

## INVESTMENT IN WORK AND FAMILY ROLES: A TEST OF IDENTITY AND UTILITARIAN MOTIVES

NANCY P. ROTHBARD  
Management Department, The Wharton School  
University of Pennsylvania

JEFFREY R. EDWARDS  
Management Department, Kenan-Flager School of Business  
University of North Carolina

This study compared identity and utilitarian motives as predictors of time investment in work and family roles, using structural equation modeling with a sample of 623 working men and women. We tested within-role and cross-role relationships as well as the reciprocal effects of time invested in one role on time invested in the other role. As predicted, identification with a role was positively related to time invested in that role. However, findings for role utility were more complex. Time investment was positively related to both the pleasure and displeasure associated with a role. These findings suggest that people not only seek pleasure from roles but also invest time coping with role displeasure. The cross-role findings supported resource drain and accommodation but not compensation as explanations of work-family linking mechanisms. Gender analyses suggested that, for men, increased work time investment reduced time devoted to family, but increased family time investment did not affect time devoted to work. However, for women, increased time investment in either work or family reduced time devoted to the other role. These findings suggest that men may have greater reserves of time from roles other than work and family that make it unnecessary for them to draw from work time to meet increased family demands.

In recent years, the composition of the work force has undergone fundamental changes, exemplified by the rise in dual career couples, the influx of women into the work force, and the growth of nontraditional family arrangements. These changes have highlighted the crucial choices

---

We thank Susan J. Ashford, Regina M. O'Neill, Sandy K. Piderit, Steffanie Wilk, and seminar participants at the Center for Executive Women, Kellogg School of Management, Northwestern University for their helpful comments on previous drafts of this paper. We thank the three anonymous reviewers for their helpful comments. Finally, we thank the University of Michigan Business School for their financial support of this research.

Correspondence and requests for reprints should be addressed to Nancy P. Rothbard, The Wharton School, University of Pennsylvania, Suite 2000 Steinberg Hall-Dietrich Hall, Philadelphia, PA 19104-6370; nrothbard@wharton.upenn.edu.

people make regarding how to invest in work and family roles. Concurrent with these changes, work–family research has increasingly focused on role investment (Tenbrunsel, Brett, Maoz, Stroh, & Reilly, 1995), defined as personal resources devoted to a role (Lobel, 1991). Prior research has examined the effects of various demographic and background characteristics, such as gender, marital status, children, and managerial level, on people's work and family time investment (Juster & Stafford, 1991; Lewis, 1999; Schor, 1992). Other studies have delved into the underlying psychology that explains why people choose to invest in work and family roles.

Research that explains why people invest in work and family roles is important because these investments provide the foundation for role performance. For decades, organizational behavior research has emphasized the decision to participate in the work role as a fundamental necessary condition for work role performance (March & Simon, 1958; Naylor, Pritchard, & Ilgen, 1980). This reasoning has been supported by recent research demonstrating that work investment enables people to put forth greater effort, innovation, and creativity on behalf of the organization (Kahn, 1990; 1992). This reasoning also applies to family role performance, in that meeting family role demands requires investment in the family role (Voydanoff, 1987). Moreover, investments in work and family roles are often in conflict, in that investing in one role often makes it difficult to fulfill the demands of the other role (Greenhaus & Beutell, 1985; Hochschild, 1997; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Thus, work and family role investments are central to performance in these roles and are the driving forces underlying much conflict between work and family. Research into the motives that underlie work and family role investment is therefore crucial for understanding behavior in the work and family domains.

Theories attempting to explain the psychological process underlying work and family role investment have generally adopted one of two perspectives. The utilitarian perspective argues that investment in a role is driven by hedonistic considerations, such that people choose to invest in roles that provide pleasure and avoid roles that produce pain or displeasure. In contrast, the identity perspective posits that investment in a role is not necessarily based on hedonistic concerns, but rather on the strength of one's identification with a role. These two perspectives provide fundamentally different explanations for why a person chooses to invest in a particular role. For example, people might invest greater time in family after having a child because of their strong identification with the family role of parent, and not because they are experiencing great pleasure learning to care for a newborn infant. From an organization's perspective, understanding why people choose to invest in work

is important because different motivational bases may require different incentives for investing greater time in work. For example, if a person invests more time at work because he or she finds it pleasurable rather than due to values and identification with the workplace, incentives that make the workplace a more inviting and pleasing place to be would be valuable. In contrast, if identification is at the core of a person's work investment, strengthening one's sense that the organization's values are congruent with one's own work ethic and sense of morals may be more efficacious. Comparing and integrating these two perspectives may provide a more complete explanation of the motives associated with work and family role investment.

To date, empirical research on what motivates people to invest in a role has primarily examined the relationship between identity and role investment (e.g., Burke & Reitzes, 1991; Callero, 1985; Lobel & St. Clair, 1992; Stryker & Serpe, 1994). Overall, this research suggests that identification with a role is positively related to investment in that role. In contrast, very few studies have examined the relationship between utilitarian considerations and role investment, although available evidence suggests that role investment is positively related to rewards and negatively related to costs associated with the role (Farrell & Rusbult, 1981). Further, few studies have examined the identity and utility perspectives jointly, and no study has investigated how identity and utilitarian motives regarding work relate to investment in family or, likewise, how identity and utilitarian motives associated with family relate to investment in work. This omission is critical, as research has debunked the notion that work and family are isolated from one another (Kanter, 1977; Zedeck, 1992).

The purpose of this study is to examine the identity and utilitarian perspectives as explanations for what motivates people to invest in work and family roles. We investigate how identity and utilitarian motives for work and family relate to investment in both of these roles as well as the reciprocal relationships between work and family role investments. This study contributes to previous research in several ways. First, we extend and refine our understanding of why people invest time in work and family roles by examining the identity and utilitarian motives jointly, after controlling for demographic and background variables identified by prior research. Second, we contribute to research on linkages between work and family roles by providing evidence regarding compensation, accommodation, and resource drain as explanations for the relationship between work and family role investment (see Edwards & Rothbard, 2000, for a review). And third, we explicate these linkages by examining how they arise from direct and indirect effects relating work and family constructs.

### *Theoretical Background*

We first define the concept of role investment. Next, we review the identity and utilitarian perspectives and describe how they explain investment in a particular role. Finally, we draw from research on work–family linkages to discuss how identity and utilitarian motives in one role may influence investment in another role. Figure 1 depicts the theoretical model, which captures the hypotheses we develop.

#### *Role Investment*

Lobel (1991) defines role investment as attitudes and behaviors associated with a person's devotion to a role. Attitudinal investment entails expressions of pride and commitment to a role, whereas behavioral investment refers to time spent in a role (Lobel, 1991). Although distinct, these two aspects of role investment are conceptually related because attitudes favoring role investment are likely to produce behavioral investment in that role (Ajzen & Fishbein, 1980).

In this study, we focus on behavioral investment in work and family roles, as manifested by time devoted to these roles, for two reasons. First, as noted previously, time devoted to work and family roles is a necessary condition for performance in these roles, and tradeoffs between work and family time are central to work–family conflict. Therefore, focusing on work and family time increases the relevance of this study to work and family role performance and work–family conflict, which are important phenomena in organizational behavior and work–family research. Second, the identity and utilitarian perspectives both emphasize attitudinal constructs. Testing relationships between these constructs and other attitudes, such as attitudinal role investment, provides a somewhat weaker test of role investment because these relationships may be partly explained by strivings for attitudinal consistency (Mischel & Peake, 1983). This explanation is less likely to account for relationships between attitudinal constructs and behavior, such as the investment of time in a role. By focusing on behavioral rather than attitudinal investment, we hope to provide a stronger test of the processes linking role investment to identity and utilitarian considerations. Thus, we define role investment as the time devoted to work and family roles.

