The longitudinal, multisource, multimethod study presented herein examines the role of employees’ work-family integration in the spillover of daily job satisfaction onto daily marital satisfaction and affective states experienced by employees at home. The spillover linkages are modeled at the within-individual level, and results support the main effects of daily job satisfaction on daily marital satisfaction and affect at home, as well as the moderating effect of work-family integration on the strength of the within-individual spillover effects on home affect. That is, employees with highly integrated work and family roles exhibited stronger intraindividual spillover effects on positive and negative affect at home.

Modern technologies such as the Internet, cellular phone, Blackberry, iPhone, and other mobile communication devices have enabled employees and their family members to communicate with each other nearly anywhere, anytime. Moreover, flexible work arrangements under which employees can complete some work tasks from home are increasingly prevalent. As a result, the boundary between time designated for work and time designated for nonwork is more fuzzy, increasing the likelihood of “work-family spillover.” Work-family spillover is defined as “the effects of work and family on one another that generate similarities between the two domains” (Edwards & Rothbard, 2000: 180). Work-family spillover can be behavioral or affective in nature (cf. Carlson, Kacmar, Wayne, & Grzywacz, 2006; Edwards & Rothbard, 2000); the latter type of effect is this study’s focus.

Affective work-family spillover typically means that work-related moods or attitudes are carried home, or that family-related moods or attitudes are carried to work. Although moods and attitudes are both affective in nature, they differ in stability and target-specificity. That is, unlike a mood, which tends to be highly transient and diffuse (i.e., without a specific referent [Watson, 2000]), an attitude is more stable and has a specific object (e.g., job satisfaction is an attitude about one’s job [see Ilies & Judge, 2004]). Judge and Ilies’s (2004) finding that mood at work is positively related to mood at home—a phenomenon referred to as “mood spillover” (Judge & Ilies, 2004; Williams & Alliger 1994)—demonstrates mood-based work-family spillover. Examples of attitudinal work-family spillover include Heller, Watson, and Ilies’s (2004) theorizing about the likelihood of employees’ off-work life (e.g., family relationships) being influenced by their job satisfaction and by Judge and Ilies’s (2004) finding that employees with higher job satisfaction tend to report significantly more positive affect at home.

In this article, we are concerned with the spillover of a work role attitude—job satisfaction—from work to family, a process by which employees’ satisfaction with their jobs influences their feelings and attitudes experienced in the family role. Unlike authors who study mood spillover (e.g., Williams & Alliger, 1994), we focus on the spillover of job satisfaction because it is, “from the perspective of research and practice, the most focal employee attitude” (Saari & Judge, 2004: 396), and because it has been theorized to directly influence employees’ off-work lives (e.g., Heller et al., 2004).

Recently, theory and research have focused on job satisfaction as an evaluative state that varies over time (e.g., Heller & Watson, 2005; Ilies & Judge, 2002; Ilies, Schwind, & Heller, 2007). Using a similar conceptualization of job satisfaction, we focus on the spillover of daily job satisfaction onto feelings experienced in the family domain. Such a focus is consistent with Locke’s definition of job satisfaction as an “emotional state” [italics added] resulting from an appraisal of one’s job or job experiences” (1976: 1300). In keeping with previous theorizing (Heller & Watson, 2005; Judge & Ilies, 2004; Williams, Suls, Alliger, Learner, & Wan, 1991), we define daily job satisfaction as an attitudinal evaluation of one’s job or job experiences on
a particular workday. However, very little research has examined the spillover of daily job satisfaction onto constructs in the family domain measured in real time, at the within-individual level (Heller & Watson, 2005; Judge & Ilies, 2004; Williams et al., 1991).

Moreover, there are conflicting findings in the literature regarding job satisfaction–work-family spillover at the within-individual level. Specifically, Williams et al. (1991) failed to find a positive within-individual linkage between job satisfaction and positive affect at home, and Judge and Ilies (2004) were surprised that job satisfaction significantly affected only employees’ positive affect (and not negative affect) at home. In addition, although Heller and Watson (2005) found that job satisfaction assessed in the afternoon predicted marital satisfaction assessed at night, further analyses did not support a mediating role for mood.

