Work–Family Spillover and Subjective Well-Being: The Moderating Role of Coping Strategies

M. Joseph Sirgy1 · Dong-Jin Lee2 · Seolwoo Park2 · Mohsen Joshanloo3 · Minyoung Kim3

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Abstract
The main focus of this study is to examine the moderating role of coping strategies in relation to work–family spillover and subjective well-being. We hypothesized that work–family spillover has a predictive effect on work and family domain satisfaction, which in turn are positively predictive of subjective well-being. We also hypothesized that the effect of negative work–family spillover on life domain satisfaction is mitigated with problem-focused coping strategies more so than emotion-focused coping strategies. Data were collected through a survey of a representative sample of American adults who are fully employed (N = 827). Hypotheses were tested using SEM and regression. The results indicate that work–family spillover has predicted subjective well-being, as hypothesized. We also found that the strength of the negative association between negative work–family spillover and life domain satisfaction is significantly reduced when individuals use problem-focused coping strategies, as hypothesized. This effect was not found when individuals use emotion-coping strategies. Theoretical and managerial implications are discussed.

Keywords Positive spillover · Negative spillover · Domain satisfaction · Life satisfaction · Subjective well-being · Coping strategies · Work–life balance

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1 Introduction

Subjective well-being involves a preponderance of positive affect over negative affect and life satisfaction (Pavot and Diener 1993; Sirgy 2012, p. 36). Much research has demonstrated that satisfaction in life domains contributes to subjective well-being (see a review of this literature in Sirgy 2012, Chapter 16). In the context of work and family life, research has shown that satisfaction with family life as well as satisfaction with work life have a unique and independent influence on overall life satisfaction (Lent et al. 2005).

Satisfaction with a particular life domain also has a horizontal spillover effect on satisfaction with other life domains. For example, work–family spillover occurs when “behaviours, moods, stress, and emotions from work are transferred to the family domain” (Lawson et al. 2013, p. 273). Work–family spillover experiences can take four different forms in the work–family interface: (1) negative spillover from work to family (NWF), (2) positive spillover from work to family (PWF), (3) negative spillover from family to work (NFW), and (4) positive spillover from family to work (PFW) (Grzywacz and Marks 2000).

The study reported in this paper focuses on the work–family spillover and its impact on subjective well-being. Specifically, this study examines the impact of the four different types of work–family spillover (NWF, PWF, NFW, and PFW) on domain satisfaction (satisfaction with work and family life) and subjective well-being (positive/negative affect and overall life satisfaction). Although there is much research published dealing with the impact of work–family spillover on subjective well-being, limited attention has been given to how individuals cope (Folkman and Lazarus 1980; Lazarus and Folkman 1984) with negative spillover and the effects of coping with negative spillover on subjective well-being. As such, this paper is motivated by three goals. First, our study examines the impact of the four different types of work–family spillover (NWF, PWF, NFW, and PFW) on domain satisfaction (satisfaction with work and family life) and subjective well-being. Gauging the relative impact of the four dimensions of work–family spillover on work and family life and subjective well-being should help develop policies to mitigate negative spillover and strengthen positive spillover. Second, the study also examines the effect of problem-focused versus emotion-focused coping strategies on negative spillover. Understanding how people use coping strategies to mitigate the effects of negative spillover on domain satisfaction should provide management with insights and tools to assist employees in dealing with negative spillover.

2 Conceptual Development

Our conceptual model is captured in Fig. 1. The model shows that positive and negative work-to-family spillover is likely to influence satisfaction with family life. Similarly, positive and negative family-to-work spillover is likely to influence satisfaction with work life. In turn, satisfaction with family and work life is likely to influence subjective well-being. Coping is likely to influence negative spillover. Specifically, problem-focused coping mitigates negative spillover, whereas emotion-focused coping may exacerbate negative spillover.
2.1 Positive Spillover Between Work and Life and Satisfaction with Life Domain

As previously mentioned, work–family spillover occurs when “behaviors, moods, stress, and emotions from work are transferred to the family domain” (Lawson et al. 2013). Work–family spillover experiences involve negative spillover from work to family (NWF), positive spillover from work to family (PWF), negative spillover from family to work (NFW) and positive spillover from family to work (PFW) (Grzywacz and Marks 2000).

Positive spillover refers to experiences in one domain such as moods, skills, values, and behaviors being transferred to another domain in ways that make the two domains positively similar (Crouter 1984; Edwards and Rothbard 2000). Positive spillover is a type of work–family enrichment, and it reflects the extent to which experiences in one role improve performance or increase positive affect in the other role (Greenhaus and Powell 2006). Grzywacz and Marks (2000) have established the case that positive spillover is likely to
occur when there are more resources at work or family settings, such as more decision latitude at work, support at work from co-workers and supervisors, and emotionally close spouse and supportive family relations.

There is much research supporting the notion that positive spillover between work and family is positively related to job satisfaction, marital satisfaction, improved mental health, ego resilience, and psychological well-being (e.g., Barnett 1998; Cohn et al. 2009; Grzywacz and Marks 2000). Specifically, positive spillover results in enhanced role performance, domain satisfaction, and overall life satisfaction (Hanson et al. 2006). Research has demonstrated that transfer of resources (skills and perspectives, flexibility, psychological and physical social-capital, and material resources) from one life domain to another life domain improves role performance in life domains and overall life satisfaction (Greenhaus and Powell 2006). Research also has shown that the transfer of positive mood from one life domain to another life domain results in a positive association between job satisfaction and family satisfaction (Heller and Watson 2005). As such, we introduce our first hypothesis.

