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Identification of a dispositional tendency to experience work–family spillover

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ABSTRACT

Are individuals predisposed to experience work–family spillover? Despite theoretical relevance and practical implications related to this issue, research on this topic is scarce. With this in mind, we investigated if there is a dispositional tendency to experience work–family spillover using a nationally representative longitudinal sample. We present evidence that supports the existence of a disposition to spillover by demonstrating that (a) a dispositional factor model accounts for data better than other competing factor models, (b) the dispositional factor is stable over time at a ten-year follow up, and (c) the dispositional factor is distinct from Big-5 personality traits. Findings highlight the important role that disposition plays in reports of work–family spillover and the necessity to consider individual differences in future work–family theories.

1. Introduction

Social trends such as the increase in the number of dual career couples (U. S. Bureau of Labor Statistics, 2011) and a growing number of employees who are responsible for the simultaneous care of aging parents and children at home (Neal & Hammer, 2007) have sparked substantial scholarly interest in the interdependency between the work and family domains (i.e., spillover). *Spillover* refers to bidirectional effects between work and family (i.e., work-to-family, family-to-work) that generate similarities between the two roles (Edwards & Rothbard, 2000). Existing research acknowledges positive (i.e., experiences from one domain *facilitate* performance in another domain) as well as negative (i.e., experiences from one domain *inhibit* the fulfillment of demands in another domain) spillover (Allen, 2012). The combination of direction and valence results in four focal constructs: work-to-family negative spillover (WFNS); work-to-family positive spillover (WFPS); family-to-work negative spillover (FWNS); and family-to-work positive spillover (FWPS).

Considerable research suggests that both positive and negative work–family spillover relate to various organizational outcomes (e.g., Allen, Herst, Bruck, & Sutton, 2000; McNall, Nicklin, & Masuda, 2010). In light of this knowledge, a host of antecedents of spillover have been examined, with environmental antecedents (e.g., family and occupational/organizational factors) having received the most attention. A growing body of research, however, complements the extant literature by investigating dispositional variables as predictors of spillover (Allen, 2012; Hammer & Zimmerman, 2011). Recent findings indicate that various individual differences such as negative affect relate to the experience of positive and negative spillover in both directions (Allen et al., 2012; Michel, Clark, & Jaramillo, 2011). This is a welcome addition to the literature considering that work–family experiences are a result of the interaction between environmental and person factors (Grzywacz & Marks, 2000).

Among studies that emphasize individual differences, research by Hecht and McCarthy (2010) deserves emphasis due to its unique contribution of demonstrating evidence for dispositional spillover tendencies. By showing that such tendencies exist and might originate from person characteristics (e.g., psychological resources and appraisal style), it highlights the profound role of

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personal attributes in the experience of work–family spillover. Further, considering such dispositions allows a novel perspective to work–family spillover; propensities for interrole conflict and facilitation are thought to exist beyond facet-level spillover (WFPS, WFNS, FWPS, and FWNS).

Extending this stream of research, the objective of the current study is to determine if a dispositional tendency exists to experience work–family spillover *in general*. We build on the findings of Hecht and McCarthy by providing evidence for a broader disposition that encompasses not only the direction of the spillover, but also the valence of the spillover. That is, we demonstrate that there is a dispositional tendency that links all four spillover constructs. Acknowledging this individual difference contributes to the work–family literature by providing an opportunity to better understand relationships among the four work–family spillover constructs (e.g., Greenhaus & Powell, 2006; Sumer & Knight, 2001). If a disposition to spillover that relates to all types of spillover indeed exists, previously observed associations among the spillover constructs might have been inflated or attenuated as a function of this trait. Clear understanding of the relationships among focal constructs is fundamental for synthesizing knowledge and developing future theories.

Next, our research advances the work–family literature that has focused on the link between specific personality factors and spillover (e.g., Bruck & Allen, 2003; Wayne, Musisca, & Fleeson, 2004) by examining an individual difference that is distinct from frequently studied personality variables (e.g., the Big-5). In this manner, we also broaden the domain of individual differences by testing the notion that a unique dispositional tendency exists that underlies the experience of spillover regardless of its valence and direction. Finally, we add to the small number of studies that have examined different forms of work–family spillover longitudinally (e.g., Frone, Russell, & Cooper, 1997; Grandey, Cordeiro, & Crouter, 2005) by demonstrating the stability of the disposition to spillover over a 10-year interval. Previous longitudinal work–family research has been based on relatively short time lags (see Frone et al., 1997 for an exception). Thus, little is known with regard to the stability of spillover over a long period of time. We extend our knowledge of the temporal variability of work–family spillover by providing evidence to support the notion that the level of spillover that an individual experiences might be consistent by virtue of disposition to spillover.

