in professional life

*$p < .05$; **$p < .01$

was positively related to work to family and family to work conflicts, and leisure activities sacrifice was positively associated with work to family conflicts. No other type of sacrifice was associated with conflict. Results also showed that both types of conflict are positively associated with negative affect, whereas only family to work conflicts was negatively related to positive affect.

We used bootstrapping to determine whether work to family and family to work conflicts mediated the paths between sacrifices (psychological needs sacrifice—personal and leisure activities sacrifice) and positive and negative affect. Bias-corrected bootstrap 95% confidence intervals were computed from 1000 bootstrap samples. Confidence intervals indicate significant mediation when they exclude zero. Results indicated all indirect relationships were significant. Specifically, significant indirect relationships of psychological needs sacrifice—personal (bootstrap estimate = 0.06, CI 0.009, 0.142) and leisure activities sacrifice (bootstrap estimate = 0.11, CI 0.016, 0.226) on negative affect through work to family conflict were confirmed. Also, indirect relationships of psychological needs sacrifice—personal on positive affect (bootstrap estimate = − 0.136, CI − 0.227, − 0.059) and on negative affect (bootstrap estimate = 0.129, CI 0.042, 0.246) through family to work conflict were supported. In sum, the results of Study 1 suggest that sacrificing psychological needs in one's personal life with the objective of increasing balance between professional and personal demands and responsibilities can lead workers experience more negative affect and less positive affect. Only one other type of sacrifice seems to play a role in workers' negative affect, namely sacrifice of leisure activities. These relationships were mediated by what workers were trying to avoid, WFC. Importantly, these findings highlight the crucial role of personal psychological needs sacrifice in WFC, over and above other types of sacrifices.

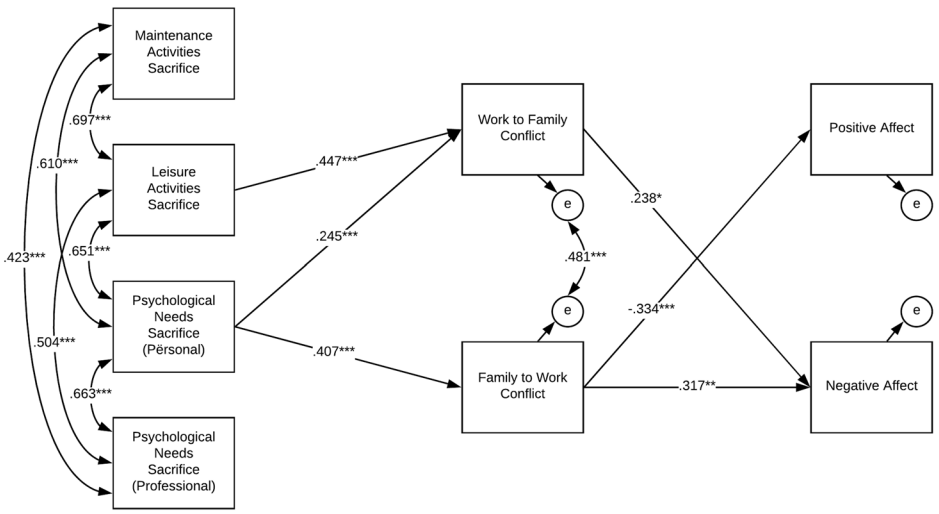

Fig. 1 Final model of the relationship involving sacrifices, conflicts, and affect for Study 1. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Study 2

Study 2 aimed to expand the results from Study 1 in two ways. First, a prospective design over a 3-month period (with three measurement times) was used to provide a more rigorous test of the relationships between personal psychological needs sacrifice, WFC and outcomes. Second, this study examined two different outcomes, namely life and work satisfaction. Whereas Study 1 was limited to workers' reported affect, Study 2 offers insight into how sacrificing personal psychological needs to achieve work-life balance is related to workers' satisfaction in two important life spheres: work and non-work.

Procedure

This study was conducted over a 3-month period and comprised three collections of data among workers. Time 1 was realized in early November, Time 2 was done just before Christmas and Time 3 was in late January. This time lag was chosen to allow us to capture change in perceived satisfaction during this particularly hectic time of calendar which seems conducive to WFC. In each study phase, an email containing a hyperlink to the questionnaire was sent to the participants. All participants signed an ethical consent form, at each measurement times. Participants completing all three measurement times were eligible to a lottery where they could win one of four pre-paid credit cards valued at 50$ (Canadian).