**H1** Positive spillover between work and family has a positive predictive effect on satisfaction with work life and satisfaction with family life.

**H1a** The greater the positive spillover from work life to family life, the greater the satisfaction with family life.

**H1b** The greater the positive spillover from family life to work life, the greater the satisfaction with work life.

### 2.2 Negative Spillover Between Work and Life and Satisfaction with Life Domain

Work–family conflict typically is defined as a form of inter-role conflict in which role pressures from work and family domains become mutually incompatible in some respects. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role (Greenhaus and Beutell 1985).

Negative spillover between work and family involves co-occurrence of negative events in two life domains such as the transmission of negative attitudes or moods from one domain to another (Repetti and Wood 1997; Williams and Alliger 1994). A meta-analytic review indicates that negative spillover from work to family is related to, but distinct from, negative spillover from family to work (Byron 2005). Negative spillover from work to family occurs when “the general demands of, time devoted to, and strain created by the job interfere with performing family-related responsibilities”; and negative spillover from family to work occurs when “the general demands of, time devoted to, and strain created by the family interfere with performing work-related responsibilities (Netemeyer et al. 1996, p. 401).

Negative spillover between work and family is often characterized in terms of work–family conflict. Work–family conflict involves time-, strain-, and behavior-based conflicts (Carlson et al. 2000; Greenhaus and Beutell 1985). Time-based conflict occurs when devoting time to the demands of one domain (e.g., family life) consumes time needed to meet demands in another domain (e.g., work life). Strain-based conflict occurs when strain (e.g., dissatisfaction, tension, anxiety, and fatigue) from one domain (e.g., family life) makes it difficult to meet demands in another domain (e.g., work life). Behavior-based conflict occurs when behaviors developed in one domain (e.g., family life) become
incompatible with role demands in another domain (e.g., work life). The person is unable to adjust when moving between domains. As such, behavior developed in one domain interferes with role performance in another domain.

Negative spillover is likely to occur when there are barriers arising from person–environment interactions at work and in the family (e.g., more pressure at work, spouse disagreement, and perception of family burden) (Grzywacz and Marks 2000). Social support (e.g., showing concern, giving advice, lending a hand, or providing relevant feedback) can protect employees from the stressful effects of job demands on job strain (Van der Doef and Maes 1999) and work–family conflict (Carlson and Perrewé 1999).

Negative spillover between work and family has a negative influence on employee job satisfaction, family satisfaction, mental health, and psychological well-being (Allen et al. 2000; Greenhaus and Powell 2006; Karatepe and Sokmen 2006; Namasivayam and Zhao 2007). A recent meta-analytic review indicates that there was a significant negative relationship between work–family conflict and satisfaction with family life (Fellows et al. 2016). Furthermore, the impact of negative spillover on job satisfaction and life satisfaction seems to be stronger for women than men. Specifically, Pleck (1977) made the case that family stress spills over unto work life more for women than men; conversely, work stress spills over unto family life more for men than women. This is due to gender role socialization. Research has also shown that negative spillover from work to family has a greater impact on life satisfaction than negative spillover from family to work (Kossek and Ozeki 1998). Based on the preceding discussion, we introduce our second hypothesis.

**H2** Negative spillover between work and family (NWF) has a negative predictive effect on satisfaction with family life, satisfaction with work life, as well as subjective well-being.

- **H2a** The greater the negative spillover from work life to family life, the less the satisfaction with family life and subjective well-being.
- **H2b** The greater the negative spillover from family life to work life, the less the satisfaction with work life and subjective well-being.

### 2.3 Domain Satisfaction and Life Satisfaction

The bottom-up spillover theory of life satisfaction (Andrews and Withey 1976; Campbell et al. 1976) posits that satisfaction in life domains influences overall life satisfaction. That is, satisfaction in life domains such as family life and work life has a unique and independent influence on subjective well-being (Lent et al. 2005). Furthermore, satisfaction with a particularly valued life domain (i.e., a life domain perceived to be important) would strongly influence subjective well-being relative to satisfaction in less-salient life domains. As such we introduce our third hypothesis.

**H3** Satisfaction with family life and satisfaction with work life have positive predictive effects on subjective well-being.

- **H3a** The greater the satisfaction with family life, the greater the subjective well-being.
- **H3b** The greater the satisfaction with work life, the greater the subjective well-being.

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2.4 Moderating Effects of Coping Strategies

Coping has been defined as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus and Folkman 1984, p. 141). The distinction between problem-focused and emotion-focused coping is central.

Problem-focused coping involves direct efforts to modify the problem causing the distress (Lazarus and Folkman 1984). That is, problem-focused coping refers to coping efforts designed to directly address the source of the problem to reduce or eliminate the stressor (Baker and Berenbaum 2007). Problem-focused coping is likely to occur when individuals feel that they can effectively address the main source of the stressor (Lazarus and Folkman 1984). Research has shown that problem-focused coping is positively related to personality traits such as optimism, conscientiousness, and agreeableness (e.g., O’Brien and DeLongis 1996; Scheier et al. 1986). Examples of problem-focused coping strategies include coping strategies such as positive reinterpretation, active coping, and planning (Carver et al. 1989). Positive reinterpretation involves efforts to construe a stressful transaction in positive terms (e.g., looking for something good in a negative event; seeing the event in a different light to make it more positive). Active coping refers to the process of taking active steps to remove or circumvent stress or to ameliorate its effects (e.g., initiating direct action; taking action to try to get rid of the problem). Planning is thinking about how to cope with the stressor (e.g., making a plan of action; thinking about how to handle the problem).