In the following sections, we test a series of research questions to provide evidence of a disposition to spillover. First, we examine whether considering this disposition uniquely contributes to our understanding of work–family spillover above and beyond the four existing constructs through comparisons of factor models. This follows the long-held tradition of establishing psychological constructs via factorial validation (Cronbach & Meehl, 1955). Apart from factorial validity, we further examine the temporal stability of the disposition to spillover over a 10-year interval with the expectation that individual dispositions are stable over time (Funder, 2001). Finally, we investigate discriminant validity of the disposition to spillover; specifically, we examine whether the proposed dispositional factor can be distinguished from Big-5 personality traits.

2. Disposition to spillover

Although the four work–family spillover constructs differ in direction and valence, they each represent interdependencies between work and family at their core. That is, spillover occurs when experiences (e.g., affect, values, skills, or behaviors) from one domain influence another domain, which results in similarities between the two domains (Edwards & Rothbard, 2000). Building on this fundamental characteristic of spillover, we theorize that the level of work–family spillover, regardless of the direction or valence, might be explained by the degree that each individual allows experiences from one domain to affect another. Given that boundaries around life domains have been thought to govern the flow between the work and family, a brief review of boundary theory is merited.

According to boundary theory (Nippert-Eng, 1996; Zerubavel, 1991), individuals create “mental fences” that distinguish various life domains, such as work and family, to organize their environments. Two key characteristics of boundaries, flexibility and permeability, determine the degree that the domains are integrated. *Flexibility* is the degree that a boundary is malleable in response to demands from other domains whereas *permeability* is the degree that a boundary allows elements from other domains to enter a domain it is surrounding (Hall & Richter, 1988). Flexible and permeable boundaries allow role blurring to occur, which facilitates role integration. By contrast, inflexible and impermeable boundaries inhibit the interaction among various life domains, which results in role segmentation.

Of particular relevance to the current study is that individuals have different preferences with regard to the strength of these boundaries, which is reflected on a continuum that ranges from complete segmentation to complete integration (Ashforth, Kreiner, & Fugate, 2000). Furthermore, individuals are thought to maintain the boundaries that they construct (Ashforth et al., 2000; Kreiner, 2006). A longitudinal study with a one year interval demonstrated the stability of boundary strength such that the strength of boundaries at Time 1 predicted boundary strength at Time 2 (Hecht & Allen, 2009).

Building on the tenets of boundary theory, we propose that disposition to spillover is a stable individual difference, which arises from the propensity to blur boundaries between life domains. On one hand, those who prefer more flexible and permeable boundaries are likely to experience all types of spillover because these boundaries allow both positive and negative experiences to transfer in any direction. On the other hand, those who prefer more inflexible and impermeable boundaries are likely to experience less spillover regardless of its valence and direction given that the boundaries block the flow of experiences between the domains. One potential route by which this predisposition influences the level of work–family spillover is in the various behaviors individuals engage to achieve an ideal level of boundary around life domains (i.e., boundary work tactics; Kreiner, Hollensbe, & Sheep, 2009). For instance, individuals control work time to create a temporal boundary (Kreiner et al., 2009) and attentively restrict the use of technologies for work while at home in an attempt to set a technological boundary (Park, Fritz, & Jex, 2011). Providing preliminary support for this idea, boundary management has been associated with WFPS (Chen, Powell, &

Greenhaus, 2009) and FWNS (Kossek, Lautsch, & Eaton, 2006). However, whether this tendency to create and maintain certain boundaries around life domains – particularly in work–family domains – is an enduring personality trait that influences all four spillover constructs is yet to be clarified. In the following sections, we address three research questions that provide evidence for a disposition to spillover.

3. Factorial validity

One way to empirically validate the existence of a disposition to spillover is to establish its factorial validity. In organization research, individual differences such as general mental ability have been validated through the use of factor analytic models (for a review see Drasgow, 2003). We demonstrate a disposition to spillover in a similar fashion. First, we examined whether a *dispositional model* (Fig. 1A) that includes a dispositional factor in addition to the focal spillover constructs (WFPS, WFNS, FWPS, and FWNS) accounts for work–family spillover responses better than a *discrete model* (Fig. 1B) that includes the four spillover constructs only. Assuming that a disposition to spillover underlies all four spillover constructs, we expect the dispositional model fits the data better than does the discrete model.

We further compare the dispositional model to other models of work–family spillover that are embedded in the extant theoretical frameworks of spillover. The first model is a *valence model* (Fig. 1C) that consists of two factors: positive and negative valence. This model is derived from the common conceptualization of positive and negative work–family spillover in the work–family literature (Hammer & Zimmerman, 2011). Greenhaus and Powell (2006) reported that the average correlation between positive and negative spillover from 15 studies was negligible in magnitude, which suggests that the spillover construct has two distinct valence components. Further, it is well-established that individuals have global tendencies to experience life events in positive or negative ways (Heller, Watson, & Ilies, 2004). For example, there are stable tendencies to experience negative/positive emotion across situations and time (Watson & Tellegen, 1985), which can influence individuals' perceptions and interpretations of various life circumstances (e.g., Noguchi, Gohm, & Dalsky, 2006). Applying this to the case of spillover, general propensities were demonstrated to underlie interrole conflict and facilitation, irrespective of the direction of spillover (Hecht & McCarthy, 2010). Taken together, previous research highlights the adequacy of the valence model in explaining work–family spillover; that is, spillover can be understood primarily as positive and negative spillover. Yet, there is evidence suggesting that valence components are not the only main sources of variability — instead, it is important to consider the directionality of work–family spillover as well.

