

Enriching or Depleting? The Dynamics of Engagement in Work and Family Roles

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This study develops a model of engagement in the multiple roles of work and family. I examine two competing arguments about the effects of engaging in multiple roles, depletion and enrichment, and integrate them by identifying the type of emotional response to a role, negative or positive, as a critical contrasting assumption held by these two perspectives. Moreover, I represent depletion and enrichment as complex multistep processes that include multiple constructs, such as engagement and emotion. This study jointly examines both the depleting and enriching processes that link engagement in one role to engagement in another, using structural equation modeling. Findings from a survey of 790 employees reveal evidence for both depletion and enrichment as well as gender differences. Specifically, depletion existed only for women and only in the work-to-family direction. Men experienced enrichment from work to family, while women experienced enrichment from family to work. Overall, more linkages were found between work and family for women than for men. •

Motivating people to engage in their work is a classic problem in organizations, complicated by the existence of multiple roles, because the attitudes, behaviors, and emotions associated with one role may spill over to another (Edwards and Rothbard, 2000). People do not always check their problems or triumphs at the door when walking into the office or coming home from work. Moreover, as careers have become more complex, people are increasingly faced with actively engaging in multiple roles. Within the context of the organization, people often must engage in multiple roles to fulfill job expectations. For example, a partner in a professional services firm may have to engage in both internal and external roles, such as generating new business and managing people within the firm. Within the context of a career, people must engage in both work and nonwork roles. For example, globalization may require key employees to travel or work abroad, straining family relationships and compelling employees to withdraw or resign (Shaffer and Harrison, 1998). With people's increased focus on balancing multiple life roles and managing the boundary between work and family (Hochschild, 1997; Perlow, 1998), organizations have turned to policies such as flextime, on-site childcare, and other mechanisms to ensure that engaging in one's family does not interfere with one's work. Underlying many of these initiatives is the fear that engagement in family is achieved at the expense of work (e.g., *Fortune*, 1997). The effect of family engagement on work is an important question for managers interested in keeping people engaged in their work. The effect of work engagement on family is an equally important question for people making tough career choices. To date, however, research on the effects of multiple roles has not provided satisfactory answers to these questions.

Two competing arguments, depletion and enrichment, have been used to address the process of engagement in multiple roles. The depletion argument, from research on resource drain (Edwards and Rothbard, 2000) and role conflict (Merton, 1957; Greenhaus and Beutell, 1985), is based on the idea that people have fixed amounts of psychological and physio-

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logical resources to expend and that they make tradeoffs to accommodate these fixed resources. Research on role conflict suggests that demands from one role create strain for the individual, which inhibits functioning in the other role (Greenhaus and Beutell, 1985; Edwards and Rothbard, 2000). Research on strain-based conflict focuses on how strain arising from one role makes it difficult to meet the expectations of another role (Greenhaus and Beutell, 1985; Frone, Russell, and Cooper, 1992; Edwards and Rothbard, 2000). This aspect of the depletion argument assumes that the multiple demands of work and family are detrimental to the individual and that role participation (whether in one or multiple roles) invokes stress, resulting in emotional strain. Research on work-family conflict and balance, which draws on the role-conflict literature, is framed almost entirely in terms of the depletion argument, with few exceptions (e.g., Crosby, 1987; Kirchmeyer, 1992).

Because work-family research draws primarily on the depletion perspective, it overlooks another important process by which engagement in one role may relate to engagement in another role, the enrichment process. The enrichment process is articulated by research on role accumulation and multiple roles (Sieber, 1974; Marks, 1977). The enrichment argument suggests that a greater number of role commitments provide benefits to individuals rather than draining them. In fact, the enrichment argument directly challenges the notion that people have fixed resources and proposes, instead, that attention and energy can expand (Marks, 1977). Moreover, the enrichment argument assumes that the benefits of multiple roles outweigh the costs associated with them, leading to net gratification rather than strain. While some work-family researchers acknowledge the enrichment argument (e.g., Coverman, 1989; Williams et al., 1991; Kirchmeyer, 1992), most persist in framing the problem as one of allocating fixed resources, such that engagement in a role depletes resources, leading to strain and detrimental outcomes for the individual (e.g., Coverman, 1989; Williams et al., 1991; Tenbrunsel et al., 1995). The depletion process captures part of people's experience of work and family engagement, but the enrichment process remains unexplored. The model developed here integrates these two competing arguments by articulating that a person's emotional response to a role is a central underlying aspect of both processes and that it is a person's positive or negative emotional response to one role that is an important theoretical mechanism linking engagement in one role to engagement in another role.

ENGAGEMENT IN MULTIPLE ROLES

Engagement in a role refers to one's psychological presence in or focus on role activities and may be an important ingredient for effective role performance (Kahn, 1990, 1992). Role engagement has two critical components, attention and absorption in a role (Kahn, 1990). Attention refers to cognitive availability and the amount of time one spends thinking about a role (Gardner et al., 1989). Absorption means being engrossed in a role and refers to the intensity of one's focus on a role (Goffman, 1961; Kahn, 1990). For example, when people are absorbed in work, they may ignore other factors,

such as coworkers' activities, but when they are not absorbed, they may become distracted by these same activities. Absorption is akin to the idea of flow, in that people do not experience themselves as separate from their activities (Csikszentmihalyi, 1982, 1990). Absorption, a critical yet understudied aspect of engagement, conveys a sense of intensity of concentration that is not captured by the attention component of role engagement.

As components of role engagement, attention and absorption are distinct yet related constructs. Attention and absorption differ in that attention devoted to a role may be thought of as an invisible, material resource that a person can allocate in multiple ways, whereas absorption implies intrinsic motivation in a role. In defining absorption as related to intrinsic motivation, it is important to note that absorption does not necessarily entail a positive emotional state. For example, a computer programmer struggling to debug a particularly complex set of computer problems may be highly absorbed in his or her task and role yet feel negative emotions because of the struggle and difficulty involved. Conversely, a problem can be absorbing and exciting and lead to positive emotions. A challenge that is exciting or a struggle that is frustrating will have different implications for self-worth, which may lead to positive or negative emotional responses. Absorption can entail obsession or passionate interest.

Despite these differences, the attention and absorption components of engagement are also closely related because they both represent motivational constructs, specifically, the motivation to act. Locke and Latham (1990) referred to focused attention and intensity (two elements of engagement) as unmeasured attributes of motivated action and as reasons why goal mechanisms are motivational. Other motivation theories provide explanations for how resources (i.e., attention) and intrinsic interest (i.e., absorption) can both be motivating. For example, personal and material resource theory suggests that resources can facilitate goal attainment, whereas the lack of resources can be demotivating (Katzell and Thompson, 1990). Likewise, theories of intrinsic motivation suggest that intrinsic interest prompts people to participate in various activities (Hackman and Oldham, 1980; Deci and Ryan, 1991). Thus, while attention and absorption are distinct components of engagement, because they are both motivational mechanisms, they are also closely related.

Engagement can also be distinguished from other related constructs, such as identification with and commitment to a role (Stryker and Serpe, 1982; Thoits, 1991; Bielby, 1992). Identification represents the importance or salience of a role to an individual (Stryker and Serpe, 1982), whereas commitment represents the individual's attachment to a role (Allen and Meyer, 1991). Identification and commitment represent reasons why one might become psychologically present (i.e., engaged) in a role. The model of engagement in multiple roles presented here focuses, first, on people's emotional responses to role engagement and, second, on how these emotional responses to engagement in one role affect engagement in another role.

Within-role Response to Role Engagement

In response to role-related experiences, people may feel negative and/or positive affect associated with a role, which constitutes their emotional response to the role. Research suggests that negative and positive affect are not opposite ends of a continuum but, instead, are orthogonal to one another, such that people in highly volatile work or family situations can experience both high negative and positive affect (Watson and Tellegen, 1985). Although both the depletion and enrichment arguments rest on the assumption that one's emotional response to one role affects engagement in another role, at the core, the depletion and enrichment arguments have different assumptions about the type of emotional response a person may have to engagement in a role and provide different accounts of the processes linking engagement in multiple roles.

Depletion. The depletion argument focuses on the idea that engagement in a role can lead to a negative emotional response to that role. This argument draws on work-family research that examines the obligations and pressures that work and family roles bring to people's lives. Work-family conflict and stress research suggests that people become engaged in roles in response to role demands and, as a result, this research focuses how role engagement leads to increased stress and strain associated with a role (e.g., Kopelman, Greenhaus, and Connolly, 1983; Frone, Russell, and Cooper, 1992). Strain is often conceptualized as a negative emotional response to stress, such as depression or negative affect (Greenhaus and Beutell, 1985). Thus, the depletion perspective focuses on the negative emotional responses that people have to role engagement and suggests the following hypotheses:

Hypothesis 1a (H1a): Work engagement (i.e., work attention and absorption) will be positively associated with a negative emotional response to work (i.e., work negative affect).

