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BALANCING WORK AND LIFE IN A VIRTUAL WORLD: THE IMPACT OF

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ORGANIZATIONAL IDENTIFICATION

by

Kim K. Smith

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August 2014

ABSTRACT

BALANCING WORK AND LIFE IN A VIRTUAL WORLD: THE IMPACT OF
BOUNDARY MANAGEMENT, VIRTUALITY, AND CLIMATE ON
ORGANIZATIONAL IDENTIFICATION

by

Kim K. Smith

The University of Wisconsin-Milwaukee, 2014
Under the Supervision of Professor Kathryn Fonner

Rooted in Boundary theory, this study extends recent research which suggests boundary management is a multi-dimensional process that can be broken into clusters of cross-role interruptions, role identity centrality, and boundary control (Kossek, Ruderman, Braddy, & Hannum, 2012). In addition, the study identifies relationships between these boundary management clusters, virtuality, organizational climate supporting work-home boundary customization, and organizational identification. This research also considers how the modern-day challenge of virtual work arrangements influences boundary control and perceptions of a supportive organizational climate. Finally, the study examines the relationships of boundary control and climate to employees' organizational identification. Findings indicate that Kossek et al.'s boundary management clusters can be replicated and influenced by virtuality, and one cluster was positively related to organizational climate and identification. In addition, virtuality was positively related to perceptions of a supportive organizational climate for customizing work-home boundaries, and negatively related to perceived boundary control. Finally, organizational climate supportive of customization of boundaries was positively related to organizational identification.

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CHAPTER FOUR

ACKNOWLEDGEMENTS

I knew that graduate school would be tough, and that writing a dissertation might make me want to pull my hair out. That was true. What I did not know was that the most important lessons I would learn during my six years of graduate school would not come from a journal article or a classroom. Throughout this process, I have learned that, in grad school, hard work needs to be harder work, there is always room to think bigger, and that life cannot be controlled. I am forever grateful to the people who were there to get me through it.

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CHAPTER ONE

INTRODUCTION

Balancing the responsibilities of work and home is a common and inherent component of managing life as an employed adult. Employees today, however, work in a world where separating home and work life can be quite difficult. Communication technologies make it easy to communicate across boundaries, which means employees must make decisions about when to allow home responsibilities to enter the work domain, and vice versa (Wiesenfeld, Raghuram, & Garud, 1999). Thus is the challenge of boundary management in the 21st century. Interest in boundary management techniques has increased over the years, developed most recently by Kossek, Ruderman, Braddy and Hannum (2012) into distinct boundary management profiles. Rooted in Boundary theory (Nippert-Eng, 1996), boundary management deals with balancing the roles and responsibilities of work and life domains; traditionally, research characterizes this process in terms of those who prefer to keep those domains separate, and those who prefer to integrate. Some individuals can control the extent to which they manage these boundary domains, while others have limited control. Regardless of choice, all employees find themselves managing boundaries between work and home, and it is important for scholars to understand how those management strategies impact work and life behaviors, attitudes, and processes.

The management of work and home boundaries is complex, and involves several different components. Traditionally, boundary management styles have been measured on a continuum ranging from integration to segmentation, where those who allow for more permeable boundaries would fall heavily on the side of integration. Ashforth,

Kreiner and Fugate (2000) argue that individuals have certain preferences for boundary strength, and Kreiner, Hollensbe and Sheep (2009) support the idea that individuals differ in the way they manage boundaries. More recently, Kossek et al. (2012) suggested that boundary management styles hinge on three primary factors; cross-role interruption behaviors, role identity centrality, and perceived boundary control. More specifically, the number and direction of interruptions (from work to nonwork and vice versa), the centrality of one's work or family identity, and the individual control an employee perceives over managing work and home boundaries factor heavily into the specific style adopted by that employee. Boundary management, then, influences a variety of important employee experiences and processes including work-family conflict, intention to turnover, and psychological distress (Kossek, Lautsch, & Eaton, 2006).

It follows that scholars should consider additional factors that may influence, and be influenced by, the process of boundary management. Kossek et al. (2012) proposed their boundary management profiles as a way to focus on a more person-centered approach to understanding boundaries. According to the authors, the traditional variable-based approach to measuring boundary management involves aggregating scores across individuals which often creates low representativeness of actual people in a particular sample. A person-centered approach, then, considers psychologically-based characteristics that combine with an individual's social system to create a more personalized picture of boundary management styles (Kossek et al., 2012). That idea has merit and is further supported in this dissertation.

In addition, I propose that employee virtuality, also an individual factor, should be considered in the study of boundary management. Opportunities for virtual work

arrangements in organizations are increasing, which means that employees may be more removed from traditional spatial and temporal boundaries of work (Nansen, Arnold, Gibbs, & Davis, 2010). Scholars have noted that being removed from these cues may blur the boundaries between home and work, as well as create challenges toward developing workplace behaviors (Kossek et al., 2006). It is important to determine if a lack of physical workspace and daily interaction or increased blurring between work and home changes the way a person might manage his or her boundaries. Virtuality, and more specifically telework, has been found to improve commitment, job satisfaction and loyalty, and is linked to lower intention to turnover (Kossek et al., 2006); it could positively influence boundary management processes for individuals by enabling employees to make choices that best suit their personal needs. Elements of virtual work could go hand in hand with certain types of boundary management, because the nature of virtual work may lend itself more easily to a certain type of boundary management style. Managing work and home becomes more complicated when the physical spaces for those places do not necessarily differ. Organizations today must not only account for the challenges of implementing virtual work arrangements, but must also consider the influence of virtual work on the employee work experience.

In addition to individual factors such as role centrality, boundary control, role-crossing interruptions, and virtuality, aspects of the work environment may also influence the process of boundary management. Kossek and Lautsch (2012) created a theoretical model of boundary management, suggesting that organizational climate influences an individual's enacted boundary management style. Patterson and his colleagues (2005) describe organizational climate as an "intervening variable between the context of an

organization and the behavior of its members" (p. 379). Similarly, Kirby and Krone (2002) state that "micro-communication practices surrounding work, family, and work-family policies have the ability to influence macro-issues such as organizational policies and even dominant ideologies in the organization concerning work and family" (p. 54). Scholars have only recently begun to analyze how individuals manage work-family role boundaries within organizational work-family climates (Kossek & Lautsch, 2008; Patterson et al., 2005). Kossek and Lautsch's (2012) model builds on boundary theory to explore the connections among individual differences (i.e., role identities), control in managing boundaries, and organizational climate. More specifically, an organization's climate can influence the amount of flexibility an individual has in making choices about boundary management. Employees take cues from the organizational climate (e.g., communication with supervisors and co-workers) to determine the appropriateness of boundary management choices and styles. It is important to understand how the nature of the organizational climate influences employees' boundary management.

Further, it is important to consider how boundary management choices influence an employee's relationship with his or her organization as a whole. Employees' choices about managing the work-home boundary may influence how satisfied they feel with their organization, whether or not they remain with the organization, how productive they are, and more. Boundary management choices may also reflect the way an employee feels toward his or her organization in general. For example, if an employee manages boundaries in a way that favors home or personal life, that individual may not feel the strong sense of "oneness" Mael and Ashforth (1992) use to describe organizational identification, because he or she may put the majority of time and energy into life outside

of the workplace. Similarly, an individual who favors work over personal life may manage boundaries in a way that strengthens their work identity, where they spend more time involved in the norms and values of the organization, leading to more organizational identification. The way in which an individual manages these boundaries could influence whether an individual feels a sense of alignment with an organization's goals, culture, norms, and beyond, which means the choices an individual makes to manage boundaries could also affect organizational identification. Further, virtuality, just as it may influence boundary management strategies, may be related to organizational identification as virtual work arrangements can remove employees from daily organizational norms and interactions. Distance from such norms is generally seen as a disadvantage, but this research seeks to provide evidence that there are advantages to these types of work arrangements, including but not limited to employees' organizational identification.

There is a solid body of research on boundary management, but there is considerable room for development. For example, scholars have not considered various workplace influences that relate to boundary management. According to Hecht and Allen (2009), balancing life roles has earned scholarly attention from a variety of perspectives (e.g., psychological, sociological), and many scholars have stressed the importance of understanding the way work and nonwork interface (Ashforth et al., 2000; Clark, 2000; Hall & Richter, 1988; Hecht & Allen, 2009). Organizational climate is under-represented in research, but the work being done by Kossek & Lautsch (2012) and Kirby and Krone (2002) suggests it could be a primary factor influencing workplace behaviors. In addition, the relationships between virtuality and boundary management require further exploration. The aim of this dissertation is to advance the current research on work-home

boundary management by examining boundary management in the context of virtuality and climate.

Overall, the goal of this dissertation is to understand boundary management from a variety of angles. Using theoretical propositions from a boundary management model (Kossek & Lautsch, 2012), newly proposed boundary management style profiles (Kossek et al., 2012), an exploratory measure of virtuality, and relatively new ideas about organizational climate, this dissertation will address boundary management in traditional and virtual work arrangements and consider how organizational climate and organizational identification factor into these work processes. Specifically, this study examines how role identity, boundary control, and cross-role interruptions cluster into distinct boundary management profiles, and how boundary management might relate to virtuality, organizational climate, and organizational identification. Further, the study will explore the relationships between (a) virtuality and boundary control, (b) virtuality and organizational climate supportive of work-home boundary customization, (c) control over boundary management and organizational identification, and (d) organizational climate supportive of work-home boundary customization and employees' organizational identification. The remainder of this chapter explores these relationships.

To follow, the second chapter describes the methods used to conduct the current study and the third chapter includes the statistical analyses and results. The dissertation concludes with a discussion situating these results within the current literature, including a discussion of the implications of the findings for theory and practice and the necessary future directions of research in this area.

LITERATURE REVIEW AND HYPOTHESES

Boundary Theory

Boundaries are "physical, temporal, emotional, cognitive, and/or relational limits that define entities as separate from one another" (Ashforth et al., 2000, p. 474). Boundary theory, first developed by Nippert-Eng (1996), describes how individuals negotiate and create the different domains that exist in their lives (e.g., work or family domains). In the workplace, boundaries are often used as a perimeter around a particular role (Ashforth et al., 2000). Kossek, Noe, and DeMarr (1999) defined boundary management strategies as the way one organizes and separates role demands or expectations into specific domains of work and home. In addition, Kossek et al. (2006) described boundary management strategies as "the degree to which one strives to separate boundaries between work and home roles" (p. 350). Boundaries provide a way to identify, establish, and delineate various domains. In the workplace, employees often create boundaries around one's work and personal/home life in order to keep each domain distinct (Hecht & Allen, 2009). Maintaining this distinction allows individuals to identify the cognitive, behavioral, and communicative components of a particular domain; for example, each domain likely has separate role responsibilities (e.g., the role of a parent at home, the role of a graphic designer at work) and necessary behaviors, attitudes and priorities that should be enacted within each sphere.

Clark (2000) further developed the ideas behind boundary theory with the more detailed border theory, but the term boundary is used most commonly among scholars and throughout this dissertation. One of the boundary theory threads further developed from Clark's exploration of border theory is the idea that individuals are more proactive

than previous research suggests in defining work and family lives as they are constantly

constructing boundaries around each domain, and those boundaries vary in strength

depending on the individual. Ashforth et al. (2000) support this idea by suggesting that

individuals have certain preferences for the strength of their boundaries. According to

Kreiner et al. (2009), individuals differ in the ways in which they manage boundaries

between work and home. These researchers describe how strong boundaries are

constructed to keep work and home domains separate, while weak boundaries allow and

facilitate interaction between domains. The extent to which such interaction occurs

depends on level of permeability and flexibility of the boundaries.

Permeability. Boundary permeability refers to the extent to which a boundary

allows psychological or behavioral aspects of one role or domain to enter another

(Desrochers & Sargent, 2004), or how an individual might be physically located in one

domain but behaviorally and/or psychologically in another (Hecht & Allen, 2009). It also

considers the degree to which a role allows one to be physically located in the role's

domain but psychologically and/or behaviorally involved in another role (Ashforth et al.,

2000); for example, an individual who is able to accept calls from a spouse while at work

or an individual who accepts work-related phone calls from home (Bulger, Matthews, &

Hoffman, 2007; Winkel & Clayton, 2009). In some ways, permeability can be seen as

actual interruptions from one domain into another, of which the employee has very little

control (Bulger et al., 2007). Integrating role domains provides employees with the

opportunity to shift more easily between roles required of them as they complete tasks for

their job. In addition, Ashforth et al. (2000) argue that integrating work and family can

mean that the boundaries between the two domains are permeable; family may be more interrupted by work influences, and vice versa.

Flexibility. Flexibility refers to the malleability between roles, or the ability to cognitively or behaviorally expand or contract boundaries to accommodate the demands of different roles (Desrochers & Sargent, 2004; Winkel & Clayton, 2009). When a boundary can hypothetically be relaxed in order to meet the demands of another domain, it is said to be flexible (Ashforth et al., 2000; Clark, 2000; Hall & Richter, 1988). Flexibility also considers the degree to which spatial and temporal boundaries are pliable (Ashforth et al., 2000), in the sense that individuals can cognitively or behaviorally transition from one role to another in order to meet the demands of each domain (Bulger et al., 2007). One way to operationalize flexibility is the degree to which an individual believes he or she has the ability to change when and where a certain role's activity occurs to meet the responsibilities or demands of another (Kossek, Lautsch, & Eaton, 2005). For example, if an individual utilizes a flexible approach he or she might choose to tend to a sick child before answering work emails, or perceive he or she can leave work for a family matter (Bulger et al., 2007).

Essentially, the extent of permeability or flexibility an individual uses to manage boundaries can be described within what Nippert-Eng (1996) termed the segmentation-integration continuum. Most research examines the enactment of work-home boundary management styles along this continuum, ranging from integration to segmentation. Various points along this scale reflect different boundary characteristics on a range, from highly segmented to highly integrated (Bulger et al., 2007). In this case, boundary permeability and flexibility represent the segmentation or integration of roles. More

specifically, segmentation exists when there is low permeability of boundaries and low flexibility to leave one domain for another. Instead of a more fluid exchange between roles, boundaries that are more segmented keep the responsibilities associated with each fairly separate and distinct. Segmentation tends to be associated with relatively large differences in identities between roles (Bulger et al., 2007). Individuals who fall on this end of the continuum maintain work and life separately, with the advantage of minimizing blurring between roles which allows individuals to compartmentalize identities (Ashforth et al., 2000; Ashforth & Mael, 1989).

While not all individuals have a choice in the segmentation or integration of their roles, many do. Some individuals prefer to keep their work and home roles separate, so they enact certain strategies to segment and reduce the blurring of role boundaries (Fonner & Stache, 2012). Such segmentation, however, can make the transition between roles more challenging, and thus some individuals prefer to take a more integrated approach (Ashforth et al., 2000). With integration, there is a high degree of permeability and flexibility of domain boundaries. When an individual integrates, he or she maintains work and life in a way that allows the two domains to interact freely (e.g., that individual might bring work home or vice versa). In their empirical study, Desrochers, Hilton, and Larwood (2005) found that number of hours working at both work and home, distractions, and work-family conflict were related to higher integration of work and family.