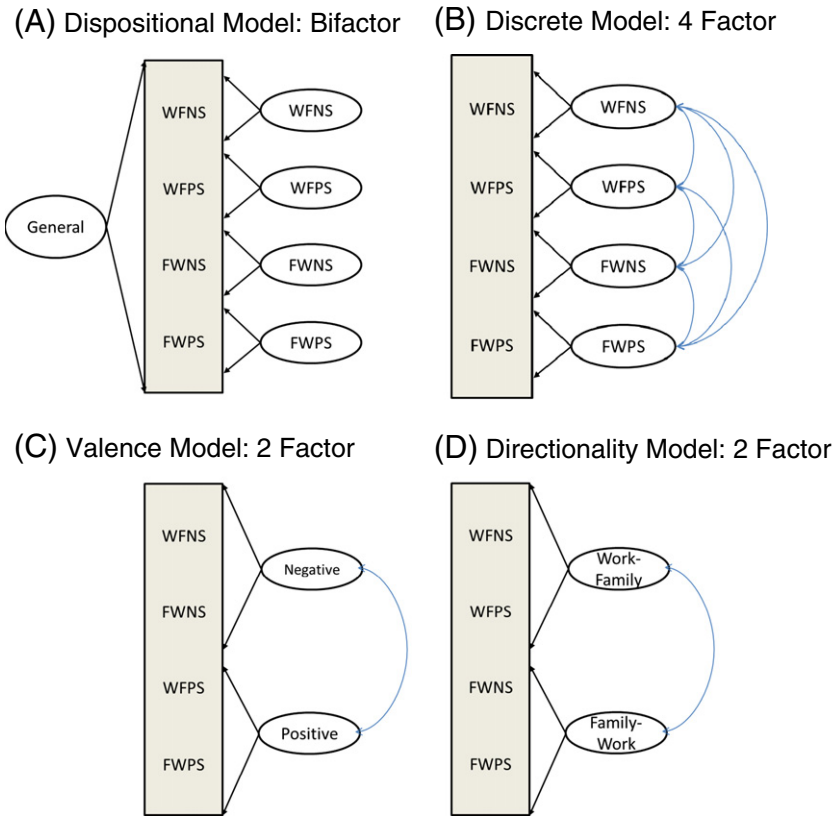

Fig. 1. Comparison of factor models. For simplicity, the indicators are presented in a gray box. The two arrows from the latent factors represent the range of indicators predicted by the construct.

The second model is a *directionality model* (Fig. 1D) that consists of two factors: work-to-family and family-to-work. This model draws on the fact that theoretical development in the work–family literature is grounded on the notion of bidirectionality (Carlson, 1999; Hanson, Hammer, & Colton, 2006). Previous research has demonstrated that work-to-family and family-to-work spillover are distinct constructs, which have unique antecedents and consequences (Frone, 2003; Grzywacz & Butler, 2005) and provided supportive empirical evidence for the bidirectionality in both valences (McNall et al., 2010; Mesmer-Magnus & Viswesvaran, 2005). Research on role salience further bolsters the legitimacy of the directionality model. Role salience refers to the degree that a role is central to an individual's self-concept and has been shown to relate to role involvement (Hammer, Allen, & Grigsby, 1997). Considering that role involvement is an antecedent of positive as well as negative spillover that originates in a given role (e.g., Aryee, Srinivas, & Tan, 2005; Frone, Russell, & Cooper, 1992), it is feasible that the two factors of work-to-family and family-to-work underlie work–family spillover responses. However, also suggested from previous research is that work and family salience are independent of each other such that an individual may have high or low salience for both roles or high in one role but low in another (Matthews, Swody, & Barnes-Farrell, 2011). This implies that spillover is not primarily carved out between work-to-family and family-to-work constructs, and therefore, the directionality model may fit worse than a dispositional or a discrete model.

Hypothesis 1. The dispositional model fits the data better than the discrete, valence, and directionality models of work–family spillover.

4. Temporal stability

One defining characteristic of individual disposition is that it is relatively stable over time (Funder, 2001). Previous research on various dispositional constructs, such as intelligence (Sternberg, 1985) and personality (Costa & McCrae, 1995), supports this notion. Consequently, disposition to spillover is expected to be stable within individuals over time. Therefore, we hypothesize that the factorial validity of the dispositional model holds longitudinally.