#### *Identity Motives and Role Investment*

Identity is a cognitive construct that represents the psychological importance or centrality of a role to a person's self-concept (Stryker, 1968). Identity theorists argue that individuals have multiple identities (James,

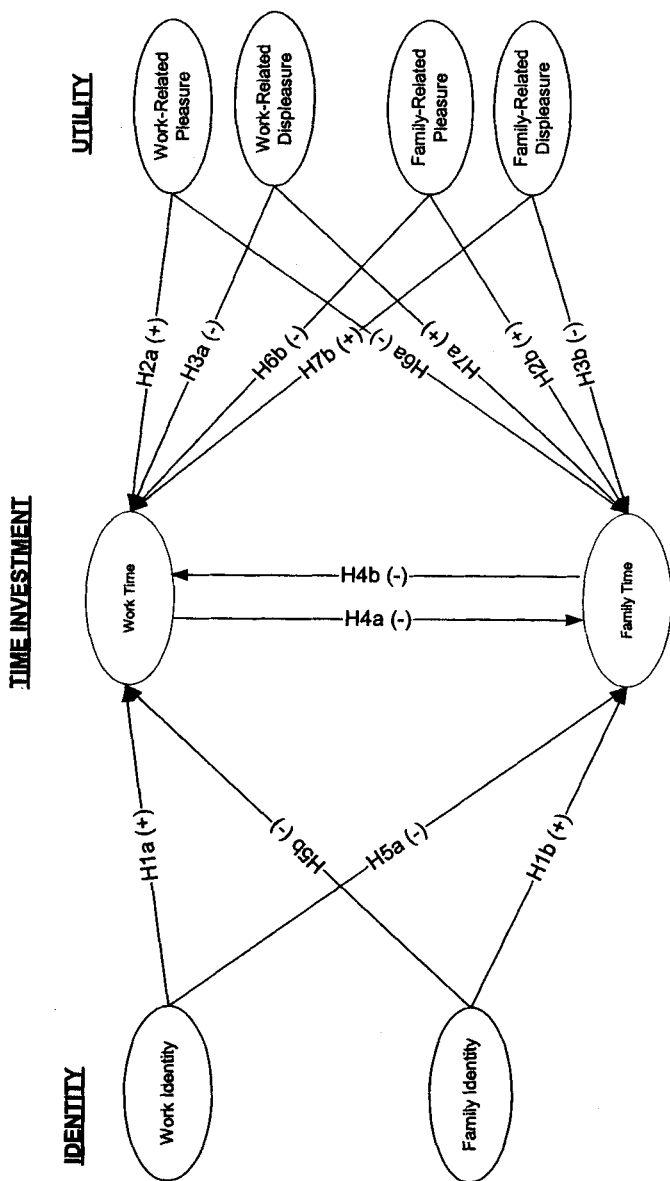


Figure 1: Theoretical model of investment in work and family.

Note: The hypotheses and their expected signs are depicted on the corresponding paths. Hypotheses 5-6 also have indirect components that can be derived from the figure. For example, the direct effect for Hypothesis 5a is shown in the figure, and the indirect effect associated with Hypothesis 5a is represented by the combination of the paths for Hypotheses 1a and 4a. Taken together, the direct and indirect effects constitute the total effects for the cross-role relationships.

1890; Stryker, 1968; Stryker & Serpe, 1982; Tajfel & Turner, 1985) such as work and family. Moreover, research suggests that people can have equal or unequal identification with work and family roles (Thompson & Bunderson, 2001). For example, a person might have high identification with work and low identification with family, but another person might have high identification with both work and family.

The identity perspective suggests that people might invest more in a role they identify with because it provides them with a source of self-esteem and the opportunity for self-actualization (Kanungo, 1979; Saleh & Hosek, 1976). Research shows that greater identification with a role increases investment in that role because people invest in roles that are important to them (Brown, 1996). Role identity has been associated with increased time spent in a particular role (Burke & Reitzes, 1991; Stryker & Serpe, 1982; Stryker & Serpe, 1994). Thus, as work becomes increasingly central to a person's identity, his or her work investment should increase. Likewise, as family becomes more central to an individual's identity, his or her family investment should increase. These explanations are distinct from the pleasure that one might obtain in the role. Thus:

*Hypothesis 1a:* Identification with work will be positively associated with time invested in work.

*Hypothesis 1b:* Identification with family will be positively associated with time invested in family.

### *Utilitarian Motives and Role Investment*

The utilitarian perspective "is distinguished by the importance of role rewards and costs in determining levels of role investment" (Lobel, 1991, p. 508). According to the utilitarian perspective, people invest in roles that are pleasurable or rewarding and avoid investing in roles that are displeasurable or costly (Farrell & Rusbult, 1981; Lobel, 1991). The utilitarian perspective is typically associated with short term behavioral choices (Lobel, 1991) and relies on basic hedonistic and approach/avoidance arguments, suggesting that humans seek pleasurable experiences and avoid painful ones (McAllister, 1953). An increase in utility itself signifies an increase in pleasure, a decrease in displeasure, or both. Therefore, the effect of utilitarian motives on role investment entails the joint and opposite effects of two constructs, role-related pleasure and displeasure, such that role-related pleasure is positively related to role investment and role-related displeasure is negatively related to role investment.

The premise that pleasure associated with a role increases role investment is consistent with several theories of motivation. Specifically,

the utilitarian perspective is evident in exchange theory (Homans, 1976), in that the more an activity is rewarded and, thus, associated with pleasure, the more likely a person is to engage in that activity and become invested in it. Conversely, the notion that displeasure decreases role investment is consistent with work–family research on compensation, which suggests that people decrease their involvement in roles that are displeasurable (Champoux, 1978; Kando & Summers, 1971; Lambert, 1990). The utilitarian perspective is also consistent with approach/avoidance theories of motivation such as the behavioral activation system (BAS) and the behavioral inhibition system (BIS) that suggest behavior is activated by positive/desirable experiences, and inhibited by negative/undesirable or aversive experiences (Gray, 1987).

Because the utilitarian perspective relies on hedonistic and approach/avoidance arguments, it does not distinguish between whether pleasure and displeasure are derived from intrinsic or extrinsic sources. Rather, it focuses on positive and negative affect more generally. For example, research on behavioral activation and inhibition systems suggests that activation of the BAS is associated with positive feelings and approach behaviors, whereas activation of the BIS is associated with negative feelings and avoidance behaviors (Gray, 1990). More generally, approach is associated with positive feelings and avoidance with negative feelings (Elliot & Thrash, 2002). Thus, we define pleasure as positive affect associated with a role and displeasure as negative affect associated with a role. The notions of pleasure and displeasure that characterize the utilitarian approach are consistent with theories of positive and negative affect, suggesting pleasure and displeasure (i.e., positive and negative affect) do not lie on opposite ends of a continuum but instead are independent dimensions of emotion (Watson & Tellegen, 1985) such that people in highly volatile work or family role could experience both high negative and positive affect.

Following the utilitarian perspective and approach/avoidance motivation theory, individuals who receive pleasure from a role would devote more time to the role because they have a preference for engaging in enjoyable roles and activities, and, conversely, individuals who received displeasure from a role would chose to devote less time to the role because they have a preference for avoiding roles and activities that are displeasurable. The preceding arguments regarding utility and role investment, combined with a conceptualization of pleasure and displeasure as independent and distinct dimensions of affect, lead to the following:

*Hypothesis 2a:* Work-related pleasure will be positively associated with time invested in work.

*Hypothesis 2b:* Family-related pleasure will be positively associated with time invested in family.

*Hypothesis 3a:* Work-related displeasure will be negatively associated with time invested in work.

*Hypothesis 3b:* Family-related displeasure will be negatively associated with time invested in family.

### *Linkages Between Work and Family Roles*

Research indicates that work and family roles are linked in numerous ways (Burke & Greenglass, 1987; Edwards & Rothbard, 2000; Lambert, 1990; Zedeck, 1992). Building on this research, we consider how identity motives, utilitarian motives, and investment in one role relate to investment in other roles. We first consider linkages between work and family time investment. The relationship between work and family time may be characterized in terms of resource drain, which specifies that resources such as time, energy, and attention are finite, and resources applied to one role are not available for other roles (Eckenrode & Gore, 1990; Piotrkowski, 1979; Small & Riley, 1990; Staines, 1980). Following this logic, the investment of time in the work role would limit time available for the family role and, likewise, the investment of time in the family role would limit time available for the work role. These processes would create two negative relationships between work and family time, one flowing from work to family, and the other flowing from family to work (see Figure 1).<sup>1</sup> Thus,

*Hypothesis 4a:* As time invested in work increases, time invested in family will decrease.

*Hypothesis 4b:* As time invested in family increases, time invested in work will decrease.

By focusing specifically on work and family roles, the linkages between work and family time may seem deterministic. However, these linkages are more complex than they may initially appear, for two reasons. First, people do not divide their time exclusively between work and family. Rather, they budget their time among multiple life domains, including work, family, community, and personal activities (Edwards & Rothbard, 2000). For instance, as time demands for work increase, people may draw time not from family, but instead from other life domains. In this manner, domains other than work and family provide reserves that offset the drain between work and family time. Second, although resource drain is likely to produce negative relationships between work

---

<sup>1</sup>These hypotheses are stated using directional language to underscore the separate linkages of the reciprocal association between work and family time investment. However, because our data are cross-sectional, we make no claims regarding causality in these or other hypotheses that we advance.



and family time, these relationships may differ in strength. In particular, work is more likely to intrude on family than the reverse, such that people draw from family time to meet work demands more often than they draw from work time to meet family demands (Eagle, Miles, & Icenogle, 1997). One explanation for this asymmetry is that time devoted to work is more constrained and, hence, less fungible than time invested in family, due to work schedules and attendance policies mandated by organizations (Johns, 1991). Consequently, family time investment may be subject to greater personal discretion than work time investment, such that people readily draw from family time in response to increased work time investment, but not the reverse. Therefore, we expect that the effect of work time investment on family time investment will be stronger than the effect of family time investment on work time investment.

