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Relationship between work interference with family and parent–child interactive behavior: Can guilt help?

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ABSTRACT

Despite its theoretical and practical importance, behavioral consequences of work–family conflict that reside in the family domain rarely have been examined. Based on two studies, the current research investigated the relationship of work-interference-with-family (WIF) with parent–child interactive behavior (i.e., educational, recreational, and passive activities) using survey data from employed parents. Furthermore, the moderating role of trait guilt on the focal relationships was examined. Results were generally consistent across the two studies and supported the hypotheses: both time- and strain-based WIF were negatively associated with educational and recreational activities; trait guilt moderated these relationships such that the relationships were weaker for parents higher on trait guilt than for those lower on trait guilt. By examining a family domain behavioral outcome of WIF and the constructive rather than dysfunctional role of guilt, the current research makes an important and novel contribution to the literature.

Over the past several decades a large body of research has developed on the topic of work-family conflict (WFC). Meta-analytic and qualitative reviews have documented a variety of behavioral, attitudinal, and employee well-being outcomes associated with WFC (e.g., Allen, Herst, Bruck, & Sutton, 2000; Kossek & Ozeki, 1998). Despite the significant number of studies, there has been limited inquiry into WFC consequences that reside in the family domain, especially child and parenting related outcomes (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). Considering that children are unseen stakeholders at work and that child well-being has been identified as a legitimate business concern due to factors such as increased health care costs and lost time (Major, Allard, & Cardenas, 2004), research on the relationship between WFC and parenting is sorely needed.

Another rarely studied topic within the work–family literature is guilt. This is surprising in that guilt often emerges as a theme within work–family discourse, particularly as it pertains to the care of children (Aycan & Eskin, 2005; Galinsky, 1999). Moreover, the popular press is rife with stories associating guilt with juggling work and parental roles (e.g., Silverman, 2010). In the few studies that have examined guilt, it has been conceptualized as a negative emotion linked with WFC (e.g., Judge, Ilies, & Scott, 2006; Livingston & Judge, 2008). Contrary to the prevailing view of parental guilt as a harmful casualty of multiple role demands, in the current study we investigate "guilt as good." That is, we contend that guilt can motivate working parents to make extra efforts to engage in interactive behaviors with children in the face of WIF.

The objective of the current study is twofold. First, we examine the relationship between WIF and parent–child interactive behavior. By assessing multiple activities that employed parents do with their child, this study attempts to answer the call for further research on the family consequences of WFC as well as address the need to investigate behavioral outcomes related to WFC (Eby et al., 2005; Kossek & Ozeki, 1998). Second, guilt is investigated as a moderator. This is an important contribution in that to date the work–family literature has only considered the negative theoretical and practical implications of guilt as a transitory emotion. By investigating trait guilt as a moderator we expand both work–family theory and practice.

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Parent–child interactive behavior

Time is a valuable resource in the family domain. The time that parents devote to their children is considered a major form of investment in children and is positively associated with child development (Nock & Kingston, 1988). Elaborating the positive link between parental time and child outcomes, previous research showed that various parental behaviors relate to children's well-being and development (Büchel & Duncan, 1998; Cooksey & Fondell, 1996; Stewart & Barling, 1996). This underscores that the study of specific behaviors a parent engages in with a child may shed light on how parental time exerts beneficial effects on child development.

Investigations of the relationship between parental behaviors and other variables (e.g., family structure, parental employment, and child outcomes) have encompassed a wide variety of activities. For example, leisure activities or helping with reading or homework (Cooksey & Fondell, 1996), punishing, rejecting and authoritative behavior (Stewart & Barling, 1996), and parents' social activities such as doing volunteer work (Büchel & Duncan, 1998) have been studied. Examination of these various behaviors has advanced the literature by demonstrating the diverse ways parents contribute to child development through their actions.

With this in mind, the current study focuses on a specific type of parenting behavior, *parent–child interactive behavior*, which refers to behavior that involves interaction between a parent and a child. As the basic unit of dyadic behavior, interaction serves a critical role in parent–child relationships in that the interactions experienced over time constitute their relationship (Collins & Madsen, 2003). Thus, it is through these interactions that parent–child relationships develop (Lollis & Kuczynski, 1997). In studying interactive behavior, it is important to recognize that behaviors vary with regard to degree of parents' engagement as well as with regard to specific content. Therefore, the current study investigates three types of parent–child interactive behavior: educational, recreational, and passive. *Passive activities* refer to interactive behaviors that require minimal engagement of parents (e.g., watching TV). Two types of more dynamic behaviors that involve interaction (i.e., active activities) include *educational activities* (e.g., reading), which play a crucial role in the enhancement of children's learning and school success (Epstein, 1985), and *recreational activities* (e.g., playing together), which serve emotional, social and cultural functions (Tamis-LeMonda, Uzgiris, & Bornstein, 2002).

WIF and parent–child interactive behavior

Work–family conflict (WFC) occurs when the demands of one role deplete resources that one needs to meet the demands of the other role (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985). The experience of work interference with family (WIF) can be distinguished from the experience of family interference with work (FIW; Frone, 2003). The antecedents of the conflict tend to be found in the role in which the conflict originated, whereas the consequences tend to reside in the role that is hindered. Given that parent–child interactive behavior is our focal outcome, the present study examines WIF.

Also recognized in the WFC literature are three types of interferences (i.e., time-, strain-, and behavior-based; Carlson, Kacmar, & Williams, 2000; Greenhaus & Beutell, 1985). Because our focus is on WIF as a form of interrole conflict that occurs due to a shortage of resources (e.g., time, energy, or cognitive) that makes it difficult to successfully perform in the family domain, the present study includes only time- and strain-based WIF. Furthermore, time- and strain-based WIF are examined separately given their conceptual distinctiveness; time-based WIF occurs when time devoted to the work role hampers the fulfillment of responsibilities in the family role whereas strain-based WIF occurs when stress generated in the work role inhibits effective performance in the family role (Greenhaus & Beutell, 1985). Behavior-based conflict is the result of conflicting behavioral expectations rather than a result of a shortage of resources and thus was deemed not applicable to the current study.

Based on resource allocation theory we expect both time- and strain-based WIF to relate negatively to parent–child interactive behavior. The amount of resources employees can expend associated with each role is bounded because resources to meet demands from multiple roles are finite. That is, the more resources that are allocated to one role, the less resources that remain for the other role (Edwards & Rothbard, 2000). Consistent with this theory, research has shown that individuals who experience high levels of WIF tend to reduce social interaction with their families, even when the amount of time spent at home was controlled (Ilies et al., 2007). More recently, Roeters, Van der Lippe, and Kluwer (2010) found that working hours, a strong predictor of WIF (Byron, 2005), were negatively associated with the frequency of child-related activities.

