



## **Boundary Management Tactics: An Examination of the Alignment with Preferences in the Work and Family Domains**

Dawn S. Carlson  
Baylor University

Merideth Ferguson  
Utah State University

K. Michele Kacmar  
Texas State University

### **Author's Notes**

Correspondence concerning this article should be addressed to Dawn S. Carlson, Hankamer School of Business, Baylor University, One Bear Place 98013. Waco, TX 76798-8013. E-mail: Dawn\_Carlson@baylor.edu

### **Abstract**

Building on boundary management, we develop and test a measure of four boundary management tactics (temporal, physical, behavioral, communicative) for both the work and family domains. We extend the understanding of how people use tactics to manage boundaries using a sample of 639 working individuals and examining tactics as mediators as well as both antecedents (family and work segmentation preferences) and consequences (job satisfaction, job engagement, family satisfaction, family engagement) of these tactics. We discuss the study's implications for theory, and practice while suggesting new research directions.

**Keywords:** Work-Family Conflict, Work-Family Enrichment, Boundary Management Tactics, Job Satisfaction, Family Satisfaction

### **Introduction**

According to boundary management theory, individuals construct and maintain boundaries around the critical domains of their life (Ashforth, Kreiner, & Fugate, 2000). On a daily basis, workers are forced to engage in boundary management efforts in an attempt to balance the competing demands between the many domains of life such as work, family, religion, and self (Hyde & Wethington, 2006). However, very little research to date has explored the specific activities in which individuals engage to manage their work and family boundaries. In a groundbreaking qualitative study Kreiner, Hollensbe, & Sheep (2009) discovered and classified four types of boundary management tactics (*temporal* – control time, *physical* –

physical boundaries, *behavioral* – negotiate boundaries, *communicative* – managing expectations) that capture how people actually go about managing these boundaries.

Our study seeks to extend theory and empirical research focused on how individuals enact their boundary management tactics and the effects those choices have upon important outcomes at work and at home. Using boundary management theory (Kreiner et al., 2009) and building on this foundation, we developed quantitative measures for each of the four tactics. Further, as previous research suggests that the permeability of boundaries differs for the work and family domains (Bulgar, Matthews, & Hoffman, 2007; Matthews & Barnes-Farrell, 2010), there is no reason to believe boundary management occurs the same in each direction. Therefore, we created measures for both the work and family domains to understand better how people manage each domain's boundary.

The management of boundaries is based on preference believed to fall on a continuum from segmentation (keeping the domains entirely separate) to integration (blurring the domain boundaries) (Ashforth et al., 2000). This preference or desire regarding the permeability of boundaries is likely to influence the actual behaviors in which individuals engage to manage those boundaries. Previous research distinguished between preference for segmentation and actual segmentation in the work-to-family direction and found a positive relationship between preferences and behaviors (Powell & Greenhaus, 2010). We expand this prior research by examining how preference influences one's choice of each of the four boundary management tactics to obtain the desired level of segmentation in each domain.

In addition to trying to understand preference as an antecedent to boundary management tactics, we also wanted to explore both an affective (satisfaction) and behavioral (engagement) outcome in the two domains. Past research has begun to consider the issue of segmentation and its impact on outcomes but in a limited way. First, extant research usually focuses on preference for segmentation rather than the actual tactics used for segmentation; second, most segmentation research only considers one direction, such as work-to-family (Powell & Greenhaus, 2010; Park, Fritz, & Jex, 2011). We designed the current research to overcome both of these limitations by considering the impact of a variety of work boundary management tactics on job satisfaction and job engagement as well as a variety of family boundary management tactics on family satisfaction and family engagement. Furthermore, as shown in Figure 1, we believe that tactics are the explaining mechanism that connects preferences with outcomes, creating a fully mediated model where tactics are the link between preference and outcomes. As such, we are interested in understanding how individuals enact their segmentation preferences to engage in certain behaviors and whether or not those behaviors lead to desirable outcomes.

This research makes several contributions to the literature. First, building on the theoretical foundations and qualitative research of Kreiner et al. (2009) we develop a scale to capture empirically the boundary management tactics individuals are likely to use in both the work and the family domains. Second, we build on the work that is just beginning to link preference and actual behaviors (Powell & Greenhaus, 2009) and show how segmentation preference links to four different tactics in both the work and family domains. As such, this research seeks to answer the call by Kreiner et al., (2009) to explore further the choices individuals make with regard to segmentation and integration. Third, we extend previous research on boundary management (Park et al., 2011) to examine how these specific tactics influence both attitudes and behaviors in the work and family domains. Specifically, we gain insight into the linking role tactics play between preferences and satisfaction and engagement in

the respective domains. We do this by testing our model using structural equation modeling, which allows us to consider the multiple tactics simultaneously.

### **Theoretical Foundations**

Boundary management theory suggests that people create, maintain, and change the boundaries they hold around certain roles in order to simplify and classify the world around them (Ashforth et al., 2000). People give meaning to the mental frameworks placed around the work and family domains and then attempt to maintain the boundaries placed on the domains (Nippert-Eng, 1996). Role transitions are considered boundary crossing activities where “one exits and enters roles by surmounting boundaries” (Ashforth et al., 2000, p. 472). These transitions or boundary crossings occur on a micro level as individuals move in and out of roles such as work and family on a daily basis. While boundaries allow an individual to focus on the current domain, they also complicate the process of moving from one domain to another. The creation of boundaries around the work and family domains falls on a continuum from integration to segmentation and each approach has costs and benefits of boundary crossings (Ashforth et al., 2000).

At one extreme is full integration (i.e., integrators) where there is no distinction between work and family and where or when they are engaged. The domains are intertwined and integrators have a single way of behaving. People who integrate view all space and time as multipurpose and as such do not differentiate their role thus blurring physical location and membership of roles (i.e., doing work during dinner with family while at home). The main benefit for high integrators is that crossing role boundaries is relatively simple. Given the integration of roles, exit and entry is more seamless making transitions much less difficult. The cost of integration comes in the blurring of role boundaries. As such, the identity of which role a person is in and which role is more important gets confused and interruptions between roles are more likely to occur (Ashforth et al., 2000).

