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Boundary-Spanning Work Demands and Their Consequences for Guilt and Psychological Distress

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Abstract

Using data from a national survey of working Americans (Work, Stress, and Health Survey; $N = 1,042$), the authors examine the associations between boundary-spanning work demands and self-reported feelings of guilt and distress. The authors document gender differences in the emotional and mental health consequences of boundary-spanning work demands, as indexed by the frequency of receiving work-related contact outside of normal work hours. Specifically, the authors observe that frequent work contact is associated with more feelings of guilt and distress among women only. Analyses also demonstrate that guilt accounts for the positive association between the frequency of work contact and distress among women. Statistical adjustments for levels of guilt reduce the positive association between frequent work contact and distress among women to nonsignificance. The findings underscore the importance of focusing on gender and emotions in work-family interface processes, as well as their implications for psychological health.

Keywords

boundary-spanning work demands, guilt, psychological distress, role blurring, work-family

Conflict between work and family domains represents a role-related stressor that many individuals experience in everyday life (Schieman, Milkie, and Glavin 2009). Work-family researchers have documented how this is associated with deleterious physical and psychological outcomes (Bellavia and Frone 2005). In this article, we expand upon this research by examining the psychological health consequences of a similar but distinct role-related experience: work-family role blurring. In addition, we consider guilt as an emotional response to role blurring, an important but understudied topic in the work-family literature (McElwain and Korabik 2005).

We focus on the blurring of work and family roles that occurs when individuals receive work-related contact outside of normal work hours. Voydanoff (2005) identifies this type of contact as a boundary-spanning work demand that has negative consequences for family role-functioning and well-being. While Voydanoff (2005)

focuses on how these demands increase distress by creating logistical work-family problems for workers and their families, we examine whether these demands also lead to specific emotional responses with harmful psychological health effects.

To date, work-family research has tended to neglect the emotional aspects of the work-family interface in favor of focusing on the resource-related challenges of combining multiple roles (Livingston and Judge 2008; Nippert-Eng 1996). While the work-family interface often involves dealing with competing demands on finite time or energy, individuals may also experience a range of

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emotions as they juggle the role responsibilities of work and home (Greenhaus, Allen, and Spector 2006). One potentially relevant emotional consequence of this involves guilt, especially if individuals negatively appraise their ability to adequately attend to work and family role demands (Stets and Turner 2006). Qualitative research has demonstrated the importance of guilt in work-family processes (Hochschild 1989; Simon 1995), but studies of guilt in larger population-based samples are rare. Furthermore, while it has been hypothesized that guilt may partially contribute to any positive association between work-family problems and well-being, no research exists to validate this link (Greenhaus et al. 2006).

In this article, we seek to: (1) document the associations between boundary-spanning work demands—in the form of work contact outside of normal work hours—and feelings of guilt and distress, (2) evaluate whether guilt contributes to any observed positive association between boundary-spanning demands and distress, and (3) assess potential gender contingencies in these processes. As we will describe in detail in the following, this third objective is important because some qualitative evidence has explicitly identified guilt as more relevant for women's experience in the work-family interface relative to men's (Simon 1995). We build directly upon that prior research by testing for similar patterns in a national sample of working women and men. To our knowledge, this is the first population-based systematic analysis that includes measures for a variety of work conditions, key characteristics of the work-family interface, feelings of guilt, and distress.

THEORY AND EVIDENCE

The Work-Family Interface and Psychological Distress

Scholarship on the conditions in the work-family interface has been driven by role-strain and role-spillover perspectives that define work-family conflict as “a form of inter-role conflict in which the pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus and Beutell 1985:77). Researchers have subsequently linked this role conflict with a range of negative mental health outcomes (Frone, Russell, and Cooper 1997; Matthews et al. 2006). However, recent theoretical developments, including Clark's (2000) border theory, have led some work-family scholars to consider experiences that

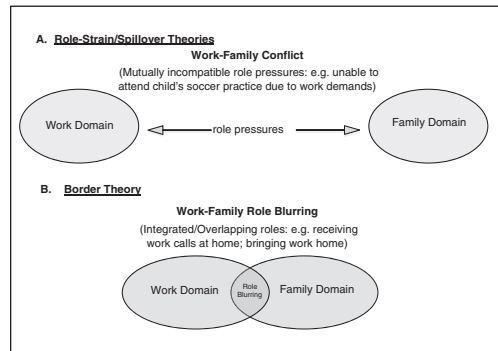


Figure 1. Work-Family Theoretical Perspectives

deviate from that of role conflict or role incompatibility and instead focus on those that involve role blurring. Desrochers, Hilton, and Larwood (2005) describe role blurring as: “a subjective, cognitive phenomenon involving perceived integration of work life and home life that is situated in a highly interdependent work-family context such as the simultaneous work and family demands that can be present when people bring their paid work into the home” (p. 449). While role blurring may appear conceptually similar to role conflict, it is rooted in a distinct theoretical perspective that emphasizes overlapping versus incompatible role domains (see Figure 1).