*Hypothesis 4c:* The negative relationship from work time investment to family time investment will be stronger than the negative relationship from family time investment to work time investment.

There are two additional sets of linkages between work and family roles. One set pertains to the effect of identification with one role on investment in the other role. We offer two explanations for this effect. First, identification with one role may prompt people to limit time dedicated to other roles, a process referred to as accommodation in the work–family literature (Lambert, 1990). Accommodation captures the notion that people not only shift time to more important roles, but also reduce time devoted to less important roles. This process corresponds to a negative direct effect from identity in one role to investment in the other role (see Figure 1). A second accommodation explanation combines our previous logic regarding within-role time investment and the notion of resource drain. Specifically, increased identification with a role may increase time investment in that role and, through resource drain, decrease time investment in the other role. This process represents an indirect effect that combines a positive effect from identity to investment in one role along with a negative effect from investment in that role to investment in the other role (see note on Figure 1). Both of these explanations lead to the prediction that, as identification with one role increases, investment in the other role should decrease. Therefore:

*Hypothesis 5a:* Identification with work will be negatively associated with time invested in family.

*Hypothesis 5b:* Identification with family will be negatively associated with time invested in work.

Like identification, utilitarian considerations (i.e., pleasure and displeasure) associated with one role may affect investment in the other role. We suggest that pleasure associated with one role affects investment in the other role through two processes. First, as the pleasure obtained from a role increases, people are likely to dedicate less time to other roles. This process follows the logic of accommodation, in that when a role is pleasurable, people not only increase time allocated to that role, but also reduce time allocated to other roles (Lambert, 1990). For example, having a fulfilling family life may prompt people to restrict time devoted to other roles, such as work. Second, pleasure associated with a role should increase time devoted to that role and, through resource drain, reduce time available for the other role. These two processes correspond to a direct (see Figure 1) and an indirect effect (see note on Figure 1) of pleasure from one role on investment in the other role, both of which should contribute to an overall negative effect. Hence:

*Hypothesis 6a:* Work-related pleasure will be negatively associated with time invested in family.

*Hypothesis 6b:* Family-related pleasure will be negatively associated with time invested in work.

Finally, displeasure associated with a role should influence investment in other roles through two processes analogous to those described above. One process involves compensation, in which dissatisfaction with one role prompts people to seek satisfaction in another role (Champoux, 1978; Kando & Summers, 1971). Seeking satisfaction in another role is likely to require a shift of time to that role. For example, if a person's family life is dissatisfying, he or she may seek fulfillment at work and, to obtain this fulfillment, dedicate increased time to work. Second, as the displeasure associated with a role increases, the person is likely to devote less time to that role, which in turn would increase the time available for other roles. This process is the complement of resource drain, in that reducing time devoted to a role frees up time that may be dedicated to another role. As before, these two processes respectively represent a direct effect (see Figure 1) and an indirect effect (see note on Figure 1) of displeasure from one role on investment in the other role, which should both contribute to an overall positive effect. Thus:

*Hypothesis 7a:* Work-related displeasure will be positively associated with time invested in family.

*Hypothesis 7b:* Family-related displeasure will be positively associated with time invested in work.

## Methods

### Sample and Procedures

This study uses data from a survey of work–family issues. In January 1998, a cover letter and questionnaire were sent through interoffice mail to 1,310 employees at a large public university in the midwest. Reminder cards were sent 2½ weeks later to thank respondents and remind other employees to return the surveys. A lottery prize of \$500 was offered as an incentive to return the surveys. A total of 790 surveys were returned, yielding a response rate slightly greater than 60%. Respondents ranged in age from 23 to 70 years and averaged 42 years. Just over 68% were women, and 90% were Caucasian. Approximately 67% held bachelor's degrees, and 33% had earned an advanced or professional degree. Respondents included professional and administrative staff (32.8%), clerical workers (16.9%), faculty (11.6%), hospital physicians, administrators, and technicians (13.7%), nurses (9.7%), maintenance workers (6.4%), and employees holding other miscellaneous positions. Compared to the initial random sample that had been stratified by age, gender, and job type, the final sample was about the same age, had a higher proportion of women (68% vs. 58%), and had a greater prevalence of positions held primarily by women (e.g., clerical).

### Measures

*Time investment.* Following Lobel (1991), role investment was operationalized as the amount of time invested in work and family roles. Time invested in a role was measured by asking respondents how they allocated their time in an average week among various life roles: work, family, personal, sleep, and other activities. These categories are consistent with the way that time allocation has been measured in prior research (e.g., Juster & Stafford, 1991). Average hours per week allocated to work and family were used as indicators of work and family time investment, respectively.

*Identity.* We operationalized role identity as the psychological importance of a role (Lobel, 1991; Lobel & St. Clair, 1992). For work role identity, we used Kanungo's (1982) 6-item scale, which has been established as a valid measure of psychological identification (Blau, 1985). Following previous research (Frone, Russell, & Cooper, 1992a, 1994), we modified the Kanungo (1982) scale to measure family identity by substituting the term "family" for "work." Items were rated on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

*Utility.* Because utility is conceptualized in terms of pleasure and displeasure, we operationalized these two dimensions of utility using Watson and Tellegen's (1985) circumplex model of affect. We operationalized pleasure associated with a role as role-related positive affect and measured it using the 10 positive affect items from the Positive Affect Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988). Examples of positive affect items include excited, enthusiastic, interested. We operationalized displeasure associated with a role as role-related negative affect and measured it using the 10 negative affect items from the PANAS. Examples of negative affect items include upset, distressed, hostile. Items were measured on a 5-point scale ranging from 1 = *not at all* to 5 = *extremely*. We measured role related affect in two separate sections. In a section labeled "work feelings," we asked participants to rate emotions associated with work based on how they felt on average. In a separate section labeled "family feelings," we asked participants to rate emotions associated with family based on how they felt on average.

*Control variables.* In addition to the measures of the substantive relationships in our model, we measured several characteristics of participants' work and family roles. These variables have been examined in prior research (e.g., Lewis, 1999; Schor, 1992) and here were used as control and instrumental variables, as described in the analysis section below. Work related variables intended to capture the type of work and work demands included three yes/no categorical variables asking whether the respondent was a manager (0 = *no*, 1 = *yes*), had a second job (0 = *no*, 1 = *yes*), and was an exempt employee, that is, was not eligible for overtime pay (0 = *no*, 1 = *yes*). Family related variables intended to capture the type of family setting and demands of the family included the number of children the respondent cared for at home, the number of elderly relatives cared for at home, and marital status (i.e., 0 = *single*, or 1 = *married/had a domestic partner*). Gender was also measured (0 = *men*, 1 = *women*).

### *Analyses*

Hypotheses were tested by analyzing the nonrecursive model shown in Figure 2 with structural equation modeling (SEM) using LISREL 8 (Jöreskog & Sörbom, 1996). Prior to analysis, the theoretical model was elaborated in two ways. First, because the model specified reciprocal relationships between work and family investment, instrumental variables were added as predictors of work investment and family investment to achieve model identification (Berry, 1984). Instrumental variables are directly or indirectly related to one endogenous variable (e.g., investment in work) but not directly related to the other en-