Participants

Of the 227 participants who took part in the first time measurement, 78 completed Time 2 and Time 3. Data at Time 2 and Time 3 were collected at and right after Christmas, possibly explaining the low percentage of participants who completed all measures. However, no difference between participants who completed all three questionnaires versus those who completed only one or two was found. Our final sample was 63.4% female, most (67.1%) were married or in a common-law union (11% in a relationship, 9.8% single, 6.1% separated or divorced) and 51.2% reported having at least one child. Participants mean age was 43.39 years and a high percentage reported working full-time (73.2%). Half our sample had more than 10 years of tenure at their current job (4.9% less than a year, 24.4% between 1 and 5 years, 14.6% between 6 and 10 years).

Method

Sacrifices

The psychological needs sacrifice—personal used in Study 1 was again used in Study 2, to assess sacrifices made to achieve work-life balance at Time 1. The Cronbach alpha value was 0.84.

Work-family conflicts

The Work Family Conflict Scale (Carlson et al., 2000) was used to assess WFC at Time 2. The same combination of subscales as in Study 1 was conducted in Study 2. Cronbach alpha value for work to family (strain- and time-based) was 0.82.

Family-work conflicts

The same scale as in Study 1 was used to assess family-to-work conflicts at Time 2 in the present study. Cronbach alpha value for family to work (strain- and time-based) was 0.76.

Satisfaction with personal life

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) was chosen to assess workers' satisfaction regarding their personal life at Time 1 and Time 3. Workers were asked to rate how much they agreed or disagreed with each of five statements (e. g., "In most ways my life is close to my ideal") on a seven-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). The Cronbach alpha value was 0.89 (Time 1) and 0.91 (Time 3).

Satisfaction with professional life

Satisfaction at work was assessed using the Work Domain Satisfaction Scale (Bérubé et al., 2016) at Time 1 and Time 3. Workers were asked to rate how much they agreed or disagreed with each of five statements (e. g., "I am satisfied with the type of work I do") on a seven-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). The Cronbach alpha value was 0.91 (Time 1) and 0.90 (Time 3).

Results

Means, standard deviations and correlations are presented in Table 2. Because of our small sample size, we predicted satisfaction with professional life and personal life at T3 while controlling for their T1 measure by creating and using residual change scores (T3–T1). First, variables were standardized, then included in a simple linear regression model

Table 2 Means, standard deviations and correlations for Study 1

Variables	*M*	SD	1	2	3	4
1. Sac. Pers. Needs (T1)	3.38	1.62	–			
2. Work-to-family conflict (T2)	2.82	0.84	0.53**	–		
3. Family-to-work conflict (T2)	2.13	0.74	0.33**	0.50**	–	
4. Satisfaction with professional life	0.00	0.99	−0.18	−0.33**	−0.17	–
5. Satisfaction with personal life	0.00	0.99	−0.09	−0.27**	−0.24**	0.19

Sac. Pers. Needs sacrifice of psychological needs in personal life; Satisfaction with professional and personal life represents standardized residual change scores (T3–T1)

*$p < 0.05$, **$p < 0.01$

where T3 satisfaction was regressed onto its T1 equivalent (satisfaction with professional life and personal life, respectively). To test our hypotheses, we conducted a path analysis using M*plus* version 1.7 (Muthén & Muthén, 2019). The hypothesized model comprised one exogenous variable (personal psychological needs sacrifice at T1) and four endogenous variables (work to family conflict and family to work conflict at T2, and residual change scores for satisfaction with professional life and personal life). Specifically, the model included direct paths from personal psychological needs sacrifice T1 to residual change scores for satisfaction with professional life and personal life T3 as well as indirect paths through work to family and family to work conflicts at T2. The model was tested using maximum likelihood estimation with robust standard errors (MLR estimation). The goodness-of-fit was assessed the same as in Study 1.

The model provided an excellent fit to the data [$\chi^2(3) = 2.558$, $p = 0.47$; CFI = 1.00; TLI = 1.00; RMSEA = 0.00; SRMR = 0.03]. Results are summarized in Fig. 2.