Aside from factorial stability, we investigate two additional indices of stability that are well-known and commonly used in the individual-differences literature: rank-order consistency and mean-level stability. *Rank-order consistency* reflects changes in individuals' relative placement within a population (Roberts, Walton, & Viechtbauer, 2006). High consistency, obtained from correlating the factor scores at Time 1 and that of Time 2, is expected for a dispositional variable such as a personality trait but not for a state-like construct. *Mean-level stability* is the measure of absolute difference between scores at Time 1 and at Time 2. In the bifactor model, mean-level stability can be interpreted as a d-statistic magnitude of effect because the factor variances are equal to 1. Dispositional traits are more likely to exhibit small differences and hence higher mean-level stability. These indices can be evaluated against benchmarks for dispositional constructs that are based on normative samples. As disposition to spillover is an enduring individual difference, we expect that its levels of rank-order consistency and mean-level stability to be similar as other dispositional constructs that have been examined.

Hypothesis 2. Disposition to spillover is stable over time such that the dispositional model of work–family spillover holds longitudinally.

Hypothesis 3. Disposition to spillover has rank-order consistency and mean-level stability comparable with estimates of other dispositional constructs from past research.

5. Discriminant validity

For disposition to spillover to be a viable construct, it is important to demonstrate its distinctiveness from other existing individual differences (Campbell & Fiske, 1959; Cronbach & Meehl, 1955). We seek discriminant validity evidence by investigating whether disposition to spillover is distinct from the Big-5 personality variables (neuroticism, extraversion, openness to experience, conscientiousness, and agreeableness; Goldberg, 1990). Our choice of the Big-5 is based on the fact that the Big-5 has been studied extensively and has demonstrated significant relationships with important attitudinal and behavioral outcomes, including work–family spillover (Allen et al., 2012; Costa & McCrae, 1995; Michel et al., 2011). We expect that disposition to spillover is distinct from the Big-5 constructs because we theorize that it is a unique individual difference that reflects ways in which individuals construct and manage boundaries between life domains.

Hypothesis 4. Disposition to spillover is distinct from the Big-5 personality constructs.

6. Method

6.1. Sample

The Mid-life Development in the United States (MIDUS) is a national survey of psychological and social factors related to health and well-being that was administered to over 7000 Americans. The sample for the current study was limited to married

and working individuals. The sample from the first wave (1994–1995) consisted of 2645 individuals who were 44.01 years old on average ($SD = 10.51$), and was fairly gender-balanced (44.7% females). The sample from the second wave (2004) consisted of 1486 individuals who were 50.27 years old on average ($SD = 9.10$), and had a similar gender composition (48.9% females).

6.2. Measures

6.2.1. Work–family spillover

Positive and negative work–family spillover in both directions were assessed using a scale developed for the MIDUS study. Each subscale consisted of four items. Reliabilities were moderate to good ($\alpha = .66–.81$). Example items include "Stress at work makes you irritable at home" (WFNS), "The things you do at work make you a more interesting person at home" (WFPS), "Stress at home makes you irritable at work" (FWNS), and "Talking with someone at home helps you deal with problems at work" (FWPS). Responses were made on a 1 (*All the time*) to 5 (*Never*) scale and recoded so that higher numbers represent greater frequency.

6.2.2. Big-5 personality factors

The Big-5 personality factors were assessed using 25 self-descriptive adjectives, which were selected from existing inventories (Goldberg, 1992; John, 1990; Trapnell & Wiggins, 1990). Each subscale consisted of four to seven items. Example adjectives include "worrying" (neuroticism), "outgoing" (extraversion), "broad-minded" (openness to experience), "responsible" (conscientiousness), and "warm" (agreeableness). With the exception of conscientiousness ($\alpha = .58–.60$), the internal consistencies were good, ranging from .74 to .80. Responses were made on a 1 (*A lot*) to 4 (*Not at all*) scale and recoded so that higher scores reflect higher standings on each dimension.

6.3. Analysis

The statistical package Mplus 6.1 (Muthén & Muthén, 2007) was used for factor analytic comparisons (Hypothesis 1). The dispositional model was a bifactor model involving four uncorrelated factors, corresponding to the respective work–family subscales, and a general, dispositional factor. The fit of this dispositional model was compared with three other models: (a) a discrete model that involved four correlated factors but no general factor, (b) a valence model that involved two correlated factors reflecting positive and negative spillover, and (c) a directionality model that involved two correlated factors focusing on the direction of spillover from work to family or family to work. Additionally, the potential for gender differences was examined by comparing model fit across subsamples of men and women.

