Drivers and Outcomes of Responsiveness to Technological Interruptions from Work during Nonwork Time

BY

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DISSERTATION

Submitted as partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration in the Graduate College of the University of Illinois at Chicago, Chicago, Illinois

2013

Special thanks and gratitude to my defense committee:
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SUMMARY

Drawing on identity theory (especially the components of structural symbolic interactionism and role theory—Burke and Stets, 2009; Stryker, 1980) and interruption theory (Thoits, 1991), this dissertation proposes a model that posits identity as an important factor impacting whether or not workers respond to electronic communications from work during nonwork time, and how this relates to career and personal outcomes. Additionally, this research asks what relates to employees’ tetheredness, or their cognitive dependence on communication devices. Results indicate that relational identity, exemplification, and conscientiousness all contribute to tetheredness. Furthermore, the results of this research go against the anecdotal stories of the benefits of being “always on,” finding that greater employee responsiveness to work-nonwork technological interruptions is positively related to increased work-family conflict and job stress. Additionally, the results of this study found that both employees and family members are confronted with blurred boundaries from employee responsiveness to work-nonwork technological interruptions. Work-family conflict and job stress serve as mediators between employee responsiveness to work-nonwork technological interruptions and career as well as personal outcomes rated by the focal employee and/or a family member or significant other.
Chapter One

Introduction

Technology and its use are increasingly complicating the work-nonwork interface (Major & Germano, 2006; Middleton, 2007). The use of mobile technologies, whereby individuals are able to connect to others, for example, via phone, Skype, FaceTime, and the internet, from anywhere, especially allowing connection to work during nonwork time, is gaining in popularity and seems here to stay (Perlow, 2012). Competition is intensive in the Smartphone industry, signaling the continued trend of Smartphones, that is, cell phones that have more connectivity and advanced computing capabilities (e.g., 3G-enabled, ability to download apps, email capability), and people’s desire for mobile communication products. A survey of American adults conducted by the Pew Research Center in February 2012 found that nearly half (46%) own a Smartphone, up 11% from last year, and that Americans between the ages of 25 and 34 lead the way, with 71% owning a Smartphone (Smith, 2012). Whether it be a Smartphone, tablet, or laptop, the popular press abounds with stories of what these mobile technologies have allowed our culture to achieve, permitting individuals to multitask and have access to work whenever and wherever we choose, even during nonwork time, that is, unpaid personal time. The implication is that individuals can now enact and control all roles they are involved in simultaneously. And workers are increasingly characterized by an “always available,” “always on” attitude (Major & Germano, 2006; Valcour & Hunter, 2005). These technologies are blurring the boundaries between the work and nonwork realms (e.g., Boswell & Olson-Buchanan, 2007; Duxbury & Smart, 2011). On the other hand, in contrast to the “have it all” stories, is the idea that family time and relationships are being sacrificed with the use of these technologies during nonwork time. Google, in partnership with Ipsos OTX, found that 93% of
Smartphone users are using them at home (The Mobile Movement, 2010), and stories of the use of these technologies at the family dinner table or in the stands at children’s sporting events abound (Turkle, 2011). What is often forgotten about these behaviors, is that responses to work during nonwork time are by definition *interruptions* (“externally generated, temporary cessation[s] in the current flow of behavior, typically meant for the subject to execute activities that belong to a secondary set of actions;” van den Berg, Roe, Zijlstra, & Krediet, 1996, p. 236), where one’s secondary role during nonwork time, i.e., work role, is electronically interrupting the enactment of one’s primary nonwork, or personal, role. However, technological interruptions are a unique type of interruption in that they are a “controlled interruption” (Russell, Purvis, & Banks, 2007), whereby the employee has control over when and how often they respond to these technological interruptions.

From a more academic perspective, these technologies are also becoming an extension of the modern-day worker’s self, that is, these technologies are becoming a constant companion in our lives. Perlow commented in her book *Sleeping with your Smartphone*, that it is the “always on” mentality of today’s society rather than work-life balance that today’s workers really connect with (The Washington Post, 2012). While some employees feel work-life balance is an issue that does not apply to them, and they can leave that realm to parents or “others,” the “always on” mentality is one everyone can understand, if not for themselves, then because of the work-life mobile technology usage of someone close to them (The Washington Post, 2012).

Psychologically, there is an almost primal connection to these technologies as individuals experience anxiety when they are without them or a feeling that their phone is buzzing or ringing even when it is nowhere in sight (Lookout.com Mobile Mindset Study 2012; Turkle, 2011). The connection to these technologies reflects almost constant behavior, with 58% of U.S.
Smartphone users checking their phones at least every hour and 54% checking even while lying in bed, before going to bed, or even in the middle of the night (Lookout.com Mobile Mindset Study 2012). Turkle (2008, 2011) refers to this “always-on/always-on-us” idea as being tethered, that is, physically attached to our devices and “psychologically tuned” to our access to connections (Turkle, 2008). With regular use, mobile technologies become a part of people’s daily life to the extent that they feel lost without them and they become a necessity that accompanies them everywhere (Aoki & Downes, 2003). “Tetheredness” has been explored qualitatively (i.e., Jackson, 2002, 2009; Turkle, 2011), but research has not yet pursued an understanding of why people connect to work during nonwork time.

As the use of communication technologies continues to grow, research needs to further examine the nomological net of this behavior. With increasing awareness of the pros and cons of the use of mobile technologies, there is a growing need to quantitatively assess what is driving these behaviors and whether this truly allows workers to “have it all.” Additionally, communication technologies enable workers to stay connected to work during nonwork time, but we have little understanding of how this connectivity is related to important work and nonwork outcomes. Both Turkle (2011) and Perlow (2012) have highlighted the growing part these technologies play in our understanding of self (reflections of the various roles one claims; Burke, 1980), and therefore identity (one’s internal understanding of a particular role they hold including the expected behaviors and requirements; Burke, 1980). These technologies have become so much a part of ourselves, that we are unwilling, and even seemingly unable, to give them up (Huffington Post, 2012; Turkle, 2011). In understanding what drives technology usage behaviors, a clearer picture can emerge of today’s worker set against the always-on mentality of society. Drawing from Perlow (2012) and Turkle’s (2008, 2011) work, I will apply role identity
theory (Burke & Reitzes, 1991) as a new approach to understanding the drivers of tetheredness, defined in this study as a psychological and physical dependency on mobile technology, whereby individuals feel lost without their device(s) (Hooper & Zhou, 2007; Turkle, 2011).

In order to more fully understand the impact of the use of communication technologies for work during nonwork time, there is a need to bring empirical evidence to bear on the anecdotal and qualitative stories that have provided conflicting evidence about the outcomes of being connected. On the one hand, does always being “on” mean one can “have it all,” that is, does both career and nonwork life flourish? Or, on the other hand, does responding to interruptions and interacting with work contacts during nonwork time mean that family time and relationships are suffering? In asking these questions, I turn to the idea of blurred boundaries between home and work, and individual differences in people’s desire for segmentation between the two realms, which has been explored in the work-family literature in recent years (e.g., Kossek, Ruderman, Braddy, & Hannum, 2012b; Kreiner, Hollensbe, & Sheep, 2009; Park, Fritz, & Jex, 2011).

**Research Questions**

In using Smartphones, iPads, tablets, and laptops, we find ourselves increasingly simultaneously connected to multiple roles, be it work or nonwork, no matter our location. Individuals report that although the technology can be invasive and makes them feel “tethered,” they get more done than they ever did without it (Turkle, 2011). That is, they feel they are more efficient and more effective in both work and nonwork life roles (Perlow, 2012; Turkle, 2011). This research tests both what aspects of self drive the use of communication technologies to respond to work during nonwork time and the outcomes of engaging in these behaviors: Does the use of technology to respond to work roles while physically or temporally engaging in personal
roles truly allow us to attain more favorable career outcomes such as having greater career satisfaction and being viewed by others as more promotable, as well as having a more satisfying personal life, that is, greater life satisfaction and work-life balance?

Drawing on identity theory (Burke & Stets, 2009; Stryker, 1980) and interruption theory (Thoits, 1991), I propose a three-part research plan. First, I investigate the increasing prevalence of technology as part of self, testing what identities (work identity, family identity, dual centric identity, and other-centric identity; Kossek & Lautsch, 2008, 2012; Kossek, Ruderman, et al., 2012) drive the use of technology for work during nonwork time. Second, I investigate what aspects of self and individual differences, namely relational identity (indicative of one’s relational self, i.e., navigating communication technologies to manage mutuality and affiliation), impression management and conscientiousness (both indicative of an imaged self, i.e., managing one’s image through impression management tactics and responding to social influences to maintain connections to a group) drive one’s degree of tetheredness. Further, I investigate how tetheredness interacts with identity to predict one’s use of technology for work during nonwork time. Third, I test what impact this behavior has on one’s career and nonwork life, by surveying not only workers and their managers, but their family members as well.

This research serves to extend our understanding of employee’s connectedness to work during nonwork time, shedding light on contemporary understandings of the work-life interface. It also seeks to address a significant gap in the management literature, as our understanding of the drivers of communication technology use for work during nonwork time as well as their outcomes are only just beginning to be understood. The use of mobile communication technologies is growing and a more complete picture of the how’s and why’s of this behavior will benefit both organizations and employees: This research should provide insight into how to
manage both the use of these technologies, possibly through human resource policies and procedures, as well as employees’ careers and nonwork lives as they pertain to the use of these devices to manage work. In answering these questions, this research seeks to contribute to the literature in several ways.

First, although Turkle’s work along with work done by Jackson (2009) and Perlow (2011) has given qualitative insight into the nature of tetheredness, it remains unclear what drives this phenomenon. Seeking to extend their work, this research tests what determines tetheredness, or one’s dependency on communication technologies, specifically proposing aspects of self that may contribute to one’s degree of tetheredness, thereby extending social identity theory. Moving beyond just the acknowledgement of this phenomenon and asking what drives one’s connection to these technologies gives insight into the motivations behind our tetheredness. A clearer understanding of what tetheredness is and its antecedents will allow organizations and working persons to better interact with and possibly manage their own and others’ tetheredness.

Second, this study takes a new stance to understand what determines responses to technological interruptions from work during nonwork time. I acknowledge that although employees’ responsiveness to nonwork interruptions during work time is also an important question, in order for parsimony as the differing directions originate in different domains and therefore may be influenced by and result in different things (see Amstad, Meier, Fasel, Elfering, & Semmer, 2011), this research examines only work interruptions to nonwork domains. Work-nonwork technological interruptions are unique in that they are a “controlled interruption” (Russell, Purvis, & Banks, 2007), which employees can choose to respond to or not, and are also distinct from other work-nonwork interruptions in their increasing expectation for fast responses.
This research seeks to further develop this under-researched topic and apply identity theory to explore how one’s different identities impact responsiveness to technological interruptions from work during nonwork time, referred to as work-nonwork technological interruptions. Although there is acknowledgement of the growing trend of blurred boundaries in the work-family literature, and although research has sought to understand management of these boundaries, less is known about what drives our use of technology as it relates to blurred boundaries. The use of technology to respond to work during nonwork time is a key behavior to understand, as for many it is a driving force behind the blurring of boundaries. So, beyond looking at what drives our innate connection to these technologies, I also ask what part role identities play in workers’ responsiveness to work-nonwork technological interruptions. Symbolic structural interactionism, a component of identity theory, states that the self is constructed, changed, and maintained in its interaction with the structures it exists within (Serpe, 1987). Symbolic structural interactionism serves to explain how technology is both shaped by society (e.g., society created these technologies to aid us in our daily lives) and how we, in turn, are shaped by these technologies (e.g., their increasing prevalence has changed our understanding of response time and habitual behaviors) (Styker, 1980).

Third, this research seeks to test whether mobile technologies help us better manage our lives and do in fact allow us to “have it all,” or whether their use means family takes a proverbial back seat. Some work has been done linking the use of communication technologies for work after hours to work-family conflict (WFC; perceptions that work roles spill over to affect the fulfillment of family roles—Greenhaus & Beutell, 1985) (Boswell & Olson-Buchanan, 2007), but the question of how family members are affected remains largely unanswered. Most
information concerning the positives as well as the negatives of using mobile communication technology to respond to work during nonwork time is anecdotal, from the popular press. By surveying not only employees but also their family members about outcomes such as relationship satisfaction and perceptions of work-life balance, this research seeks to empirically document the perceptions of those most presumably negatively affected by employees’ work during nonwork time—family members and significant others.

Finally, with the increased blurring of boundaries between work and personal time, understanding how employees and their family members/significant others are affected by their responses to work responsibilities during nonwork time can serve to provide organizations with a clearer understanding of employees’ behavior outside of work. This has implications for employee health and well-being as well as career management, and has the potential to inform human resource policy development in these areas.
Chapter 2

Theoretical Model, Literature Review, and Hypotheses

*Always being on, in fact, is becoming increasingly core to our identities.*

- *Leslie Perlow*

**Theoretical Model**

Recently, researchers have shown a growing interest in what seems to be an increase in the blurring of boundaries between the work and home domains (Duxbury & Smart, 2011; Valcour & Hunter, 2005), especially how working adults manage the interface between these two domains (Kreiner, Hollensbe, & Sheep, 2009). Research in this area has focused in large part on the work-family segmentation-integration continuum, which is one’s preference for separating or integrating work and home domains to fulfill work and personal roles (Ashforth, Kreiner, & Fugate, 2000). Additionally, research has also focused on boundary management tactics, which are individuals’ active efforts to manage work and home boundaries in order to achieve their desired level of integration or segmentation (e.g., Kreiner, 2006; Kreiner et al., 2009; Rothbard, Phillips, & Dumas, 2005; Winkel & Clayton, 2010). Some of the most recent research has focused on boundary management styles (Kossek & Laustch, 2012, 2008; Kossek, Ruderman, et al., 2012). Researchers in this area have now acknowledged the role technology plays in increasingly blurring these boundaries, as internet-enabled communication technologies allow working adults to be constantly available to the organization (Major & Germano, 2006). Gone are the days when work was confined, spatially and temporally, to the office from 9am-5pm and one’s personal life was uninterrupted outside the office in the other hours of the day.
In this manuscript, I report tests of identities, dispositions, degree of tetheredness, preference for segmentation, and perceptions of control that impact responsiveness to technological interruptions from work during nonwork time and the extent to which workers engage in these behaviors, exploring both career and personal outcomes. Drawing on identity theory (especially the components of structural symbolic interactionism and role theory—Burke and Stets, 2009; Stryker, 1980) and interruption theory (Thoits, 1991), I propose a model that posits identity as an important factor impacting whether or not workers respond to electronic communications from work during nonwork time, and how this relates to career and personal outcomes. Figure 1 illustrates the theoretical model proposed and tested. Based on identity theory, the first part of my model hypothesizes that tetheredness is impacted by relational identity, impression management, and conscientiousness. Further, one’s family identity, work identity, a combination of those two identities, or an other-centric identity interacts with one’s degree of tetheredness, preference for segmentation, and perceptions of control over the extent of integration between the two domains to predict workers’ responsiveness to work during nonwork time. In turn, these responses should help, hinder, or both, one’s career and personal life through workers’ perceptions of stress and work-family conflict. I start by first introducing the theory driving this model, followed by a review of the research that has been done in the work-family literature concerning identity and technology use.

Theory and Literature Review

Theory. Identity theory has long recognized the social component of the self, that is, society’s influence on the creation and maintenance of identity. Structural symbolic interactionism explains that individuals’ actions are embedded in the social structure; individuals’ actions create social structure, and at the same time, individuals’ identities are
influenced by the social structure (Stets & Burke, 2003). Identity theory gives us insight into technology use. Societal factors impact individuals’ growing use of technology to attend to work matters at home.

Sociological approaches to the self, advanced in large part from symbolic interactionism, view the self as multifaceted and created through relationships with others (Blumer, 1962; Mead, 1934; Stryker, 1980). Identities reflect internal self-schemata. Symbolic interactionism tells us that people use symbols, in large part reflected through language (i.e., a word brings a common image to mind as it has shared meaning, such as the word “mother” prompting a picture of a nurturing caregiver) to designate positions—“the relatively stable, morphological components of social structure that are termed roles” (Stets & Burke, 2000, p. 225). Individuals see themselves as occupying roles and these roles carry expectations derived from the social structure. These expectations in reciprocal nature define the role (Stryker, 2002). We, as members of society, label ourselves and others as occupants of positions, and by doing so, raise expectations for behavior associated with those positions. This reflexive designation of positions becomes internalized as part of the self, invoking expectations for one's own behavior as well (Stryker, 2002). Individuals act in accordance with their roles and are motivated to do so in order to maintain an identity standard, which is the cognitive depiction of a role including the meanings and norms people connect to that role (Burke, 1991). The identity standard is an internal guide, unique to the individual. For example, in relation to gender identity, Joe might feel that he is highly masculine and he therefore acts according to that standard by being self-confident, competitive, and in control. Once a valued identity is activated, the individual seeks to maintain consistency with the identity standard or to achieve self-verification, whereby others view us as
we view ourselves (Swann, 1983). This underlies the behavioral process of role-taking (Burke & Stets, 1999).

Each of our roles is defined by an identity. In this research, I adopt the identities highlighted by Kossek and colleagues recent work (Kossek & Lautsch, 2012; Kossek, Ruderman, et al., 2012). Kossek and colleagues focused on family identity, work identity, dual centric identity, and other-centric identity. The first two identities have been the most extensively explored in the work-family literature. An individual who has a salient work identity views one’s work role as central, and they highly value an occupational role and identify with that role, such as being an accountant, a nurse, or a teacher. Individuals high in work identity value their work role and prioritize their family lower, accordingly (Kossek, Ruderman et al., 2012). On the other hand, individuals high in family identity refers to the primary salience of an identification with a family role. This would include an identification with being a sister, a father, or an aunt. As identity theory states, individuals differ in the way they value their multiple roles, creating different hierarchies of identities (Burke & Stets, 2009; Thoits, 1991). High family identity individuals value their family role over their work role and prioritize their family accordingly.

Moving beyond these more commonly explored identities in the work-family literature, prior research has recognized that some individuals may value their work and family roles almost equally, therefore not prioritizing one over the other, which is referred to as dual centricity (Kossek & Laustch, 2008, 2012; Lobel & St. Clair, 1992). Kossek’s work has also recognized a fourth identity important to work interrupting nonwork behaviors, referred to as other-centric (Kossek & Laustch, 2012; Kossek, Ruderman et al., 2012). These employees are low on both
family and work centrality, valuing an identity outside of these domains. These individuals’ primary identity may be as a church member, a volunteer, a bicyclist, or a marathon runner.

Identity theory predicts that individuals’ behaviors are in line with their roles and the prescribed behaviors dictated by those roles (Burke, 1991; Burke & Stets, 2009). When particular roles are salient to individuals, they will act in ways that reflect that role. As norms for responsiveness to technology communications become more central to everyday life, they become central to our understanding of our roles and our roles’ prescribed behaviors as well. As social structure continues to raise expectations for responsiveness to technological communications (Milliken & Dunn-Jensen, 2005; Towers, et al, 2006), these expectations become part of the role definition (Stryker, 2002). These expectations lead to behaviors associated with one’s positions becoming internalized expectations for one’s own behaviors in that role.