Likewise, time- and strain-based WIF are thought to erode parents' ability to engage in parent–child interactive behavior. Previous studies have shown that parent–child interactions reflect various factors such as individual (e.g., parent's experience, child's temperament) as well as environmental (e.g., stressful conditions in the workplace) characteristics (Collins & Madsen, 2003). Parents that experience greater time- and/or strain-based WIF may have difficulty finding the time and energy resources needed to focus on activities with their child. This may be particularly true with regard to activities that are more active rather than passive in nature. Because passive activities require less cognitive and physical energy, parents may find them easier and less demanding to participate in compared with educational or recreational activities.

Hypothesis 1. Time-based WIF is negatively associated with (a) educational activities, (b) recreational activities, and (c) passive activities.

Hypothesis 2. Strain-based WIF is negatively associated with (a) educational activities, (b) recreational activities, and (c) passive activities.

Hypothesis 3. Relationships of time- and strain-WIF with passive activities are weaker than those with educational or recreational activities.

Trait guilt as a moderator

Trait guilt (i.e., guilt-proneness) is a dispositional tendency to experience guilt in response to one's failures or transgressions (Tangney, 1990). Guilt is an unpleasant emotion that is experienced when an individual acknowledges responsibility for a perceived failure to meet norms or fulfill personal goals. As a stable personality trait, individuals are known to differ in terms of the capability to experience guilt. Previous research has suggested a close relationship between trait and state guilt such that guilt-prone people are likely to experience actual guilt feelings in a specific situation (Leith & Baumeister, 1998).

Researchers have suggested that guilt is highly applicable to the experience of WFC (Judge et al., 2006; Livingston & Judge, 2008). When demands from the work and family domains are incompatible, individuals have to make decisions that result in choosing work over family or vice versa (Greenhaus & Powell, 2003). Due to limited resources, such decisions can result in guilt. For example, parents may experience guilt for not spending as much time with children as they think they should due to work demands. Guilt is especially pertinent to the context of working parents due to its interpersonal characteristic; guilt is considered to arise from reflections of a misdeed to a relationship partner and therefore, is thought to be more intense in close relationships than in weak relationships (Baumeister, Stillwell, & Heatherton, 1994).

Although guilt is an aversive emotion, it has been known to serve an adaptive function in interpersonal relationships by prompting individuals to monitor their own behavior, shift their motivational focus to the underperforming domain, and initiate appropriate action to counteract negative consequences of their behavior (George & Brief, 1996). To restore relationships, for example, people put forth more effort or spend more time with their partner (Baumeister et al., 1994). Because time is a finite resource, allocating more time to a relationship helps reduce guilt as it is a reflection of the value placed on the relationship. Along the same line, to engage in corrective behavior reduces guilt and may improve the relationship as the behavior demonstrates consideration for others.

The constructive nature of guilt suggests that guilt may attenuate the negative relationship between WIF and parent–child interactive behavior. Past research has shown that guilt-prone people tend to contemplate their role, feel responsibility, take the other person's perspective, and get motivated to take corrective actions when they experience interpersonal conflict (Leith & Baumeister, 1998; Tangney, 1990). Therefore, parents higher on trait guilt are likely to accept responsibility for WIF, which may result in compensatory behaviors, such as engaging in parent–child interactive behavior.

Hypothesis 4. Trait guilt moderates the relationships between time-based WIF and (a) educational activities, (b) recreational activities, and (c) passive activities such that the expected negative relationships are weaker among those who are higher on trait guilt than among those who are lower in trait guilt.

Hypothesis 5. Trait guilt moderates the relationships between strain-based WIF and (a) educational activities, (b) recreational activities, and (c) passive activities such that the expected negative relationships are weaker among those who are higher on trait guilt than among those who are lower in trait guilt.

Overview of Studies 1 and 2

A pair of studies was conducted to test the hypotheses. Study 1 involved employed parents with at least one child in an after-school program who resided in a single metropolitan area in the U.S. Study 2 recruited individuals from various locations in the U.S. to help determine if the findings could be replicated beyond the initial sample. This is important in that moderating effects are known to be notoriously difficult to replicate (e.g., Chaplin, 1997). Consistent results across the two studies will help support the conclusion that the findings are meaningful rather than a statistical artifact.

Study 1

Method

Participants and procedure

Employed parents from 11 after-school programs located in a large metropolitan area within the southeastern region of the U.S. participated in the study ($n = 201$). The majority of the participants were female (65.6%), White/Caucasian (54.0%), and married/living with a partner (82.0%). On average, the participants were 38.07 years old ($SD = 6.72$), worked 41.04 h per week ($SD = 9.31$), and had 1.67 children at home ($SD = .75$). To be eligible, participants had to work a minimum of 20 h a week and live with at least one child between 7 and 9 years old. Age of the child was restricted because parenting activities change along with the age of the child (Martin, 1975). Early school age is a critical developmental phase in the study of parent–child interaction because parents tend to give greater autonomy and spend less time with children as they age (Maccoby, 1980). Participation was voluntary and no compensation was granted. Participants completed a hard copy of the survey at the after-school site or at home.

Measures

Work interference with family (WIF). Two three-item subscales from Carlson et al.'s (2000) WIF scale were used to assess time-based (e.g., "The time I must devote to my job keeps me from participating equally in household responsibilities and activities")

and strain-based WIF (e.g., "When I get home from work I am often too frazzled to participate in family activities/responsibilities."). The response to each item was rated on a 5-point Likert-type scale that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The internal consistency reliability was .89 for time-based WIF and .91 for strain-based WIF.

Trait guilt. Six items from the Personal Feelings Questionnaire—2 (Harder & Zalma, 1990) were used to assess trait guilt. Sample items include "mild guilt," "regret," and "remorse." The measure assesses how common the emotions are for the rater on a 5-point Likert-type scale that ranges from 0 (*never experience the feeling*) to 4 (*experience the feeling continuously or almost continuously*). The internal consistency reliability was .85.