Hypothesis 1b (H1b): Family engagement (i.e., family attention and absorption) will be positively associated with a negative emotional response to family (i.e., family negative affect).

Enrichment. While work-family conflict and role conflict research have focused on the depleting aspects of role engagement, research on role accumulation suggests that role engagement may bring resources and pleasurable experiences to the person rather than strain (Sieber, 1974; Marks, 1977). Thus, role engagement may provide enriching experiences because benefits such as role privileges, status, and self-esteem can accrue to those who engage in a role (Sieber, 1974; Thoits, 1991). Building on the assumption that engagement in one role provides these benefits, research has also found that people who are involved in multiple roles have the best health and mental well-being (e.g., Baruch and Barnett, 1986; Verbrugge, 1986), underscoring the benefits of multiple role involvement. One proponent of the enrichment view has suggested that role participation may lead to energy expansion and pointed to the fact that people tend to find energy for things they like doing as further evidence for this

perspective (Marks, 1977). Thus, the findings from the enrichment perspective suggest that the benefits of role involvement may lead to gratification, greater self-esteem, and a positive emotional response to the role, rather than a negative emotional response or strain. Such studies have further suggested that the quality of the role experience is critical in determining whether role engagement leads to gratification or strain (Verbrugge, 1986; Gove and Zeiss, 1987). Thus, role engagement may lead to a positive emotional response to a role:

Hypothesis 2a (H2a): Work engagement (i.e., work attention and absorption) will be positively associated with a positive emotional response to work (i.e., work positive affect).

Hypothesis 2b (H2b): Family engagement (i.e., family attention and absorption) will be positively associated with a positive emotional response to family (i.e., family positive affect).

Between-role Response to Role Engagement

Depletion. While the depletion and enrichment perspectives suggest contrasting emotional responses to role engagement, they do not explicitly elaborate on why the negative or positive emotions associated with one role should increase or decrease engagement in another role. The above discussion of the depletion argument suggests that the first step of the depletion process is experienced when roles are stressful and produce strain (Greenhaus and Beutell, 1985; Repetti, 1987). Such stressful experiences at work may evoke negative emotions that are then transported into the family setting (Repetti, 1987). This is the second step of the depletion process, which is known as spillover (Lambert, 1990; Edwards and Rothbard, 2000). The depletion perspective suggests that this relationship exists but does not explain the process by which this second step occurs.

One plausible explanation for how negative emotions resulting from engagement in one role may reduce engagement in another role is self-regulation. Self-regulation involves comparing one's current state with an ideal state and, if there is a discrepancy, cognitively and behaviorally adjusting to reduce the discrepancy (Carver and Scheier, 1981). Negative emotion may be a signal to the self that such a discrepancy exists, which in turn may trigger self-regulation processes to resolve the discrepancy. Such processes include focusing attention on the self (Greenberg and Pyszczynski, 1986; Wood, Saltzberg, and Goldsamt, 1990) and exercising self-control, which consumes energy, a process that psychologists refer to as ego depletion (Baumeister et al., 1998). Self-regulation in the form of self-focused attention and ego depletion may account for this second step in the depletion process and explain why negative emotions from engagement in one role can reduce one's engagement in another role.

Negative emotions such as depression, dissatisfaction, and frustration signal discrepancies between current and ideal states and are often associated with the self-regulatory process of self-focused attention (Wood, Saltzberg, and Goldsamt, 1990; Wood et al., 1990). One way to regulate negative emotions and respond to discrepancies is to attend to

oneself cognitively (Wood, Saltzberg, and Goldsamt, 1990). Self-focused attention can reduce one's engagement in another role because when people become self-focused, they ruminate or dwell on problems from one role and become self-absorbed (Nolen-Hoeksema, 1987; Wood et al., 1990) and thus are less available for and engaged in another role. Work-family research provides examples of how self-focused attention may be a mechanism linking negative emotions from one role with engagement in another. Piotrkowski (1979) told the story of Henry Johnson who worried about work problems while at home, even waking up in the middle of the night and worrying about what might happen the next day. Henry's wife related that he was unable to listen to her concerns and was interpersonally unavailable due to his preoccupation with work problems. Examples of how dwelling on family problems may reduce engagement in work also exist. In one study, an assembly line worker and mother commented, "... it's hard when a kid gets sick. I worry and don't get work done well. I get ... preoccupied with worrying" (Crouter, 1984: 431). Similarly, a supervisor and father in Crouter's (1984: 432) study commented, "when there's strife at home ... [it takes] its toll on my abilities to concentrate [at work]."

Like self-focused attention, ego depletion may also result from self-regulation. While self-focused attention concerns how self-regulation may lead people to ruminate on their negative emotions as a coping mechanism, ego depletion involves coping with negative emotion by exerting self-control to regulate the emotion and concerns how these self-control processes can lead to energy loss. Baumeister et al. (1998) contended that self-regulation leads to ego depletion because when people engage in volitional acts of self-control and emotion regulation, they draw on a limited resource akin to energy. Their findings suggest that self-regulation involves exertion, which expends energy, depleting the available supply and impairing subsequent task performance. They found that those who were required to regulate their emotions in a first task (participants in this condition were instructed to hide any emotions they might be experiencing) performed worse on a subsequent task than those who were not required to regulate emotions (Baumeister et al., 1998). Thus, increased self-regulation prompted by negative emotion may deplete resources akin to energy, resulting in fatigue (either mental or physical), making one less available for and unable to engage in another role. Work-family researchers have identified a pattern of depletion called energy deficit, which corresponds to ego depletion. Piotrkowski (1979) contended that tasks that are personally depleting involve an assault on the self and that mustering one's energies for coping with these tasks can lead to reduced availability for engaging in tasks and interpersonal interactions in another role. Repetti (1987) reported a similar pattern of experienced energy deficit. She described a bank teller who reported that after having to regulate her emotional responses to customers at work and deal with stressful encounters, she came home and just wanted to be left alone, not wanting to talk to anyone. In this case, the need to regulate these negative work-related emotions led to decreased physical and emotional energy and subse-

quently decreased engagement at home. The above discussion of self-regulation processes leads to the following hypotheses:

Hypothesis 3a (H3a): Negative emotions from work (i.e., work negative affect) are negatively associated with engagement in family (i.e., family attention and absorption).

Hypothesis 3b (H3b): Negative emotions from family (i.e., family negative affect) are negatively associated with engagement in work (i.e., work attention and absorption).

Enrichment. The enrichment perspective focuses on the effects of multiple roles on functioning and health. The primary argument is that the quality of the role experience (i.e., a person's emotional response to a role) determines whether participation in a role enhances or detracts from functioning. In one study, employed wives in dual-income families were found to have greater involvement in a third role, in their community, than housewives in single-income families (Kingston and Nock, 1992), suggesting that engagement in one role may provide benefits to individuals, such as social contacts and self-esteem, that enhance their functioning in another role. Underlying these arguments is the idea that benefits associated with a role can increase an individual's sense of self-worth, leading to a positive emotional response associated with that role. This is step one of the enrichment process. In step two of the process, the positive emotional response, in turn, may increase one's engagement in the other role, because one is increasingly available for the other role (Kahn, 1990, 1992).

Step two of the enrichment process is exemplified in the work-family context by findings of positive carryover from work to family or family to work. For example, Kemper and Reichler (1976) found that among men, high job satisfaction means that a worker does not bring troubles home to his family and that a positive frame of mind makes him more receptive to family needs. Piotrkowski (1979: 38) observed a similar pattern in the story of Ezra Turner, a technician-supervisor at an animal lab, who greatly enjoyed his work and brought the resulting positive emotions to his interactions with his family: "The broad smile on his face when he came home from work suggests that he was emotionally available and therefore interpersonally available, as indicated by his high degree of involvement in family interactions." Ezra both initiated and responded to interactions with family members, and the majority of these interactions were affectionate, helpful, joyful, or conversational. What Piotrkowski's (1979) research shows is that a person's emotional response to a role is a critical factor influencing his or her interpersonal availability and psychological presence in a different role.

The enrichment perspective suggests that a positive emotional response from one role increases a person's engagement in another role. Like the depletion perspective, the enrichment perspective does not explain why this relationship exists, although there are several possible explanations. First, positive emotion is associated with benevolence, generosity, and increased helping toward others (Isen and Baron,

1991), suggesting that positive emotion may make a person more likely to take another's perspective, making him or her more available to engage in another role. Positive emotion may increase helping behaviors, such as interpersonal availability and engagement, because it leads people to perceive stimuli in a more positive light (Carlson, Charlin, and Miller, 1988) and may cause them to be more attracted to others (Bell, 1978; George, 1991).