In contrast, emotion-focused coping is directed toward regulating affect produced from a stressful experience (Lazarus and Folkman 1984; Baker and Berenbaum 2007). In other words, emotion-focused coping functions to regulate (tolerate, reduce, or eliminate) the physiological, emotional, cognitive, and behavioral reactions that accompany the experience of a stressful event. Research has shown that emotion-focused coping can be effective in situations wherein one has little to no control over the stressor (Folkman and Lazarus 1985; Zakowski et al. 2001). Although there are adaptive emotion-focused coping strategies including support seeking and restraints, this study focuses on mal-adaptive forms of emotion-focused coping (McCrae and Costa 1986; O’Brien and DeLongis 1996; Tamres et al. 2002) such as venting of emotion, denial, and behavioral disengagement (Carver et al. 1989). Venting of emotion refers to the tendency to focus on the distress and to ventilate the negative feelings (i.e., letting the negative emotions out). Denial refers to refusal to believe that the stressor exists or of trying to act as though the stressor is not real (i.e., refusal to believe in what is happening). Behavioral disengagement refers to reducing one’s effort to deal with the stressor, or even giving up the attempt to attain the target goal that has caused the stress to begin with.

We posit that the effect of negative spillover on domain satisfaction is likely to be weaker among individuals using problem-focused coping strategies and stronger among those using emotion-focused strategies. When individuals use problem-focused coping, they actively deal with the main source of the problem, thus they are more able to reduce or eliminate the stressor. They are more likely to actively seek support from work and family, reduce role demand, adjust time schedules, and eliminate other stressors—stressors that may be responsible for the negative spillover. Because problem-focused coping helps reduce or eliminate the sources of stress, one can argue that this coping strategy is likely to mitigate negative affect originating from work life or family life (Chao 2011; Lapierre and Allen 2006). In contrast, when individuals use emotion-focused coping, they try to
passively avoid the main source of stress or simply focus on venting negative emotions. As such, the main source of stress remains and perhaps may be further amplified through rumination. In sum, we argue that emotion-focused coping is likely to increase negative spillover from work to family life, and vice versa. We thus hypothesize the following:

**H4** Coping strategies moderate the influence of negative spillover on subjective well-being.

- **H4a** The effect of work-to-family negative spillover on subjective well-being is likely to be weaker among individuals using high than low levels of problem-focused coping.
- **H4b** The effect of work-to-family negative spillover on subjective well-being is likely to be weaker among individuals using low than high levels of emotion-focused coping.
- **H4c** The effect of family-to-work negative spillover on subjective well-being is likely to be weaker among individuals using high than low levels of problem-focused coping.
- **H4d** The effect of family-to-work negative spillover on subjective well-being is likely to be weaker among individuals using low than high levels of emotion-focused coping.

### 3 Method

#### 3.1 Sampling and Data Collection

The data were drawn from the national survey of Midlife Development in the U.S. (MIDUS). All participants who were contacted through random digital dialing completed a 30-min telephone interview, and were asked to complete extensive self-administered questionnaires in private and to return them by postal mail. A total of 2529 respondents responded to questions related to subjective well-being. As this study examines work and family spillover effect, we selected respondents who are fully employed with no missing items in the survey questions. A final sample of 827 respondents was used in this study (55% male; age range 42–90 years, mean = 58.1, $SD = 8.5$) after lite-wise deletion.

#### 3.2 Constructs and Measures

##### 3.2.1 Subjective Well-Being

Subjective well-being was measured using overall satisfaction with life satisfaction (Prenda and Lachman 2001) and the positive and negative affect schedule (NAPAS; Joshanloo 2017; Mroczek and Kolarz 1998). As such, subjective well-being was computed as a composite of life satisfaction and positive/negative affect given the fact that past research has demonstrated clearly that measures of life satisfaction are strongly correlated with measures of positive/negative affect (e.g., Bowling et al. 2010; Joshanloo 2016). Life satisfaction involved a single item capturing satisfaction with overall life. Responses to the life
satisfaction item were captured on an 11-point rating scale varying from the worst possible (0) to the best possible (10). Responses to the NAPAS measure was captured using six positive emotions and another six negative emotions. The positive emotions are: “cheerful,” “in good spirits,” “extremely happy,” “calm and peaceful,” “satisfied,” and “full of life.” The negative emotions are: “so sad nothing could cheer you up,” “nervous,” “restless or fidgety,” “hopeless,” “that everything was an effort,” and “worthless.” Responses on all twelve emotional states were captured on frequency-type scales varying from (reverse-coded) none of the time (1) to all of the time (5). Specifically, respondents were asked to indicate how often during the past 30 days they felt the aforementioned affective states-six positive and six negative states. An overall positive/negative affect score was computed for each respondent by deriving a mean for positive affect and subtracting that figure from the mean of negative affect. See “Appendix”.

3.2.2 Domain Satisfaction

Satisfaction with work life was captured by a single item measuring work satisfaction (Prenda and Lachman 2001). Family satisfaction was captured by a composite of two items: satisfaction with relationship with spouse/partner and satisfaction with relationship with children. Responses to the survey items were captured on 11-point rating scales varying the worst possible (0) to the best possible (10). Work life domain satisfaction was measured with a single item measure. See “Appendix”.