Parent–child interactive behavior. Based on past research (e.g., Gauthier, Smeeding, & Furstenberg, 2004; Nock & Kingston, 1988), a scale was developed to measure parent–child interactive behavior among parents whose child is early school-aged. *Educational activity* was measured with four items (e.g., I read to my child; $\alpha = .77$). *Recreational activity* was measured with five items (e.g., I play outside with my child; $\alpha = .92$). *Passive activity* was measured with four items (e.g., my child and I watch TV together; $\alpha = .86$). The complete scale can be found in the Appendix. The scale assessed the frequency of each activity during the past 4 weeks based on a 7-point Likert-type scale (1 = *never*, 2 = *1–5 times*, 3 = *6–10 times*, 4 = *11–15 times*, 5 = *16–20 times*, 6 = *21–25 times*, and 7 = *25 times or more*). The time frame of 4 weeks was chosen because it was thought to be long enough to capture behaviors that do not occur on a daily basis (e.g., museum trips) while also short enough to maintain accurate reporting. This time frame was also used in a previous research on parenting behavior (Stewart & Barling, 1996). Participants were instructed to choose one child between the ages of seven and nine and to focus exclusively on that child.

Confirmatory factor analysis (CFA) conducted to examine the structure of the new scale. Results suggested that the 3-factor model fit the data well as fit indices generally were shown to meet the customary cut-off, above .90 for Comparative Fit Index (CFI) and lower than or equal to .08 for Standardized Root Mean Square Residual (SRMR) (Hu & Bentler, 1999). The results are shown in Table 1. Moreover, the 3-factor model fit the data better than a 2-factor model that aggregated educational and recreational activities as 'active activities' ($\chi^2_{\text{diff}}(2) = 91.07$, $p < .01$).

Demographic variables. Participants reported their gender, age, ethnicity (White/Caucasian, Black/African American, Hispanic, Asian/Pacific Islander, Native American, or Other), marital status (single, married, or living with a partner/significant other), number of children living at home, highest level of education (some high school, high school diploma, some college, 2-year college degree, 4-year college degree, some graduate school, or graduate degree), organizational tenure in months, work hours per week, and age of the focal child. In analyses, gender (male = 0, female = 1), ethnicity (White/Caucasian = 0, all others = 1), and marital status (single = 0, all others = 1) were dummy coded.

Control variables. Gender, age, education, and work hours were controlled in regression analyses based on previous research that has shown the significant roles that they play in parenting behavior (Bianchi, Milkie, Sayer, & Robinson, 2000; Büchel & Duncan, 1998).

Results

Descriptive statistics and zero-order correlations between relevant demographic and focal variables are shown in Table 2.

Hypotheses 1 and 2 were tested by hierarchical regression. Results are shown in Tables 3 and 4. Supporting Hypothesis 1b, time-based WIF negatively related to recreational activities ($\beta = -.31$, $p < .01$). No support was found for Hypothesis 1a ($\beta = -.07$, $p = .32$) or 1c ($\beta = .06$, $p = .40$). Consistent with Hypotheses 2a and 2b, strain-based WIF negatively related to educational activities ($\beta = -.14$, $p < .05$) and recreational activities ($\beta = -.38$, $p < .01$). Hypothesis 2c was not supported ($\beta = .06$, $p = .42$).

Hypothesis 3 was tested based on *t*-tests for assessing significant differences in dependent correlations. In support of Hypothesis 3, passive activities had a significantly different relationship with time-WIF compared with recreational activities ($t(198) = -4.99$, $p < .001$). However, the relationship between passive activities and time-based WIF did not differ from the relationship between time-based WIF and educational activities ($t(198) = -1.92$, $p = .06$). With regard to relationships with strain-based WIF, passive activities were significantly different from both educational ($t(198) = -2.41$, $p < .05$) and recreational activities ($t(198) = -6.65$, $p < .001$).

Hypotheses 4 and 5 were tested using moderated hierarchical regression (Aiken & West, 1991). Support was found for Hypothesis 4a ($\Delta R^2 = .01$, $p < .05$) and 4b ($\Delta R^2 = .06$, $p < .01$), but not for 4c ($\Delta R^2 = .00$, $p = .72$). Results are shown on Table 3. As shown in Fig. 1, parents lower on trait guilt reported engaging in fewer educational activities as they experienced more time-

Table 1
Results of confirmatory factor analysis (Study 1).

Model	χ^2	*df*	CFI	RMSEA	SRMR
1-Factor	568.44	65	.67	.20	.13
2-Factor	267.36	64	.87	.13	.09
3-Factor	176.29	62	.93	.10	.07

Note. CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardized root-mean-square residual.

Table 2
Descriptive statistics and correlations among study variables (Study 1).

Variable		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Educational	4.98	1.37	(.77)												
2.	Recreational	3.51	1.49	.62	(.92)											
3.	Passive	3.91	1.37	.46	.47	(.86)										
4.	WIF-time	3.01	1.21	−.17	−.37	−.03	(.89)									
5.	WIF-strain	2.76	1.17	−.17	−.43	.00	.66	(.91)								
6.	Trait guilt	.91	.72	−.04	−.13	−.14	.08	.13	(.85)							
7.	Gender	.66	.48	.31	−.04	.16	−.11	−.00	.08	–						
8.	Age	38.07	6.72	−.17	−.13	−.26	.11	.04	−.01	−.32	–					
9.	Ethnicity	1.88	1.24	−.10	−.09	−.05	.00	.02	−.04	.10	−.16	–				
10.	Education	4.38	1.58	.06	−.10	−.19	.04	.10	.24	−.10	.27	.02	–			
11.	Marital	1.48	.77	.05	.02	.03	−.22	−.10	−.04	.15	−.18	.02	−.09	–		
12.	Work hr	41.04	9.31	−.23	−.18	−.09	.32	.21	.04	−.19	−.02	.02	.04	−.06	–	
13.	Tenure[a]	69.19	53.81	.05	.05	.05	−.03	.00	−.04	−.18	.19	−.14	.08	−.05	.10	–

Note. $n = 201$. Reliability estimates are provided in parentheses on the diagonal. Educational = educational activities; Recreational = recreational activities; Passive = passive activities; WIF-time = time-based work-interference-with-family; WIF-strain = strain-based work-interference-with-family; Work hr = number of hours of working per week.
$|r| > .15$, $p < .05$; $|r| > .19$, $p < .01$.
[a] Tenure was reported in months.

based WIF ($\beta = -0.34$, $p < .001$) while parents higher on trait guilt maintained the level of those activities ($\beta = 0.01$, $p = .91$). Similar results for recreational activities are shown in Fig. 2; parents lower on trait guilt reported less participation in recreational activities ($\beta = -0.57$, $p < .001$) while there was no significant relationship between the two among parents higher on trait guilt ($\beta = -0.14$, $p = .13$). Hypotheses 5a ($\Delta R^2 = .02$, $p < .05$) and 5b were supported ($\Delta R^2 = .05$, $p < .01$). Hypothesis 5c was not supported ($\Delta R^2 = .00$, $p = .55$). Results are reported in Table 4. Simple slopes tests indicated that parents lower on trait guilt reported less participation in educational and recreational activities when experiencing strain-based WIF ($\beta = -0.36$, $p < .001$; $\beta = -0.61$, $p < .001$, respectively) whereas guilt-prone parents did not report decreased participation in both educational and recreational activities ($\beta = 0.07$, $p = .48$; $\beta = -0.18$, $p = .06$, respectively). The nature of these interactions was similar to that of time-based WIF as shown in Figs. 1 and 2.