Role blurring has been of particular interest to researchers examining how recent social-structural changes in paid work and family have influenced role performance and well-being (Chesley 2005; Voydanoff 2005). Two recent trends have fueled this interest: (1) the increase in nonstandard and flexible work schedules and (2) the proliferation of communications technologies that allow work to be performed “anytime, anywhere” (Clark 2000; Vallas 1999). Traditional role-strain and -spillover theories that emphasize role conflict over other role configurations do not necessarily reflect the complexity and fluidity of the contemporary work-family interface (Clark 2000; Nippert-Eng 1996). Border theory (Clark 2000), in contrast, is more apt at interpreting these changes due to its emphasis on the contemporary worker as a “border crosser” who actively transitions between work and family domains. For example, a parent working at home on a weekend to meet a deadline or a call center worker making work calls from home are both likely to experience a high degree of role blurring, but they may not interpret this blurring as role conflict (Greenhaus et al. 2006). These experiences are of central interest in our analyses. Here, we seek to expand upon

Voydanoff's (2005) application of border theory in her analyses of the consequences of boundary-spanning demands—that is, demands that emanate in the work domain but influence the performance of family roles through role blurring.

While Voydanoff (2005) focused on an array of boundary-spanning demands, we examine one in particular: the extent that workers are contacted outside of normal work hours from an array of work sources (henceforth "work contact"). We limit our focus to work contact because of the growing use of communication technologies by workers—technologies that allow them to "be in two places" at the same time. With the exception of Voydanoff's (2005) research, the processes involving these technologies and their impact have not been adequately assessed in the work-family literature, which has emphasized the logistical and physical aspects of role conflict at the expense of experiential dimensions. Nippert-Eng (1996) observes these processes:

[The literature] repeatedly portrays role conflict as the demand to be in two places at the same time, or to do two things at one time, each associated with a different social role, and/or role-related other. In this light, role conflict is conceptualized in its visible forms, drawing attention away from its invisible roots. However, the inability to think with two different mentalities at the same time is at least as big a source of role and self conflict. (P. 209)

The use of technologies such as the cell phone and e-mail are relevant in this regard, since they may involve role blurring and transitions that are unexpected and often incongruent to the context in which the individual is currently immersed. For example, receiving work contact may force one to transition quickly from a family to a work mindset, potentially causing distress. Ashforth, Kreiner, and Fugate (2000) observe that such transitions require considerable psychological effort when they are unexpected, and they may disrupt one's ability to perform or concentrate on tasks. In support of these ideas, Voydanoff (2005) finds that work contact is associated with higher levels of distress in a national sample of U.S. workers, and this association is explained by the positive relationship between work contact and work-family conflict. Drawing upon that research, we expect to find a positive association between work contact and distress; moreover, work-family conflict should contribute to that relationship as a mediator.

In addition, we expand on Voydanoff's (2005) research by considering another emotional outcome of work contact: guilt. Greenhaus and colleagues (2006) suggest that guilt may be a common response to work-family challenges, given the salience of work and family to individual identity. Guilt may arise when work-related activities and responsibilities create discrepancies between an individual's desired family-role outcomes and actual outcomes. These outcomes can be extrinsic (e.g., having a tidy house) or intrinsic (e.g., evaluating oneself as a good parent). In the following section, we discuss these processes in detail by summarizing theoretical and empirical perspectives about guilt and the work-family interface.

Guilt and the Work-Family Interface

Sociologists who study emotions have argued that guilt represents an unpleasant thought or feeling that involves the violation of a moral or social standard (Stets and Turner 2006). These moral and social facets conceptually differentiate guilt from the common indicators of psychological distress such as depression and anxiety. Guilt is also distinguished from shame. While shame typically involves a negative appraisal of the global self, guilt is generally thought to result from negative evaluations of specific behaviors or thoughts based on the perception that one has "done a bad thing" (Judge, Ilies, and Scott 2006). Scholars describe guilt as having an adaptive component in that it can help individuals keep nonnormative behaviors in check and correct or avoid further problematic situations (Lewis 1993). Repeated or uncontrollable instances of guilt, however, may erode well-being (Ferguson et al. 2000). Consequently, it is not surprising that research has established a positive association between feelings of guilt and symptoms of psychological distress such as anxiety and depression (Jones and Kugler 1993).

While some researchers have hypothesized guilt as an expected emotional response to difficulties dealing with competing work and family demands (Duxbury and Higgins 1991; Greenhaus and Beutell 1985), direct empirical tests of its relevance are rare, and no studies to our knowledge have examined the link between role blurring and guilt in the population. While a few quantitative studies indicate that work-family conflict is linked to guilt, this evidence is limited by smaller, homogeneous samples (Judge et al. 2006; Korabik, McElwain, and Lero 2009; Livingstone and Judge 2008). However, these patterns are consistent with

qualitative evidence that individuals express feelings of guilt when they perceive they are unable to meet the demands or expectations associated with salient family roles (Napholz 2000). In addition, Korabik and colleagues (2009) show that guilt mediates the positive association between work-family conflict and distress among Canadian management workers. Collectively, these studies support the work-family model by Greenhaus and his colleagues (2006) that positions guilt as “an immediate psychological pathway through which psychosocial factors influence health” (p. 78). We expand on this model to posit that role blurring, as distinct from work-family conflict, may generate guilt for those who voluntarily choose or are forced to deal with work issues while at home. With these theoretical and empirical perspectives as a framework, we have two principal hypotheses: (1) More frequent work contact is associated with higher levels of guilt, and (2) guilt contributes to (or mediates) the positive association between frequent work contact and distress.