On the other extreme are segmentors who have very clear boundaries with everything belonging to one domain or the other. These people are more likely to alter their behavior between the two domains depending on the demands of the domain. They view time and space as being dedicated to one specific domain. The main benefit of segmenting is that there is no blurring between roles as they are clearly separated. As such, distractions are minimized, there are clear markers that indicate role membership and appropriate behaviors, and it is easier to psychologically compartmentalize. The cost of segmenting is that because there is such distinction between the roles, transitioning between them becomes more difficult. Exiting one role and entering another requires greater psychological adjustment and perhaps even crossing temporal, physical, and/or social boundaries (Ashforth et al., 2000).

Based on this theory, Kreiner et al. (2009) performed two qualitative studies to understand how people managed boundaries to negotiate the demands of work and family. They looked at ways that individuals utilized behaviors, events or episodes to create their ideal levels of segmentation or integration and classified four types of boundary work tactics (temporal – using time or scheduling, physical – using physical space as boundaries, behavioral – using social practices such as technology, and communicative – articulating acceptable boundary behavior of others). We sought to investigate further this set of actual tactics that individuals use to lend understanding to the boundary management process.

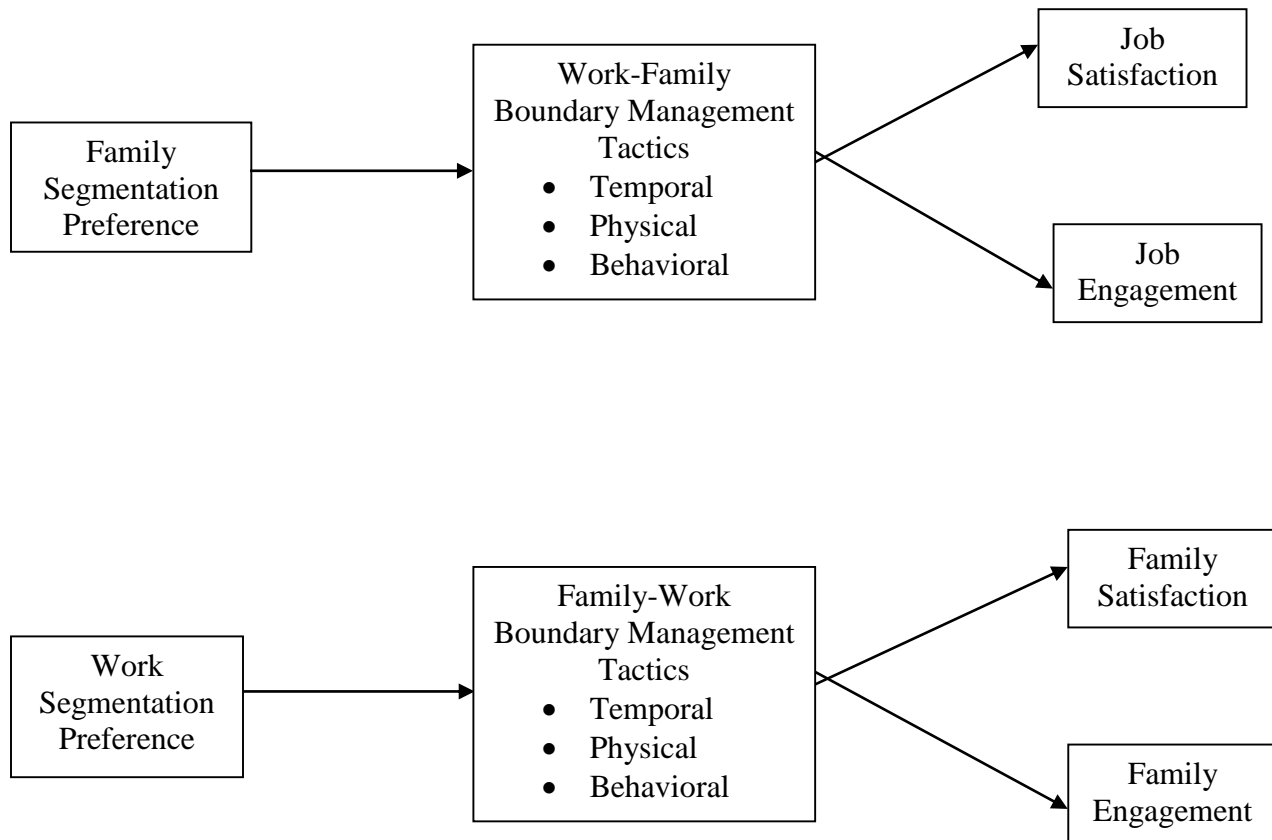


Figure 1. Hypothesized Model

## Segmentation Preferences

Segmentation preference is an individual's preference regarding how s/he manages boundaries on the segmentation-integration continuum. The degree to which individuals wish to segment or integrate work and family life varies by person (Rothbard, Phillips, & Dumas, 2005). Further, research has demonstrated that people may differ in segmentation preference depending upon the domain they are in such that the degree of desired segmentation may be different for the work and family domains (Bulger, Matthews, & Hoffman, 2007). Thus, it is important to consider the work and family domains separately to understand the uniqueness of each.

Consistent with boundary management theory, individuals will manage their boundaries in an effort to meet their segmentation preferences (Nippert-Eng, 1996). Kreiner et al. (2009) expanded our understanding of how people manage these boundaries between work and home by qualitatively exploring the tactics people use to actually navigate family and work demands. They classified four specific boundary management tactics that individuals use to manage these boundaries: temporal, physical, behavioral and communicative.

Researchers have just begun to explore the degree to which preferences and actual engagement in boundary management tactics match. For example, Powell and Greenhaus (2010) found a significant and positive relationship between preference and actual segmentation of the

work domain from the family domain. Similarly, Matthews, Barnes-Farrell, and Bulger (2010) found willingness to integrate family led to more family-to-work transitions or integrating boundary management behaviors, while Winkel and Clayton (2010) found willingness to integrate work role boundaries predicted work-to-family integrating behaviors. In each case, the preference was related positively to the subsequent behavior, but in each case, the behaviors or transitions were general behaviors not specific tactics.

Building on previous research and boundary management theory, we believe that individuals with segmentation preferences between the work and family domains will engage in specific behaviors (tactics) that segment the two domains. Further, we believe that each of the boundary management tactics considered (temporal, physical, behavioral, and communicative) serve as the means through which this goal directed behavior is accomplished. Therefore, the family segmentation preference (preference to keep family out of work) will encourage individuals to engage in boundary management tactics at work (tactics that keep family out while in the work domain). Likewise, the work segmentation preference (preference to keep work out of family) will encourage individuals to engage in boundary management tactics in the family domain (tactics that keep work out of family while at home).