Discussion

Overall the results highlighted the differential relationship of WIF with various parenting activities. With regard to the negative relationship between WIF and parent–child interactive behavior, time- and strain-based WIF exhibited a similar pattern such that significant negative relationships were found with educational and recreational activities but not with passive activities. As hypothesized, passive activities had significantly weaker relationships with WIF compared with the two types of active activities. Finally, the focal relationship was qualified by the level of parents' trait guilt such that the negative relationship was stronger for parents lower on trait guilt than for parents higher on trait guilt.

Table 3
Moderated regression results of trait guilt and time-based WIF on parent–child interactive behavior (Study 1).

Variable	Educational			Recreational			Passive		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control variables									
Gender	.25**	.26**	.24**	−.10	−.10	−.13	.12	.13	.13
Age	−.12	−.12	−.11	−.16*	−.13	−.12	−.19*	−.20**	−.20**
Education	.11	.13	.12	−.04	−.02	−.05	−.13	−.10	−.10
Work hours	−.19**	−.16*	−.16*	−.21**	−.10	−.09	−.07	−.09	−.09
Predictors									
Trait guilt		−.09	−.08		−.10	−.08		−.14	−.14
WIF-time		−.07	−.07		−.31**	−.31**		.06	.06
Interaction term									
Trait guilt × WIF-time			.13*			.24**			−.03
F	8.65**	6.25**	5.99**	3.35*	6.11**	7.52**	5.44**	4.37**	3.75**
df	4, 192	6, 190	7, 189	4, 192	6, 190	7, 189	4, 192	6, 190	7, 189
Overall R^2	.15	.17	.18	.07	.16	.22	.10	.12	.12
Δ in R^2		.02	.01*		.09**	.06**		.02	.00

Note. Standardized coefficients are shown.
* $p < .05$.
** $p < .01$.

Table 4
Moderated regression results of trait guilt and strain-based WIF on parent–child interactive behavior (Study 1).

Variable	Educational			Recreational			Passive		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control variables									
Gender	.25**	.26**	.24**	−.10	−.08	−.12	.12	.13	.12
Age	−.12	−.12	−.10	−.16*	−.15*	−.12	−.19*	−.20*	−.19*
Education	.11	.14	.15*	−.04	.00	.01	−.13	−.10	−.10
Work hours	−.19**	−.16*	−.15*	−.21**	−.12	−.11	−.08	−.08	−.08
Predictors									
Trait guilt		−.08	−.10		−.08	−.11		−.14	−.14*
WIF-strain		−.14*	−.12		−.38**	−.36**		.06	.06
Interaction term									
Trait guilt × WIF-strain			.16*			.24**			.04
F	8.65**	6.87**	6.81**	3.35*	8.67**	9.77**	5.44**	4.36**	3.78**
df	4, 192	6, 190	7, 189	4, 192	6, 190	7, 189	4, 192	6, 190	7, 189
Overall R^2	.15	.18	.20	.07	.22	.27	.10	.12	.12
Δ in R^2		.03	.02*		.15**	.05**		.02	.00

Note. Standardized coefficients are shown.
* $p<.05$.
** $p<.01$.

Study 2

The main purpose of Study 2 was to replicate Study 1 with a more diverse sample of employed parents in terms of their current residence in the U.S.

Method

Participants and procedure

Employed parents participated in a web-based survey ($n=230$). Eligibility criteria were the same as Study 1. Among the participants 59.1% were female. The majority of the participants were White/Caucasian (78.9%) and married/living with a partner (83.8%). Participants on average were 34.15 years old ($SD=7.25$), worked 38.71 h per week ($SD=11.20$), and had 1.74 children at home ($SD=.88$). Participants were recruited from Amazon Mechanical Turk (Mturk), a web-based system operated by Amazon.com. Mturk is a platform where individuals complete Human Intelligence Tasks (HITs) and receive compensation upon successful performance. While this is a relatively new data collection tool, previous studies that used Mturk have recognized its benefits such as access to a larger and more diverse sample and efficiency in collecting data in terms of both time and cost (Buhrmester, Kwang, & Gosling, 2011). A HIT was created on the Mturk website with the title of "work, family, and parenting research." A system qualification was used such that only individuals located in the U.S. could take the HIT. Participants who completed the task received $.50.

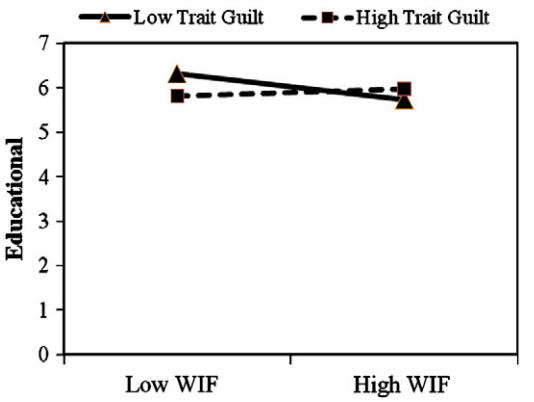

Fig. 1. Interaction of time-based WIF on educational activities as a function of trait guilt.

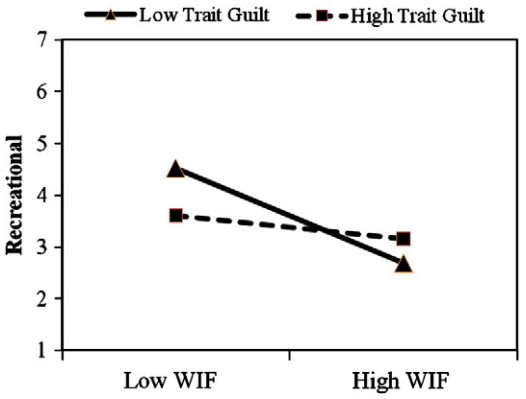

Fig. 2. Interaction of time-based WIF on recreational activities as a function of trait guilt.