We used bootstrapping to determine whether work-family and family-work conflicts mediated the paths between personal psychological needs sacrifice and satisfaction in one's personal and professional life. Bias-corrected bootstrap 95% confidence intervals were computed from 1000 bootstrap samples. Results indicated all indirect relationships were significant. Specifically, significant indirect relationships of personal psychological needs sacrifice on changes in life satisfaction (bootstrap estimate = −0.126, CI −0.259, −0.020) and professional satisfaction (bootstrap estimate = −0.175, CI −0.340, −0.054) through family to work conflict was confirmed. Also, an indirect relationship of personal psychological needs sacrifice on changes in satisfaction with one's professional life (bootstrap estimate = −0.074, CI −0.195, −0.003) through work to family conflict was supported. In sum, the results of Study 2 suggest that sacrificing psychological needs in one's personal life to manage professional and personal demands and responsibilities can decrease workers' satisfaction in their professional and personal life spheres, through a positive relationship between sacrifice and WFC.

Discussion

Two studies investigated through a motivational lens the sacrifices made by workers in their work or personal life sphere to better fulfill their roles and responsibilities in the alternate domain. Specifically, sacrifices of basic psychological needs in the professional and non-professional domain were

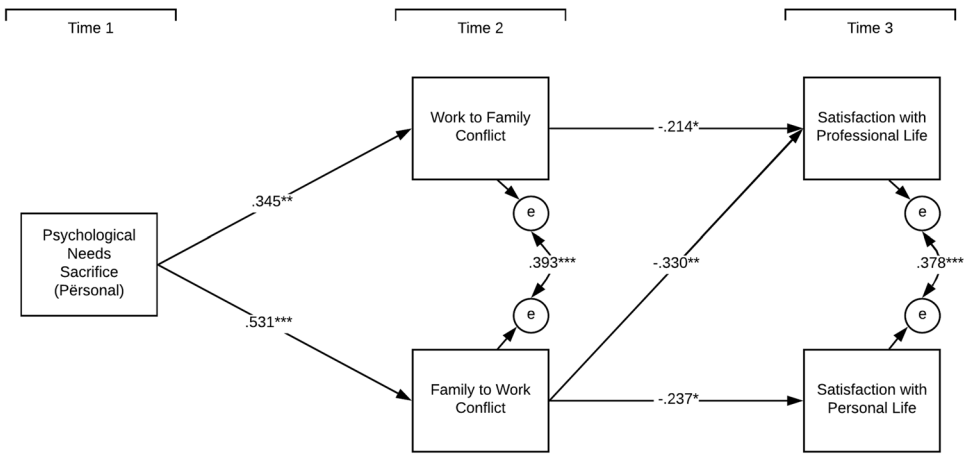

Fig. 2 Final model of the relationship involving sacrifices, conflicts, and life satisfaction at home and at work for Study 2. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

examined in relation to work-family conflict, psychological well-being, and satisfaction with one's life and work. The present investigation also compared how different types of sacrifice relate to work-family conflict and psychological well-being in order to identify which ones are more (or less) detrimental for workers. Study 1 showed that among different types of sacrifice, psychological needs sacrifices in one's personal life are most detrimental for workers' well-being and that this relationship operated through both work to family and family to work conflicts. Study 2 confirmed the detrimental consequences of psychological needs sacrifices on workers by demonstrating that such sacrifices lead to decreases in satisfaction with work and personal life over 3 months, again through work to family and family to work conflicts. Our findings confirm that workers will make sacrifices, compromises or trade-offs within their professional and non-professional lives in order to attain their objectives or fulfill their responsibilities (Mennino & Brayfield, 2002). This set of results also validate past research (e.g., Dahm et al., 2019; Kossek et al., 2001; Mickel & Dallimore, 2009) that have shown those sacrifices come at a cost, both in terms of well-being and satisfaction, and that making sacrifices increase perceived work-family conflicts, although they are intended to lower them. Nonetheless, the present results significantly further our understanding on two crucial counts. First, the detrimental effect of sacrifices or trade-offs can be understood through a motivational lens, namely basic psychological needs. Second, not all sacrifices are created equal.

