**Violating Work-Family Boundaries: Reactions to Interruptions at Work and Home**

Emily M. Hunter

Baylor University

Malissa A. Clark

The University of Georgia

Dawn S. Carlson

Baylor University

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***Corresponding author:*** Emily M. Hunter, Baylor University, One Bear Place #98006 Waco, TX 76798

***Email:*** Emily\_M\_Hunter@baylor.edu

**ABSTRACT**

Our study builds on recent trends to understand the work-family interface through daily experiences of boundary management. In particular, we investigated boundary violations, or events in which family life breaches the boundary of work and vice versa. Our purpose was to enlighten the process between violations and relevant outcomes, building on the foundations of affective events theory (AET) and boundary theory. Specifically, we aim to 1) tease apart boundary violations at work and at home from the established construct of work-family conflict, 2) explore the AET process through which cognitive and affective reactions to boundary violation events contribute to work-family conflict and satisfaction, and 3) examine both positive and negative reactions to boundary violations. Findings from a 2-week daily diary study of 121 employed participants partially supported our predictions. Boundary violations contributed to general perceptions of work-family conflict both directly and indirectly through cognitive appraisals of thwarted goals and, in the work domain, negative affective reactions. Violations were also related to satisfaction through goal appraisal. Finally, benefits in the form of positive affect were found from boundary violations due to facilitated goals in the interrupting domain.

***Keywords:*** Work-family conflict, boundary violations, affective events theory, goal conflict, satisfaction

**VIOLATING WORK-FAMILY BOUNDARIES: REACTIONS TO INTERRUPTIONS AT WORK AND HOME**

Balancing work and family demands is a constant struggle for employees worldwide that can take a harmful emotional, cognitive, and physical toll (Allen, Herst, Bruck, & Sutton, 2000). Furthermore, modern technology such as mobile phones tends to blur the lines between work and family domains with increased interruptions of each domain by the other. With limited hours in the day, it often seems that each interruption takes away from family to give to work (and vice versa), but could these interruptions have benefits as well as drawbacks? According to a survey by the Pew Research Center, 24% of mobile phone owners say the biggest drawback to owning a mobile phone is being constantly available to be reached by anyone at any time (Smith, 2012). Conversely, modern mobile phone users also appreciate the ease of communicating with members of work and family life thus helping them to meet goals both at work and at home.

To explore both positive and negative outcomes of the intersection between work and family, we dive deeper than past research and practice to focus on cognitive and affective reactions to boundary violations. Many organizations attempt to assist employees with work-family management through policies such as flextime, telecommuting and family-friendly benefits, but these work-family policies are not “one-size fits all” solutions that work well for every employee (Kossek, Baltes, & Matthews, 2011). Similarly, the last several decades of work-family research have focused on the construct of work-family conflict, or inter-role conflict between work and family domains (Greenhaus & Beutell, 1985), which lumps a range of employee experiences into one general construct. However, a number of studies have shown that work-family experiences fluctuate substantially from day to day (e.g., Butler, Grzywacz, Bass, & Linney, 2005; Sanz-Vergel, Demerouti, Moreno-Jiménez, & Mayo, 2010; Song, Foo, Uy, & Sun, 2011). Accordingly, recent research has focused on how an individual’s work and family roles intersect on a day-to-day basis.

Boundary theory conceptualizes work-family conflict as an accumulation of daily events called boundary violations (Ashforth, Kreiner, & Fugate, 2000). For example, an off-hours business meeting can violate family boundaries whereas a phone call from a family member can violate work boundaries (Kreiner, Hollensbe, & Sheep, 2009). According to Kreiner et al., “the teasing apart of violations from [work-family] conflict represents an important and fruitful finding, as it allows researchers to examine the conflict (general state) and the violations (specific events) separately and thereby understand the work-home balance process more fully” (p. 714). Thus, the focus of our study is on teasing apart boundary violation events from work-family conflict to both add a clearer understanding of the process through which boundary violations influence conflict and to explore positive affect as a potential benefit of violations. Our ultimate goal is to further refine boundary theory through better understanding of the cognitive underpinnings of boundary violations so that we may inform implementation of broader organizational work-family policies that minimize harmful and maximize beneficial employee outcomes.

One crucial contribution we make to the existing literature is to provide a theoretical framework and episodic approach to understanding the process underlying the experience of boundary violations. A focus on the process linking boundary violation events to outcomes is critical, because the extent to which individuals appraise the boundary violation event positively or negatively, they may experience very different outcomes. This idea has been supported by Butts and colleagues (2015) who found that depending on the affective tone of electronic communication, individuals experienced either anger or happiness. However, this study limited boundary violations to receiving electronic communication from work while at home and studied affective mediators without exploring the complementary cognitive process workers utilize to appraise violation events. Thus, the present study draws on Affective Events Theory (AET; Weiss & Cropanzano, 1996) to explicate the cognitive and affective reactions to violations. We apply AET to suggest that reactions to boundary violations can be both positive and negative due to concurrent goals, some of which are facilitated and others are obstructed by even a single violation event. In this way, a boundary violation can actually result in positive affective reactions (i.e., positive affect) and negative affective reactions (i.e., negative affect) as well as increased work-family conflict and reduced satisfaction with investment in that domain (see the full proposed model in Figure 1).

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Insert Figure 1 about here

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A second contribution of the present study is that we explore both positive and negative outcomes of daily boundary violations. Typically, investigations of work-family dynamics in general and boundary violations/interruptions specifically posit only negative effects (Allen et al., 2000; Derks et al., 2014; Nohe, Meier, Sonntag & Michel, 2015; Smit et al., 2016). In order to provide a fuller picture of the potential asymmetrical effects of boundary violations, we also examine positive affect generated as a result of boundary violations. A boundary violation may allow individuals to meet a need in a competing domain (e.g., coordinating schedules with a spouse or checking in on a child), as such creating positive affect in the current domain (e.g., work).  We examine this both from the work and family perspectives.

A third contribution is that we capture a range of boundary violation events in the work and home domains. A few studies have begun to investigate specific forms of boundary violations in the form of smart phone use during off-job time (Butts, Becker, & Boswell, 2015; Derks, Bakker, Peters, & van Wingerden, 2016; Ferguson, Carlson, Boswell, Whitten, Butts, & Kacmar, 2016; Derks, van Mierlo, & Schmitz, 2014), being “on call” during evenings and weekends (Dettmers, Vahle-Hinz, Bamberg, Friedrich, & Keller, 2016), and cognitive role transitions (Smit, Maloney, Maertz, & Montag-Smit, 2016). These studies suggest that boundary violations at home are associated with work-related exhaustion, discrete emotional states (i.e., anger, happiness), as well as poorer next day morning mood (Butts et al., 2015; Derks et al., 2014; Dettmers et al., 2016). Moreover, psychological detachment, feelings of control, the affective tone and length of the boundary violation, and segmentation preference are important factors influencing the extent to which boundary violations at home negatively affected individuals. Meanwhile, boundary violations at work have been found to be related to decrements in job performance partially through self-regulatory depletion (Smit et al., 2016). While these studies provide preliminary evidence of various factors underlying the process of experiencing a specific boundary violation either at home or work, the present study is the first (to our knowledge) to examine the cognitive and affective mechanisms through which a wide range of boundary violation events occur both at work and at home at the daily level.

Additionally, Shockley and Allen (2015) examined antecedents of a work-family episode (in which individuals make explicit decisions to choose work over family or family over work), but in the present study we focus on attributions about and outcomes of boundary violations. Measuring boundary violations each day also overcomes noted limitations of traditional between-person measures of work-family conflict that require respondents to remember and recall a range of conflict events over long periods of time (Maertz & Boyar, 2011). This focus on day-to-day experiences of boundary violations also takes a step toward answering the call for more person-centric work-family research (Weiss & Rupp, 2011). Specifically, using a person-centric approach, the present study separates the experience of a boundary violation from the reactions to that boundary violation in an attempt to understand what these violation events *mean* to a person, and how these appraisals of the event relate to negative and positive outcomes.