*Hypothesis 1: Family segmentation preference will be positively related to work boundary management tactics (temporal, physical, behavioral, communicative).*

*Hypothesis 2: Work segmentation preferences will be positively related to family boundary management tactics (temporal, physical, behavioral, communicative).*

## **Boundary Management Tactics**

The four tactics identified by Kreiner et al. (2009) attempt to tap specific behaviors in which people engage in order to segment or integrate their domains. The tactics are decisions or ways that individuals negotiate the work and family boundaries. However, previous research has not considered the impact of the different tactics on specific work and family outcomes. Based on their qualitative study, Kreiner et al. (2009) suggested that these tactics are likely to decrease boundary incongruence (i.e., the fit between an individual's boundary management preferences and the environmental influences upon abilities to fulfill those preferences) and violations (i.e., instances where the preferred work-family boundary is breached or not treated the way in which the individual prefers) as individuals engage in them to reach their goals.

We used boundary management theory to isolate an affective outcome (satisfaction) and a behavioral outcome (engagement) critical to each domain that were likely to be affected by boundary violations. We selected job and family satisfaction because we wanted a global affective assessment of each domain. Satisfaction captures the degree to which individuals are satisfied with their position in that domain. Similarly, we selected work and family engagement, or the psychological presence in the role, which is a key element in role performance (Kahn, 1990). We believe engagement reflects the ability to behave in a manner in each role that allows one to be more present. Furthermore, we contend that individuals may espouse certain segmentation preferences and engage in particular boundary management tactics as a mechanism for increasing happiness (i.e., satisfaction) in a particular domain. Likewise, we maintain that individuals also may choose boundary management tactics as a means of supporting their ability to focus or become engrossed in a particular domain (i.e., engagement). By exploring how work tactics influence job engagement and job satisfaction and how family tactics influence family

engagement and family satisfaction, we extend our understanding of boundary management tactics.

## Temporal

Temporal tactics focus on the way that people control their time in order to reduce boundary violations (Kreiner et al., 2009). In other words, managing time is a critical tool for boundary management. In a qualitative study of how individuals manage boundaries, Myrie and Daly (2009) found that all participants reported using time as a way to create and manage boundaries. The benefit of segmentation through temporal tactics is that it allows individuals to clearly delineate which domain is active which cues the appropriate identity and allows for better compartmentalization of roles. Segmentation through specification of the hours that individuals are involved in one domain helps emphasize the benefits of segmentation. Thus, when an individual is on work time it is clear in which activities s/he should be involved. Being fully involved in a domain should contribute to greater levels of satisfaction and more engagement while the judicious use of time in each domain may help the incumbent be more fully present while in that domain (Beutell & Wittig-Berman, 1999; Wegge, Schmidt, Parkes, & Van Dick, 2007). Further, we expect these assumptions to hold in both directions – work-to-family and family-to-work. As such, the degree to which individuals use temporal tactics when at work to keep family out result in greater job satisfaction and job engagement. Alternatively, the degree to which individuals use temporal boundary management tactics while on family time to keep work demands out contribute to greater family satisfaction and family engagement.

*Hypothesis 3a: The work temporal boundary management tactic will be positively related to job satisfaction and job engagement.*

*Hypothesis 3b: The family temporal boundary management tactic will be positively related to family satisfaction and family engagement.*

## Physical

The second tactic identified by Kreiner et al. (2009) was the construction and management of physical boundaries between the work and family domains. In this case, physical tactics attempt to identify clearly the domain in which people are located. In a qualitative study of self-employed individuals, spatial boundaries were used as long as individuals had dedicated workspace thus allowing for a clear separation (Myrie & Daly, 2009). The benefits of segmentation are clear - the physical boundaries of the work and family domains, as defined by the individual, provide a clear signal of which domain they are in and as such which identity to enact (Shumate & Fulk, 2004). Again, the cost of switching is likely high as individuals have to physically move from one location to another. Even in the case of working at home, the psychological adjustment to a role when moving between locations (i.e., walking out of the home office into the family room full of kids requires a mental change) is a boundary violation that comes with considerable cost. We theorize that the use of the physical boundary management tactic allows individuals to more easily erect the “mental fences” (Zerubavel, 1991) around either a work or family role based on their physical location as this enactment helps with clarified expectations and use of resources given the setting (Shumate & Fulk, 2004). In using physical boundaries, the individual is better equipped to focus and experience more satisfaction

in that salient role (Ashforth et al., 2000; Rothbard, 2001) as well as be more psychologically engaged in that role (Sullivan, 2000). As a result, we believe that segmenting through physical tactics will likely lead to lower boundary violations and allow for more engagement and satisfaction in a role.

*Hypothesis 4a: The work physical boundary management tactic will be positively related to job satisfaction and job engagement.*

*Hypothesis 4b: The family physical boundary management tactic will be positively related to family satisfaction and family engagement.*

## Behavioral

Kreiner et al. (2009) identified behavioral tactics as social practices used to negotiate and construct the character of the work-family boundary. One of the ways this is accomplished is through leveraging technology. Kreiner et al. (2009) argued that this tactic can facilitate boundary management if technology is actively managed. For example, using caller ID, or having two separate calendars or e-mail accounts on one device allowed respondents to manage their boundaries. A qualitative study of individuals using a personal digital assistant found that they were able to control the work-life boundary by using this device (Golden & Geisler, 2007). This is consistent with the recent research suggesting that technology use at home helped individuals segment work and nonwork roles allowing them to detach and recover from work demands while at home (Park et al., 2011). Similarly, research has found that using technology to blur boundaries led to being more distracted at home (Chelsey, 2005) and experiencing more work-family conflict (Boswell & Olson-Buchanan, 2007). Given the prevalence of technology, we believe that using behavioral tactics in a way that keeps family out of work will contribute to greater job satisfaction and job engagement and keeping work out of family will contribute to greater family satisfaction and family engagement.