Sacrifices under the motivational lens

According to Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017), human development and optimal functioning depend on the satisfaction of the basic psychological needs that are universal and innate (Deci & Ryan, 2000; Ryan & Deci, 2017). Need satisfaction "is a necessary condition for human thriving and flourishing" (Ryan & Deci, 2017, p. 242). Hence, when individuals sacrifice their psychological needs in their personal life sphere to better accommodate their professional role, they will experience decreases in their overall well-being. Relatedly, past research have suggested that although sacrifices may benefit the alternate role, it can also result in general negative outcomes (Dahm et al., 2019). However, the same sacrifices made in their professional sphere were not found to engender negative outcomes. These results can perhaps be explained by the personal self-discrepancy (i.e., personal/family self-concept moving away from the ideal personal/family self-concept) created by sacrifices of personal needs. Sacrificing psychological needs in the personal sphere may increase personal self-discrepancy, which was found to also enhance professional self-discrepancy, but not the other way around (Dahm et al., 2019). Hence, it could be proposed that personal self-discrepancy has a more crucial influence on individuals well-being, compared to professional self-discrepancy, which could explain why needs sacrfice in the personal sphere has more damaging effects. It is also possible that sacrificing psychological needs in the personal sphere was accompanied by stronger motivational conflict (Fries & Dietz, 2007; Grund et al., 2016) in our sample, perhaps due to greater family centrality (versus work centrality). In addition, some research highlights that different types of conflict (want and should conflicts) relate differently to affective and cognitive well-being (Grund et al., 2015). Want conflicts (feeling of wanting to do something else) tend to relate more to affective consequences, whereas should conflicts (feeling that one should be doing something else) relate more to cognitive components of well-being (e.g., satisfaction). This could explain why the psychological need sacrifices were significantly related to affect (Study 1), but not to satisfaction (Study 2), and why professional psychological need sacrifices revealed themselves as being less damageable than personal psychological need sacrifices. Future research should investigate the nature (want versus should) of the sacrificed and prioritized role (or demands, responsibilities) to gain a comprehensive understanding of the consequences resulting from sacrifices made in the context of WFC. Another explanation lies perhaps in other characteristics of the sacrifices made in each life sphere. Frequent, minor sacrifices, which were suggested to lead to greater ill-being (Dahm et al., 2019) may occur more often in the personal sphere than in the professional sphere. Although many questions still need answers (e.g., why and under which conditions personal self-discrpenancy leads to more negative outcomes, why individuals may be willing to make more frequent sacrifices in their personal sphere than in their professional sphere), these findings point to the dynamic interplay of need satisfation in multiple life domains and to the relative contribution of these life domains in the use of work-family balance strategies.

Self-determination theory's (Ryan & Deci, 2017) stipulates that need satisfaction can be differently satisfied across various life spheres (e.g., Milyavskaya et al., 2009), and that need satisfaction in one life domain can contribute to outcomes both within and outside that life domain. Our results show that psychological needs can be sacrificed in both one's professional and personal life, but that it's the latter that matters most in predicting outcomes for workers. These results echoe those of Dahm et al. (2019) which reveal that personal trade-offs have negative consequences on family and professional self-concept, emotions and satisfaction. Hence it appears that the personal sphere is decisive for the development and implementation of work-life balance strategies. It also suggests that psychological needs in the personal sphere are critical resources that facilitate work-to-family and

family-to-work balance. Research using the Job Demand-Resource theory (JDR—e.g., Bakker & Demerouti, 2017) supports these claims. According to the JDR theory, psychological needs are resources that individuals can use to fulfill their work-related demands. When psychological needs (e.g., autonomy) are satisfied, more resources are available to individuals so they can emit proactive strategies to achieve their goals, stimulate growth and well-being. For instance, a diary study by Demerouti et al. (2019) revealed the importance of the satisfaction of the need for autonomy at home in facilitating cross-domain relationships between work and home crafting (i.e., "strategies that individuals use to alter the scope and boundaries of their work [and home]" Demerouti et al., 2019, p. 2). In other words, work crafting could spillover to home crafting, when home autonomy was high. Relatedly, Hewett et al. (2017) found that satisfaction of all three needs at home contributed to individuals positive affect (whereas only work autonomy was related to positive affect). Relatedly, drawing on the compensation hypothesis (Staines, 1980), results from their diary study suggest that need satisfaction in one domain can compensate for need frustration (or lack of satisfaction) in another domain. More specifically, they found that competence need satisfaction at home is beneficial to individuals' affect on days when their needs for competence was not satisfied at work. Hence, these findings highlight the importance of having one's psychological needs satisfied at home in order to better adjust to work demands; "When individuals have the possibility for self-determination, they will expand rather than restrict the scope of their non-work activities in order to facilitate their positive transformation and growth" (Demerouti et al., 2019, p. 20). Sacrificing psychological needs at home thus seems to deprive workers from important resources that contribute to expanding strategies to improve fulfillment of professional and personal demands and responsibilities without increasing perceived work-family conflict and negative outcomes.