3.2.3 Spillover

Four spillover constructs were measured: positive work-to-family spillover (PWF), negative work-to-family spillover (NWF), positive family-to-work spillover (PFW), and negative family-to-work spillover (NFW) (Grzywacz and Marks 2000). Specifically, PWF was measured using four items (e.g., “Job helps me to deal with issues at home”). NWF was measured using four items too (e.g., “Job stress makes me irritable at home”). PFW was measured using another four items (e.g., “Home helps me to relax for next workday”). NFW was also measured with four items (e.g., “Personal worries distract me at the job”). Responses to all items related to the four spillover constructs were captured using 5-point frequency scales varying from all of the time (1) to never (5). The scores were then reverse coded to signal a high number for high frequency. See “Appendix” for exact items.

3.2.4 Coping

Two coping constructs are involved in this study, namely problem-focused coping and emotion-focused coping (Lazarus and Folkman 1984). Problem-focused coping involved three dimensions: positive reinterpretation and growth, active coping, and planning. Each of these dimensions was captured using four survey items: positive reinterpretation and growth (e.g., “I try to see it in a different light, to make it more positive”), active coping (e.g., “I concentrate my efforts on doing something about it”), and planning (e.g., “I try to come up with a strategy about what to do”). With respect to emotion-focused coping, this construct also involved three dimensions: venting of emotions (e.g., “I feel a lot of emotional distress and find myself expressing those feelings a lot”), denial (e.g., “I refuse to believe that it has happened”), and behavioral disengagement (e.g., “I give up trying to reach my goal”). Each of these dimensions was captured with four items. We used item
 parceling by averaging together items and using the resulting average scores as the basic unit of analyses in structural equation modeling (Bandolos 2002). Responses to all coping items were captured using four-point frequency-type scales varying from a lot (1) to not at all (4). The scores were then reverse coded to signal a high number for high frequency. See “Appendix” for all measurement items.

3.2.5 Covariates

We used two key covariates in this study, namely satisfaction with health and gender. Satisfaction with health life is included in the model as a covariate because health life domain is an important life domain which influences overall life satisfaction (e.g., Strine et al. 2008). This was measured using a single item in which respondents were asked to rate their satisfaction with the personal health on an 11-point satisfaction scale varying from the worse possible (0) to the best possible (10). We also included gender as a covariate in this model because family may be more central to the identity of females and gender can influence relationships involving work–family conflicts (e.g., Joshanloo 2018; Michel et al. 2011).

4 Results

4.1 Test of the Measurement Model

We used confirmatory factor analyses to evaluate the psychometric properties of the measures used in this study (see Table 1). After deleting two items with low loadings (PWF4 and PFW2), the measurement model provided a good fit to the data ($\chi^2 = 461.942, p = 0.000, df = 92; CFI = 0.923; GFI = 0.933; NFI = 0.907; RMSEA = 0.070$). All factor loadings are significant with an acceptable composite reliability with factor loadings greater than 0.672 and average variance extracted greater than 0.507. As shown in Table 2, the average variances extracted (AVE) of all constructs are greater than maximum shared variance (MSV) or average shared variance (ASV). That is, all shared correlations among underlying constructs are smaller than the square root of the average variance extracted. We concluded that the test results of the measurement model indicate that the measures used in this study have convergent and discriminant validity (Chin 1998; Fornell and Larcker 1981).

4.2 Test of Common Method Bias

Given that the data were collected using self-report survey, there is a possibility of common method bias (Podsakoff et al. 2003). To examine the degree to which common method bias may have influenced study results, we tested for this bias with respect to the spillover constructs. Guided by Cote and Buckley (1987), we tested four models. M1 is the null model that assumes correlations among the measures can be explained by random error ($\chi^2(91) = 4533, p < .001$); M2 is the trait-only model in which each item was loaded on its respective scale ($\chi^2(67) = 427, p < 0.001; CFI = 0.919$); M3 is the method-only model in which all items were loaded on one method factor ($\chi^2(77) = 1980, p < 0.001; CFI = 0.57$); and M4 is the trait and method model where variance among measures can be explained by traits, method, and random errors ($\chi^2(53) = 206, p < 0.001; CFI = 0.97$). The results of Chi square difference tests for trait factors indicate that there are significant trait factors in the measurement model [for M2–M1 ($\Delta \chi^2(24) = 4106,$]
The results of the Chi square difference tests for the method factor also indicate that there is a significant method factor in the measurement model [for M3–M1 ($\Delta \chi^2(14) = 2553, p < 0.001$) and for M4–M2 ($\Delta \chi^2(14) = 221, p < 0.001$)]. We then calculated the amount of variance for trait factors, method factor, and errors. The results of variance partitioning indicate that the percentage of total variance explained by the method factor is only 13.1%. The results as a whole indicate that common method bias is not a significant threat in this study (Podsakoff et al. 2003).