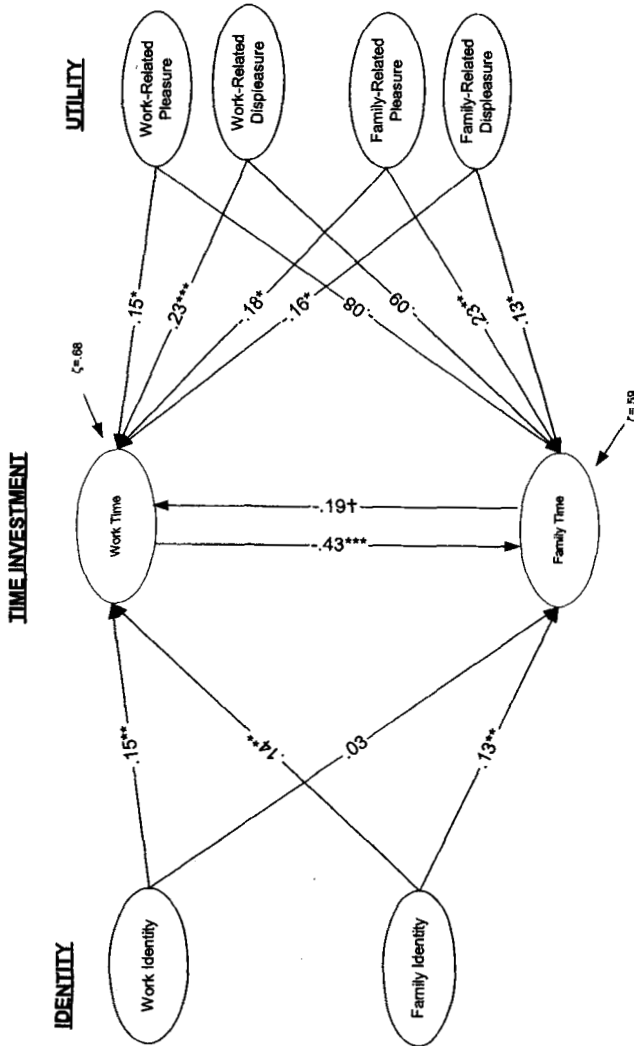


Figure 2: Structural model of investment in work and family.

Note: Instrumental and control variables are not shown for simplicity. Instrumental variables predicting work time were: being a manager ( $\gamma = .17, p < .001$ ), having an additional job ( $\gamma = .13, p < .001$ ), and being a salaried vs. an hourly worker ( $\gamma = .12, p < .01$ ). Instrumental variables predicting family time were: the number of children at home ( $\gamma = .22, p < .001$ ), the number of elders being cared for in the home ( $\gamma = .00, p > .10$ ), and being in a married or partnered relationship vs. single ( $\gamma = .24, p < .001$ ). As an additional control, gender was significantly related to work time ( $\gamma = -.12, p < .05$ ) but not to family time ( $\gamma = .04, p > .10$ )

dogenous variable (e.g., investment in family; James & Singh, 1978). For each role, we used three instrumental variables. For work investment, we used the work-related control variables described above (i.e., whether or not the respondent was a manager, had a second job, or was an exempt employee). For family investment, we used the family-related control variables described above (i.e., number of children the respondent cared for at home, number of elderly relatives cared for at home, and marital status).

Because relationships among work and family constructs may vary by gender (e.g., Kalleberg & Rosenfeld, 1990; Rothbard, 2001; Rothbard & Brett, 2000; Tenbrunsel et al., 1995), we controlled for gender in our tests of the hypotheses and conducted supplemental analyses to determine whether gender moderated the relationships depicted in the model. First, to control for gender differences, gender was added as a predictor of both work and family investment. Second, we conducted a series of multiple group analyses to examine whether gender moderated the relationships specified in the model (for these analyses, gender was not used as a control variable because gender was a constant within each group).

To maintain a ratio of observations to parameters that met the 5:1 criterion recommended by Bentler and Chou (1987), we used a single indicator of each construct in the model. These indicators were created by averaging the scale items used to measure each construct. To incorporate measurement error, we fixed the loading of each indicator to unity and fixed the measurement error variance of the indicator to the proportion of error variance in the measure (i.e., one minus Cronbach's alpha) multiplied by the variance of the indicator (Bollen, 1989; Hayduk, 1987). This approach has been used in several studies (e.g., Farkas & Tetrick, 1989; Frone et al., 1992a, 1994; Schaubroeck, Cotton, & Jennings, 1989), and produces structural parameter estimates that are very similar to those produced by models using multiple indicators (Netemeyer, Johnston, & Burton, 1990). For most constructs representing factual reports (e.g., gender, employment status), the report itself was used as a single indicator and no measurement error was incorporated. Two exceptions to this rule were work and family time. Because time devoted to a role may be subject to errors of recall, we assigned reliabilities of .90 to reported work and family time, thereby assuming 10% measurement error in these reports.<sup>2</sup>

---

<sup>2</sup>As a sensitivity analysis, we ran several analyses specifying different levels of measurement error in the time investment measures, using reliabilities of .70, .80, .90, and 1.00 (i.e., no error). Overall, the signs and statistical significance of the relationships in the model remained constant across these analyses. The only aspect of the results that varied was the amount of variance explained in the dependent variables, which was higher for models that incorporated greater measurement error.

*Results*

Table 1 shows the means, standard deviations, correlations, and reliability estimates for all study variables. Reliabilities ranged from .77 to .91 with a median of .83. Hence, all reliabilities exceeded the .70 criterion suggested by Nunnally (1978) and were considered acceptable. In general, the instrumental variables were significantly related to investment in the intended role. In particular, time spent at work was positively related to being a manager, having more than one job, and being an exempt employee. Likewise, time spent with family was positively related to the number of children at home and was greater for respondents who were in a partnered relationship. Collectively, work and family time investment exhibited multiple correlations of .44 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  $-.04$  to  $.06$  (all  $p > .10$ ). Thus, the instrumental variables in our model met the conditions specified by James and Singh (1978).

The estimated structural model fit the data well ( $\chi^2[4] = 4.41$ ,  $p = .35$ , CFI = 1.00, RMSEA = .013). These fit statistics were favorable in part because the model has few degrees of freedom. Overall, the model explained an adequate amount of variance in each of the dependent variables (32% of the variance in work time and 41% of the variance in family time).

Table 2 and Figure 2 reveal that Hypotheses 1a and 1b were supported. Table 2 shows that the total effect of work identity on work time was positive, due entirely to the direct effect. There was also a positive direct effect from family identity to family time, although this direct effect was nullified somewhat by a small negative indirect effect operating through work time.

Table 2 and Figure 2 indicate that Hypotheses 2a and 2b were supported. Specifically, Table 2 reveals that the total effects of work pleasure on work time and family pleasure on family time were positive. For work, this total effect was due to the direct effect, whereas for family, the total effect was due to both direct and indirect effects. Figure 2 depicts these direct and indirect relationships. In contrast, Hypotheses 3a and 3b were not supported. Table 2 indicates that the total effects of displeasure on time invested were positive rather than negative for both work and family. For work, this positive total effect was due to the direct effect, whereas for family this positive total effect was due to both direct and indirect effects. Figure 2 depicts these relationships. Combined, these results provide mixed support for the utilitarian proposition.

TABLE 1  
*Descriptive Statistics, Correlations, and Reliabilities for All Study Variables*

Variable name	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Work time investment	46.33	12.15	-														
2. Family time investment	37.45	18.80	-.35	-													
3. Work identity	3.30	1.08	.20	-.15	(.77)												
4. Work-related pleasure	3.57	.66	.04	.08	.18	(.89)											
5. Work-related displeasure	1.56	.50	.17	-.13	.04	-.27	(.83)										
6. Family identity	5.71	.89	.01	.24	-.05	.09	.00	(.78)									
7. Family-related pleasure	3.79	.73	-.08	.27	-.05	.52	-.13	.35	(.91)								
8. Family-related displeasure	1.49	.50	.03	-.03	.09	-.08	.44	-.09	-.35	(.87)							
9. Manager (0=no, 1=yes)	.46	.50	.27	-.15	.07	.24	-.00	-.01	.07	-.03	-						
10. Exempt (0=no, 1=yes)	.59	.49	.22	-.11	.11	.06	.01	-.05	-.01	-.04	.27	-					
11. Additional jobs (0=no, 1=yes)	.14	.35	.15	-.06	-.03	-.05	.05	-.02	-.02	.11	.05	-.00	-				
12. Gender (0=mate, 1=female)	.68	.47	-.25	.17	-.10	.07	-.16	.03	.14	-.05	-.16	-.05	-.12	-			
13. Marital status (0=single, 1=married)	.74	.44	-.13	.37	-.10	.05	-.09	.12	.11	-.08	.01	-.05	-.07	-.01	-		
14. Number of kids	.97	1.13	-.08	.39	-.14	.02	-.07	.24	.14	.03	-.00	-.01	-.00	-.01	.32	-	
15. Number of elders	.80	1.22	-.04	.06	-.03	.02	.02	.08	.02	.06	.08	.05	.01	.13	.05	.11	-

Notes:  $N = 623$ . Correlations greater than .08 in absolute magnitude are significant at the  $p < .05$  level. Cronbach's alpha reliabilities are in parentheses on the diagonal where appropriate.