In examining the temporal stability of the dispositional model (Hypothesis 2) as well as rank-order consistency and mean-level stability of disposition to spillover (Hypothesis 3), we conducted a longitudinal mean and covariance analysis (LMACS) where factor loadings, intercepts, and residuals were constrained to be equal over time (see Ployhart & Oswald, 2004). To test Hypothesis 3, we used normative values reported in previous research on other dispositional variables as a point of comparison. Meta-analytic research has shown that the 95th percentile population estimates (ages 40–49) for rank-order consistency range from .55 to .63 (Roberts & DelVecchio, 2000). Regarding mean-level stability, the 95th percentile population estimates (ages 40–49) ranged from −.06 to .02 (Roberts et al., 2006).

7. Results

Descriptive statistics and zero-order correlations for the scale items are shown in Table 1. Hypothesis 1 proposed that the dispositional model would fit the data better than the discrete, valence, and directionality models of work–family spillover. Results supported this hypothesis (See Table 2). Although the dispositional model had TLI values slightly lower than .90, the other fit indexes showed that the model provided reasonable fit. Overall, the dispositional model fit substantially better than the competing models at both time points. Importantly, all but three work–family spillover indicators loaded positively on the dispositional factor (Time 1 $M = .29$, $SD = .34$; Time 2 $M = .30$, $SD = .34$), showing that individuals with higher levels of disposition to spillover experienced more positive and negative spillover in both directions (See Table 3). These findings were consistent across gender as shown in Table 2.

In support of Hypothesis 2, the fully constrained model exhibited good fit ($\chi^2_{(445)} = 1349.82$, CFI = .92, TLI = .91, RMSEA = .044 [.041,.046], SRMR = .074). That is, the dispositional model fit the data well over the ten-year time period.

Hypothesis 3 stated that disposition to spillover is likely to exhibit rank-order consistency and mean-level stability that are comparable to that of other dispositional variables. In the LMACS model, high rank-order consistency is indicated by a large correlation between the dispositional factors whereas high mean-level stability is shown by a small standardized mean level difference between both time points. We found that disposition to spillover had high rank-order consistency ($r = .58$), within the 95th percentile population estimates reported for dispositional variables in past research (Roberts & DelVecchio, 2000). Also, we found reasonably high mean-level stability for the dispositional factor of −.13 although slightly outside the 95th percentile population estimates (Roberts et al., 2006).

To test Hypothesis 4, which concerned discriminant validity of disposition to spillover, we regressed the dispositional factor on the five personality dimensions at each time point. In general, the variance accounted for (VAF) was very low (Time 1 $R^2 = .04$; Time 2 $R^2 = .06$) indicating little overlap. This also suggests that the dispositional factor was not an artifact generated by a

Table 1
Means, standard deviations, and zero-order correlations.

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	T1_FWNS	2.62	.68	(.81)																	
2	T1_FWPS	2.88	.69	.01	(.70)																
3	T1_WFNS	2.09	.61	.51	.10	(.78)															
4	T1_WFPS	3.44	.72	.01	.34	−.10	(.66)														
5	T2_FWNS	2.59	.67	.43	.06	.33	.03	(.81)													
6	T2_FWPS	2.90	.68	−.02	.48	.02	.28	.01	(.68)												
7	T2_WFNS	2.06	.58	.26	.04	.44	−.04	.53	.08	(.77)											
8	T2_WFPS	3.45	.71	−.05	.23	−.05	.51	.04	.38	−.05	(.66)										
9	T1_Agreeableness	3.46	.50	−.13	.13	−.12	.19	−.05	.15	−.07	.16	(.80)									
10	T1_Extraversion	3.20	.56	−.19	.21	−.13	.23	−.08	.17	−.04	.18	.53	(.78)								
11	T1_Neuroticism	2.20	.65	.33	−.10	.29	−.12	.28	−.07	.22	−.07	−.07	−.15	(.74)							
12	T1_Conscientiousness	3.45	.42	−.13	.14	−.18	.14	−.08	.14	−.08	.07	.27	.22	−.18	(.58)						
13	T1_Openness	3.00	.51	−.06	.23	−.06	.18	−.02	.18	−.02	.15	.35	.50	−.22	.25	(.77)					
14	T2_Agreeableness	3.39	.51	−.16	.10	−.12	.12	−.13	.14	−.17	.16	.65	.33	−.09	.20	.20	(.81)				
15	T2_Extraversion	3.09	.56	−.17	.13	−.17	.20	−.18	.17	−.15	.18	.37	.71	−.09	.16	.34	.49	(.77)			
16	T2_Neuroticism	2.08	.62	.26	−.07	.23	−.07	.38	−.07	.35	−.09	−.06	−.08	.65	−.15	−.14	−.13	−.18	(.74)		
17	T2_Conscientiousness	3.44	.43	−.15	.07	−.18	.05	−.19	.12	−.19	.12	.18	.16	−.14	.65	.23	.26	.22	−.18	(.60)	
18	T2_Openness	2.89	.53	−.07	.21	−.09	.18	−.08	.23	−.10	.21	.24	.35	−.18	.23	.68	.31	.49	−.21	.30	(.78)

Note. Internal consistencies are in parenthesis along the main diagonal. "T1" = Time 1; "T2" = Time 2; FWNS = family to work negative spillover; FWPS = family to work positive spillover; WFNS = work to family negative spillover; WFPS = work to family positive spillover.