**Identity Theory and the Use of Communication Technologies for Work during Nonwork Time.** The expectations for fast and constant responsiveness to technological communications lead to the focus on employee responsiveness to work-nonwork technological interruptions in this research. **Responsiveness to work-nonwork technological interruptions** is a behavior whereby employees’ take the time to respond to work-related technological communications (i.e., texts, emails, calls, etc.) during their nonwork time. Due to the fact that technological interruptions are a “controlled interruption,” meaning employees can implement strategies and deal with these interruptions how they see fit (Russell, Purvis, & Banks, 2007), the importance of this variable is in employees’ behavior of responding to them during their nonwork time above and beyond the sheer number of work-nonwork technological interruptions received. This action indicates a temporary cessation of their nonwork role in order to enact their work role and respond to the
technological communication. The focus in this research is on technological interruptions, as they are increasingly numerous. As well, there are growing expectations for faster response times to work-related communications during non-work time (Duxbury & Smart, 2011; Harris, Marett, & Harris, 2011). Additionally, both the ease of use and availability of technology have increased the frequency of communication (Duxbury & Smart, 2011). Work-nonwork technological interruptions are unique in that there is technology-related pressure, defined as “the imposition of work-based technologies into an employees’ person life” (Harris et al., 2011, p 2079), associated with them (Tu, Wang, & Shu, 2005).

As the use of technology (e.g., e-mail, texting, etc.) for communication becomes more and more engrained in everyday life, societal structures dictate expectancies about the use of these technologies. Qualitative work conducted to explore people’s interactions with technology informs us that these structures dictate technological behavioral expectations for one’s roles (Schlosser, 2002; Turkle, 2011). For example, there is a growing expectation for a response to technology-enabled communication, whether or not one is temporally or physically occupying the role central to that communication (Turkle, 2011). For instance, one might respond to an email from her boss while at dinner with a spouse—both the notification from the phone and the pressure to be responsive to one’s boss, that is, expectations related to her valued work identity, call the employee away from her family identity role of spouse.

**Extant Research on Work-Family, Technology, and Boundary Management**

Studies that have looked at role boundary management tactics have mostly come from the work and family literature, and thus have focused in large part on the two roles of work and family. For example, Winkel and Clayton (2010) found that family identity salience moderated the relationship between willingness to flex the work boundary (i.e., the extent to which an
individual is willing to transition from one domain to another such as being willing to condense his or her work week into four days if this helps better manage personal life responsibilities (Matthews & Barnes-Farrell, 2010) and work-to-family transitions (i.e., transitioning from one’s work domain to one’s family domain), such that the relationship was stronger when family identity was highly salient, that is, highly central to the individual. In other words, when one’s family identity was very important, they were more likely to flex their work boundary and accommodate family responsibilities, such as a mother taking calls from her children’s sitter while at work.

Additionally, most of the research that has looked at the use of communication technology for work in nonwork roles has been focused on something called the work-home segmentation preference. Work-home segmentation preference refers to the fact that, as the boundaries between these domains blur, individuals vary in the degree to which they seek to keep them separate (Towers, Duxbury, Iliggins, & Thomas, 2006). Keeping these domains separate is seen as a tactic for balancing work and home (Edwards & Rothbard, 2000), though some people see melding of the domains as a way to lessen conflict between roles (Ashforth et al., 2000). A recent study by Park and colleagues (Park, Fritz, & Jex, 2011) found that work-home segmentation preference, an individual difference, was positively related to psychological detachment from work, which is a “sense of being away from the work situation” while on the job (Etzion, Eden, & Lapidot, 1998: 579). This relationship was partially mediated by technology use at home for work-related purposes, in that segmentation preference was associated with less technology use at home, which in turn was related to higher psychological detachment. This study’s findings suggest that people do vary in their desire to keep the work and home domains separate, and a higher desire negatively impacts the degree to which they will
respond to technological interruptions from work during nonwork time. This propensity to boundary-cross is related to identity salience and perceptions of control over the pertinent boundaries (Kossek, Ruderman et al., 2012; Katz & Kahn, 1978). A preference for segmentation may indicate high value and identification with one role over another.

One study by Olson-Buchanan and Boswell (2006) has combined identification and the idea of interruptions, although these authors did not limit their measurement of interruptions to communication technology interruptions. Their findings, however, shed light on the importance of identity in relation to role integration-segmentation and interruptions. In Olson-Buchanan and Boswell’s (2006) study, they focused on work role identification, whereby one’s work role is more central to their identity, and nonwork role identification, where one’s personal and family life is more highly central to their identity. Their research found that individuals who more strongly identified with a work or nonwork role tended to integrate that role into the other domain. They also found that those individuals who had higher work to nonwork role integration (e.g., they frequently talked about their work role at home) responded less negatively to interruptions from work while in the nonwork domain. In addition, those who integrated their work role into their nonwork role created fewer boundaries for communication technologies while in their nonwork domain. In line with Olson-Buchanan and Boswell’s (2006) findings, Richardson and Benbunan-Fich (2011) found that preference for integration between work and personal lives was positively related to the use of handheld wireless-enabled devices to perform work-related tasks (e.g., reviewing email or communicating with clients) during nonwork time, which they referred to as work connectivity behavior after-hours (WCBA). Other studies have examined the importance of individuals’ perceptions of their ability to control interruptions between domains, which have also been proposed as an important variable in the boundary
management literature. Kossek and colleagues (2012) clustered individuals based on their level of work-nonwork interruptions, work and family identity centrality, and boundary control. They found that, regardless of the level of interruptions participants experienced, those in clusters with higher boundary control tended to have more positive work and family outcomes, such as reduced work-family conflict, psychological distress, and turnover intentions.

**Hypotheses Development**

**Drivers of Responsiveness to Work-Nonwork Technological Interruptions**

Research done by Kossek and colleagues (Kossek & Lautsch, 2012; Kossek, Ruderman, et al., 2012) as well as Schlosser (2002) provides guidance for which aspects of self impact the use of technology to respond to a role that is not central to the immediate physical and temporal role being occupied. Schlosser’s (2002) qualitative research focused on the use of smartphones, namely Blackberries, and was based in structural symbolic interaction components of identity theory. She found that the use of communication technologies for work was driven in large part by the desire to adapt to an integrated self (i.e., the melding of work and personal life that communication technologies allow), develop an imaged self (i.e., managing one’s image through impression management tactics and responding to social influences to maintain connections to a group), attend to the relational self (i.e., navigating communication technologies to manage mutuality and affiliation), and experience an isolated self (i.e., recognizing that communication technologies make connections to others overly abundant which can in turn leave individuals feeling isolated when they are unable to make these connections).

I focus first on Schlosser’s (2002) integrated self, as this directly speaks to the identities that relate to one’s responses to technological interruptions from work during nonwork time. In adapting to an integrated self, Schlosser (2002) found that employees who had wireless
communication devices experienced more blurring of the work and personal domains. Her ethnographic work found that these employees not only experienced more interruptions from work during nonwork time, but they also perceived greater expectations to be “on call” at all times as compared to before they owned a Smartphone. In other words, the increasing awareness of these devices added to the norms and expectations the employees’ held about their work roles, which in turn increased their readiness to respond. Employees in both Perlow’s (2012) and Schlosser’s (2002) studies told of increased availability, stating that people could and now did get a hold of them at all hours of the day, from early in the morning until late into the night. While Schlosser found employees increasingly felt expectations to be available to others due to the technology, her interviews also exposed that some employees made attempts to regulate and/or set limits for their availability, including managing who has their cell phone number, which emails they read, or setting aside “quiet time” where they did not have their wireless devices turned on or nearby. This variation in behavior suggests that “being on” is not all or nothing, that is, individuals may define for themselves where they are on this continuum. They may view and adapt to the interaction of their work role with technology differently. I approach this from the perspective that different identities may be at play, and may interact with one’s preference for segmentation as well as perceptions of control over the extent of integration between the work and nonwork domain.

*Identity, boundary control, and preference for segmentation.* While research has examined different styles of managing boundaries between work and nonwork domains, beyond the Olson-Buchanan and Boswell (2006) study, little is known about individual factors that drive the use of communication technology for work during nonwork time. Technology has often
been cited as a key component related to the blurring of boundaries (e.g., Boswell & Olson-Buchanan, 2007; Park et al., 2011).

Although most work-family research related to identity and interruption behaviors has focused on boundary management, and thus simply measured employees’ work or family identities, recent research has added additional identities relevant to the management of work during nonwork time. As mentioned previously, Kossek and colleagues (Kossek & Lautsch, 2012; Kossek, Ruderman et al., 2012) have sought to answer Lobel’s (1991) call for work-family research to recognize that the “either-or” mentality of high family or work identities is limiting, and does not recognize that some individuals may be dual centric or even other-centric, in that they focus on both or neither work and family in defining who they are. Kossek and colleagues’ (Kossek, Ruderman, et al., 2012) research supports the importance of four identities (work identity, family identity, dual centric identity, and other-centric identity) and their relation with boundary control perceptions and work interrupting nonwork behaviors. I seek to extend this work by focusing specifically on technological interruption behaviors, to further our understanding of how these three variables (identity, interruptions, and boundary management tactics) of the profiles interrelate and impact one another when considering wireless technology use. As noted previously, individuals behave in accordance with their roles and are motivated to do so in order to maintain the identity standard, or the internal interpretation of a role including the meanings and norms the person connects to that role (Burke, 1991). However, a key variable that may help or hinder this process is one’s psychological perceptions of boundary control, that is, an individual’s sense of control over managing the degree of integration between their work and nonwork lives (Kossek & Lautsch, 2008). Key to this study are employee’s perceptions of their ability to keep work separate from their personal life. Whether or not one perceives control
over the timing and frequency of interruptions from work during nonwork time serves as an important indicator of whether or not one feels they can fit their behavioral responses to these interruptions into their identity. In an earlier study of teleworkers, Kossek and colleagues (Kossek, Lautsch & Eaton, 2006) found that perceived control over how, when, and where work was done was a strong predictor of work-family conflict, providing initial support for the importance of perceived control in boundary management. Additionally, an employee’s preference for segmentation between work and nonwork should also impact the relationship between one’s identity and their responsiveness to work-nonwork technological interruptions.

Individuals may respond to their various roles in several ways. First, individuals who are high in work identity are more likely to engage in communications with work during nonwork time, as this behavior is in line with valuing their work role over other roles. Prioritizing work over nonwork would result in investing more time and energy in one’s work role, even while inhabiting a nonwork role. In elevating their work role over their family role, these individuals engage in behaviors consistent with their work role even when not at work (Burke & Stets, 2009). Employees high in work identity are especially likely to respond to technological interruptions from work during nonwork time when they perceive they have control over their environment. This boundary control is consistent with flexibility, or the extent to which one perceives they have flexibility to expand or reduce a boundary as they see fit (Clark, 2000). To the extent that individuals high on work identity perceive flexibility, they will expand their work boundaries to fit their identities and behave in high congruence with the expectations associated with their work role. On the other hand, when individuals high on work identity perceive they cannot expand their work role as much as their identity would dictate, they will feel less in control of the frequency of technological interruptions from work during nonwork time (Kossek
This perception of lower control will result in fewer responses to work during nonwork time. In an opposite fashion, an individual who prefers to keep their work life more separate from their nonwork life will prefer to respond to work during work time rather than nonwork time, despite their high work identity. Preference for segmentation will serve to weaken the relationship between work identity and responsiveness to work-nonwork technological interruptions.

Hypothesis 1a: Work identity is positively related to responsiveness to work-nonwork technological interruptions.

Hypothesis 2a: Boundary control moderates the relationship between work identity centrality and responsiveness to work-nonwork technological interruptions, such that when boundary control is higher the relationship is stronger.

Hypothesis 3a: Preference for segmentation moderates the relationship between work identity and responsiveness to work-nonwork technological interruptions, such that when preference for segmentation is higher the relationship is weaker.

Individuals high in family identity, on the other hand, are more likely to invest time and energy in their family roles over their work roles, thereby resulting in less responsiveness to technological interruptions from work during their nonwork time. Like Kossek and colleagues (Kossek & Lautsch, 2012; Kossek, Ruderman, et al., 2012), I adopt a very broad definition of family in this research, extending beyond the nuclear understanding of family. As Casper and colleagues note, single people and people without children have family identities in which they invest time and energy relative to their work identities (Casper, Welttman, & Kwesiga, 2007). Role identity theory predicts that individuals will choose to behave in ways consistent with their more salient identity when two or more roles have different or conflicting expectations (Thoits,
Employees high in family identity, then, are more likely to protect their nonwork time and not respond to technological interruptions from work during nonwork time. In focusing their time and energy on their family identity, they will focus their behaviors on family-related expectations, especially when they have a high preference for keeping their work roles separate from their nonwork roles. However, if employees high in family identity do not perceive control over the management of boundaries, they will feel less able to enact boundary management behaviors that fit their identities and multiple role expectations (Karasek, 1979). Perceptions of less flexibility in contracting the work boundary will increase high family identity individuals’ feelings of expectations to respond to technological interruptions from work during nonwork time. On the other hand, more perceived control gives employees feelings of choice as to how they handle the work and family domains, allowing them to act in ways congruent with their family identity (Kossek & Lautsch, 2008).

**Hypothesis 1b:** Family identity is negatively related to responsiveness to work-nonwork technological interruptions.

**Hypothesis 2b:** Boundary control moderates the relationship between family identity and responsiveness to work-nonwork technological interruptions, such that when boundary control is higher the relationship is stronger.

**Hypothesis 3b:** Preference for segmentation moderates the relationship between family identity and responsiveness to work-nonwork technological interruptions, such that when preference for segmentation is higher the relationship is stronger.

Dual centric individuals, those who value both their work and nonwork roles, will act in accordance with both of these roles. In identifying with both work and nonwork roles relatively equally, their actions are likely to illustrate this by investing time and energy in both roles,
despite the realm they currently inhabit. As such, they will respond to their work role when it is called for, though they may not actively seek these interruptions out. When individuals’ family roles are primed they will act in accordance with that identity, and vice versa, when their work role is primed. For example, a child’s dance recital would prime one’s family role and related expectations, while a call from one’s boss during the recital’s intermission would prime one’s work role and related expectations. To the extent that individuals perceive control over these boundaries, identity theory offers that their behaviors should reflect their identity centrality (Burke & Stets, 2009) and thus increase their responsiveness to work-nonwork technological interruptions. This is due to the individuals’ feelings of control over the timing and frequency of these interruptions from work. So, when employees have more perceived control over the work-family boundaries, they will act in ways that match their dual centric identity, behaving in accordance with their family roles when with or needed by family and behaving in accordance with their work roles during family downtimes. For example, a dual centric mother is likely to behave in accordance with her family role on the weekends as she takes her kids to sport practices, does homework with them, and engages in other activities. However, when her kids are watching a movie that evening, she may then use that “downtime” in her family role to behave in accordance with her equally important work role and catch up on her email. In contrast to this, when dual-centric employees have a high preference for keeping their work life separate from their personal life, those employees are less responsive to work-nonwork technological interruptions, as this would indicate an undesired integration of the two domains.

_Hypothesis 1c: Dual-centric identity is positively related to responsiveness to work-nonwork technological interruptions._
Hypothesis 2c: Boundary control moderates the relationship between dual centric identity and responsiveness to work-nonwork technological interruptions, such that when boundary control is higher the relationship is stronger.

Hypothesis 3c: Preference for segmentation moderates the relationship between dual-centric identity and responsiveness to work-nonwork technological interruptions, such that when preference for segmentation is higher the relationship is weaker.

Other-centric individuals exhibit similar behaviors in terms of responsiveness to work during nonwork time as family centric individuals, in that they would be more likely to not respond to work communication interruptions during nonwork time. Instead, they should invest their time and energy into their other roles, such as a volunteer or church member, rather than responding to work during their nonwork time. In acting in accordance with their valued identity, other-centric individuals focus their time and energy on these important roles rather than work (Burke & Reitzes, 1991; Thoits, 1991). This is possible as long as one perceives control over keeping his or her work life separate from his or her personal life. Increased control allows individuals to act in ways that match their valued role, resulting in decreased responsiveness to work-nonwork technological interruptions. Control over whether keeping their work and personal life separate allows other-centric individuals to focus their time and energy on that role without responding to technological interruptions from work while doing so. Additionally, when other-centric individuals have a high preference for keeping their work life separate from their personal life, they are especially likely to avoid responding to technological interruptions from work during nonwork time.

Hypothesis 1d: Other-centric identity is negatively related to responsiveness to work-nonwork technological interruptions.
Hypothesis 2d: Boundary control moderates the relationship between other-centric identity and responsiveness to work-nonwork technological interruptions, such that when boundary control is higher the relationship is stronger.

Hypothesis 3d: Preference for segmentation moderates the relationship between dual-centric identity and responsiveness to work-nonwork technological interruptions, such that when preference for segmentation is higher the relationship is stronger.

Tetheredness. Beyond adapting to an integrated self, or dealing with the blurred boundaries that communication technologies promote, Schlosser’s (2002) work also highlighted that communication technologies can induce users to experience an isolated self, whereby inability to access one’s connections through their communication device (such as when it must be turned off or left at home) can cause them to feel isolated from their connections and their relationships. This maps on to Turkle’s work dealing with the idea of tetheredness—the idea that we are increasingly more tied to our communication devices as well as the connections they allow to people and information (2008; 2011). Tetheredness then is a cognitive dependence on communication devices, whereby individuals feel the need to have access to their device at all times and feel incomplete without it. Turkle has spent almost fifteen years studying how the digital terrain has impacted our lives, interviewing hundreds of children and adults about their technology use and their interaction with digital technologies. Her work highlights both our increasing dependence on technology and our increased acceptance of virtual companionship as “good enough,” when compared to more traditional forms of relating to people. For instance, she has found an increasing acceptance of relationships primarily lived out through technology, via email, texting, Facebook, etc. Similarly, work done by Jackson has found that our increased
dependence on technology has led to distraction and reduced intimacy in face-to-face interactions (2002; 2009).

These communication technologies have increasingly become a part of our selves. We carry the technology with us on our person, and become anxious when it is not within reach (Turkle, 2011). Turkle describes how, as individuals become more tethered to their mobile devices, they become more tied to them both physically and emotionally. Perlow’s (2012) research found that 44% of employees would experience “a great deal of anxiety” if they lost their wireless device and were unable to replace it for a week. Individuals feel more and more responsible for “keeping up” with the influx of technological communication. Perlow relates the stories of teenagers who desire their parents’ attention while parents are absorbed in their phones at the dinner table and school sporting events. She also explains that these parents are ashamed of their behavior, but they also admit that their behavior is self-driven in that “their devotion to their communications devices exceeds all professional expectations” (2012: 164). Thus, these behaviors are not simply driven by the norms of the work environment, but are more person-driven, from a cognitive perspective. Interestingly, responses to work interruptions have become almost a yardstick for individuals to measure their own work motivation, and certainly a way for them to enact their work-related identities.

Antecedents of tetheredness. What drives tetheredness? Both Turkle’s (2011) and Schlosser’s (2002) interviews give insight into this. Individuals’ experience of isolation apart from their communication devices is driven by both a need to attend to their relational self as well as to develop an imaged self (Schlosser, 2002). In explaining why they feel so tied to their devices, many individuals noted their need and desire to connect to others. Driving individuals’ degree of tetheredness is relational identity, or the extent to which their relationships are
important to their sense of who they are (Cross, Bacon & Morris, 2000). Although identity can be influenced by culture, especially as culture can act as a social structure conveying norms and ideals that may be internalized, relational identity manifests at the individual-level rather than the cultural level (Gaertner, Sedikides, Luke, O’Mara, Iuzzini, Jackson, Cai & Wu, 2012). Like the identities explained above, relational identity is a driving force of behavior and pertains to one’s desire for stable interpersonal relationships. Individuals vary in their desire to form and maintain relationships, as humans are social in nature, and desire some degree of affiliation and connection (Blumer, 1969). For example, research has found that social exclusion causes pain, activating neural pathways akin to those activated when bodily trauma is experienced (Eisenberger, Lieberman & Williams, 2003). Communication technologies make it increasingly possible to be connected at all times, which allows for individuals to constantly maintain connections to others, thereby increasing their tie to the device. In so much as mobile communication technologies allow individuals to be connected to others, dependence on and connection to these devices increases as they allow individuals to act in accordance with their relational identity.