Second, externally focused attention may explain why engagement in one role, resulting in positive emotions, may increase one's engagement in another role. When people are self-focused, they may dwell on problems from one role and may be less available for another role. In contrast, positive emotions are associated with an outward focus of attention, such that when people are happy, they report increased liking for others and are more willing to initiate conversations and to offer help (Clark and Isen, 1982; Wood, Saltzberg, and Goldsamt, 1990). As a result, being more externally focused may increase availability, prompting individuals to initiate interactions and activities in a role. Piotrkowski's (1979: 60–61) description of Ezra Turner captures this notion of external focus: "[He] derives a sense of esteem and identity from his work, and this personal gratification is made available to the family system through his ability to initiate warm and interested interactions and to respond positively to other family members. His availability 'charges' family members, and he, in turn, is charged by them. . . ."

The absence of ego depletion may provide a third explanation for why positive emotions resulting from one role may prompt greater engagement in another role. While ego depletion depends on self-regulation processes, which are thought to drain resources such as energy, leaving the individual with fewer resources to cope with subsequent tasks, positive emotions may signal that there is no need to self-regulate. Moreover, positive emotions may even lead to energy expansion (Marks, 1977). In support of the energy expansion idea, Bielby and Bielby (1988) challenged the notion that people have fixed, limited resources with their finding that women do not reduce work effort to conserve effort for family activities; rather, they exert more work effort than men. Thus, the lack of ego depletion, combined with the possibility of energy expansion, suggest that the individual may have more energy available to engage in another role.

Positive emotional responses from engagement in one role thus may increase engagement in another role because positive emotions may increase the availability or degree to which a person is likely to initiate and respond to task and interpersonal interactions in the other role. As a result of increased availability, people will be more engaged in another role. The above arguments lead to the following hypotheses:

Hypothesis 4a (H4a): Positive emotions from work (i.e., work positive affect) are positively associated with engagement in family (i.e., family attention and absorption).

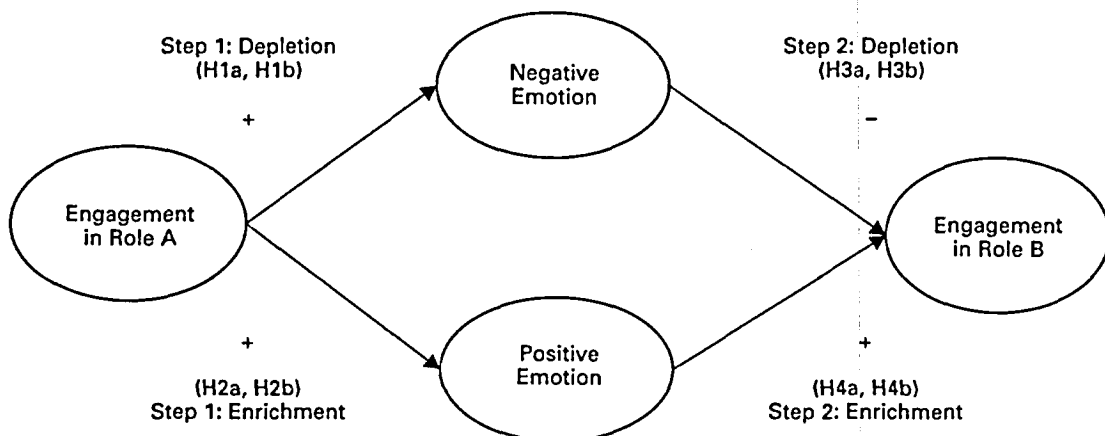
Hypothesis 4b (H4b): Positive emotions from family (i.e., family positive affect) are positively associated with engagement in work (i.e., work attention and absorption).

Figure 1 summarizes the effect of negative and positive emotions on engagement in multiple roles and the theorized two steps in the depletion and enrichment processes. Step one consists of the within-role emotional response to engagement in role A, whereas step two involves the effect of either a positive or negative emotional response to that role on engagement in role B (the between-roles effect). Evidence for both steps must be found for the depletion or enrichment processes to be fully supported. H1a and H1b test the first step of the depletion process (the within-role relationships), while H3a and H3b test the second step of the depletion process (the between-role relationships). H2a and H2b test the first step of the enrichment process (the within-role relationships), while H4a and H4b test the second step of the enrichment process (the between-role relationships). Investigating the depletion and enrichment processes both in the work-to-family and family-to-work directions requires examining both steps of each process as represented in figure 1. At the same time, however, it is necessary to consider differences between men and women in how they experience engagement in work and family roles.

Gender Differences

Prior research reveals strong gender differences in men's and women's experience of the work-family interface (Kalleberg and Rosenfeld, 1990; Kossek and Ozeki, 1998; Rothbard and Brett, 2000). The gender-role socialization perspective provides several explanations for gender differences in the experience of work and family. In particular, observed gender differences are often a function of divergent social roles and societal expectations for women and men (Eagly, 1987). As a result of these different roles and expectations, which people internalize into their self-concepts, women and men may develop different skills, attitudes, and behaviors, perhaps through internalized gender schemas (Valian, 1998). These differences become reified through sex typing of jobs and the enactment of work and family structures (Rothbard and Brett, 2000).

Figure 1. Theoretical model of engagement in multiple roles.



Research on gender suggests that managing the work-family interface seems to have more impact on women than on men. For example, a recent meta-analysis suggested that work-family conflict was more strongly related to job and life satisfaction for women than for men (Kossek and Ozeki, 1998). Research also suggests that relationships between work and family will be stronger for women than for men (Pleck, 1985). One explanation for why women experience relatively stronger relationships between work and family is that men may segment (or mentally separate) these roles more than women do. This explanation is based on the idea that men's and women's mental models for integrating or segmenting work and family roles stem from differences in gender role socialization. Moreover, these different mental models may be rational responses to a societal context in which women conduct twice as much family labor as men do (see Shelton and John, 1996). Andrews and Bailyn (1993) found that 65 percent of men applied a segmented mental model to questions about work and family, whereas 67 percent of women used a synergistic mental model through which they integrated thoughts about work and family. Their results, combined with Crosby's (1991) work on juggling work and family roles, suggest that women may integrate work and family, whereas men may view the two roles as separate and distinct, perhaps because they can. The following hypotheses concern step two of the depletion and enrichment processes, the between-role relationships, and suggest that the depletion and enrichment processes will be stronger for women than for men:

Hypothesis 5a (H5a) (depletion: work to family): Gender will moderate the relationship between negative emotional responses to work and family engagement, such that women's negative emotional responses to work will be more strongly related than men's to family engagement (i.e., family attention and absorption).

Hypothesis 5b (H5b) (depletion: family to work): Gender will moderate the relationship between negative emotional responses to family and work engagement, such that women's negative emotional responses to family will be more strongly related than men's to work engagement (i.e., work attention and absorption).

Hypothesis 6a (H6a) (enrichment: work to family): Gender will moderate the relationship between positive emotional responses to work and family engagement, such that women's positive emotional responses to work will be more strongly related than men's to family engagement (i.e., family attention and absorption).

Hypothesis 6b (H6b) (enrichment: family to work): Gender will moderate the relationships between positive emotional responses to family and work engagement, such that women's positive emotional responses to family will be more strongly related than men's to work engagement (i.e., work attention and absorption).

METHODS

Sample and Procedure

This study uses survey data collected from a larger study of work-family issues. In January 1998, a cover letter and questionnaire were sent to a sample of 1,310 employees at a

large public university. Participants had been stratified by age, gender, and job type. Reminder cards were sent two and a half weeks later to thank respondents and remind them to return the surveys. A lottery prize of \$500 was offered as an additional incentive to return the surveys. A total of 790 surveys were returned, for a response rate of just over 60 percent. The sample captured a diverse group of workers, ranging from hourly to salaried employees (only a small proportion were faculty members). Respondents ranged in age from 23 to 70 and averaged 42 years. Just over 68 percent were women, and 90 percent were Caucasian. Approximately 67 percent held bachelor's degrees, and 33 percent had earned an advanced or professional degree. Respondents included professional and administrative staff (32.8 percent), clerical workers (16.9 percent), faculty (11.6 percent), hospital physicians, administrators, and technicians (13.7 percent), nurses (9.7 percent), maintenance workers (6.4 percent), and employees holding other miscellaneous positions. Compared with the initial sample stratified according to age, gender, and job type, the final sample was about the same age, had a higher proportion of women (68 percent vs. 58 percent), and slightly overrepresented positions held primarily by women (e.g., clerical).

Measures

Engagement in work and family. Engagement in work and family was operationalized using the definition of engagement as attention devoted to and absorption in work and family. *Attention* refers to the duration of focus on and mental preoccupation with work and family, respectively, and was operationalized as time spent thinking about and concentrating on the role. In total, there were four work attention and four family attention items. *Absorption* refers to the intensity of one's focus on a role and was operationalized as losing track of time and becoming engrossed in role performance. There were five work absorption and five family absorption items. See the Appendix for a complete listing of the attention and absorption items.