**THEORETICAL OVERVIEW**

Boundary theory views boundaries, or demarcations, between work and family roles as socially constructed; individuals actively create, maintain, and modify their boundaries (Ashforth et al., 2000). Although socially constructed, boundaries tend to have both a time (e.g., work hours) and space (e.g., work building) component. According to boundary theory, boundaries have two key related characteristics: flexibility, or ability to leave one domain to address demands of another domain, and permeability, or elasticity of boundaries to allow intrusions (Nippert-Eng, 1996). Boundaries that are flexible tolerate exiting one role to enter another, such as leaving work to pick up a sick child. Boundaries that are permeable are weak or porous boundaries that allow another role to interfere, such as when one’s job allows personal phone calls.

Instances when boundaries surrounding the work and family domains are crossed are referred to as role transitions (Ashforth et al., 2000) or boundary violations (Kreiner et al., 2009). Role transitions are psychological movements between roles, such as between roles of employee and parent, which cross socially constructed boundaries around role-relevant domains (Ashforth et al., 2000). Kreiner et al.’s (2009) notion of boundary violations is a more specific form of role transition, defined as “an individual’s perception that a behavior, event, or episode either breaches or neglects an important facet of the desired work-home boundary” (p. 713). Boundary violations are also closely related to an interruption, or “an externally generated, temporary cessation in the current flow of behavior” (Van den Berg, Roe, Zijlstra, & Krediet, 1996, p. 236). We draw on AET to expand upon boundary theory and elucidate the effects of boundary violations.

**Affective Events Theory**

AET focuses on how specific events induce attitudes and behaviors through the process of cognitive and affective reactions (Weiss & Cropanzano, 1996). Generally, the model proposes that positive events illicit positive affect and negative events illicit negative affect. In turn, affect can lead to behaviors directly (i.e., affect-driven behavior) and indirectly through attitudes (i.e., judgment-driven behavior).

Support has been found for an AET approach to the work-family interface (Carlson, Kacmar, Zivnuska, Ferguson, & Whitten, 2011; Ilies, Schwind, Wagner, Johnson, DeRue, & Ilgen, 2007), but here we apply AET to build on boundary theory. AET is an event-focused theory and thus it fits well with the episodic approach of boundary management. Considering Shockley and Allen (2015) demonstrated that individuals undergo decision-making processes when faced with a conflict between work and family domains, we extend this process to include goals and affect. We propose that boundary violations (at work and at home) will be affect-inducing events as employees are interrupted from their task to handle an other-domain task or interact with an other-domain participant. However, the process by which boundary violations lead to negative or positive affect and subsequent attitudes can be explained by the individual’s cognitive processing of the event as obstructing or facilitating one’s goals. This cognitive process is summarized by Weiss and Cropanzano as primary and secondary appraisal.

In the phase of primary appraisal, an individual assesses whether the event is relevant and important by referring to the individual’s set of personal goals (Lazarus, 1991). As Stein, Trabasso, and Liwag (1993) suggest, “people’s knowledge about goals, the value that these goals hold, and the outcomes associated with goals (e.g., attainment, maintenance, avoidance, escape) are central to the evocation of emotion” (p. 280). The cognitive process may include questions such as: is the boundary violation event relevant to a particular personal goal, and if so, is the boundary violation event consistent (facilitative) or inconsistent (obstructive) with that goal?

Additionally, people usually have more than one goal at a time (Riediger & Freund, 2004) and boundary theory indicates these goals may refer to both the work and family domain. For instance, an employee who receives a boundary violation at work (e.g., a phone call from his wife during work hours about changing dinner plans that evening) will initially assess whether the phone conversation is relevant to any of his goals, such as a goal to coordinate with his wife about family matters and a goal to finish his work project by the end of the day. If the conversation with his wife serves to help him meet his goal of improved family coordination, then he may appraise that boundary violation event as facilitating this family-related goal. Simultaneously, he may appraise the time he spent on the phone with his wife as detrimental to his aim to finish the work project thereby hindering a work-related goal. Research has shown events can simultaneously conflict with one goal while facilitating another goal (Boudreaux & Ozer, 2013).

Secondary appraisal adds meaning to the individual’s appraisal of the event or an affective reaction as a result of this cognitive appraisal of the event. In this second phase of appraisal, one evaluates the impact of the event on their personal well-being (Lazarus, 1991). It is widely understood among cognitive theorists that the secondary appraisal is when affect is elicited (e.g., Lazarus, 1991), but the valence of the affect will often reflect the outcome of the primary appraisal. Thus, if a boundary violation event is appraised as facilitating a personal goal, then positive affect will follow. If a boundary violation event is appraised as obstructing a personal goal, then negative affect will follow (Locke & Latham, 1990). Carver and Scheier (1990) refine this process further to suggest that discrepancies in the cognitive appraisal process associated with more progress toward goals generates more positive affect but discrepancies associated with less progress toward goals generates more negative affect.

**Hypothesis Development**

As elucidated above**,** AET outlines the cognitive processes individuals undergo each time a boundary violation event breaches work-family boundaries. Primary appraisal describes how boundary violation events generate a cognitive appraisal of the event as goal obstructing and/or goal facilitating; secondary appraisal adds meaning to individuals’ appraisal of the event and is when a resulting affective experience is elicited. Thus, the more unfavorable (i.e., goal obstructing) an individual’s appraisal of a boundary violation, the more likely they are to experience negative affect. Conversely, the more favorable (i.e., goal facilitating) their appraisal of that boundary violation, the more likely they are to experience positive affect. Past research and theory supports each of these proposed relationships. Specifically, studies have found a relationship between goal obstruction and negative affect and indicators of poor well-being (Boudreaux & Ozer, 2013; Carver & Scheier, 1990; Riediger & Freund, 2004; Wiese & Salmela-Aro, 2008), and between goal facilitation and positive affect (Boudreaux & Ozer, 2013) and enhanced well-being (Wiese, 2007; Wiese & Salmela-Aro, 2008).

Consistent with boundary theory and research support that people usually have multiple simultaneous goals (Riediger & Freund, 2004), we predict that boundary violations will be appraised in reference to both work goals and family goals. A boundary violation at work (when family interrupts work) is likely to obstruct work goals due to the fact that they had to stop working during the boundary violation. A violation is an instance of time-based role conflict where an individual must transition from one role to another as “multiple roles may compete for a person’s time” (Greenhaus & Beutell, 1985, p. 77). Such an interruption draws attention away from where attention was focused before the interruption (Baddeley, 1972). The notion of time constraints around boundaries (Ashforth et al., 2000) and limited cognitive resources (Hobfoll, 1989; Smit et al., 2016) implies that time can only be spent focusing attention on work or family at one time, and time spent on one domain necessarily reduces time spent on the other domain. This should lead to an appraisal of goal obstruction of the domain where attention was neglected during the violation event. At the same time, that boundary violation at work will likely be appraised as facilitating family goals because the individual is using the interruption time to direct attention toward family members and family goals.