**Hypothesis 4: Relational identity is positively related to degree of tetheredness.**

Schlosser’s (2002) and Turkle’s (2011) interviews brought to light that individuals’ reliance on their mobile communication technologies is also due to their desire to develop an imaged self, or to promote one’s self-image (Prus, 1997). As mentioned, individuals desire to maintain an identity standard, and in so doing, seek others’ verification of their own understanding of their roles and subsequent behaviors associated with these roles (Swann, 1983). This can be done through the use of impression management tactics (Goffman, 1959).

Impression management (IM) refers to one’s efforts “to create, protect, maintain, or otherwise
alter” the image another holds of them (Bolino, Kacmar, Turnley, & Gilstrap, 2008: p. 1080; Bozeman & Kacmar, 1997). In order to manage these impressions, one can use a variety of IM tactics, which are behaviors intended to create one’s desired image (Jones & Pittman, 1982) in another’s eyes. Past research has evidenced relationships between IM tactics and such things as performance appraisals (e.g., Bolino & Turnley, 2003; Wayne & Liden, 1995) and career success (e.g., Wayne, Liden, Graf, & Ferris, 1997). However, no empirical research has examined the relationship between IM and one’s degree of tetheredness to mobile communication devices. One’s desire to maintain a certain image can be facilitated by the use of communication devices. Jones and Pittman (1982) developed a broad taxonomy of IM tactics where they identified five theoretical groupings of commonly used IM tactics: self-promotion, whereby individuals highlight their accomplishments as a way to be seen positively and competently by others; exemplification, whereby people gain the commitment of others by self-sacrificing or going above and beyond what’s required of them; ingratiation, whereby individuals use flattery or praise to be seen positively and likeable by others; supplication, whereby individuals highlight their shortcomings or inabilities in order to get others to designate them as needy; and intimidation, whereby an individual elicits an image of being dangerous by signaling their power to punish. Most relevant to this research are the first two tactics, which I suggest may be associated with one’s dependence on their mobile communication technology in relation to identity and one’s response to technological interruptions from work during nonwork time. A good amount of IM research has linked IM tactics to feedback-seeking behavior (cf. Ashford, Blatt & VandeWalle, 2003). These behaviors as well as research linking IM tactics to organizational citizenship behaviors (OCBs; extra-role performance that goes above and beyond one’s job description; Podsakoff, MacKenzie, Paine & Bachrach, 2000) gives insight into IM
tactics as they relate to tetheredness. Yun and colleagues’ research suggests that, in order to improve their image at work, employees engage in OCBs, especially when their job roles are not clearly defined (Yun, Takeuchi & Liu, 2007). In a similar manner, individuals can go above and beyond in maintaining an identity standard by seeking others’ verification of their own understanding of their roles and subsequent behaviors, here degree of tetheredness, associated with these roles (Swann, 1983). In order to better promote a positive image, employees engage in IM tactics by engaging with and becoming cognitively tethered to mobile communication technologies. Mobile communication technologies allow for individuals to maintain a desired image, especially as it allows them to be self-promoting and to exemplify their hard work.

*Hypothesis 5a-b: Self-promotion (a) and exemplification (b) are positively related to degree of tetheredness.*

Related to impression management and developing an imaged self, is the personality variable of conscientiousness. Individuals higher in conscientiousness are dependable, organized, and responsible (Barrick & Mount, 1991). Also related to developing an imaged self, both Schlosser (2002) and Turkle (2011) noted that individuals desire to keep up with their communication devices as a way to keep ahead of their workload. Turkle (2011) describes tetheredness to mobile communication devices as being connected to one’s desire to “keep up” with texts, Facebook updates, emails, tweets, etc., almost to the extent that this has become a compulsion. These traits relate to conscientiousness, in that “keeping up” with communication devices is seen as being organized and responsible, resulting in conscientious individuals being more tethered.

*Hypothesis 6: Conscientiousness is positively related to degree of tetheredness.*
**Identity and tetheredness.** As we become more tethered to our mobile communication devices, they in turn become more a part of our self and our subsequent definition of self.

Perlow’s recent research dealing with how to disconnect from our Smartphones noted how “always being on, in fact, is becoming increasingly core to our identities” (2012, p. 2). Mobile communication technologies act as an extension of ourselves, providing constant access to people and information, not to mention other’s constant access to us through these devices.

Perlow’s (2012) research found that not only were 92% of her sample working fifty or more hours per week, but many of them were also monitoring their work during nonwork time in addition to those long work weeks. She found that 70% checked their Smartphone within an hour after getting up and 26% were even “sleeping with their smartphones,” that is, keeping them at the bedside. Dependence on these devices and connection to them increases the likelihood of responses to work during nonwork time, especially as it allows individuals to maintain their identities and connect with those important to verifying roles. As such, employees’ degree of tetheredness moderates the relationship between the identities described previously and responsiveness to work during nonwork time. The overall idea is that individuals’ degree of tetheredness, making them more aware of technological interruptions and dependent on mobile devices, will interact with their work/family/dual centric/other-centric identity to increase the responsiveness to these technological interruptions from work during nonwork time.

_Hypothesis 7a-b: Degree of tetheredness will moderate the relationship between (a) work identity centrality and (b) dual centric identity and responsiveness to work-nonwork technological interruptions such that higher levels of tetheredness will be associated with increased responsiveness to work-nonwork technological interruptions._
One’s degree of tetheredness permeates boundaries. As Turkle (2011) and Perlow (2012) found in their research, mobile technologies have become a part of our self. They have even become a “phantom limb,” whereby individuals become anxious without them and feel like they are ringing or buzzing even when these devices are nowhere in sight (Lookout.com Mobile Mindset Study 2012; Turkle, 2011). In this sense, even someone high in family or other-centric identities can become prone to tetheredness. Tetheredness has increased individuals’ dependence on their mobile technologies, prompting them to constantly check for missed calls, texts, or emails, and to leave these devices on even when they go to sleep at night.

Hypothesis 7c-d: Degree of tetheredness will moderate the relationship between (c) family identity centrality and (d) other-centric identity and responsiveness to work-nonwork technological interruptions such that as degree of tetheredness increases the relationship will be less negative.

Consequences of Responsiveness to Work-Nonwork Technological Interruptions

Many individuals report they get more done than they ever did without communication technologies—that is, they feel they are more efficient and more effective in both work and personal life roles (Perlow, 2012; Turkle, 2011). My hypotheses challenge whether outcomes in employees’ personal and work lives are indeed positively valenced: Does the use of technology to respond to other roles while physically or temporally engaging in another truly allow us to experience career success, with higher salaries and more recognition, as well as experience a satisfying personal life, with fewer health problems and higher relationship satisfaction with family members? Many of the popular depictions of these technologies and their capabilities claim yes. On the other hand, being “on” constantly and available 24/7 also comes with stories of stress and overload—which are theoretically supported. Burke’s (1991) explanation of the
connection between identity processes and social stress provides insight into why these behaviors likely result in negative outcomes, namely work-family conflict and stress, and how these in turn relate to negative career and personal outcomes. Burke explains that the identity process, where individuals act in ways to match their identity standard and to react to others’ feedback, is part of a feedback loop, which is continuously operating, and interruptions to this process can create stress. Technological interruptions which prompt individuals to engage in a role they are not currently in is an example of interference from other identities (Burke, 1991). This is more readily recognized as role conflict, here work-family conflict. Work-family conflict refers to perceptions that work roles negatively affect the fulfillment of family roles (Netemeyer, Boles, & McMurrian, 1996). Technological interruptions are an environmental stressor, and stress research tells us that individuals’ reactions to stressors are understood by way of their perception of these stressors as stress. As mentioned, this might be through the perception of WFC, or, this type of interruption may also act as a stressor (Burke, 1991; Thoits, 1991), causing both job stress and nonwork stress when one’s job interferes with one’s nonwork roles. Environmental stressors are interpreted as stress by the employee, via WFC, job stress, or nonwork stress, which detracts from their coping resources and results in a behavioral or psychological reaction (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Spector, 1998). The work and family literature has explained these connections, whereby a job-related stressor (here, interruptions) impacts both personal and career related outcomes by way of spillover through perceptions of role conflict and stress (see Frone, 2003 for a review); crossover effects are also a consequence whereby a job-related stressor crosses over between closely related persons (Westman, 2002). Spillover theory proposes that the family system and the work system significantly impact each other through permeable boundaries (Ashforth, Kreiner & Fugate, 2000; Zedeck, 1992).
research, in line with previous research on cross-domain effects (e.g., Ford, Heinen & Langkamer, 2007), proposes that responses to technological interruptions from work during nonwork time will impact both employees’ career and personal outcomes as well as family member outcomes (i.e., family members’ relationship satisfaction with the focal employee) through WFC, job stress, and nonwork stress. Some empirical research has supported these theoretical relationships. For example, the use of communication technologies during nonwork time was found to be positively related to work-family conflict as rated by employees and also significant others of those employees (Boswell & Olson-Buchanan, 2007). Increased communication technology use after hours was also linked to increases in negative work-to-family spillover (Chesley, 2005). Kossek, Ruderman, and colleagues (2012) found work interrupting nonwork behaviors to be positively correlated with work-family conflict. Based on the intersection of the interruption theory of stress (Mandler, 1982) and identity theory, it is likely that responsiveness to technological interruptions from work during nonwork time would be similarly related to employees’ perceptions of job stress and nonwork stress.

*Hypothesis 8:* Greater responsiveness to work-nonwork technological interruptions is positively related to work-family conflict.

*Hypothesis 9:* Greater responsiveness to work-nonwork technological interruptions is positively related to nonwork stress.

*Hypothesis 10:* Greater responsiveness to work-nonwork technological interruptions is positively related to job stress.

**Responses to Technological Interruptions, WFC, and Career and Personal Outcomes**

Work-family conflict may act as one mediating mechanism by which responses to work-nonwork technological interruptions relate to career and personal outcomes. As noted,
individuals who use their communication technologies to respond to work during nonwork time often note that they are able to get more done, yet they admit their family may suffer (Turkle, 2011). WFC implies that one’s work role and one’s personal roles are incompatible (Greenhaus & Beutell, 1985). This conflict, in turn, impacts both one’s more distal personal and career outcomes by coloring one’s perceptions of these domains. Often drawing on Conservation of Resources theory, which states that as time and energy (resources) become scarce due to one’s enactment of multiple roles, effort will be withheld in one domain in order to preserve resources in another (Hobfoll, 1989), the research linking work-family conflict to personal outcomes is extensive. For example, WFC has been linked to lower life satisfaction (e.g., Kossek & Ozeki, 1998; Perrewé, Hochwarter & Kiewitz, 1999) and greater psychological distress (Burke & Greenglass, 1999). Technological interruptions from work during nonwork time act as an environmental stressor, which in turn results in behavioral and cognitive reactions, by way of one’s perceptions of role conflict. Role conflict negatively influences personal life when time and energy are being focused on one’s work role, especially during nonwork times that might otherwise be focused on family. This can manifest itself cognitively in the form of lower life or relationship satisfaction or physically as health complaints. WFC has been positively linked to overall poor physical health (Frone, Russell & Barnes, 1996) and anxiety (Frone, 2000). WFC also implies that there may be an imbalance between the two domains, such that WFC can negatively impact perceptions of work-family balance (Greenhaus, Ziegert, & Allen, 2012).

An additional and important distal outcome to consider in regard to work-nonwork technological interruptions is time adequacy. Time adequacy refers to an individual’s perceptions that they have the time necessary to take care of family needs and themselves. This may include exercising, routine household chores like grocery shopping and laundry, and
attending social engagements. Time adequacy is an important outcome in this research as it measures the extent to which one feels they really are able to “get it all done.” Kossek, Ruderman and colleagues’ (2012) research found support for the direct association between work to nonwork interruption behaviors and lower perceptions of time adequacy. Technological interruptions from work during nonwork time are likely associated with feelings of conflict between roles, that is, the work role interrupting the nonwork role. This conflict should then be the cognitive link between interruptions and perceptions of time adequacy, life satisfaction, relationship satisfaction, and work-family balance. Similarly, technological interruptions should relate to health complaints through the strain of WFC.

_Hypothesis 11a-e: WFC mediates the relationship between responsiveness to work-nonwork technological interruptions and (a) life satisfaction, (b) relationship satisfaction (rated by family member), (c) somatic health complaints, (d) work-family balance (rated by both employee and family member), and (e) time adequacy._

In the work realm, WFC has been linked to lower job satisfaction (Kossek & Ozeki, 1998), career satisfaction (Martins, Eddleston & Veiga, 2002), and job performance (Gilboa, Shirom, Fried, & Cooper, 2008). Recent meta-analytic evidence also sheds light on the relationship between responding to work-nonwork technological interruptions, WFC, and career outcomes. In assessing the “always on” mentality and its impact on career outcomes, Hoobler and colleagues (Hoobler, Hu & Wilson, 2010) found WFC to be significantly and positively related to salary and hierarchical level while negatively related to career satisfaction. In line with the anecdotal and qualitative stories discussed previously, Hoobler and colleagues argued that today’s always-on employees are rewarded for putting their career before their personal life.
Hypothesis 12a-d: WFC mediates the relationship between responsiveness to work-nonwork technological interruptions and (a) promotability, (b) career satisfaction, (c) job satisfaction, and (d) job performance.

Responses to Technological Interruptions, Job Stress, and Career and Personal Outcomes

Another mechanism by which responsiveness to work-nonwork technological interruptions from work during nonwork time may impact career and personal outcomes is job stress. Job stress is defined as a worker’s perception that a job is requiring more resources than he or she has and is jeopardizing his or her well-being (Lazarus & Folkman, 1984), especially including feelings or tone of the experience of stress (Stanton, Balzer, Smith, Parra, & Ironson, 2001). As these identity-relevant interruptions are job-related, they may act as environmental stressors, increasing individuals’ perceptions of job stress, which can alter how they perceive and react to their nonwork domain. Job stress is a source of strain, and a key antecedent is conflict with one’s work role (Kahn & Byosiere, 1992). Crossover theory, in that job stress can crossover and affect the personal domain, is helpful in understanding outcomes of job stress as well. Ford and colleagues (2007) found meta-analytic evidence that job stress significantly and negatively impacts family satisfaction. The individual’s experience of stress can also spillover and affect a family member’s relationship satisfaction with that focal individual. Research shows that individuals in a close relationship have the access, information, and motivation necessary to accurately perceive their partners’ stress (Kenny & Acitelli, 2001; Swann, 1984), and are able to validly assess their partners’ experience of chronic stressors (Kromm, Gadinger & Schneider, 2010). Work stressors have been shown to negatively impact one’s social functioning and decrease engagement with family members once home (Lim & Lee, 2011), indicating that the employee’s job stress will relate negatively to family members’ assessments.
of relationship satisfaction. In further support of this relationship, additional research found that demanding work days and negative interactions with coworkers and supervisors are related to increased emotional and social withdrawal from family members (Repetti, 1989, 1998; Repetti & Wood, 1997). Additionally, in a study of dual-earner couples, after more stressful work days, both spouses were more distracted and less responsive to the other (Story & Repetti, 2006). Research has also extensively noted the connection between job stress and health outcomes. It has been noted that the very nature of stress itself precipitates physiological changes such as increases in heart rate and blood pressure that produce health problems such as heart disease (Beehr & Newman, 1978). The positive relationship between stress and health problems has also been explained psychologically, as individuals use resources when they respond to stress at work, depleting resources and limiting ability to cope with health risks (Christie & Barling, 2009). Job stress, though, is one’s perception of an environmental stressor, in this case responsiveness to technological interruptions from work during nonwork time, which then should be associated with how one perceives nonwork domain satisfaction. Similarly, responses to work-nonwork technological interruptions, perceived as job stress, relates to physical somatic health complaints.

Hypothesis 13a-c: Job stress mediates the relationship between responsiveness to work-nonwork technological interruptions and (a) life satisfaction, (b) relationship satisfaction (rated by family member), and (c) somatic health complaints.

Job stress also acts as a mechanism by which responses to technological interruptions from work during nonwork time are related to one’s perception of job satisfaction. Specifically, job stress mediates the relationship between these responses and job satisfaction, such that responsiveness to technological interruptions from work during nonwork time is positively
related to job stress, which in turn, is negatively related to job satisfaction. I am adding to what is already known about the between job-related stressors (here interruptions) and job satisfaction by adding the cognitive linking mechanism of job stress, in that it is only when these responses to work-nonwork technological interruptions become stressful that they impact one’s job satisfaction. The latter relationship is evidenced by research indicating a negative relationship between job stress and job satisfaction (Beehr, Walsh, & Taber, 1976; Bhuian, Menguc, & Borsboom, 2005).

*Hypothesis 13: Job stress mediates the relationship between responsiveness to work-nonwork technological interruptions and job satisfaction.*

**Responses to Technological Interruptions, Nonwork Stress, and Career and Personal Outcomes**

Nonwork stress, or the feeling or tone of experienced events in one’s daily life that are perceived as threatening, demanding, or exceeding one’s resources (Lazarus, 1977), may act similarly as another mechanism by which responses to technological interruptions from work during nonwork time may impact career and personal outcomes. As these identity-relevant interruptions occur in one’s nonwork domain, they may act as stressors, increasing one’s perception of nonwork stress, which is likely to act as a cognitive mechanism by which one experiences a decrease in life satisfaction. As job stress has been found to negatively impact relationship satisfaction with a close personal relationship (see Westman, 2001 for a review), it is likely too that nonwork stress would negatively impact the focal employees’ family members’ or other close relations’ relationship satisfaction (Karney & Bradbury, 1995), especially as the stress is from that same domain. As noted previously, research indicates that individuals in close relationships have the access, information, and motivation necessary to accurately perceive their
partners’ stress (Kenny & Acitelli, 2001; Swann, 1984), and are able to validly assess their partners’ experience of chronic stressors (Kromm, Gadinger & Schneider, 2010). Research has also extensively noted the connection between stress and health outcomes. It has been noted that the very nature of stress itself precipitates physiological changes such as increases in heart rate and blood pressure that produce health problems such as heart disease (Beehr & Newman, 1978). The positive relationship between stress and health problems has also been explained psychologically: Individuals use resources when they respond to stress at work, depleting resources and limiting their ability to cope with health risks (Christie & Barling, 2009). Nonwork stress, then, acts as a cognitive mechanism by which responsiveness to technological interruptions from work during nonwork time is associated with somatic health complaints.

_Hypothesis 15a-c: Nonwork stress mediates the relationship between responsiveness to work-nonwork technological interruptions and (a) life satisfaction, (b) relationship satisfaction (rated by family member), and (c) somatic health complaints._

Nonwork stress, too, can act as a cognitive mechanism by which responses to technological interruptions from work during nonwork time crossover to impact the career realm. Responses to interruptions act as a stressor, and are interpreted by the employee as nonwork stress due to their occurrence in the nonwork realm. Lazarus and Folkman (1984) noted that nonwork stress can occur in the form of daily hassles. Responsiveness to work-nonwork technological interruptions are often synonymous with hassles, whereby the employee is _interrupted_ and acts to deal with this interruption. As in the case of job stress, research has supported crossover theory, in that nonwork stress can cross over to affect the work domain. In support of the latter relationship, Ford and colleagues (2007) found meta-analytic evidence that nonwork stress negatively impacts job satisfaction.
Hypothesis 16: Nonwork stress mediates the relationship between responsiveness to work-nonwork technological interruptions and job satisfaction.
Chapter 3

Methods

Research Setting and Sample

Data were collected from a multi-specialty group practice and healthcare provider of a large Midwestern teaching hospital, with 1,836 employees. These employees span a large range of occupations, including both clinical (i.e., nurse practitioners, clinic managers, front desk staff, etc.) and administrative (i.e., accountants, IT staff, collections agents, human resources staff, etc.). Online surveys were distributed to employees and their respective managers. Employees responded to questions about electronic interruptions as well as their work experiences and attitudes. Managers responded to questions about norms related to technological responsiveness as well as their perceptions of their employees’ attitudes and behaviors.