TABLE 2  
*Total, Direct, and Indirect Effects of Independent Variables  
 on Work and Family Time Investment*

Independent variable	Work time			Family time		
	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect
Work identity	.15**	.15**	.01	-.04	.03	-.07*
Work-related pleasure	.18*	.15*	.03	-.16*	-.08	-.08*
Work-related displeasure	.27***	.23***	.04	-.20**	-.09	-.12**
Family identity	.13*	.14**	-.01	.08	.13**	-.05*
Family-related pleasure	-.25**	-.18*	-.06	.34***	.23**	.11*
Family-related displeasure	-.20**	-.16*	-.04	.22***	.13*	.09*

Notes:  $N = 623$ . The table displays standardized coefficients representing the total, direct, and indirect effects of the within and cross role hypothesized effects of the independent variables on work and family time investment respectively.

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

Hypotheses 4a, 4b, and 4c concerned reciprocal linkages between work and family time investment. Figure 2 reveals support for Hypothesis 4a, in that the negative relationship from work to family time investment was significant. However, Hypothesis 4b was only marginally supported, in that the negative relationship from family to work time investment was only significant at the  $p < .10$  level. Finally, a test of the difference between these two relationships indicated that the work-to-family time investment relationship is stronger than the family-to-work time investment relationship ( $\Delta\chi^2[1] = 7.44, p < .01$ ), providing support for Hypothesis 4c.

In support of Hypothesis 5a, Table 2 shows that work identity had a negative indirect effect on family time investment. Figure 2 reveals the nature of this negative indirect effect in that work identity was positively related to work time, which in turn was negatively related to family time. However, Hypothesis 5b was not supported. Table 2 shows that instead of a negative effect, family identity had a positive total effect on work time investment, attributable solely to the direct effect.

Our findings indicated support for Hypotheses 6a and 6b, although the pattern of findings differed for work and family. Specifically, Table 2 and Figure 2 reveal a negative total effect of work pleasure on family time investment, due to an indirect effect in which work pleasure was positively related to work time, which, in turn was negatively related to family time. We also found a negative total effect of family pleasure on work time, but this effect was direct rather than indirect (see Table 2 and Figure 2). Thus, these results support Hypotheses 6a and 6b but suggest different processes relating pleasure in one role to investment in the other role.

Hypotheses 7a and 7b were not supported. Instead of positive effects of displeasure in one role on investment in the other role, Table 2 indicates negative total effects. In particular, family displeasure had a negative direct effect on work time investment, whereas work displeasure exhibited a negative indirect effect on family time investment, through work time investment.

Analyses of the moderating effects of gender indicated that, overall, the hypothesized relationships in the model shown in Figure 2 differed for men and women ( $\Delta\chi^2[22] = 30.66, p < .01$ ). These differences modified support for the hypotheses in two ways. First, the full sample findings indicated that family time investment had a marginally significant negative effect on work time investment, consistent with Hypothesis 4b. Analyses of gender differences revealed that, for women, this relationship was negative and significant ( $\beta = -.48, t = -4.46, p < .001$ ), but that for men, this relationship was positive but not significant ( $\beta = .18, t = 1.26, p > .10$ ). Thus, Hypothesis 4b was supported for women but not for men. Second, although the model for women showed no direct or indirect effects of work identity on family time investment, for men, consistent with Hypothesis 5a, there was a negative indirect effect of work identity on family time ( $\gamma\beta = -.06, t = 1.97, p < .05$ ), but contrary to Hypothesis 5a, a positive direct effect emerged ( $\gamma = .16, t = 2.10, p < .05$ ). In combination, these two effects canceled each other out, that is, yielded a nonsignificant total effect of work identity on family time investment for men. Thus, Hypothesis 5a was not supported for men.

### *Discussion*

This study examined why people choose to invest themselves in work and family roles. We focused on identity and utilitarian motives for investment both within and across work and family roles. We first discuss findings for within-role investment and then turn to cross-role investment.

#### *Within-Role Relationships*

As predicted by identity theory, our study found that people's work and family identities were positively related to time invested in work and family roles, respectively. These findings indicate that people invest more time in roles that are meaningful or important to them. Moreover, the findings suggest an additional contribution to research on identity and role investment in that, even when controlling for utilitarian motives and demographic characteristics, identity is positively related to the time invested in a role. Thus, identity has a relationship with role investment

that is distinct from the relationships for utilitarian motives and exists over and above the relationships studied in prior research.

Second, our findings indicate that people were more invested in roles that were pleasurable to them. This finding is consistent with the utilitarian argument, which draws on hedonistic assumptions suggesting that people are attracted to pleasurable activities. Role-related pleasure was positively related to role investment even when taking identity motives into account, which suggests that utilitarian motives are distinct from identity motives. Moreover, these relationships existed over and above the variance explained by demographic characteristics studied in prior research.

Our findings also suggest, however, that people are more invested in roles that are displeasurable. This finding is inconsistent with the utilitarian argument, which stipulates that people strive to avoid unpleasant experiences. One explanation for this finding is that, instead of avoiding unpleasant role experiences, people actively try to solve the problems that make such experiences unpleasant, which requires investing time in those roles. This notion is consistent with stress and coping theory (Edwards, 1988; Lazarus & Folkman, 1984), which indicates that stressful experiences activate coping strategies intended to alleviate the sources of stress. In line with this reasoning, studies have found that the occurrence of stressful life events is positively related to instrumental (i.e., problem-focused) coping strategies (Edwards, Baglioni, & Cooper, 1990), and that avoidant coping strategies (e.g., reducing the amount of time spent in a role) are used only when instrumental strategies are unlikely to succeed (Aldwin & Revenson, 1987; Folkman & Lazarus, 1980; Vitaliano, DeWolfe, Maiuro, Russo, & Katon, 1990). The notion that unpleasant experiences trigger problem-solving efforts is also consistent with control theory (Carver & Scheier, 1982; Klein, 1989), which indicates that discrepancies between actual and desired experiences stimulate efforts to resolve those discrepancies, and people direct their time and effort toward discrepancies that are the most problematic. Thus, unpleasant role experiences may signal such discrepancies and may have motivating potential, such that people increase their investment to solve role-related problems and only reduce their investment when such efforts fail (Klinger, 1975).

Related to these explanations for why people are more invested in roles that are displeasurable is the idea that rather than responding to short-term aversive states by withdrawing, people invest in unpleasant roles in order to maximize long-term utility. That is, people tolerate the short term costs of engaging in negative aspects of career and family roles because they feel it is temporary and believe that in the long run the pleasure to be gained by investing time now outweighs the short term

displeasure they might have to endure. Additional research is needed to investigate the attraction and avoidance potential of unpleasant role experiences and the tradeoffs between short and long term considerations in role investment.

### *Cross-Role Relationships*

The reciprocal linkages between work and family time investment revealed an asymmetry between work and family. As predicted, our findings suggest that work time investment depletes family time investment, but family time investment has a smaller effect on work time investment. This asymmetry between work and family suggests that people are more likely to draw time from family to meet work demands than to draw time from work to meet family demands (Eagle et al., 1997). We theorized that this asymmetry might occur because work time investment may be more constrained and less fungible than family time investment, due to work schedules and attendance policies mandated by organizations (Johns, 1991). Consequently, investment in family may be subject to greater individual discretion than investment in work, such that people draw from family time to meet work demands, but not the reverse. These findings also suggest that the boundary between work and family is asymmetrically permeable, such that work affects family more than family affects work, at least with regard to time-related issues (Frone, Russell, & Cooper, 1992b; Pleck, 1977). This asymmetry may reflect societal norms that allow work to impinge on family more than the reverse, perhaps because people justify work time investment as instrumental for meeting material needs of the family (Evans & Bartolome, 1986; Kanter, 1977; Payton-Miyazaki & Brayfield, 1976; Zedeck, 1992). These findings were refined by our analyses of gender differences, however, which revealed that increased family time investment was related to reduced work time investment for women but not for men. Thus, although the boundary between work and family was asymmetrically permeable for men, it was symmetrically permeable for women, suggesting that women may treat the boundary between work and family as more fluid than do men. We further explore these differences in our discussion of practical implications.

Regarding the relationship between identity in one role and investment in the other role, we found that work identity was indirectly and negatively related to family investment. This finding suggests that people who are highly identified with work spend more time at work and consequently decrease time devoted to family. This finding is consistent with resource drain, which highlights the finite nature of time (Eckensrode & Gore, 1990; Piotrkowski, 1979; Small & Riley, 1990; Staines,

1980). However, contrary to our prediction, work identity was directly and positively related to family time investment, but only for men. One explanation might be that participation in multiple roles can be enriching rather than depleting (Rothbard, 2001). Roles such as work can provide people with self-esteem and social status, leading to energy expansion and increased investment in other roles (Marks, 1977; Sieber, 1974). Indeed, Rothbard (2001) found that men, but not women, experienced enrichment from work to family roles. For men, high identification with work may increase their self-worth and provide them with other material benefits, leading them to invest more time in their families.