Not all sacrifices are created equal

The present findings suggest that workers equally sacrifice maintenance activities, leisure activities, personal psychological needs and professional psychological needs in an attempt to fulfill emerging demands from their work and non-work life. However, it appears that workers fare not so badly by sacrificing maintenance activities (self-reported sleep, healthy eating, personal hygiene and appearance, or even time with friends and family) in order to satisfy their conflicting demands and responsibilities. Greater negative outcomes are expected when individuals sacrifice basic psychological needs in their personal life. Yet, leisure activities sacrifice led to negative affect through work-to-family conflict (Study 1). This finding is in line with research that have linked leisure activities with benefits for one's psychological well-being (e.g., Ménard et al., 2016; Sirgy et al., 2017; Sonnentag et al., 2014). Participating in leisure activities allows workers to psychologically detach from their professional (and personal) obligations, thus facilitating recovery and renewal of personal resources. Hence, when workers sacrifice their leisure activities, psychological detachment from work is more difficult to operate which can explain why they perceive that work is interfering with their personal life (work-to-family conflict). By sacrificing their leisure activities, they forfeit their recovery and decrease their ability to renew their resources, which leads to negative affect.

Limitations and futures research

Although the present studies provided several insights into workers' sacrifices to better fuflill their conflicting demands and responsibilities, they are not without limitations and there are still several unanswered questions. One limitation of the present studies relates to their design. We assessed the general level of sacrifices and WFC, asking participants to evaluate, in general, how often they sacrifice different activities and needs to attain their goal of better satisfying their professional and personal responsibilities, and in general, how much WFC they experience. Recent literature (Maertz et al., 2019) suggests that examining specific work-family conflict episodes could provide a deeper understanding of the processes involved in workers' attempts to resolve WFC. In the present case, adopting such a methodology could offer a finer-grained analysis of the sacrifices made by workers and the boundary conditions leading to workers' psychological well-being, perceived WFC, and successful balance. Relatedly, it seems evident that WFC occurs at different times of day and not every day. Hence, daily diary studies are warranted to take into account this possible fluctuation. Similarly, more research should use longitudinal designs to assess the impacts of needs sacrificing in the long run. Having data on the recurrence and duration of sacrifices made, whether in terms of maintenance and leisure activities, and home and work sacrifices, would allow a more comprehensive understanding of the dynamic interplay of these sacrifices as well as how and when they contribute to workers' WFC and well-being. Similarly, having objective measures on the sacrifices made would have provided a clearer picture of their consequences. This appears to be of particular importance for maintenance sacrifices, and especially sleep sacrifices. The distinction between self-reported and objective sleep quality and/or duration is critical as the literature is unanimous on the detrimental effect of objective sleep deprivation on cognitive and neurological functioning (Alkadhi et al., 2013), and performance (Gillen-O'Neel et al., 2013). Future studies using objective measures (e.g., sleep quality and duration, time spent on leisure activities, etc.) are thus warranted.

Relatedly, sacrifices were measured in a global and non-specific way. It is therefore impossible to pinpoint the precise behaviors and routines that participants engaged in and sacrificed. Interviews or open ended questions would provide a more detailed mapping of what is sacrificed, how and when; a necessary step for a deeper understanding of the relationships between WFC and sacrifices, and for the development of successful applied interventions, rooted in the different realities of workers.

In addition, research suggests that work and non-work roles contribute differently in shaping one's identity (e.g., Kossek et al., 2012). Individuals can be work-centric (i.e. work identity is more salient), family-centric (i.e. saliency of family identity is greater), dual-centric (i.e. family and work have equal identity salience) or they can have low work and family identity salience. It is possible that the consequences observed from needs sacrificing depends on the centrality of the life domain in which sacrifices are made. In this sense, it could be that our sample was mostly family centric which explains why psychological needs sacrifice in one's personal life sphere explained most variance in reported WFC and psychological well-being. Future research should investigate this issue more thoroughly.

Balancing work and non-work activities often require the use of multiple strategies, some of which are developed individualy while others are derived from organizational and/or governmental policies. We did not investigate the specific strategies used by workers, nor did we examined if they had access to (and if they used) work-family policies (e.g. flexible work arrangements, leave, on-site services). Future studies should examine the *needs sacrificing potential* of different work-family balance strategies and policies, as not all strategies and policies are created equal (Bourdeau et al., 2019). It is also possible that having access to and using these policies reduces sacrifices made or moderates the relationships between sacrifices and experienced outcomes.