### Table 1  Convergent validity and reliability of measures

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Variables</th>
<th>Coefficient</th>
<th>Cronbach’s alpha</th>
<th>AVE</th>
<th>CR</th>
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</thead>
<tbody>
<tr>
<td>Positive work-to family spillover (PWF)</td>
<td>PWF1</td>
<td>0.660</td>
<td>0.689</td>
<td>0.509</td>
<td>0.752</td>
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<tr>
<td></td>
<td>PWF2</td>
<td>0.796</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PWF3</td>
<td>0.528</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Negative work-to family spillover (NWF)</td>
<td>NWF1</td>
<td>0.591</td>
<td>0.834</td>
<td>0.616</td>
<td>0.863</td>
</tr>
<tr>
<td></td>
<td>NWF2</td>
<td>0.817</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>NWF3</td>
<td>0.687</td>
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<tr>
<td></td>
<td>NWF4</td>
<td>0.827</td>
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<tr>
<td>Positive family-to work spillover (PFW)</td>
<td>PFW1</td>
<td>0.344</td>
<td>0.676</td>
<td>0.513</td>
<td>0.739</td>
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<tr>
<td></td>
<td>PFW3</td>
<td>0.813</td>
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<tr>
<td></td>
<td>PFW4</td>
<td>0.820</td>
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<tr>
<td>Negative family-to work spillover (NFW)</td>
<td>NFW1</td>
<td>0.705</td>
<td>0.783</td>
<td>0.642</td>
<td>0.877</td>
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<tr>
<td></td>
<td>NFW2</td>
<td>0.727</td>
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<tr>
<td></td>
<td>NFW3</td>
<td>0.644</td>
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<tr>
<td></td>
<td>NFW4</td>
<td>0.742</td>
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<tr>
<td>Subjective well-being (SWB)</td>
<td>LS</td>
<td>0.716</td>
<td>0.717</td>
<td>0.507</td>
<td>0.672</td>
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<tr>
<td></td>
<td>NAPAS</td>
<td>0.806</td>
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<tr>
<td>Satisfaction with family life (FAM)</td>
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<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
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<tr>
<td>Satisfaction with work life (WORK)</td>
<td>WORK</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Goodness-of-fit statistics: $\chi^2 (p$ value) = 461.941(0.000), df = 92; CFI = 0.923; GFI = 0.933, NFI = 0.907, RMSEA = 0.070

### Table 2  Convergent and discriminant validity of the spillover measures

<table>
<thead>
<tr>
<th>Domain</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
<th>ASV</th>
<th>PWF</th>
<th>NWF</th>
<th>PFW</th>
<th>NFW</th>
<th>SWB</th>
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<tbody>
<tr>
<td>PWF</td>
<td>0.752</td>
<td>0.509</td>
<td>0.181</td>
<td>0.070</td>
<td>0.509</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>NWF</td>
<td>0.863</td>
<td>0.616</td>
<td>0.444</td>
<td>0.184</td>
<td>-0.005</td>
<td>0.616</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFW</td>
<td>0.739</td>
<td>0.513</td>
<td>0.468</td>
<td>0.217</td>
<td>0.425</td>
<td>-0.255</td>
<td>0.513</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFW</td>
<td>0.877</td>
<td>0.642</td>
<td>0.444</td>
<td>0.227</td>
<td>0.026</td>
<td>0.666</td>
<td>-0.393</td>
<td>0.642</td>
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<tr>
<td>SWB</td>
<td>0.672</td>
<td>0.507</td>
<td>0.468</td>
<td>0.276</td>
<td>0.317</td>
<td>-0.477</td>
<td>0.684</td>
<td>-0.555</td>
<td>0.507</td>
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</tr>
</tbody>
</table>

Correlation matrix among latent variables (i.e., Phi correlations) with AVE on the diagonal

CR composite reliability, AVE average variance extracted, MSV maximum shared variance, ASV average shared square variance, PWF positive work-to-family spillover, NWF negative work-to-family spillover, PFW positive family-to-work spillover, NFW negative family-to-work spillover, SWB subjective well-being

$p < 0.001$ and for M4–M3 ($\Delta \chi^2_{(24)} = 1774, p < 0.001$)]. The results of Chi square difference tests for the method factor also indicate that there is a significant method factor in the measurement model [for M3–M1 ($\Delta \chi^2_{(14)} = 2553, p < 0.001$) and for M4–M2 ($\Delta \chi^2_{(14)} = 221, p < 0.001$)]. We then calculated the amount of variance for trait factors, method factor, and errors. The results of variance partitioning indicate that the percentage of total variance explained by the method factor is only 13.1%. The results as a whole indicate that common method bias is not a significant threat in this study (Podsakoff et al. 2003).
4.3 Hypothesis Testing

We tested the study hypotheses using statistical methods involving structural equation modeling and Process-Macro by Hayes (2013). We tested the main effect structural equation model first with health satisfaction and gender as covariates. The results indicate that the structural model has a good fit to the data \[(\chi^2 (p \text{ value}) = 973.470 \times 0.000), \text{ df} = 152; \text{ CFI} = 0.857; \text{ GFI} = 0.897; \text{ IFI} = 0.858; \text{ RMSEA} = 0.081\]. The results of the main effects are summarized in Table 3.

4.3.1 The Effect of Work–Family Spillover on Domain Satisfaction and Subjective Well-Being

H1 states that positive spillover between work and family has a positive predictive effect on satisfaction with both work and family life. The results show that positive spillover from work to family (PWF) has a positive predictive effect on satisfaction with family life (\(\beta = 0.316; p < 0.001\)), supporting H1a. The results also indicate that positive spillover from family to work (PFW) has a positive influence on satisfaction with work life (\(\beta = 0.868; p < 0.001\)), also supporting H1b.

H2 deals with the effect of negative spillover between work and family on satisfaction with both work and family life as well as subjective well-being. The results indicate that negative spillover from work to family (NWF) has a negative predictive effect on satisfaction with family life (\(\beta = -0.321; p < 0.001\)) and subjective well-being (\(\beta = -0.140; p < 0.01\)), supporting H2a. The results also indicate that negative spillover from family-to-work (NFW) has a negative predictive effect on satisfaction with work life (\(\beta = -0.307; p < 0.05\)) and subjective well-being (\(\beta = -0.335; p < 0.001\)), also supporting H2b.