Boundary Management Clusters

Initial qualitative research into boundary management provided rich descriptions of individual segmentation and integration tactics, and quantitative studies added to this

research by developing scales to measure boundary management characteristics like flexibility (Kossek et al., 2012). To date, scholars have primarily evaluated the work-home boundary along the segmentation—integration continuum. However, this dissertation seeks to consider some more recent ideas put forth by Kossek and colleagues regarding the construction of individual boundary management profiles.

Kossek et al. (2012) expanded on the idea of the integration-segmentation continuum by identifying and defining specific types of boundary management profiles among employees. According to Kossek et al. (2012), "Boundary management styles are defined as the approaches individuals use to demarcate boundaries and attend to work and family and other nonwork roles, given identity centralities and perceived boundary control" (p. 112). Kossek et al. suggest that classifying boundary management styles in terms of integration or segmentation does not fully capture the complexity of boundary management. Instead, the authors expand beyond the concepts of integration and segmentation by proposing that boundaries may be asymmetrical in the sense that one domain may enter another, but not necessarily the reverse. Kossek et al. use this idea to create new representations of boundary management, where work-life and life-work interruptions, role identity, and boundary control combine to create a certain profile of boundary management. This distinction represents a new way of both studying and understanding boundary management, and is a significant contribution to the boundary management and work-life balance literatures. The authors created an assessment termed the Work-Life Indicator, which captures boundary management profiles. According to Kossek et al. (2012), "these profiles reflect how interruption behaviors, identity centralities, and boundary control interrelate to cluster into profiles, a set of psychological

characteristics organized into a pattern of work-nonwork boundary functioning" (p. 112). Such profiles are necessary for utilizing a person-centered approach to studying boundary management, which allows for the development and understanding of distinct profiles instead of individual boundary characteristics (Kossek et al., 2012). The profiles, then, are arranged as sets of psychological characteristics organized into patterns.

In order to create the profiles, Kossek et al. (2012) validated measures of boundary management characteristics and identified different clusters of psychological variables. Boundary management styles, according to Kossek et al. (2012), are a combination of three things: cross-role interruptions (Nippert Eng, 1996), role identity centrality (i.e., work-, family-, dual-, or other-centric; Settles, 2004), and perceived boundary control (Karasek, 1979). Many theoretical and qualitative studies suggest there is interdependence among these variables, and Kossek et al. test such claims with their quantitative research. The authors developed six distinct profiles of boundary management styles representing the varying styles adopted by employees. This dissertation seeks to replicate Kossek et al.'s clustering of boundary management profiles and argues for the importance of considering these profiles in further exploration of boundary management and work-life balance. The three primary components of boundary management style are described below, followed by the specific profiles developed by Kossek et al. (2012).

Boundary control. Kossek et al. (2012) characterize boundary control as a "psychological interpretation of perceived control over one's boundary environment" (p. 114). According to Kossek et al., individuals who have higher perceived control will perceive they have control over the timing, direction, and frequency of boundary domain

crossing to fit their identities and multiple role demands. Flexibility, described above,

refers to the contraction or expansion of boundaries, and employees develop perceptions

regarding their ability to be flexible with their boundaries. Several empirical studies

support the idea of psychological boundary control (Hackman & Oldham, 1980; Kossek

et al., 2006). Hackman and Oldham (1980) found that employee feelings of control over

when, where, and how work was completed was a strong predictor of work-family

conflict. Essentially, the way an individual experiences boundary crossing may relate to

how much control that person has over managing boundaries. Some individuals perceive

the ability to expand or contract their boundaries as they see fit, while others might be

constrained by work context (described in this study as organizational climate).

 Boundary control is also related to autonomy. Hackman and Lawler (1971) define

job autonomy as "the extent to which employees have a major say in scheduling their

work, selecting the equipment they will use, and deciding on procedures to be followed"

(p. 265). Gagne and Deci (2005) describe autonomy as having a choice, and sense of

volition, in pursuing a particular activity. According to Liu, Zhang, Wang and Lee (2011)

the desire for autonomy is a basic psychological need for human beings. Autonomy

allows employees to determine the pace, methods, and sequence for completing tasks

without significant organizational constraints (Volmer & Spurk, 2012), can enable self-

determination and meaning (Deci & Ryan, 2000), and can provide employees with a

sense of responsibility for their jobs (Langfred & Moye, 2004). High levels of autonomy

have also been linked to increased motivation at work (Ryan & Deci, 2000). In the case

of the boundary management profiles, Kossek et al. (2012) situate boundary control in

terms of the extent to which individuals control the way their work and home boundaries interact.

Role identity centrality. Boundary management is often shaped by individuals' work-family boundary management preferences and what Kossek and Lautsch (2012) describe as "the centrality of one's role identities" (p. 158). According to Kossek et al. (2012), work identity centrality refers to how salient an individual's occupational career might be, such as identifying with being a doctor, manager, professor, or CEO, while family identity centrality refers to the degree of identification with a family role, such as identifying with being a parent, a sibling, a son, or a daughter. People differ in terms of how important certain roles are to them. Some elevate family identity over other identities, so they are more family-centric, while others may have a tendency to prioritize career over family (Kossek et al., 2012).

Role identity, defined by Ashforth et al. (2000) as the construction of the self in a particular role, and the core (essential) and non-core (flexible) features that make up that role, influences enacted boundary management strategies. Core role features are often considered necessary or typical characteristics of the identity. According to Ashforth et al., "Core and peripheral features also may include aspects of the context(s) that help situate the role identities, such as geographical location, role set members, and role status" (p. 475). Some individuals, Kossek et al. (2012) claim, have very work-centric role identities, while others have family-centric identities, and still others operate with dual-centric role identities where they identify strongly with both family and work roles, and are dually invested in each. Such role centrality has yet to be thoroughly examined, as people likely differ in terms of the importance they place on these particular roles.

Certain expectations of others within the context of the role may also shape the identity. For example, managers are typically expected to be self-reliant and stable in the workplace, while their families may expect them to be warm and nurturing (Ashforth et al., 2000). In this way, role identities help to define and enact boundary management strategies.

Feeling highly identified with a role domain can result in an individual feeling committed to that focal domain and the values associated with that role (Stryker, 1980). Individuals who feel higher role identification in a certain domain are likely to shape that domain in a way that makes them more involved with that particular role (Ashforth et al., 2000). Role identification, according to a study by Olson-Buchanan and Boswell (2006), should relate to boundary creation. Katz & Kahn (1978) suggest when individuals manage differing expectations of multiple roles, they must choose to engage in certain role taking behaviors. Cross-role interruptions, described in the following section, can occur when individuals allow interruptions from one role to another.

Cross-role interruption behaviors. Kossek et al. (2012) use the term cross-role interruption behaviors to describe "the degree to which individuals allow interruptions from one role to another" (p. 114). As individuals attempt to manage multiple roles across social systems, they participate in gate-keeping and social construction of boundaries. The extent to which an individual allows interruptions is influenced by preferences for integration or segmentation of role responsibilities. When an individual integrates his or her role responsibilities, such boundaries appear flexible and may overlap; conversely, segmentation is marked by inflexibility and rigidity. Expanding on Greenhaus and Beutell's (1985) work-family enrichment theory, Kossek et al. (2012)

constructed a measure to explore the direction of interruptions, from work to nonwork domains and vice versa. The measure determines the degree to which role-taking (identified by role centralities) and, thus, interruption behaviors, is symmetrical or asymmetrical.

Directionality is important when it comes to the way one domain might enter another. Kossek et al. (2012) refer to this as interruption behaviors, which are a micro level, daily practices where one role is interrupted to attend to another. The direction of such interruptions is a key component in differentiating specific boundary management profiles. In addition, traditionally research has examined integration between work and home in one dimension, on the integration-segmentation continuum. It is important, however, to also consider cross-role interruptions between work and nonwork, and nonwork and work as a separate and additional dimension to understanding boundaries which separate or integrate work and home domains.

Clusters

Kossek et al. (2012) empirically tested their claims that boundary management styles are influenced by role centrality, cross-role interruptions, and boundary control. Their quantitative analysis revealed that these three variables clustered to represent six boundary management profiles: Work Warriors, Reactors, Family Guardians, Fusion Lovers, Dividers, and Nonwork-eclectics. Two of the clusters (Work Warriors and Reactors) support findings of a qualitative study done by Kossek and Lautsch (2008). Work Warriors are characterized by low boundary control and asymmetrical interruption behaviors (higher work interrupting nonwork but not the reverse), and individuals who fall into this cluster are work-centric. Reactors are also characterized by low boundary

control, but experience high symmetry of cross-role interruption behaviors and are dual-centric, with equal focus on their work and family identities. Four clusters are characterized by high boundary control, and vary in identity centrality and interruptions. Family Guardians are family-centric and experience asymmetrical interruptions (nonwork interrupts work, but not the reverse). Fusion Lovers are dual-centric and are integrators, experiencing high interruption behaviors in both directions. Dividers are also dual-centric, but are separators, and have low cross-role interruptions. Finally, Nonwork-eclectics have high identity with other life pursuits not including family or work, and have high symmetry of cross-role interruptions (Kossek et al., 2012).

It is important to continue to research how these components influence boundary management. Understanding how they cluster to form distinct profiles is useful toward gaining a more accurate picture of employee behaviors and tendencies. This dissertation will seek to learn if a new sample, different from the one used by Kossek et al. (2012), will cluster into similar, distinct profiles. Replicating Kossek et al.'s technique and results will provide further evidence in support of a new representation of boundary management. It is important to consider how boundary management changes, just as organizations and the world in which they are a part are changing. Thus, this dissertation seeks to provide additional support for Kossek et al.'s (2012) boundary management clusters.

RQ1: How do cross-role interruption behaviors, boundary control, and identity centrality of work and family roles cluster to form distinct boundary management profiles?

Kossek et al. (2012) consider both individual and environmental factors as determinants of boundary management styles. Many organizations are changing the way employees are distributed across workspaces and an increasing amount of employees are taking advantage of alternative work arrangements. Virtuality, then, presents unique challenges for the way employees manage a number of workplace behaviors like boundary management. Such work arrangements are specific to the individual. In addition, organizations that provide opportunities for work-family boundary management are communicating a certain message to their employees. Kossek and Lautsch (2012) and Kirby and Krone (2002) suggest it is important to further investigate how such organizational support is communicated and, ultimately, what it might mean to employees. This dissertation explores these newer aspects of boundary management. To follow, I highlight current research on virtuality and propose connections between virtuality and boundary management, as well as outline current research on organizational climate and propose relationships between climate and boundary choices.

Virtuality

Virtual work is becoming quite commonplace in many organizations. Technological innovation now allows for a distributed organization, with some employees operating at a physical distance from the organization's office space. The growth of communication technologies has allowed society as a whole to do more work at a distance (Chudoba et al., 2005). Most of the research attention toward communication technologies follows a path taken by society to incorporate an increasing amount of technology into daily life. The modern economy is characterized by global expansion, and as consumers demand bigger and better technologies, businesses attempt

to keep up by utilizing technology for efficiency and competition (Hinds & Bailey, 2003).

One such option is the use of alternative work arrangements like telework, or telecommuting. Telecommuting has gained increasing attention as major businesses adopt alternative work arrangement policies. According to Reynolds (2014), companies such as Xerox, United Health Group, and Dell are some of the top companies that offer a range of remote work options for employees. Many of the companies listed in the top 100 for offering flexible work options are well-known and competitive in their field. Some companies, however, fall on the opposite side of the spectrum. In February of 2013, Yahoo gained national attention when it announced its employees could no longer work remotely. The company claimed that quality of work, and the speed at which work was completed, was being sacrificed when employees were working from home (Rafferty, 2013). In a memo leaked by Yahoo to The Wall Street Journal, the company stated that working from home eliminated hallway and cafeteria discussions, which, the company claims, are where some of the best decisions and insights are made (Rafferty, 2013). Such statements cast aside the tangible benefits of virtual work, and call into question the fact that Yahoo is a technology company that has assisted in making work flexibility possible. For all of the organizations that embrace teleworking, a substantial number still are not on board. For example, Google Chief Financial Officer Patrick Pichette indicated that Google employs as few teleworkers as possible (Rafferty, 2013).

Such conflicting messages create interesting challenges for organizations that need to make choices about how to incorporate virtuality, and may influence public impression of telework, making it increasingly more important to understand alternative

work arrangements from a research perspective. Conflicting opinions of alternative work arrangements in the popular press bolster the need to continue to shed light on virtuality. Further, it is important for organizations to consider the unique challenges they face in managing virtual employees, and the challenges faced by employees in managing their own boundaries. According to Chudoba et al. (2005), many employees face the challenge of working away from the office or communicating with people who work on the road. Supporting these types of workers, the authors claim, should be a key priority. Since virtuality can place physical distance between an employee and his or her organization, it is also important to consider whether or not that distance influences the way an employee connects and identifies with the organization as a whole.

Wiesenfeld et al. (1999) reflected on the reality of work in modern organizations, where advances in information technologies inspired organizations to experiment with virtual ways of accomplishing organizational work and tasks. Virtual work, however, is still underexplored throughout research because the work experience is different, both contextually and communicatively, from traditionally situated face-to-face organizations. The biggest obstacle of virtual work is the notion that, at its core, being virtual presents disadvantages to organizations because there are a lack of social cues through which employees can establish norms and identification, leading to uncertainty in the way managers can manage and employees can work according to the standards of the organization (Postmes, Spears & Lea, 2000; Sproull & Kiesler, 1986; Walther, 1992; Walther & Parks, 2002). As a consequence, links between virtual employees and their organizations are often less tangible and more psychological and social in nature. The absence of these tangible links, according to some research, means that virtual systems

experience more strain on the ties that bind the organization to its employees (Wiesenfeld et al., 1999).

Findings by Chudoba et al. (2005), however, demonstrate that physical distance is not detrimental to team performance, which contradicts much of the previous research that suggests distance may cause issues in terms of effectiveness, coordination, or productivity. Although Chudoba et al. represent only one counterintuitive finding, their research illustrates the importance of further exploring virtual work to assess its full potential and impact. Conversely, the study found that the degree to which employees work in environments other than regular offices and the degree to which employees experience cultural diversity in work teams could be detrimental to teamwork. Repeated use of virtuality measures such as this in research are necessary to develop a reliable, consistent measure of virtuality and to examine its impact on organizational processes. Virtual organizations and workplace arrangements will likely continue to become more prevalent, with cost savings and knowledge sharing across greater distances and resources becoming increasingly more attractive to organizations attempting to remain competitive.

Conflicting definitions of virtuality makes it difficult to measure (Chudoba et al., 2005; Gibson & Gibbs, 2006). Dimensions of virtuality have included geographic dispersion (Chudoba et al., 2005; Cohen & Gibson, 2003), electronic dependence (Cohen & Gibson, 2003; Gibson & Gibbs, 2006), level of technology support, percent of time apart on tasks, physical distance (Griffith, Sawyer, & Neale, 2003; Kirkman & Mathieu, 2005), and use of computer-mediated communication, temporality, and diversity (Chudoba et al., 2005; Martins, Gilson, & Maynard, 2004). In the past, some of these

components have been lumped together and used to describe virtual teams, organizations, or work arrangements. According to Gibson & Gibbs (2006), the most commonly investigated characteristics of virtuality are geographic dispersion and electronic dependence, as there is often the assumption that more geographically dispersed teams are simultaneously more electronically dependent, making them more virtual (Kirkman, Rosen, Tesluk, & Gibson, 2004; Majchrzak, Rice, King, Malhotra, & Ba, 2004).