Emotional response to work and family roles. The theoretical model of engagement in work and family builds on Watson and Tellegen's (1985) circumplex model of emotion, which portrays positive and negative affect as separate factors that are independent of each other. Watson and Tellegen (1985) described high positive affect as the emotion evident when a person is active, elated, enthusiastic, excited, peppy, and strong. High negative affect is described as distressed, fearful, hostile, jittery, nervous, and scornful. While there are other conceptualizations of positive and negative emotion, namely, pleasantness/unpleasantness, that are bipolar, the constructs studied here of positive and negative emotional response to a role fit well with Watson and Tellegen's (1985) conceptualization of positive and negative affect because they allow researchers to assess the potential asymmetries between positive and negative affect. Thus, positive and negative emotional responses were operationalized as positive and negative affect associated with work and family roles. Emotional response to work and family roles was measured using the 10-item Positive Affect Negative Affect Scales

(PANAS; Watson, Clark, and Tellegen, 1988). Respondents were asked to indicate to what extent they felt this way at work or with their family on a 5-point response scale ranging from "very slightly or not at all" to "extremely." Sample *positive affect* items include excited, enthusiastic, and strong. Sample *negative affect* items include upset, distressed, and irritable. This scale has the advantage of having been widely used in prior research.

Gender. Respondents were asked to indicate whether they were male or female. Gender was coded as a dummy variable, with 0 = male, 1 = female.

Control Variables

Because work and family arrangements and role demands varied in this sample, I controlled for individual differences and contextual aspects of respondents' work and family roles by measuring the importance of and demands associated with work and family roles. These work and family variables served as predictors of engagement in work and family roles, respectively, and were used as instrumental variables, as described below in the analysis section.

Work and family importance. Role importance was operationalized as the centrality of the role to a person's self-concept. *Work importance* was measured with Kanungo's (1982) six-item work centrality scale. This measure has been well established as a valid indicator of the psychological importance of a role (Blau, 1985). *Family importance* was measured using a modified version of Kanungo's scale with the term "family" substituted for "work." This modified six-item scale demonstrated adequate reliability (.79) in a pretest. Both measures used 7-point Likert-type response scales ranging from "strongly disagree" to "strongly agree."

Work and family demands. Role demands were operationalized as both quantitative time demands and as responsibility-related demands. *Quantitative time demands* were operationalized using one item measuring the average amount of time required to meet role responsibilities in work and family. Responsibility-related demands were operationalized using eight items tapping the degree of influence and flexibility demanded by one's work or family situation, respectively. For example, the *work responsibility demands* scale asked respondents to what extent they needed to do the following on their job: make other people change their mind; control what others do; handle work-related emergencies; and persuade people to do things differently. The *family responsibility demands* scale asked similar questions of respondents. For example, respondents were asked to what extent they needed to do the following at home: make family members change their mind; control what members of their family do; handle family-related emergencies; and persuade their family to do things differently. The response scales were 7-point scales ranging from "none at all" to "very much." The work and family responsibility-related demands scales demonstrated reliabilities of .87 and .92, respectively, in a pretest.

Analyses

The non-recursive model of engagement in work and family was tested using structural equations modeling (SEM), which enables testing multiple relationships simultaneously. Lisrel 8 was used to analyze the saturated measurement model, the structural model corresponding to the full set of hypotheses, a series of nested structural models testing individual hypotheses, and a series of multiple group analyses testing differences between men and women. In the SEM approach, multiple observed indicators (i.e., scale items) are used to measure latent factors. Two composite items were created to serve as indicators of each factor, following guidelines suggested by Bagozzi and Heatherton (1994). For example, for the four-item work attention scale, two composite variables were created, consisting of two items each. The items were summed and averaged by the number of items in each composite (in this case, two).

I assessed model fit in several ways. First, I used the chi-square (χ^2) test to assess the goodness of fit between the reproduced and observed correlation matrices. Reliance on the χ^2 test alone is not recommended, however, because the χ^2 statistic is known to be sensitive to sample size (Bentler and Bonett, 1980). I therefore also used two additional fit criteria not sensitive to sample size (Bentler, 1980; Gerbing and Anderson, 1992): the comparative fit index (CFI; Bentler, 1990) and the root mean square error of approximation (RMSEA; Steiger, 1990). The CFI is the most highly recommended fit index (Bagozzi and Edwards, 1998), and values of 0.90 or greater are thought to indicate adequate fit (Bentler and Bonett, 1980). The RMSEA, an estimate of the difference between the original and reproduced covariance matrices in the population, is another widely used fit statistic. Cudeck and Browne (1983) suggested that an RMSEA of 0.05 represents a close fit and that an RMSEA of less than 0.08 represents a reasonable fit.

To evaluate the structural model, I compared the measurement model with the structural model, using χ^2 difference tests, to determine if constraining the number of parameters estimated resulted in poorer fit. If it does not, then the structural model is assumed to fit as well as the measurement model. If it does result in poorer fit, other goodness of fit statistics must be examined to determine whether the structural model has a good practical fit. Next, I assessed a series of nested models, by constraining paths associated with particular hypotheses, to provide an omnibus test of each hypothesis. If the constrained model results in poorer fit, the paths are significant and should be included as a set. Finally, I examined the parameter estimates of the structural paths to determine the nature of the support for specific hypotheses. Further, I performed a series of multiple group analyses to test the gender-difference hypotheses. These analyses tested the model parameters for equivalence across groups of men and women and involved testing whether differences were due to measurement error (i.e., differences in the factor loadings or error variances across groups) or to structural causes (i.e., differences in path coefficients between men and women).

Because the model tests a reciprocal, non-recursive relationship between work and family engagement, instrumental variables were required to identify the model (James and Singh, 1978; Berry, 1984). A model is identified when enough information exists to generate unique parameter estimates, and an instrumental variable provides this unique information (Berry, 1984; Bollen, 1989). An instrumental variable is an exogenous variable that is related to one set of endogenous dependent variables (e.g., work engagement) but is unrelated to a second set of endogenous variables (e.g., family engagement). A non-recursive model can be identified by incorporating at least one instrumental variable for each of the variables involved in a reciprocal relationship (James and Singh, 1978; Berry, 1984). In this case, several exogenous instrumental variables were included to predict the work and family engagement variables. The instrumental variables, namely, work and family importance and work and family demands, were chosen based on prior research suggesting that they would predict engagement in each role. Research on job enrichment and job involvement suggests that the importance of a role increases a person's role engagement because it leads to greater internal work motivation and consequently greater effort (Hackman and Oldham, 1980; Brown, 1996). Similarly, research on stress suggests that the demands associated with a role increase a person's engagement because demands are thought to put people into an energized state (Karasek, 1979; Karasek and Theorell, 1990) and have been found to increase physiological arousal (Schaubroeck and Ganster, 1993). Thus, while these variables are used as instrumental variables, the relationships were also theoretically motivated.

RESULTS

Table 1 shows means, standard deviations, correlations, and reliability estimates (calculated as Cronbach's alphas) for all variables used in the analyses. Reliabilities ranged from .77 to .95, with a median of .87. Hence, all reliabilities exceeded the .70 criterion suggested by Nunnally (1978). The highest correlations were between the two components of work and family engagement, respectively (i.e., work attention and absorption, and family attention and absorption) and are expected, since these scales represent two components of an overarching construct. The instrumental variables were significantly related to their respective endogenous variables and unrelated to the other set of endogenous variables. Work responsibility demands were significantly and positively related to work attention ($\gamma = .40$) and work absorption ($\gamma = .16$). Work time demands were significantly and positively related to work attention ($\gamma = .15$), but not work absorption ($\gamma = .02$). Work importance was significantly and positively related to both work attention ($\gamma = .47$) and work absorption ($\gamma = .43$). Family responsibility demands were significantly and positively related to family attention ($\gamma = .19$) and family absorption ($\gamma = .11$). Family time demands were significantly and positively related to family attention ($\gamma = .15$) and family absorption ($\gamma = .10$). Family importance was significantly and positively related to family attention ($\gamma = .55$) and family absorption ($\gamma = .60$). Collectively, the work and family engage-

Table 1

Descriptive Statistics and Correlations of All Variables Used in Analyses (N = 684)*