Potential Gender Contingencies

Because gender is both a principal component of social organization (Acker 1990; Britton 2000) and influential for social identities (Doucet 2006), we test for potential gender differences in the work-family processes described previously. There is considerable evidence that men and women continue to encounter different role meanings and obligations associated with culturally embedded ideologies about work and family life (Winslow 2005). While men have increasingly taken on more responsibility in the home (Bianchi, Robinson, and Milkie 2006), women continue to do the majority of domestic work and are still considered the primary source of child care in the family; these patterns exist despite a level of labor force participation for women that is increasingly similar to that for men (Jacobs and Gerson 2004). Thus, while women have made considerable advances into paid employment over the past 30 years, the gendered division of labor in the home has been much slower to change, particularly during the transition to parenthood (Walzer 1996). This “stalled revolution” has created new challenges for employed women, especially employed mothers, in the work-family interface (Hochschild 1989).

One challenge that women encounter involves work demands that spill over into the family domain. For men, who are still often evaluated against a masculine stereotype of being the “good

provider,” these demands may be more likely to be considered natural and acceptable (Christiansen and Palkovitz 2001). By contrast, for women, the exposure to work demands may create unique logistical concerns and status incongruencies that may lead them to question or negatively evaluate their performance of household and family roles. These tensions between work and family roles may be particularly pronounced given that many women now experience the pull of what Blair-Loy (2003) describes as the “work-devotion schema,” which “demands that [they] give an immense time commitment and strong emotional allegiance to [their] firm or career” (p. 7). Collectively, these ideas suggest that dealing with competing work and family demands may be more emotionally difficult for employed women compared to similarly situated men.

Given these moral and cultural foundations of work-family conflict, it is logical to expect that guilt could play a pivotal role. According to Hennessy (2009), “people’s worldviews and actions regarding work and family are not only or even primarily economic, strategic, or reactive but rather are imbued with moral significance and emotional salience” (p. 558). She underscores the “moral dilemma” that is intimately connected with work-family conflict—a dilemma that has direct implications for the highly moral emotion of guilt. In qualitative interviews with workers, Simon (1995) documents these processes and their connection to gender differences, observing that guilt is a key distinguishing feature of men’s and women’s experiences. Specifically, men tended to report that they felt that it was “natural” to combine work and family roles; by contrast, women reported feeling guilty about combining these roles. In particular, women were more likely to perceive that their employment prevented them from fulfilling their family responsibilities, and they were more likely than men to identify these as primary components of their identity. It is important to underscore here that Simon’s (1995) depiction of these experiences, as conveyed by the participants in her study, implicate a coherent conceptual framework in which guilt plays a central mediating role between work-family role blurring and more generalized feelings of distress or the diminished sense of psychological well-being. Taken together, we draw upon this conceptual model and empirical observations as a rationale for our final hypotheses: Receiving more frequent work contact should be more strongly associated with guilt and distress among women compared to men.

METHOD

Sample

We analyze data from the Work, Stress, and Health survey (WSH), which involved telephone interviews with adults in the 50 United States in 2005. The main objective of the larger project involved the application and extension of Pearlin's (1999) "stress process model" to understand the complex associations among work conditions, stressors, and well-being. Eligible participants were 18 years of age or older who were participating in the paid labor force. At wave 1, we interviewed 71 percent of eligible individuals, yielding a sample of 1,800 adults. At wave 2 interviews, which occurred approximately 18 to 20 months after the initial interview, we reinterviewed 1,286 of the original participants—equating to a response rate of 71.4 percent. We use data from this second interview because the focal measures of interest were only included in that interview. We excluded participants with missing values, yielding 1,042 cases for the present analyses.¹ Sample characteristics for wave 2 of the WSH study are similar to the population estimates of the U.S. Census Bureau's 2005 American Community Survey (ACS).² Some differences exist, however: Women are overrepresented in the WSH study (59 percent vs. 51 percent in the ACS), while WSH respondents are on average older (43 years vs. 36 years in the ACS) and more likely to be married (57 percent vs. 49 percent in the ACS). In addition, WSH respondents report higher household income and higher educational levels, on average, compared to ACS population estimates. We present these comparisons in greater detail in the appendix, along with selected sample demographics of the 2002 National Study of the Changing Workforce (NSCW). Comparisons to NSCW study reveal that the socioeconomic profiles of WSH respondents are similar.

Measures

Gender. We use a binary variable to measure respondent gender (coded 0 for men and 1 for women). Coefficients can be interpreted as the effect of being a woman versus being a man.

Guilt. We use a single item to assess feelings of guilt. Researchers have operationalized guilt in one of two ways: as a transitory affective state *or* as an emotional trait or disposition (e.g., guilt-proneness; Kugler and Jones 1992). We follow the former approach, asking, "In the past seven days, on how

many days have you felt guilty?" The validity of using a measure of this type has been supported by prior research (Tangney 1996), which suggests the value of a simple and direct mode of questioning over more complex or situation-based measurements that often confound moral affect with moral standards.