In response to a boundary violation at work, when individuals appraise boundary violations as obstructing their work goals, AET suggests this will result in a negative affective experience. On the other hand, because individuals are attending to needs of their family, that same boundary violation is also likely to be appraised as facilitating family goals which will result in a positive affective reaction. In a similar fashion, boundary violations at home during non-work hours (when work interrupts family) may thwart family goals while at the same time facilitate work goals. In response to a boundary violation at home, individuals are likely to appraise that boundary violation as obstructing their family goals (because it is taking attention away from family time), which will result in a negative affective reaction to the boundary violation at home. Conversely, that same boundary violation at home may also be appraised as facilitating one’s work goals as the time is used to coordinate with work members or accomplish work tasks, which will result in a positive affective reaction. Hence, we propose that both positive and negative affective states can result from a single boundary violation, which further illustrates the critical importance of capturing the cognitive appraisal that precedes affect. Based on AET and boundary theory, we posit that goal obstruction and facilitation will fully mediate the path from boundary violations to negative and positive affect, respectively.

*Hypothesis 1a*: *Work goal obstruction mediates the relationship between boundary violations at work and negative affect at work.*

*Hypothesis 1b*: *Family goal facilitation mediates the relationship between boundary violations at work and positive affect at work.*

*Hypothesis 2a*: *Family goal obstruction mediates the relationship between boundary violations at home and negative affect at home.*

*Hypothesis 2b*: *Work goal facilitation mediates the relationship between boundary violations at home and positive affect at home.*

**OUTCOMES OF BOUNDARY VIOLATIONS**

**Work-Family Conflict**

Work-family conflict is important because it has been linked to a number of detrimental outcomes, including increased depression, stress, and health problems (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). We view work-family conflict through the lens of AET as inter-role conflict manifested through specific experiences of boundary violation events. In other words, work-family conflict is perceived as an accumulation of boundary violations across the day (Ashforth et al., 2000; Kreiner et al., 2009).

In line with boundary theory, we expect more frequent and intense boundary violations in a given domain will be associated with greater perceptions of work-family conflict. Specifically, a boundary violation episode requires an individual to manage thoughts and behaviors relating to another life domain, interrupting one’s current domain; such interference has been said to lead to reactions of work-life conflict (Edwards & Rothbard, 2000). Thus, when an interruption occurs at work, individuals will be more likely to appraise the boundary violation as family interference with work, and when an interruption occurs at home, individuals will be more likely to appraise the boundary violation as work interference with family. Boswell and Olson-Buchanan (2007) found that use of communication technologies (e.g., email) at home after work hours, one specific type of boundary violation, was associated with greater work-to-family conflict. Butts and colleagues (2015) also found that greater time required by electronic communication at home was associated with greater work-to-family conflict. In the work domain, Smit and colleagues (2016) examined work-family cognitive role transitions, or episodes in which individuals at work thought about family, and found that increased cognitive role transitions were related to greater self-regulatory depletion and lower job performance. Taken together, these studies suggest that individuals are indeed appraising a boundary violation as one in which the other domain is interfering with their experience in the present domain. Thus, we would expect boundary violations at work to be directly related to higher perceptions of family-to-work conflict, and boundary violations at home to be directly related to higher perceptions of work-to-family conflict.

*Hypothesis 3a*: *Boundary violations at work are positively associated with family-to-work conflict.*

*Hypothesis 3b: Boundary violations at home are positively associated with work-to-family conflict.*

Moreover, we expect that the process will be partially mediated by goal obstruction and negative affect. According to AET, when a boundary violation occurs (i.e., an emotion-generating event), the affective reactions will be related to the significance of that boundary violation (i.e., primary appraisal) as well as the personal and environmental factors affecting the specific context in which the boundary violation takes place (i.e., secondary appraisal; Weiss & Cropanzano, 1996). A boundary violation in one domain may be perceived as thwarting one’s set of goals and values relating to that role (goal obstruction) because when one attends to the boundary violation, they are forced to allocate time and attention away from their current role in order to manage issues pertaining to another role. This primary appraisal process is followed by an interpretation of other factors such as the amount of effort needed to cope with the violation as well as the anticipated outcome of their actions which generates negative affect. Prior research has shown that work-related frustration events engender negative affective responses (Chen & Spector, 1992) and work-family conflict has been linked to trait negative affectivity (Allen, Johnson, Saboe, Cho, Dumani, & Evans, 2012) as well as state negative affect (Ilies et al., 2007). Note that this process is focused within a domain rather than on well-documented spillover effects of affect across domains (e.g., Ilies et al., 2007), but a within-domain focus is necessary to fully describe the process by which boundary violations accumulate to perceptions of work-family conflict relevant to that domain. Thus, we predict when reflecting at bedtime about their work-family conflict for the day, the accumulation of goal obstruction appraisals and negative affective reactions will be associated with an overall assessment of work-family conflict for that day.

*Hypothesis 4a*: *Work goal obstruction and negative affect at work partially mediate the relationship between* *boundary violations at work and family-to-work conflict.*

*Hypothesis 4b: Family goal obstruction and negative affect at home partially mediate the relationship between* *boundary violations at home and work-to-family conflict.*

**Satisfaction with Investment in Current Domain**

Satisfaction with investment in the work and family domains refers here to the daily experience of satisfaction regarding how much time and attention an individual devotes to the current domain. AET was developed to help explain the process behind the core attitude of satisfaction (Weiss & Cropanzano, 1996), so satisfaction is another appropriate outcome to investigate in this study. Domain satisfaction in general is associated with many critical outcomes such as work-family conflict, work-family enrichment and work-family balance (Carlson, Grzywacz, & Kacmar, 2010; Carlson, Hunter, Ferguson, & Whitten, 2014; Ferguson, Carlson, Zivnuska & Whitten, 2012). Rather than looking at satisfaction as a general or global attitude about one’s job, we focus instead on a more specific facet of satisfaction that is temporal and episodic in nature: satisfaction with investment in the current domain. Because this particular facet of job satisfaction is more abstract compared to other facets such as satisfaction with pay or promotion, which are associated with evaluations of concrete objects, it is more likely to be influenced by transient mood states (Weiss, 2002).

Depending on the specific boundary violations that occur on a given day, one’s satisfaction of investment of time and attention in the current domain would be expected to fluctuate. This is in line with boundary theory, which rests on the notion that boundaries are breached at a specific point in time with temporal outcomes (Ashforth et al., 2000). We propose boundary violations and their associated goal obstruction and negative affect reactions will hinder satisfaction with investment in the current domain.

According to AET, a boundary violation is perceived as obstructing goals related to the interrupted domain which generates a negative affective reaction. The negative affective responses across the day will then accumulate to influence an overall attitude that evening of low satisfaction with investment with members of the relevant domain. For instance, when an employee experiences frequent boundary violations (such as urgent emails) from a supervisor while at home one evening, they are likely to appraise these interruptions as hindering their family goals that evening, triggering a negative affective reaction to these interruptions of family time. That negative affect in turn will be related to less satisfaction with their investment of time and attention towards family members that day. Prior research has shown that work-related frustration events engender negative affective responses (Chen & Spector, 1992) and negative affect has been linked to within-person job satisfaction (Dimotakis, Scott, & Koopman, 2011; Gabriel, Diefendorff, Chandler, Moran, & Greguras, 2014) and work-family balance satisfaction (Wayne, Butts, Casper, & Allen, 2015). Meta-analytic evidence also supports a relationship between negative affect and between-persons job satisfaction, with a stronger causal relationship found for affect predicting job satisfaction than the reverse (Bowling, Eschleman, & Wang, 2010).

*Hypothesis 5a*: *Work goal obstruction and negative affect at work mediate the relationship between* *boundary violations at work and satisfaction with investment in work.*

*Hypothesis 5b: Family goal obstruction and negative affect at home mediate the relationship between* *boundary violations at home and satisfaction with investment in family.*

**METHOD**

**Participants**

We recruited 121 employed participants (71% female) who were married or in committed relationships from across the United States as part of a larger data collection effort. The average age was 36 years (*SD* = 10 years, range = 23 to 62 years), and the average job tenure was 6 years (*SD* = 7 years). All participants held a GED or high school diploma, 19% attended some college, 9% held associate’s degrees, and 65% held bachelor’s degrees or higher. A majority of participants identified themselves as White/Caucasian (87%), while 7% as Hispanic/Latino, and 3% as Asian/Pacific islander, 2% identified as African American, and 1% identified themselves as “other.” Participants reported an average relationship length of 11 years (*SD* = 9 years). Fifty-five percent of the participants had children living at home.