Another unexpected finding concerned the relationship between family identity and work time for both men and women. This finding suggests that people who are highly identified with family actually spend more time instead of less time at work. Several explanations may account for this relationship. High identification with family may indicate people who are generally more responsible and committed, which would have positive effects on both work and family time investment. Likewise, people who are highly identified with family may invest more time in work because they view work as instrumental to meeting family needs. We further discuss this finding when we turn to the practical implications of our results.

As expected, we found a negative relationship between pleasure in one role and investment in the other. Specifically, work-related pleasure was indirectly and negatively related to family time, consistent with the resource drain perspective. This finding indicates that people who have pleasurable work roles spend more time at work and, as a result, devote less time to their families. Analogously, family-related pleasure was directly and negatively related to work time investment, consistent with the accommodation perspective (Lambert, 1990). This relationship suggests that people who have fulfilling family lives may attempt to maintain this sense of fulfillment by strategically limiting their time at work.

Contrary to our expectations, displeasure associated with a role was negatively related to investment in the other role. However, these findings are consistent with our results regarding the relationship between within-role displeasure and investment, whereby work and family displeasure were positively associated with work and family investment, respectively. For these results, we suggested that people invest more time in unpleasant roles in order to cope with problems associated with those roles (Edwards et al., 1990). A similar explanation may apply to our cross-role findings. That is, instead of compensating by investing more heavily in another role, people may decrease their time investment in other roles in order to devote more time to the displeasurable role, thus coping with problems that produce dissatisfying experiences in that role.

*Limitations*

Three primary limitations of this study should be noted. First, our design was cross-sectional, making it difficult to draw causal inferences regarding the relationships among the study variables. Although our analyses decompose relationships among variables into direct effects, indirect effects, and total effects, the term "effect" simply represents conventional terminology in path analysis and structural equation modeling (e.g., Alwin & Hauser, 1975; Duncan, 1975) and does not imply that causality has been established. Strictly speaking, our findings indicate that our data are consistent with most aspects of our proposed model (i.e., core aspects of the model survived falsification; Popper, 1959). Support for the proposed model does not logically rule out other models, including those with alternative causal flows (MacCallum, Wegener, Uchino, & Fabrigar, 1993). Causal flows other than those hypothesized are possible. For example, role investment could influence a person's cognitive appraisal of the pleasure received from work and family. This possibility is suggested by Bem's (1972) self-perception theory, which states that people may infer their attitudes from their behavior in order to maintain self-consistency. Thus, a person who is invested in a role may construe that role as pleasurable. For similar reasons, high role investment could intensify identification with that role. Although these causal flows may be plausible, they do not preclude the likelihood that identity and utilitarian motives influence role investment, as specified in our model. Future studies should use longitudinal designs to investigate the relative magnitudes of these alternative causal flows. Longitudinal designs permit stronger causal inferences and may be more appropriate for estimating the magnitude of causal effects provided that the appropriate time lag for a given relationship is known in advance. However, if the optimal time lag is not known, longitudinal data can provide parameter estimates that are more biased than those obtained from cross-sectional data (Frone et al, 1992a; Gollub & Reichardt, 1987; Kessler, 1987; Kessler & Greenberg, 1981; Leventhal & Tomarken, 1987).

Second, our study relied on self-report measures. Such measures are consistent with the focal constructs of the study, in that identity and utilitarian motives are inherently subjective constructs, and the focal person was probably the most accurate source of information regarding his or her own time investment in work and family. Nonetheless, these measures may have introduced common method variance, thereby inflating relationships among study variables. Spector (1987) suggests that method variance is more problematic for single item or poorly designed scales than for multi-item scales that are well designed. Fortunately, the measures in this study were either multi-item scales with high reliabilities

or were single-item reports of behavior that likely contained little measurement error. Moreover, Crampton and Wagner (1994) examined the impact of common method variance between measures of job satisfaction and job involvement, which are akin to our measures of affect and identity, respectively. They found little evidence of common method variance in the relationship between satisfaction and involvement, suggesting that the relationship between affect and identity in our study was probably not greatly influenced by common method variance. Furthermore, common method variance is thought to be most pronounced among measures of conceptually related attitudes (Crampton & Wagner, 1994). In our study, affect and identity refer to attitudes, whereas time investment refers to behavior. Therefore, we suspect that common method variance had little effect on these relationships. Nonetheless, future research should collect reports on behavioral constructs such as time investment from supervisors, coworkers, subordinates, and family members to substantiate reports from the focal person.

Third, due to the voluntary nature of the survey, our study may have overrepresented people for whom family issues are a primary concern. This is evidenced by the mean for the family identity measure, which was more than two points higher than the mean for the work identity measure (both measures used a 7-point scale). Moreover, our sample was drawn from a single organization as opposed to the general working population. Thus, our results may not generalize to other working adults who place more equal emphasis on work and family concerns.

### *Contributions*

Despite these limitations, this study makes several contributions. First, our findings do not support one of the central predictions of the utilitarian perspective, which is that finding a role unpleasant in the short term reduces time investment in that role. In contrast, our results indicated the opposite that finding a role unpleasant was positively related to time investment. These results suggest that, at least in the context of work and family time investment, short term approaches to the utilitarian perspective should be rethought and amended as explanations of role investment. Specifically, responses to unpleasant contexts may be better characterized by active coping than avoidance. Future research should also examine long term utilitarian payoffs.

Second, our study refines the notion of resource drain as a mechanism linking work and family time investment. Classic conceptualizations of resource drain draw from the basic assumption that resources such as time are drawn from family to meet work needs and from work to meet family needs. Our study suggests that this assumption should be

refined in two ways. First, we found that resource drain can be asymmetric, such that people drew time from family as work time investment increased, but did not draw time from work as family time investment increased. This was consistent with Hypothesis 4c and demonstrates that the relationship between work and family time investment is not as obvious as suggested by classic resource drain models. Second, this asymmetry applied only to men, suggesting that gender differences play a role in how people allocate time between work and family. In combination, these findings suggest that fundamental assumptions underlying research on resource drain should be reconsidered and are more complex than they might initially seem. These findings also reinforce the fact that people do not merely divide their time between work and family, but instead budget their time among multiple life domains, only two of which are work and family.

Third, this study also contributes to existing knowledge about the processes that underlie the linkages between work and family roles. Although there has been much research on work and family roles, empirical research that carefully explores the mechanisms linking work and family is strongly needed (Edwards & Rothbard, 2000). Regarding these mechanisms, our study offers two contributions. First, we hypothesized and found that work and family linkages are explained by both the direct and indirect effects of identity and utilitarian motives on work and family time investment. In contrast, previous research has focused almost exclusively on direct effects. Second, to explain how role experiences influence work and family time investment, we drew from existing research on resource drain, accommodation, and compensation, three of the most widely studied work–family linking mechanisms. In our study, we found support for resource drain and accommodation, but not for compensation. This finding challenges the notion that people compensate for negative experiences in one role by investing more time in other roles.

### *Practical Implications*

In many organizations, managers often assume that family identification, inferred from behavior, will decrease a worker's investment and productivity. Indeed research highlights the attitudes and behaviors of employers who deny women access to career opportunities often because of their perceptions of women's family roles (Lobel & St. Clair, 1992; Schwartz, 1989). Managers believe that women's future job performance will suffer because of family (Covin & Brush, 1991) and also that women's current performance provides no guarantee of future performance because her family status and, thus, identification might



change at any time (Rosenfeld, 1980). For example, in her book, *The Time Bind*, Arlie Hochschild (1997) describes an employee, who, after having a child, demonstrated her family identity by trying out an alternative work schedule. Although there were no complaints about her work, her manager was uncomfortable with the arrangement, citing vague concerns about the future. In response, the employee offered to return to a traditional schedule, yet the manager stated that he still preferred to replace her with a new employee. Despite her willingness to conform to traditional behavior, her family identity was still seen as suspect. In contrast, Hochschild relates how employees at the same company approaching retirement faced no penalty for working exactly the same alternative work schedule as the woman in the example above. This example illustrates possible reasons why a recent Catalyst (1996, p. 52) report would find that "women spoke of going to great lengths to avert perceptions that family responsibilities might affect their career commitment." Indeed, one woman in this study remarked "when I had my daughter, there was much more of a fear about the impact—about the perception of dedication."