Table 2
Results of factor model comparison.

	Model	Sample	$\chi 2$	*df*	CFI	TLI	RMSEA	SRMR
Time 1	Dispositional model	All	1207.24	88	0.91	0.88	.071 [.068, .075]	0.072
		Females	595.76	88	0.91	0.88	.072 [.066, .077]	0.074
		Males	729.15	88	0.91	0.87	.072 [.068, .077]	0.075
	Discrete model	All	1833.14	98	0.86	0.83	.084 [.081, .087]	0.083
		Females	887.95	98	0.86	0.83	.085 [.080, .090]	0.082
		Males	1093.79	98	0.86	0.83	.086 [.081, .090]	0.088
	Valence model	All	4374.33	103	0.66	0.60	.129 [.125, .132]	0.107
		Females	2082.64	103	0.65	0.59	.131 [.126, .136]	0.107
		Males	2452.12	103	0.66	0.61	.128 [.124, .133]	0.111
	Directionality model	All	5453.60	103	0.57	0.50	.144 [.141, .147]	0.129
		Females	2642.32	103	0.55	0.47	.148 [.144, .153]	0.132
		Males	3018.17	103	0.58	0.51	.143 [.138, .147]	0.129
Time 2	Dispositional model	All	706.30	88	0.91	0.88	.070 [.065, .075]	0.075
		Females	444.09	88	0.90	0.86	.077 [.070, .084]	0.073
		Males	375.87	88	0.92	0.89	.067 [.060, .074]	0.083
	Discrete model	All	1153.63	98	0.85	0.82	.087 [.082, .091]	0.089
		Females	717.68	98	0.83	0.79	.095 [.089, .102]	0.093
		Males	562.64	98	0.87	0.84	.081 [.074, .087]	0.088
	Valence model	All	2301.05	103	0.69	0.64	.122 [.118, .127]	0.109
		Females	1214.43	103	0.69	0.63	.124 [.118, .131]	0.111
		Males	1187.17	103	0.70	0.65	.120 [.114, .126]	0.103
	Directionality model	All	3084.76	103	0.58	0.51	.142 [.138, .147]	0.128
		Females	1572.76	103	0.59	0.52	.143 [.137, .149]	0.123
		Males	1655.16	103	0.58	0.50	.144 [.138, .150]	0.137

Note. Brackets represent 90% confidence interval. Dispositional model: Bifactor model with four subfactors (WFPS, WFNS, FWPS, and FWNS); Discrete model: Four factor model (WFPS, WFNS, FWPS, and FWNS); Valence model: Two factor model (WFPS and FWPS indicators vs. WFNS and FWNS indicators); Directionality model: Two factor model (WFPS and WFNS indicators vs. FWPS and FWNS indicators).

response set to the different measures (i.e., work–family spillover and personality dimensions). Interestingly, a higher score on the dispositional factor was consistently predicted by higher neuroticism (Time 1 $\beta = .05$; Time 2 $\beta = .08$) and higher openness to experience (Time 1 $\beta = .08$; Time 2 $\beta = .08$) at both time points ($ps < .001$).

8. Discussion

The objective of this study was to provide evidence of the existence of disposition to work–family spillover. By investigating work–family spillover from an important but understudied perspective that emphasizes the role of dispositions, we make a key

Table 3
Factor loadings.

Items		Time 1					Time 2				
		F1	F2	F3	F4	F5	F1	F2	F3	F4	F5
WFNS1	Responsibilities at home reduce the effort you can devote to your job.	0.39				0.53	0.52				0.50
WFNS2	Stress at home makes you irritable at work.	**0.00**				0.81	**0.00**				0.84
WFNS3	Activities and chores at home prevent you from getting the amount of sleep you need to do your job well.	0.59				0.64	0.45				0.64
WFNS4	Personal or family worries and problems distract you when you are at work.	**0.09**				0.73	**0.08**				0.76
WFPS1	The things you do at work help you deal with personal and practical issues at home.		0.73			**0.01**		0.73			**0.00**
WFPS2	The things you do at work make you a more interesting person at home.		0.74			−0.09		0.71			−0.15
WFPS3	Having a good day on your job makes you a better companion when you get home.		0.38			0.16		0.37			0.19
WFPS4	The skills you use on your job are useful for things you have to do at home.		0.60			**0.02**		0.55			**0.05**
FWNS1	Your job reduces the effort you can give to activities at home.			0.49		0.38			0.45		0.38
FWNS2	Your job makes you feel too tired to do the things that need attention at home.			0.60		0.48			0.64		0.48
FWNS3	Job worries or problems distract you when you are at home.			0.45		0.47			0.38		0.46
FWNS4	Stress at work makes you irritable at home.			0.49		0.52			0.47		0.57
FWPS1	Talking with someone at home helps you deal with problems at work.				0.52	0.22				0.50	0.27
FWPS2	Providing for what is needed at home makes you work harder at your job.				0.36	0.23				0.36	0.23
FWPS3	The love and respect you get at home makes you feel confident about yourself at work.				0.83	−0.17				0.89	−0.17
FWPS4	Your home life helps you relax and feel ready for the next day's work.				0.71	−0.34				0.68	−0.30
					M	0.29				*M*	0.30
					SD	0.34				*SD*	0.34