Response Rate. Of the 1,836 employees, 438 completed the online survey (response rate = 24%). Of the responding employees, their managers completed 184 corresponding surveys (response rate = 42%), with 176 fully answering all questions related to the present study (response rate = 40%). Additionally, family members or significant others of the responding employees completed 114 corresponding surveys (response rate = 26%), with 99 fully answering all questions related to the present study (response rate = 23%). Unfortunately, only 67 employees had both full data from a manager and a family member or significant other; therefore models were tested with either the employee/manager dyad dataset (n = 176) or with the employee/family member or significant other dyad dataset (n = 99).

Although the response rates were lower than hoped for, they were fairly good considering the surveys were administered online. On-line response rates are known to be lower than in-person data collection methods (Dillman, 2000), with one meta-analysis finding a mean response
rate of 34.6% for online surveys (Cook, Heath, & Thompson, 2000) while paper surveys have an average response rate of 55.6% (Baruch, 1999). However, the organization insisted on this format. Lower response rates with on-line surveys can be due to several factors. For one, the use of on-line surveys allows for the possibility of employees deleting the email or the email going to a spam folder. Additionally, there is no in-person plea for survey completion and there is no work time set aside for survey completion, as there often is with paper-and-pencil survey administration. On the other hand, a factor contributing to increased on-line response rates is regular reminder emails (Yammarino, Skinner, & Childers, 1991). The survey link and a brief explanation of the study were posted to the organization’s internal intranet, and, in addition, a top executive sent an email encouraging employees to participate. However, both of these forms of communication are fairly impersonal tools for conveying information about a research study that asks what can be considered rather sensitive questions (Gupta, Shaw, & Delery, 2000), such as the questions asked in this study.

Due to the lower response rate, an ANOVA was conducted to compare the mean scores across respondents and non-respondents in this study, to test for systematic biases. All of the study variables were tested. First, those employees with accompanying manager responses were compared to those employees with no manager responses; no significant differences were found in means. Second, those employees with family or significant other responses were compared with those employees with no family or significant other responses. No significant differences were found in means except for preference for segmentation: Employees for whom I did not receive an accompanying family or significant other survey had a higher mean for preference for segmentation, \( F(1, 374) = 7.96, p < .05 \), as compared to those for whom I received employee-family member dyadic matched surveys. This may be due to those employees who had a higher
preference for keeping their work life separate from their personal life being less likely to encourage their family member or significant other to complete the family member survey. This significant difference between respondents and nonrespondents is not expected to be a problem because preference for segmentation was proposed to moderate the relation between the various identities and employee responsiveness to work-nonwork technological interruptions. This interaction effect was not testable, as the direct relationship was not significant.

**Sample Characteristics.** Demographic information was provided by all respondents. Of the employees included in the employee-manager dyad data, 86.7% were female compared to 80% of the managers. The average age of employees was 43.6 years. The average age of managers was 48.3 years. In terms of racial diversity of the employee sample, 86.7% were Caucasian/White, 4.4% were African American, 2.2% were Latino/Hispanic, 2.8% were Asian, and 1.7% reported Other. Of the manager sample, 93.3% were Caucasian/White, 0.6% were African American, 2.8% were Latino/Hispanic, 0.6% were Asian, and 0.6% reported Other. In terms of education, 26.6% of employees were high school graduates or had some college, 43.3% of employees held a Bachelor’s degree, 8.9% had taken some graduate classes, and 18.9% had completed a graduate degree. Of the managers, 23.3% had completed some college-level courses, 31.1% held a Bachelor’s degree, 9.4% had completed some graduate courses, and 33.9% had a graduate degree. Employees had been with the organization for an average of 4.7 years and had reported to their current manager for an average of 2.7 years. Of the employees, 9.7% were registered nurses, nurse practitioners, or LPNs; 21.6% were coders, account specialists, or in billing; 14.2% were hospital coordinators; 5.7% were patient representatives; 3.4% were executive assistants; 23.9% held management positions; 6.8% were physician/dental assistants or certified medical assistants; 2.8% were technicians; and 11.9% were Other. Family
demographics of the employees were also collected. The majority was married or had a cohabitating partner (75.0%) and 65.3% of the sample had a spouse or cohabitating partner who worked. The majority of the sample (74.4%) had at least one child. Of those employees who had children, the average number of children was 2.2.

Of the respondents included in the employee-family member/significant other dyad data, 89.9% of the employees were female compared to 24.2% of the family members. The most common relation of the family member to the employee was a spouse/cohabitating partner (82.8%), while son/daughter was the next most common relation (11.1%). The average age of employees was 43 years. The average age of the family member/significant other sample was 41.6 years. Racially, the employee sample was 99.9% Caucasian/White, 5.1% African American, 3.0% Latino/Hispanic, and 1% Other. The family member/significant other sample was 89.9% Caucasian/White, 4.0% African American, 1.0% Asian, and 5.1% Other.

**Procedures**

Before surveys were administered, on-site interviews were conducted to assess the whether electronic interruptions occurred in the context of this sample. An email was sent from the director of human resources and eight employees responded to this request to be interviewed. These eight employees held varying positions at different levels in the organization, including a performance analyst, an executive assistant, and the Chief Executive Officer. Each interview lasted about a half hour during which the employee answered questions pertaining to their definition of nonwork time, what types of communication technologies they used, and their experience with work-nonwork technological interruptions. Based on the interviews, it was concluded that the use of communication technologies for work was common in the
organization, across various jobs and organizational levels, and that there was variance in employees’ experience with work-nonwork technological interruptions.

An email invitation from a top executive at the company invited all employees to complete an online survey. In addition, the survey link was posted to the organization’s intranet with the same invitation. After two and four weeks, the top executive sent a reminder email to all employees. Managers of the responding employees were sent an email invitation from the primary investigator asking them to respond to questions about their employee. Due to organizational time concerns, managers were asked to complete a total of four employee surveys, and these four employees were chosen at random from the total number of their direct reports who responded to the employee survey. Additionally, employees who completed the survey were sent an email from the principal investigator inviting them to ask a family member or significant other with whom they lived to complete a short survey. Employees were directed that this individual could be a spouse, partner, child, relative or anyone else they might live with who is significant to them, as long as the individual was 12 years of age or older. This age limit was due to Internal Review Board concerns as well as the reading level associated with the survey.

**Measures**

All data were collected using survey research methods. Due to survey time constraints, short-forms of existing scales were used for several variables, as described below. All responses were measured on 5-point scales ranging from 1=strongly disagree to 5=strongly agree, unless otherwise specified.

*Employee Measures (Cronbach’s alphas from the employee-manager dyad dataset are listed first followed by the alpha from the employee-family member dyad dataset.)*
Identity. Kossek and colleagues’ (2006) scale, adapted from Lobel and St. Clair (1992), was used to assess one’s work, family, dual centric, and other-centric identities. Two items assess work identity and two items assess family identity. “People see me as highly focused on my family” and “I invest a large part of myself in my family life,” assess family identity. The work identity items are: “People see me as highly focused on my work” and “I invest a large part of myself in my work.” Following Kossek, Ruderman, and colleagues’ (2012) recent work, dual centric identity was reflected by a high score (1 S.D. above the mean) on both of these scales, while other-centric identity was reflected by a low score (1 S.D. below the mean) on both of these scales.

Due to concerns about the brevity of a 2-item measure for family and work identity, a commonly used 1-item measure (Lobel & St. Clair, 1991) was added to the Kossek and colleagues’ (2006) scale. Employees were asked to select the response which best describes their day-to-day priorities in life right now ranging from “I am primarily focused on my family roles” to “I am primarily focused on my work role.” The item was reverse-coded for family identity. However, the reliability of the combined 3-item measures were low for both work identity and family identity (.67 and .66 respectively; .69 and .58 respectively), while the reliability for the 2-item measures from Kossek and colleagues (2006) work were acceptable (.75 and .90 respectively; .75 and .83 respectively). These alphas are similar to those reported by Kossek and colleagues (2012; .75-.76 for work identity and .77-.85 for family identity). Thus, the 2-item measures for work identity and family identity were used in all analyses.

Impression Management. Bolino and Turnley’s (1999) impression management scale was employed, using the items pertaining to self-promotion and exemplification. The top 3 loading items of each subscale were used from the original scale development (Bolino & Turnley, 1999).
Employees were asked to rate how accurately a statement describes their actions on a scale ranging from 1 = “very inaccurate” to 5 = “very accurate.” An example item of self-promotion is “Make people aware of your accomplishments.” An example item of exemplification is “Stay at work late so people will know you are hard working.” (α = .88 for self-promotion and α = .80 for exemplification; α = .87 for self-promotion and α = .77)

**Conscientiousness.** Conscientiousness was assessed with the 8-item mini-marker scale developed by Saucier (1994). An example item is “Organized” and employees rated how accurately (1 = extremely inaccurate to 5 = extremely accurate) the item described them. (α = .90; α = .83)

**Relational Identity.** Relational identity was assessed using an 11-item scale developed by Cross and colleagues (Cross, Bacon & Morris, 2000). The scale assesses the extent to which one’s relationships are internalized in their self-concept. An example item is “My close relationships are an important reflection of who I am.” (α = .90; α = .87)

**Degree of Tetheredness.** The employee’s degree of tetheredness was measured using a 6-item scale assessing one’s dependence on their mobile phone by Hooper and Zhou (2007). An example item is “I feel lost when I leave my cell phone at home.” In order to more broadly assess tetheredness, the items were adapted to refer to all mobile communication technologies. So an example item reads, “I feel lost when I leave my communication device (e.g., smartphone, cell phone, tablet, etc.) at home.” (α = .92; α = .89)

**Responsiveness to Work-Nonwork Technological Interruptions.** Employees were asked how frequently, on average, they respond to technological interruptions from work during nonwork time using a variety of communication technology devices. The directions indicated that nonwork time referred to personal time outside work that may include time spent with
family and friends. This measure is based on Batt and Valcour’s (2003) 7-item measure of flexible technology use but was adapted to represent newer technologies and those most relevant to the current research. Boswell and Olson-Buchanan (2007) modified Batt and Valcour’s (2003) measure in a similar manner. Respondents reported how frequently, on average, (e.g., 1 = “never” to 5 = “very often, i.e., several times a day”) they respond to technological interruptions from work during nonwork time by using, for example, “Smartphones/Cell phones for calls” or “Laptops/Computers/Tablets for email.” (α = .89; α = .77)

**Boundary Control.** Kossek, Ruderman, and colleagues’ (2012) 3-item boundary control measure was used, which reflects employees’ general perceptions of their control over work-nonwork boundaries. Items were adapted to reflect directionality, such that the measure reflected the extent to which an employee feels he or she is able to keep work life out of personal life. An example item is “I control whether I have clear boundaries separating my work from my personal life.” (α = .93; α = .92)

**Preference for Segmentation.** The extent to which employees preferred to keep their work life separate from their personal life was assessed using a 4-item measure developed by Kreiner (2006). An example item is, “I don’t like to think about work issues while I am at home.” (α = .83; α = .86)

**Work-Family Conflict.** Employees responded to 3-item WFC measure developed by Grzywacz and colleagues (Grzywacz, Frone, Brewer, & Kovner, 2006). An example item is, “On average over the past 3 months, how often per week did your job or career interfere with your home life?” Employees responded on a 6-point scale ranging from “Never” to “5+ days per week.” (α = .95; α = .93)
Job Stress. Job stress was measured with the 7-item pressure subscale of the Stress in General Scale (SIG-I; Stanton, Balzer, Smith, Parra, & Ironson, 2001). This measure evaluates the general experience of job stress, rather than frequency of certain job stressors. Respondents are asked to indicate whether each of seven descriptors, such as “demanding” and “hectic,” fits their job. Although Stanton and colleagues used a 3-point scale of “yes,” “no,” and “can’t decide,” I used a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree to maintain consistency amongst measures. (α = .88; α = .88)

Nonwork Stress. The 4-item shortened form of a perceived stress scale was used to assess employees’ experience of nonwork stress (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). An example item is, “In the past 3 months, how often have you felt that you were unable to control the important things in your life?” (α = .72; α = .61—due to this low reliability, the employee-family member variable was not used in subsequent analyses)

Job Satisfaction. Job satisfaction was assessed with Cammann and colleagues’ (1979) 3-item scale. An example item is “All in all, I am satisfied with my job.” (α = .80; α = .88)

Career Satisfaction. Employees responded to 5 items developed by Greenhaus, Parasuraman, and Wormley (1990) assessing their satisfaction with their career. An example item is “I am satisfied with the progress I have made toward meeting my overall career goals.” (α = .92; α = .90)

Life Satisfaction. A 5-item satisfaction with life scale was used (Diener, Emmons, Larsen & Griffin, 1985). An example item is “In most ways my life is close to my ideal.” (α = .87; α = .86)

Somatic Health Complaints. Somatic health complaints were assessed with a 14-item adaptation of Spector and Jex’s (1998) 18-item physical symptoms measure. This adapted
version has been used in previous research (e.g., Webster, Beehr & Christiansen, 2010; Webster, Beehr & Love, 2011). Respondents rated how often they have experienced such symptoms as “eye strain” and “backache” in the past month on a 5-point scale ranging from 1 = “Never” to 7 = “Every day.” (α = .79, α = .81)

Work-Family Balance. The 5-item scale developed by Valcour (2007) was used to assess one’s satisfaction with his or her work-life balance. Items were assessed on a 5-point scale ranging from 1 = “very dissatisfied” to 5 = “very satisfied.” An example item is “How satisfied are you with how well your work life and your personal or family life fit together?” (α = .96; α = .96)

Time Adequacy. The extent to which one feels one has enough time to attend to family needs and self-care was assessed with 8 items from a measure developed by Van Horn and colleagues (Van Horn, Bellis, & Snyder, 2001). An example item is “To what extent is there enough time for you to keep in shape?” (α = .91; α = .87)

Manager Measures

Promotability. Managers assessed their employee’s promotability using a 3-item scale written by Thacker and Wayne (1995). An example item is “I believe that this employee has high potential.” (α = .81)

Job Performance. Managers reported on their employee’s performance using a 6-item measure developed by Williams and Anderson (1991). An example item is “This employee fulfills all the responsibilities specified in his/her job description.” (α = .94)

Family Member/Significant Other Measures

Degree of Tetheredness. The items used to assess degree of tetheredness in the employee survey (Hooper & Zhou, 2007) were modified for the family member to report on the
employee’s degree of tetheredness. The example item noted above read, “He/she feels lost when he/she leaves his/her communication device (e.g., Smartphone, cell phone, tablet, etc.) at home.” \( \alpha = .89 \)

**Work-Family Conflict.** Family members responded to the same 3-item WFC measure developed by Grzywacz and colleagues (Grzywacz, Frone, Brewer, & Kovner, 2006), modified to report on the employee’s WFC. An example item is, “On average over the past 3 months, how often per week did his/her job or career interfere with his/her home life?” Family members responded on a 6-point scale ranging from “Never” to “5+ days per week.” \( \alpha = .93 \)

**Relationship Satisfaction.** The significant other/family member of the employee reported on their relationship satisfaction with the focal employee using a 7-item composite measure that reflects general relationship satisfaction. This measure has been used by Kaul and Lakey (2003). Example items are: “In general, how often do you think that things are going well in this relationship?” “How often would you say that you and this person laugh together?” and “How often do you and this person quarrel?” Respondents answered on a 5-point scale ranging from 1 = never to 5 = all of the time. \( \alpha = .88 \)

**Work-Family Balance.** Family members reported on their satisfaction with the focal employee’s work-family balance. The items from the same scale used in the employee survey (Valcour, 2007) were modified to reflect this. An example item is “How satisfied are you with how well your family member’s work life and personal or family life fit together?” These items were rated on a 5-point scale ranging from 1=Extremely Dissatisfied to 5 = Extremely Satisfied. \( \alpha = .94 \)

**Control Variables**
In order to eliminate alternative explanations for significant relationships, several control variables were measured. Employees reported the average number of technological interruptions from work during nonwork time received in a day, as the actual number of interruptions is likely highly variable from job to job and likely impacts the number of possible times an employee could respond to technological interruptions from work during nonwork time. Due to possible differences in jobs that may also affect the actual number of interruptions as well as the degree of tetheredness and WFC, job type was also collected. In addition, the focal employee’s sex was also considered, as it is sometimes seen as important in predicting work-family-related behavior and perceptions (Eagle, Icenogle, Maes, & Miles, 1998; Voydanoff, 2002). Additionally, several family demographics were considered as controls for WFC, and are fully described in the analyses section. Sex and age might also influence employees’ degree of tetheredness and their responsiveness to work-nonwork technological interruptions, especially as qualitative research has noted gender and age differences in technology use in that younger males tend to be the most connected to technology (e.g., Turkle, 2011). Managers were also asked about their expectations for fast responses to electronic communications as a possible control for employee responsiveness to work-nonwork technological interruptions. Managers were asked to indicate how quickly (on a scale ranging from 1 = within a matter of days to 1 = within a few minutes) they expect a response from their employees for each of the following forms of work-related electronic communications: e-mail, cell phone calls, instant messages via the computer, and text messages. These items were used to create an additive index. Finally, an abbreviated measure of the workload scale developed by Caplan, Cobb, French, Harrison, and Pinneau (1975) was collected from employees as a possible control for their responsiveness to work-nonwork technological interruptions, as workload has been shown to be positively related to the perceived
frequency of work distractions at home (Cardenas, Major, & Bernas, 2004). The 4-item measure has been used in several studies (Cardenas et al. 2004; Parasuraman, Greenhaus, & Granrose, 1992). An example item is “There is a great deal of work to be done in my job.” (α = .83; α = .88)
Overview of Analyses

Hypotheses 4, 5a-b, and 6 were tested using hierarchical regression. Then, due to the smaller sample size and large number of hypotheses to be tested for this model, it was not possible to test one overall structural equation model (SEM) that included all hypothesized relationships. Since testing a structural equation model was preferred, as it allows for the concurrent testing of relationships (Kline, 2004), I chose to first test the hypotheses using regression and then test a series of condensed models based on those hypotheses that received support. The smaller employee-family member/significant other dyadic dataset was used to test those hypotheses concerning variables reported by the family member/significant other. Additionally, in order to limit the model size further to conserve power, those hypotheses dealing with career outcomes were tested in a model separately from those hypotheses dealing with personal outcomes in the employee-manager dyad dataset. For the employee-family member/significant other dyad dataset, those hypotheses dealing with family-rated outcomes were tested in a separate model from those hypotheses that dealt with employee-rated outcomes. (Note: Nonwork stress had an unacceptable Cronbach’s alpha in the employee-family member/significant other dyadic dataset, and was thus excluded from further analyses.)