*Hypothesis 5a: The work behavioral management tactic will be positively related to job satisfaction and job engagement.*

*Hypothesis 5b: The family behavioral management tactic will be positively related to family satisfaction and family engagement.*

## Communicative

The communicative tactic identified by Kreiner et al. (2009) focuses on managing others' expectations regarding the work and family boundaries. Unlike the other three tactics, this one is externally focused such that it involves how individuals signal to other key individuals in their lives their expectations regarding boundary violations. We theorize that individuals use the communicative tactic to avoid boundary violations by an outside party and thus seek to avoid the disruption of their performance of a given role and forcing them to make an unwelcome shift to another role identity (Ashforth et al., 2000). In other words, they use communication to set expectations for others' behavior in order to maintain boundaries (Shumate & Fulk, 2004). By communicating their expectations, individuals limit interruptions to the identity maintenance process and are better able to focus on the present role thus experiencing greater engagement and satisfaction in that role. This may involve communicating to family members, co-workers, and

supervisors that you expect certain domain boundaries not to be crossed. Again, this is a way to clearly segment the work and family domains such that if these expectations are followed, boundary violations would not occur. As such, we expect this tactic will contribute to both satisfaction and engagement.

*Hypothesis 6a: The work communicative management tactic will be positively related to job satisfaction and job engagement.*

*Hypothesis 6b: The family communicative management tactic will be positively related to family satisfaction and family engagement.*

## Mediating Role of Tactics

The link between preferences or desires for segmentation and the outcomes in the respective domains (satisfaction and engagement) is the tactic one chooses to use to manage those boundaries. In other words, boundary management is tangible process that runs from preferences to outcomes via behaviors. Therefore, when individuals prefer to segment their boundaries, they may be seeking to create boundaries around each domain (Zerubavel, 1991). In order to accomplish this they enact boundary management tactics that align with that preference which allows them to focus more fully or solely on their present domain. Being able to focus on the present domain facilitates engagement in that domain's role as well as more intense satisfaction in the salient role (Ashforth et al., 2000; Rothbard, 2001).

In other words, people engage in specific boundary management tactics to create and manage boundaries in a way that is consistent with their preference. The more successfully they match their preference to their tactics, the more likely their actions will lead to satisfaction with and engagement in that role. For instance, when individuals' preferences in their work match their job attributes, they experience a higher level of job satisfaction (Konrad, Yang, Golberg & Sullivan, 2005; Mueser, Becker, & Wolfe, 2001). Similarly, when preferences about how things should be accomplished within the family are met, family satisfaction is heightened (Weigel & Weigel, 1990). Therefore, we believe that individuals will choose boundary management tactics consistent with their preference and they will be able to achieve greater satisfaction and engagement in that domain.

*Hypothesis 7: The work management tactics of a) temporal, b) physical, c) behavioral, d) communicative will mediate the family segmentation preference to job satisfaction relationship.*

*Hypothesis 8: The work management tactics of a) temporal, b) physical, c) behavioral, d) communicative will mediate the family segmentation preference to job engagement relationship.*

*Hypothesis 9: The family management tactics of a) temporal, b) physical, c) behavioral, d) communicative will mediate the work segmentation preference to family satisfaction relationship.*

*Hypothesis 10: The family management tactics of a) temporal, b) physical, c) behavioral, d) communicative will mediate the work segmentation preference to family engagement relationship.*



## Method

### Procedure

We recruited respondents from Survey Sampling International (SSI), a data collection service that matches researchers in need of samples with individuals willing to complete surveys. For our purposes, recruits were limited to full-time employees (working at least 30 hours a week) who were married. SSI sent a recruitment e-mail that explained our study requirements and their rights as subjects (e.g., their participation was voluntary and there was no penalty for not participating). Respondents were further told that they would receive points from SSI for which they could redeem for gifts and products if they completed the survey.

### Sample

A total of 639 individuals completed the survey. The sample was 35% male and 65% female with a mean age of 45 years ( $SD=11$  years). The majority of the sample (84%) was Caucasian. The respondents worked a mean of 43 hours a week and the mean for organizational tenure was just over 10 years. The mean for length of marriage was 16 years and 60% had children living at home. Respondents reported that they worked in a wide variety of industries. Some of the most commonly reported industries included education, manufacturing, healthcare, and retail.

### Measures

**Boundary management tactics.** Based on the work of Kreiner et al. (2009), we developed items to tap the four dimensions of boundary management tactics (behavioral, temporal, physical, and communicative) individuals use to negotiate the demands between work and family. In total, we developed 24 items (see Appendix): 3 for each of the four boundary management dimensions for the work-to-family direction and 3 for each of the four boundary management dimensions for the family-to-work direction.

We pretested our items using a sample of 254 respondents (53% female, 75% Caucasian, average age 43 years, average organizational tenure 9.5 years, average hours worked per week 41) recruited from an online survey company. We used this data to conduct a confirmatory factor analysis (CFA) using LISREL 8.80, a covariance matrix as input, and a maximum likelihood estimation to determine if the items produced the 8-factor structure we anticipated. Our results indicated acceptable model fit ( $X^2(N=254, 224) = 748$ , CFI = .94, NFI = .92, RMSEA = .09) and all of the paths were significant. The Cronbach alpha coefficients for each subscale were acceptable: WF-behavioral = .88; WF-temporal = .78; WF-physical = .83; WF-communicative = .84; FW-behavioral = .92; FW-temporal = .74; FW-physical = .88; FW-communicative = .91.

We also ran a CFA analysis on our current data to confirm that the 8-factor structure held across samples. Our results indicated acceptable model fit ( $X^2(N=503, 224) = 855$ , CFI = .95, NFI = .93, RMSEA = .07) and all of the paths were significant. Once again, the Cronbach alpha coefficients were acceptable for each subscale: WF-behavioral = .90; WF-temporal = .70; WF-physical = .81; WF-communicative = .78; FW-behavioral = .94; FW-temporal = .77; FW-physical = .86; FW-communicative = .88.

**Job satisfaction.** We used the 3-item measure of job satisfaction developed by Cammaman, Fichman, Jenkins, and Klesh. (1979). A sample item is “All in all, I am satisfied with my job.” The Cronbach alpha for this scale was .95.

**Family satisfaction.** We adapted the job satisfaction scale to fit the family domain creating a 3-item measure for family satisfaction. A sample item is “All in all, I am satisfied with my family.” The Cronbach alpha for this scale was .91.

**Job engagement.** Six-items from a scale developed by Rothbard (2001) were used to tap job engagement. A sample item is “I focus a great deal of attention on my work.” The Cronbach alpha reliability for the scale was .86.

**Family engagement.** Similar to the work domain, we adapted the job engagement scale to capture family engagement. A sample item is “I focus a great deal of attention on my family.” The Cronbach alpha reliability for the scale was .88.