Variables	Mean	S.D.	1	2	3	4	5	6
1. Work attention	5.75	1.01	(.78)					
2. Work absorption	4.70	1.02	.56	(.78)				
3. Family attention	5.82	1.03	.12	.09	(.87)			
4. Family absorption	4.48	1.16	.06	.28	.52	(.80)		
5. Work responsibility demands	4.47	1.21	.23	.18	.05	.05	(.88)	
6. Work quantitative demands	45.44	13.09	.20	.12	-.11	-.03	.25	—
7. Work importance	3.32	1.06	.34	.34	-.05	.02	.08	.14
8. Work positive affect	3.57	.65	.33	.34	.19	.11	.26	.04
9. Work negative affect	1.56	.50	.06	.03	-.06	.03	.21	.20
10. Family responsibility demands	3.81	1.24	.07	.06	.28	.26	.30	-.01
11. Family quantitative demands	36.31	21.95	.04	.04	.32	.27	.02	-.05
12. Family importance	5.72	.88	.10	.13	.50	.47	.11	.01
13. Family positive affect	3.78	.71	.07	.12	.47	.32	.16	-.07
14. Family negative affect	1.50	.51	.05	.02	-.07	.01	.00	.06
15. Gender	.68	.46	.12	.13	.14	.07	-.07	-.19

Variables	7	8	9	10	11	12	13	14
7. Work importance	(.77)							
8. Work positive affect	.16	(.89)						
9. Work negative affect	.04	-.25	(.83)					
10. Family responsibility demands	.00	.08	.09	(.92)				
11. Family quantitative demands	-.08	.05	-.03	.33	—			
12. Family importance	-.06	.11	.00	.18	.22	(.78)		
13. Family positive affect	-.08	.53	-.11	.10	.19	.33	(.91)	
14. Family negative affect	.09	-.07	.42	.25	.05	-.06	-.34	(.87)
15. Gender	-.10	.07	-.15	.03	.14	.05	-.12	-.06

ment variables exhibited an average multiple correlation of .480 with their assigned instrumental variables. After controlling for investment in their assigned role, all instrumental variables were unrelated to investment in the opposite role, as evidenced by partial correlations ranging from $-.06$ to $.05$ (all $p > .10$). Thus, the instrumental variables in the model met the conditions specified by James and Singh (1978).

Measurement and Structural Models

The saturated measurement model represents a confirmatory factor analysis of the relationships between composite items and their factors and the correlations among the factors.

Despite a significant χ^2 statistic [$\chi^2(210) = 615.36, p = .000$], which is to be expected with a sample as large as this (Bentler and Bonett, 1980), the measurement model fit well according to the other fit statistics (CFI = .95) and the small size of the residuals (RMSEA = .053). Table 2 shows that the model also fit in terms of the factor loadings, since all composite items loaded significantly onto their intended factors. For example, the two composites for work attention had standardized factor loadings of .84 and .76 on the work-attention latent factor. Because one item each measured the work and family quantitative demands, respectively, these were fixed to a loading of one. Finally, the measurement model also generally confirmed that there was discriminant validity among the latent factors, such that these factors represented distinct constructs.

The structural model represents a test of the theoretical model of engagement in work and family. As with the measurement model, while the χ^2 for the structural model was significant [$\chi^2(248) = 795.14, p = .000$], the other fit statistics

Table 2

Confirmatory Factor Analysis for the Model of Engagement in Work and Family (N = 684)*

Latent Variable	Factor Loadings for Model		Error Variances (θ_{ϵ})	
	Composite 1	Composite 2	Composite 1	Composite 2
Work attention	.84	.76	.29	.43
Work absorption	.89	.78	.20	.40
Family attention	.87	.85	.25	.27
Family absorption	.76	.77	.42	.41
Work responsibility demands	.73	.73	.47	.47
Work quantitative demands	1.00	—	—	—
Work importance	.80	.76	.36	.42
Work positive affect	.93	.85	.14	.27
Work negative affect	.81	.74	.34	.45
Family responsibility demands	.88	.76	.23	.43
Family quantitative demands	1.00	—	—	—
Family importance	.68	.85	.54	.28
Family positive affect	.91	.91	.18	.18
Family negative affect	.85	.88	.27	.22

* The factor loadings for each composite are completely standardized and the factor loadings for work and family time demands were fixed to 1. The error variances (θ_{ϵ}) in each row are for composites 1 and 2 of each latent factor, respectively. All factor loadings and error variances are significant at the $p < .001$ level.

(CFI = .93) and the small size of the residuals (RMSEA = .057) indicated that the model fit the data. Moreover, the indicators all loaded significantly on their intended factors. While the χ^2 difference test indicated that the structural model fit significantly worse than the measurement model [$\Delta\chi^2(38) = 179.81, p = .000$], because the other fit indicators for the structural model suggest good practical fit of the structural model, the structural model is considered adequate (Bagozzi, 1993).

Depletion and Enrichment Processes

Table 3 reports the omnibus tests of each step of the depletion and enrichment processes based on the results of a series of constrained nested-model analyses. The omnibus tests show whether the χ^2 increased significantly when both

Table 3

Omnibus Tests of Depletion and Enrichment Processes*

Work to Family			Family to Work		
Step	$\Delta\chi^2(d.f.)$	Evidence?	Step	$\Delta\chi^2(d.f.)$	Evidence?
Depletion process					
Step 1 (H1a)	29.87 (2)***	Yes	Step 1 (H1b)	5.44 (2)*	No†
Step 2 (H3a)	18.03 (2)***	Yes	Step 2 (H3b)	7.27 (2)**	No‡
Enrichment process					
Step 1 (H2a)	117.22 (2)***	Yes	Step 1 (H2b)	142.39 (2)***	Yes
Step 2 (H4a)	0.58 (2)	No	Step 2 (H4b)	23.94 (2)***	Yes

* $p < .10$; ** $p < .05$; *** $p < .01$; **** $p < .001$.

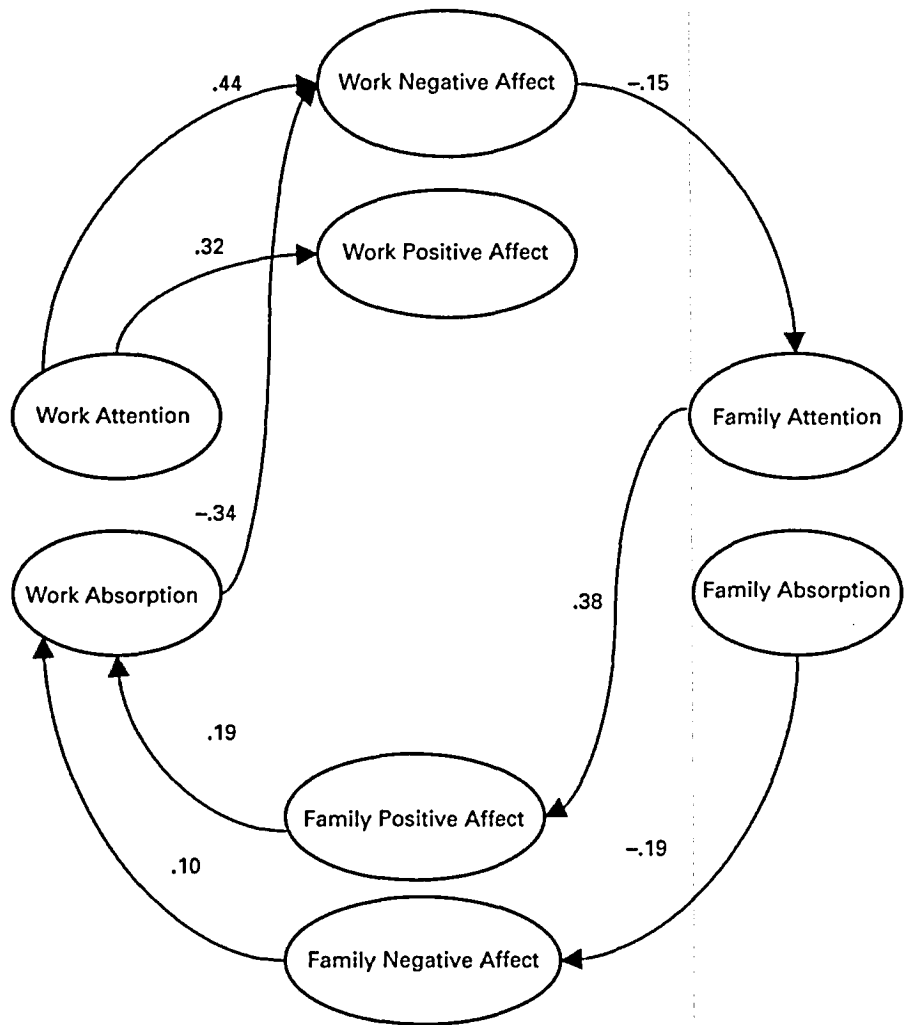
* A significant $\Delta\chi^2$ indicates that as a set these relationships contribute significantly to model fit.

† While there is a marginally significant $\Delta\chi^2$, the sign of the relationship is not as hypothesized (it is negative, not positive), suggesting that family engagement reduces family negative affect.

‡ The sign of the relationship is not as hypothesized (it is positive, not negative), suggesting compensation rather than depletion.

the attention and absorption paths were dropped as a set. Both steps one and two of the depletion or enrichment processes must be supported for the overall processes to be supported, and table 3 provides this information. More fine-grained support for the depletion and enrichment processes was obtained by examining the standardized path coefficients for the structural model, presented in figure 2.¹

Figure 2. Results of full structural model (N = 684).