Measures

Items and response scales for WIF (α = .84 for time-based; α = .86 for strain-based), trait guilt (α = .80), parent–child interactive behavior (α = .70 for educational; α = .85 for recreational; α = .81 for passive), and demographic variables were the same as those used in Study 1. CFA was conducted for the parent–child interactive behavior measure. Although fit indices of the 3-factor model did not meet the conventional cut-off points (e.g., Hu & Bentler, 1999), the results were consistent with Study 1 in that the 3-factor model fit the data better than the 2-factor model (χ^2_{diff} (2) = 18.3, p<.01; CFI = .86, RMSEA = .11, SRMR = .06 for the 3-factor model; CFI = .85, RMSEA = .12, SRMR = .07 for the 2-factor model).

Bogus items

Concerns have been raised with regard to the accountability of data from online survey administrations due to the lack of personalization and the unproctored setting (Johnson, 2005). To detect inattentive responses (e.g., to answer without reading the question) among the participants, six items with a clear correct answer were included (e.g., "I am using a computer currently"). Participants who choose an incorrect answer are assumed to be responding carelessly (Meade & Craig, 2011). From the initial sample (n = 311), 81 individuals (26%) were deleted from analyses due to inattentive responses (n = 81).

Control variables

Same as Study 1, gender, age, education, and work hours were controlled in regression analyses.

Results

Descriptive statistics and zero-order correlations between relevant demographic and focal variables are shown in Table 5. Analyses used for hypotheses testing were the same as those used in Study 1.

Table 5
Descriptive statistics and correlations among study variables (Study 2).

Variable		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Educational	4.33	1.25	(.70)												
2.	Recreational	3.59	1.26	.64	(.85)											
3.	Passive	3.74	1.26	.60	.63	(.81)										
4.	WIF-time	2.82	1.04	−.20	−.24	−.15	(.84)									
5.	WIF-strain	2.51	.97	−.23	−.24	−.08	.58	(.86)								
6.	Trait guilt	2.13	.60	−.06	−.08	.05	.24	.30	(.80)							
7.	Gender	.58	.50	.16	.10	.09	−.16	−.02	.14	–						
8.	Age	34.15	7.25	−.06	−.20	−.11	−.06	.04	−.06	−.02	–					
9.	Ethnicity	1.61	1.34	−.00	.02	.06	.11	.09	.03	.08	−.09	–				
10.	Education	4.62	1.55	.07	−.06	−.06	.06	−.01	−.11	−.07	.12	.16	–			
11.	Marital	1.52	.76	.04	.05	−.01	.04	.06	.09	.04	−.13	−.09	−.19	–		
12.	Work hr	38.71	11.20	−.11	−.06	−.02	.23	.15	.05	−.31	−.06	−.06	.12	−.06	–	
13.	Tenure[a]	53.59	54.24	−.07	−.06	−.13	.13	.02	−.02	−.11	.34	−.06	.14	−.09	.10	–

Note. n = 230. Reliability estimates are provided in parentheses on the diagonal. Educational = educational activities; Recreational = recreational activities; Passive = passive activities; WIF-time = time-based work-interference-with-family; WIF-strain = strain-based work-interference-with-family; Work hr = number of hours of working per week.
$|r|$ > .13, p<.05; $|r|$ > .19, p<.01.
[a] Tenure was reported in months.

Supporting Hypothesis 1, time-based WIF was negatively associated with educational activities ($\beta = -.17$, $p < .05$), recreational activities ($\beta = -.22$, $p < .01$), and passive activities ($\beta = -.17$, $p < .05$). Consistent with Hypotheses 2a and 2b, strain-based WIF negatively related to educational activities ($\beta = -.21$, $p < .01$) and to recreational activities ($\beta = -.21$, $p < .01$). Hypothesis 2c was not supported ($\beta = -.09$, $p = .36$). Results are shown in Tables 6 and 7.

Hypothesis 3 was partially supported. The relationship between time-based WIF and passive activities did not differ from the relationship between time-based WIF and educational activities ($t\,(227) = -.87$, $p = .38$) or from the relationship between time-based WIF and recreational activities ($t\,(227) = -1.57$, $p = .12$). However, the relationship of strain-based WIF with passive activities significantly differed from its relationships with both educational ($t\,(227) = -2.57$, $p < .01$) and recreational activities ($t\,(227) = -2.84$, $p < .01$).

Support was found for Hypothesis 4a ($\Delta R^2 = .02$, $p < .05$) and 4b ($\Delta R^2 = .02$, $p < .01$), but not for 4c ($\Delta R^2 = .00$, $p = .32$) (see Table 6). Parents lower on trait guilt reported fewer educational activities as they reported more time-based WIF ($\beta = -0.36$, $p < .01$) while parents higher on trait guilt maintained the level of those activities ($\beta = -0.05$, $p = .61$). Similar results were found for recreational activities. Parents lower on trait guilt reported less participation in recreational activities ($\beta = -0.43$, $p < .01$) while no relationship was observed among parents higher on trait guilt ($\beta = -0.04$, $p = .64$). Support was found for Hypothesis 5b ($\Delta R^2 = .03$, $p < .01$), but not for 5a ($\Delta R^2 = .00$, $p = .49$) or 5c ($\Delta R^2 = .00$, $p = .39$) (see Table 7). Simple slopes tests showed parents lower on trait guilt reported less participation in recreational activities when experiencing strain-based WIF ($\beta = -0.40$, $p < .01$) whereas guilt-prone parents did not report decreased participation in recreational activities ($\beta = -0.05$, $p = .57$). Given the similarity of the interactions across Study 1 and Study 2, figures for Study 2 are not shown to save space.

Discussion

Study 2 results generally supported our hypotheses and were mostly consistent with the results in Study 1. The degree of time-WIF parents experienced related to all three types of parenting behavior. The level of strain-WIF negatively related to active activities but not to passive activities. Regarding the weaker relationship of WIF with passive activities than that with active activities, a significant difference was observed with strain-based WIF but not with time-based WIF. With one exception, the negative relationships between WIF and active activities were moderated by parents' trait guilt.

General discussion

The purpose of the current research was to examine the relationship between parents' WIF and parent–child interactive behavior. Investigating the relationship between WIF and different types of parent–child activity along with the moderating role of trait guilt with two different samples of employed parents, several key findings emerged.