## Data Analyses

To demonstrate that our scales discriminated from one another and that the items produced the expected factor structure, our first analysis was a CFA using LISREL 8.80, a covariance matrix as input, and a maximum likelihood estimation method. Next, we estimated the hypothesized model shown in Figure 1. We conducted this test at the item level by adding paths to our measurement model. Because our hypothesized model depicted full mediation, we next estimated an alternative model that tested partial mediation to ensure that our theoretical model was the best representation of our data.

## Results

Table 1 shows the correlations, means, and standard deviations for the scales used in the current study. As expected, the work-family boundary management tactics were all significantly correlated with one another, as were the family-work boundary management tactics. In addition, the two forms of segmentation were significantly correlated with one another, as were the two work outcomes and the two family outcomes.

We began by estimating a measurement model. Specifically, we created a 14-factor model that mapped each of our scales to the items that composed them. After allowing two pairs of items within the same scale to correlate (two items in the work engagement scale and two items in the family engagement scale), the model fit the data well ( $X^2(N=639, 1082) = 3011, p < .000$ ; CFI = .95; NFI = .93; RMSEA = .053) and all of the paths were significant ( $p < .01$ ). To test our theoretical model, we added paths to the measurement model to estimate the hypothesized model shown in Figure 1. Once again, the model fit the data ( $X^2(N=639, 1148) = 4890, p < .000$ ; CFI = .92; NFI = .90; RMSEA = .071).

Our hypothesized model demonstrates full mediation between the segmentation preferences and our outcomes. However, it is possible that segmentation preference directly influences the outcomes as well as through the boundary management tactics. Thus, we estimated an alternative model in which family segmentation preference was linked to job satisfaction and job engagement and the work segmentation preference was linked to family satisfaction and family engagement. This model fit the data ( $X^2(N=639, 1144) = 4886, p < .000$ ; CFI = .92; NFI = .90; RMSEA = .072) in a similar manner to the hypothesized model. The chi-square for the partially mediated model was not significantly lower than the full mediation model

# BOUNDARY MANAGEMENT TACTICS

Table 1  
Correlations, Means, and Standard Deviations

Variable	Mean	SD	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
1. Work segmentation preference	4.14	0.74							
2. Family segmentation preference	3.46	0.84	0.17***						
3. FWBMT Temporal	3.69	0.79	0.17***	0.18***					
4. FWBMT Physical	3.73	0.86	0.35***	0.18***	0.51***				
5. FWBMT Behavioral	3.19	1.02	-0.05	0.17***	0.46***	0.13**			
6. WFBMT Communicative	2.90	1.08	0.04	0.47***	0.25***	0.19***	0.26***		
7. WFBMT Temporal	3.62	0.75	0.14***	0.34***	0.42***	0.25***	0.37***	0.35***	
8. WFBMT Physical	3.64	0.81	0.12**	0.56***	0.28***	0.25***	0.22***	0.51***	0.54***
9. WFBMT Behavioral	3.25	0.96	0.02	0.08	0.28***	0.13**	0.58***	0.12**	0.43***
10. FWBMT Communicative	2.78	1.02	0.17***	0.14***	0.21***	0.25***	0.28***	0.36***	0.22***
11. Job satisfaction	3.89	0.97	-0.11**	0.13**	0.08*	0.18***	0.09*	0.02	0.12**
12. Job engagement	4.01	0.66	-0.04	0.25***	0.15***	0.05	0.20***	0.21***	0.29***
13. Family satisfaction	4.37	0.74	0.15***	-0.08	0.20***	0.24***	0.09*	-0.08*	0.10*
14. Family engagement	4.02	0.67	0.16***	0.01	0.26***	0.30***	0.17***	0.04	0.16***

Variable	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
9. WFBMT Behavioral	0.10*					
10. FWBMT Communicative	0.19***	0.22***				
11. Job satisfaction	0.12**	0.09*	-0.03			
12. Job engagement	0.32***	0.18***	0.04	0.30***		
13. Family satisfaction	0.07	0.06	0.00	0.33***	0.18***	
14. Family engagement	0.11**	0.16***	0.11**	0.21***	0.32***	0.48***

N=639. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . Note: WFBMT = Work-family boundary management tactics. FWBMT = Family-work boundary management tactics. Model testing