Practical implications

Alternately prioritizing demands and actions in one life sphere over another appears to be a strategy used by workers in order to juggle work and non-work responsibilities. Although sacrificing and thus not fulfilling, completely or partially, demands and responsibilities from one life sphere could appear as a solution to instill balance in one's life, it comes at a cost. However, some sacrifices appear to be more detrimental than others, and workers, families as well as employers, should be aware of the possible trade-offs related to sacrificing various activities and needs. Minimally, it would appear important to raise awareness of the benefits of protecting one's psychological needs satisfaction at home. Having a home environment that allows for the development and maintenance of psychological needs seems to generate valuable personal resources to manage work and non-work demands. In that sense, seeking or maintaining relationships that provide sufficient need support in the personal domain can be conceivably advantageous, since need support from close relationships has been linked to all around better psychological well-being (Niemiec et al., 2014). It could be that receiving a greater amount of need support from family members, friends, or romantic partners help safeguard the basic psychological needs in the personal sphere. On the whole, avoiding sacrificing psychological needs at home could protect the resources used to develop and implement personal work-family balance strategies.

Similarly, a work environment that enables work-family balance can help prevent having to make sacrifices in one's personal life in the first place to be able to keep up. Considering the potential spillover of the family domain to the work domain, deleterious effects of need sacrifices in the personal sphere are also of concern for organizations. While one's personal psychological needs are primarily the employee's responsibility, organizations should, at the very least, try to ensure their protection. Hence, employers could implement policies to promote work arrangements that are flexible enough for employees to *not* sense they must sacrifice their own needs to meet professional demands. In addition to workplace policies, organizational climate is another aspect to consider. It has been shown that need supporting workplaces can enable greater psychological well-being, as well as other work-related outcomes such as performance (Deci & Ryan, 2002). Consequently, much like need support arising from personal relationships, managerial support of basic psychological needs at work could trickle down to the personal domain and thus buffer deleterious effects of sacrifices. Raising managers' awareness about employee sacrifices could be another fruitful practical avenue to limit their impact.

Nevertheless, issues relating to WFC must be addressed at the collective and societal level to minimize their consequences and find long lasting solutions. Currently, our society is made of systems, values and processes that often promote WFC and make it impossible for workers to find viable solutions. For instance, labor and family law are both involved when WFC issues are at hand. Labor law have perpetuated a strict work/family life divide and have not evolved to consider and include developments in family law (Bernstein & Valentini, 2018). The authors illustrate this with legal cases of shared custody arrangements. For example, parents working an atypical schedule must fight the system by proving that they can't fulfill their custody obligations—follow what the family law prescribe—if they don't take liberties with the strict application of the labor law. This example illustrates that the existing set of laws, but more globally, the existing set of values and practices were

thought of, designed, and integrated within our organizations and ourselves many decades ago. The world has changed and we, collectively, need to change with it.

It should be noted, however, that preventing need sacrifices does not mean they will never have to be made. Indeed, conflicts seem inseparable from sacrifices; every day, demands, roles, and responsibilities from different life domains are fighting for our time and energy, competing for implementation (Grund et al., 2016). Inevitably, individuals need to choose their course of action, and because we cannot do everything at once, some actions are put off temporarily. However, research would suggest that an underlying conflict still prevails: the motivational conflict that accompanies sacrificing one role over the other remains and will linger until the neglected role can take its place. Hence, WFC and its solutions seem to be much more complex than alternating roles and making temporary sacrifices. Yet, this study shows that if and when sacrifices happen, one should be aware of the type of sacrifice that is being made. Because they are not created equal, our results suggest that protecting the needs in the personal sphere seems to be a good starting place.

Conclusion

We aimed to build on the scarce litterature of sacrifices to explore how various types of sacrifice could relate to psychological well-being and both life and work satisfaction over time through work-family conflict. Results showed how sacrifices, and especially need sacrifice made in the personal sphere, could not only influence negatively psychological well-being, but also satisfaction with both work and life over the course of 3 months, via elevated work to family conflict. More research is warranted to elucidate further under which conditions, and perhaps for whom, sacrifices lead to worse outcomes.

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