Consistent with our hypotheses, findings from the two studies indicated that WIF may act as a barrier that makes it difficult for parents to carry out certain activities with children. Specifically, the degree of involvement in recreational activities was lower among parents' who reported greater WIF, and the relationships remained significant after controlling relevant demographic variables. With one exception, the negative relationship between WIF and educational activities also remained significant after taking control variables into account. Results for passive activities were inconsistent as a significant relationship between time-WIF and passive activities was found in Study 2 only. The difference between active and passive activities was further demonstrated

Table 6
Moderated regression results of trait guilt and time-based WIF on parent–child interactive behavior (Study 2).

Variable	Educational			Recreational			Passive		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control variables									
Gender	.14*	.12	.13	.08	.07	.07	.08	.05	.06
Age	−.07	−.08	−.07	−.20**	−.21**	−.19**	−.11	−.12	−.11
Education	.10	.10	.10	−.02	−.02	−.02	−.04	−.03	−.03
Work hours	−.08	−.04	−.04	−.04	.01	.04	.00	.03	.03
Predictors									
Trait guilt		−.02	−.00		−.06	−.03		.07	.08
WIF-time		−.17*	−.18**		−.22**	−.23**		−.17*	−.17*
Interaction term									
Trait guilt × WIF-time			.14*			.17**			.07
F	2.43*	2.89**	3.21**	2.99*	4.42**	4.90**	1.25	1.80	1.69
df	4, 225	6, 223	7, 222	4, 225	6, 223	7, 222	4, 225	6, 223	7, 222
Overall R^2	.04	.07	.09	.05	.11	.13	.02	.05	.05
Δ in R^2		.03*	.02*		.06**	.02**		.03	.00

Note. Standardized coefficients are shown.
* $p < .05$.
** $p < .01$.

Table 7
Moderated regression results of trait guilt and strain-based WIF on parent–child interactive behavior (Study 2).

Variable	Educational			Recreational			Passive		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control variables									
Gender	.14*	.15*	.15*	.08	.10	.11	.08	.08	.08
Age	−.07	−.06	−.06	−.20**	−.19**	−.18**	−.11	−.10	−.10
Education	.10	.09	.09	−.02	−.03	−.03	−.04	−.04	−.04
Work hours	−.08	−.04	−.04	−.04	−.00	.02	.00	.10	.02
Predictors									
Trait guilt		−.00	.01		−.05	−.02		.05	.06
WIF-strain		−.21**	−.21**		−.21**	−.21**		−.09	−.09
Interaction term									
Trait guilt × WIF-strain			.05			.17**			.06
F	2.43*	3.51**	3.07**	2.99*	4.21**	4.78**	1.25	1.12	1.07
df	4, 225	6, 223	7, 222	4, 225	6, 223	7, 222	4, 225	6, 223	7, 222
Overall R^2	.04	.09	.09	.05	.10	.13	.02	.03	.03
Δ in R^2		.05**	.00		.05**	.03**		.01	.00

Note. Standardized coefficients are shown.
* $p<.05$.
** $p<.01$.

based on the magnitudes of their relationships with strain-based WIF such that active activities had stronger negative relationships with strain-based WIF than did passive activities. The reason why active activities demonstrated more robust relationships with WIF may be because such activities tend to require more involvement and energy of parents as compared to passive activities.

Interestingly, trait guilt appeared to more strongly moderate relationships involving recreational activities than relationships involving educational activities.[1] This difference might be due to several factors. Recreational activities (e.g., exercising together) may be perceived as more demanding and taxing than are educational activities (e.g., helping the child to do homework). Also, recreational activities can be considered as optional whereas educational activities may be regarded as essential. These different perceptions across the two activities might have resulted in a greater decrease in recreational activities than in educational activities when parents lower on trait guilt experienced WIF. It may also be that guilt-prone parents feel the pressure to engage in "fun" activities with their children in order to make up for lost time due to work. Lastly, recreational activities might be preferred by parents in that such "fun" activities can help ease their own strain. Taken together, results underline that the theoretical impact of WIF is not necessarily identical across different types of interactive behavior shared by a parent–child dyad.

It is worth noting that WIF accounted for the variance in parent–child interactive behavior above and beyond relevant demographic variables, especially work hours. This suggests that parents' subjective perception of the work that brings strain and leaves them with inadequate amount of time or energy explains the degree of their participation in the interactive behavior with their child above and beyond the number of working hours. Therefore, further research on other aspects of work (e.g., organizational culture, supervisor) that relate to WIF, which in turn hampers parents' successful performance in the family domain may be beneficial in understanding the interdependency between the work and the family domains.

Results also suggest that time- and strain-based WIF may have differential impact on parents' ability to engage in various parenting behaviors. Time-based WIF was negatively associated with recreational activities only in Study 1 and with all three types of parenting behaviors in Study 2. On the other hand, strain-based WIF consistently demonstrated negative relationships with active activities only. Moreover, a difference between active and passive activities in the magnitude of their relationships with WIF was consistently found with regard to strain-based WIF but not time-based WIF. Taken together, strain-based WIF seems to be what really hinders parents' involvement in active interaction behaviors. Although time-based WIF does set parents back, it does not seem to selectively obstruct certain types of parent–child interactive behavior. Our finding echoes previous research that underscored the importance of differentiating 'how much parents work (i.e., time)' and 'how parents work or what they do at work' (i.e., energy, strain; Galinsky, 1999; Lewis, Tudball, & Hand, 2001).

With regard to the moderating role of trait guilt, results underscored the difference between active and passive activities in that significant interaction was found only in the relationships of WIF with active activities (educational and recreational). Consistent with previous research (Tangney, 1990), the relationships of both forms of WIF with educational and recreational activities were weaker for parents higher on trait guilt than for those lower on trait guilt. Parents who are predisposed to experience guilt might have not decreased the level of parent–child interactive behaviors when experiencing WIF because they assumed responsibility for WIF and had higher motivation to take corrective actions. Considering the time and energy demands associated with engagement in educational and recreational activities, the results suggest that trait guilt can be a positive driver for parenting.

[1] We thank an anonymous reviewer for offering this insight.

Theoretical and practical implications

The current article expands the literature in two meaningful ways by examining parent–child interactive behavior as a theoretical consequence of parents' work experience. First, consistent with the domain specificity hypothesis (Frone, 2003), which posits that factors associated with a given domain relate to conflict originating from that domain and that the consequences of the conflict tend to be found in the interfered with domain, WIF was negatively associated with parent–child interactive behavior. Moreover, the results provide a more nuanced understanding of the way parents' work shapes their parenting behavior. At a glance, our finding seems inconsistent with previous research that found the minimal or inconsistent impact of work demands on parental time with children (e.g., Bianchi, 2000). However, rather than differentiate activities based on the degree of required engrossment, previous research has focused on the total amount of time spent with children. Demonstrating the difference between active and passive activities in terms of their relationship with WIF, the current study highlights the value of investigating specific behaviors that are diverse in their nature (e.g., intensity, content).