**Procedure**

In order to examine daily affective states, daily diary methodology was utilized. Eligibility requirements for all participants included living in the US, working 35 hours or more per week, and married or in a committed relationship and currently living with spouse/partner. We also required that participants worked somewhat “traditional” business hours such as 8am-5pm on Monday through Friday, given that our surveys were delivered at specific times of the day based on this standard work schedule.

Participants were recruited using two methods. First, we obtained permission from two hospitals to recruit among department leaders and staff at affiliated clinics. We advertised our study at leadership meetings and directly to clinic staff in administrative positions. Of the estimated 200 people we approached, 64 consented and began the study (32% response rate). Second, we recruited through advertisements on online forums, discussion boards, and social media sites. Interested participants filled out a detailed screening survey (451 responses) and 199 were determined as eligible but 146 consented. Combined with the hospital employees this resulted in 210 participants who began the study. After 89 participants withdrew from the study before or on the first day of data collection, we had a final sample of 121 participants.

Participants completed an initial questionnaire with demographics. The daily diary phase of the study lasted ten consecutive working days not including weekends. During this phase, participants were surveyed three times each work day: morning, prior to leaving work at the end of the work day, and at bedtime. Participants were mailed a $50 gift card for completing 80% or more surveys or a $10 gift card for completing 10-80% of surveys.

The morning survey assessed participants’ morning positive and negative affect and their level of fatigue to control for factors that may influence boundary violations and other study outcomes (n = 1117 out of 1210 possible participant days). The end of workday survey assessed work boundary violations (n = 1112). If participants reported one or more instances of boundary violations (70% of end of workday surveys), then the online survey provided questions about affect and perceptions of goal obstruction and facilitation following work boundary violations. The bedtime survey assessed boundary violations at home, work-family conflict, and satisfaction with investment in work/family (n = 1043). If participants reported one or more instances of boundary violations (30% of bedtime surveys), then they responded to questions about affect and perceptions of goal obstruction and facilitation following boundary violations at home. All surveys were date/time stamped, and surveys completed outside of reasonably identified timeframes were removed from the study.

**Measures**

All measures utilized a response scale of 1 = “strongly disagree” to 5 = “strongly agree” unless otherwise noted.

**Boundary violations.** Boundary violations were measured with two scales specifically developed for this study based on Kreiner et al.’s (2009) definition of boundary violations and Ashforth et al.’s (2000) definition of micro role transitions. The three-item scale to assess boundary violations at work used the item stem “Today at work. . .” and included the following items: “family life has interrupted my work more than I desire,” “family life has violated my work-family boundary more than I desire,” and “I found it mentally effortful to switch from my *work* role to my *family* role and back” (α = .95). The three-item scale to assess boundary violations at home used the item stem “Since leaving work today. . .” and the above items were rewritten to focus on work violating family (α = .95). A multilevel confirmatory factor analysis (CFA) conducted in Mplus 7.3 on all six boundary violation items demonstrated acceptable fit for a within-persons two-factor model (χ2 (8, *N* = 1067) = 20.41, *p* < .01; CFI = 1.00, TLI = .99, RMSEA = .04, SRMR for within = .03, SRMR for between = .01).

**Goal obstruction and facilitation.** Goal obstruction and goal facilitation were measured with items adapted from Wiese and Salmela-Aro (2008). On the end of workday survey, participants were presented with the stem, “When family interrupted your work today, to what extent…” followed by the items “did the interruption prevent you from obtaining your *work* goals today?” for work goal obstruction and “did the interruption help you attain your *family* goals today?” for family goal facilitation. On the bedtime survey, participants were presented the stem, “When work interrupted your family time today, to what extent…” followed by “did the interruption prevent you from obtaining your *family* goals today?” for family goal obstruction, and “did the interruption help you obtain your *work* goals today?” for work goal facilitation. The response scale ranged from 1 = “not at all” to 5 = “a lot.”

**Affect following boundary violations.** Following the model of Sonnentag, Mojza, Binnewies, and Scholl (2008), affect following boundary violations was assessed using 12 items based on the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). For affect following boundary violations at work, participants were asked, “When family interrupted my work today, I felt…” followed by six positive adjectives (active, interested, excited, strong, inspired, and alert; α = .93) and six negative adjectives (distressed, upset, irritable, nervous, jittery, and afraid; α = .90). For affect following boundary violations at home, participants were asked, “When work interrupted my family time today, I felt…” followed by the same set of positive (α = .94) and negative adjectives (α = .94). Responses ranged from 1 = “very slightly or not at all” to 5 = “extremely.”

**Satisfaction with investment in work/family.** We created items for this study to assess a specific facet of satisfaction in terms of satisfaction with investment in work and family. Two items for satisfaction with investment in work included “Today I feel satisfied with the amount of time I devoted to my job” and “Today I feel satisfied with the amount of attention I gave to my job” (*r* = .92). Two items for the family domain were identically worded but replaced “job” with “family” (*r* = .97). All items were assessed at bedtime.

**Work-family conflict.** *Family-to-work conflict*and *work-to-family conflict* were each measured with the work-family conflict scale developed by Gutek, Searle, and Klepa (1991), which we adapted to reflect conflict experienced at the daily level. Three items assessed family-to-work conflict (α = .81), and three items assessed work-to-family conflict (α = .82). An example work-to-family conflict item is, “I came home from work today too tired to do some of the things I’d like to do.” We tested a multilevel CFA including these items and the items for boundary violations to provide evidence for discriminant validity between these two related constructs. A chi-square difference test confirmed that a CFA with boundary violations and conflict loading on separate latent within-person factors fit significantly better (work model: χ2 (8, *N* = 1021) = 99.01, *p* < .01; CFI = .98, TLI = .94, RMSEA = .11, SRMR for within = .13, SRMR for between = .06; home model: χ2 (8, *N* = 1048) = 30.02, *p* < .01; CFI = .98, TLI = .93, RMSEA = .05, SRMR for within = .04, SRMR for between = .01; χ2 diff *p* < .01) than a CFA with boundary violations and conflict loading on the same latent factor (work model: χ2 (9, *N* = 1021) = 818.48, *p* < .01; CFI = .86, TLI = .54, RMSEA = .30, SRMR for within = .24, SRMR for between = .04; home model: χ2 (9, *N* = 1048) = 139.08, *p* < .01; CFI = .89, TLI = .64, RMSEA = .12, SRMR for within = .08, SRMR for between = .02), supporting discriminant validity. We also fitted a CFA of our full model to confirm that all items loaded on their respective measures in the work model (χ2 (466, *N* = 1102) = 1586.85, *p* < .01; CFI = .91, TLI = .89, RMSEA = .05, SRMR for within = .08, SRMR for between = .08) and home model (χ2 (466, *N* = 1085) = 1283.34, *p* < .01; CFI = .92, TLI = .91, RMSEA = .04, SRMR for within = .07, SRMR for between = .11).

**Control variables.** Because an individual’s daily affect and fatigue may influence experiences of and reactions to daily boundary violations, we controlled for positive and negative affect and fatigue as reported in the morning survey. Positive (α = .96) and negative (α = .89) affect were assessed with the affect items described earlier and fatigue (α = .93) was measured with a 4-item fatigue subscale (Sonnentag, Binnewies, & Mojza, 2008).