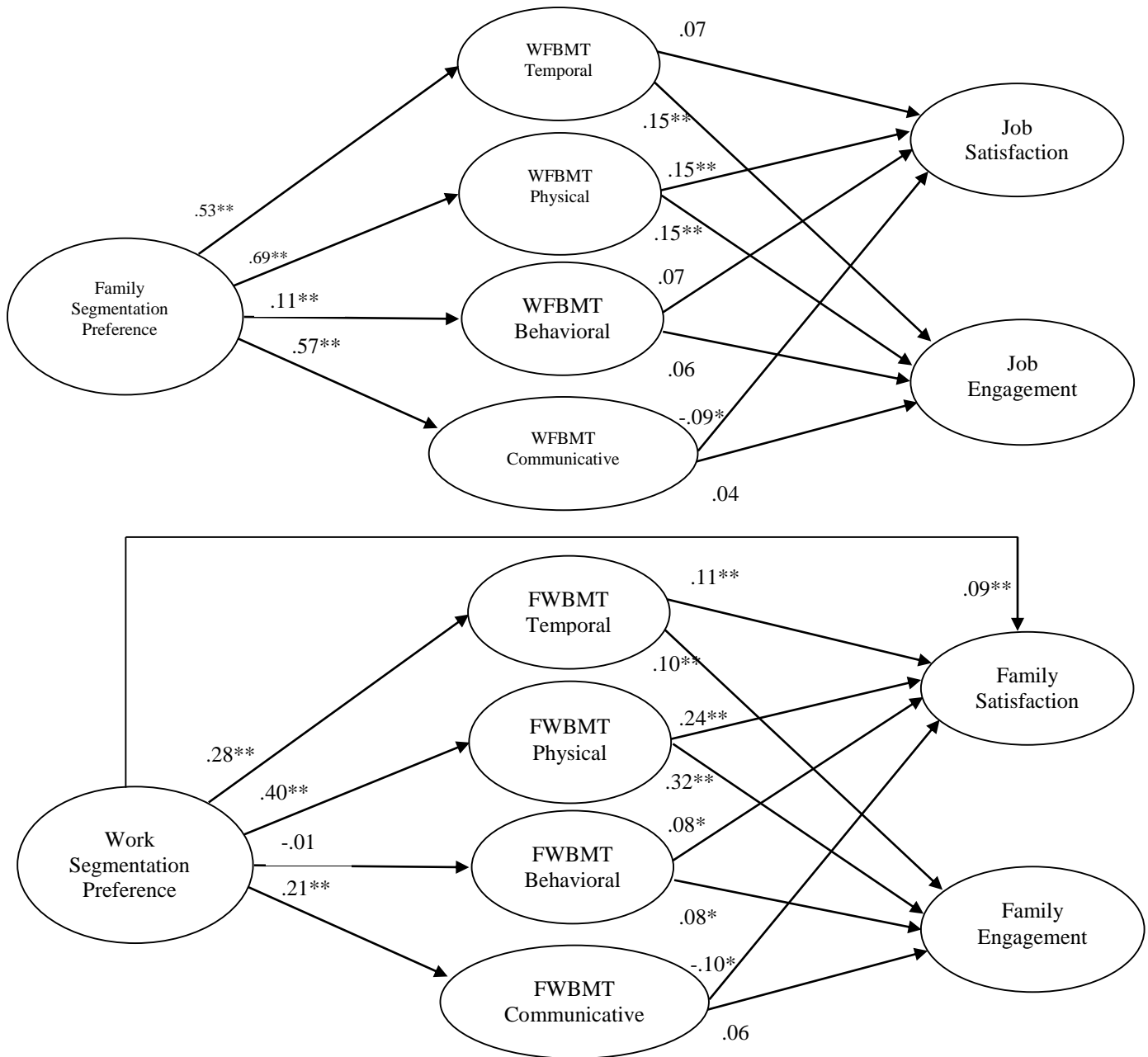
## Hypothesis Tests

Hypothesis 1 predicted that family segmentation preference will be positively related to the four work boundary management tactics. As can be seen in Figure 2, all four of these paths were positive and significant suggesting that one's preference for family segmentation positively predicts the use of the work boundary management tactics. Thus, Hypothesis 1 was supported. Hypothesis 2 predicted that work segmentation preferences will be positively related to the four family boundary management tactics. Hypothesis 2 was partially supported as work segmentation preference was significantly related to three of the four boundary management tactics (all but behavioral).

( $X^2_{diff}(N=639, 4) = 4$ , ns) suggesting that the full mediation model was the better fitting model. Interestingly, an examination of the four paths added determined that only one (work segmentation preference to job satisfaction .09,  $p < .05$ ) was significant. Thus, we reran the model again with only the one significant direct path included and use the results from this final model to test our hypotheses. The fit for the final model was acceptable ( $X^2(N=639, 1147) = 4887$ ,  $p < .000$ ; CFI = .92; NFI = .90; RMSEA = .071). The standardized path loadings are shown in Figure 2.

Figure 2

Standardized Path Loadings



Hypothesis 3a predicted that the work temporal boundary management tactic will be positively related to job satisfaction and job engagement while Hypothesis 3b predicted that the family temporal boundary management tactic will be positively related to family satisfaction and family engagement. Results demonstrate that Hypothesis 3a was partially supported as job engagement but not job satisfaction was significantly predicted by the work boundary management tactic of time. Hypothesis 3b was fully supported.

Hypothesis 4a predicted that the work physical boundary management tactic will be positively related to job satisfaction and job engagement while Hypothesis 4b predicted that the family physical boundary management tactic will be positively related to family satisfaction and family engagement. Both of these hypotheses were fully supported.

Hypothesis 5a predicted that the work behavioral management tactic will be positively related to job satisfaction and job engagement while Hypothesis 5b predicted that the family behavioral management tactic will be positively related to family satisfaction and family engagement. Hypothesis 5a was not supported as the work behavioral management tactic did not predict either outcome. However, Hypothesis 5b was fully supported.

Hypothesis 6a predicted that the work communicative management tactic will be positively related to job satisfaction and job engagement while Hypothesis 6b predicted that the family communicative management tactic will be positively related to family satisfaction and family engagement. Both of these hypotheses were partially support as the boundary management tactic of communication was significantly related to satisfaction in both domains, but this tactic was not related to engagement in either domain.

The remaining hypotheses predicted that the boundary management tactics would serve as mediators of the segmentation preference to outcome relationships. In order for mediation to exist, there must be a significant link between the mediators and the dependent variables. As can be seen in Figure 2, this eliminated five of the potential mediated paths. In addition, any insignificant paths between segmentation preference and the boundary management tactics also precluded us from testing for mediation. This requirement eliminated the work segmentation preference to the family boundary management tactic of behavioral as this path was not significant. Removing these paths from the possible mediated effects leaves nine indirect effects that can be tested. Results for these nine mediated paths are shown in Table 2. As can be seen there, all of the indirect effects were significant, offering some evidence that segmentation preference affects satisfaction and engagement both directly as well as through boundary management tactics.

## BOUNDARY MANAGEMENT TACTICS

Table 2

### *Indirect Effects*

<i>Path</i>	<i>Indirect Effect</i>	<i>Hypothesis</i>
Family segmentation preference -> WFBMT-Physical -> Job Satisfaction	.10**	7b
Family segmentation preference -> WFBMT-Communicative -> Job Satisfaction	-.05*	7d
Family segmentation preference -> WFBMT-Temporal -> Job Engagement	.08**	8a
Family segmentation preference -> WFBMT-Physical -> Job Engagement	.13*	8b
Work segmentation preference -> FWBMT-Temporal -> Family Satisfaction	.03*	9a
Work segmentation preference -> FWBMT-Physical -> Family Satisfaction	.10**	9b
Work segmentation preference -> FWBMT-Communicative -> Family Satisfaction	-.02*	9d
Work segmentation preference -> FWBMT-Temporal -> Family Engagement	.03*	10a
Work segmentation preference -> FWBMT-Physical -> Family Engagement	.13**	10b

Note: WFBMT = Work-family boundary management tactic. FWBMT = Family-work boundary management tactic.

N = 639. \*  $p < .05$ . \*\*  $p < .01$

### **Common Method Variance**

Given the way our data were collected, common method variance (CMV) may be a threat to our results. To empirically explore the extent to which CMV is a concern in our study, we followed the suggestion of Williams, Cote, and Buckley (1989) and re-estimated our measurement model after adding an uncorrelated method factor to it. If model fit is significantly improved by the addition of an uncorrelated method factor, then CMV may be an issue. The fit statistics for the full measurement model data ( $X^2(N=639, 1082) = 3011, p < .000$ ; CFI = .95; NFI = .93; RMSEA = .053) indicate that the model fit the data well. Fit statistics after adding an uncorrelated method factor improved only slightly ( $X^2(N=639, 1022) = 2491, p < .000$ ; CFI = .97; NFI = .94; RMSEA = .047). However, the  $X^2$  difference test between these two models indicated a significant difference ( $X^2_{diff}(60)=520, p < .05$ ).