Chudoba et al. (2005) used discontinuities, or "changes in expected conditions" (p. 279) to create a virtuality index to assess how virtual a particular setting or situation might be. In other words, these components of virtuality change more established ways of communicating or sending and receiving information, which influences communication patterns, teamwork, or performance. The measure considers how geographical distance, working across time zones and organizational boundaries, national culture diversity, work practices and technology use work together to create a sense of virtuality. These components were broken up into three different categories for measuring virtuality: team distribution, which considers the degree to which people work on teams with others distributed across time zones using collaboration technologies; workplace mobility, which highlights work environments other than collocated, physical office spaces; and variety of practices, or the degree to which people experience cultural or work process diversity in their collaborative relationships. Similarly, Gibson and Gibbs (2006) cite geographic dispersion, electronic dependence, dynamic structure and national diversity as potential components of virtuality.

Communication technologies reshape workplace structures and experiences, and can help shift organizational temporal and spatial boundaries (Nansen et al., 2010;

Perrons, 2003). It is important to establish how virtuality influences our workplace behaviors and practices, as it is an increasingly popular trend that will only continue to grow. The shift in structure and practice at the hands of technology has created a challenge for employees who now find themselves trying to balance work and life, when the two often intersect or interrupt one another. A significant amount of research has been dedicated to determining the impact of work-life balance, examining the implications of when the two remain separate or overlap, often referred to as segmentation and integration. Scholars have begun to recognize virtuality on a continuum, where extent of virtualness can differ because it is multidimensional (Gibson & Gibbs, 2006). In this dissertation, virtuality is measured on a continuum where individuals who score higher on mobility, variety of practices and use of certain communication technologies are considered more virtual.

Linking Boundary Management and Virtuality

Interest in employee boundary management styles is growing both scholastically and among organizations and employees. Kossek and Distelberg (2009) attribute the interest in boundary management styles to societal shifts, such as the increase in communication technology use, which have re-shaped the borders of work arrangements. Kossek et al. (2012) cite wireless technology's role in allowing individuals to have 24-7 communication and the growing availability in different types of work arrangements (e.g., telework) with increasing self-regulation by employees and, thus, the rise in interest on the effectiveness of these practices. For scholars, it is important to investigate boundary management practices in new work arrangements because communication and employee behaviors change when organizations take a different shape. From a

managerial perspective, it is important to understand the challenges faced by employees and the management strategies that may shape employee behaviors and influence an organization's bottom line. Further, employees need to consider how work arrangements may influence the amount of choice they have in customizing how they manage their boundaries. Essentially, virtualness is increasingly prevalent in today's workplace, and its presence throughout all levels of the organization can influence the way employees and their organizations approach work-life balance.

According to Major and Germano (2006), communication technologies enable workers to connect to work and family regardless of physical location, and this connection blurs the boundaries between work and home domains. Before the influx of communication technologies, the possibilities for work to enter the home were limited. Now, alternative work arrangements (e.g., telework) and technological advances (e.g., internet) provide opportunities for work to enter a nonwork domain (Hecht & Allen, 2009). Such mixing may weaken boundaries and may result in one domain interfering with another (Hecht & Allen, 2009), perhaps more frequently than in the past. Kossek and Lautsch (2008) state that today's world is seeing an increase in the blurring between work and home. Boundary management strategies have been explored to some extent in teleworkers. Myrie and Daly (2009) indicate the growth in home-based workers means individuals working from home need to share their space with their families, which requires a different approach to managing time and space than in traditional work environments. Since teleworkers may work from home or away from the physical office, the opportunity for work and family domains to conflict is often present. Thus,

employees – and more specifically, virtual employees – need to be strategic in the way they balance home and work life.

Technology is deeply rooted in daily life, and Park and Jex (2007) speculate individuals may develop their own strategies for using technology to engage in roles across domains. Some research suggests people use technology to perform roles in both work and life domains (Park & Jex, 2007). For example, an individual might use a personal home computer to respond to work emails. Communication technologies are represented as a component of virtuality in several iterations of research. The simple fact of employees' use of technology is that it almost inherently creates blurring between boundaries (Kossek & Lautsch, 2012; Major & Germano, 2006). Technology use may also enable greater cross-role interruptions, which are featured in Kossek et al.'s (2012) measure of boundary management. The inclusion of cross-role interruptions in understanding boundary management choices makes virtuality more relevant to boundary management research, as such interruptions may occur at a higher rate on account of virtuality. Virtuality creates challenges for organizations and employees because, as the literature suggests, it allows for employees to be completely removed from physically shared workspaces. The absence from the physical workplace, accompanied by regular use of communication technologies to complete work or deal with personal matters, may require that virtual employees use specific boundary management strategies to manage the unique challenges presented by virtuality. In other words, employees with virtual work arrangements may need to manage boundaries based on the demands of their work situation in addition to their preferences for boundary management.

Virtuality, much like the consideration of interruptions, role identities and boundary control by Kossek et al. (2012), may add to the understanding of boundary management in that it considers more context-specific factors like physical presence and use of technology. In particular, the relationship between virtuality and interruptions poses a unique question in that virtuality can change employee exposure to work interruptions, and may enable home-based interruptions. Essentially, virtuality may be associated with specific *types* of cross-role interruptions related to where an employee completes his or her work, so employees in virtual work arrangements may make specific boundary choices. Thus far, research has not examined the relationship between virtuality and the clustering of the boundary management components put forth by Kossek et al. In addition, virtual work is associated with autonomy (Gajendran & Harrison, 2007), and may influence the extent to which employees perceive autonomy or control over work-home boundaries. The dissertation examines potential differences in boundary management styles across employees of varying levels of virtuality, and asks the following research question:

RQ2: How does virtuality relate to boundary management styles?

Organizational Climate for Customization

Virtuality is described above as a factor that may be associated with boundary management choices. Organizational climate is an additional workplace factor to consider. Kossek and Lautsch (2012) state that some organizational climates allow for greater customization of work arrangements to accommodate work-life boundary needs and preferences of employees, while others remain more standardized. The authors also claim that an organization's climate regarding work-family boundaries is in part defined

by the perceptions and communication of organizational members regarding work-family

boundary management. In addition, Olson-Buchanan and Boswell (2006) describe how

the organization can impose some restrictions or allowances with respect to how much

control individuals have over boundary permeability. Employees and supervisors may

talk about boundary management in a certain way that either encourages or discourages

employees from determining boundary permeability on an individual level. In essence,

the culture and climate of an organization indicates to an employee the extent to which he

or she can customize individual boundary management strategies, and the extent to which

the organization as a whole supports his or her ability to make choices in this regard.

　　　Some companies, for example, enact policies that restrict personal visits or

computer use, thus putting a constraint on employees and preventing them from allowing

personal life to enter their work domain. Others maintain strong norms regarding

employees' availability and connectedness to work "after hours" and on weekends. An

organization with a climate that expects employees to adapt to organizational standards

for work-home boundary management will likely lead to conformity among employees

because the demands of the organization dictate a specific standard to follow and offers

little room for customization (Kossek & Lautsch, 2012). In contrast, some climates allow

for customization of work-family boundaries, supporting individual exploration and

customization of managing the roles associated with each domain (Litrico & Lee, 2008).

When individuals perceive organizational and supervisor support regarding their

customization of the work-home boundary, those individuals develop positive social

exchanges with the organization (Kossek & Lautsch, 2012). As a result of such social

exchanges, employees develop perceptions of organizational support. The culture of the

organization, then, is perceived as providing workplace social support, which encompasses individual perceptions that employee well-being is valued by supervisors and the broader organization (Kossek & Lautsch, 2012). Organizations with climates supportive of work-life boundary customization enable individuals to enact boundary management styles in line with their personal values, preferences, and needs. Organizations with such climates provide individuals the opportunity to customize boundaries to fit their personal values; in this case, individuals are less stigmatized for making customized decisions as long as work is completed.

Today's workforce does not look the same as it did even 10 years ago; more women than ever before are in the workplace and single parents or individuals who are part of a dual-income family in which both work outside the home are present (Myers, Gailliard & Putnam, 2013). In other words, employees have other obligations besides those associated with work. Many organizations recognize that their employees are "their single most important strategic resource" (Myers et al., 2013, p. 196) and thus offer programs and opportunities to help employees balance work and life. Offering flexible work opportunities and programs is a strategy to protect that important human resource (Myers et al., 2013). Workplace flexibility initiatives, then, become part of an organization's climate. Every workplace has its own level of flexibility, or degree to which it aids in helping employees balance stress and demands of work life. According to Hill, Martinson, Ferris, & Baker (2004), workplace flexibility entails the fixed or variable nature of a job, degree of autonomy an employee has at work, and norms about what is (or is not) negotiable. In other words, it is more than simply employing certain policies, it

is how time, structure, and nature of work interface to construct what it means to work, and what is the norm in a particular organization (Myers et al., 2013).

According to Kirby and Krone (2002), communication processes are central in shaping the implementation and utilization of work-life policies and programs. Further, Poole and DeSanctis (1992) state that people create structures-in-use through interaction. Kirby and Krone's (2002) research describes the extent to which co-workers support work-family policies. In their research, the authors discovered that the way people in the organization talked about the policies and programs influenced the overall communication climate of the organization. More specifically, Kirby and Krone state "the way organizational members talk about work-family programs helps to construct reality as to the 'meaning' of such programs in the organization, which in turn shapes the attitudes and behaviors of organizational members" (p. 55). This basic idea is reflected in Kossek and Lautsch's model (2012), where communication climate is proposed to influence work-family conflict. Social interactions, according to Chudoba et al. (2005), enable the development of commonalities in communication and allow people to feel like they trust and feel safe with other members of the organization.

The literature suggests that enacted boundary management styles may not just be individual choices; an organization's climate may also influence the enactment of boundary management styles. Kossek and Lautsch (2012) argue that organizational climate is related to employee enactment of boundary management styles; in organizations that enable highly customizable work-home boundaries, the climate will have less influence on employees' boundary management styles. Conversely, when organizational climates do not enable customization of the work-home boundary, the

climate will have a greater influence on employees' enactment of certain boundary management styles. Essentially, an organization's climate may influence the level of control an individual has over his or her boundary management. This dissertation examines the extent to which an organizational climate supportive of boundary management customization may be associated with the enactment of certain boundary styles over others.

RQ3: How does organizational climate relate to boundary management styles?

Linking Virtuality, Control and Organizational Climate

According to Gajendran and Harrison (2007), many scholars posit perceived autonomy is a natural element of virtual work. The authors indicate boundary flexibility can help teleworkers regulate and synchronize the demands of work and family. According to DuBrin (1991), teleworkers are spatially and psychologically removed from face-to-face supervision and are generally likely to experience increased feelings of discretion and freedom. In other words, autonomy and flexibility in the timing and execution of tasks equals control, and this is an inherent quality of virtual work (Gajendran & Harrison, 2007). According to Gajendran and Harrison, some scholars view virtual work arrangements in a positive light, because it allows for greater integration between work and family domains; other scholars feel work arrangements like telework intensify conflict between the two domains because it allows for permeability. If individuals with virtual work arrangements tend to feel more autonomy and discretion than those who work in more traditional, physical office spaces, then it is likely that they feel a greater sense of choice in the way they manage boundaries, which would ultimately lead to heightened sense of boundary control.

Kirby and Krone (2002) suggest that micro-communication practices surrounding work-family domains have the ability to influence macro-level issues like organizational policies and dominant ideologies. The authors also note the reciprocal nature of this relationship, in that dominant ideologies can also influence micro-issues. Essentially, if organizations offer alternative work options or programs to account for the demands of balancing work and home domains, those organizations might feel supportive to employees. Employees who feel supported and who take advantage of benefits offered by the organization, then help to reinforce the acceptance of such policies and support felt throughout the organization. The implications of this is two-fold in the sense that organizations that provide virtual work opportunities may inherently feel more supportive to employees, and that the acceptance of these arrangements may become part of the organization's norms. Organizational norms and values regarding alternative work arrangements vary depending on the organization.

According to Gajendran and Harrison (2007), providing the opportunity for employees to telework can symbolize employer support, as it indicates a willingness to respond to employee needs. Kossek et al. (2006) suggest that the availability and use of flexibility and work-family policies is associated with higher commitment, job satisfaction, loyalty, and lower intention to turnover. Employers who are directly supportive of teleworking may positively influence the behaviors and attitudes of teleworking employees. For example, an employer's choice to allow employees to telework might enable autonomy in the way that employee manages work-life boundaries, which may make that employee feel a greater sense of support and control in customizing their boundary management styles. According to Wiesenfeld, et al. (1999),

cues that employees use to learn about organizational norms are not as prominent and may not exist. The links between virtual employees and their organization, then, may be less tangible and more psychological in nature, meaning that, in place of daily interaction which may include supportive conversations about boundary management, employees who are provided the opportunity to use alternative work arrangements may interpret such opportunity as support from the organization.

The current research argues that organizational climates (considered a peripheral or contextual influence; Ashforth et al., 2000) can help to create norms and expectations in an organization. When it is the norm to provide virtual work options, employees can draw from that norm to interpret organizational support of customization of work-home boundaries. Essentially, this dissertation argues that when an organization provides opportunities for flexible work arrangements, such actions likely translate to employees throughout the organization in several ways. One way is that employees may then feel a sense of control over their work-home boundaries as they are removed from daily organizational life and experience feelings of autonomy in the decisions they make about boundaries. Another way that employees are influenced by the presence of virtual work arrangements is that it signals to the employee that the organization is supportive of their needs within *and* outside of the organization, and such opportunities are perceived accordingly. Kossek and Lautsch (2012) call for future studies to advance the understanding of organizational support for customization of boundaries because such studies are necessary to create work cultures that support different work arrangements. The current research hypothesizes there is a relationship between virtuality, climate and control:

H1: Virtuality will be positively related to (a) control over the work-home boundary and (b) perceptions that the organizational climate is supportive of work-home boundary customization.

Organizational Identification

The final focus of the dissertation is to examine how factors related to boundary management and organizational climate are related to organizational identification. Scott, Corman and Cheney (1998) posit that changes in organizational forms and practices, such as telework, have made issues like identification in the workplace one of the most salient issues in organizations today. Understanding what influences identification, especially in a changing, modern world, is important. Dutton, Dukerich, and Harquail (1994) describe organizational identification as the strength of an individual's cognitive attachment to their organization. According to Mael and Ashforth (1992), identification can be defined as the extent to which an employee holds the perception of oneness or belongingness to some sort of collective group, where the individual specifically identifies as a member and defines him or herself in terms of that collective. Additionally, identification can be described as a person's sense of belonging within a social category (Ashforth & Mael, 1989) and an individual can classify, categorize and name him or herself in relation to those social categories (Turner, Oakes, Haslam & McGarty, 1994). Wiesenfeld et al. (1999) support the idea that identification is a tie that binds employees of an organization because it is both psychological and social in nature. The authors posit this tie can exist even when employees are dispersed. In fact, Wiesenfeld et al. go as far as saying that identification may in fact be essential to sustaining virtual organizations, largely because

a shared identity facilitates organizational functions that are normally challenging in virtual contexts.