Preliminary Analyses

Before testing the hypotheses, I conducted a series of confirmatory factor analyses (CFA). In each of the models, items were specified to load on only one factor and factors were allowed to correlate. Acceptable model fit was indicated by a CFI above .90 and a SRMR at or below .08 (Hu & Bentler, 1999). The RMSEA was not reported, as sample sizes smaller than
250 can cause errors in this fit statistic (Hair, Anderson, Tatham, & Black, 1995). The results for these analyses are presented in Table 1.

The first CFA was conducted to ensure the distinctiveness of the work-family conflict and work-family balance scales because they were highly correlated and conceptually congruent. A two-factor model in which work-family conflict and work-family balance items loaded on separate factors fit the data better than a one-factor model, Δχ²(1) = 352.17, p < .001. The two-factor model fit the data well (SRMR = .03, CFI = .95, TLI = .92).

An additional CFA of the manager-rated outcomes was tested. A two-factor model in which job performance and promotability items loaded on separate factors had acceptable fit (SRMR = .06, CFI = .90, TLI = .86), and fit the data better than a one-factor model, Δχ²(1) = 57.65, p < .001. Another preliminary analysis examined rater effects of these two manager-rated variables. Due to the fact that some managers rated more than one employee (average number of ratings = 1.7), it is possible that their responses about one employee affected their responses about another employee, i.e., that group-level effects might be present. A one-way analysis of variance showed no differences in mean job performance or promotability based on supervisor. Additionally, ICC(1) values did not exceed .08, indicating an absence of rater effects (Bliese, 2000; Klein & Kozlowski, 2000).

Finally, a CFA of the family-rated outcomes was also tested which included work-family conflict, work-family balance, and relationship satisfaction. A two-factor model in which work-family conflict and work-family balance, as rated by a family member, loaded on the same factor had a better fit than a one-factor model, Δχ²(1) = 144.22, p < .001. A three-factor model had better fit than the two-factor model, Δχ²(2) = 270.40, p < .001. The three-factor model fit the data acceptably (SRMR = .07, CFI = .90, TLI = .88).
Means, standard deviations, reliability coefficients (α), and correlations among the major study variables for the employee-manager dyad dataset are presented in Table 2. Means, standard deviations, reliability coefficients (α), and correlations among the major study variables for the employee-family member/significant other dyad dataset are presented in Table 3. As expected, zero-order correlations indicate that relational identity, self-promotion, exemplification, and conscientiousness are all positively related to degree of tetheredness in both the employee-manager and the employee-family member/significant other dyad dataset. However, only self-promotion was significantly related to the employees’ degree of tetheredness, as rated by a family member or significant other. Employee ratings and family member/significant other ratings of degree of tetheredness were significantly correlated (r = .56, \( p < .01 \)). Self and other ratings of WFC and WFB were also significantly correlated, \( r = .32, p < .05 \) and \( r = .40, p < .01 \), respectively. Another interesting zero-order correlation is that WFC rated by the employee was significantly and positively related to career satisfaction.

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- Insert Tables 1, 2, and 3 about here -
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**Hypothesis Testing**

*Control variables.* Before testing any hypotheses, several control variables were considered as described above. First, job type was considered as a control for employees’ degree of tetheredness, responsiveness to work-nonwork technological interruptions, and WFC, as these variables were expected to vary across jobs. For instance, more time-demanding jobs may result in more work-family conflict (Frone, 2000). No significant correlations were found. Second, gender was also considered as it relates to these three variables, and again, no effect was
found. Age was also considered as it relates to these same three variables. Age had no effect on responsiveness to work-nonwork technological interruptions nor WFC, but it did have a significant effect on degree of tetheredness, $\beta = -.29$, $p < .01$. Thus, for those analyses with degree of tetheredness as the dependent variable, age was used as a control variable. Several family demographic variables that are frequently cited as possible antecedents to WFC in the work-family literature were considered as control variables for WFC (Byron, 2005), and they included number of children, age of children, marital status, and dependent care responsibilities. No correlation between any of these variables and WFC was found. Finally, the average number of technological interruptions received from work during nonwork time in a day, workload, and manager expectations for fast response to technological communications were considered as controls for employee responsiveness to work-nonwork technological interruptions. Manager expectations for fast responses to technological communications had no significant association with responsiveness. The average number of interruptions received from work during nonwork time in a day had a significant relation with employee responsiveness to work-nonwork technological interruptions, $\beta = .24$, $p < .01$. Similarly, workload also had a significant effect, $\beta = .26$, $p < .001$. Thus, for those analyses with employee responsiveness to work-nonwork technological interruptions as the dependent variable, the number of technological interruptions received and workload were used as control variables.

**Antecedents of Tetheredness.** Those hypotheses with degree of tetheredness as the dependent variable were tested with hierarchical regression. Age was entered in Step 1 as a control and the hypothesized independent variable was entered in Step 2, which was the final model (see Table 4 for results). Effect sizes were estimated by comparing the change in $R^2$ between models. Hypothesis 4 states that relational identity is positively related to tetheredness.
In support of hypothesis 4, relational identity was a significant predictor of degree of tetheredness, $\beta = .24, p < .01$. Relational identity explained an additional 5.8% of the variance in degree of tetheredness, above and beyond age.

Hypothesis 5 states that (a) self-promotion and (b) exemplification, both types of impression management, are positively related to degree of tetheredness. Self-promotion was not a significant predictor of degree of tetheredness, $\beta = .09, p > .05$; however, exemplification was a significant predictor of degree of tetheredness, $\beta = .17, p < .05$. Exemplification explained an additional 2.8% of the variance in degree of tetheredness. Thus, although the relationship was in the predicted direction for both self-promotion and exemplification, hypothesis 5a was not supported while hypothesis 5b was fully supported.

Hypothesis 6 states that conscientiousness is positively related to degree of tetheredness. In support of this hypothesis, conscientiousness was significantly related to degree of tetheredness in the anticipated direction, $\beta = .14, p < .05$. Hypothesis 6 was fully supported. Conscientiousness explained an additional 2% of the variance in degree of tetheredness, above and beyond age.

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- Insert Table 4 about here -

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Because degree of tetheredness was also rated by a family member or significant other of the employee, these hypotheses were also tested as predictors of family-rated degree of tetheredness. All of the relationships were in the expected direction, however, none were significant. Relational identity was not a significant predictor of degree of tetheredness rated by a family member or significant other, $\beta = .06, p > .05$. Although self-promotion was not a
significant predictor of degree of tetheredness rated by a family member or significant other at the .05 level, it was significant at the .10 level, $\beta = .18$, $p < .10$. Exemplification was not a significant predictor of degree of tetheredness as rated by a family member or significant other, $\beta = .11$, $p > .05$. Finally, conscientiousness was not a significant predictor of degree of tetheredness rated by a family member or significant other, $\beta = .12$, $p > .05$.


Regression was used to first test all of the remaining hypotheses; hierarchical regression was used for those hypotheses with responsiveness to work-nonwork technological interruptions as the dependent variable, with workload and average number of technological interruptions received from work during nonwork time in a day as controls. All hypotheses were tested with the employee-manager dyad dataset, except for those with family-rated outcomes, which were tested with the employee-family member/significant other dyad dataset. For those hypotheses involving mediation, Baron and Kenny’s (1986) method was employed, which involves three steps. First, the independent variable (IV) must significantly predict the dependent variable (DV). Second, the independent variable must significantly predict the mediator (M). Finally, the M predicts the DV when controlling for the IV. If the IV has no effect on the DV in the last step, full mediation is present. These are referred to as steps 1, 2, and 3 in Table 5 and 6. However, several scholars have argued that passing step 1 is not a necessary requirement for there to be mediation (see Zhao, Lynch & Chen, 2010 for an explanation). Because SEM allows for all of these tests to be done at once, it was decided that if at least steps 2 and 3 were passed, the mediation would be tested using SEM (Hayes, Preacher, & Myers, In Press; Wood, Goodman, Beckmann, & Cook, 2008).
After conducting the regression analyses, the supported hypotheses were reviewed and condensed into four models. These models were chosen in part to make sure there was enough power to test the structural equation models (Cohen, 1988; Kline, 2004). Additionally, each model was considered in its relation to the research questions of this dissertation and in the same ordering of variables as presented in the full, theoretical model. First, for the employee-manager dataset, hypotheses were considered with same-domain effects and then spillover effects of responsiveness to work-nonwork technological interruptions (which originate in the work domain). That is, outcomes related to employees’ careers were grouped in the same model (same-domain effects), whereas outcomes related to employees’ personal lives were grouped in another model (spillover effects). For the employee-family member/significant other data set, spillover (i.e., family-rated outcomes) and crossover (i.e., employee-rated personal outcomes) effects were grouped separately. In examining the regression results, work identity (H1a), family identity (H2a), dual centric identity (H3a), and other-centric identity (H4a) did not predict responsiveness to work-nonwork technological interruptions, above and beyond the average number of technological interruptions received in a day and workload, $\beta = .03, p > .05, \beta = -.02, p > .05, \beta = .06, p > .05$, and $\beta = -.14, p > .05$, respectively (overall model $F(6, 176) = 4.09, p < .01, R^2 = .13, \Delta R^2 = .03$). Due to the fact that the direct relationships were not significant, none of the interactions predicting responsiveness to work-nonwork technological interruptions could be tested. Therefore, research questions dealing with identities as drivers of employee responsiveness to work-nonwork technological interruptions (H1a-d) or the possible moderating mechanisms of this relationship—boundary control (H2a-d), preference for segmentation (H3a-
and degree of tetheredness (H7a-d) were not tested. However, regression results indicated that responsiveness to work-nonwork technological interruptions related to both career and personal outcomes through mediating mechanisms ($\Delta R^2$ ranged from .03-.38 when the mediator was added), which speaks directly to another one of the research questions posed by this dissertation. The regression results point to employee responsiveness positively relating to both work-family conflict and job stress ($\beta = .16, p < .05$ and $\beta = .16, p < .05$, respectively), which in turn relate to outcomes in both employees’ career and personal lives in the employee-manager dyad dataset. The pattern is similar for personal outcomes in the employee-family member/significant other dyad dataset. Thus, the first two models tested what relationship employee responsiveness to work-nonwork technological interruptions has with career (Model 1A) and personal outcomes (Model 1B), using the employee-manager dyad dataset. The last two models tested the relationship employee responsiveness to work-nonwork technological interruptions has with personal outcomes rated by a family member or significant other (Model 2A) and personal outcomes rated by the employee (Model 2B), using the employee-family member/significant other dyad dataset.

Data Structure Analyses. Before testing the SEM models, several CFA comparisons (Anderson & Gerbing, 1988) were conducted to establish discriminant validity of the measures completed by the employee. CFA comparisons test the fit of the measurement model and compare it to models where the factor structure is changed, guided by theory. A reduction in fit of the alternative models compared to the measurement model indicates that the hypothesized model is the better option for further testing. Results reported in Tables 7 (Model 1A) and 8 (Model 1B), indicate that the hypothesized measurement models were a better fit than the alternative models and reached acceptable fit levels ($SRMR = .07$, $CFI = .92$, $TLI = .91$ and
SRMR = .07, CFI = .90, TLI = .89, respectively). Note that CFA comparisons of the family member/significant other rated measures were conducted previously (see Table 1 for those results).

- Insert Tables 7 & 8 about here -

Structural Equation Modeling. The four models created from those hypotheses receiving support via regression were tested using a structural equation modeling (SEM) approach in MPlus (2012) (Muthén & Muthén, 1998-2012).

Employee career outcomes. I first tested a model that examined those hypotheses related to the career outcomes that received support in the employee-manager dyad dataset. These were job satisfaction and career satisfaction, as depicted in Figure 2. This model displayed acceptable fit ($\chi^2 = 401.56$ (266), CFI = .95, TLI = .95, SRMR = .08). In achieving fit, a few item error variances were allowed to co-vary. First, two items from the career satisfaction scale and two items from the job stress scale were allowed to co-vary. Each set of items was from the same scale and they followed each other on the actual survey. Therefore, responses on the first item may have influenced responses on the successive item. Next, those responsiveness to work-nonwork technological interruptions scale items that asked about technologies other than a smartphone/cell phone, that is, on a laptop, computer, and tablet technologies, were allowed to co-vary. These items reflect technologies that can be considered less mobile than Smartphones/cell phones due to their size, and the likelihood they will be used when sitting down rather than on the move (Lobosco, 2013). These were grouped together because of the variance they share. Specific hypotheses were tested based on this model.
First, in support of hypotheses 8 and 10, responsiveness to work-nonwork technological interruptions was significantly and positively related to both WFC and job stress ($\beta = .31, p < .01$ and $\beta = .18, p < .01$ respectively). See Figure 2 for all path values. Next, for hypothesis 12b, WFC mediated the relationship between employee responsiveness to work-nonwork technological interruptions and career satisfaction. Interestingly, though, and in contrast to the hypothesized direction, WFC was positively related to career satisfaction ($\beta = .15, p < .05$). This is discussed further in the Discussion section below. To test for full mediation, a model with an additional, direct path between employee responsiveness to work-nonwork technological interruptions and career satisfaction was tested. In support of full mediation, this model did not significantly change the model fit $\Delta \chi^2(1) = 1.45, p > .05$. Additionally, the partial mediation path was non-significant. Then, in support of hypothesis 13, job stress mediated the relationship between employee responsiveness to work-nonwork technological interruptions and job satisfaction. To test for full mediation, a model with an additional, direct path between employee responsiveness to work-nonwork technological interruptions and career satisfaction was tested. Again, there was no significant change in model fit $\Delta \chi^2(1) = 1.03, p > .05$ and the added path was non-significant, providing support for full mediation. Considering these results for full mediation, the model was retained without partial mediation paths.

**Employee personal outcomes.** Next, I tested a model that examined those hypotheses related to personal outcomes that received support in the employee-manager dyad dataset (Model 1B, Figure 3). This model displayed acceptable fit ($\chi^2 = 1375.79$ (885), CFI = .90, TLI = .89, SRMR = .08). Again, items from the responsiveness to work-nonwork technological interruptions scale that asked about technologies other than a Smartphone/cell phone, as well as two items from the job stress scale, were allowed to co-vary as in Model 1A. Also, three error
variances of those items in the somatic health complaints that were related were allowed co-vary. Specifically, “trouble getting to sleep” with “waking up often in the night,” “stiffness in your muscles” with “pain in your back or spine,” and “tightness in your chest” with “sweaty or clammy hands.” The first two both deal with sleep issues and are the most common symptoms of insomnia (Ancoli-Israel & Roth, 1999; Ohayon, 2002). Regarding the second set of items, back pain is often associated with muscle stiffness (Colloca & Keller, 2001), implying overlap between the two items. Finally, the last set of somatic health complaints are associated with cardiac issues (Miller, 2002). As in Model 1A, hypotheses 8 and 10 were supported.

Responsiveness to work-nonwork technological interruptions was positively related to both WFC and job stress ($\beta = .30, p < .01$ and $\beta = .17, p < .01$, respectively). Both hypothesis 11c and 12c were not supported; neither WFC nor job stress mediated the relationship between employee responsiveness to work-nonwork technological interruptions and somatic health complaints ($\beta = .03, p > .05$ and $\beta = .09, p > .05$, respectively). In support of hypothesis 11d, WFC mediated the relationship between employee responsiveness to work-nonwork technological interruptions and work-family balance ($\beta = -.44, p < .01$). To test for full mediation, a model with a direct path between these two variables was tested. In support of full mediation, their was no significant change in model fit, $\Delta \chi^2(1) = 0, p > .05$, and the partial mediation path was non-significant.

Then, in support of hypothesis 11e, WFC mediated the relationship between employee responsiveness to work-nonwork technological interruptions and time adequacy ($\beta = -.39, p < .05$). In testing for full mediation, a model was tested with a direct path between responsiveness to work-nonwork technological interruptions and time adequacy. This alternative model showed no significant change in model fit, $\Delta \chi^2(1) = 0.33, p > .05$, and the partial mediation path was
non-significant, providing support for full mediation. Taking these results into consideration, the full mediation model was retained.

**Family/Significant Other-Rated Outcomes.** I then tested a model that examined those hypotheses dealing with personal outcomes rated by a family member or significant other, referred to as Model 2A and depicted in Figure 4. This model displayed acceptable fit ($\chi^2 = 341.90$ (244), CFI = .94, TLI = .93, SRMR = .08). Error variances of two items from the relationship satisfaction scale and two items from the work-family balance scale were allowed to co-vary. The work-family balance items followed one another on the survey and were similar in wording: “How satisfied are you with the way he/she divides his/her time between work and personal or family life?” and “How satisfied are you with the way he/she divides his/her attention between work and personal or family life?” The relationship satisfaction items also followed one another on the survey and were the only reverse-scored items in the scale: “How often do you and this person quarrel?” and “How often do you and this person ‘get on each other’s nerves?’” Answers on one may have influenced answers on the next. In support of hypothesis 8, employee responsiveness to work-nonwork technological interruptions was positively related to both WFC rated by the employee and WFC rated by a family member or significant other ($\beta = .34, p < .01$ and $\beta = .48, p < .01$, respectively). In support of hypothesis 11d, both WFC rated by the employee and WFC rated by a family member or significant other mediated the relationship between employee responsiveness to work-nonwork technological interruptions and work-family balance rated by a family member or significant other ($\beta = -.17, p < .01$ and $\beta = -.40, p < .01$ respectively). To test for full mediation, an alternative model was tested with a direct path between employee responsiveness to work-nonwork technological interruptions and work-family balance rated by a family member or significant other. In support
of full mediation, the alternative model showed no significant change in model fit, $\Delta \chi^2(1) = .94$, $p > .05$, and the partial mediation path was non-significant. Then, in support of hypothesis 11b, WFC rated by a family member or significant other mediated the relationship between employee responsiveness to work-nonwork technological interruptions and relationship satisfaction rated by a family member or significant other ($\beta = -.31$, $p < .05$). Again, an alternative model was tested to test for full mediation. The model containing a direct path between employee responsiveness to work-nonwork technological interruptions and relationship satisfaction showed no significant improvement in model fit, $\Delta \chi^2(1) = .25$, $p > .05$, and the partial mediation path was non-significant. Considering the support for full mediation, the original model was retained.

Employee personal outcomes in the family member/significant other dataset. I then tested a model with the employee-family member/significant other dataset that examined those supported regression results dealing with employee-rated outcomes, referred to as Model 2B (see Figure 5). This model displayed acceptable fit ($\chi^2 = 343.26 (226)$, CFI = .92, TLI = .92, SRMR = .08). In support of both hypothesis 11d and 11e, work-family conflict rated by a family member or significant other mediated the relationship between responsiveness to work-nonwork technological interruptions and work-family balance (rated by the employee) as well as time adequacy (rated by the employee), respectively. To test for full mediation in hypothesis 11d, an alternative model was tested with a direct path between employee responsiveness to work-nonwork technological interruptions and work-family balance (rated by the employee). This alternative model showed a significant change in model fit, $\Delta \chi^2(1) = 4.80$, $p < .05$. The direct path between employee responsiveness to work-nonwork technological interruptions and work-family balance rated by the employee was significant ($\beta = -.19$, $p < .05$) while the path between WFC rated by a family member or significant other and work-family balance rated by the
employee was no longer significant ($\beta = .12, p > .05$), suggesting the direct path should in fact be added to the model. To test for full mediation in hypothesis 11e, an alternative model with a direct path between employee responsiveness to work-nonwork technological interruptions and time adequacy was tested. In this case, the alternative model did not show a significant change in model fit, $\Delta\chi^2(1) = 0.63, p > .05$, and the path between employee responsiveness to work-nonwork technological interruptions and time adequacy was non-significant. Considering these results, the model with a direct path between employee responsiveness to work-nonwork technological interruptions and work-family balance (rated by the employee) was retained which had acceptable model fit ($\chi^2 = 338.47$ (225), CFI = .93, TLI = .92, SRMR = .07). See Figure 5 for path values.