Note. Factor loadings in bold are not significant at $p < .05$. Numbers in the F5 column represent loadings on the dispositional factor.

contribution to the literature. Our findings suggest that disposition to spillover is a stable individual difference that underlies the experience of work–family spillover and is distinct from the Big-5 personality constructs. This is consistent with a core aspect of the boundary theory that individuals differ in the propensity for integrating or segmenting life domains (Kreiner, 2006; Nippert-Eng, 1996).

We found evidence for disposition to spillover from a comparison of factor models. Specifically, the dispositional model fit the data better than did three competing models consisting of the four spillover constructs, which suggests that disposition to spillover has incremental value in understanding the experience of work–family spillover. Notably, all but three spillover indicators positively loaded on the dispositional factor, meaning that individuals who are high on the dispositional factor appeared to experience more frequent *positive and negative* work–family spillover *in both directions*. The results not only reinforce previous research that demonstrated individuals' dispositional conflict and facilitation tendencies across multiple roles (Hecht & McCarthy, 2010), but also extend it by presenting that there exists a tendency for individuals to experience spillover irrespective of the valence and direction of spillover. Furthermore, the dispositional model held for both men and women, showing that disposition to spillover generalizes across gender.

The finding that all three spillover indicators that negatively loaded on the dispositional factor pertain to positive spillover provides further insight on the nature of disposition to spillover. Although this individual difference relates to more spillover in both valence and direction in general, such a relationship might be stronger and more consistent when experiences being carried over to another domain are negative rather than positive. Research on negativity bias suggests that the potency of negative events is greater than that of positive events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). That is, negative information tends to be processed more thoroughly than positive information, and negative events tend to remain more salient and be recalled more often compared with events that involve positive emotions. Moreover, people may even discount positive experiences in light of negative ones. Applying this idea to work–family spillover, individuals who are high on disposition to spillover experience more spillover in general but this might be especially true for negative spillover because negative experiences are more likely to spill over to another domain. Further research is warranted to understand characteristics of disposition to spillover.

Next, we provided evidence for the temporal stability of disposition to spillover by demonstrating that the dispositional model fit the data better than did the alternative models at both time points. Moreover, disposition to spillover exhibited high rank-order consistency and mean-level stability similar to what has been observed in the literature with regard to other individual differences (Roberts & DelVecchio, 2000; Roberts et al., 2006), which suggests that the level of disposition to spillover was relatively stable within individuals across time and that those who were higher on this trait than others remained higher ten years after. Taken together, these patterns highlight the trait-like characteristic of disposition to spillover.

Finally, we provided supportive evidence for the discriminant validity of disposition to spillover by showing that it is independent of Big-5 variables. Conceptually, this tendency to experience spillover may reflect an individual's preference to integrate or segment the work and family domains (Nippert-Eng, 1996), which taps a unique individual difference. The positive relationships that disposition to spillover has with various spillover indicators further bolsters the distinctiveness of disposition to spillover in that it sharply contrasts to positive and negative relationships that other personality characteristics have shown with the spillover constructs depending on the valence and direction of spillover (e.g., extraversion is negatively associated with negative work–family spillover while positively associated with positive work–family spillover; Michel et al., 2011).

We note that neuroticism and openness to experience positively predicted disposition to spillover at both time points although the relationships were rather modest. Neurotic individuals tend to be more anxious and preoccupied with life events (Wiggins & Trapnell, 1997). For this reason, it is more likely for neurotic people to ruminate about their experiences in multiple domains, which might have been reflected in the positive relationship between disposition to spillover and neuroticism. This may also be one reason for why negative spillover indicators had higher loadings on the disposition to spillover factor than did positive spillover indicators. This finding needs to be considered in the light of previous research that reported a *negative* relationship between neuroticism and positive work–family spillover (e.g., Michel et al., 2011). While neurotic individuals have more opportunities for any life experiences to spill over into another domains, their greater sensitivity to negative events might inflate the likelihood for negative work–family spillover to occur. Regarding openness to experience, individuals who are more open may have higher levels of disposition to spillover because of their preference for unconventional experiences and ideas (Goldberg, 1990). Accordingly, individuals higher on openness to experience may be more likely to create alternative ways of working (i.e., telecommuting) that result in greater work–family spillover than individuals lower on openness to experience. Another possibility is that more open individuals may create less rigid mental boundaries between work and family and appraise different life domains in a similar fashion resulting in higher perceptions of spillover. Although these findings are consistent with our conceptual understanding of disposition to spillover, further research is warranted to better understand these relationships among various dispositional variables.