Linking employees across the organization helps to create such shared social identities. As articulated by Owens, Robinson and Smith-Lovin (2010), there are four characterizations of identity: personal/individual identity, category-based identity, role-based identity, and group membership-based identity. One's personal identity is the basis from which other identities form. Social identities are referred to as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group together with the value and emotional significance attached to that membership" (Tajfel, 1978, p. 63). Individuals use social categories to define themselves in terms of perceived shared similarities with members of their group in contrast to other social categories (Turner et al., 1994). One such social category involves a person's organizational membership, which creates a social identity for that individual. Thus, the self is often referred to in terms of organizational membership (Scott, 2007), and organizational identification is based in part upon the roles an employee assumes and how he or she identifies with those roles (Scott et al., 1998). According to Van Dick and colleagues (2004), when an individual identifies strongly with an organization, it leads to that organization becoming part of an individual's self-concept, making the individual psychologically intertwined with that organization.

Such perceptions are likely comprised of an employee's environmental influences. In other words, employees' organizational identification is comprised of both individual self-structures and social structures (Owens et al., 2003). Control over boundary management is an individual psychological process involving the decisions an

employee might make in order to manage the boundaries between work and home. In addition, the way an employee interacts with and perceives his or her organizational climate is a psychological process where they learn and observe organizational norms. Both control over boundaries and learning organizational climates involve employees creating links between themselves and the organization. Similarly, organizational identification is also a psychological process, during which time employees create links between themselves and the organization. In addition, organizational identification is a social process, so an organization's communication climate (constructed socially) can influence whether an individual feels a connection to his or her organization.

Linking Control, Climate, and Organizational Identification

Since control over boundaries and learning an organization's climate involve employees interacting with their organization in a variety of ways, the two are likely linked to how an employee develops organizational identification. In terms of autonomy, the amount of control an employee is able to exercise in making work decisions responds to the fact that human beings have a basic psychological need for autonomy (Liu et al., 2011). When an employee is able to make work decisions at his or her discretion, he or she may feel a positive connection to that organization based on feeling fulfilled and establishing a common ground. Essentially, if an individual feels as though he or she has a say in how and when they do their work, it helps to fulfill a psychological need. Such need fulfillment could be perceived as a type of reward handed down from the organization, and as a result an individual may facilitate a sense of alignment, or oneness, with the organization.

Further, positive feelings and need fulfillment may create reciprocal behaviors in employees because they may feel like their organization understands their needs; as a result, employees may then work hard as a member of that organization to fulfill the organization's needs. Ryan and Deci (2000) claim that when people are able to execute personal choice, they feel more motivated at work. Control can influence the salience of role identities, and feeling more motivated at work may increase the salience of an employee's work identity. Work identities are an inherent component of boundary management, so it is likely that organizational identification can also be related to control over boundaries because it helps to define who an individual is within a particular domain. Both identity formation and organizational climates involve symbolic links between and among people. In addition, autonomy (i.e., an organization's climate) can trigger need satisfaction and increase feelings of empowerment, which ultimately leads to lower turnover. If employees are less likely to leave their job, it might be because they feel more identified with their organization. Finally, a slew of researchers (Huff et al., 1989; Kiesler, 1971; O'Reilly & Caldwell, 1981) indicate participating without feeling coerced leads individuals to feel positively about the organization and identify more strongly with it.

In addition, research suggests that organizational identification is constructed through social processes (Kraus, Ahearne, Lam, & Wieseke, 2012; Scott et al., 1998), which situates organizational climate as an influential factor. According to Social Information Processing theory (SIP; Salancik & Pfeffer, 1978), employee attitudes, behaviors and beliefs are influenced by social contexts and referents. Similarly, Scott et al. (1998) describe how contexts of interaction and the presence of others comprise

identification. Research has found that climate influences a variety of workplace behaviors and attitudes. Kirchmeyer's (1995) study on organizational response to the work/nonwork boundary found that employees who felt respect for managing their multiple roles had high levels of organizational commitment, whereas perceptions that the organization encouraged segmentation were negatively related to organizational commitment. Similarly, Rothbard, Phillips, and Dumas (2005) found that job attitudes were influenced by a fit between individual desire for integration or segmentation and organizational policies. According to these studies, supportive organizational climates influence employee development in a variety of ways, so it is not unlikely that employees' organizational identification might be similarly influenced.

Kossek and Lautsch (2012) theorize that positive outcomes are more likely to occur when an individual perceives support from the organizational climate, and this dissertation suggests that high levels of organizational identification is one such outcome. According to Kossek et al., (2012), "Organizational work-family boundary management climates vary in particular in terms of their norms and values regarding whether work arrangements can be customized to accommodate the diverse needs and preferences of workers, or whether a standardized approach prevails" (p. 159). An organization's climate can be comprised of several different pieces. Components at any level of the organization could factor into its climate and influence employees. Some organizational identification literature posits identification with an organization involves engaging in identity-congruent behavior, or behavior that is consistent with norms or values of an organization (Ashforth & Mael, 1989; Dutton et al., 1994; Kraus et al., 2012). Employees learn norms and values from those who communicate with them socially (e.g.,

supervisors, colleagues) and the organization as a whole (e.g., availability of policies, alternative work opportunities). When employees share a common interpretive context of certain cues and symbols, there is a clearer sense of the organization's identity, making it easier for an employee to recognize that identity and align oneself with those ideals (Wiesenfeld et al., 1999). The process of sharing meaning helps to make them feel a sense of ownership because they feel as though they are part of the process.

Kraus et al. (2012) propose that supervisors who embrace their organization's norms and values will likely create an environment with rules, rewards, or emotions which reflect the values of the organization. Employees will likely align their own behaviors toward the organization when they take cues from a supervisor; such cues can also serve as structures which exist within the organization. Structured routines which develop in certain locales containing "copresent others" provide further context for understanding organizational identification (Scott et al., 1998). The existence and recognition of these structures provides a communicative platform where employees take cues from one another and, ultimately, align themselves with the values and norms of the organization. When organizations offer policies and opportunities supportive of boundary management customization, it communicates that such practices are accepted as the norm at a macro level in the organization. According to Kirby and Krone (2002), the way individuals then talk about those policies and opportunities (micro-level), reinforces organizational policies throughout the organization and, consequently, the way employees identify with the organization. In other words, an organization's climate is complex and can offer support for alternative work arrangements and boundary management strategies in a variety of ways.

Kraus et al. (2012) posit little is known about how peers influence organizational identification processes, while leaders have been studied extensively in SIP research. The authors state it is important to examine the conditions under which employees are influenced by both peers and superiors. Superiors and coworkers have the potential to influence employee attitudes or behaviors either directly (e.g., statements about the workplace), or indirectly (e.g., providing cues about what is expected or accepted in the work setting), and such influence can occur affectively, cognitively, and behaviorally (Kraus et al., 2012; Salancik & Pfeffer, 1978). From an SIP approach, superiors and coworkers can influence employees by offering information that is purely informational, or information that indicates norms (Kraus et al., 2012). Supervisors and colleagues, then, can instill organizational identification in employees by defining and providing norms that indicate organizational support for customization.

In sum, employees who feel a sense of control over their boundary management practices may feel supported by their organization. Such support can facilitate positive feelings which help to establish a common ground between an employee and his or her organization. In addition, organizational norms established by the organization as a whole, its leaders, and its employees, can create organizational climates supportive of employees' customization of boundary management. Employees who feel like they have individual control over their boundaries and support from their organization in the choices that they make likely feel identified with their organization because such situations can facilitate the development of organizational identification. These relationships are understudied, as organizational climate is a relatively new construct that warrants further investigation, and are thus tested in this dissertation.

H2: (a) Control over boundary management and (b) greater climate supporting

customization will be positively related to employees' organizational

identification.

Kossek and Lautsch (2012) describe how a climate supportive of customization of

the work-home boundary may have a significant influence on employee control in the

enactment of boundary management strategies. In addition, Kossek et al. (2005) claim

that individual boundary management strategies are "partly shaped as a result of the

structure of the job and partly by individual differences" (p. 254). In other words, there

are individual factors which shape boundary management and may ultimately be related

to organizational identification. For example, Kossek et al. (2012) describe self-concept

in terms of role identity centralities, where an individual's central, most defining identity

is that which is work- or family-based, or both. In other words, every individual has role

identities specific to the domains like work and family, and often one or more of those

role identities are more salient than others. According to Stryker and Burke (2000),

identity is those "parts of a self composed of the meanings that people attach to the

multiple roles they typically play" (p. 284). An individual's boundary management style

makes certain domains more or less salient (depending on control, identity centrality and

interruption behaviors), which influences identity salience in either domain.

With climates that display support for customization, employees perceive certain

autonomy in the degree to which they can enact boundaries to meet individual needs. In

this case, organizational support allows for tailoring of boundaries to support preferences

and, ultimately, identities for both work and family, where roles in each can be enriched

by each other (Greenhaus & Powell, 2006). Enrichment of roles in this manner allows for

individuals to become more aligned with their organization, and its particular work-life climate (Kossek & Lautsch, 2012). Such alignment supports the development of organizational identification. In addition, some boundary management styles may make it easier for employees to feel a sense of identification with their organization because those boundaries are managed in a way that allows the individual to feel a sense of oneness with the organization, or feel like part of a collective. At the same time, some boundary management strategies may be detrimental to the development of organizational identification because the way an individual manages his or her boundaries may take them away from their work, or involve a low work identity, where that person does not spend much time negotiating their role within an organization. Thus, it is interesting to consider how boundary management can influence employee organizational identification.

RQ4: How do boundary management styles relate to organizational identification?

CHAPTER TWO

METHOD

The purpose of this study is to understand how balancing work and home domains influences and is influenced by individual and organizational factors. More specifically, the study examines how boundary management styles are influenced by work arrangement virtuality and organizational climate; in addition, the study considers how boundary management strategies, virtuality, and climate are related to organizational identification. The primary goal of this research is to contribute to the growing interest in boundary management and alternative work arrangements. Not only does this research contribute to existing scholarly work, but it has larger implications for employees who must learn how to balance work and home life in a world where boundaries are increasingly blurred, for managers who seek to understand the pragmatic challenges of leading in a virtual world, and for organizations that wish to take advantage of the vast potential of the reach and impact of technology in the workplace. The following chapter describes the participants recruited and procedures employed to conduct the research, the measures, and the primary statistical analyses used to examine each hypothesis and research question.

Participants

The sample consisted of 242 participants over the age of 18 and presently employed full-time with their organization. Individuals who were self-employed or independent contractors were not eligible to participate. The average age of the participants was 28.38 years old ($SD = 9.34$), and 63% of the participants identified themselves as female. Further, 48% of respondents worked for privately owned

companies, 23% for publicly owned organizations, 11% nonprofit, 5% public

sector/government, 8% public education, and 5% other. Participants reported an average

of 3.89 ($SD = 4.77$) years working in their current organization, and an average of 2.77

($SD = 3.78$) years in their current position within the organization. In addition,

participants worked from home an average of 3.87 ($SD = 6.76$) days per month, and

ranged from those who did not work from home at all to those who worked from home

full-time. See Appendix A (Table 1) for a full list of demographics.

Procedures

Sample recruitment took place online. Following IRB approval of the study and

research materials, the recruitment message and survey link was distributed to personal

contacts via email and posted to social media websites. Instructors of undergraduate

Communication courses at a large Midwestern university were contacted; students who

participated in the study received extra credit. In addition, representatives from the

telework advocacy group Mobile Work Exchange and the organization Digital Net

Agency were contacted and asked to distribute the survey link among members of the

website or organization, respectively. Snowball sampling was used as the primary

sampling technique, with personal connections passing the survey link along to other

individuals in their professional and personal networks.

The recruitment email, received by every individual who was contacted regarding

the survey, contained information outlining the study purpose and goals, time

commitment, and criteria for participation. The email also indicated the opening and

closing dates for data collection and researcher contact information. Once participants

clicked on the hyperlink provided in the email, they were directed to the first page of the

survey, which served as the informed consent. The informed consent reminded participants of inclusion criteria and provided further details about the nature of the survey and its questions. Participants were instructed to click a button to advance forward in the survey, indicating their agreement with the informed consent document. Once they moved forward, individuals were first asked to indicate age, gender, marital status and number of children living at home three or more days per week before moving on to complete the remainder of the survey.

After completing final demographic items at the end of the survey, participants arrived at a page thanking them for their participation and directing them to an additional hyperlink for an extra credit survey. Students taking the survey for extra credit, or individuals taking the survey for a student seeking extra credit, could then click on the hyperlink and provide their name, instructor's name and course number for identification for extra credit. The survey data and extra credit information were not linked and no personal information was connected to survey responses.

Measures

Participants were asked to report on their work virtuality, cross-role interruptions, boundary control, role identity centrality, perceptions of organizational climate, organizational identification, and demographic information. Pre-existing instruments measuring boundary management and organizational identification were used, and two existing instruments of virtuality were combined to create a virtuality measure. In addition, an original scale was developed to measure organizational climate supportive of boundary management customization. Detailed descriptions and reliabilities of the measures are included below. See Appendix B (Table 2) for descriptive statistics. All

scales, with the exception of the virtuality scale, were measured using a 5-point Likert scale, ranging from 1 to 5, with the highest rating indicating a greater representation of the variable being measured (virtuality was measured on a 6-point Likert scale representing frequency of experiences and use of communication technologies). Responses to the items in each scale were summed and averaged.

Virtuality. Two existing measures were used to create a 19-item virtuality measure for this study. Very few measures exist to examine employee virtuality. Chudoba et al.'s (2012) 12-item measure of virtuality is cited frequently but the measure itself has not been extensively tested. However, Chudoba et al.'s measure was used because it provided a comprehensive representation of several different components of working virtually. The measure considers the distribution of employees (e.g., working with people you have never met face-to-face), workplace mobility (e.g., working with mobile devices), and variety of practices (e.g., working with people who use different collaboration technologies). The inclusion of the types of items represented in those three categories considers several different components of virtual work instead of simply focusing on the use of technology or working across distance; thus the measure was considered a strong representation of contemporary conceptualizations of virtual work.

One element that is not considered in Chudoba et al.'s (2005) measure is the use of specific types of communication technologies. Gibson and Gibbs' (2006) measure of electronic dependence, which includes email, teleconferencing, and collaborative software, was added to Chudoba et al.'s existing measure to provide a more thorough representation of virtuality. In addition, several additional types of electronic media (one-on-one phone conversations, videoconferencing, text messaging and instant messaging)

were added to those already present in the measure in order to better represent the use and dependence on various types of technology used in the workplace today. Of the 19 items measuring virtuality, 12 were taken from Chudoba et al.'s model of virtuality, three from Gibson and Gibbs, and four were added by the researcher. Participants rated the extent to which they experienced the first 12 aspects of virtuality and how often they used the seven types of communication technologies on a 6-point Likert scale (1 = never, 6 = daily). In order to determine the extent to which these items hold together as a singular measure of virtuality, an exploratory factor analysis was performed. In addition, it is important to determine whether this measure holds up in a sample that includes both individuals that may be very virtual and those who may not be virtual at all.