**Data Analysis**

Because this study involves multilevel data (assessment of constructs both across individuals but also within the same individual over multiple assessments), multilevel SEM with Mplus 7.3 (Muthén & Muthén, 1998-2012) was used to test all hypotheses. Multilevel SEM applies traditional hierarchical linear modeling theory using an SEM analytical framework (Mehta & Neale, 2005). This methodology allows researchers to analyze mediated relationships among variables with data collected at multiple time points while simultaneously estimating within and between person effects. Hypotheses were analyzed at the within or event-level, while estimating a null model with covariances between all variables at the between or person-level. All disturbance terms were free to covary at the between-level. At the within-level, goal facilitation was allowed to covary with goal obstruction, positive affect was free to covary with negative affect, and control variables were free to covary with all variables in the model. Estimates for direct and total effects were tested for significance with 95% confidence intervals (CIs) based on normal approximation. Estimates for indirect effects were tested for significance with Monte Carlo 95% CIs.

**RESULTS**

**Decomposition of Variance**

We first tested if there was sufficient variance at the within- and between-person levels to justify multilevel modeling. We used the intra-class correlation coefficient (ICC1) defined as between-person variance divided by total variance (Klein & Kozlowski, 2000). Our results indicated that ICC1’s were moderately high (ranging from .33 for family goal facilitation to .66 for negative affect). We also found support for a substantial proportion of variance at the within-person level for each measure (ranging from 34% to 67%; see Table 1). These results support our use of multilevel modeling.

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Insert Table 1 about here

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**Descriptive Statistics**

Correlations and descriptive statistics are presented in Table 1. Within-person results indicated that boundary violations at work were positively correlated with work goal obstruction (*r* = .46, *p* < .001), family goal facilitation (*r* = .09, *p* = .02), negative affect at work (*r* = .35, *p* < .001) and family-to-work conflict (*r* = .35, *p* < .001) and negatively correlated with satisfaction with investment in work (*r* = -.19, *p* < .001). Similarly, boundary violations at home were positively correlated with family goal obstruction (*r* = .42, *p* < .001), work goal facilitation (*r* = .27, *p* < .001), negative affect at home (*r* = .28, *p* < .001), family-to-work conflict (*r* = .19, *p* < .001) and work-to-family conflict (*r* = .41, *p* < .001) and negatively correlated with satisfaction with investment in work (*r* = -.08, *p* = .01) and with investment in family (*r* = -.21, *p* < .001).

**Hypothesis Tests**

We ran models for the work and home domain separately to reduce the number of parameters estimated in each model. Hypotheses 1 and 2 concerned mediation predicted by AET. To test Hypothesis 1 we ran a model with boundary violations at work predicting affect at work through goal mediators (see Table 2) and the hypothesized full mediation model did not fit well (χ2 (4, *N* = 1098) = 51.20, *p* < .001; CFI = .96, TLI = .44, RMSEA = .10, SRMR for within = .04, SRMR for between = .01). However, a partial mediation model where boundary violation was allowed to relate directly to affect fit well (χ2 (2, *N* = 1098) = 0.31, *ns*; CFI = 1.00, TLI = 1.04, RMSEA = .00, SRMR for within = .00, SRMR for between = .00; χ2 diff *p* < .001). We used Mplus to estimate indirect effects through each mediator, and we found significant indirect effects for work goal obstruction mediating the relationship between boundary violations at work and negative affect as well as for family goal facilitation mediating the relationship between boundary violations at work and positive affect (see Table 2). We also found direct effects indicative of partial mediation, partially supporting Hypothesis 1a and 1b regarding boundary violations at work.

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Insert Table 2 about here

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For Hypothesis 2 in the home domain, the hypothesized full mediation model did not demonstrate acceptable fit (χ2 (4, *N* = 1094) = 15.35, *p* < .001; CFI = .99, TLI = .85, RMSEA = .05, SRMR for within = .03, SRMR for between = .01). However, fit for the partial mediation model was good (χ2 (2, *N* = 1094) = 0.22, *ns*; CFI = 1.00, TLI = 1.05, RMSEA = .00, SRMR for within = .00, SRMR for between = .00; χ2 diff *p* < .001). Results showed significant indirect effects for family goal obstruction mediating the relationship between boundary violations at home and negative affect as well as for work goal facilitation mediating the relationship between boundary violations at home and positive affect (see Table 2). We also found direct effects for family goal obstruction supporting partial mediation for that mediator. These results supported Hypothesis 2b and partially supported Hypothesis 2a.

Hypotheses 3 through 5 were again tested with one model for the work domain and another model for the home domain (see Figure 1). The hypothesized full mediation models presented in Figure 1 did not fit adequately for the work domain (χ2 (10, *N* = 1110) = 169.03, *p* < .001; CFI = .90, TLI = .07, RMSEA = .12, SRMR for within = .08, SRMR for between = .01) or home domain (χ2 (10, *N* = 1095) = 181.17, *p* < .001; CFI = .89, TLI = -.01, RMSEA = .13, SRMR for within = .08, SRMR for between = .01). We then fit partial mediation models that included daily-level paths from boundary violations to negative and positive affect, as supported by the earlier results for Hypotheses 1 and 2. The partial mediation models also included direct paths from boundary violations and goal obstruction to satisfaction and conflict to test both the direct and indirect effects of the mediation hypotheses. The partial mediation models achieved acceptable fit for the work domain (χ2 (4, *N* = 1110) = 4.58, *ns*; CFI = 1.00, TLI = .99, RMSEA = .01, SRMR for within = .01, SRMR for between = .00; χ2 diff *p* < .001) and home domain (χ2 (4, *N* = 1095) = 5.87, *ns*; CFI = 1.00, TLI = .97, RMSEA = .02, SRMR for within = .02, SRMR for between = .01; χ2 diff *p* < .001). Thus, we present results for the partial mediation models (see Figure 2).

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Insert Figure 2 about here

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Hypothesis 3 predicted a direct positive relationship between boundary violations and work-family conflict. In support of Hypothesis 3a, boundary violations at work were positively related to family-to-work conflict (*β* = .22, *p* < .001; see Figure 2). Boundary violations at home were also positively related to work-to-family conflict (*β* = .30, *p* < .001), supporting Hypothesis 3b.

For Hypothesis 4, we explored the relationship between boundary violations and work-family conflict using goals and affect as partial mediators. In support of Hypothesis 4a, we found a significant indirect effect for work goal obstruction and negative affect mediating the relationship between boundary violations at work and family-to-work conflict (see Table 3). Partially supporting Hypothesis 4b, there was a significant indirect effect for family goal obstruction, but not negative affect at home, mediating the relationship between boundary violations at home and work-to-family conflict.

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Insert Table 3 about here

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Finally, Hypothesis 5 concerned satisfaction with investment in each domain as an outcome of boundary violations with goal obstruction and negative affect as partial mediators. We found a significant indirect effect for goal obstruction but not negative affect mediating the relationship between boundary violations and satisfaction with investment in both the work and home domain (see Tables 3 and 4). There was also a significant direct effect for boundary violations on satisfaction in the work domain (*β* = -.11, *p* = .01). These results partially supported Hypothesis 5.

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Insert Table 4 about here

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**Test of Lagged Models**

Given our longitudinal data collected across two weeks, we further conducted tests of lagged models to examine the directionality of our predicted mediation relationships. We tested 3 separate lagged models for both the work and home domain: 1) a model using boundary violations from the previous day (t – 1) with the remaining variables at day t, 2) a model using boundary violations and goal obstruction/facilitation from day t – 1 with the remaining variables at day t, and 3) a model using boundary violations, goal obstruction/facilitation, and positive/negative affect from day t – 1 with the outcomes at day t. Each of these lagged models tests the directionality of one mediated relationship in the hypothesized model.