4.3.2 The Effects of Domain Satisfaction on Subjective Well-Being

H3 states that both satisfaction with work life and satisfaction with family life should have significant predictive effects on subjective well-being. The results indicate that subjective well-being is indeed positively predicted by satisfaction with family life (\(\beta = 0.437; p < 0.001\)).

Table 3 Results of the main effect structural model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Estimate</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a PWF → satisfaction with family life</td>
<td>0.316</td>
<td>4.211***</td>
</tr>
<tr>
<td>H1b PFW → satisfaction with work life</td>
<td>0.868</td>
<td>7.484***</td>
</tr>
<tr>
<td>H2a NWF → satisfaction with family life</td>
<td>-0.321</td>
<td>-4.041***</td>
</tr>
<tr>
<td>H2a NWF → subjective well-being</td>
<td>-0.140</td>
<td>-2.754**</td>
</tr>
<tr>
<td>H2b NFW → satisfaction with work life</td>
<td>-0.307</td>
<td>-2.572**</td>
</tr>
<tr>
<td>H2b NFW → subjective well-being</td>
<td>-0.335</td>
<td>-6.346***</td>
</tr>
<tr>
<td>H3a Satisfaction with family life → subjective well-being</td>
<td>0.437</td>
<td>17.445***</td>
</tr>
<tr>
<td>H3b Satisfaction with work life → subjective well-being</td>
<td>0.111</td>
<td>6.837***</td>
</tr>
</tbody>
</table>

*PWF positive work-to-family spillover, PFW positive family-to-work spillover, NWF negative work-to-family spillover, NFW negative family-to-work spillover

**\(p < 0.05\); ***\(p < 0.001\); \(\chi^2 (p \text{ value}) = 973.470(0.000), \text{ df} = 152; \text{ CFI} = 0.857; \text{ GFI} = 0.897; \text{ IFI} = 0.858; \text{ RMSEA} = 0.081\); satisfaction with health and gender were used as covariates
p < 0.001) and satisfaction with work life (\( \beta = 0.111; p < 0.001 \)). These results provide support for H3a and H3b.

### 4.3.3 The Moderation Effects of Coping

H4 deals with the moderation effect of coping on the relationship between negative spillover and subjective well-being. We tested the moderation effects using Process-Macro by Hayes (2013). The interaction effects results are captured in Table 4 and Figs. 2, 3 and 4.

H4a states that the predictive influence of work-to-family negative spillover on subjective well-being is likely to be weaker among individuals using high than low levels of problem-focused coping. Figure 2 shows the results of the interaction between problem-focused coping (PFC) and negative work-to-family spillover on subjective well-being. The results (regression with process-macro mean-centered) indicate that the negative spillover effect on subjective well-being is reduced when individuals use high than low levels of problem-focused coping (interaction effect \( \beta = 0.015, p < 0.05 \)). These result support H4a.

H4b states that the effect of work-to-family negative spillover on subjective well-being is likely to be weaker among those using low levels of emotion-focused coping. The results indicate that the negative spillover effect on subjective well-being seems to be reduced when individuals use low than high emotion-focused coping. However, the interaction

### Table 4 Interactive effect of coping and negative spillover on subjective well-being

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>Moderator</th>
<th>Interaction effect</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a SWB</td>
<td>NWF</td>
<td>PFC</td>
<td>0.015**</td>
<td>2.247</td>
</tr>
<tr>
<td>H4b</td>
<td>NWF</td>
<td>EFC</td>
<td>-0.006</td>
<td>-0.922</td>
</tr>
<tr>
<td>H4c</td>
<td>NFW</td>
<td>PFC</td>
<td>0.029***</td>
<td>3.694</td>
</tr>
<tr>
<td>H4d</td>
<td>NFW</td>
<td>EFC</td>
<td>-0.027***</td>
<td>-3.516</td>
</tr>
</tbody>
</table>

Satisfaction with health and gender were used as covariates

SWB subjective well-being, NWF negative work-to-family spillover, NFW negative family-to-work spillover, PFC problem-focused coping, EFC emotion-focused coping

\( **p < 0.05; ***p < 0.001 \)

![Fig. 2 Interactive effect of problem-focused coping (PFC) and negative work-to-family spillover (NWF) on subjective well-being (SWB). Notes DV = subjective well-being; IV = negative work-to-family spillover (NWF), moderator: problem-focused coping (PFC)]
Work–Family Spillover and Subjective Well-Being: The Moderating…

The effect is not significant ($\beta = -0.006$, $p > 0.05$). As such, we conclude that H4b is not supported by the data.

H4c states that the effect of family-to-work negative spillover on subjective well-being is likely to be weaker among individuals using high levels of problem-focused coping. Figure 3 shows the interactive effect of problem-focused coping (PFC) and negative family-to-work spillover on subjective well-being. The results show that the negative family-to-work spillover on subjective well-being is reduced when individuals use high than low problem-focused coping (interaction effect $\beta = 0.029$, $p < 0.001$). As such this finding provides support for H4c.

Finally, H4d states that the effect of work-to-family negative spillover on subjective well-being is likely to be stronger among individuals with low than high levels of emotion-focused coping. Figure 4 shows the interactive effect of emotion-focused coping (EFC) and negative family-to-work spillover on subjective well-being. The results show that the negative family-to-work spillover on subjective well-being is reduced when individuals using low than high emotion-focused coping (interaction effect $\beta = -0.027$, $p < 0.001$). Again, this study finding provides support for H4d. The results are shown in Fig. 5.