Psychological distress. We draw upon commonly used items to measure psychological distress based on the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff 1977). Despite strong arguments in the sociology of emotions literature about the conceptual distinctions between distress and guilt, we acknowledge that there is likely to be some empirical overlap. To attenuate that concern, we utilize a subset of distress items that tap the "malaise" aspects of distress (instead of mood). Four items asked about the number of days in the past seven that participants "felt that everything was an effort," "felt tired or run down," "had trouble keeping your mind on what you were doing," and "felt you couldn't get going." We averaged the items to create the distress index ($\alpha = .76$). Factor analyses indicate that each of these items load highly on one underlying factor that we call psychological distress.

Boundary-spanning work demands. We use one item to assess the frequency of exposure to work contact: "How often do coworkers, supervisors, managers, customers, or clients contact you about work-related matters outside normal work hours? Include telephone, cell phone, beeper and pager calls, as well as faxes and e-mail that you have to respond to." Response choices are coded as follows: *never* (1), *less than once a month* (2), *once a week* (3), *several times a week* (4), and *once or more times a day* (5). Individuals who reported that receiving work contact was "not relevant" for their job were coded as *never*. This measure has been used in the 2002 NSCW survey.

Work-family conflict. Four items assess the frequency that individuals experienced work-family conflict in the past three months: (1) "How often have you not had enough time for your family or other important people in your life because of your job?"; (2) "How often have you not had the energy to do things with your family or other important people in your life because of your job?"; (3) "How often has work kept you from doing as good a job at home as you could?"; (4) and "How often has your job kept you from concentrating on important things in your family and personal life?" Response choices are coded as *never* (1), *rarely* (2), *sometimes* (3), *often* (4), and *very often* (5). We averaged

items such that higher scores indicate higher work-family conflict ($\alpha = .85$). These items are used widely in the work-family literature and in respectable surveys, including the 2002 NSCW.³

Control Measures

Job authority. We use four items to measure authority: (1) "Do you influence or set the rate of pay received by others?"; (2) "Do you have the authority to hire or fire others?"; (3) "Do you supervise or manage anyone as part of your job?"; (4) and, if "yes" to question 3, "Do any of those individuals supervise or manage others?" We coded yes responses as 1 and no responses as 0. To create the index, we summed responses such that higher scores indicate more job authority.

Schedule control. We asked, "Who usually decides when you start and finish work each day at your main job? Is it someone else, or can you decide within certain limits, or are you entirely free to decide when you start and finish work?" We coded these responses into a set of dummy measures, including no schedule control, limited schedule control, and full schedule control. In regression analyses, individuals with no schedule control are the omitted/contrast category.

Job autonomy. One item asks, "How often does someone else decide how you do your work?" Response choices are *never* (1), *rarely* (2), *sometimes* (3), and *frequently* (4). We reverse-coded the responses such that higher scores indicate more job autonomy.

Job pressures. To assess job pressures, we asked, "How often do the demands of your job exceed those doable in an eight-hour workday?" Response choices are *never* (0), *rarely* (1), *sometimes* (2), and *frequently* (3).

Work hours. We use a set of dummy measures to contrast participants who work 50 hours or more per week with workers who work either 40 to 49 hours per week or fewer than 40 hours per week (i.e., 50 or more hours is the omitted reference dummy).

Occupation. We coded respondent occupation into five main categories in accordance with the Bureau of Labor Statistics codes. These include: (1) professional (managerial and professional specialty occupations), (2) administrative (technical, sales, and administrative support occupations), (3) service (service occupations), (4) craft (precision production, craft, and repair occupations), and (5) labor (operators or laborers). In regression analyses, we use professional as the omitted reference category.

Household income. We asked, "For the complete year of 2005, what was your total household income (in dollars), including income from all household sources, before taxes?" Respondents' household income is standardized.

Education. Education is an ordinal measure coded into six categories: some high school but did not graduate (coded 1), high school graduate/GED (2), specialized vocational training/some college (3), associate's degree (4), college graduate (BA or BS; coded 5), and postgraduate-advanced degree (MA, PhD; coded 6).

Marital status. We use a set of dummy measures to contrast married (omitted reference category) to never married and previously married in regression analyses.

Spouse work status. One item assesses whether participants have a spouse/partner who is currently working full-time (coded 1) versus all others (0).

Children in the household. We use a set of four dummy variables to contrast no children (omitted reference category) to children residing in the household younger than 18 using the following age categories: 0 to 6, 7 to 12, and 13 to 18.

Race. We use a binary variable to measure respondent race (coded 1 for white and 0 for all others).

Age. Respondent age is coded in years.

While these control measures are not part of our focal associations, a brief word is required about our rationale for their inclusion in the analyses. Age, marital status, and children in the household are basic control measures found in most work-family interface research. Education and occupation may also have important consequences for individual experiences of the work-family interface. For example, the well educated and professionals report higher levels of work-family conflict (Schieman, Kurashina, and van Gundy 2006). Finally, given that men tend to have higher status occupations with more autonomy and authority than women, we statistically adjust for these conditions as part of our analyses of gender contingencies involving contact and guilt/distress (Mennino, Rubin, and Brayfield 2005).