The results for the first lagged model indicated that boundary violations from day t – 1 were only related to work goal facilitation at day t in the home model (*β* = -.14, *p* = .02) and the direction of the relationship was opposite prediction. For the second lagged model, neither t – 1 boundary violations nor t – 1 goal obstruction/facilitation were related to affect on day t. In the third lagged model, family goal obstruction at day t – 1 was significantly related to satisfaction with investment in family at day t (*β* = -.19, *p* = .02) and to work-to-family conflict at day t (*β* = .21, *p* < .001) in the home model. These relationships were non-significant in the work model. In summary, these lagged tests present very limited evidence for the directionality of the hypothesized mediation relationships.

**DISCUSSION**

The future of work-family research may rest in the daily experiences of boundary management, and we aimed to contribute to this theoretical stream by understanding the process underlying the experience of daily boundary violations. The present study supports the idea that within-person variability in behaviors and psychological states is predictable, meaningful, and worthy of examining as a complement to more traditional data collection methods (Beal & Weiss, 2003). We found evidence of within-person variability in boundary violation events and our results further supported an AET perspective on cognitive and affective outcomes of these events at the daily level. We demonstrated that boundary violations at home and at work are associated with cognitive and affective reactions to those events. Importantly, boundary violations generated both negative and positive affective reactions to the extent that goals were perceived as obstructed and facilitated, respectively.

We linked boundary violations with two central outcomes in the work-family literature: work-family conflict and satisfaction. We found that boundary violations at work were directly related to family-to-work conflict, and this relationship was partially mediated by work goal obstruction and negative affective reactions. Boundary violations at work were also related to less satisfaction with investment in work, and this relationship was partially mediated by work goal obstruction. Boundary violations at home were directly related to work-to-family conflict, and this relationship was partially mediated by family goal obstruction. Boundary violations at home were also indirectly related to less satisfaction with investment in family through the mediator family goal obstruction.

We also found support for the idea that boundary violations relate to positive cognitive and affective reactions. Specifically, boundary violations at work were related to positive affective reactions to the violations, and this relationship was partially mediated by family goal facilitation. Boundary violations at home were related to positive affective reactions to the violations, and this relationship was fully mediated by work goal facilitation. Lagged model tests only presented limited support of the directionality of these mediated relationships.

**Theoretical Implications**

This study holds several opportunities to influence future research on work-family dynamics. First, our results support the proposition in boundary theory that work-family conflict represents a perceived accumulation of daily boundary violation events (Ashforth et al., 2000; Kreiner et al., 2009), thereby linking boundary violations with the established literature on work-family conflict to advance boundary theory. We also demonstrated that Kreiner et al.’s concept of boundary violations can be appropriately operationalized at a daily level which informs future studies of within-person boundary management. Furthermore, we refine boundary theory by proposing that both cognitive and affective dynamics partially explain the process by which work-family conflict perceptions are formed, building on Butts and colleagues’ (2015) examination of the affective process. We found support for AET in the work domain as boundary violation events occurring at work were appraised as obstructing one’s work goals due to time and attention that was redirected from meeting work goals to meeting family needs. This perceived goal obstruction initiated a secondary appraisal of negative affective reactions and consequently an overall assessment of high family-to-work conflict that day. The process in the home domain was only mediated by family goal obstruction; cognitive appraisal that family goals were hindered during work interruptions was enough to increase one’s overall assessment of work-to-family conflict that day. These results provide scholars with a theoretically-grounded explanation for *why* boundary violations may contribute to work-family conflict perceptions.

In line with AET, we found that goal obstruction was a critical mediator in this process. Interestingly, goal obstruction was actually more explanatory as a process mechanism than affect for both work-to-family conflict and satisfaction as outcomes. One possible explanation is that discrete emotions may play a larger role in this process than general positive and negative affective reactions; particularly if one takes into account the specific content of the boundary violation (Butts et al., 2015). Additionally, given that discrete emotions are related to certain action tendencies (i.e., approach-oriented versus avoidance-oriented; Frijda, 1988), it may be informative to examine discrete emotions resulting from boundary violations that differ in action tendencies (e.g., anger versus fear). Also, perhaps other affect-related states may be important in this process, as suggested by recent research findings that work-family cognitive role transitions were related to greater mental fatigue (Smit et al., 2016). Thus, even though we did not find strong support for positive and negative affective reactions as mediating mechanisms for some outcomes in our study, it is too early to conclude that affective states do not play a large role in this process.

Regardless, the cognitive appraisal of goals was a critical finding here. Although Weiss and Cropanzano (1996) point out “the ubiquity of goals as frame of reference for evaluating one’s personal state of affairs” (p. 33), few studies employing AET have incorporated the original theory’s notion of goals. We encourage additional exploration of cognitive assessments of goals within the boundary management literature to tease apart the effects of simultaneous goals (Boudreaux & Ozer, 2013; Riediger & Freund, 2004) and whether goal obstruction can overshadow goal facilitation or vice versa. Future research should also examine whether certain dispositional factors (e.g., negative affectivity) or situational factors (e.g., the specific type of boundary violation event) may influence the extent to which each type of cognitive appraisal takes precedent over the other.

In addition to predicting a causal ordering of variables in line with AET (Weiss & Cropanzano, 1996), we followed-up our hypothesis tests with lagged models to utilize our multi-day study design to test for causal direction of the proposed effects. Unfortunately, our lagged results did not support the AET mediated relationships when modeled from one day to the next, so many of the causal relationships in our model remain unknown. However, AET was theorized to explain the process that unfolds in reaction to an event and it is more likely to expect this reactionary cognitive and emotional appraisal process to unfold across minutes or hours rather than across days. Thus, the lagged relationships across a day’s time may not capture reaction to the same event. Even though effects of boundary violations did not carry over to the next day in the present study, it does not necessarily mean there are no delayed effects. For example, Ford and colleagues found that synchronous stressor-strain effects increased over time, and this increase was even greater for chronic stressors (Ford, Matthews, Wooldridge, Mishra, Kakar, & Strahan, 2014). Thus, it is possible that chronic daily exposure to boundary violations is related to negative outcomes at a later point in time than we were able to examine in the present study (e.g., weeks, months, or years). Future research could test this possibility by combining experience sampling methodology with longitudinal assessments.

Our results also demonstrated that violated boundaries can actually benefit employees through facilitating other-domain goals and enhancing positive affective reactions in the current domain. Although the negative affective reactions to boundary violations were generally stronger than the positive affective reactions, boundary violations appraised as facilitating one’s goals were related to greater positive affective reactions. This finding contributes to our understanding of the enriching rewards individuals can gain through balancing work and family domains (Carlson et al., 2014). However, there may be additional positive benefits from boundary violations that were not examined in the present study. For example, it is possible that by interacting with others outside of one’s current domain, these boundary violations serve as an important source of other-domain support (e.g., assistance with generation of creative solutions; source of social or emotional support) for individuals that they would not otherwise get if they did not experience a boundary violation. We encourage more research of boundary violation events to explore these and other potential positive benefits of violations.

**Practical Implications**

Evidence suggests that employers can reap substantial benefits in terms of employee attitudes and cost savings when they pay attention to helping employees balance work and family demands (Kossek & Michel, 2010). Practitioners can benefit from this study’s findings by gaining insight into how boundary violations play a role in the lives of employees and their families. Many organizations today are concerned with employee work-family balance as evidenced by the proliferation of flex time, on-site day care, telecommuting, and other policies. These policies often increase role integration by making work-family boundaries more flexible and permeable, and technology is further blurring boundaries (e.g., Day, Paquet, Scott, & Hambley, 2012; Derks et al., 2016; Harris, Marett, & Harris, 2011; Park & Jex, 2011), but little attention has been paid to the daily consequences of greater integration. Our results demonstrate that the effect of interruptions in the work and home domains are two-fold: on the one hand they may lead to unwelcome consequences including obstruction of goals, negative affect, decreased satisfaction with investment in work and family, and work-family conflict. On the other hand, greater integration of work and family may afford workers increased positive affect as these interruptions help them meet certain work or family goals.