Note: Only paths that are significant at $p < .05$ are shown. Instrumental variables are not shown here, for simplicity.

¹ I performed a sensitivity analysis to determine if job type had an effect on these analyses by comparing the relationships in the model for exempt and non-exempt workers. There were no significant differences in the path coefficients [$\Delta\chi^2(16) = 19.78, p = .23$] for exempt and non-exempt workers.

Depletion (work to family): H1a tested the first step of the depletion process from work to family and stated that work attention and absorption would be positively related to work negative affect. The omnibus test in table 3 indicates a significant relationship between these constructs as a set. Figure 2 reveals that, as expected, work attention was positively related to work negative affect ($\beta = .44$), but, counter to expectations, work absorption was negatively related to work negative affect ($\beta = -.34$). H3a tested the second step in the depletion process from work to family and stated that work

negative affect would be negatively related to family attention and absorption. The omnibus test in table 3 indicates a significant relationship between these constructs as a set. Figure 2 shows that, as expected, work negative affect was significantly and negatively related to family attention ($\beta = -.15$) but was unrelated to family absorption ($\beta = .07$). Combined, these findings reveal evidence of depletion from work to family.

Depletion (family to work): H1b tested the first step of the depletion process from family to work and stated that family attention and absorption would be positively related to family negative affect. The omnibus test in table 3 indicates a marginally significant relationship between these constructs as a set; however, family attention and family negative affect were not significantly related ($\beta = .15$) and, counter to expectations, family absorption was significantly and negatively related to family negative affect ($\beta = -.19$), indicating that the first step of the depletion process from family to work was not supported. H3b tested the second step in the depletion process from family to work and stated that family negative affect would be negatively related to work attention and absorption. While the omnibus test in table 3 reveals a significant relationship between these constructs as a set, figure 2 shows that family negative affect was unrelated to work attention ($\beta = -.02$), and, counter to expectations, family negative affect was significantly and positively related to work absorption ($\beta = .10$). Thus, step two of the depletion process from family to work was not supported. These findings reveal no evidence of depletion from family to work.

Enrichment (work to family): H2a tested the first step of the enrichment process from work to family and stated that work attention and absorption would be positively related to work positive affect. The omnibus test in table 3 indicates a significant relationship between these constructs as a set. Figure 2 reveals that, as expected, work attention was positively related to work positive affect ($\beta = .32$), while work absorption was not significantly related to work positive affect ($\beta = .11$). These findings suggest partial support for the first step of the enrichment process from work to family. H4a tested the second step of the enrichment process from work to family and stated that work positive affect would be positively related to family attention and absorption. The omnibus test in table 3 indicates no significant relationship between these constructs as a set. Figure 2 reveals that family attention ($\beta = .03$) and absorption ($\beta = .07$) were unrelated to work positive affect. Thus, while the findings indicate some support for the first step of the enrichment process from work to family, no support exists for the second step. Thus, there is no evidence of enrichment from work to family.

Enrichment (family to work): H2b tested the first step of the enrichment process from family to work and stated that family attention and absorption would be positively related to family positive affect. The omnibus test in table 3 indicates a significant relationship between these constructs as a set. Figure 2 reveals that, as expected, family attention was positively related to family positive affect ($\beta = .38$), but family

absorption was not significantly related to family positive affect ($\beta = .10$). These findings suggest partial support for the first step of the enrichment process from family to work. Hypothesis 4b tested the second step of the enrichment process from family to work and stated that family positive affect would be positively related to work attention and absorption. The omnibus test in table 3 indicates a significant relationship between these constructs as a set. Figure 2 shows that family positive affect was unrelated to work attention ($\beta = -.05$) but was significantly and positively related to work absorption ($\beta = .19$), indicating some support for the second step of the enrichment process from family to work. Combined, these findings indicate evidence of enrichment from family to work.

Gender Differences

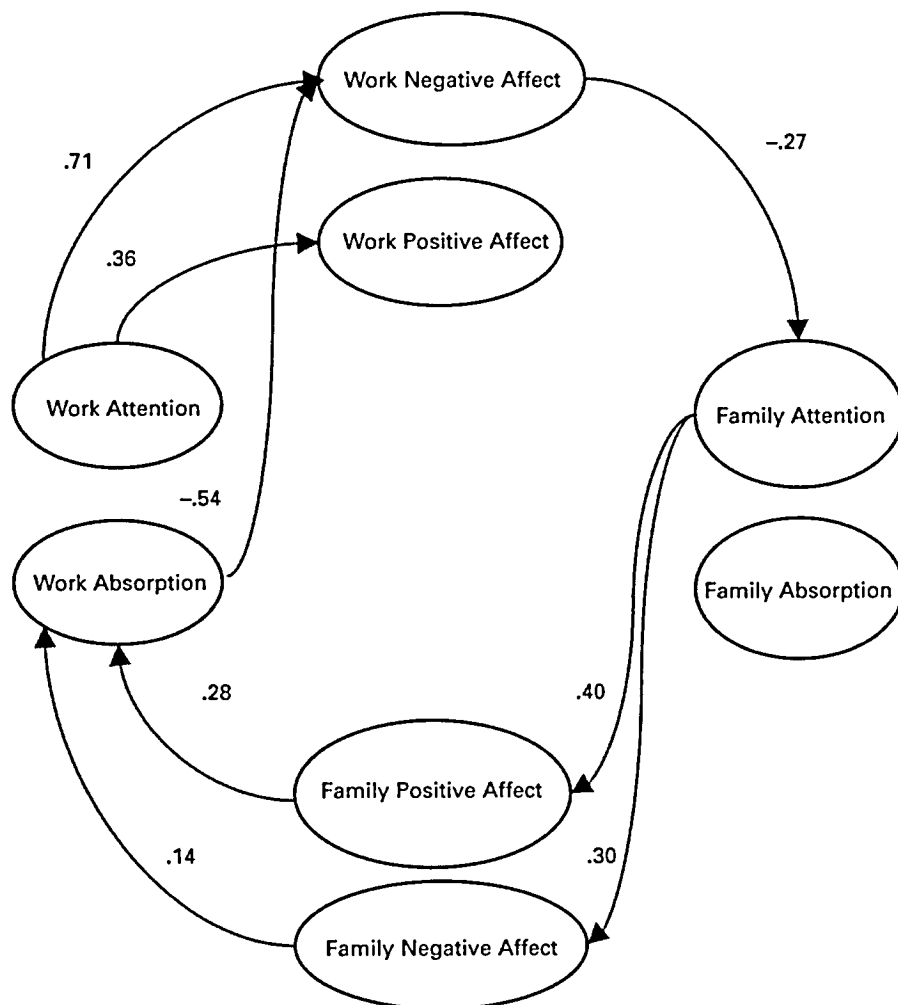
I hypothesized gender differences in the between-role relationships. To test these hypotheses, it must be established that gender differences exist, using multiple group analysis in which model parameters are tested for equivalence across groups of men and women. I conducted a series of analyses to determine whether differences between groups are due to measurement error (i.e., differences in factor loadings or error variances) or to structural causes (i.e., differences in path coefficients) (Joreskog and Sorbom, 1989). The results indicate that significant differences between men and women existed [$\chi^2(496) = 1048.09, p < .001$] and that these differences stemmed from structural differences in the path coefficients [$\Delta\chi^2(16) = 47.91, p < .001$]. Figure 3 depicts the structural model for women. Figure 4 depicts the structural model for men.

Mean differences between men and women. While multiple group analysis tells us whether the parameter estimates differ between men and women, it does not reveal if the mean level of a latent variable differs between men and women. I conducted additional analyses to explore mean differences, using the structured means procedure (Joreskog and Sorbom, 1989). The structured means test revealed that men experienced lower family-time demands, work absorption, family attention, work positive affect, and family positive affect, but higher work-time demands and work negative affect than women.

Depletion (work to family): H5a tested the moderating effects of gender on the second step of the depletion process from work to family and stated that women's work negative affect would be more strongly related than men's to family engagement. Table 4 and a comparison of figures 3 and 4 reveal support for H5a, indicating that, overall, there is a significant difference between men and women, such that, for women, work negative affect decreases family attention ($\beta = -.27$), but for men, work negative affect is unrelated to family attention ($\beta = .01$). This modifies the above findings, showing that evidence exists for the depletion process from work to family for women, but not for men.

Depletion (family to work): H5b tested the moderating effects of gender on the second step of the depletion process from family to work and stated that women's family negative

Figure 3. Results of structural model for women (N = 464).