The items measuring virtuality represented issues such as collaborating across time zones, working at home during business hours or while traveling, and working with different types of people on different projects, in addition to considering the extent to which participants use various communication technologies to conduct their work. A principle components analysis was conducted with varimax rotation. Criteria for factor extraction included an eigenvalue > 1.00 with items loading at .60 or greater and not cross-loading at .40 or greater on another factor. Six items loaded onto the first factor and together accounted for approximately 35% of the variance. These factors included: collaborating with people in different time zones, working with people via Internet-based conferencing applications, working at home during normal business days, working while traveling, and use of teleconferencing and videoconferencing. This factor is labeled *virtuality*. Three additional items loaded on a second factor at .60 and above and accounted for 8% of the variance. These items included working on projects that have

changing team members, working with teams that have different ways to track their work, and working with people that use different collaboration technologies. This factor is labeled *variety of practices*. Both factors are reliable (α = .82 and .85, respectively). Three other two-item factors had factor loadings at ≥ .60, but were not reliable. Four items failed to load on any factor; those items were therefore dropped from the scale. The two factors representing virtuality and variety of practices were used in study analyses. See Appendix C (Table 3) for factor loadings.

Boundary management profiles. Kossek et al.'s (2012) research suggests boundary management profiles can be derived from clusters of three variables: cross-role interruptions, boundary control, and role centrality. The variables, according to Kossek et al., are expected to cluster together to represent different approaches to boundary management. Participants completed measures of the three variables using a rating scale from 1 (strongly disagree) to 5 (strongly agree). In total, the measure consisted of 17 items.

Cross-role interruption behaviors. Cross-role interruption behaviors are characterized by two types of interruptions; nonwork interrupting work behaviors (five items), and work interrupting nonwork behaviors (five items). To measure cross-role interruption behaviors, Kossek et al.'s (2012) original measure was used. Participants responded to items such as "I take care of personal or family needs during work" (nonwork interrupting work; α = .74) and "I regularly bring work home" (work interrupting work; α = .85).

Boundary control. Boundary control considers the extent to which individuals perceive control over the way they manage work and home boundaries. This study uses a

boundary control measure developed by Kossek et al. (2012), who modeled their scale after existing measures such as Kossek et al.'s (2006) psychological job control scale. Participants responded to three items such as "I control whether I am able to keep my work and personal life separate" (α = .89).

Role centrality. Role identity centrality concerns the extent to which an individual identifies with work roles (two items) and family roles (two items). The work and family identity scales were developed by Kossek et al. (2006), who adapted items from Lobel and St. Clair (1991). Participants responded to items from Kossek et al.'s (2012) original measure, such as "I invest a large part of myself in my work" (work identity; α = .73) and "I invest a large part of myself in my family life" (family identity; α = .87).

Organizational climate for customization. Work-family climate regarding customization is described as an indication of how a work-family culture is interpreted in the workplace, including employee perceptions of the extent to which they are able to customize their work-home boundaries (Kossek & Lautsch, 2012; Kossek, Colquitt, & Noe, 2001; O'Neill, Harrison, Cleveland, Almedia, Stawski, & Crouter, 2009). To measure the extent to which the organizational climate is supportive of boundary customization, an original 14-item scale was created based on an analysis of Kossek and Lautsch's (2012) and Kirby and Krone's (2002) discussion of communication climate for customization. The scale measures the extent to which an organization's climate is perceived as supportive of employees' customization of work-home boundary management. After several thorough readings of both manuscripts, a set of items was created to represent various types of organizational support, ranging from organizational policies, supervisory support, and support from colleagues. Participants rated, on s scale

from 1 (strongly disagree) to 5 (strongly agree), the extent to which respondents

perceived these various types of support for employee customization of boundary

management strategies from their organization. Sample items include: "My organization

enables employees to manage work and home responsibilities in the way that best fits

their individual needs", "My supervisor(s) is supportive of employees handling work and

home demands according to their individual needs and preferences", and "The demands

of our work dictate how my co-workers and I manage work and home responsibilities; we

don't really have a choice." One item was dropped because it significantly diminished

scale reliability. After the item was dropped, a reliability analysis yielded a Cronbach's

alpha of .71 for the 13-item scale.

Organizational identification. Mael and Ashforth (1992) define organizational

identification as "a perceived oneness with an organization and the experience of the

organization's successes and failures as one's own" (p. 103). Mael and Ashforth's 5-item

measure of organizational identification was originally created to measure educational

organizations. However, the authors state researchers can insert other terms appropriate

for their research, such as "employee" or "organization", which is what was done in this

case (α = .79). The items in this measure are used to determine the extent to which study

participants identify with their organization. An example of measure items, using a 5-

point Likert scale (1 = strongly agree; 5 = strongly disagree) is "When someone criticizes

my organization, it feels like a personal insult."

Demographics. Participants answered basic demographic questions regarding

their age, gender, and marital status. Participants were also asked to indicate how many

children lived with them at home three or more days a week, their current position within

their organization (hourly, administrative, entry level, between entry level/middle management, middle management, upper management, executive and other), the type of organization they work for (privately owned, publicly owned, nonprofit, public sector/government, public education, other), and the length of time (in years) they have worked in their current position and with their current organization. Job or organization type may influence the extent to which an individual identifies with his or her organization and the amount of flexibility he or she has in terms of work arrangement and boundary management. In addition, children living at home may potentially influence an individual's work and family identities, and gender could be a factor in terms of home and family roles or responsibilities.

Primary Statistical Analyses

Correlations, linear regressions, and K-means cluster analysis were used to test the various hypotheses and research questions represented in this study. To follow, I outline the statistical tests used for each hypothesis or research question. Further details and results are reported in Chapter 3.

Research Question 1. This research question examines how cross-role interruption behaviors, boundary control, and identity centrality cluster to form distinct boundary management profiles. Similar to Kossek et al. (2012), a K-means cluster analysis was employed to identify overarching patterns delineating specific boundary management styles. According to Kossek et al., cluster analysis is exploratory by nature. It is used in this research to examine the extent to which Kossek et al.'s empirical findings of boundary management clusters can be replicated with another sample and therefore do hold up as distinct profiles of boundary management. A thorough description

of the K-means cluster analysis and resulting clusters is described in the results section of this manuscript.

Research Questions 2 and 3. These research questions seek to determine (a) the relationship between virtuality and boundary management styles and (b) the relationship between organizational climate and boundary management styles. The boundary management clusters created for RQ1 were used in the subsequent research questions and in an exploratory effort correlation analyses were performed to determine the relationships between boundary management profiles and virtuality, climate and identification.

Hypothesis 1. The first hypothesis predicted positive relationships between virtuality and (a) control over the work-home boundary and (b) perceptions that the organizational climate is supportive of work-home boundary customization. Bivariate correlations were examined to assess the relationship between virtuality and boundary control and virtuality and climate.

Hypothesis 2. The second hypothesis predicted a positive relationship between (a) control over boundary management and employee organizational identification and (b) climate supporting customization and employee identification. Correlation analyses were performed to assess the relationship between boundary control and organizational identification and climate and organizational identification. To further examine the relationship between control, climate, and identification, a regression analysis was performed. In order to determine the influence of each of these variables on organizational identification while controlling for the other, control and climate were regressed on identification simultaneously.

Research Question 4. This research question seeks to determine the relationship between boundary management styles and organizational identification. The boundary management clusters created for RQ1 were used in the subsequent research questions and in an exploratory effort correlation analyses were performed to determine the relationships between boundary management profiles and virtuality, climate and identification.

CHAPTER THREE

RESULTS

Research Question One

Research question one sought to determine how cross-role interruption behaviors, boundary control, and identity centrality cluster to form distinct boundary management profiles. Kossek et al. (2012) used a K-means cluster analysis (Steinley, 2006) to determine boundary management profiles comprised of the aforementioned variables. According to Kossek et al., a cluster analysis is a way "to explore how individuals group together based on their responses to the boundary management measures" (p. 120). Following the process used by Kossek and her colleagues, the dissertation analysis used a similarity index that was squared to the Euclidian distance, which is the most commonly used distance measure in cluster analysis (Steinley, 2006). K-means cluster analysis requires the researcher to specify the number of anticipated clusters. Based on clusters identified in qualitative (2008) and quantitative research (2012) by Kossek and her colleagues, it was anticipated that six clusters would result from the cluster analysis.

The number of clusters was based on results of Kossek et al.'s (2012) study. Kossek et al. determined that the most interpretable results came from six designated clusters. In order to test research question one, a K-means cluster analysis was conducted with six clusters. The results were not easily interpretable. The cluster analysis was conducted again specifying five clusters. This test converged at 11 iterations and was easily interpretable, representing a clear match to five boundary management profiles identified by Kossek and her colleagues (2012). To be sure a five cluster solution was appropriate, the analysis was run again with four clusters specified. Results of the K-means clustering with four clusters were not as easily interpretable and did not provide a

good match to Kossek et al.'s (2012) proposed clusters. The decision to use five clusters was made based on an analysis of how closely those clusters aligned with those proposed by Kossek et al. (2012), including Work Warriors, Reactors, Fusion Lovers, Family Guardians, and Dividers. Two clusters match the low boundary profiles identified by Kossek et al. (2012): Work Warriors, also characterized as work-centric with high work interrupting nonwork behaviors, and Reactors, also characterized as dual-centric with high interruption behaviors in both directions. Two additional clusters match the high boundary profiles identified by Kossek et al.: Fusion Lovers, also characterized as dual-centric with integrator interruption behaviors, and Dividers, also dual-centric but utilize separator interruption behaviors. Finally, one profile had average boundary control, which did not match Kossek et al.'s high boundary distinction; however, the Family Guardians cluster was a match in terms of being dual-centric (with slightly higher family identity) and asymmetric interruption behaviors favoring nonwork. Mean scores of the five clusters are provided in Appendix D (Table 4), and cluster demographics are provided in Appendix E (Table 5). More detailed descriptions of the boundary management clusters can be found in Appendix F (Table 6).

Kossek et al. developed the cluster names by observing patterns of boundary management in their studying and synthesizing those results with qualitative research (Kossek and Lautsch, 2008). The sixth cluster originally identified by Kossek et al. that did not result from my analysis was characterized by individuals with high identity with other life pursuits unrelated to work and family. The cluster was not clearly defined in Kossek et al.'s original work and also was not represented in the dissertation data.

Research Question Two

The second research question sought to determine the relationship between virtuality and boundary management styles. A Pearson's correlation analysis revealed significant positive relationships between virtuality and Fusion Lovers, $r(239) = .215$, $p < .01$, Reactors, $r(239) = .167$, $p < .01$, and Work Warriors, $r(239) = .188$, $p < .01$ (see Appendix G, Table 7). Negative relationships resulted between virtuality and Dividers, $r(239) = -.274$, $p < .01$, and Family Guardians, $r(239) = -.231$, $p < .01$.

Research Question Three

Research question three sought to determine the relationship between organizational climate and boundary management styles. A Pearson's correlation test showed that Fusion Lovers was the only boundary management profile significantly related to the extent to which an organizational climate supports boundary customization, $r(239) = .133$, $p < .05$ (see Appendix G, Table 7). None of the other clusters were significantly correlated with organizational climate.

Hypothesis One

Hypothesis one predicted a positive relationship between virtuality and (a) control over the work-home boundary and (b) perceptions that the organizational climate is supportive of work-home boundary customization. Results of Pearson's correlation tests (see Appendix H, Table 8) show a significant negative relationship between virtuality and boundary control, $r(240) = -.184$, $p < .01$, and a significant positive relationship between virtuality and climate supportive of customization, $r(240) = .126$, $p < .05$. Variety of work did not significantly relate to either of the dependent variables. Thus, hypothesis one was partially supported.

Hypothesis Two

The second hypothesis predicted a positive relationship between (a) control over boundary management, (b) climate supporting customization, and employees' organizational identification. Results of Pearson's correlation tests (see Appendix H, Table 8) indicated that boundary control was not significantly related to organizational identification. However, climate supporting customization was positively related to organizational identification, $r(240) = .182$, $p < .01$. A linear regression was performed to examine the influence of boundary control and climate on identification. Organizational identification was entered as a dependent variable, and boundary control and organizational climate for customization were entered as independent variables. Organizational climate ($\beta = .179$, $p < .05$) was a significant predictor of identification, $R^2 = .034$, $F(2, 239) = 4.145$, $p < .05$. Boundary control was not a significant predictor ($\beta = .024$, n.s.). Hypothesis two was partially supported.

Research Question Four

The final research question sought to determine the relationship between boundary management profiles and organizational identification. A Pearson's correlation test determined that the Family Guardians were negatively correlated with organizational identification, $r(239) = -.208$, $p < .01$, while the Fusion Lovers profile was positively correlated with organizational identification, $r(239) = .267$, $p < .01$ (see Appendix G, Table 7). None of the other clusters were significantly correlated with organizational identification.

CHAPTER FOUR

DISCUSSION

The purpose of this dissertation was to support and extend the research about boundary management, and to connect boundary management strategies to virtuality, climate, and organizational identification in meaningful ways. Relationships between boundary management styles (clusters of cross-role interruptions, role centrality, boundary control), virtuality, organizational climate, and organizational identification were examined. Data collected from a sample of employed adults was analyzed; correlations, regressions, and K-means clustering were performed to determine what types of relationships might be present. This study provides several contributions to the literature. One, it provides further evidence to the existence of distinct boundary management profiles of cross-role interruptions, boundary control, and role centrality, supporting Kossek et al.'s (2012) work. Two, it provides a platform for highlighting virtual work and the present-day organizational challenges of implementing virtual work arrangements into the workplace. Three, it emphasizes the importance of organizational climate in understanding boundary management strategies, virtuality, and organizational identification. Fourth, it situates organizational identification in conversations about the changing nature of the workplace.

Statistical analyses revealed several key findings. For the first hypothesis, data analysis indicated the more virtual an employee's work arrangement, the more likely they are to perceive their organizational climate is supportive of boundary customization. In addition, contrary to the hypothesis prediction, those who were more virtual perceived less control over managing their boundaries. Next, data analyses showed those who

perceived their organizational climate to be supportive of customization, also reported high levels of organizational identification. For boundary management, K-means cluster analysis supported Kossek et al.'s (2012) proposition of distinct boundary management profiles, with interpretable results supporting five profiles of boundary management: Work Warriors, Reactors, Fusion Lovers, Family Guardians, and Dividers. Data analyses showed that Fusion Lovers, Reactors and Work Warriors had high levels of virtuality, while Dividers and Family Guardians had low virtuality. Next, data analysis showed Fusion Lovers had greater perceptions than the other profiles that their organizational climate was supportive of boundary customization, and Fusion Lovers also reported higher levels of organizational identification than the other profiles. Finally, Family Guardians had the lowest organizational identification.

Conclusions

Several conclusions can be drawn from the findings of this study. In each of the sub-sections that follow, a brief interpretation of findings is highlighted and the significance of each conclusion is discussed.

Employees who work under more virtual conditions perceive a supportive organizational climate. Participants whose work arrangements allowed for more collaborating with people in different time zones, working at home during normal business days, working while traveling, and using teleconferencing and videoconferencing, reported higher perceptions of a supportive organizational climate. Related research supports this general finding. Gajendran and Harrison (2007) posited the option to work virtually or incorporate elements of virtual work into the workplace can be perceived by employees as supportive in nature, and Kossek et al. (2006) suggested that

availability and use of flexible work policies could lead to macro level outcomes such as job satisfaction and increased commitment because employees feel supported by their organization. Organizations that offer opportunities for alternative work arrangements likely support the general idea of virtual work. Thus, those individuals in this sample who worked in more virtual work arrangements may appropriate the existence of such options as supportive to their individual needs and work demands. The presence of such opportunities can signify to employees that the organization both supports the use of technology in the workplace but also supports the varying needs of employees in different ways, such as working from different locations or at different hours of the day. Employees may also feel supported because they are able to complete tasks on their own time with technology.