Findings of trait guilt as a significant moderator in the relationships of WIF with educational and recreational activities are important given that guilt has been discussed in a negative light as it pertains to working parents (e.g., Guendouzi, 2006). Our research expands the limited way in which guilt has been viewed within the work–family literature to date. Guilt can be good under circumstances of WIF in that it contributes to parent–child relationships and child development by ensuring necessary developmental interactions. The results also suggest that trait guilt may be one factor that explains why the time spent with children has remained relatively intact despite increased number of employed parents and the hours of paid work (Gauthier et al., 2004). Thus, guilt evoked by cultural imperatives for being good parents might have propelled parents to protect time and energy for parent–child interactive behavior.

The current study also has practical implications. Results indicated that behavior in the family domain can be explained by parents' work experience. Time- and strain-based WIF, which was positively associated with the work hours, appeared to be a significant predictor of parent–child interactive behavior. Considering the fundamental role of parents' behavior in child development (Epstein, 1985; Tamis-LeMonda et al., 2002) and the repercussion of children's health on employees' work (Major et al., 2004), work that thwarts parents from active interaction with their children can ultimately bring negative consequences to the organization.

Limitations and future directions

Several limitations should be mentioned. First, the current studies are based on a cross-sectional design. Although it is theoretically sound to consider WIF as an antecedent of behavior in the family domain, the nature of the research design precludes any inferences about causality. Second, although the reliability estimates associated with Study 2 were acceptable in magnitude, they were consistently lower than those in Study 1. Given that Study 2 is based on the data collected online, this trend may signal problems associated with web-based recruitment. Additional research investigating the quality of web-based recruitment survey data such as that included in the current study is warranted. Third, the data were collected via self-report only, which raises the issue of inflated relationships due to common method variance. However, it has been noted that it is incorrect to assume that correlations observed in cross-sectional, self-report studies are inflated (Spector, 2006). In addition, interactions such as those reported and replicated across two studies in the current research are unlikely to be due to common method variance (Evans, 1985). The consistency of the results across Studies 1 and 2 further bolsters confidence in the soundness of the findings. Reliance on self-report data also leaves open an alternative explanation for our findings. Specifically, guilt-prone parents who experience greater WIF might simply *report* more interactive activities rather than *do* more activities because high engagement in interactive activities is socially desirable. However, it seems unlikely that social desirability is a viable explanation for the results given that reported levels of parent–child interactive activities was relatively consistent among guilt-prone parents. In other words, if guilt-prone parents became self-conscious and intended to inflate their level of participation in interactive activities, it should be expected that those who experienced greater WIF would report higher level of activities to avoid feeling guilt. This was not the case as the level of interactive activities was similar across guilt-prone parents regardless of their level of WIF. Nevertheless it would be valuable to collect multi-source data on parent–child interactive behavior (e.g., child, the spouse) or objective outcome data (e.g., child health indicators, school achievement) to address the limitations of self-report and to gain a more comprehensive picture of the relationship between WIF and child-related outcomes. Finally, additional research is warranted that can further support the validity of our measure of parent–child interactive behavior. It seems important to further examine qualitative differences in each activity as the current scale measured the frequency of each activity only, with an assumption that certain activities are primarily active and others primarily passive. Research that investigates the quality of interactions in addition to frequency is needed.

The findings point to several additional areas for future research inquiry. Characteristics of parents' occupation could be examined by utilizing objective data sources, such as O*NET (Peterson et al., 2001) or the collection detailed work design features (e.g., Morgeson & Humphrey, 2006), to pinpoint specific aspects of each job that affect parenting behavior more adversely than others. For example, parents who work a non-traditional job schedule (e.g., night shift) or whose job does not provide much flexibility may find it especially difficult to engage in interactive behavior with their children. As another example, parents who have to exert extensive physical effort while at work may lack the energy to engage in recreational activities during nonwork time. Such knowledge could enable tailored interventions for parents working in diverse occupations.

As another next step for the future, the investigation of the underlying process by which trait guilt motivates parents to engage in parent–child interactive behavior is necessary. For instance, several characteristics of guilt-prone individuals (e.g., role contemplation or perspective-taking; Leith & Baumeister, 1998) can be tested as mediators in the relationship between trait guilt and

parent–child interactive behavior. The impact of trait guilt on parents is another fruitful area for the future research. Although we found that parents' trait guilt could be beneficial for children in that guilt-prone parents maintained the level of parent–child interactive behavior despite WIF, repeated contemplation over failure and taking responsibility may not be healthy for parents themselves. Also, previous research indicates parents report "taxing" other activities, including sleep, personal care, and leisure activities (Bianchi, 2000), in order to spend time with their children. Thus, research that investigates both parent–child activities as well as parent self-care over time would be useful. Finally, future study is warranted to investigate the relationship between the positive work–family interface (i.e., work–family facilitation) and parent–child interactive behaviors. For example, positive affect or skills from work may empower and energize parents to engage in more interactive behavior with their children.

Conclusion

Our study advances the work–family literature by investigating the link between WIF and parent–child interactive behavior and the role of guilt as a boundary condition of the relationship. Contrary to the pervasive notion that guilt is a harmful byproduct of managing work and family roles, we found that trait guilt serves a corrective function by attenuating the relationship between WIF and active parent–child activities.

Appendix

Parent–child interactive behaviors measure.

No.	Items
1.	I help my child with his/her homework.
2.	I read to my child.
3.	My child and I have discussions about my child's achievements or concern.
4.	My child and I talk while we are driving together.
5.	My child and I play together (e.g., bike riding, playing sports).
6.	My child and I exercise together.
7.	I go on outings with my child (e.g., museum, zoo, sporting event).
8.	I play indoor games with my child (e.g., board games, video games).
9.	I play outside with my child.
10.	My child and I do housework together.
11.	My child and I go shopping together.
12.	My child and I watch TV together.
13.	My child and I do grocery shopping together.

Note. Educational activities (Items 1–4); recreational activities (Items 5–9); passive activities (Items 10–13).