In contrast to these fears that managers may have about family identity decreasing work investment, in our results, we found that greater identification with family had a positive effect on work time investment. In fact, we found that identification with either work or family had similar positive effects on work time investment. Thus, controlling for other factors, the path coefficients in the model suggest that an employee who identifies highly with family but not with work invests virtually the same amount of time in work as an employee who identifies highly with work but not with family. Moreover, an employee who identifies highly with both work and family invests twice as much time in work as a person who is only highly identified with either work or family. Because our findings indicate that family identification does not deplete work time investment, employers should not base selection and promotion decisions on unwarranted stereotypes or misperceptions regarding how family identity impacts job performance, but instead, focus on job-related behaviors, decisions, and outcomes. To facilitate this, human resource professionals should consider incorporating this finding into training programs such as family-friendly diversity training. Although organizations try to adopt family-friendly policies, implementation by managers is often the missing link (Cramer & Pearce, 1990) and educating managers about the positive (rather than negative) relationship between family identity and work time could help dispel these traditional and potentially erroneous stereotypes.

Although family identification does not decrease work time investment, our results show that greater family time investment does drain

work time for women, but not for men. One explanation for this asymmetry is that, compared to men, women in our sample dedicated an average of 7 more hours per week to family. With family time investment already at higher mean levels, further increases may have left women with little recourse other than drawing time from work. For men, however, lower family time investment may have left slack in other life roles such that increases in family time did not require them to draw time from work. Indeed, men in our sample averaged 2 more hours of personal time per week than women, and this personal time may have provided a reserve for men to meet increasing family demands without decreasing work time. Although men who already work excessively long hours may face the same lack of reserve as women when family time demands increase.

Supporting our finding that there is a gender difference in the time drain between work and family, research suggests that there is a large gender gap (up to 19 hours per week) in household work such that women perform more household work than men do and have less personal discretionary time than men as a result (South & Spitze, 1994). These results echo what Hochschild (1989) terms "the second shift," where women have lower reserves of personal time because they perform more household maintenance work such as cleaning, cooking, and errands than men. Research using detailed time diaries has pinpointed activities such as preparing meals, washing dishes, cleaning house, and laundry as consuming the bulk of housework hours (Brayfield, 1992; South & Spitze, 1994). Thus, to offset the time drain from work that women experience as family time increases, organizations should consider offering family friendly benefits such as flexible work hours (i.e., flextime) and locations (i.e., flexplace) that help employees meet family demands in more efficient ways. Another less common example of the type of benefits that might help employees meet family time demands more efficiently are "concierge services," benefits that range from low-cost options such as dry cleaning delivery and evening meal preparation by the company cafeteria to more costly options such as errands and household cleaning services. These services correspond directly to the types of activities that have been found to reduce women's discretionary time relative to men's and may help provide a buffer, preserving work time as family demands increase. Because benefits such as flextime, flexplace, and concierge services may directly address this time drain from family to work for women, human resource professionals should consider that these benefits might have application beyond simply facilitating recruitment and retention of employees. These benefits may also have an impact on the time people may be able to invest in the work itself.

*Conclusions and Future Research*

Our findings suggest several directions for future research. First, we found that role investment depends not only on identity and role-related pleasure, but also on role-related displeasure that signals the need to cope with role problems. Future research should explore these coping motives more thoroughly. Second, our findings suggest that investment in one role is affected by factors in other roles, meaning that role investment processes do not operate in isolation. Moreover, by modeling reciprocal linkages between work and family role investment, we found evidence for indirect effects between work and family that operate through resource drain. Future research should further examine these indirect relationships, as they help decipher the process by which work and family influence one another. Moreover, interactions between identity and utilitarian motives should also be explored. Finally, although we focused on role investment in two important life roles, work and family, future research should explore linkages among other life roles, such as personal and leisure roles. The role investment process should also be studied with regard to specific aspects of work and family roles. In the workplace, people may invest in multiple roles, such as coworker, superior, and subordinate. In the family setting, people may participate in spousal, parental, and filial roles. To further understand the process of investment in multiple roles, the model examined in this study should be adapted to different roles within organizational and family settings. A more fine-grained examination of the activities that people engage in within work and family roles as well as the quality of the time spent in these activities would enhance our understanding of investment in multiple roles.

## REFERENCES

- Ajzen I, Fishbein M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Aldwin CM, Revenson TA. (1987). Does coping help? A reexamination of the relation between coping and mental health. *Journal of Personality and Social Psychology*, 53, 337-348.
- Alwin DF, Hauser RM. (1975). The decomposition of effects in path analysis. *American Sociological Review*, 40, 37-47.
- Bem DJ. (1972). Self-perception theory. In Berkowitz L (Ed.), *Advances in experimental social psychology*, vol. 6, (pp. 1-49). New York: Academic Press.
- Bentler PM, Chou C. (1987). Practical issues in structural modeling. *Sociological Methods and Research*, 16, 78-117.
- Berry WD. (1984). *Nonrecursive causal models*. Beverly Hills, CA: Sage.
- Blau GJ. (1985). A multiple study investigation of the dimensionality of job involvement. *Journal of Vocational Behavior*, 27, 19-36.
- Bollen KA. (1989). *Structural equations with latent variables*. New York: Wiley.

- Brayfield AA. (1992). Employment resources and housework in Canada. *Journal of Marriage and the Family*, 54, 19–30.
- Brown SP. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, 120, 235–255.
- Burke PJ, Reitzes DC. (1991). An identity approach to commitment. *Social Psychology Quarterly*, 54, 239–251.
- Burke RJ, Greenglass E. (1987). Work and family. In Cooper CL, Robertson IT (Eds.), *International review of industrial and organizational psychology* (pp. 273–320). New York: Wiley.
- Callero PL. (1985). Role-identity salience. *Social Psychology Quarterly*, 48, 203–215.
- Carver CS, Scheier MF. (1982). Control theory: A useful conceptual framework for personality-social, clinical, and health psychology. *Psychological Bulletin*, 92, 111–135.
- Catalyst. (1996). *Women in corporate leadership: Progress and prospects*. Research report.
- Champoux JE. (1978). Perceptions of work and nonwork: A reexamination of the compensatory and spillover models. *Sociology of Work and Occupations*, 5, 402–422.
- Covin TJ, Brush CC. (1991). An examination of male and female attitudes toward career and family issues. *Sex Roles*, 25, 393–415.
- Cramer K, Pearce J. (1990). Work and family policies become productivity tools. *Management Review*, 79, 42–44.
- Crampton SM, Wagner JA. (1994). Percept-percept inflation in microorganizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79, 67–76.
- Duncan OD. (1975). *Introduction to structural equation models*. New York: Academic Press.
- Eagle BW, Miles EW, Icenogle ML. (1997). Interrole conflicts and the permeability of work and family domains: Are there gender differences? *Journal of Vocational Behavior*, 50, 168–184.
- Eckenrode J, Gore S. (1990). *Stress between work and family*. New York: Plenum Press.
- Edwards JR. (1988). The determinants and consequences of coping with stress. In Cooper CL, Payne R (Eds.), *Causes, coping, and consequences of stress at work* (pp. 233–263). New York: Wiley.
- Edwards JR, Baglioni AJ, Cooper CL. (1990). Stress, Type-A, coping, and psychological and physical symptoms: A multi-sample test of alternative models. *Human Relations*, 43, 919–956.
- Edwards JR, Rothbard NP. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25, 178–199.
- Elliot AJ, Thrash TM. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82, 804–818.
- Evans P, Bartolome F. (1986). The dynamics of work-family relationships in managerial lives. Special issue: Occupational and life stress and the family. *International Review of Applied Psychology*, 35, 371–395.
- Farkas AJ, Tetrick LE. (1989). A three-wave longitudinal analysis of the causal ordering of satisfaction and commitment on turnover decisions. *Journal of Applied Psychology*, 74, 855–868.
- Farrell D, Rusbult C. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. *Organizational Behavior and Human Performance*, 28, 78–95.
- Folkman S, Lazarus RS. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 219–239.