A summary of the supported SEM results is found in Table 9.
Chapter 5
Discussion

The aim of this dissertation was to explore both the drivers and outcomes of employee responsiveness to work-nonwork technological interruptions. A model exploring this behavior was developed, drawing on identity theory (Burke & Stets, 2009; Stryker, 1980) and interruption theory (Thoits, 1991). Overall, it was hypothesized that different identities relate to responsiveness to technological interruptions from work while in the nonwork domain, and that this responsiveness should relate to both employees’ career and personal lives. Additionally, several aspects of self, namely relational identity, conscientiousness, and impression management (self-promotion and exemplification), were hypothesized as antecedents of employees’ perceptions of tetheredness, or the extent to which they are physically and psychologically dependent on their mobile communication technologies (Hooper & Zhou, 2007; Turkle, 2011). The exploration of tetheredness as well as employee responsiveness to work-nonwork technological interruptions extends the work-family literature in several ways, by first, providing a better understanding of how “controlled” interruptions (Russell et al, 2007) relate to WFC and job stress, and ultimately to important outcomes in both employees’ careers and personal lives. Additionally, the findings of this study highlight the mechanisms by which responsiveness to work-nonwork technological interruptions relate to both personal (as rated by both the employee and a family member or significant other) and career outcomes. Findings, both significant and nonsignificant, and their theoretical implications are discussed in the following sections, starting with antecedents of tetheredness.

Antecedents of Tetheredness. This research explored both the relationship that the relational self (i.e., relational identity) and the imaged self (i.e., self-promotion, exemplification,
and conscientiousness) have with perceptions of tetheredness, a physical and psychological dependency on mobile technology (Hooper & Zhou, 2007; Turkle, 2011). By and large, these hypotheses received support. Both the relational self and the imaged self positively related to employees’ degree of tetheredness. More specifically, relational identity, exemplification (a component of impression management), and conscientiousness positively related to employees’ degree of tetheredness. These results held even when controlling for age, which was done to acknowledge that research has shown younger workers to be more prone to use technology (e.g., Morris & Venkatesh, 2000, 2005).

Furthering identity theory, the results of this study show that dependence on mobile communication technologies seems to be a consequence of the desire to maintain an identity standard through both managing affiliation and one’s image. In other words, the extent to which individuals are tethered to their devices seems to be in part related to their desire to be seen in a way consistent with their identity standard, or the cognitive understanding of a role’s meanings and norms (Burke, 1991; McCall & Simmons, 1978). Individuals’ relational self, or their desire to be affiliated, is positively related to their increased dependence on communication devices: Individuals’ connection to their communication devices may be evidence of their desire to validate their relational identity by being available for and connected to others (Burke, 1991; Swann, 1983). Additionally, results linking both conscientiousness and exemplification to tetheredness is likely evidence of a desire to maintain an imaged self, i.e., working to verify an internal identity standard with others’ perceptions (Swann, 1983). Interestingly, although exemplification, a form of impression management, was a significant predictor of degree of tetheredness, self-promotion, another form of impression management, was not. This lends further insight into what drives tetheredness and the image people are trying to maintain through
their dependence on mobile communication devices. Rather than their tetheredness being driven by a desire to highlight their own accomplishments and be seen as competent by others (self-promotion), results suggest employees are being driven by a desire to gain others’ commitment through going above and beyond what is required of them (exemplification). This is interesting in that it maps on to the “always on” assumption that mobile technology implies. In so much as people are dependent physically and psychologically on their mobile communication technologies, this is in part due to their desire to be seen as self-sacrificing and “always available” to others. Tetheredness, then, is indicative of a self-sacrificing definition of identity rather than a self-promoting definition of identity. It seems that employees’ “always on” identity is used to maintain relationships rather than to alter their very nature. In other words, employees use tetheredness as a tool to demonstrate loyalty or commitment to the individual on the other end of the communication. The exemplification scale used in this study was work-focused, indicating the individual on the other end is likely the focal employee’s boss and/or coworkers, though both conscientiousness and relational identity did not indicate a focus which may imply tetheredness spans both work and personal relationships.

Although support was received for relational identity, exemplification, and conscientiousness predicting self-reported degree of tetheredness, the same was not found when tetheredness was rated by a family member or significant other. Employees and their family members or significant others provided convergent ratings of employees’ tetheredness ($r = .56, p < .01$), yet the results indicate that employees and family members may be focusing on different motives for and behaviors indicative of tetheredness. For example, some research of self and spouse ratings of personality has shown that spousal ratings are more closely linked to current levels of marital satisfaction (Watson & Humrichouse, 2006). The results found in this
dissertation may be caused by a similar phenomenon, whereby family ratings of tetheredness are more closely linked to relationship satisfaction rather than career-related motives and individual differences--relational identity, exemplification, or conscientiousness. Surprisingly, although self-promotion was not significantly related to self-rated tetheredness, it was significantly related to significant other-rated tetheredness at the .10 level, providing another indication that others’ perceptions of degree of tetheredness may be influenced by different motives and behaviors. That is, as family member/significant other ratings of degree of tetheredness were negatively related to their perceptions of work-family balance and relationship satisfaction, family members may have been more primed by their relationship and work-family balance dissatisfaction to notice self-promotion, an egotistical tactic, rather than exemplification, a tactic of relationship maintenance. It may be that dissatisfied family members are less likely to give the benefit of the doubt to the employee about the validity of the interruption, assuming that the employee is being responsive for egotistical reasons. To believe that the employee is responsive due to relationship maintenance reasons—as was found with employee-rated tetheredness—may be too hurtful for a dissatisfied family member to consider, as it implies that the employee is selectively managing relationships with others at work, rather than with family members.

Identity and Employee Responsiveness to Work-Nonwork Technological Interruptions. A central research question of this dissertation asked what identities drive the use of technology for work during nonwork time. The aim was to test the increasing prevalence of technology as part of self. Drawing on identity theory (Burke & Stets, 2009; Stryker, 1980) and recent work by Kossek and colleagues (Kossek & Lautsch, 2008, 2012; Kossek, Ruderman, et al., 2012), it was hypothesized that employees’ work identity, family identity, dual centric identity, or other-centric identity would predict their responsiveness to work-nonwork technological interruptions.
Surprisingly, no support was found for these hypotheses, which further meant no support for the related moderation hypotheses as well. While work identity was positively correlated with responsiveness to work-nonwork technological interruptions ($r = .20, p < .01$), the regression results indicated that work identity did not have a significant relationship with responsiveness, above and beyond 1) the average number of technological interruptions received from work during nonwork time in a day and 2) employees’ perceptions of the extent to which their job was demanding (i.e., workload). Said differently, both of these controls were significant predictors of responsiveness to work-nonwork technological interruptions. Together, both of these variables are indicative of role demands and may correspond more directly with the realities of today’s jobs, and less with workers’ individual identities. In many instances employees feel required to be responsive to work interruptions because to not do so would be to fail to fulfill job duties and responsibilities (Williams & Anderson, 1991). Indeed, recent literature on extra-role behaviors in the workplace indicates that behaviors at one time considered “extra role” (as one can categorize employee responsiveness to communications during non-work hours) are now either considered part of in-role performance, are part and parcel of performance evaluations (e.g., Bachrach, Powell, Bendoly, & Richey, 2006; Podsakoff, MacKenzie, Paine, & Bachrach, 2000), an indication of how one feels about the recipient of the extra-role behaviors (Bowler & Brass, 2006; Korsgaard, Meglino, Lester, & Jeong, 2010), and are tightly connected to valuable workplace outcomes, such as salary and promotions (e.g., Bachrach et al, 2006; Podsakoff et al, 2000). Because of this, responsiveness to work-nonwork technological interruptions may not be a choice, based on identity, but instead may be born out of necessity to keep one’s job or be upwardly mobile at work. Scarcity theories, which assume that humans have a fixed amount of energy and time (Marks, 1977), clearly underscore this conclusion. Specifically, the pressure
that work demands put on employees may force them to respond to work during nonwork time. The necessity of the job demands forces this behavior rather than allowing for voluntary, identity-driven behavior. One way employees may cope with heavy role demands is to interrupt the nonwork role to deal with the work role (Matthews & Winkel, 2011). High volumes of interruptions and workload may result in insufficient resources to deal with work during work time, resulting in the need to interrupt nonwork roles to deal with these demands (Edwards & Rothbard, 2000), whether or not this behavior is voluntary, that is, identity-motivated.

The non-significant findings related to the four types of identities’ relationship with responsiveness to work-nonwork technological interruptions have theoretical implications. Even null findings are needed, as the research on the intersection between technology and work-family is still quite new. Identity theory has not been applied to understanding employee responsiveness to work-nonwork technological interruptions before, and these results suggest that work and family identities, specifically, may not be central in explaining the use of communication technologies for work after hours. Instead, perhaps a separate, unmeasured identity may influence this behavior. For instance, recent research has begun to explore what has been termed “technology identity” (Goode, 2010). Goode describes a technology identity as four-part: “beliefs about one’s own technology abilities; beliefs about the importance of technology; beliefs about participation opportunities and constraints that exist; and one’s sense of motivation to learn more about technology” (p 502). Employees’ responsiveness to work-nonwork technological interruptions may be a resultant behavior of their technology identity standard rather than those identities explored in this research. A technology identity may serve to explain differences in people’s internalization of “always being on” as desirable.
Additionally, the extent to which an employee identifies him- or her-self as a technology user may predict the frequency of their mobile communication technology use.

Another possibility is that the content of an employees’ identity standard may provide better insight into the link between identity and responsiveness to work-nonwork technological interruptions. For instance, the research conducted here may have benefitted from measuring how employees define their work identity, rather than just measuring the extent to which they identify with their work. Individuals’ role identities are defined in part by society and culture, and in part by individuals’ unique interpretation of the role (Burke & Stets, 2009). The latter part is the idiosyncratic dimension, which refers to the individual’s own understanding of what the identity means to them (McCall & Simmons, 1978), which may be important in understanding the behavior addressed in this research. As an example, it could be that one employee, when considering their work identity, feels being seen as accommodating and responsive is highly important while another employee may view being seen as diligent and focused on central work tasks as highly important. In this example, it is likely the first employee would be more responsive to work-nonwork technological interruptions as this behavior is in line with their accommodating, responsive work identity standard (Burke, 1991; Burke & Stets, 2009). In order to more fully understand how identity theory relates to use of communication technologies for work during nonwork time, future research may benefit from the use of an additional measure of work and family identity, focusing on identity content instead of simply the extent to which the employee internalizes the identity.

In summary, contrary to identity theory, the results indicate that the work context seems to take priority over individual differences. Role demands of the job, namely the volume of work interruptions and heavy workloads, seem to be more pressing than identity salience in
relation to responsiveness to work-nonwork technological interruptions. It may be that in this particular sample work represents a “strong situation,” or a context that inhibits normal identity-driven behavior (Mischel, 1977). Johns (2006, p. 394) explains that a situation characterized by “limited autonomy constitutes a strong situation, reducing the impact of individual differences.” He goes on to argue that a lack of autonomy (e.g., feeling that you must respond to the work-nonwork interruptions in order to keep up with your work) is “one of the most omnipresent contextual factors” that influence organizational life (p. 394). Healthcare, in that it is a field dictated by immediacy and sometimes life-or-death situations, may limit autonomy in the identity-based choice of whether or not to respond to work-nonwork technological interruptions. Indeed, the subordination of identity in favor of organizational norms has often been explored in Organizational Behavior. Feldman’s (1984) seminal work on the development of group norms asserts that norms matter more than individual personalities or tendencies if those norms are important for relational harmony or if they ease issues related to interdependence between parties.

**Outcomes of Employee Responsiveness to Work-Nonwork Technological Interruptions.** Although only some of the hypotheses dealing with the outcomes of employee responsiveness to work-nonwork technological interruptions received support, the results indicate a contribution vis a vis interruption theory (Thoits, 1991). And the results make a significant contribution by illustrating the personal and career related outcomes of employee responsiveness to work-nonwork technological interruptions, as the work-family literature has only studied this behavior in a limited fashion, and has focused most commonly on the more general construct of WFC (e.g., Boswell & Olson-Buchanan, 2007; Harris, et al., 2011). These contributions are discussed in more detail below.
Expanding interruption theory as it relates to identity theory, results indicate that employee responsiveness to work-nonwork technological interruptions is positively related to both WFC and job stress. This is in line with work by Boswell and Olson-Buchanan (2006) and Chesley (2005), who summarily found that the use of communication technologies for work during nonwork time is positively related to WFC. The results of the present study signal that employee responsiveness to work-nonwork technological interruptions does indicate an interruption of roles (e.g., interrupting a family role to respond to a work email) and responsiveness was positively related to perceptions of interrole conflict, specifically WFC and job stress. However, employee responsiveness to work-nonwork technological interruptions was not related to nonwork stress. The lack of support for the link between employee responsiveness to work-nonwork technological interruptions and nonwork stress may be explained by the “matching-hypothesis.” The matching hypothesis posits that same-domain relationships will be stronger than cross-domain relationships, i.e., that work-family conflict and family-work conflict have stronger effects on same-domain outcomes than other-domain outcomes (Amstad, Meier, Fasel, Elfering, & Semmer, 2011). Theoretically, the basis of this hypothesis is attributional; individuals tend to ascribe the cause of a conflict to the domain in which it originated by dwelling on the characteristics and consequences of that cause. To the extent that the conflict cannot be resolved, strain in the same domain is experienced (Amstad et al., 2011). Therefore, because work-nonwork technological interruptions originate in the work domain, they may be more likely to relate to strain in that same domain (i.e., WFC and job stress) as opposed to the other-domain (i.e., nonwork stress).

**Employee responsiveness to work-nonwork technological interruptions and career outcomes.** This research indicates that both WFC and job stress serve as lenses through which
responsiveness to work-nonwork technological interruptions is related to career outcomes. Employees who were more responsive to work-nonwork technological interruptions experienced more job stress, and, in turn, were less satisfied with their jobs. This is in line with previous job stress research (e.g., Beehr, Walsh, & Taber, 1976; Bhuian, Menguc, & Borsboom, 2005). Additionally, employees who were more responsive to work-nonwork technological interruptions also experienced work-family conflict, and in turn, were (surprisingly) more satisfied with their careers. The positive relationship between work-family conflict and career satisfaction was unexpected. Hoobler and colleagues (Hoobler, Hu, & Wilson, 2011), in explaining positive meta-analytic relationships between WFC and career outcomes, noted that employees may in fact be rewarded for putting their work before their personal lives. The positive relationship between WFC and career satisfaction found in this research may be illustrative of that: Those employees who are more responsive to work-nonwork technological interruptions may experience WFC because of it, but may in turn also feel that this technological responsiveness meets the “hard worker” identity standard. They may then perceive they are achieving and thriving in their careers. However, the question remains whether career satisfaction from maintaining the “hard worker” identity standard is sustainable. My findings indicate that this “hard worker” behavior of being highly responsive to work-nonwork technological interruptions does not relate to manager perceptions’ of performance nor to manager perceptions of employees’ promotability. These findings indicate that a salient other who may determine career success, here, the manager, is not verifying the “hard worker” identity employees may be looking to achieve. If employees are not receiving verification of this identity standard as it relates to their career, dissatisfaction with their career is likely to result over time (Burke, 1991; Swann, 1983). Another possible reaction to nonverification of the hard worker
identity may be for employees to overcompensate, increasing their responsiveness to work-nonwork technological interruptions even more (Burke, 1991; Swann, 1983). Overcompensation in this fashion may result in role overload and burnout as predicted by the job demands-resources model (Demerouti et al., 2001).

**Employee responsiveness to work-nonwork technological interruptions and personal outcomes.** This research also provides evidence of the relationship between employees’ responsiveness to work-nonwork technological interruptions and personal outcomes as reported by both the employee and a family member or significant other. WFC as rated by both the employee and family member or significant other served as a mediating mechanism by which responsiveness to work-nonwork technological interruptions related to work-family balance (rated by both the employee and a family member or significant other), time adequacy (rated by the employee), and relationship satisfaction (rated by a family member or significant other). Further validating the results found with the larger employee-manager dyad dataset, WFC rated by a family member/significant other fully mediated the relationship between responsiveness to work-nonwork technological interruptions and time adequacy. The path values for the relationship between WFC rated by the employee and time adequacy, as well as WFC rated by a family member/significant other and time adequacy, were strong in both models ($\beta = -.39$ and $-.21$, respectively). These strong path values and full mediation support suggest time adequacy is an important personal outcome of employee responsiveness to work-nonwork technological interruptions to consider for understanding employees’ work-life balance. Time adequacy is especially important when considering mobile technology, which allows work to happen wherever the individual is. The more these mobile technologies and the work-nonwork technological interruptions they allow intrude on employees’ personal lives, the less time
employees have to devote to taking care of themselves and those they care about. Working parents’ lack of time for self and family has often been researched in relation to child development, with parents’ perceived lack of time predicting reduced social skill development in children (Van Horn et al, 2001). According to the job demands-resources model, a lack of time resources is also likely to be related to employees’ perceptions of burnout, an important predictor of both work and personal outcomes (Demerouti et al., 2001).

Employee responsiveness to work-nonwork technological interruptions and family-rated outcomes. WFC rated by a family member/significant other also fully mediated the relationship between employee responsiveness to work-nonwork technological interruptions and both work-family balance and relationship satisfaction (both rated by the family member/significant other). These results are very telling as to how family members feel about the employee being “always on.” Being “always on” for work appears to be bad for the people employees live with, as time and energy is taken away from loved ones as it is applied to the work domain. Family appears to be pushed to the back burner in that family members 1) were found to perceive conflict between the focal employees’ work role and employees’ personal role and 2) ultimately felt a strain in their relationship satisfaction with the focal employee. Interestingly, WFC rated by the employee was not related to family member/significant other perceptions of relationship satisfaction. It seems that when employees perceive WFC, this perception may not necessarily map onto negative perceptions by family members. It may be that the focal employee is more focused on the work-driven nature of the technological interruptions, and therefore focused on more direct relationships with such things as their dissatisfaction with work-family balance rather than their family member’s sense of relationship satisfaction. Another result that differed when comparing employees’ perceptions to their family member/significant others’, is that while
family member/significant others’ perceptions of WFC were related to their own perceptions of work-family balance, family members’ perceptions of WFC were not related to employees’ perceptions of work-family balance. Instead of family members’ perceptions of WFC acting as a mediator between employee responsiveness to work-nonwork technological interruptions and employees’ perceptions of work-family balance, SEM results indicated that a direct path between employee responsiveness to work-nonwork technological interruptions and employee perceptions of work-family balance provided better model fit. This result may signify that family members are more cognizant of the focal employee’s lack of time to devote to him or her rather than the focal employee’s own satisfaction with their work-family balance.

_Employee responsiveness to work-nonwork technological interruptions and manager-rated outcomes._ There was a general lack of support for hypotheses that included manager-rated variables, namely job performance and promotability. It may be that although Turkle’s interviews discovered that employees who were “always on” felt they were more effective and got more done (Turkle, 2011; Perlow, 2012), managers may interpret and perceive this behavior differently. Responsiveness to work-nonwork technological interruptions may seem like a career-promoting behavior to those employees who engage in this behavior, but managers may not perceive it as career-enhancing. Perhaps they rarely notice this behavior. As long as the work gets done, managers may not care nor notice that it is done during nonwork hours. Especially since responsiveness to work-nonwork technological interruptions occurs in the nonwork domain, managers are unlikely to be privy to it, nor aware of the sacrifice employees make to be responsive to work-nonwork technological interruptions.