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* Thousand Oaks, CA: Sage.
Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, *5*, 278–308.
Aycan, Z., & Eskin, M. (2005). Relative contributions of childcare, spousal support, and organizational support in reducing work–family conflict for men and women: The case of Turkey. *Sex Roles*, *53*, 453–471.
Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, *115*, 243–267.
Bianchi, S. M. (2000). Maternal employment and time with children: Dramatic change or surprising continuity? *Demography*, *37*, 401–414.
Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*, *79*, 191–228.
Büchel, F., & Duncan, G. J. (1998). Do parents' social activities promote children's school attainments? Evidence from the German socioeconomic panel. *Journal of Marriage and the Family*, *60*, 95–108.
Buhrmester, M., Kwang, T., & Gosling, S. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspective on Psychological Science*, *6*, 3–5.
Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. *Journal of Vocational Behavior*, *67*, 169–198.
Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational Behavior*, *56*, 249–276.
Chaplin, W. F. (1997). Personality, interactive relations, and applied psychology. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 873–891). San Diego, CA: Academic Press.
Collins, W. A., & Madsen, S. D. (2003). Developmental change in parenting interactions. In L. Kuczynski (Ed.), *Handbook of dynamics in parent–child relations* (pp. 49–66). Thousand Oaks, CA: Sage.
Cooksey, E. C., & Fondell, M. M. (1996). Spending time with his kids: Effects of family structure on fathers' and children's lives. *Journal of Marriage and the Family*, *58*, 693–707.
Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, *66*, 124–197.
Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *The Academy of Management Review*, *25*, 178–199.
Epstein, J. L. (1985). Home and school connections in schools of the future: Implications of research on parent involvement. *Peabody Journal of Education*, *62*, 18–41.
Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes.*, *36*, 305–323.

Frone, M. R. (2003). Work–family balance. In J. C. Quick, & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 143–162). Washington, DC: American Psychological Association.
Galinsky, E. (1999). *Ask the children: What America's children really think about working parents.* New York: William Morrow and Company.
Gauthier, A. H., Smeeding, T. M., & Furstenberg, F. F. (2004). Are parents investing less time in children? Trends in selected industrialized countries. *Population and Development Review*, *30*, 647–671.
George, J. M., & Brief, A. P. (1996). Motivational agendas in the workplace: The effects of feelings on focus of attention and work motivation. In B. M. Staw, & E. E. Cummings (Eds.), *Research in organizational behavior* (pp. 75–109). : JAI Press.
Greenhaus, J. H., & Beutell, N. J. (1985). Sources and conflict between work and family roles. *Academy of Management Review*, *10*, 76–88.
Greenhaus, J. H., & Powell, G. N. (2003). When work and family collide: Deciding between competing role demands. *Organizational Behavior and Human Decision Processes*, *90*, 291–303.
Guendouzi, J. (2006). "The guilt thing": Balancing domestic and professional role. *Journal of Marriage and Family*, *68*, 901–909.
Harder, D. W., & Zalma, A. (1990). Two promising shame and guilt scales: A construct validity comparison. *Journal of Personality Assessment*, *55*, 729–745.
Hu, L. -t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55, doi:10.1080/10705519909540118.
Ilies, R., Schwind, K., Wagner, D. T., Johnson, M., DeRue, D. S., & Ilgen, D. R. (2007). When can employees have a family life? The effects of daily workload and affect on work–family conflict and social activities at home. *Journal of Applied Psychology*, *92*, 1368–1379.
Johnson, J. A. (2005). Ascertaining the validity of individual protocols from web-based personality inventories. *Journal of Research in Personality*, *39*, 103–129.
Judge, T. A., Ilies, R., & Scott, B. A. (2006). Work–family conflict and emotions: Effects at work and at home. *Personnel Psychology*, *59*, 779–814.
Kossek, E. E., & Ozeki, C. (1998). Work–family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior/human resources research. *Journal of Applied Psychology*, *83*, 139–149.
Leith, K. P., & Baumeister, R. F. (1998). Empathy, shame, guilt, and narratives of interpersonal conflicts: Guilt-prone people are better at perspective taking. *Journal of Personality*, *66*, 1–37.
Lewis, V., Tudball, J., & Hand, K. (2001). Family and work: The family's perspective. *Family Matters*, *59*, 22–27.
Livingston, B. A., & Judge, T. A. (2008). Emotional responses to work–family conflict: An examination of gender role orientation among working men and women. *Journal of Applied Psychology*, *93*, 207–216.
Lollis, S., & Kuczynski, L. (1997). Beyond one hand clapping: Seeing bidirectionality in parent–child relations. *Journal of Social and Personal Relationships*, *14*, 441–461.
Maccoby, E. (1980). *Social development—Psychological growth and the parent–child relationship.* New York: Harcourt Brace Jovanovich.
Major, D. A., Allard, C. B., & Cardenas, R. A. (2004). Child health: A legitimate business concern. *Journal of Occupational Health Psychology*, *9*, 306–321.
Martin, B. (1975). Parent–child relations. In F. D. Horowitz (Ed.), *Review of child development research*, *4*, Chicago: University of Chicago Press.
Meade, A., & Craig, S. B. (2011). Identifying careless responses in survey data. *Poster presented at the 26th Meeting for the Society of Industrial and Organizational Psychology, Chicago, IL.*
Morgeson, F. P., & Humphrey, S. E. (2006). The work design questionnaire (WFQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, *91*, 1321–1339.
Nock, S. L., & Kingston, P. W. (1988). Time with children: The impact of couples' work-time commitments. *Social Forces*, *67*, 59–85.
Peterson, N. G., Mumford, M. D., Borman, W. C., Jeanneret, P. R., Fleishman, E. A., Levin, K. Y., et al. (2001). Understanding work using the occupational information network (O*NET). *Personnel Psychology*, *54*, 451–492.
Roeters, A., Van der Lippe, T., & Kluwer, E. S. (2010). Parental work demands and the frequency of child-related routine and interactive activities. *Journal of Marriage and Family*, *71*, 1193–1204.
Silverman, R. E. (2010). A word on working parents and guilt. *Wall Street Journal* August 8. Online. http://blogs.wsj.com/juggle/2010/08/08/a-word-on-working-parents-and-guilt/
Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods*, *9*, 221–232.
Stewart, W., & Barling, J. (1996). Fathers' work experiences effect children's behaviors via job-related affect and parenting behaviors. *Journal of Organizational Behavior*, *17*, 221–232.
Tamis-LeMonda, C. S., Uzgiris, I. C., & Bornstein, M. H. (2002). Play in parent–child interactions. In M. H. Bornstein (Ed.), *Handbook of parenting* (pp. 221–241). Mahwah NJ: LEA.
Tangney, J. P. (1990). Assessing individual differences in proneness to shame and guilt: Development of the self-conscious affect and attribution inventory. *Journal of Personality and Social Psychology*, *59*, 102–111.