- Frone MR, Russell M, Cooper ML. (1992a). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology*, 77, 65-78.
- Frone MR, Russell M, Cooper ML. (1992b). Prevalence of work-family conflict: Are work and family boundaries asymmetrically permeable? *Journal of Organizational Behavior*, 13, 723-729.
- Frone MR, Russell M, Cooper ML. (1994). Relationship between job and family satisfaction: Causal or noncausal covariation? *Journal of Management*, 20, 565-579.
- Gollub HF, Reichardt CS. (1987). Taking account of time lags in causal models. *Child Development*, 58, 80-92.
- Gray JA. (1987). *The psychology of fear and stress*. New York: Cambridge University Press.
- Gray JA. (1990). Brain systems that mediate both emotion and cognition. *Cognition and Emotion*, 4, 269-288.
- Greenhaus JH, Beutell NJ. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10, 76-88.
- Hayduk LA. (1987). *Structural equation modeling with LISREL: Essentials and advances*. Baltimore, MD: Johns Hopkins University Press.
- Hochschild AR. (1989). *The second shift*. New York: Avon.
- Hochschild AR. (1997). *The time bind: When work becomes home and home becomes work*. New York: Metropolitan.
- Homans GC. (1976). Fundamental processes of social exchange. In Hollander EP, Hunt RJ (Eds.), *Current perspectives in social psychology*, (4th ed.), (pp. 161-173). New York: Oxford University Press.
- James W. (1890). *Principles of psychology*. New York: Holt.
- James LR, Singh BK. (1978). An introduction to the logic, assumptions, and basic analytic procedures of two-stage least squares. *Psychological Bulletin*, 85, 1104-1122.
- Johns G. (1991). Substantive and methodological constraints on behavior and attitudes in organizational research. *Organizational Behavior and Human Decision Processes*, 49, 80-104.
- Jöreskog KG, Sörbom D. (1996). *LISREL 8: User's reference guide*. Chicago: Scientific Software International, Inc.
- Juster FT, Stafford FP. (1991). The allocation of time: Empirical findings, behavioral models, and problems of measurement. *Journal of Economic Literature*, 29, 471-522.
- Kahn RL, Wolfe DM, Quinn RP, Snoek JD, Rosenthal RA. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York: Wiley.
- Kahn WA. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kahn WA. (1992). To be fully there: Psychological presence at work. *Human Relations*, 45, 321-349.
- Kalleberg AL, Rosenfeld RA. (1990). Work in the family and in the labor market: A cross-national, reciprocal analysis. *Journal of Marriage and the Family*, 52, 331-346.
- Kando TM, Summers WC. (1971). The impact of work on leisure: Toward a paradigm and research strategy. *Pacific Sociological Review*, 14, 310-327.
- Kanter RM. (1977). *Work and family in the United States: A critical review and agenda for research and policy*. New York: Russell Sage.
- Kanungo RN. (1979). The concepts of alienation and involvement revisited. *Psychological Bulletin*, 86, 119-138.
- Kanungo RN. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67, 341-349.
- Kessler RC. (1987). The interplay of research design strategies and data analysis procedures in evaluating the effects of stress on health. In Kasl SV, Cooper CL (Eds.), *Stress and health: Issues in research methodology* (pp. 113-140). New York: Wiley.

- Kessler RC, Greenberg DF. (1981). *Linear panel analysis: Models of quantitative change*. San Diego, CA: Academic Press.
- Klein HJ. (1989). An integrated control theory model of work motivation. *Academy of Management Review*, 14, 150–172.
- Klinger E. (1975). Consequences of commitment to and disengagement from incentives. *Psychological Review*, 82, 1–25.
- Lambert SJ. (1990). Processes linking work and family: A critical review and research agenda. *Human Relations*, 43, 239–257.
- Lazarus RS, Folkman S. (1984). *Stress, coping, and adaptation*. New York: Springer.
- Leventhal H, Tomarken A. (1987). Stress and illness: Perspectives from health psychology. In Kasl SV, Cooper CL (Eds.), *Stress and health: Issues in research methodology* (pp. 27–55). New York: Wiley.
- Lewis GB. (1999). Burning the midnight oil: Causes and consequences of gender differences in overtime in the federal service. *American Review of Public Administration*, 29, 44–60.
- Lobel SA. (1991). Allocation of investment in work and family roles: Alternative theories and implications for research. *Academy of Management Review*, 16, 507–521.
- Lobel SA, St. Clair L. (1992). Effects of family responsibilities, gender, and career identity salience on performance outcomes. *Academy of Management Journal*, 35, 1057–1069.
- MacCallum RC, Wegener DT, Uchino BN, Fabrigar LR. (1993). The problem of equivalent models in applications of covariance structure analysis. *Psychological Bulletin*, 114, 185–199.
- March JG, Simon HA. (1958). *Organizations*. New York: Wiley.
- Marks SR. (1977). Multiple roles and role strain: Some notes on human energy, time, and commitment. *American Sociological Review*, 42, 921–936.
- McAllister WK. (1953). Toward a re-examination of psychological hedonism. *Philosophy and Phenomenological Research*, 13, 499–505.
- Mischel W, Peake PK. (1983). Analyzing the construction of consistency in personality. In Page MM (Ed.), *Personality: Current theory and research* (pp. 233–262). Lincoln, NE: University of Nebraska Press.
- Naylor JC, Pritchard RD, Ilgen DR. (1980). *A theory of behavior in organizations*. New York: Academic Press.
- Netemeyer RG, Johnston MW, Burton S. (1990). Analysis of role conflict and role ambiguity in a structural equations framework. *Journal of Applied Psychology*, 75, 148–157.
- Nunnally JC. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Payton-Miyazaki M, Brayfield AH. (1976). The good job and the good life: Relationship of characteristics of employment to general well-being. In Bideman AD, Drury TF (Eds.), *Measuring work quality for social reporting* (pp. 105–150). New York: Sage.
- Piotrkowski CS. (1979). *Work and the family system*. New York: Free Press.
- Pleck JH. (1977). The work–family role system. *Social Problems*, 24, 417–427.
- Popper KR. (1959). *The logic of scientific discovery*. New York: Basic Books.
- Rosenfeld, RA. (1980). Race and sex differences in career dynamics. *American Sociological Review*, 45, 583–609.
- Rothbard NP. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46, 655–684.
- Rothbard NP, Brett JM. (2000). Promote equal opportunity by recognizing gender differences in the experience of work and family. In Locke EA (Ed.), *The Blackwell handbook of principles of organizational behavior* (pp. 389–403). Oxford: Blackwell.
- Saleh SD, Hosek J. (1976). Job involvement: Concepts and measurements. *Academy of Management Journal*, 19, 213–224.

- Schaubroeck J, Cotton JL, Jennings KR. (1989). Antecedents and consequences of role stress: A covariance structure analysis. *Journal of Organizational Behavior*, 10, 35–58.
- Schor JB. (1992). *The overworked American: The unexpected decline of leisure*. New York: Basic Books.
- Schwartz FN. (1989). Management women and the new facts of life. *Harvard Business Review*, 67, 65–76.
- Siebert SD. (1974). Toward a theory of role accumulation. *American Sociological Review*, 39, 567–578.
- Small SA, Riley D. (1990). Toward a multidimensional assessment of work spillover. *Journal of Marriage and the Family*, 52, 51–61.
- South SJ, Spitze G. (1994). Housework in marital and nonmarital households. *American Sociological Review*, 59, 327–347.
- Spector PE. (1987). Method variance as an artifact in self-reported affect and perceptions at work: Myth or significant problem? *Journal of Applied Psychology*, 72, 438–443.
- Staines GL. (1980). Spillover versus compensation: A review of the literature on the relationship between work and nonwork. *Human Relations*, 33, 111–129.
- Stryker S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. *Journal of Marriage and the Family*, 30, 558–564.
- Stryker S, Serpe RT. (1982). Commitment, identity salience, and role behavior: Theory and research example. In Kidd R (Ed.), *Personality, roles, and social behavior* (pp. 199–218). New York: Springer-Verlag.
- Stryker S, Serpe RT. (1994). Identity Salience and Psychological Centrality: Equivalent, overlapping, or complementary concepts? *Social Psychology Quarterly*, 57, 16–35.
- Tajfel H, Turner JC. (1985). The social identity theory of intergroup behavior. In Worchal S, Austin WG (Eds.), *Psychology of intergroup relations*, (2nd ed., pp. 7–24). Chicago: Nelson-Hall.
- Tenbrunsel AE, Brett JM, Maoz E, Stroh LK, Reilly AH. (1995). Dynamic and static work–family relationships. *Organizational Behavior and Human Decision Processes*, 63, 233–246.
- Thompson JA, Bunderson JS. (2001). Work–nonwork conflict and the phenomenology of time: Beyond the balance metaphor. *Work and Occupations*, 28, 17–39.
- Vitaliano PP, DeWolfe DJ, Maiuro RD, Russo J, Katon W. (1990). Appraised changeability of a stressor as a modifier of the relationship between coping and depression: A test of the hypothesis of fit. *Journal of Personality and Social Psychology*, 59, 582–592.
- Voydanoff P. (1987). *Work and family life*. Newbury Park, CA: Sage.
- Watson D, Clark LA., Tellegen A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Watson D, Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98, 219–235.
- Zedeck S. (1992). *Work, families, and organizations*. San Francisco: Jossey-Bass.