Given that boundary violations at work were relatively common, managers and employees may be advised to seek strategies to actively manage their work and family boundaries. To enhance the benefits while minimizing the consequences of boundary violations, employees should find boundary management strategies that minimize goal obstruction. For example, employees could set aside specific times in their workday when they invite and initiate communication with family such as lunch time or a mid-afternoon break when their children arrive home from school. In this way, they allow their work boundary to be permeable to family violations at certain times while setting limits on family interruptions that would otherwise interfere with workflow. Not only does this minimize work goal obstruction, but it also may generate positive outcomes for their family members (for example, research shows children feel more supported by and more engaged with parents who communicate with them during work hours; Fan & Chen, 2001). For this strategy to be successful, employees should clearly communicate expectations of their availability to family members as well as expectations to their supervisor about the specific times when they will contact family at work. At the same time, employees can maximize goal facilitation by clearly identifying their specific goals in both the work and home domain and recognizing how an interruption may serve to accomplish a goal in the opposite domain. These strategies will be even more critical for employees who take advantage of telecommuting or flex time policies, as it has been recommended that even clearer demarcations between work and family, clearer expectations for members of each domain, and self-discipline about temporal boundaries will help telecommuting workers minimize work-family conflict (Allen, Golden, & Shockley, 2015; Tietze & Musson, 2003).

For the home domain, employees can also find ways to control the permeability of their family boundary to work violations (Park, Fritz, & Jex, 2011). This may include managing coworker expectations about availability after hours or setting aside time after children go to bed to accomplish work tasks with minimal obstruction of their family role. Employees might also set limits on their use of smart phones during certain hours of the evening and weekends (Barber & Santuzzi, 2015). Individuals can also request that coworkers or supervisors contact them after hours using communication mediums with varying levels of urgency: emergencies only by phone call or text message whereas matters that can wait until morning via email.

**Limitations and Future Directions**

One limitation of this study is that all measures were self-report. We took steps to reduce common method variance by estimating variables at the person-level in our multilevel analyses which controls for some dispositional influences on those variables. Also, given that we asked participants to complete three surveys per day for 10 consecutive workdays, we needed to keep our surveys short and thus some scales were shortened from their original form. We also were limited in our ability to make causal inferences from our data collection strategy; many of our hypotheses were tested using variables collected at the same point in time. Although we did examine lagged effects from one day to the next, we did not find support for these relationships. This may be because lagged effects are inherently difficult to detect (Ford et al., 2014). A better test of the causal directionality of our model would come from future investigations of these relationships using experience sampling method surveys administered multiple times a day.

Additionally, in our measurement of boundary violations we only focused on what Kreiner et al. (2009) would call intrusion violations in which boundaries are breached more than preferred, not distance violations in which boundaries are more distant than preferred. Future research is necessary to ascertain the effects of distance violations, whether they follow the same AET process and whether they are empirically distinguishable from intrusion violations. Researchers could also examine if our model is more broadly applicable to general interruptions at work rather than just interruptions from family. Building on recent research on breaks at work (Trougakos, Hideg, Cheng, & Beal, 2014; Hunter & Wu, 2016), future research could investigate the role of goals and affect as mediators of general interruptions at work.

Our sample was also potentially unique in that boundary violations at home were less common than boundary violations at work (35% at home compared with 69% at work). However, these results suggest that even a (comparatively) small number of home boundary violations can affect important well-being outcomes for employees and their families. Nonetheless, the degree to which individuals must respond to work emails, call or receive calls from clients, or perform extra work at home likely varies by industry and job. Additionally, many workers are increasingly expected to work during non-work hours or at minimum check work email on their smart phone (Butts et al., 2015). Given this, a rising trend in work-family research is exploring the role of communication technology and how technology influences boundary management (e.g., Day et al., 2012; Derks et al., 2016; Harris et al., 2011; Park & Jex, 2011). More research is needed on employees who are expected to communicate with work members during non-work hours and are thus commonly experiencing boundary violations at home.

In addition, more research is needed on potential moderators of the AET process to understand critical levers that can be employed to redirect goal obstruction evaluations or dampen negative affect following a goal obstruction. For instance, the trait boundary management style of segmentation may be important. Because boundaries are socially constructed, each individual prefers boundary permeation to varying degrees, ranging from complete segmentation of roles to the complete integration of roles (Nippert-Eng, 1996). Since integrators have greater ease transitioning between roles, they may view a violation event as less goal obstructing because they are accustomed to and even invite interruptions across boundaries.

In conclusion, this research builds on AET theory using a daily diary methodology to explore the path through which boundary violations at work and at home impact outcomes. We demonstrate that boundary violations in both domains are associated with positive and negative cognitive and affective reactions. Boundary violations also contribute to general perceptions of work-family conflict both directly and indirectly through goal obstruction appraisals and, in the work domain, negative affective reactions. The cognitive process of goal obstruction further relates to perceptions of satisfaction with investment in work or family. This research provides foundation for future studies on the daily violations of work and family boundaries.