_Employee responsiveness to work-nonwork technological interruptions and employee health._ Both WFC and job stress were unrelated to somatic health complaints when other
outcomes were also considered (i.e., work-family balance and time adequacy). These non-significant relationships may be indicative of the cross-sectional nature of the survey: Little is known about how the stress process unfolds over time and how long it takes for stress to relate to somatic health complaints (Ganster & Rosen, 2013). It may be that physical health is affected by prolonged responsiveness to work-nonwork technological interruptions, or there may be a tipping point at which responsiveness to these interruptions begins to affect physical health.

Summary of relationships between employee responsiveness to work-nonwork technological interruptions and career, personal, and family outcomes. Overall, the results add to the work-family literature by empirically testing and providing evidence of how employee responsiveness to work-nonwork technological interruptions relates to important career and personal outcomes. While anecdotal stories in the media have provided mixed messages, indicating being “always on” either allows individuals to “have it all” or it forces their personal lives to the backburner, the results of this research indicate that the latter is more likely. Being “always on” and always available for work does not seem to advance one’s career. But responsiveness to work-nonwork technological interruptions related positively to WFC and job stress. Job stress, in turn, related negatively to job satisfaction, while WFC related positively to career satisfaction. However, neither WFC nor job stress were related to manager perceptions of job performance nor promotability.

Furthermore, employee responsiveness to work-nonwork technological interruptions appears to hinder employees’ personal lives. Responsiveness to work-nonwork technological interruptions related positively to employee perceptions of WFC, which in turn, was negatively related to time adequacy and both employee and family member/significant other perceptions of work-family balance. Responsiveness to work-nonwork technological interruptions also related
positively to family member/significant other perceptions of WFC, which in turn, was negatively related to family member/significant other perceptions of work-family balance and relationship satisfaction with the focal employee, as well as employee perceptions of time adequacy. So, rather than allowing us to “have it all,” it seems being “always on” for work may come at the expense of our personal lives.

**Future Research**

The results of the present study highlight the importance of further investigating employee use of mobile communication technologies. This research focused on one direction of this use, that is, using communication technologies to respond to work during nonwork time. However, research should be done to explore the other direction as well, which would be in line with past research that has shown that work-family conflict and family-work conflict have both different and common outcomes for both employees and organizations (e.g., Frone, Russell, & Cooper, 1992; Amstad et al, 2011). Future research may do well to explore outcomes of responsiveness to work-nonwork technological interruptions as well as nonwork-work technological interruptions in one study. As nonwork-work technological interruptions (e.g., a school secretary calls the workplace to let a parent know his child is sick) are impeding on employees’ focus and work time, it may be that responsiveness to nonwork-work technological interruptions have a different influence on work outcomes than do the former type of interruptions. The latter may have a stronger influence on nonwork stress and personal outcomes, as the interruptions originate in the nonwork domain (Amstad et al, 2011). As such, nonwork-work technological interruptions may be highly salient for organizations to understand.

Future research might also shed light on what drives employee responsiveness to work-nonwork technological interruptions by testing other potential antecedents. These may include
the different types of communication technologies as well as the sender of the work-nonwork technological interruptions. For example, are Smartphones more strongly related to WFC and job stress as compared to laptops, due to the former’s ease of mobility and ability to be physically attached to employees’ bodies at all times? Their connectivity allows easy access in more locations. It is also possible that the sender of the work-nonwork technological interruption plays a role in employee responsiveness, and resultant outcomes. Specifically, managers may be more prominent role “verifiers,” whereby the employee desires their identity verification more than, for example, a client or a coworker, and employees may prioritize the urgency of their communication responses accordingly (Burke & Stets, 1999).

Future research should also explore how the negative implications of responsiveness to work-nonwork technological interruptions might be buffered. For instance, support from employees’ supervisor has been shown to be an important resource for alleviating the negative effects of conflict between the work and family domains (Kossek, Pichler, Bodner, & Hammer, 2011), and as such it may serve to assuage the negative relationship between responsiveness to work-nonwork technological interruptions and both WFC and job stress. Supervisors displaying family supportive behaviors can lessen the negative effects of WFC by providing emotional support, instrumental support, role modeling behaviors, and work-family management solutions (Hammer, Kossek, Zimmerman, & Daniels, 2007). For instance, instrumental support is one type of family supportive behavior whereby managers provide day-to-day resources that allow employees to successfully manage their work and nonwork roles (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). Increased perceptions of support could help to alleviate the negative relationship between responsiveness to work-nonwork technological interruptions and both WFC
and job stress. These possible buffers are important variables to examine, as they would provide practical ways for companies to address the negative outcomes of technological interruptions.

Future research is also needed to explore additional outcomes of employee responsiveness to work-nonwork technological interruptions. Other than outcomes like WFC and job stress, there are numerous emotional reactions employees may have that would also be salient for work and personal outcomes. Emotions are relatively quick bursts of feelings that can have lingering effects on employee attitudes and behaviors. Recent work using a daily diary method found a relationship between workplace happiness and quality of family life (Ilies, Wilson, & Wagner, 2009). It would be interesting to explore a broader range of emotions inspired by simply receiving a technological interruption (e.g., excitement, anxiety, anger) and possible resultant spillover to an employee’s home life. A layer of nuance can be added if one considers the content of the technological interruption: One can easily imagine feeling glee upon receipt of an email notification about a journal article acceptance, or derision after receipt of an journal article rejection.

Additional career outcomes such as turnover should also be considered, especially as one of the career-related relationships (WFC and career satisfaction) was in an unexpected direction. Future research may provide a better understanding of the relationship employee responsiveness to work-nonwork technological interruptions has with employees’ careers and career-related attitudes. For instance, increased WFC and job stress due to employee responsiveness to work-nonwork technological interruptions may result in employees seeking other job options with companies less reliant on technology use.

Additionally, future research would benefit from longitudinal studies testing the mediational processes explored in this study, as we still do not know whether changes in these
relationships may occur over time. For instance, employees might learn different management techniques for their communication technologies, potentially reducing WFC and job stress. One could learn from Google’s email (Gmail) foray into technology management. They recently introduced an email inbox that automatically prioritizes the user’s messages into “primary,” “social,” or “promotions” mailboxes (to name a few). Google’s technology learns the mailbox user’s sorting preferences quickly after the user demonstrates where s/he would like messages filtered. Employees could potentially learn to mimic this behavior with their own email inboxes, automatically routing emails from certain senders or about certain topics to inboxes that require either immediate or delayed attention. In doing so, those emails not prioritized are less likely to be a culprit in interrupting an employee’s home life. These management techniques may help employees better manage the work-family interface over time.

Still unknown is what employee responsiveness to work-nonwork technological interruptions signifies to managers. It might be that this behavior is now an expected job requirement. Related to the previous discussion about how several citizenship behaviors have become expected performance, future research should explore the extent to which employee responsiveness to work-nonwork technological interruptions is considered an in-role or extra-role behavior. Studies have long differentiated between how rewards are allocated to an employee based on in-role versus extra-role performance. For example, recent work by Bergeron, Shipp, Rosen, and Furst (2013) demonstrated that in-role performance had a greater impact on salary than extra-role performance. An exploration of the nature of responsiveness to work-nonwork technological interruptions with respect to “expectedness” would further our understanding of how responsiveness is valued and rewarded. The utility of responsiveness to
work-nonwork technological interruptions could be asserted by virtue of the extent to which it is recognized as an essential or peripheral tendency.

**Practical Implications**

Although the use of mobile technology for work may not change, due to its widespread acceptance, and likely in many instances cannot be changed, due to its necessity in customer expectations, telecommuting, and virtual teams, organizations should acknowledge the potentially negative drawbacks of employee use of communication technologies for work during nonwork time. As research continues to improve our understanding of this behavior, organizations can take steps to minimize negative outcomes, such as WFC and job stress, in order to benefit both the well-being of employees and the organization as a whole. Organizations can take steps to educate employees on the potential downsides associated with always “being on,” by incorporating workshops or training sessions that deal with managing technology use. For example, recent work by Wayne, Lemmon, Hoobler, and Wilson (under review) suggests that a manager’s assessment of his or her employee’s engagement with his/her work role—which here is assumed to include a devotion to being responsive to work-related interruptions—can alter the extent that employees’ experience of work-family conflict interferes with work outcomes. Importantly, this study found that WFC influences career outcomes for that employee, including salary and indicators of upward mobility. Training sessions highlighting to employees that an all-encompassing focus on work can wend its way back to them in the form of negative career outcomes, should be provided. Otherwise, employees may logically assume that devotion to work can only relate to positive workplace outcomes, career-wise (e.g., recognition for success, and promotion). Without this education, employees may not understand how negative manifestations of responsiveness to work-nonwork technological
interruptions can seep back into their work and career lives. Organizations might also incorporate this information into supervisory skills training. Supervisory training that incorporates time management techniques for electronic communications could help supervisors role model behavior that could be passed on to employees. And, quite simply, supervisory training that highlights the potentially negative consequences of employee communication technology use for work during nonwork time, may reduce the actual amount of after-hours communications. This could ultimately lessen norms for responsiveness, and in turn, WFC and job stress.

Organizations might also train their managers to incorporate discussions of work-life balance satisfaction as they relate to the use of communication technologies for work during nonwork time in their annual performance review meetings with their employees. Managers could be trained to engage employees who voice concerns over this issue to creatively problem solve how to better combine their work and personal lives. All of that said, employees also have a responsibility to work with their managers to set expectations as they relate to work-nonwork technological interruptions. Perceptions concerning the frequency and degree of responsiveness to work-nonwork technological interruptions are jointly developed as managers gauge employees’ reactions and vice versa. Employees must engage in this conversation with their managers to make managers aware of their work-life challenges, their workloads, and the number of work-nonwork technological interruptions they receive.

**Strengths and Limitations**

One strength of this study was its combining of the sociology and management literatures to address both drivers and outcomes of employee responsiveness to work-nonwork technological interruptions. Drawing from the sociology literature, structural symbolic
interactionism, a component of identity theory, and the pervasive social question of how technology use relates to both the individual and others were applied to the model. These were combined with the work-family boundary management concepts found in the management literature. A second strength was that several theoretically meaningful controls were considered and included in the analyses, providing evidence of the predictive role of the proposed independent variables. As a control, age eliminated an otherwise commonly understood explanation for tetheredness; younger employees, who are often considered more comfortable with technology, appeared to be no more intent on being responsive to work-nonwork technological interruptions than their older counterparts (e.g., Morris & Venkatesh, 2000, 2005). Researchers have noted that a common limitation in work-family literature is the overreliance on self-report data (Casper, Eby, Bordeaux, Lockwood, & Lamber, 2007). A third strength of this study, then, is that data was collected from two other sources beyond the employee—employees’ manager and a family member or significant other. Although none of the hypotheses with manager-rated variables proved to be significant in hypothesis testing, family member/significant other-rated variables contributed to many of the supported findings. Fourth, several validity tests were conducted to establish the discriminant validity and factor structure of the measures in this study. Last, in terms of the strengths of the sample, it included respondents with a wide array of job types and levels, with employees and managers in executive down through entry-level positions.

Although this research has several strengths, it also has several limitations that need to be mentioned. For one, the sample consisted of one organization in the healthcare industry. It may be that employees in other industries experience different levels of and requirements for the use of communication technologies for work during nonwork time, or that employees in other
industries have different reactions to work-nonwork technological interruptions. By its very nature, healthcare involves interfacing with technology daily. Technology is a critical work tool when managing patients’ health. Because of this, employees in this organization, versus employees in other organizations less steeped in technology use, may be more comfortable with technology, which could have reduced the impact of its effects on other variables in the model. Or, relatedly, the respondents in this sample could have been desensitized to its potentially damaging effects given their frequent and long-standing use of technology. Another possible limitation is that the sample was predominantly female, which is reflective of the healthcare population. However, gender was not significantly correlated with any of the variables in this study. Yet another limitation is the cross-sectional design of the research, and its inability to allow causal inferences. Due to the cross-sectional design, reverse causality of the relationships hypothesized cannot be ruled out. However, several findings are bolstered by stress theory, which implies that a stressor (here, technological interruptions) leads to strain, and ultimately, results in a behavioral or psychological reaction (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Lazarus, 1977; Lazarus & Folkman, 1984; Spector, 1998). In this model, WFC and job stress equate to strain, while the personal and career outcomes such as job satisfaction, career satisfaction, work-family balance, time adequacy, and somatic health complaints equate to the behavioral or psychological reactions. Hence, this ordering of variables in the model does have theoretical precedent, yet future research employing a longitudinal design is warranted to establish causality between the constructs. A final limitation of this study that bears mentioning is in regard to the response rate and sample size. Although, as discussed previously, the response rate was typical based on the data collection method used (on-line survey administration), a higher response rate would have been preferred to allow for simultaneous testing of the larger
hypothesized model, as well as to generate more power to detect significant findings (Cohen, 1990; Cohen & Cohen, 1983).

**Conclusion**

In sum, this research provided evidence as to what aspects of self relate to the degree to which individuals are physically and psychologically dependent on their communication devices. Relational identity, exemplification, and conscientiousness all contribute to self-perceptions of higher levels of tetheredness. Furthermore, the results of this research go against the anecdotal stories of the benefits of being “always on.” The drawbacks of greater employee responsiveness to work-nonwork technological interruptions include increased work-family conflict and job stress. Additionally, the results of this study support the stories of employees and their loved ones confronting blurred boundaries from employee responsiveness to work-nonwork technological interruptions. Both WFC and job stress serve as mediators between employee responsiveness to work-nonwork technological interruptions and employee perceptions of time adequacy and work-family balance, as well as family member/significant other perceptions of work-family balance and relationship satisfaction with the focal employee. As the use of mobile communication technologies continues to rise, both employees and organizations should be made aware of the possible negative outcomes of being “always on,” especially as this behavior is, in many ways, at the expense of employees’ personal lives.
References


Kaul, M., & Lakey, B. Where is the support in perceived support? The role of generic relationship satisfaction and enacted support in perceived support’s relation to low distress. *Journal of Social and Clinical Psychology, 22*, 59-78.


# Table 1

**Preliminary CFA Results**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Models</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>$\Delta\chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-Family Conflict and Work-Family Balance</td>
<td>One Factor</td>
<td>454.66</td>
<td>20</td>
<td>0.12</td>
<td>0.72</td>
<td>0.61</td>
<td>--</td>
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</tr>
<tr>
<td></td>
<td>Two Factor</td>
<td>102.49</td>
<td>19</td>
<td>0.03</td>
<td>0.95</td>
<td>0.92</td>
<td>352.17**</td>
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<tr>
<td>Performance (M) and Promotability (M)</td>
<td>One Factor</td>
<td>264.89</td>
<td>27</td>
<td>0.07</td>
<td>0.86</td>
<td>0.82</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Two Factor</td>
<td>207.24</td>
<td>26</td>
<td>0.06</td>
<td>0.9</td>
<td>0.86</td>
<td>57.65**</td>
<td>1</td>
</tr>
<tr>
<td>Work-Family Conflict (F), Work-Family Balance (F) and Relationship Satisfaction (F)</td>
<td>One Factor</td>
<td>470.81</td>
<td>77</td>
<td>0.13</td>
<td>0.64</td>
<td>0.58</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Two Factor</td>
<td>326.59</td>
<td>76</td>
<td>0.08</td>
<td>0.77</td>
<td>0.73</td>
<td>144.22**</td>
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<td></td>
<td>Three Factor</td>
<td>200.41</td>
<td>74</td>
<td>0.07</td>
<td>0.9</td>
<td>0.88</td>
<td>126.18**</td>
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</tbody>
</table>

Notes. (M) = Manager rated. (F) = Family member or significant other rated. ** $p < .001$. 
## Table 2

**Scale Descriptives and Intercorrelations for Employee-Manager Dyad Dataset**

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (0=Male, 1=Female)</td>
<td>0.87</td>
<td>0.32</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Age</td>
<td>43.6</td>
<td>11.36</td>
<td>0.07</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Number of Tech Interruptions</td>
<td>3.41</td>
<td>9.65</td>
<td>0.02</td>
<td>.18**</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Workload</td>
<td>3.69</td>
<td>0.82</td>
<td>0.1</td>
<td>-0.01</td>
<td>.28**</td>
<td>(.83)</td>
<td>(.)</td>
<td>(.75)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
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<tr>
<td>Work Identity</td>
<td>4.13</td>
<td>0.62</td>
<td>.22**</td>
<td>0.08</td>
<td>.17*</td>
<td>.37**</td>
<td>(.75)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
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<tr>
<td>Family Identity</td>
<td>4.31</td>
<td>0.75</td>
<td>0.11</td>
<td>-0.09</td>
<td>0.1</td>
<td>0.1</td>
<td>.22**</td>
<td>(.90)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
</tr>
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<td>Boundary Control (W-NW)</td>
<td>4.03</td>
<td>0.84</td>
<td>-0.04</td>
<td>0.01</td>
<td>0.02</td>
<td>-1.6*</td>
<td>(.93)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
</tr>
<tr>
<td>Preference for Segmentation (W from NW)</td>
<td>3.88</td>
<td>0.78</td>
<td>0.02</td>
<td>-1.8**</td>
<td>-0.04</td>
<td>-1.7*</td>
<td>-1.7*</td>
<td>-0.07</td>
<td>0.048</td>
<td>(.83)</td>
<td>(.)</td>
<td>(.)</td>
<td>(.)</td>
</tr>
<tr>
<td>Degree of Tetheredness</td>
<td>3.28</td>
<td>1.05</td>
<td>0.04</td>
<td>-3.0**</td>
<td>0.17*</td>
<td>0.16*</td>
<td>.13*</td>
<td>.21**</td>
<td>-0.069</td>
<td>-1.47*</td>
<td>(.92)</td>
<td>(.)</td>
<td>(.)</td>
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<td>Relational Identity</td>
<td>3.72</td>
<td>0.65</td>
<td>-0.02</td>
<td>-0.09</td>
<td>0.13*</td>
<td>0.12</td>
<td>.20**</td>
<td>.27**</td>
<td>-0.019</td>
<td>0.033</td>
<td>.245**</td>
<td>(.90)</td>
<td>(.)</td>
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<td>Self-Promotion</td>
<td>3.20</td>
<td>0.77</td>
<td>-0.02</td>
<td>-0.12</td>
<td>0.09</td>
<td>0.03</td>
<td>0.06</td>
<td>.13*</td>
<td>.134*</td>
<td>-0.012</td>
<td>.135*</td>
<td>.243**</td>
<td>(.88)</td>
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<td>Exemplification</td>
<td>2.31</td>
<td>0.85</td>
<td>0.04</td>
<td>-2.6**</td>
<td>-0.12</td>
<td>0.11</td>
<td>0.1</td>
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\* n = 176.

Notes. W = Work. NW = Nonwork. M = Manager rated.

* = p < .05

** = p < .01
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**Scale Descriptives and Intercorrelations for Employee-Manager Dyad Dataset**

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* a = 176.

Notes. W = Work. NW = Nonwork. M = Manager rated.