To determine the extent of the influence of CMV, the variance explained by the method factor can be calculated. More specifically, the sum of the squared loadings can be used to index the total amount of variation due to the method factor. In our case, CMV accounted for only 4% of the total variance, which is far less than the 25% observed by Williams et al. (1989). The results of these analyses suggest that while the model tested does benefit from the addition of a method factor, the gain in fit is quite small and more importantly the method factor appears to account for very little variation in the data. Therefore, we submit that these results suggest that common method variance is not a pervasive problem in this study and that the relationships observed represent substantive rather than artifactual effects.

## **Discussion**

Boundary management tactics capture how people go about maintaining the boundaries created around their work and family domains. Building on the qualitative work of Kreiner et al.

(2009), we developed and tested empirical measures of the four tactics they found: temporal, physical, behavioral, and communicative. We found that segmentation preference played a role in the selection of boundary management tactics in both the work and family domains for all the tactics except the family behavioral management tactic. Also, our outcomes of interest, satisfaction and engagement, were significantly predicted in both domains by some of the boundary management tactics. Coupling these findings suggests that preference for segmentation led to use of segmentation boundary management tactics that subsequently produced greater satisfaction and engagement.

In the work domain, family segmentation preference (the preference to keep family out of work) related significantly to each of the tactics employed. The strongest impact was on the physical tactic suggesting people use physical location to delineate clearly their roles. Next, individuals chose to engage in the communicative tactic to achieve segmentation by clarifying to others their expectations about boundary violations. Third, individuals used time to help achieve segmentation in the work domain suggesting they clearly delineated specific hours for work. Finally, and to a lesser degree, they used the behavioral tactic (i.e., technology) to keep the family out of the work domain.

In the family domain, the physical tactic again produced the strongest relationship with segmentation preference. This suggests that people, who prefer to keep work out of family, use their presence in the family domain to accomplish this goal. The second strongest relationship between segmentation preference and behavioral management tactics was time, suggesting that people clearly designate specific hours in their day as family time. Next, individuals communicated to work colleagues how they desire to segment work from family. Finally, there was no significant relationship between work segmentation preference and the family behavioral management tactic. Possible explanations could be that in the family domain it is hard not to use technology to separate the domains given the high use of technology or simply that people do not chose to use this tactic as a way to keep work out of family.

In the work domain, each of the work boundary management tactics worked a little differently with regard to our outcomes. The tactics of temporal and physical significantly contributed to job engagement suggesting that using these tactics allowed individuals to separate their domains, which allowed them to be more fully present in the work domain. Interestingly, this did not hold for the communicative and behavioral tactics. Only the physical and communication tactics contributed to job satisfaction while the behavioral and temporal tactics were not significant. However, the communicative tactic was negatively related to job satisfaction. One possible explanation may be that using the communicative tactic forced individuals to tell family members not to cross boundaries, creating hostility with family members toward the organization or fostering stress in the job incumbents for having to set those expectations of others and as such reduced the satisfaction with their job.

In the family domain, all but the communicative tactic was significant related to family engagement. This would suggest that physical presence in the family, clearly delineating family time, and using technology are all ways individuals can fully engage in that domain. All four boundary management tactics were significantly related to the outcome of family satisfaction. Surprisingly, however, the communicative family boundary management tactic was negatively related to satisfaction. We believe that one possible explanation is that this is similar to the work domain in that verbally stating one's expectations may create ill will and stress that ultimately harms satisfaction.

## Strengths, Limitations, and Future Research

There are a number of strengths to this research. First, we developed and tested a measure of boundary management tactics that aid in our understanding of the actual behaviors people use to manage boundaries. Second, we expanded our understanding of boundary management beyond work-family conflict to understand the impact these tactics have on both attitudes and behaviors. Finally, we considered tactics and outcomes from both the work and family domains, which improves upon much of the previous research in this area that only examined one direction of boundary management.

As with all research, there are limitations. First, while we focused our efforts on the four boundary management tactics delineated by Kreiner et al. (2009), there could be other tactics that individuals use to manage boundaries. Future research should expand our work by exploring and measuring additional boundary management tactics. Second, the data used in this research are from a single source. While we appreciate that an individual's boundary management could impact others such as a spouse or co-worker, we thought we first needed to establish the relationships of boundary management within the individual before crossing over to others. Future research could benefit by extending the understanding of boundary management tactics to other key players.

These findings have practical implications for organizations and their members. Our findings that the use of boundary management tactics focused on physical location and time management suggest that these two categories of tactics may be particularly useful for employees and managers who aim to segment their work and family lives. Using physical boundary management tactics may allow individuals to focus solely on the domain in which they are physically located and put aside thoughts or issues unrelated to that domain. Likewise, time boundary management tactics help individuals manage work or family time so that one domain does not interfere or encroach on the other. To aid employees in their immediate boundary management efforts, managers could provide training efforts in time management or in techniques that help individuals focus on the present task at hand, such as mindfulness. Further, managers will want to work with their employees to develop work environments that allow them to implement physical boundary management tactics. Finally, in an effort to attend to the long-term needs of employees' boundary spanning requirements, sensitivity training could be offered to help managers recognize the competing demands of the employees and equip them to help employees manage those demands. Included in this training could be behavioral suggestions for how to be supportive and understanding of boundary spanning needs as well as advice on how to effectively use the different boundary management tactics presented in the current research.

In conclusion, this research provided a greater understanding and a needed extension to the field of boundary management. Boundary management tactics are the way people enact their preference for obtaining segmentation between the work and family domains. This study examined four factors: temporal, physical, behavioral, communicative and found that physical separation between the domains was the most effective means of segmenting work from family and family from work. The use of communicative tactics had a negative impact on both job and family satisfaction suggesting that verbally announcing your expectations to others regarding segmentation may not produce the best outcomes.