Plan of Analysis

After reporting descriptive statistics (Table 1), we present multivariate analyses in Tables 2 and 3 to test our hypotheses; all models use ordinary least squares (OLS) regression techniques. In Table 2, we examine how work contact and work-family conflict are associated with feelings of guilt. This

Table 1. Descriptive Statistics for All Study Variables

	Men (N = 430)	Women (N = 612)	Total (N = 1,042)	SD
Guilt	.678**	.980	.857	1.611
Distress	1.492***	1.962	1.771	1.622
Work contact	2.709***	2.306	2.470	1.243
Work-family conflict	2.329	2.334	2.333	.775
Authority	1.050**	.731	.860	1.188
Full schedule control	.234**	.157	.188	—
Some schedule control	.413	.361	.382	—
Job autonomy	2.603	2.516	2.555	.929
Job pressures	2.842	2.813	2.825	.808
Works fewer than 40 hours/week	.175***	.346	.276	—
Works 40 to 49 hours/week	.408	.464	.441	—
Works 50 or more hours/week	.417***	.189	.282	—
Professional	.320	.340	.332	—
Service	.120	.151	.138	—
Administrative	.277***	.455	.382	—
Craft	.150**	.012	.068	—
Labor	.134***	.042	.079	—
Household income (mean)	75,449.17*	58,707.87	65,203.16	12,587.20
Education	3.712	3.840	3.788	1.516
Married	.735***	.559	.630	—
Previously married	.127***	.272	.213	—
Never married	.138	.169	.157	—
Spouse works	.492	.489	.490	—
Number of children (0–6)	.188	.186	.187	—
Number of children (7–12)	.213	.217	.216	—
Number of children (13–18)	.210	.203	.206	—
White	.821**	.742	.774	—
Age	45.098	44.741	44.886	12.295

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests for differences between men and women).

involves regressing guilt as the dependent variable on work contact (model 1). In model 2, we include work-family conflict to examine its association with guilt as well as its potential contribution to any association between work contact and guilt observed in model 1. Finally, in model 3, we test whether the association between work contact and guilt differs for women and men. To do this, we created a gender interaction term with work contact and included it in model 3.⁴ All models adjust for control measures.

In Table 3, we examine the relationship between work contact and psychological distress. The first step involves regressing distress as the dependent variable on work contact (model 1). In model 2 we test for gender contingencies in the association between work contact and distress. Then, we include work-family conflict (model 3) and guilt

(model 4) to assess their influence on any associations observed in models 1 and 2. All models adjust for control measures. In addition, we use adjustment procedures in all OLS regression models and test for significant mediating effects among our focal associations (Sobel 1982). Finally, to detect multicollinearity, we reviewed the variance inflation factors (VIF) for all regression models, none of which appear problematic (i.e., $VIF \leq 2.00$; see Allison 1999).

RESULTS

Table 1 reports descriptive statistics for all variables examined in the multivariate analyses for the full sample and separately by gender. Women report higher levels of distress and guilt compared

Table 2. Regression of Guilt on Work Contact, Work-Family Conflict, and Controls (*N* = 1,042)

	Model 1	Model 2	Model 3
Focal associations			
Women	.212 (.114)	.176 (.114)	.158 (.113)
Work contact	.082 (.046)	.061 (.046)	-.063 (.066)
Work-family conflict	—	.305*** (.074)	.302*** (.075)
Work contact × women	—	—	.215** (.081)
Control measures			
Authority	-.129** (.047)	-.134** (.047)	-.126** (.047)
No schedule control (omitted)	—	—	—
Some schedule control	-.104 (.117)	-.095 (.116)	-.087 (.114)
Full schedule control	.012 (.154)	.048 (.153)	.083 (.153)
Job autonomy	-.061 (.056)	-.017 (.057)	-.017 (.056)
Job pressures	.144* (.068)	.036 (.072)	.038 (.072)
Works fewer than 40 hours/week	.140 (.153)	.217 (.150)	.228 (.150)
Works 40 to 49 hours/week	-.059 (.128)	.044 (.130)	.043 (.130)
Works 50 or more hours/week (omitted)	—	—	—
Service	-.040 (.176)	-.087 (.175)	-.069 (.174)
Administrative	-.105 (.128)	-.090 (.127)	-.091 (.126)
Craft	.266 (.230)	.278 (.225)	.262 (.225)
Labor	-.081 (.221)	-.093 (.219)	-.137 (.218)
Professional (omitted)	—	—	—
Household income	-.029 (.048)	-.038 (.047)	-.032 (.047)
Education	.037 (.039)	.036 (.039)	.032 (.038)
Married (omitted)	—	—	—
Previously married	.643*** (.153)	.676*** (.154)	.683*** (.154)
Never married	.042 (.172)	.068 (.170)	.095 (.171)
Spouse works	.124 (.129)	.156 (.129)	.176 (.128)
No children (omitted)	—	—	—
Number of children (0–6)	.313* (.140)	.303* (.139)	.311* (.137)
Number of children (7–12)	.089 (.127)	.083 (.126)	.086 (.125)
Number of children (13–18)	.041 (.125)	.018 (.125)	.012 (.122)
White	.123 (.121)	.126 (.119)	.108 (.118)
Age	-.005 (.005)	-.004 (.005)	-.004 (.005)
Constant	.358	-.271	-.260
<i>R</i> ²	.063	.077	.083

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p* < .05. *p* < .01. ****p* < .001 (two-tailed test).

to men. Men tend to report higher levels of work contact, longer work hours, schedule control, and job authority. Men are also more likely to be married, report higher household income, and work in craft and labor occupations; women are more likely to hold administrative occupations.