* p < .05

** p < .01
Table 3

Scale Descriptives and Intercorrelations for Employee-Family Member/Significant Other Dyad Dataset

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<td>0.07</td>
<td>0.10</td>
<td>-0.22*</td>
<td>-0.07</td>
<td>0.39**</td>
<td>0.34**</td>
<td>0.09</td>
<td>0.16</td>
</tr>
<tr>
<td>Work-Family Conflict</td>
<td>2.19</td>
<td>1.32</td>
<td>0.02</td>
<td>0.10</td>
<td>0.05</td>
<td>0.45**</td>
<td>0.24**</td>
<td>0.28**</td>
<td>0.03</td>
<td>0.07</td>
<td>0.03</td>
<td>0.13</td>
<td>0.23**</td>
<td>0.03</td>
</tr>
<tr>
<td>Work-Family Conflict (F)</td>
<td>2.03</td>
<td>1.26</td>
<td>-0.10</td>
<td>-0.05</td>
<td>0.18*</td>
<td>0.24**</td>
<td>0.34**</td>
<td>0.24**</td>
<td>0.06</td>
<td>0.14</td>
<td>0.10</td>
<td>0.10</td>
<td>0.02</td>
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</tr>
<tr>
<td>Job Stress</td>
<td>3.56</td>
<td>0.72</td>
<td>0.19*</td>
<td>0.35**</td>
<td>0.25**</td>
<td>0.69**</td>
<td>0.34**</td>
<td>0.24**</td>
<td>0.20*</td>
<td>0.13</td>
<td>0.01</td>
<td>0.03</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Career Satisfaction</td>
<td>3.59</td>
<td>0.77</td>
<td>0.08</td>
<td>0.15</td>
<td>0.18*</td>
<td>0.24**</td>
<td>0.34**</td>
<td>0.17*</td>
<td>0.18*</td>
<td>-0.01</td>
<td>-0.08</td>
<td>-0.06</td>
<td>0.10</td>
<td>-0.11</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>4.03</td>
<td>0.65</td>
<td>0.17*</td>
<td>0.17*</td>
<td>-0.09</td>
<td>0.21*</td>
<td>0.23**</td>
<td>0.17*</td>
<td>0.18*</td>
<td>-0.01</td>
<td>-0.08</td>
<td>-0.06</td>
<td>0.10</td>
<td>-0.11</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>3.52</td>
<td>0.70</td>
<td>0.05</td>
<td>0.19*</td>
<td>-0.02</td>
<td>0.17*</td>
<td>0.19*</td>
<td>0.20*</td>
<td>0.11</td>
<td>0.00</td>
<td>-0.03</td>
<td>0.04</td>
<td>-0.05</td>
<td>-0.05</td>
</tr>
<tr>
<td>Somatic Health Complaints</td>
<td>1.73</td>
<td>0.51</td>
<td>0.17*</td>
<td>0.04</td>
<td>-0.08</td>
<td>0.29**</td>
<td>0.10</td>
<td>-0.10</td>
<td>-0.10</td>
<td>0.06</td>
<td>0.00</td>
<td>0.09</td>
<td>0.01</td>
<td>0.09</td>
</tr>
<tr>
<td>Work-Family Balance</td>
<td>3.39</td>
<td>0.94</td>
<td>-0.10</td>
<td>-0.05</td>
<td>-0.17*</td>
<td>-0.32**</td>
<td>0.14</td>
<td>0.14</td>
<td>0.17**</td>
<td>0.05</td>
<td>-0.09</td>
<td>-0.26**</td>
<td>-0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Work-Family Balance (F)</td>
<td>3.77</td>
<td>0.84</td>
<td>0.08</td>
<td>0.16</td>
<td>-0.50**</td>
<td>-0.22</td>
<td>-0.30**</td>
<td>0.15</td>
<td>0.24**</td>
<td>0.21*</td>
<td>-0.07</td>
<td>-0.29**</td>
<td>0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td>Time Adequacy</td>
<td>3.30</td>
<td>0.98</td>
<td>0.07</td>
<td>0.10</td>
<td>-0.16</td>
<td>-0.38**</td>
<td>-0.25**</td>
<td>0.22*</td>
<td>0.33**</td>
<td>0.16</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.08</td>
<td>-0.06</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>3.71</td>
<td>0.63</td>
<td>0.04</td>
<td>0.15</td>
<td>-0.32**</td>
<td>-0.04</td>
<td>-0.13</td>
<td>0.09</td>
<td>0.21*</td>
<td>0.16</td>
<td>-0.06</td>
<td>-0.23*</td>
<td>-0.07</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

n = 99.

Notes. W = Work. NW = Nonwork. F = Family member/significant other rated.
* = p < .05
** p < .01
### Table 3 (cont’d)

**Scale Descriptives and Intercorrelations for Employee-Family Member/Significant Other Dyad Dataset**

<table>
<thead>
<tr>
<th></th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
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<th>19</th>
<th>20</th>
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<th>22</th>
<th>23</th>
<th>24</th>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** W = Work, NW = Nonwork, F = Family member/significant other rated.

* = p < .05

** = p < .01

---

1. Sex (0=Male, 1=Female)
2. Age
3. Number of Technological Interruptions Received
4. Workload
5. Work Identity
6. Family Identity
7. Boundary Control (W-NW)
8. Preference for Segmentation (W from NW)
9. Degree of Tetheredness
10. Degree of Tetheredness (F)
11. Relational Identity
12. Self-Promotion
13. Exemplification
14. Conscientiousness
15. Responsiveness to W-NW Technological Interruptions
16. Work-Family Conflict
17. Work-Family Conflict (F)
18. Job Stress
19. Career Satisfaction
20. Job Satisfaction
21. Life Satisfaction
22. Somatic Health Complaints
23. Work-Family Balance
24. Work-Family Balance (F)
25. Time Adequacy
26. Relationship Satisfaction (F)
### Table 4

**Hierarchical Regression Results for the Relationship between Relational Identity, Self-Promotion, Exemplification, Conscientiousness, and Degree of Tetheredness**

<table>
<thead>
<tr>
<th>Variable</th>
<th>IV: Relational Identity</th>
<th>IV: Self-Promotion</th>
<th>IV: Exemplification</th>
<th>IV: Conscientiousness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preliminary Model</td>
<td>Hypothesized Model</td>
<td>Hypothesized Model</td>
<td>Hypothesized Model</td>
</tr>
<tr>
<td></td>
<td>H4</td>
<td>H5a</td>
<td>H5b</td>
<td>H6</td>
</tr>
<tr>
<td>Control Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.29**</td>
<td>-0.29**</td>
<td>-0.28**</td>
<td>-0.25**</td>
</tr>
<tr>
<td>Relational Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Promotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exemplification</td>
<td></td>
<td></td>
<td></td>
<td>0.17*</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td></td>
<td></td>
<td></td>
<td>0.14*</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.080</td>
<td>0.134</td>
<td>0.083</td>
<td>0.103</td>
</tr>
<tr>
<td>Overall $R^2$</td>
<td>0.086</td>
<td>0.144</td>
<td>0.094</td>
<td>0.114</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>--</td>
<td>0.058</td>
<td>0.008</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Note: ** indicates significance at the p < 0.01 level.
### Table 5

**Regression Analysis Results for Initial Hypotheses Testing with Employee-Manager Dyad Dataset**

<table>
<thead>
<tr>
<th>Hypothesis #</th>
<th>Hypothesis</th>
<th>Results Using Simple Regression</th>
<th>Used in SEM (Mplus) model (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Work Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not supported.</td>
<td>N</td>
</tr>
<tr>
<td>1b</td>
<td>Family Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not supported.</td>
<td>N</td>
</tr>
<tr>
<td>1c</td>
<td>Dual Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not supported.</td>
<td>N</td>
</tr>
<tr>
<td>1d</td>
<td>Other-Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not supported.</td>
<td>N</td>
</tr>
<tr>
<td>2a</td>
<td>Boundary Control (E) moderates the relationship Work Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>2b</td>
<td>Boundary Control (E) moderates the relationship Family Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>2c</td>
<td>Boundary Control (E) moderates the relationship Dual Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>2d</td>
<td>Boundary Control (E) moderates the relationship Other-Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>3a</td>
<td>Preference for Segmentation (E) moderates the relationship Work Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>3b</td>
<td>Preference for Segmentation (E) moderates the relationship Family Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>3c</td>
<td>Preference for Segmentation (E) moderates the relationship Dual Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>3d</td>
<td>Preference for Segmentation (E) moderates the relationship Other-Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>4a</td>
<td>Degree of Tetheredness (E) moderates the relationship Work Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>4b</td>
<td>Degree of Tetheredness (E) moderates the relationship Family Identity Centrality (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>4c</td>
<td>Degree of Tetheredness (E) moderates the relationship Dual Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>4d</td>
<td>Degree of Tetheredness (E) moderates the relationship Other-Centric Identity (E) → Frequency of Responses (E)</td>
<td>Not tested: Direct relationship not significant</td>
<td>N</td>
</tr>
<tr>
<td>8</td>
<td>Frequency of Responses (E) → WFC (E)</td>
<td>Supported: $b = 16, p &lt; .05$</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>Frequency of Responses (E) → Nonwork Stress (E)</td>
<td>Not supported.</td>
<td>N</td>
</tr>
<tr>
<td>10</td>
<td>Frequency of Responses (E) → Job Stress (E)</td>
<td>Supported: $b = 16, p &lt; .05$</td>
<td>Y</td>
</tr>
<tr>
<td>11a</td>
<td>Frequency of Responses (E) → WFC (E) → Life Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>N</td>
</tr>
<tr>
<td>11c</td>
<td>Frequency of Responses (E) → WFC (E) → Somatic Health Complaints (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>Y</td>
</tr>
<tr>
<td>11d</td>
<td>Frequency of Responses (E) → WFC (E) → Work-Family Balance (E)</td>
<td>Passed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>11e</td>
<td>Frequency of Responses (E) → WFC (E) → Time Adequacy (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>Y</td>
</tr>
<tr>
<td>11f</td>
<td>Frequency of Responses (E) → WFC (E) → Promotability (M)</td>
<td>Passed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>12a</td>
<td>Frequency of Responses (E) → WFC (E) → Career Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>Y</td>
</tr>
<tr>
<td>12c</td>
<td>Frequency of Responses (E) → WFC (E) → Job Satisfaction (E)</td>
<td>Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>12d</td>
<td>Frequency of Responses (E) → WFC (E) → Job Performance (M)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>N</td>
</tr>
<tr>
<td>13a</td>
<td>Frequency of Responses (E) → Job Stress (E) → Life Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>N</td>
</tr>
<tr>
<td>13c</td>
<td>Frequency of Responses (E) → Job Stress (E) → Somatic Health Complaints (E)</td>
<td>Passed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>14a</td>
<td>Frequency of Responses (E) → Job Stress (E) → Job Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med).</td>
<td>Y</td>
</tr>
<tr>
<td>14b</td>
<td>Frequency of Responses (E) → Job Stress (E) → Job Performance (M)</td>
<td>Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>15a</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Life Satisfaction (E)</td>
<td>Passed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>15b</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Relationship Satisfaction (F)</td>
<td>Failed test 1 (IV → DV). Failed test 2 (IV → Med).</td>
<td>N</td>
</tr>
<tr>
<td>15c</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Somatic Health Complaints (E)</td>
<td>Failed test 1 (IV → DV). Failed test 2 (IV → Med).</td>
<td>N</td>
</tr>
<tr>
<td>16a</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Job Satisfaction (E)</td>
<td>Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>16b</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Job Performance (M)</td>
<td>Failed test 1 (IV → DV). Failed test 2 (IV → Med).</td>
<td>N</td>
</tr>
</tbody>
</table>
### Table 6

**Regression Analysis Results for Initial Hypothesis Testing with Employee-Family Member/Significant Other Dyad Dataset**

<table>
<thead>
<tr>
<th>Hypothesis #</th>
<th>Hypothesis</th>
<th>Results Using Simple Regression</th>
<th>Used in SEM (Mplus) model (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Frequency of Responses (E) → WFC (E)</td>
<td>Supported: $\beta = .22$, $p &lt; .05$</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>Frequency of Responses (E) → WFC (F)</td>
<td>Supported: $\beta = .36$, $p &lt; .01$</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>Frequency of Responses (E) → Nonwork Stress (E)</td>
<td>Not tested: Nonwork Stress Alpha Unacceptable</td>
<td>N</td>
</tr>
<tr>
<td>10</td>
<td>Frequency of Responses (E) → Job Stress (E)</td>
<td>Supported: $\beta = .24$, $p &lt; .05$</td>
<td>N</td>
</tr>
<tr>
<td>11a</td>
<td>Frequency of Responses (E) → WFC (F) → Life Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med). Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>11b</td>
<td>Frequency of Responses (E) → WFC (F) → Relationship Satisfaction (F)</td>
<td>Passed test 1 (IV → DV). Passed test 2 (IV → Med). Passed test 3 (Med → DV).</td>
<td>Y</td>
</tr>
<tr>
<td>11c</td>
<td>Frequency of Responses (E) → WFC (F) → Somatic Health Complaints (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med). Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>12b</td>
<td>Frequency of Responses (E) → WFC (F) → Career Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med). Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>12c</td>
<td>Frequency of Responses (E) → WFC (F) → Job Satisfaction (E)</td>
<td>Failed test 1 (IV → DV). Passed test 2 (IV → Med). Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>13b</td>
<td>Frequency of Responses (E) → Job Stress (E) → Relationship Satisfaction (F)</td>
<td>Passed test 1 (IV → DV). Passed test 2 (IV → Med). Failed test 3 (Med → DV).</td>
<td>N</td>
</tr>
<tr>
<td>15b</td>
<td>Frequency of Responses (E) → Nonwork Stress (E) → Relationship Satisfaction (F)</td>
<td>Not tested: Nonwork Stress Alpha Unacceptable</td>
<td>N</td>
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</tbody>
</table>
Table 7

**CFA Comparisons for Model 1A**

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1: Five Factor</td>
<td>502.08</td>
<td>264</td>
<td>0.07</td>
<td>0.92</td>
<td>0.91</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Model 2: Four Factor</td>
<td>634.29</td>
<td>268</td>
<td>0.09</td>
<td>0.87</td>
<td>0.86</td>
<td>132.20**</td>
<td>4</td>
</tr>
<tr>
<td>Model 3: Three Factor</td>
<td>1009.75</td>
<td>271</td>
<td>0.12</td>
<td>0.74</td>
<td>0.71</td>
<td>375.46**</td>
<td>3</td>
</tr>
<tr>
<td>Model 4: One Factor</td>
<td>2225.33</td>
<td>274</td>
<td>0.21</td>
<td>0.31</td>
<td>0.25</td>
<td>1215.58**</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 8

*CFA Comparisons for Model 1B*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>$\Delta \chi^2$</th>
<th>$\Delta df$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six Factor</td>
<td>1391.39</td>
<td>887</td>
<td>0.07</td>
<td>0.9</td>
<td>0.89</td>
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<tr>
<td>Four Factor</td>
<td>2026.7</td>
<td>890</td>
<td>0.09</td>
<td>0.75</td>
<td>0.74</td>
<td>635.31**</td>
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<td>Three Factor</td>
<td>2405.72</td>
<td>893</td>
<td>0.11</td>
<td>0.67</td>
<td>0.65</td>
<td>379.02**</td>
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<tr>
<td>One Factor</td>
<td>3185.03</td>
<td>896</td>
<td>0.12</td>
<td>0.5</td>
<td>0.48</td>
<td>779.31**</td>
<td>3</td>
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</table>
Table 9

Summary of Supported SEM Results

<table>
<thead>
<tr>
<th>Hypothesis #</th>
<th>Supported SEM Results</th>
<th>Results Supported in Employee-Manager (E/M) and/or Employee-Family Member/Significant Other Dataset (E/F)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Frequency of Responses (E) → WFC (E)</td>
<td>E/M and E/F</td>
</tr>
<tr>
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<td>Frequency of Responses (E) → WFC (F)</td>
<td>E/F</td>
</tr>
<tr>
<td>9</td>
<td>Frequency of Responses (E) → Job Stress (E)</td>
<td>E/M and E/F</td>
</tr>
<tr>
<td>11b</td>
<td>Frequency of Responses (E) → WFC (F) → Relationship Satisfaction (F)</td>
<td>E/F</td>
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<td>Frequency of Responses (E) → WFC (E) → Work-Family Balance (E)</td>
<td>E/M</td>
</tr>
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<td>11d</td>
<td>Frequency of Responses (E) → WFC (F) → Work-Family Balance (F)</td>
<td>E/F</td>
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<td>Frequency of Responses (E) → WFC (E) → Work-Family Balance (F)</td>
<td>E/F</td>
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<tr>
<td>11e</td>
<td>Frequency of Responses (E) → WFC (E) → Time Adequacy (E)</td>
<td>E/M</td>
</tr>
<tr>
<td>12b</td>
<td>Frequency of Responses (E) → WFC (E) → Career Satisfaction (E)</td>
<td>E/M</td>
</tr>
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<td>14a</td>
<td>Frequency of Responses (E) → Job Stress (E) → Job Satisfaction (E)</td>
<td>E/M</td>
</tr>
</tbody>
</table>
Figure 1

Hypothesized Model

- Preference for Segmentation
- Boundary Control
- Integrated Self
  - Work Identity
  - Family Identity
  - Dual Centric
  - Other-Centric Identity
- Degree of Tetheredness
- Relational Self
  - Relational Identity
- Imaged Self
  - Impression Management
  - Conscientiousness

Controls:
- # of Interruptions Received
- Workload
- Expectation for Fast Response

Controls:
- Gender
- Age
- Job Type

WFC

Career Outcomes
- Promotability
- Career Satisfaction
- Job Performance
- Job Satisfaction

Personal Outcomes
- Life Satisfaction
- Somatic Health Complaints
- W-F Balance
- Relationship Satisfaction
- Time Adequacy

Control:
Family Demographics

H1a-d
H2a-d
H3a-d
H4
H5a-b & H6
H7a-d
H8
H9
H10
H11a-c
H12a-d
H13a-c
H14a-b
H15a-c
H16a-b
Figure 2

Model 1A Results

n = 176.
Notes. E = Employee rated.
* = p < .05
** p < .01
Figure 3

Model 1B Results

n = 176.

Notes. E = Employee rated.
* = p < .05
** p < .01

Dashed lines represent non-significant effects.
**Figure 4**

Model 2A Results

n = 99.

Notes. E = Employee rated. F = Family member/significant other rated.

* = p < .05

** p < .01

- WFC (E)
  - Responsiveness to Work-Nonwork
    - Technological Interruptions (E)
  - WFC (E)
    - -.17**
    - .48**
    - -.31*

- WFC (F)
  - Work-Family
    - Balance (F)
  - -.40**
  - -.31*

- Relationship
  - Satisfaction (F)
Figure 5

Model 2B Results

n = 99.
Notes.  E = Employee rated.  F = Family member/significant other rated.
* = p < .05
** p < .01
Dashed lines represent non-significant effects.
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Manuscripts in Preparation

Wayne, S. J., Hoobler, J. M., Lemmon, G., & Wilson, M. S. Employee work-to-family conflict and career outcomes: Differential effects of manager supportive behaviors. (*manuscript under review*)

Lemmon, G., Wilson, M. S., Westring, A. F., & Glibkowski, B. Getting the most out of idiosyncratic deals: The potential dark side of i-deals. (*manuscript being prepared*)

Wilson, M. S., Lemmon, G., & Glibkowski, B. Idiosyncratic deals and justice: The role of objective and subjective antecedents of i-deal receipt. (*manuscript being prepared*)

Cao, A., Lemmon, G., & Wilson, M. S. Development and validation of an integrative negotiation scale. (*manuscript being prepared*)

Hoobler, J. M, Casper, W., & Wilson, M. S. Electronic interruptions during work and nonwork time, cognitive performance, and burnout: The moderating effects of individual, contextual, and organizational differences. (*collecting additional data*)

Conference and Meeting Presentations


Funded Research


Wilson, M. S., & Hoobler, J. M. (2013). Understanding drivers and outcomes of employee responsiveness to technological interruptions from work during nonwork time. Sponsored by a grant from the Center for Human Resources Management (University of Illinois). $8,500 awarded.