Although not hypothesized, we tested the assumption that coping may similarly moderate the predictive effects of negative spillover on domain satisfaction (i.e., satisfaction...
with work and family life). The results indicate that the predictive effect of negative work-to-family spillover on family satisfaction is reduced when individuals use high than low levels of problem-focused coping (interaction effect $\beta = 0.009, p < 0.01$) and low than high levels of emotion-focused coping (interaction effect $\beta = -0.006, p < 0.01$). The results also indicate that negative family-to-work spillover on work satisfaction is reduced when individuals use high than low levels of problem-focused coping (interaction effect $\beta = -0.005, p > 0.05$). In sum, we conclude that the overall pattern of results indicate that coping may similarly moderate the predictive effects of negative spillover on domain satisfaction—similar to the moderation effects related to subjective well-being.
5 Discussion

As hypothesized, we found in this study that the positive (negative) work–family spillover has a predictive positive (negative) influence on domain satisfaction (satisfaction with work and family life). In turn, domain satisfaction registered a predictive effect on subjective well-being. These study findings are consistent with past research on spillover between work life and family (e.g., Grzywacz and Marks 2000; Lawson et al. 2013). Specifically, our study findings provide additional support to the research stream that sheds light on the positive effects of positive spillover between satisfaction in work life and family life on a host of behavioral outcomes such as job satisfaction, marital satisfaction, improved mental health, ego resilience, subjective well-being, and psychological well-being (e.g., Barnett 1998; Cohn et al. 2009; Greenhaus and Powell 2006; Grzywacz and Marks 2000; Hanson et al. 2006). Furthermore, our study findings reinforce the research stream on negative spillover on a host of behavioral outcomes such as work–family conflict, job dissatisfaction, family dissatisfaction, low mental health, life dissatisfaction, and psychological ill-being (Allen et al. 2000; Carlson et al. 2000; Greenhaus and Beutell 1985; Frone 2003; Karatepe and Sokmen 2006; Namasivayam and Zhao 2007; Repetti and Wood 1997; Williams and Alliger 1994).

Our unique contribution to the literature is the moderating role of coping strategies (Lazarus and Folkman 1984) on the extent to which negative spillover adversely impacts domain satisfaction and subjective well-being. As hypothesized, we found that the predictive effects of negative spillover on both domain satisfaction and subjective well-being are mitigated (mostly) by high levels of problem-focused coping as well as low levels of emotion-focused coping. Although past research has demonstrated the positive effects of problem-focused coping (compared to emotion-focused coping) on a host of behavioral outcomes (e.g., Baker and Berenbaum 2007; Carver et al. 1989; O’Brien and DeLongis 1996; Scheier et al. 1986; Tamres et al. 2002), our study shows how problem-focused coping is superior to emotion-focused coping with respect to mitigating the adverse effects of negative spillover on both domain satisfaction and subjective well-being.

Past research has documented many personal strategies people use to enhance or maintain work–life balance. These personal strategies involving behavior- and cognition-based strategies reflect the notion that individuals can control the interplay between/among life domains to increase (or maintain) domain satisfaction and subjective well-being. Behavior-based strategies include role engagement in multiple domains, role enrichment, domain compensation, and role conflict management. In contrast, cognition-based strategies include whole-life perspective, positive affect spillover, value compensation, and segmentation (e.g., Lee and Sirgy 2018; Sirgy and Lee 2018a, b). The findings of the present study adds to our understanding of the repertoire of personal strategies people use to achieve work–life balance, namely how to mitigate the adverse effects of negative spillover on domain satisfaction and subjective well-being. The study findings clearly show that individuals using problem-focused coping are much more adept in mitigating the adverse effects of negative spillover. As previously described, problem-focused coping includes positive reinterpretation, active coping, and planning (Carver et al. 1989).

The managerial and policy implications are also clear. Policies can be developed by organizations as well as other institutions that promote work–life balance to train employees on how to construe a stressful transaction in positive terms (positive reinterpretation), how to take steps to remove or circumvent the stress or to ameliorate its effects (active coping), and how to develop plans of action to cope with stressors at work and family.
There are several limitations of this study that should be noted. First, this study used correlational data collected at one point in time. Our study supported the hypotheses related to correlational effects, not causal effects. With cross-sectional data, it is not possible to examine causal mediating relationships between the constructs used in the study. Although the theoretical assumption is that these correlational effects can be causal, future experimental or longitudinal research should verify the causal inferences (Thoemmes 2015).

Future longitudinal studies should attempt to establish causality. Second, our study examined the moderating role of coping strategies in the relationship between negative spillover and subjective well-being, including domain satisfaction. However, we do not know much about the personal, situational, and cultural factors that propel employees to use problem-focused coping to mitigate the adverse effects of negative spillover. Future research should focus on these antecedents because they can lead management and policymakers to develop further work–life balance policies and programs. This study focused on the moderating effect of coping strategies in relation to negative work–family spillover and subjective well-being. One can argue that the effectiveness of coping strategies depends on gender in that emotional-focused strategies may be more effective for women than for men (Baker and Berenbaum 2007). Future research should examine the interaction between gender and coping strategies in preventing negative work–family spillover on subjective well-being. One can also argue that coping strategies can have a direct effect on health satisfaction. Future research should develop and test theoretical mechanisms linking coping strategies and health satisfaction. Identifying personal, situational, and cultural factors that may help us predict the conditions under which employees may be motivated to use problem-focused (rather than emotion-focused) coping could lead to the development of institutionalization of policies and programs designed to mitigate the negative effects of negative spillover.