Further, this finding is interesting because the elements of virtuality that take employees outside of the physical office space are viewed by these employees as supportive. In this study, virtuality is represented by collaborating with people in different time zones, working with people via internet-based conferencing applications, working at home during normal business days, working while traveling, and using teleconferencing and videoconferencing. The significant relationship between these items and perceived supportive climate for customization indicates that in order to shift toward creating a climate that is very supportive of employees' boundary choices, organizations may need to reconsider common assumptions about the necessity of constant face-to-face interaction in order to accomplish work. It also calls into question the idea that employees need to be physically present in the organization to reap the benefits of an organization's culture and established norms. If virtual employees can feel supported by their

organization in their boundary management choices, they likely can also experience things like satisfaction or commitment based on such organizational support. Essentially, this particular finding suggests organizations and those who work virtually are not necessarily at a disadvantage when it comes to employees working outside of the physical office space and with consistent face-to-face interaction.

Employees who work under more virtual conditions experience low boundary control. Participants who scored higher on the virtuality scale perceived lower control over separating their work and home role domains. Related research both supports and negates this finding. Some research has indicated that virtual work arrangements, such as telework, allow employees to create flexible schedules and control when and where they work because they are spatially and psychological removed from face-to-face interactions with superiors and colleagues (DuBrin, 1991). Other research reports that individuals who work under more virtual conditions feel a heightened sense of autonomy and choice (Gajendran & Harrison, 2007). More recent research suggests that virtual work blurs the boundaries of work and home, making it difficult to keep the two separate. This dissertation supports this idea, and goes a step further to provide evidence that virtual work may in fact make it increasingly more difficult to keep home and work domains separate.

It is surprising that boundary control is negatively related to virtuality, since climate supporting customization of boundary management was positively related to virtuality. One potential reason to explain this difference is the measure that was used for boundary control. The measure represents employees' perceived control over the separation between work and home. The items representing virtuality – such as working

remotely – have been positively related to autonomy, but it is also possible that these particular items create a blurring of the lines between work and home and therefore diminish the sense of boundary control, in the way that it was measured in this study. Much like the way virtuality in general can blur the lines between work and home, perhaps items used to measure the boundary management construct represent the opposite (e.g., control over the separation of work and home). Another interpretation is that virtual employees may not recognize the control they do have, because they see their work arrangement as an opportunity *provided by* their organization. In other words, in terms of measurement, employees who work virtually may not be tuned into the levels of control they have in managing their boundaries.

In addition to potential issues with the measure, this surprising result may also be related to the fact that autonomy, which can be associated with virtuality, and boundary control are truly two separate things. Though individuals may have a heightened sense of autonomy, it may not translate into control over boundaries. According to Volmer and Spurk (2012), autonomy means control over pace, method and sequence when completing a task, free of organizational constraints. Autonomy does not necessarily include control over the permeability and flexibility of work and home boundaries, which are a key factor in boundary management. While individuals may feel like they are free to make their own decisions apart from organizational influences, they may not necessarily be able to totally control boundaries in the way that they choose. For example, an individual may feel that he or she has complete control over how and when to complete work, but because much of that work may be completed from home or on the road, he or she may feel less able to construct boundaries to separate work and home.

Supportive organizational climate is positively related to organizational identification. Participants who perceived their organizational climate to be supportive of boundary customization also reported high levels of organizational identification. Existing literature on organizational climate supports this general idea on a surface level. Essentially, when employees feel supported in their choices about boundary customization they may reciprocate those feelings to the organization and support overall organizational goals and norms. Such exchanges may increase feelings of "oneness" with the organization, in the sense of a reciprocal relationship where an employee feels that "my organization supports me, so I support my organization." It may also be the case that individuals who feel identified with their organization are more likely to perceive organizational actions as supportive, because they already feel like they are one with the organization. The more interesting aspect of this finding is in how an employee actually experiences organizational climate in a way that might be meaningful and ultimately lead to organizational identification.

What makes this finding particularly interesting, however, is the fact that this study examines support for boundary customization, which is a new form of support that has not been examined in the literature at length. While the literature might suggest that supportive organizational climates in general could lead to organizational identification, the finding in this study is that organizational climates supportive of boundary *customization* lead to organizational identification. Some researchers have speculated that virtual work separates employees from the organization and its members, which jeopardizes employees' organizational identification (Thatcher & Zhu, 2006; Wiesenfeld et al., 2001). The findings of this study demonstrate that an organization that supports

customization of boundaries, which may include customizing in ways that *deviate* from

daily routines, can actually help instead of hinder the development of identification. This

finding supports the idea that organizational identification is multi-dimensional, and that

while traditionally structured and supportive organizations can certainly provide cues for

employees to develop their identification, it may be just as useful for organizations to

support autonomy in employee choices about boundary management. This indicates a

potential shift in the way people handle their work and home lives in today's world, and

suggests researchers should investigate the potential benefits of allowing employees to

customize the way they balance work and home domains.

Scott et al. (1998) use structuration theory to describe the process of developing

and maintaining organizational identification. The authors describe how identity is

comprised of structures of interaction, stating, "identifications are situated in contexts of

interaction in the presence of other social actors" (p. 304). Identification, according to the

authors, occurs in socially recognized behaviors, which usually involve other people and

some degree of attachment toward a social collective. This representation of

identification may be useful in describing how organizational climate might influence

organizational identification. An organizational climate can be comprised of a variety of

influences at different levels, such as policies and programs offered by the organization

(organizational level) and verbal support from superiors (a second level) or colleagues (a

third level). Each of these aspects of an organization can provide support as part of an

organization's climate (Kirby and Krone, 2012), and each of these aspects can also be

socially constructed, either through direct interaction (e.g., co-workers verbally

expressing support) or through messages conveyed symbolically (e.g., an organization

offering virtual work options). Kraus et al. (2012) add to this idea with their suggestion

that organizational identification can be communicated from superiors or colleagues to

employees. Supervisors and colleagues, then, can encourage organizational identification

in employees by defining and providing norms that indicate organizational support for

customization. For example, a supervisor might support employees completing work

from home in order to stay with a sick child, and this policy is accepted throughout the

organization as an option for any employee who needs to utilize it. Through this

understanding of how identification may develop socially, employees who work in

physical, shared office spaces *and* employees who work away from the office aided by

technology can experience a supportive organizational climate.

      Data clustered into five distinct boundary management profiles. The most

interpretable results from a K-means cluster analysis identified five distinct boundary

management profiles: Work Warriors, Reactors, Fusion Lovers, Family Guardians and

Dividers. Related research supports the existence of these profiles. This dissertation's

replication of these results indicates a few things. First, the measure created by Kossek et

al. (2012) to investigate boundary management profiles holds up reliably across different

samples, which bodes well for the longevity and usefulness of these profiles in and

beyond boundary management research. Specific patterns of boundary management

strategies emerge consistently and clearly across sample sets, indicating that employees

in today's world likely fall into and reinforce the existence of such patterns. Second, the

way this particular sample was distributed throughout these five boundary management

profiles may provide insight into potential future trends in boundary management.

Results mirrored the breakdown of Kossek et al.'s (2012) cluster membership, where

Fusion Lovers (30%) were the most represented cluster, followed by Family Guardians (26%), Dividers (20%), Reactors (15%), and Work Warriors (9%). In this dissertation, over two-thirds of the sample falls into categories with average or high boundary control, but only one of those three profiles, Fusion Lovers, is positively correlated with virtuality. As a new generation of employees enters the workforce, it will be useful to identify how varying demographics are represented within the boundary management clusters, and whether or not those individuals may be more inclined to work under more virtual conditions.

The findings of this dissertation replicate and reinforce the findings by Kossek et al. (2012). In addition to finding a similar pattern of the most to least common boundary management profiles, these findings also reveal some patterns in terms of what types of employees might be more common in today's organizations. The most common clusters, Fusion Lovers and Family Guardians, are dual centric and have high boundary control. This indicates that many people tend to care equally about their work and their families, which influences how they wish to manage their boundaries. This is an important point for organizations to consider, and likely relates back to the finding that organizational climates that are supportive of customization also lead to higher employee organizational identification. If individuals prefer to maintain dual-centric identities, which the results of the study suggest, or if they feel like dual centricity is the most useful in terms of managing boundaries, and organizations are supportive of the way those individuals choose to manage boundaries between two equally important domains, then those feelings of support may translate into employees feeling in alignment, or "one" with the organization.

Finally, this study's replication of Kossek et al.'s (2012) boundary management clusters provides further evidence that this more complex and person-centered view of boundary management is useful toward understanding how and why certain individuals enact certain boundary styles. Such results are important in moving forward the conversation about boundary management. First, it is important to consider the extent to which work arrangement influences the amount of control an individual has over his or her boundaries. More important, however, this study indicates that rather than examining boundary management in the context of integration and segmentation, research needs to focus on developing the idea of multi-dimensional profiles that more accurately represent the types of issues that influence boundary management.

Three clusters show significant positive relationship to virtuality. Fusion Lovers, Reactors, and Work Warriors all reported higher levels of virtuality than Dividers and Family Guardians. Examining the characteristics of these clusters, it is not surprising that Fusion Lovers have a positive relationship with virtuality, as they have high control over boundary management. In addition, Fusion Lovers also prefer to integrate, so they likely utilize many different aspects of virtuality to complete their work and manage their families across domains. Reactors and Work Warriors, however, have low boundary control. It is likely that those who fall into these two clusters do not control when and where they complete their work, meaning that they likely have to take work phone calls at home or work from the road, or deal with family while they are at work. This is related to the fact that all three of the profiles with a positive relationship to virtuality scored similarly in the work interrupting nonwork category ($M = 3.65$, 3.49, 3.85, respectively), in that they all allow such interruptions to a fairly large extent, far above the average of

the five profiles. A Pearson's correlation analysis shows that virtuality is positively correlated with work interrupting nonwork behaviors, $r(240) = .509$, $p < .01$.

Two clusters show a significant negative relationship to virtuality. Dividers and Family Guardians reported low levels of virtuality. This is not surprising, considering what is important to those who fall into these categories. Dividers have very high boundary control in an attempt to keep work and life separate, allowing very little interruptions from work to nonwork and nonwork to work. Similarly, Family Guardians allow nonwork to interrupt work but prefer to keep work away from nonwork, which means they likely do not take advantage of communication technologies at home to complete work after-hours so their profiles do not fit with those of virtual workers. Virtual work, as the existing literature has described, blurs boundaries and makes it difficult to keep things separate; therefore it appears as though those individuals who fit into the Divider and Family Guardian categories choose to leave certain aspects of virtual work, like working from home or while traveling, out of their family domains.

Fusion Lovers have a positive relationship with organizational climate. Only one of the five clusters showed a significant relationship to organizational climate supportive of boundary customization. Fusion Lovers reported high levels of supportive organizational climate. Since Fusion Lovers have high boundary control, it is not surprising that these respondents felt their organization's climate was supportive of customization. Fusion Lovers prefer to integrate work and home life, which means their organization, at least to some extent, allows this to occur. Allowing employees to choose how they manage work and home life is seen as supportive. In addition, organizational

climates that are supportive may encourage or enable employees to manage boundaries in the way that Fusion Lovers do.

Fusion Lovers have a positive relationship with organizational identification. Similar to organizational climate results, Fusion Lovers were the only cluster to report significantly positive levels of organizational identification, which is useful for understanding how employees develop organizational identification. It makes sense that an individual who perceives their organization as supportive might also feel a sense of alignment with that organization, but Fusion Lovers have high boundary control, which could potentially make them feel more autonomous and less identified on a collective, organizational level. There are a few possible answers to this question. One, more control does not necessarily mean that an individual will feel separate from the organization; if an individual feels support from an organization, that may reinforce positive feelings toward that organization and strengthen an individual's work identity just as much as it strengthens a family identity. Second, this result could also be related to preference. If an individual prefers to integrate work and family, it may make both identities particular salient; if an individual's preference aligns with what is supported by the organization, that may help to foster the sense of oneness or alignment an individual with high organizational identification often feels. Thus, it might be important to more heavily consider employee preference and organizational climate alignment to further investigate organizational identification.

Family Guardians have a negative relationship with organizational identification. Not surprisingly, Family Guardians experience a significant negative relationship with organizational identification, in that they identify very little with their

organization. This finding is also not surprising, as family guardians generally have higher boundary control, higher family identity, and experience greater nonwork interrupting work behaviors and the not the reverse. Though their work identities are developed to some extent, the way these individuals manage their boundaries consistently favors family.

Implications

Current trends in the workplace indicate organizations will likely continue to use technology and alternative work arrangements to meet employee and societal demands. It is also likely that technology will continue to both challenge and complicate the way human beings manage work and home boundaries, which makes boundary management research increasingly relevant. With more women in the workforce than ever before, it is no longer a challenge for working mothers but for working *parents* to determine the extent to which one allows work and life domains to intermingle, making boundary management even more critical for employees. In addition, individuals such as millennials are entering the workforce after only knowing a world in which technology allows for immediacy and blurred boundaries. Thus, a *different* type of worker with different needs, preferences and skills may also change the landscape of today's organizations and boundary management strategies. For these reasons, it is important to consider what is known about boundary management, virtuality, and organizational climates and where there is still room for further exploration and understanding. In addition, the changing physical and internal landscapes of organizations challenge traditional notions of organizational identification and how it is developed. This

dissertation adds to the discussion and advances our understanding of these very important issues.

In terms of boundary management, this dissertation helps to solidify the idea of boundary management profiles, and indicates that the consideration of interruption behaviors in defining boundary management styles is not only useful but a necessary component of understanding boundaries in a more virtual world. This research adds to the conversation about virtuality and sheds light on the challenge of varying work arrangements. The potential influence of virtuality on employee behaviors means it is not only important to continue to study, but to continue to describe and define. The research represented in this study indicates that, when it comes to boundary management, virtuality might be a key factor in the choices and potential struggles an employee faces in managing work and home boundaries. Virtuality is important for several reasons. One, employees may benefit from the increase in communication technologies to manage work tasks within and outside of the office. Employees who have dual-centric identities and prefer to manage their lives in a way that allows for more integration may favor virtual work setups because they can allow work to enter the home domain and vice versa. When employees are able to enact their preferred boundary management styles, it could have implications for other outcomes such as employee satisfaction, commitment, productivity, or turnover.

On the other hand, virtualness presents unique challenges for both employers and employees. While virtuality may encourage autonomy as previous research suggests, this does not necessarily mean that highly virtual employees have control over the way they manage boundaries. More importantly, the results of the dissertation indicate further

exploration into boundary management is needed to understand the impact of virtuality on the opportunities employees may encounter in the workplace. Results also suggest that perceived support for boundary management is linked to organizational identification, and could be a primary factor in how employees ultimately develop into the organization. This is important for organizations to consider; namely, that offering virtual opportunities and flexibility in managing boundaries can be an advantage instead of making employees feel detached from the organization. Organizations *can* be proactive and create a culture that is perceived as supportive, which could have larger implications on many levels. For example, organizations should consider how to demonstrate support for customized boundary management, and how such support might change when virtual work options are present. Organizations should also consider how to structure organizational climate so that employees feel support on all levels, regardless of physical presence, as it can influence their behaviors and potentially their organizational identification.