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Table 1

Multilevel Descriptive Statistics and Correlations

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Scale** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** |
| 1. Morning Positive Affect | (.96) | -.19\*\* | -.53\*\* | -.01 | -.07\* | -.02 | .07 | -.01 | .00 | -.07 | .16\*\* | -.01 | .01 | .09\*\* | .06 | -.08\* | -.07\* |
| 1. Morning Negative Affect | .11 | (.89) | .40\*\* | .03 | .12\*\* | -.01 | -.03 | .11\* | .04 | .15\*\* | -.02 | .23\*\* | .04 | -.06 | -.07 | .07 | .11\*\* |
| 1. Morning Fatigue | -.21\* | .76\*\* | (.93) | -.05 | .11\*\* | -.05 | -.06 | -.03 | -.03 | .11\* | -.10\* | .03 | -.06 | -.11\*\* | -.13\*\* | .14\*\* | .13\*\* |
| 1. Boundary Violations at Work | .01 | .46\*\* | .33\*\* | (.95) | .08\* | .46\*\* | .09\* | .09 | .04 | .35\*\* | -.05 | .08 | -.03 | -.19\*\* | -.01 | .35\*\* | .02 |
| 1. Boundary Violations at Home | -.12 | .43\*\* | .37\*\* | .70\*\* | (.95) | -.00 | .01 | .42\*\* | .27\*\* | .11\* | -.03 | .28\*\* | .05 | -.08\* | -.21\*\* | .19\*\* | .41\*\* |
| 1. Work Goal Obstruction | .15 | .62\*\* | .56\*\* | .67\*\* | .46\*\* | — | .21\*\* | .07 | .07 | .27\*\* | .03 | .09 | .06 | -.24\*\* | .09\* | .31\*\* | -.00 |
| 1. Family Goal Facilitation | .23\* | .05 | .03 | -.04 | -.03 | .11 | — | .08 | .16\* | .04 | .27\*\* | -.11 | .02 | .01 | .15\*\* | .10\* | -.02 |
| 1. Family Goal Obstruction | .12 | .68\*\* | .57\*\* | .58\*\* | .69\*\* | .75\*\* | .09 | — | .37\*\* | .01 | .08 | .27\*\* | .05 | -.03 | -.31\*\* | .01 | .38\*\* |
| 1. Work Goal Facilitation | .42\*\* | .27\* | .09 | .09 | .14 | .27\* | .38\*\* | .49\*\* | — | .05 | .02 | .10 | .15\*\* | -.01 | -.01 | .15\*\* | .17\*\* |
| 1. Negative Affect at Work | .14 | .81\*\* | .59\*\* | .59\*\* | .38\*\* | .76\*\* | .00 | .68\*\* | .28\* | (.90) | .06 | .23\*\* | .13\* | -.05 | .04 | .28\*\* | .10\* |
| 1. Positive Affect at Work | .56\*\* | .29\*\* | .13 | -.03 | .02 | .13 | .46\*\* | .07 | .18 | .13 | (.93) | -.07 | .14\* | .07 | .13\* | -.01 | -.04 |
| 1. Negative Affect at Home | .11 | .89\*\* | .72\*\* | .48\*\* | .53\*\* | .68\*\* | .20 | .75\*\* | .40\*\* | .87\*\* | .31\*\* | (.94) | .19\*\* | -.07 | -.18\*\* | .22\*\* | .17\*\* |
| 1. Positive Affect at Home | .72\*\* | .24\* | -.04 | .23 | .08 | .38\*\* | .33\*\* | .33\*\* | .45\*\* | .41\*\* | .71\*\* | .37\*\* | (.94) | .05 | .01 | .15\*\* | .07 |
| 1. Satisfaction with Investment in Work | .35\*\* | -.23\* | -.28\*\* | -.32\*\* | -.43\*\* | -.30\*\* | -.03 | -.30\* | .12 | -.26\* | .07 | -.42\*\* | .23\* | (.92) | .17\*\* | -.20 | -.04 |
| 1. Satisfaction with Investment in Family | .39\*\* | -.14 | -.25\* | -.23\* | -.44\*\* | -.05 | .13 | -.24\* | .19 | -.07 | .04 | -.16 | .29\* | .51\*\* | (.97) | -.01 | -.34\*\* |
| 1. Family-to-Work Conflict | -.04 | .52\*\* | .47\*\* | .86\*\* | .66\*\* | .71\*\* | -.01 | .65\*\* | .03 | .63\*\* | -.01 | .55\*\* | .18 | -.44\*\* | -.27\*\* | (.81) | .28\*\* |
| 1. Work-to-Family Conflict | -.27\*\* | .49\*\* | .60\*\* | .46\*\* | .70\*\* | .34\*\* | .04 | .57\*\* | -.10 | .31\*\* | .04 | .46\*\* | -.16 | -.44\*\* | -.71\*\* | .54\*\* | (.82) |
| Grand Mean | 2.81 | 1.37 | 1.80 | 1.60 | 1.87 | 1.25 | 2.41 | 1.30 | 2.01 | 1.23 | 2.44 | 1.33 | 1.82 | 3.82 | 3.70 | 1.86 | 2.42 |
| Between-persons SD | 0.76 | 0.47 | 0.62 | 0.48 | 0.67 | 0.43 | 0.73 | 0.57 | 0.67 | 0.37 | 0.78 | 0.58 | 0.67 | 0.48 | 0.61 | 0.58 | 0.76 |
| Within-person SD | 0.70 | 0.41 | 0.72 | 0.61 | 0.64 | 0.53 | 1.02 | 0.63 | 0.93 | 0.39 | 0.59 | 0.41 | 0.59 | 0.66 | 0.75 | 0.55 | 0.73 |
| Proportion Within Variance | 46% | 43% | 58% | 62% | 48% | 62% | 67% | 54% | 65% | 52% | 37% | 34% | 44% | 65% | 60% | 48% | 48% |
| N | 1029 | 1029 | 1029 | 1021 | 951 | 779 | 780 | 393 | 392 | 781 | 780 | 393 | 393 | 952 | 952 | 952 | 952 |

*Notes.* Between-person N = 121; within-person N = 1117. Between-person correlations are given below the diagonal; within-persons correlations are given above the diagonal. Scale reliabilities are shown in parentheses along the diagonal.

Table 2

Indirect, Direct, and Total Effect Results for Hypotheses 1 and 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IV–DV | Mediator | Indirect effect | Direct effect | Total effect |
| Boundary Violations at Work–Negative affect at Work | Work goal obstruction | .04 [.018, .067]  *.01* | .17 [.121, .218]  *.03* | .21 [.169, .255]  *.02* |
| Boundary Violations at Work–Positive affect at Work | Family goal facilitation | .02 [.003, .044]  *.01* | -.08 [-.144, -.006]  *.04* | -.05 [-.123, .020]  *.04* |
| Boundary Violations at Home–Negative affect at Home | Family goal obstruction | .05 [.019, .088]  *.02* | .14 [.070, .205]  *.03* | .19 [.132, .250]  *.03* |
| Boundary Violations at Home–Positive affect at Home | Work goal facilitation | .04 [.005, .071]  *.02* | .01 [-.088, .098]  *.05* | .04 [-.047, .132]  *.05* |

*Note:* Unstandardized coefficients presented. 95% confidence intervals (CIs) reported. Estimates for direct and total effects were tested for significance with 95% CIs based on normal approximation. Estimates for indirect effects were tested for significance with Monte Carlo 95% CIs. Standard error presented in italics.

Table 3

Indirect, Direct, and Total Effect Results for Outcomes of Boundary Violations at Work

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent variable | Mediator | Indirect effect | Direct effect | Total effect |
| Family-to-work conflict | Work goal obstruction | .07 [.033, .104]  *.02* |  |  |
| Negative affect at work | .04 [.014, .061]  *.01* |  |  |
| Work goal obstruction & negative affect | .01 [.002, .016]  *.00* | .20 [.129, .269]  *.04* | .31 [.255, .373]  *.03* |
| Satisfaction with investment in work | Work goal obstruction | -.10 [-.145, -.052]  *.02* |  |  |
| Negative affect at work | .01 [-.018, .038]  *.01* |  |  |
| Work goal obstruction & negative affect | .00 [-.004, .009]  *.00* | -.12 [-.207, -.031]  *.05* | -.21 [-.277, -.133]  *.04* |
| Positive affect at work | Family goal facilitation | .02 [.003, .044]  *.01* | -.07 [-.141, -.003]  *.04* | -.05 [-.120, .023]  *.04* |

*Note:* Unstandardized coefficients presented. 95% confidence intervals (CIs) reported. Estimates for direct and total effects were tested for significance with 95% CIs based on normal approximation. Estimates for indirect effects were tested for significance with Monte Carlo 95% CIs. Standard error presented in italics.

Table 4

Indirect, Direct, and Total Effect Results for Outcomes of Boundary Violations at Home

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dependent variable | Mediator | Indirect effect | Direct effect | Total effect |
| Work-to-family conflict | Family goal obstruction | .12 [.066, .172]  *.03* |  |  |
| Negative affect at home | .01 [-.017, .029]  *.01* |  |  |
| Family goal obstruction & negative affect | .00 [-.007, .011]  *.01* | .34 [.249, .423]  *.04* | .46 [.394, .534]  *.04* |
| Satisfaction with investment in family | Family goal obstruction | -.12 [-.176, -.059]  *.03* |  |  |
| Negative affect at home | -.02 [-.051, .005]  *.01* |  |  |
| Family goal obstruction & negative affect | -.01 [-.020, .003]  *.01* | -.10 [-.192, .001]  *.05* | -.24 [-.322, -.167]  *.04* |
| Positive affect at home | Work goal facilitation | .04 [.004, .069]  *.02* | .01 [-.086, .100]  *.05* | .04 [-.045, .133]  *.05* |

*Note:* Unstandardized coefficients presented. 95% confidence intervals (CIs) reported. Estimates for direct and total effects were tested for significance with 95% CIs based on normal approximation. Estimates for indirect effects were tested for significance with Monte Carlo 95% CIs. Standard error presented in italics.

Figure 1

Hypothesized Models

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Figure 2

Final Partial Mediation Results





Standardized regression coefficients shown; \*p < .05; \*\*p < .01.