Appendix: Constructs and Measurement Items

**Life Satisfaction** (M = 8.09; SD = 1.27; Skew = −1.18; Kurtosis = 2.69)

- Satisfaction with overall life
  
  (0 = the worse possible; 10 = the best possible)

**Satisfaction with work life** (M = 7.86; SD = 1.73; Skew = −1.29; Kurtosis = 2.08)

- Satisfaction with work
  
  (0 = the worse possible; 10 = the best possible)

**Satisfaction with family life** (M = 8.46; SD = 1.30; Skew = −1.36; Kurtosis = 2.42)

1. Satisfaction with relationship with spouse/partner
2. Satisfaction with relationship with children

(0 = the worse possible; 10 = the best possible)
Positive and Negative Affect Schedule ($M = 2.14; \ SD = 0.99; \ Skew = -1.33; \ Kurtosis = 2.93$)

1. Positive affect (Alpha = 0.91) ($M = 3.51; \ SD = 0.66; \ Skew = -0.70; \ Kurtosis = 0.90$)
   1. Cheerful
   2. In good spirits
   3. Extremely happy
   4. Calm and peaceful
   5. Satisfied
   6. Full of life

2. Negative affect (Alpha = 0.85) ($M = 1.36; \ SD = 0.46; \ Skew = 2.22; \ Kurtosis = 6.93$)
   1. So sad nothing could cheer you up
   2. Nervous
   3. Restless or fidgety
   4. Hopeless
   5. That everything was an effort
   6. Worthless

(1 = all of the time; 5 = none of the time)

Work-to-Family and Family-to-Work Spillover

Positive work-to-family spillover (Alpha = 0.72) ($M = 2.90 \ SD = 0.70; \ Skew = -0.09; \ Kurtosis = 0.38$)

1. Job helps me to deal with issues at home.
2. Job makes me more interesting at home.
3. Job makes me a better companion at home.
4. Job skills are useful at home.

Negative work-to-family spillover (Alpha = 0.84) ($M = 2.51 \ SD = 0.69; \ Skew = 0.16; \ Kurtosis = 0.58$)

1. Job reduces my effort on activities at home.
2. Job stress makes me irritable at home.
3. Job makes me too tired to do things at home.
4. Job problems distract me at home.

Positive family-to-work spillover (Alpha = 0.61) ($M = 3.37 \ SD = 0.67; \ Skew = -0.37; \ Kurtosis = 0.46$)

1. Talking to someone at home helps me with job problems.
2. Providing for what is needed at home makes work harder at job*.
3. Home love makes me confident at work.
4. Home helps me relax for next workday.
Negative family-to-work spillover (Alpha = 0.78) (M = 2.08; SD = 0.58; Skew = 0.39; Kurtosis = 1.13)

1. Home responsibilities reduce the effort I exert on the job.
2. Personal worries distract me on the job.
3. Home chores prevent me to have enough sleep to do my job.
4. Home stress makes me irritable on the job.

(1 = all of the time; 2 = most of the time; 3 = some of the time; 4 = rarely; 5 = never)

*Item reverse-coded.

Problem-Focused Coping

Positive reinterpretation and growth (Alpha = 0.79) (M = 6.35; SD = 2.10; Skew = 0.70; Kurtosis = 0.065)

1. I try to grow as a person as a result of the experience.
2. I try to see it in a different light, to make it seem more positive.
3. I look for something good in what is happening.
4. I learn something from the experience.

Active coping (Alpha = 0.75) (M = 12.31; SD = 2.35; Skew = −0.33; Kurtosis = −0.25)

1. I concentrate my efforts on doing something about it.
2. I take additional action to try to get rid of the problem.
3. I take direct action to get around the problem.
4. I do what has to be done, one step at a time.

Planning (Alpha = 0.82) (M = 12.70; SD = 2.13; Skew = −0.32; Kurtosis = −0.32)

1. I make a plan of action.
2. I try to come up with a strategy about what to do.
3. I think about how I might best handle the problem.
4. I think hard about what steps to take.

(1 = a lot; 2 = a medium amount; 3 = only a little; 4 = not at all)

Emotion-Focused Coping

Venting of emotion (Alpha = 0.82) (M = 13.10; SD = 2.27; Skew = −0.50; Kurtosis = −0.33)

1. I get upset and let my emotions out.
2. I get upset and am really aware of it.
3. I let my feelings out.
4. I feel a lot of emotional distress and find myself expressing those feelings a lot.
Denial (Alpha = 0.77) (M = 8.60; SD = 2.71; Skew = 0.56; Kurtosis = 0.14)

1. I say to myself “this isn’t real”.
2. I refuse to believe that it has happened.
3. I pretend that it hasn’t really happened.
4. I act as though it hasn’t even happened.

Behavioral disengagement (Alpha = 0.74) (M = 5.47; SD = 1.94; Skew = 1.56; Kurtosis = 2.66)

1. I admit to myself that I can’t deal with it and quit trying.
2. I give up trying to reach my goal.
3. I give up the attempt to get what I want.
4. I reduce the amount of effort I’m putting into solving the problem.
   (1 = a lot; 2 = a medium amount; 3 = only a little; 4 = not at all)

Covariates

Satisfaction with personal health (M = 7.70; SD = 1.26; Skew = −0.70; Kurtosis = 0.99)
Respondents were asked to rate their satisfaction with the personal health on an 11-point satisfaction scale varying from the worse possible (0) to the best possible (10).

Gender
1 = male; 2 = female.

References


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