8.1. Implications

There are several theoretical implications associated with our study. First, our results underscore the importance of individual differences in understanding work–family spillover, by showing that the prevalence and the nature of work–family spillover are partially determined by disposition to spillover. Individuals who are high on disposition to spillover experience both positive and negative work–family spillover more frequently than do those who are low. Also, those who exhibit greater disposition to spillover experience work–family spillover in both directions seamlessly, perhaps because the integration between work and family results in unbounded flows of experiences between these domains. In sum, the current findings reinforce previous claims

that dispositional variables serve as antecedents of work–family spillover, and therefore, should be considered in future theory development (Allen et al., 2012; Frone, 2003).

Relatedly, our finding speaks to the relationships among the work–family spillover constructs that were reported in previous research (e.g., Greenhaus & Powell, 2006; Sumer & Knight, 2001). We have demonstrated that individuals differ on disposition to spillover, which positively relates to work–family spillover in general. This suggests that the conventional conceptualization of spillover along with valence and direction might not be applicable for those who are high on disposition to spillover. Failure to consider this individual difference might have been responsible for inflated or attenuated relationship among the spillover constructs.

Our finding that disposition to spillover is stable over a 10-year interval suggests that the level of spillover that an individual experiences might be consistent by virtue of this trait. Because managing work and family is a challenge over the lifespan due to an increasing number of employees who have older dependents as well as "graying" of the workforce (i.e., more older employees in the workforce) (Bianchi, 2011; Matthews, Bulger, & Barnes-Farrell, 2010), future research conducted at multiple time points and based a life-span perspective is needed.

From an applied perspective, our results emphasize that individual differences should be taken into account when designing and implementing organizational interventions. In line with previous research we found that the prevalence and the nature of work–family spillover differs across individuals, which potentially influences the relevance and effectiveness of organizational programs that aim to help employees to manage multiple roles (e.g., Shockley & Allen, 2007). Organizations may want to consider providing the interventions that are sensitive to an individual's general tendency to experience spillover for enhanced effectiveness.

8.2. Limitations and future research

Limitations of the current study should be acknowledged. The reliabilities for conscientiousness and several positive spillover indicators were lower than the conventional threshold of .70 (Nunnally, 1973), which may reflect measurement error. Using archival data, however, restricted our ability to choose measurements. Nevertheless, we believe that the benefit of our data outweighs the weakness in that we were able to provide generalizable findings from a nationally representative sample and to test the hypotheses concerning the longitudinal nature of dispositional tendency to experience spillover. Next, although we have provided empirical evidence for the existence of a disposition to spillover and theoretical discussion as to what might constitute this disposition (i.e., boundary preference/management), the nature of the disposition is not certain. Building on findings from the current study, further research is necessary to understand the actual content of this disposition to spillover. Lastly, the data were collected via self-report survey only, which raises concerns about common method variance. Although it cannot be assumed that common method variance automatically affects relationships among constructs investigated in cross-sectional, self-report studies (Spector, 2006), it would be valuable to collect data using multiple methods (e.g., observer reports) to address the limitations of self-report.

Findings from the current study open several interesting future research avenues. First, developing a measure that directly assesses disposition to spillover is warranted. Doing so will not only allow us to easily estimate individual differences in disposition to spillover, but also help us understand characteristics of this disposition. Second, given the positive relationship between disposition to spillover and spillover constructs, an examination of the psychological mechanisms between this predisposition and the consequences of work–family spillover (e.g., life, job, and family satisfaction and health outcomes; Allen et al., 2000; McNall et al., 2010) will be a meaningful extension of the literature. Finally, the interplay between disposition to spillover and other personality variables deserves further inquiry. For example, individuals who are prone to experience spillover are likely to maximize the likelihood of positive spillover with the presence of extraversion that has been associated with positive work–family spillover (Michel et al., 2011). Similarly, disposition to spillover may heighten the risk of experiencing negative work–family spillover when accompanied with negative affectivity that has been associated with negative work–family spillover (Allen et al., 2012).

8.3. Conclusion

In this study, we demonstrated evidence for the existence of disposition to spillover. Our findings from a nationally representative sample suggest that disposition to spillover is a unique dispositional characteristic that is relatively stable over time. This study adds to previous research that highlighted the critical role of dispositional characteristics in work–family spillover and advances the extant literature that has focused on the environmental antecedents of work–family spillover.

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