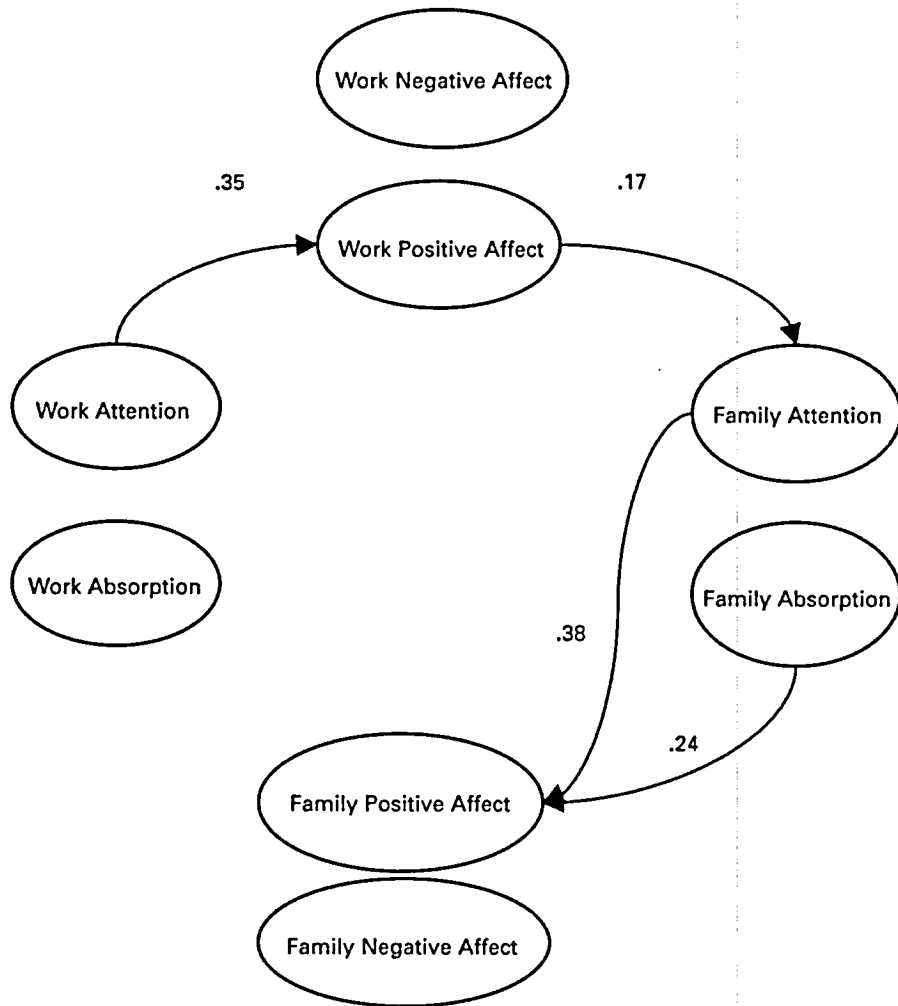


Note: Only paths that are significant at $p < .05$ are shown. Instrumental variables are not shown here, for simplicity.

affect would be more strongly related than men's to work engagement. Table 4 and a comparison of figures 3 and 4 reveal that there is a significant difference between men and women, such that family negative affect and work absorption are positively related for women ($\beta = .14$), but not for men ($\beta = .04$). While this finding suggests a stronger relationship between family negative affect and work engagement for women than men, it does not support the idea of depletion from family to work but, rather, the idea of compensation.

Enrichment (work to family): H6a tested the moderating effects of gender on the second step of the enrichment process from work to family and stated that women's work positive affect would be more strongly related than men's to family engagement. Table 4 and a comparison of figures 3 and 4 reveal that this hypothesis was not supported. While there is a significant difference between men and women, counter to expectations, the enrichment process holds for men rather than women. For men, work positive affect was

Figure 4. Results of structural model for men (N = 220).



Note: Only paths that are significant at $p < .05$ are shown. Instrumental variables are not shown here, for simplicity.

positively related to family attention ($\beta = .17$), but it was unrelated for women ($\beta = -.06$). These findings modify the findings discussed above, showing that evidence for the enrichment process from work to family exists for men but not for women.

Enrichment (family to work): H6b tested the moderating effects of gender on the second step of the enrichment process from family to work and stated that women's family positive affect would be more strongly related than men's to work engagement. Table 4 and a comparison of figures 3 and 4 reveal that this hypothesis was supported. There is a significant difference between men and women, such that the enrichment process holds for women but not for men. For women, family positive affect was positively related to work absorption ($\beta = .28$), but it was unrelated for men ($\beta = .00$). These findings modify the results discussed above, in that evidence for enrichment from family to work exists for women but not for men.

Table 4

Summary of Gender-difference Hypotheses*

Work to Family				Family to Work					
Men	Women	$\Delta\chi^2(\text{d.f.})$	Evidence?	Men	Women	$\Delta\chi^2(\text{d.f.})$	Evidence?		
Depletion process									
H5a	n.s.	–	4.90(2) [•]	Yes	H5b	n.s.	+	6.79(2) ^{••}	No†
Enrichment process									
H6a	+	n.s.	10.25(2) ^{•••}	Yes‡	H6b	n.s.	+	5.43(2) [•]	Yes

* $p < .10$; ** $p < .05$; *** $p < .01$.

*A significant $\Delta\chi^2$ indicates that there are significant differences between the hypothesized parameters for men and women. The plus and minus symbols depict the sign of the parameters in the models for men and women. The n.s. symbol indicates that the parameters examined were not significantly different from 0 in the models for men and women, respectively.

† While there is a significant difference between these parameters, the sign of the relationship is not as hypothesized (it is positive, not negative), suggesting compensation rather than depletion.

‡ While there is a significant difference between men and women, suggesting evidence of the enrichment process, this difference was not as hypothesized.

DISCUSSION

This study examined the dynamics of engagement in work and family roles, articulating and testing the two steps that must take place for the depletion or enrichment processes to occur—the within-role emotional response to engagement in a role and the between-role effect of an emotional response to one role on engagement in another role. Because of the strong gender role expectations associated with work and family roles, gender differences were also examined. The findings suggest that patterns of both enrichment and depletion exist and that both gender and the direction of the relationship (i.e., work to family or family to work) matter in determining whether a person experiences enrichment or depletion.

Evidence of Depletion

Although evidence existed for the depletion process, this process occurred only for women and only in the work-to-family direction. This finding raises two questions: why does depletion only occur in the work-to-family direction and why does it occur only for women? First, because depletion may rely on rumination and self-focused attention, it may only exist in the work-to-family direction because people respond to strong cultural imperatives that prevent them from becoming self-focused and ruminating on family problems at work. Another explanation for why depletion only occurs in the work-to-family direction may be that negative emotions associated with family may be more vivid and intense than negative emotions associated with work and, as such, require a different coping strategy. Hochschild (1997) suggested that negative family emotions may be more difficult to deal with than negative work emotions. Thus, people may cope with negative family emotion using techniques such as compensation or segmentation to avoid intensely negative family emotions while at work. In this study, evidence exists for both techniques. Men separated negative family emotion from

work engagement such that no relationship existed between the two, while women compensated for negative family emotion by becoming more engaged in work. While the compensation finding challenges the prevalent idea that strife at home limits employees' abilities to be involved in work (e.g., Crouter, 1984; Tenbrunsel et al., 1995), it is consistent with Hochschild's (1997) controversial finding that employees seem to spend more time at work because work provides a haven from a troubled home life.

The findings here that depletion occurred only for women in the work-to-family direction may be related to the fact that women are more likely than men to ruminate on negative events and emotions as a coping response (Nolen-Hoeksema, 1987). Further, even though women may respond to the same cultural imperatives as men, preventing them from ruminating on family problems at work, women may be more likely than men to ruminate on work events, causing them to become self-focused and decreasing their family engagement. This difference may be intensified because women have more synergistic mental models of work and family roles than men (Crosby, 1991; Andrews and Bailyn, 1993) that prompt them to cope in ways likely to maintain linkages between work and family.

Evidence of Enrichment

Evidence for enrichment existed for both men and women, but in opposite role domains: enrichment existed for men from work to family, whereas enrichment existed for women from family to work. These findings raise the question of asymmetry. Why does enrichment exist from work to family for men, but not for women and, conversely, why does enrichment exist from family to work for women, but not for men? These asymmetries between work and family may be explained by cultural norms about what is acceptable, which differ across roles and gender. Research on traditional gender roles contends that work is causally dominant for men (Voydanoff and Donnelly, 1989), whereas family is dominant for women (Gutek, Searle, and Klepa, 1991). Further, the relationship between work and family differs for women and men (Pleck, 1977; Gutek, Searle, and Klepa, 1991; Tenbrunsel et al., 1995). The boundary between family and work is not as open and permeable for men as it is for women, because for men, it is less culturally acceptable for family experiences to affect work (Pleck, 1977). Because of these societal expectations about gender roles, the boundaries between work and family are asymmetrically permeable, such that for men, work affects family more than family affects work (Pleck, 1977).