Guilt

In model 1 of Table 2, we observe that work contact is not significantly associated with higher levels of guilt. Overall, women and men report similar levels of guilt. As shown in model 2, work-family conflict is associated positively with guilt. In model 3, the positive coefficient for the work contact by gender interaction term indicates a positive association between contact and guilt among women only. Figure 2 illustrates this contingency. It is worth underscoring here that this gender contingency is observed independently of the level of work-family conflict. Moreover, all of these observations hold net of controls for a wide array of work and family role characteristics. Of note among these control measures, individuals with authority at work report lower levels of guilt, while job pressures are associated with higher levels of guilt. In addition, those who have been previously married and individuals with young children report higher levels of guilt.

Psychological Distress

In model 1 of Table 3, we find no evidence of a positive association between work contact and psychological distress. However, in model 2 we observe a significant gender contingency. The positive coefficient for the interaction between work contact and gender indicates that work contact is associated positively with distress among women only. In model 3, we find that work-family conflict is associated with higher levels of distress. Furthermore, the observed gender differences in the link between work contact and distress remains statistically significant with the inclusion of work-family conflict. Figure 3 illustrates this contingency. In model 4, the inclusion of guilt attenuates the coefficient for the interaction between work contact and gender to statistical nonsignificance. One interpretation is that the higher levels of guilt that women experience when they receive work contact (as documented in Table 2) contributes to the positive association between work contact and

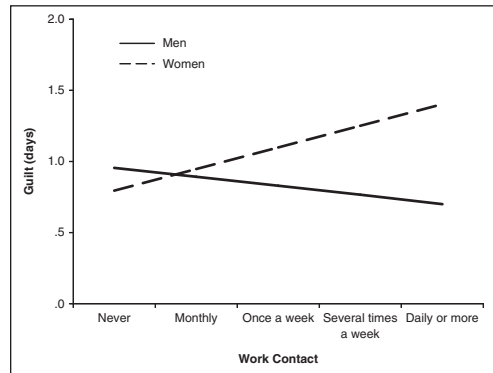


Figure 2. Gender Differences in the Association Between Work Contact and Guilt

Note: Predicted values shown here are derived from model 3 of Table 2. All control variables are held constant at their respective means. For categorical/contrast codes (i.e., occupation), we solved the equation using the modal response.

distress among women; this mediating link is statistically significant (Sobel test: $t = 2.37, p < .05$). The inclusion of guilt in the model also significantly attenuates the overall positive association between work-family conflict and distress among both men and women (Sobel test: $t = 3.72, p < .01$).

Examining the associations between control variables and distress, we observe that individuals reporting high levels of job pressures and those working long hours experience higher levels of distress, while those reporting job autonomy experience lower levels of distress (model 2). Once we control for work-family conflict, these associations become nonsignificant (in the case of job autonomy) or weakened (in the case of job pressures), indicating that the mechanism through which job pressures and job autonomy influence distress operates through their tendency to increase or decrease exposure to work-family conflict.

In summary, then, we find partial support for our hypotheses that work contact is positively associated with guilt and distress: Contact is associated with increased guilt and distress, but only among women. We also find some support for our hypothesis that guilt should partially mediate the positive association between work contact and distress; it does so only among women, however. Overall, our results provide broad support for the hypotheses about gender contingencies. Women experience higher levels of guilt and distress in response to work contact.

Table 3. Regression of Distress on Work Contact, Work-Family Conflict, Guilt, and Controls (N = 1,042)