Finally, this dissertation also highlights several factors that may have an important influence on how employees develop organizational identification. Much like Kossek et al. (2012) suggest boundary management styles are multi-dimensional, so too is organizational identification. The findings of this study indicate that an organization's climate for customization of the way employees manage their boundaries may influence how they identify with their organization. Further, it demonstrates the importance of further exploration of the extent to which work arrangement influences employee organizational identification. More specifically, the results of this dissertation suggest that research claiming virtual workers are at a disadvantage fails to consider the potential benefits of alternative work arrangements, especially when considered in the context of

boundary management trends. Though virtual employees may be removed from more tangible workplace elements that have been considered thus far in organizational communication research, this study suggests virtual employees can still feel connected based on organizational climate and the way he or she is able to manage boundaries.

Overall, the implications of this research are significant. Not only do the findings suggest that work and home demands can both influence and be influenced by changing organizational landscapes, this research provides evidence to suggest there are ways to develop our understanding of boundary management, organizational climates, virtuality, and organizational identification. The dissertation contributes on a scholarly level, in that it suggests there are additional ways to represent the complexities of these constructs in research. In addition, the dissertation contributes on a practical level, as it highlights a need for understanding the very real and timely challenges organizations face in utilizing virtual work arrangements and providing adequate support for employees' boundary management needs.

Limitations

Though this research supports and extends important organizational communication research, it is not without limitations. The sample was recruited using a snowball technique, which began with personal connections of the researcher, and is thus not necessarily generalizable across all employed individuals across industries. However, the sample represents employees across various industries and spans the virtuality continuum from not at all virtual to entirely virtual. In other words, the sample represents a range of demographic and workplace variables. In addition, the sample in this dissertation is significantly younger ($M = 28.38$) than the sample in Kossek et al.'s (2012)

study of boundary management clusters ($M = 44.42$), and there is a much higher

representation of single people and hourly workers in the dissertation sample than in

Kossek et al.'s. Age, marital status and job type may influence boundary management, as

younger people may not yet be established in their careers or have families with children.

Such differences may influence priorities and, thus, the way boundaries are managed.

Further, the dissertation sample is overwhelmingly female, which may account for the

fact that the gender breakdown in the dissertation clusters does not entirely match those

from Kossek et al.'s study; in particular, the Family Guardian category, which actually

consisted of more males than females in Kossek et al.'s research, was largely skewed in

the dissertation in favor of females. In addition, the Fusion Lover cluster in this

dissertation was also heavily female, which could support a stereotypical profile of

women who may favor family over work or prefer to integrate instead of choosing work

over family.

This research also features some exploratory measures. The foundation of the

virtuality measure was comprised of a measure created by Chudoba et al. (2005) and that

measure still needs additional testing to determine how useful it is in accurately assessing

virtuality. However, the virtuality measure utilized in this research also included items

from a measure created by Gibson and Gibbs (2006) to add some depth to the original

measure to more accurately represent virtuality. Nonetheless, in lieu of standard measure

of virtuality and accepted scholarly understanding of what exactly virtuality looks like,

the use of such measures is important in continuing the conversation about how to

measure such a complex variable. In addition to the virtuality measure, I created a

measure to explore organizational climate. The organizational climate was exploratory in

nature and needs further refinement, but it is a step in the right direction towards understanding the impact of organizational climates.

Finally, Hecht and Allen (2009) hypothesized that boundary strength remains relatively stable and unchanging, so that an individual in a given job within a given organization would experience role demands that stable over time. While this is likely, it is still relatively unclear how much time is needed for boundaries to become stable. In this study, participants reported an average of just under four years working in their current organization and under three years in their current position, and could very well still be developing a thorough sense of boundary control. Since the study used cross-sectional data collection, and things like boundary management preferences or control, organizational identification, virtuality and organizational climate (and other nonwork roles) may change over time, a longitudinal sample may yield a different pattern of results.

Future Research

Though this dissertation offers some key insight into boundary management, virtuality, climate and organizational identification, there are areas that need further investigation and research attention. Researchers should focus on developing a measure of virtuality that accurately assesses virtual work. In addition, it is important to continue to investigate the extent to which virtuality both helps and hinders employee behaviors and productivity. More specifically, it is important to move away from the idea that virtual spaces lack physical cues and instead focus on the *benefits* of such physical absences. This dissertation suggests that, for some individuals, virtual work opportunities may in fact be preferred and useful for their particular style of boundary management. It

would be useful to further investigate boundary management profiles to determine if a specific type or types of individual is better suited for virtual work based on preferences for balancing work and home life. Moving forward, such investigations could have practical implications for organizations in the future. More specifically, further development of the boundary management profiles could be used in organizational recruitment and screening processes if a particular position demands or requires certain levels of virtuality.

While this research suggests that virtuality may benefit certain types of people and can be useful in terms of employee behavioral outcomes, our understanding of boundary management profiles tells us that not all individuals are in favor of or thrive in virtual work settings. With a new generation of individuals entering the workforce, it would be interesting to see if age influences preference toward working virtually. Developing the boundary management profiles to consider additional characteristics may help to round out the profiles. Further, it would be useful to consider whether the boundary management clusters translate across industry and different types of jobs. Essentially, the study of boundary management should continue to account for the changing nature and demographics of the modern workplace.

The fact that organizational climate was significantly related to organizational identification is important and warrants further attention. It would be useful to further examine how different components of an organization's climate work to demonstrate support. For example, some research has suggested that the existence of flexible work programs and benefits in general, at the organizational level, can be perceived as supportive. In addition, support at the managerial level and encouragement on a collegial

level were included in this study's measure of organizational climate. All three of these levels are noted in the literature as elements of the communication climate and warrant further investigation. More specifically, it is important to consider how employees respond to organizational-, managerial-, and collegial-level support, and why they respond this way. It is also important to determine if all three levels are necessary for an individual to perceive a supportive organizational climate.

Finally, the virtuality index should be refined so that it can more clearly assess virtuality and its implications in organizations. Future virtuality measures should also consider measuring use of communication technologies in terms of daily use, as many employees might use communication technologies (e.g., email or phone calls) multiple times per day. While refining the measure would be useful for researchers, it could also be useful for managers to conduct organizational assessments to determine virtuality and how to strategize accordingly. In addition, research should focus on developing a measure of organizational climate, considering all levels of the organizations. Not only would it be useful to understand how support at an organizational level influences employees, Kraus et al. (2012) propose that some peers and supervisors have more influence than others. It would be useful to investigate such relationships more closely, especially since this and other research suggests that climate influences not only organizational identification, but boundary management choices.

Final Thoughts

Organizations and employees today face interesting challenges in the workplace. This dissertation describes several of factors that contribute to such challenging work environments. More specifically, this study moves forward an important conversation

about boundary management strategies, contributing to research suggesting a more multi-dimensional approach to the study of boundary management and demonstrating how modern-day characteristics in organizations might influence how employees balance work and home domains. The concept of virtuality is growing and becoming increasingly prevalent in today's society, and this dissertation not only links it with boundary management but demonstrates its relationship to the organizational climate and employee organizational identification. The findings of this dissertation demonstrate it is important to continue to investigate the boundaries between work and home, how employees navigate between the two, and what it means for them as members of their organization.

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Appendix A

Table 1. Sample Demographics

Demographic Characteristic	*M*	*SD*
Age	28.38	9.34
Years at current organization	3.89	4.77
Years in current position	2.77	3.76

	Frequency	%
Gender		
Male	87	36.0
Female	155	64.0
Marital Status		
Single	158	65.0
Domestic partnership/Married	70	28.9
Divorced	13	5.4
Widowed	1	.4
Children living at home 3+ days/week		
Yes	43	17.8
No	199	82.2
Organizational Position		
Hourly	98	40.5
Administrative	12	5.0
Entry level	27	11.1
Between entry level/middle management	33	13.6
Middle management	36	14.9
Upper management	10	4.1
Executive	6	2.5
Other	20	8.3
Organizational Type		
Privately owned	116	47.9
Publicly owned	57	23.5
Nonprofit	26	10.7
Public sector/government	12	5.0
Public education	20	8.3
Other	11	4.5

Appendix B

Table 2. Descriptive Statistics and Survey Items

Variables and Items	*M*	*SD*	α
Virtuality	2.64	1.29	**.89**
Distribution			
• Collaborating with people in different time zones	2.98	1.99	
• Working with people via internet-based conferencing applications	2.80	1.89	
Mobility			
• Working at home during normal business days	2.93	1.97	
• Working while traveling, e.g., at airports or hotels	2.04	1.33	
Electronic Dependence			
• Teleconferencing	2.17	1.57	
• Videoconferencing	3.87	6.76	
Variety of Practices	3.30	4.86	**.85**
• Working on projects that have changing team members	3.15	1.71	
• Working with teams that have different ways to track their work	3.34	1.94	
• Working with people that use different collaboration technologies	3.42	1.88	
Days per month work from home	2.91	1.76	
Boundary Management			
Nonwork Interrupting work behaviors	3.63	.70	**.74**
• I take care of personal or family needs during work.	3.34	1.10	
• I respond to personal communications (e.g., emails, texts, and phone calls) during work.	3.87	.96	
• I do not think about my family, friends, or personal interests while working so I can focus.	3.93	.87	
• When I work from home, I handle personal or family responsibilities during work.	3.22	1.04	
• I monitor personal-related communications (e.g., emails, texts, and phone calls) when I am working.	3.78	1.02	
Work interrupting nonwork behaviors	2.87	1.01	**.85**
• I regularly bring work home.	3.02	1.36	
• I respond to work-related communications (e.g., emails, texts, and phone calls) during my personal time away from work.	3.75	1.18	
• I work during my vacation.	2.55	1.38	
• I allow work to interrupt me when I spend time with my family or friends.	2.80	1.26	
• I usually bring work materials with me when I attend personal or family activities	2.24	1.18	

Table 2. Descriptive Statistics and Survey Items Cont'd

Variables and Items	*M*	*SD*	*α*
Boundary control	3.89	.79	**.89**
• I control whether I am able to keep my work and personal life separate.	3.84	.92	
• I control whether I have clear boundaries between my work and personal life.	3.85	.90	
• I control whether I combine my work and personal life activities throughout the day	3.98	.80	
Work Identity	3.89	.72	**.73**
• People see me as highly focused on my work.	3.91	.80	
• I invest a large part of myself in my work.	3.88	.83	
Family identity	3.84	.82	**.87**
• People see me as highly focused on my family.	3.77	.87	
• I invest a large part of myself in my family life.	3.90	.87	
Organizational Identification	3.61	.81	**.79**
• When someone criticizes my organization, it feels like a personal insult.	3.28	1.14	
• I am very interested in what others think about my organization.	3.60	.99	
• When I talk about my organization, I usually say "we" rather than "they".	3.86	.95	
• My organization's successes are my successes.	3.70	.97	
• When someone praises my organization, it feels like a personal compliment.	3.70	.98	
• If a story in the media criticized my organization, I would feel embarrassed.	3.52	1.10	
Organizational Climate	3.24	.45	**.71**
• In my organization, employees are expected to adapt to the organization's preferred way of balancing work and home demands.	2.41	.90	
• My organization enables employees to manage work and home responsibilities in the way that best fits their individual needs.	3.39	.99	
• In my organization, there is a common standard that determines when and where employees manage work and home demands.	2.74	.84	
• My organization allows employees flexibility in determining when and where to handle work and home responsibilities	3.31	.95	
• My organization is results-oriented, so that employees are able to manage home demands as they see fit, so long as they produce results.	3.27	1.06	
• I do not feel that my well-being is valued by my supervisors.	3.54	1.11	
• My supervisor(s) is supportive of employees handling work and home demands according to their individual needs and preferences.	3.54	.97	

Table 2. Descriptive Statistics and Survey Items Cont'd

Variables and Items	*M*	*SD*	*α*
Organizational Climate Cont'd			
• My supervisor provides employees the flexibility to balance work and life responsibilities as they see fit.	3.57	.95	
• My co-workers are supportive when other employees need to handle work and home demands according to their individual needs and preferences.	3.87	.78	
• My co-workers tend to conform to our organization's expectations for when and where to handle work and home responsibilities.	2.51	.74	
• My co-workers react negatively to the choices I make in managing work and home responsibilities.	3.78	.92	
• The demands of our work dictate how my co-workers and I manage work and home responsibilities; we don't really have a choice.	3.02	.99	
• In my organization, we hold informal discussions (e.g., with a co-worker) about the best ways to manage work and home responsibilities.	3.14	1.08	

Appendix C

Table 3. Factor analysis results

Factors	1	2	3	4	5
Virtuality					
Collaborating with people in different time zones	**.616**	.295	.291	.142	-.144
Working with people via Internet-based conferencing applications	**.709**	.213	.319	.207	.001
Working at home during normal business days	**.699**	.179	-.227	-.012	.303
Working while traveling (e.g., at airports or hotels)	**.685**	.241	.021	-.085	.341
Teleconferencing	**.612**	.264	.222	.380	-.020
Videoconferencing	**.657**	-.024	.295	.171	.164
Variety of Practices					
Working on projects that have changing team members	.159	**.802**	.145	.051	.060
Working with teams that have different ways to track their work	.225	**.768**	.226	.188	.121
Working with people that use different collaboration technologies	.309	**.695**	.237	.199	.244
Collaborating with people you have never met face-to-face	.195	.293	**.660**	.250	-.030
Collaborating with people who speak different native languages or dialects from your own	.076	.141	**.787**	-.215	.037
Email	.184	.007	-.007	**.800**	.158
One-on-one phone conversations	.062	.241	.072	**.760**	.082
Text messaging	.029	.064	.077	.095	**.862**
Working at different sites	.202	.248	.397	.127	.315
Having professional interaction with people outside the organization	.173	.344	.531	.395	.021
Working with mobile devices	.203	.417	-.042	.102	.590
Collaborative software	.433	.241	.240	.351	-.017
Instant messaging	.304	-.120	.440	.210	.401
Eigenvalue	6.66	1.55	1.29	1.28	1.09
% of Variance	35.05	8.18	6.83	6.74	5.74

Appendix D

Table 4. Psychological characteristics of the work-nonwork boundary management profiles

	Low control profiles		Average control profiles	High control profiles	
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
	Work Warriors	Reactors	Family Guardians	Fusion Lovers	Dividers
	n = 22	n = 36	n = 63	n = 71	n = 49
Nonwork interrupting work behaviors	3.66 (0.64)	3.88 (0.56)	3.67 (0.50)	3.75 (0.72)	3.20 (0.83)
Work interrupting nonwork behaviors	3.85 (0.61)	3.49 (0.58)	2.18 (0.46)	3.65 (0.60)	1.73 (0.55)
Boundary control	2.29 (0.64)	3.78 (0.58)	3.80 (0.63)	4.05 (0.43)	4.59 (0.48)
Work identity	4.39 (0.58)	3.32 (0.74)	3.45 (0.63)	4.20 (0.50)	4.21 (0.60)
Family identity	3.25 (0.92)	2.83 (0.56)	3.71 (0.63)	4.24 (0.53)	4.42 (0.52)

Note: Means are outside of the parentheses. Standard deviations are inside parentheses.

Appendix E

Table 5. Demographics of the work-nonwork boundary management profiles.