Gender Differences

The findings revealed strong gender differences, such that many more between-role linkages exist for women than for men. First, the relative plethora of linkages between work and family for women compared with the paucity of relationships between work and family for men may be explained by the idea that men may segment these roles more than women do (Crosby, 1991; Andrews and Bailyn, 1993). Recent

views of segmentation regard it as an active coping process in which people deal with stress by separating the two roles (Piotrkowski, 1979; Lambert, 1990). The view of segmentation as a coping response drawing on a particular mental model may explain why segmentation was more prevalent for men than women in this study. Segmentation may not be a rational response for women because family demands are higher and women are often expected to be more available to their families than men (Shelton and John, 1996). Second, in this study, emotion seems to be a critical mediator of the relationship between work and family roles for women. In a recent study of emotion and engagement in multiple tasks, however, Rothbard, Galinsky, and Medvec (2000) found that emotions resulting from engagement in one task spilled over and affected engagement in a subsequent task for both men and women. Their study suggests that the gender findings here may be primarily due to gender differences associated with work and family roles.

Engagement as a Multidimensional Construct

In this study, emotion often affected the two components of engagement, attention and absorption, differently. These constructs were positively correlated with one another, yet distinct. One explanation for these differences may be that attention may represent a resource-based motivational construct, whereas absorption may represent an intrinsic-motivation-based construct. Attention may be an invisible, material resource that a person can allocate in multiple ways. As such, attention may signal a person's availability for or capacity to perform activities in a role. In contrast to attention, absorption implies intrinsic motivation in a role. While, theoretically, absorption does not entail a positive emotional state, empirically, in this study, it appeared to be linked to increasing positive emotions and decreasing negative ones, suggesting that it is linked to intrinsically motivated interest in role activities. As such, absorption, too, may indicate availability for role activities, but for different, more interest-based reasons.

The different findings on attention and absorption in work and family also raise the issue of whether the meaning of attention and absorption is the same in work and family. For example, family attention may be either people or task focused, whereas work attention may be more task focused, although this may depend on the type of work. Moreover, the meaning of family attention may differ for men and women. These differences in meaning should be examined in future research, to further clarify the concept of engagement in work and family. The different findings in terms of attention and absorption also highlight the need to measure engagement as a multidimensional construct. For example, if this study had only examined attention, we may have concluded solely that work engagement is depleting to family engagement for women and that family engagement does not affect work engagement for women and men. Instead, by examining absorption as well as attention, the rich interconnections and complex relationships between work and family emerged, revealing both enrichment and depletion stories.

Limitations

The study's findings should be considered in light of its limitations. First, while the study tests a non-recursive feedback model, these analyses are limited by the use of cross-sectional data. Even though the few studies that also examine the reciprocal effects of work on family have also been conducted using cross-sectional data (e.g., Kalleberg and Rosenfeld, 1990; Tenbrunsel et al., 1995), the findings presented in this study should be interpreted with caution and taken to be initial indicators of the dynamic relationships between work and family. Future research should examine longitudinal panel data collected at several points in time.

Second, consistent with some work-family research (e.g., Kalleberg and Rosenfeld, 1990; Duxbury and Higgins, 1991; Tenbrunsel et al., 1995), the findings indicate strong differences between women and men. Overall, the full model of engagement in work and family roles seems to be more applicable to women than to men. These findings limit the generalizability of the model to some extent. The powerful nature of these gender differences suggests that future studies of engagement in work and family, as well as other types of multiple roles, should explore these gender differences more thoroughly. Such research may reveal important distinctions between the ways that men and women experience engagement in multiple roles. Further limits to generalizability may stem from the sample being drawn from a single organization. While the sample represented a broad range of job types, the university setting may have affected the findings. In this setting, job tenure is long and, presumably, job security is perceived to be high. As a result, work-family flexibility may also be high, such that evidence for depletion may be underrepresented. Thus, these results may not generalize to organizations in which depletion may be more prevalent. Further research is needed using other samples to provide greater generalizability.

A third limitation is the use of only self-report survey data and the resulting problem of common method, common source variance. Common method variance refers to potential error that may contaminate both measures in a similar way, such that a correlation between two measures may be due to the fact that both come from the same source, rather than a substantive relationship between them. Because this model focuses on people's perceptions of their engagement, emotion, and other factors, however, responses from the individuals themselves are needed. The pattern of findings also diminishes concerns about common method bias. For example, the two components of engagement, attention and absorption, had different relationships with predictor and outcome variables. Furthermore, Spector (1987) suggested that method variance is more of a problem with single-item or poorly designed scales and less of a problem with multi-item scales that are well designed. That most of the measures in this study were multi-item scales with high reliabilities also diminishes this concern.

Contributions and Future Research

Despite these limitations, this study makes several contributions. First, while most work-family researchers assume that depletion is the dominant pattern between engagement in work and family, these findings point to the importance of examining both enrichment and depletion in exploring the complex dynamics between engagement in work and family. Second, this study contributes to both work-family and role-engagement theories by specifying an emotion-based process by which engagement in one role relates to engagement in another role. By examining depletion and enrichment jointly, this study highlights the central role of emotion as a linchpin connecting engagement in work and family. Furthermore, by articulating the role of emotion, it identifies a way to integrate these two competing arguments. Third, this study contributes to work-family and job-involvement research by breaking free of an inherently constrained notion of involvement in work and family roles. By articulating and examining the construct of engagement, which is not an inherently fixed quantity like time, this study tests a fuller range of assumptions about work and family dynamics. Future studies should also examine work and family dynamics using less constrained constructs, such as engagement.

Whereas the current study examines the dynamics of engagement in work and nonwork roles, future research should also explore the dynamics of engagement in multiple roles within organizations. Experimental research on engagement in multiple tasks suggests that when people are highly engaged in one task and experience frustration as a result of that task, they are less engaged in a subsequent task (Rothbard, Galinsky, and Medvec, 2000), but we do not know if these processes work in a similar way in an organization. For example, partners in a professional services firm might have to engage in both generating new business and managing people within the firm. Do their emotional responses to losing a potential client decrease their focus on managing their teams, or do they compensate by focusing on roles they might perform well? Moreover, what factors influence when a person is likely to have a positive or negative emotional response to engaging in a role? Future research should examine structural factors such as control over role demands (Karasek, 1979; Karasek and Theorell, 1990) and the social support (Cohen and McKay, 1984; Cohen and Wills, 1985) that people may obtain from peers, supervisors, and subordinates. Such factors may moderate the relationship between engagement in a role and the types of emotional responses people may have to the role.

Assumptions about engagement in multiple roles abound, suggesting that tradeoffs and sacrifices must be made between roles to achieve success in a particular role (e.g., Lambert, 1990). This study provides a strong counterpoint to these assumptions by revealing the potential for enrichment. For women, while work may deplete family engagement, there is also the potential for enrichment from family to work, suggesting that there may be benefits to building a richer family life because it may not deplete work but, instead, enrich it. This is consistent with Crosby's (1991) idea

that people who juggle multiple roles often feel both exhilarated and overwhelmed by the reality of multiple roles.

For organizations, the findings are quite encouraging. Far from confirming the fears that family engagement is achieved at the expense of work, these findings suggest that, for men, family does not negatively affect work engagement and that, for women, family enhances work engagement via both positive and negative family emotion. These findings also suggest that rather than trying to limit family commitments and participation in other roles, organizations may do well to encourage such activities, as people may gain energy and sustenance from them. In contrast to many of the assumptions in work-family research, the findings here indicate that engagement in multiple roles can be enriching, not just depleting. As a result, this study suggests that the work-family conflict discourse should be reframed to consider the enriching, replenishing effects of multiple roles. Most people's lives are complicated, and we will need more complex theories if we are to understand the effects of their different roles—on them, their families, and on the organizations in which they are actors.

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APPENDIX: Work and Family Engagement Survey Items

Respondents rated these items on a 7-point Likert scale from "strongly disagree" to "strongly agree."

Work Engagement

Attention

I spend a lot of time thinking about my work.
I focus a great deal of attention on my work.
I concentrate a lot on my work.
I pay a lot of attention to my work.

Absorption

When I am working, I often lose track of time.
I often get carried away by what I am working on.
When I am working, I am completely engrossed by my work.
When I am working, I am totally absorbed by it.
Nothing can distract me when I am working.*

Family Engagement

Attention

I spend a lot of time thinking about my family.
I focus a great deal of attention on my family.
I concentrate a lot on my family.
I pay a lot of attention to my family.

Absorption

When I am focused on my family, I often lose track of time.
I often get carried away by what I am doing in terms of the family.
When I am focusing on family, I am completely engrossed by it.
When I am engaged in family activities, I am totally wrapped up in them.
Nothing can distract me when I am taking care of my family.*

*Reverse-coded.