	Model 1	Model 2	Model 3	Model 4
Focal associations				
Women	.420*** (.107)	.403*** (.107)	.328** (.103)	.279** (.097)
Work contact	.032 (.043)	-.079 (.062)	-.116 (.059)	-.097 (.055)
Work contact × women	—	.190* (.076)	.179* (.073)	.112 (.069)
Work-family conflict	—	—	.646*** (.068)	.553*** (.064)
Guilt	—	—	—	.309*** (.027)
Control measures				
Authority	-.065 (.044)	-.059 (.045)	-.069 (.042)	-.030 (.040)
No schedule control (omitted)	—	—	—	—
Some schedule control	-.112 (.110)	-.104 (.109)	-.085 (.105)	-.058 (.099)
Full schedule control	-.065 (.144)	-.034 (.145)	-.041 (.139)	.015 (.130)
Job autonomy	-.184*** (.053)	-.184*** (.047)	-.089 (.052)	-.085 (.048)
Job pressures	.392*** (.064)	.394*** (.064)	.166* (.066)	.154* (.062)
Works fewer than 40 hours/week	.030 (.144)	.041 (.143)	.203 (.139)	.133 (.131)
Works 40 to 49 hours/week	-.304* (.121)	-.303* (.120)	-.086 (.117)	-.099 (.096)
Works 50 or more hours/week (omitted)	—	—	—	—
Service	-.008 (.165)	-.022 (.165)	-.079 (.158)	-.057 (.149)
Administrative	-.122 (.120)	-.123 (.119)	-.093 (.114)	-.065 (.108)
Craft	.090 (.217)	.077 (.216)	.101 (.208)	.021 (.195)
Labor	-.148 (.207)	-.187 (.207)	-.212 (.198)	-.169 (.186)
Professional (omitted)	—	—	—	—
Household income	.071 (.045)	.076 (.044)	.052 (.043)	.066 (.040)
Education	-.158*** (.032)	-.161*** (.036)	-.164*** (.035)	-.174*** (.032)
Married (omitted)	—	—	—	—
Previously married	.495*** (.146)	.502*** (.146)	.570*** (.139)	.359*** (.132)
Never married	.055 (.162)	.079 (.162)	.139 (.155)	.103 (.146)
Spouse works	-.148 (.121)	-.128 (.121)	-.063 (.116)	-.117 (.109)
No children (omitted)	—	—	—	—
Number of children (0–6)	.212 (.131)	.218 (.132)	.198 (.126)	.101 (.119)
Number of children (7–12)	.141 (.103)	.088 (.119)	.075 (.114)	.049 (.108)
Number of children (13–18)	.056 (.118)	.050 (.118)	.003 (.113)	.001 (.106)
White	-.137 (.113)	-.153 (.113)	-.146 (.109)	-.180 (.102)
Age	-.020*** (.004)	-.020*** (.004)	-.018*** (.004)	-.016*** (.004)
Constant	2.664	2.668	1.337	1.417
R ²	.172	.176	.225	.338

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed test).
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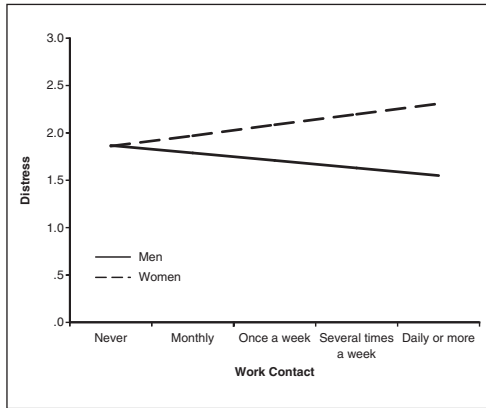


Figure 3. Gender Differences in the Association Between Work Contact and Distress

Note: Predicted values shown here are derived from model 3 of Table 3. All control variables are held constant at their respective means. For categorical/contrast codes (i.e., occupation), we solved the equation using the modal response.

DISCUSSION

While the mental health consequences of work pressures are well documented (Bellavia and Frone 2005; Tausig 1999), for many workers the stresses of the work role are not limited to the confines of the working day or their place of work. The proliferation of communication technologies in the past decade have made it increasingly easy for work to come home, forcing workers to deal with a new set of work-family challenges that have potentially deleterious consequences for well-being (Chesley 2005). In this article, we confirm and extend previous research that has documented the health consequences of boundary-spanning work demands (Voydanoff 2005). That is, while we find evidence that work contact is associated with elevated levels of distress for women, we also refine knowledge on this process by evaluating the ways that feelings of guilt act as a link to explain why individuals experience this contact as distressing. Our results demonstrate that guilt mediates the impact of work contact on distress for women. To our knowledge, ours is the first study of a broad cross-section of American workers to document the role of guilt in these processes.

Our efforts have also sought to respond to a call for research on work-family dilemmas that deviate from the traditional conception of work-family

conflict, but that may nevertheless have important consequences for well-being (Greenhaus et al. 2006). Here, the phenomenon of role blurring is especially relevant. While inhibited role performance is typically considered a necessary characteristic of work-family conflict, Greenhaus and colleagues (2006) point to everyday situations in which individuals engage in forms of role blurring that would not be considered role conflict—a parent who multitasks by taking work calls while driving his or her child to school, for example. The authors suggest that while situations of this type may not be identified as role conflict, they may still lead to feelings of guilt. Our findings support this proposition—but the patterns differ by gender. Women experience higher levels of guilt and distress when they receive work contact *even after* we statistically adjust for work-family conflict. Collectively, then, these results suggest that work contact may not necessarily inhibit the performance of domestic roles, but they still can have health implications in the form of negative self-appraisals and the feelings of guilt that may arise when the boundary separating work and family life becomes blurred. The cognitive or behavioral shift that occurs when an individual receives a work call or e-mail might be brief and otherwise nondisruptive; however, as some prior qualitative research has suggested (e.g., Simon 1995), the perception that they are failing to meet prescribed role expectations as a result of this shift may have negative consequences for well-being. The social-psychological and emotional dynamics involved in these processes—especially the interrelationships among uncontrollable work-related demands, negative self-appraisals, and feelings of guilt—deserve further attention.