	Low control profiles		Average control profile	High control profiles	
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
	Work Warriors	Reactors	Family Guardians	Fusion Lovers	Dividers
	n = 22	n = 36	n = 63	n = 71	n = 49
Age					
(Mean)	27.20	29.19	29.39	30.81	25.97
(*SD*)	8.85	10.18	10.78	8.95	5.75
Gender					
Male	41%	64%	33%	32%	20%
Female	59%	36%	67%	68%	80%
Marital Status					
Single	46%	78%	70%	59%	69%
Domestic partnership/Married	41%	22%	29%	30%	27%
Divorced	9%	0%	1%	11%	4%
Widowed	4%	0%	0%	0%	0%
Organizational Level					
Hourly	23%	28%	54%	30%	55%
Administrative	0%	3%	6%	3%	10%
Entry level	0%	14%	18%	7%	13%
Between entry/middle mngmt	27%	22%	11%	11%	8%
Middle management	23%	19%	8%	22%	6%
Upper management	18%	3%	0%	6%	2%
Executive	0%	0%	0%	8%	0%
Other	9%	11%	3%	13%	6%
Organizational Type					
Privately owned	45%	50%	54%	44%	47%
Publicly owned	32%	14%	23%	24%	25%
Nonprofit	9%	3%	6%	13%	14%
Public sector/government	0%	8%	5%	5%	6%
Public education	14%	6%	2%	10%	4%
Other	0%	19%	10%	4%	4%
Children at home 3+ days/wk	36%	8%	11%	18%	22%

Appendix F

Table 6. Cluster Descriptions

Cluster	Name	Profile	Description
1	Work Warrior	Low boundary control, work centric, high work interrupting nonwork behaviors, average nonwork interrupting work behaviors	This cluster reports the lowest boundary control mean ($M = 2.29$). They also have lower family identity ($M = 4.39$) ratings and the highest work identity ($M = 4.39$) ratings. This group tends to exhibit relatively average nonwork interrupting work behaviors ($M = 3.66$) and engage more in work interrupting nonwork behaviors ($M = 3.85$). This group allows work to interrupt nonwork time more than the reverse.
2	Reactor	Low boundary control, dual centric, high interruption behaviors in both directions (nonwork to work and work to nonwork)	This cluster reports low boundary control ($M = 3.78$). They report relatively low scores on both work identity ($M = 3.32$) and family identity ($M = 2.83$) so they can be considered dual centric. They tend to engage in above average work interrupting nonwork ($M = 3.49$) and nonwork interrupting work behaviors ($M = 3.88$). Thus, they integrate in both directions.
3	Fusion Lover	High boundary control, dual centric, integrator interruption behaviors	This cluster has high boundary control ($M = 4.05$). They have a high family identity ($M = 4.24$) and they also identify strongly with work ($M = 4.20$). They have high means in terms of work interrupting nonwork behaviors ($M = 3.65$) and nonwork interrupting work behaviors ($M = 3.75$), suggesting that they prefer integration between work and personal life in both directions.
4	Family Guardian	Average boundary control, dual centric (but higher on family), asymmetric interruption behaviors favoring nonwork	This cluster experiences an average degree of boundary control ($M = 3.80$). They have slightly lower scores for work identity ($M = 3.45$) and nearly average scores for family identity ($M = 3.71$). They have a high mean rating of nonwork interrupting work behaviors ($M = 3.67$) and lower ratings of work interrupting nonwork behaviors ($M = 2.18$), demonstrating an asymmetric pattern of interruption behaviors.
5	Divider	High boundary control, dual centric, separator interruption behaviors	This cluster reports a high level of control; they have the highest control score of any of the clusters ($M = 4.59$). They are dual-centric (work identity $M = 4.21$, family identity $M = 4.42$). They have the lowest scores on both work interrupting nonwork behaviors ($M = 1.73$) and nonwork interrupting work ($M = 3.20$), indicating they separate work and family.

Appendix G

Table 7. Bivariate Correlations for Boundary Management Clusters

	OI	OC	V
Fusion Lovers	.267**	.133*	.215**
Reactors	-.109	.006	.167**
Dividers	-.007	-.001	-.274**
Family Guardians	-.208**	-.068	-.231**
Work Warriors	.040	-.113	.188**

*p < .05. **p <.01

OI=Organizational Identification, OC=Organizational Climate, V=Virtuality

Appendix H

Table 8. Bivariate Correlations for Study Variables

Variables	1	2	3	4	5	6	7	8
1. Organizational Identification	--							
2. Virtuality	.051	--						
3. Organizational Climate	.182**	.126*	--					
4. Nonwork-work Interruptions	-.150*	.249**	.092	--				
5. Work-nonwork Interruptions	.214**	.509**	.065	.287**	--			
6. Boundary Control	.046	-.184**	.120	-.028	-.310**	--		
7. Work Identity	.409**	.153**	.117	-.152*	.130*	-.014	--	
8. Family Identity	.089	-.168**	.047	-.031	-.205**	.217**	.257**	--

*$p < .05$. **$p < .01$

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EDUCATION

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        Relevant Coursework
        Admin. Leadership 798: Seminar in Human Resource Development
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        Communication 710: Managerial Communication
        Communication 770: Measurement & Evaluation in Speech Comm.
        Communication 813: Mediated Communication
        Communication 823: Seminar in Group Communication
        Communication 860: Mediated Group Communication
        Communication 900: Philosophy & Practice of Communication
        Communication 972: Advanced Methods in Communication Research
        Nonprofit Management 789: Theory & Role of Nonprofit Organizations

2010   **University of Wisconsin-Milwaukee, Milwaukee, WI**
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        Admin. Leadership 710: Organizational Change and Team Leadership
        Admin. Leadership 757: Principles and Foundations of Adult Education
        Communication 810: Studies of Communication in Organizations
        Communication 860: Communication in Customer Service Settings
        Communication 860: Communicating for Teaching and Learning

2008   **University of Wisconsin-Milwaukee, Milwaukee, WI**
      B.A. in Communication

ACADEMIC APPOINTMENTS

Department of Communication, University of Wisconsin-Milwaukee
Instructor of Record

2013-Present   **Communication 310: Organizational Communication (hybrid)**
- Designed instructional materials for combination face-to-face and online course including syllabus, lesson plans, examinations and assignments
- Facilitate discussions and lecture material via online course space and discussion boards
- Maintain consistent instructional techniques in face-to-face and virtual classrooms

2012-2013   **Communication 313: Human Communication & Technology (online)**
- Course taught completely online
- Facilitated student discussion utilizing online discussion boards
- Encouraged exploration of communication technologies to facilitate student learning

2011-2013   **Communication 323: Communication in Groups & Teams (FtF)**
- Responsible for all instructional design, including syllabus, lesson plans, examinations and assignments
- Performed basic teaching responsibilities such as facilitating discussions, leading in-class activities, presenting lectures, determining grades and providing thorough feedback

2010-2011   **Communication 105: Business & Professional Communication (FtF)**
- Performed basic teaching responsibilities such as facilitating discussions, presenting lectures, determining grades, and providing thorough feedback
- Created and facilitated new classroom exercises
- Collaborated with course director and teaching assistants to re-structure the course and create new material

2008-2010   **Communication 103: Public Speaking (FtF)**
- Performed basic teaching responsibilities such as facilitating discussions, presenting lectures, determining grades, and providing thorough feedback
- Created new classroom exercises from existing instruction models

- Collaborated with course director and teaching assistant colleagues to improve course materials and learning experiences

RELEVANT EMPLOYMENT HISTORY

Summer 2011 **University of Wisconsin Sea Grant**
Field Interviewer
Collected, compiled and summarized data for Sea Grant program coordinators.

Summer 2010 **University of Wisconsin Survey Center, RUSH Project**
Computer-Assisted Personal Interviewer
Performed supervisory roles, recruited study participants, completed computer-assisted interviews with study participants, collected bio-marker samples.

2005-2008 **Center for Applied Behavioral Health Research (CABHR), UW-Milwaukee**
Research Assistant
Coordinated grant-funded research project, administered study measures via confidential telephone interviews, maintained various databases and records for center programs, provided administrative support for grant-funded projects.

AWARDS AND RECOGNITION

Top Panel. Interpersonal and Small Group Communication Division, Central States Communication Association Convention, Kansas City, MO. 2013.

John Paul Jones Scholarship, Department of Communication, University of Wisconsin-Milwaukee, 2012.

Top Four Paper. Applied Communication Division, National Communication Association Convention, New Orleans, LA. 2011.

ICA Teaching Award. Provides recognition for exceptional teaching in the department of Communication at the University of Wisconsin-Milwaukee. 2011.

Melvin Miller Award for Outstanding Teaching. Provides recognition for exceptional teaching in the department of Communication at the University of Wisconsin-Milwaukee, 2010.

Chancellor Award. Department of Communication, University of Wisconsin-Milwaukee, 2010.

Frank E. X. Dance Scholarship ($1,000). Provides support and recognition for students who excel in the study of Communication at the University of Wisconsin-Milwaukee, 2008.

Graduated with honors in Communication, University of Wisconsin-Milwaukee, 2008.

PUBLICATIONS

Smith, K. K., MacKenzie, J., & Meyers, R. A. (2014). Exploring the feasibility of international collaboration and relationship building through a virtual partnership scheme. *International Journal for the Scholarship of Teaching and Learning, 8,* Article 7.

Meinecke, A., Smith, K. K., & Lehmann-Willenbrock, N. (2013). Developing students as global learners: "Groups in Our World" blog [Special issue]. *Small Group Research*, *44,* 428-445. doi:10.1177/1046496413487020

Harris, L., & Smith, K. (2009). Feminists for Life and the use of appropriational argument in the abortion debate. In D. S. Gouran (Ed.), *The functions of argument and social context* (pp. 158-163). Washington, DC: National Communication Association.

MEDIA

Lehmann-Willenbrock, N. (2013, June 3). Using blogs to learn about groups. *Management INK*. Retrieved from http://managementink.wordpress.com/

MANUSCRIPTS IN PROGRESS

Fonner, K. L., & Smith, K. K. (Manuscript in preparation, data collected). *Internships: A preview into the workplace.*

Smith, K. K., & Katz, J. (Manuscript in preparation; data collected). *Customer-employee rapport and its effect on service outcomes.*

Fonner, K. L., Smith, K. K., & Stache, L. C. (Data collection in progress). *Home-based teleworkers: Preventing work-home boundary violations.*

RESEARCH PRESENTATIONS

Kim, S. Allen, M., Ahn, S., Becker, K. A., Cole, A., Cramer, E. C., Choi, C. S., Dilbeck, K. E., Gross, C. M., Hawkins, J. L. M., Jayroe, T. J., Kim, M., Mullane, R. R., Priddis, D. M., **Smith, K. K.**, Victor, A. K., Willes, K. L., & Zmyslinski-Seelig, A. N. (2013, November). *Testing the evidence effect of Additive Cues Model (ACM).* Paper presented at the 99th Annual Convention of the National Communication Association, Communication and Social Cognition Division, Washington, DC.

Smith, K. K. (2013, October). *What's my role again? The integration-segmentation continuum and its effect on organizational identity in virtual employees.* Paper presented at the Organizational Communication Mini Conference, Urbana, IL.

Omachinski, K., & **Smith, K. K.** (2013, April). *Cross cultural sensitivity training to prevent and resolve conflict in the workplace.* Paper to be presented at the Central States Communication Association Convention, Kansas City, MO. **Top Panel, Interpersonal and Small Group Communication Division.**

Smith, K. (2012, November). *The influence of computer and internet self-efficacy on the use of online support groups.* Paper presented at the 98th annual convention of the National Communication Association Convention, Orlando, FL.

Smith, K. (2012, November). *Re-appropriating unique online dating sites as computer-mediated social support communities.* Paper presented at the 98th annual convention of the National Communication Association Convention, Orlando, FL.

Smith, K. (2011, November). *Teachers and students left behind: The effects of educational downsizing on survivors.* Paper presented at the 97th annual convention of the National Communication Association Convention, New Orleans, LA. **Top Four Paper, Applied Communication Division.**

Meyers, R. A., MacKenzie, J., **Smith, K. K.,** & Lazarides, K. (2011, October). *Exploring the extent and nature of international collaboration in the Scholarship of Teaching and Learning.* Paper presented at the International Society for the Scholarship of Teaching and Learning Conference, Milwaukee, WI.

Lehmann-Willenbrock, N., Meyers, R. A., Kauffeld, S., & **Smith, K. K.** (2011, July). *Examining procedural communication: Social influence in organizational teams.* Paper presented at the Sixth Annual INGroup Conference, Minneapolis, MN.

Smith, K., & Katz, J. (2011, April). *Relational components of communication in customer service settings.* Paper presented at the Central States Communication Association Convention, Milwaukee, WI.

Smith, K., Lazarides, K., & Meyers, R. A. (2011, April). *Investigating international SoTL collaborations through email communication.* Paper presented at the UW System President's Summit on Excellence in Teaching and Learning, Madison, WI.

Smith, K., & Katz, J. (2010, October). *Customer-employee rapport and its effect on service outcomes.* Poster presented as part of a competitively selected poster session at the Organizational Communication Mini Conference, New Brunswick, NJ.

Harris, L., & **Smith, K.** (2009, August). *Feminists for Life and the use of appropriational argument in the abortion debate.* Paper presented at the NCA/AFA Conference on Argumentation.

Smith, K. (2008, April). *Facts with faces: Truth exposed.* Paper presented as part of a competitively selected undergraduate panel at the Central States Communication Association Undergraduate Honors Convention, Madison, WI.

PROFESSIONAL SERVICE

2013	Volunteer, National Communication Association 99th Annual Convention.
2013	Reviewer, Central States Communication Association Graduate Student Caucus
2013	Reviewer, Central States Communication Association President's Undergraduate Honors Research Conference
2011-present	Editor's Assistant for Dr. Joann Keyton, co-editor of *Small Group Research*

UNIVERSITY AND DEPARTMENTAL SERVICE

2011-2012	Peer mentor to New Doctoral Student, Department of Communication, UW-Milwaukee
2011-2012	Co-coordinator of Public Speaking Showcase, Department of Communication, UW-Milwaukee
2011	Invited Proseminar Visit, "Using Your MA After Graduation." Panel presenter to students in Communication 800 at UW-Milwaukee

2010-2011	Volunteer, Public Speaking Showcase Judge, Department of Communication, UW-Milwaukee
2009-2012	Graduate Representative, UWM Open House, Department of Communication, UW-Milwaukee
2009-2010	Graduate Student Representative, Graduate Advisory Committee, Department of Communication, UW-Milwaukee
2009	Tutor, Critical Analysis of Communication (Comm 335), Department of Communication, UW-Milwaukee
2009	Research Assistant, Coded participant responses for peers' study on group work, Department of Communication, UW-Milwaukee
2008-2009	Research Assistant, Transcribed 100+ hours of taped interviews for doctoral student study, Department of Educational Psychology, UW-Milwaukee
2007-2008	Treasurer, Lambda Pi Eta Honor Society (UG), Department of Communication, UW-Milwaukee

COMMUNITY SERVICE

2010-2012	In2Books Mentor, Curriculum-based eMentoring Program
2008-2009	Volunteer Debate Judge, Milwaukee Debate League
2006-2007	Volunteer Fundraising/Events Team Member, Pineview Wildlife Rehabilitation Center

PROFESSIONAL ASSOCIATION MEMBERSHIPS

Central States Communication Association (CSCA)
National Communication Association (NCA)
Interdisciplinary Network for Group Research (INGRoup)