## References

- Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Academy of Management Review*, 25, 472-491.
- Beutell, N. J., & Wittig-Berman, U. (1999). Predictors of work-family conflict and satisfaction with family, job, career, and life. *Psychological Reports*, 85(3, Pt 1), 893-903.
- Boswell, W. R. & Olson-Buchanan, J. B. (2007). The use of communication technologies after hours: The role of work attitudes and work-life conflict. *Journal of Management*, 33, 592-610.
- Bulger, C. A., Matthews, R. A., & Hoffman, M. E. (2007). Work and personal life boundary management, Boundary strength, work/personal life balance, and the segmentation-integration continuum. *Journal of Occupational Health Psychology*, 12, 363-375.
- Cammaman C, Fichman M, Jenkins D, & Klesh J. (1979). *The Michigan organizational assessment questionnaire*, Ann Arbor, MI: University of Michigan.
- Chelsey, N. (2005). Blurring boundaries? Linking technology use, spillover, individual distress, and family satisfaction. *Journal of Marriage and Family*, 67, 1267-1248.
- Golden, A. G., & Geisler, C. (2007). Work-life boundary management and the personal digital assistant. *Human Relations*, 60, 519-551.
- Hyde, R. E. & Weathington, B. L. (2006). The congruence of personal life values and work attitudes. *Genetic, Social, and General Psychology Monographs*, 132, 151-190.
- Kahn, W. A. (1990). Psychological conditions or personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Konrad, A. M., Yang, Y., Goldberg, C., & Sullivan, S. E. (2005). Preferences for job attributes associated with work and family: A longitudinal study of career outcomes. *Sex Roles*, 53(5-6), 303-315.
- Kreiner, G.E., Hollensbe, E.C., & Sheep, B.L. (2009). Balancing borders and bridges: Negotiating the work-home interface via boundary work tactics. *Academy of Management Journal*, 52(4), 704-730.
- Matthews, R. A. & Barne-Farrell, J. L. (2010). Development and initial evaluation of an enhanced measure of boundary flexibility for the work and family domains. *Journal of Occupational Health Psychology*, 15, 330-346.
- Matthews, R. A., Barnes-Farrell, J. L., & Bulger, C. A. (2010). Advancing measurement of work and family domain boundary characteristics. *Journal of Vocational Behavior*, 77, 447-460.
- Mueser, K. T., Becker, D. R., & Wolfe, R. (2001). Supported employment, job preferences, job tenure and satisfaction. *Journal of Mental Health*, 10(4), 411-417.
- Myrie, J., & Daly, K. (2009). The use of boundaries by self employed, home based workers to manage work and family: A qualitative study in Canada. *Journal of Family Economic Issues*, 30, 386-398.
- Nippert-Eng, C. (1996). Calendars and keys: The classification of home and work. *Sociological Forum*, 11, 563-583.
- Park, Y. A., Fritz, C., & Jex, S. M. (2011). Relationships between work-home segmentation and psychological detachment from work: The role of communication technology use at home. *Journal of Occupational Health Psychology*, 16, 457-467.

- Powell, G. N. & Greenhaus, J. H. (2010). Sex, gender, and the work-to-family interface: Exploring negative and positive interdependencies. *Academy of Management Journal*, 53, 513-534.
- Rothbard, N. P. (2001). Enriching or Depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46, 655-684.
- Rothbard, N. P., Phillips, K. W., & Dumas, T. L. (2005). Managing multiple roles: Work-family policies and individuals' desires for segmentation. *Organization Science*, 16, 243-258.
- Shumate, M. & Fulk, J. (2004). Boundaries and role conflict when work and family are collocated: A communication network and symbolic interaction approach. *Human Relations*, 57, 55-74.
- Sullivan, C. (2000). Space and the intersection of work and family in homeworking households. *Community, Work, & Family*, 3(2), 185-204
- Wegge, J., Schmidt, K., Parkes, C., & Van Dick, R. (2007). 'Taking a sickie': Job satisfaction and job involvement as interactive predictors of absenteeism in a public organization. *Journal of Occupational & Organizational Psychology*, 80(1), 77-89.
- Weigel, D. J., & Weigel, R. R. (1990). Congruency of preferences for family-based gender roles and family satisfaction in two-generation farm families. *Sex Roles*, 22(9-10), 649-659.
- Williams, L. J., Cote, J. A., & Buckley, M. R. (1989). Lack of method variance in self-reported affect and perceptions of work: Reality or artifact? *Journal of Applied Psychology*, 74, 462-468.
- Winkel, D. E., & Clayton, R. W. (2010). Transitioning between work and family roles as a function of boundary flexibility and role salience. *Journal of Vocational Behavior*, 76, 336-343.
- Zerubavel, E. (1991). *The fine line: Making distinctions in everyday life*. Free Press, New York.

**Appendix**  
**Boundary Management Tactics Items**

**Keeping Family out of Work**

**Work-family Temporal**

While at work, I try to manage blocks of time so that I can keep work separate from family.

While at work, I try to manage my time such that work time is work time, not family time.

While at work, I manage my time to keep family demands out of work.

**Work-family Physical**

When I'm physically at work, I try not to address family related issues so I can focus on work.

When I'm in the workplace, I leave family matters at home so I can focus on work.

When I walk in the door to work, I put away any family related thoughts and turn my focus to work.

**Work-family Behavioral**

While at work, I use technology to help facilitate keeping work responsibilities separate from family responsibilities.

While at work, I use technology to help keep family demands out of my work life.

While at work, I use technology to help limit dealing with family during work time.

**Work-family Communicative**

I communicate clearly to my family that I prefer not be distracted by family demands while I'm at work.

I have indicated to my family that I cannot deal with family matters during work hours unless it is a rare circumstance.

I set expectations with my family to not contact me at work unless it's an emergency.

**Keeping Work out of Family**

**Family-work Temporal**

While at home, I try to manage blocks of time so that I can keep family separate from work.

While at home, I try to manage my time such that family time is family time, not work time.

While at home, I manage my time to keep work demands out of family.

**Family-work Physical**

When I'm physically at home, I try not to address work related issues so I can focus on my family.

When I'm at home or with family, I leave work matters at work so that I can focus on my family.

When I walk in the door at home, I put away work related thoughts and turn my focus to family.

**Family-work Behavioral**

While at home, I use technology to help facilitate keeping family responsibilities separate from work responsibilities.

While at home, I use technology to help keep work demands out of my family life.

While at home, I use technology to help limit dealing with work during family time.

## BOUNDARY MANAGEMENT TACTICS

### **Family-work Communicative**

I communicate clearly to my co-workers/supervisor that I prefer not be distracted by work demands while I'm at home.

I have indicated to my boss that I cannot work past the end of my normal workday unless it is a rare circumstance.

I set expectations with my co-workers/supervisor to not contact me at home unless it's an emergency.