Our findings generally support Simon's (1995) observation that guilt plays a central role in distinguishing women's work-family experiences from men's. Despite the empirical reality that family structures and parenting practices change with broader social and economic contexts (e.g., today dual-earner families outnumber the breadwinner/homemaker form), the gender contingencies that we find in the associations between work contact and guilt and distress suggests that salient gender differences remain with regard to work-family role expectations (Hochschild 1997). As we have discussed, our finding that women experience higher levels of guilt when they receive work contact outside of the workplace—even after we adjust for work-family conflict—is noteworthy because it

suggests that the challenges associated with attending to work and family demands are not solely logistical for women (e.g., allocating enough time or energy to roles). Rather, as others have documented, women's employment is often symbolically in competition with their ability to feel like good mothers—and motherhood is a highly rewarding identity for many women (Doucet 2006). We are not suggesting that work is not highly salient for women's identities or that family roles are less important for men. Instead, we are simply reiterating what Simon's (1995) research seems to indicate: Important differences may remain in the meanings that men and women ascribe to work and family roles and the ways in which conditions in these roles interact to influence well-being.

Several limitations of our research deserve brief mention. While the hypothesized linkages between our focal variables are consistent with prior theory and qualitative evidence, we are unable to test the causal ordering among the focal variables since several key measures were not included in the wave 1 survey. It is possible, for example, that individuals who already feel guilty and distressed about work are those people who constantly check their work e-mail or voicemail at home, potentially resulting in an ever-increasing spiral of work contact and negative emotions. Longitudinal analyses are therefore required to more accurately verify our claims. In addition, our interpretation of the association between work contact and guilt assumes that individuals experience guilt because of their inability to fulfill household role expectations. However, there is an alternative possibility that should be considered in future research: Work contact may be associated with guilt because some people may interpret this contact as an indication of unsatisfactory work-related performance, or that they have unfinished or newly arising work issues to deal with. That is, work spills into the home because they are somehow not adequately meeting the obligations of their paid work role.

With respect to the single item used to measure guilt, we recognize the value of multiitem indicators for establishing reliability and validity. Despite these weaknesses, we believe that the measure that

we use represents a direct and easy-to-interpret assessment of affective guilt, and one that avoids confounding guilt with other emotions or traits that more complex measures often suffer from (Kugler and Jones 1992). Regarding the gender differences that we find, we also lack the appropriate data on the salience of work and family role orientations that could empirically confirm our interpretations of these results. Finally, although our analyses statistically control for race and socioeconomic statuses, it may also be important to evaluate the ways that race and class combine (with gender) to influence the work-family processes examined here. For example, the prioritization of work and family may not operate uniformly across social statuses for women (Arendell 2000). Due to limited cell sizes, however, we were unable to provide credible estimates for race, class, and gender contingencies. Larger surveys with greater statistical power are likely required to test these complex but important contingencies.

CONCLUSION

While it is widely assumed that dealing with conflicting work and family demands represents one of the most common role-related stressors, other forms of work-family experiences remain understudied, along with the mechanisms that translate these experiences into poor health outcomes. This article advances knowledge on this subject by demonstrating the relevance of work-family role blurring and feelings of guilt, as well as the ways that men and women experience these processes differently. The gender contingencies that we find suggest that work-family researchers should remain sensitive to potential gender differences in the salience and meanings of work and family roles even when the economic and social structures that served as the basis for these gendered role identities have long since changed. The contradictions that emerge from these differences, as we show for employed women, may nevertheless have important consequences for psychological well-being.

Appendix

Demographic Comparisons to ACS 2005 Population Estimates and NSCW 2002 Sample

	WSH Wave 2 ^a	ACS 2005 ^b	NSCW 2002 ^c
Household income (median in dollars)	52,500	46,242	52,000
Education			
High school (GED equivalent, percent)	23	29	23
College degree (percent)	23	17	20
Postgraduate degree (percent)	18	9	13
Female (percent)	59	51	58
Married (percent)	57	49	57
White (percent)	78	75	81
Age (mean)	43	36	41

^aWork, Stress, and Health Study, 2006.

^bAmerican Community Survey, 2005.

^cNational Study of the Changing Workforce, 2002.

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NOTES

1. The attrition rate across waves 1 and 2 does not differ statistically by gender, income, job conditions, or children in the household. We did observe the following statistically significant patterns: Compared to those who did not respond to the second survey, individuals in the second wave are more likely to have a college degree (22 percent vs. 17 percent), are more likely to be married (58 percent vs. 45 percent), are older (45 vs. 38), are more likely to be white (77 percent vs. 67 percent), and report lower levels of distress.
2. The American Community Survey (ACS) is an ongoing survey conducted by the U.S. Census Bureau that is used to produce estimates on the characteristics of the United States population. The study replaces the decennial census long form, and since 2005 has collected information from approximately 2 million addresses in the United States annually. The 2005 sample consists of 1,924,527 households with a response rate of approximately 95 percent.
3. We conducted factor analyses to test for overlap between the work contact measure and the work-family

conflict construct: These analyses indicated that work contact did not load on the work-family conflict measure.

4. In additional analyses not shown, we tested whether the term for an interaction between gender and work contact was contingent upon race and social class statuses. This involved the creation and testing of three-way interaction terms involving race and class (e.g., Female × Work Contact × White; Female × Work Contact; Female × White; and White × Work Contact). We found no evidence of significant three-way interactions, however.

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