One possible reason for the inconsistent findings among these three studies, which all measured job satisfaction on multiple occasions and assessed its within-individual associations with home outcomes, is that the studies’ participants may have differed in their level of “work-family role integration.” Employees with low work-family role integration tend to segment, or separate, their work and family roles (e.g., Ashforth, Kreiner, & Fugate, 2000; Nippert-Eng, 1996; Rothbard, Phillips, & Dumas, 2005), thus demonstrating high work-family role segmentation; in contrast, employees with high work-family role integration tend to make little distinction between their work and family roles (Desrochers, Hilton, & Larwood, 2005; Nippert-Eng, 1996; Olson-Buchanan & Boswell, 2006).

An example of a highly work-family role-integrated employee is someone who cannot turn off his/her Blackberry during a family vacation because of his/her intrinsic interest in seeing e-mails from work-related colleagues; a mildly work-family role-integrated employee will happily (or more happily) do so. Therefore, employees who have higher (rather than lower) levels of work-family role integration ought to have greater difficulty separating their “work-selves” from their “family-selves.” A work role boundary perspective would thus lead to the prediction that employees who cannot separate themselves from work—that is, more work-family role-integrated employees—will probably have more spillover at home of their job (dis)satisfaction. This perspective could explain why Williams et al. (1991) found no linkage between employees’ job satisfaction and home affect: their study’s participants, who were working mothers, may have all been low in work-family role-integration. And it may explain why Judge and Ilies (2004) found that employees who are more job-satisfied experience more home positive affect. On the other hand, this explanation cannot account for why Judge and Ilies found a significant linkage between employees’ job satisfaction and their positive, but not their negative, affect at home. Heller and Watson (2005) did not report whether job satisfaction had direct effects on home positive and negative affect, so we do not know what relationship may have existed between these variables in their data.

A second reason for job satisfaction spillover studies’ inconsistencies could be that these studies differ in terms of (1) where the employees were (i.e., at home or at work) when their job satisfaction was assessed, (2) what time of day (i.e., afternoon or evening) employees’ job satisfaction was assessed, (3) what type of job satisfaction assessments were used (momentary or daily), (4) how much time had elapsed between work and home assessments, and (5) what control variables were included in the analyses (or not included when they should have been). For example, Williams et al. (1991: 667) assessed daily job satisfaction (“how satisfied were they that day”) at the end of the day (presumably at home), whereas Heller and Watson, like Judge and Ilies, assessed momentary job satisfaction during working hours.

The reason these differences matter is that employees may have greater difficulty rating or be more likely to be biased when assessing their job satisfaction when they are at home rather than at work. For this reason, unlike Williams et al. (1991), in the present study we measured work affect and job satisfaction at work and home affect and marital satisfaction at home. Similarly, when it comes to reporting home affect, it may be that employees’ significant others or spouses are better able than the employees are themselves to assess it without work-related affect blurring this evaluation. For this reason, unlike Heller and Watson (2005), Judge and Ilies (2004), and Williams et al., in the present study we asked employees’ spouses or significant others to assess the employees’ home positive and negative affect.

With regard to control variables, in the context of measuring daily job satisfaction at the end of the workday and the home outcomes later at home, we believe it is important to control for the amount of time elapsed between the two measurements in order to account for possible time trends. In addition, following Miner, Glomb, and Hulin (2005), who explained that using a daily baseline measure of affect as a control variable in within-individual analyses accounts for the lack of independence of residuals from time series data, we believed it was important to control for morning affect when predicting
home affect. For these reasons, we included both morning affect and the amount of time elapsed between the work and home surveys as control variables.

In summary, the goal of the present study was to improve upon previous studies concerned with job satisfaction spillover by Williams et al. (1991), Judge and Ilies (2004), and Heller and Watson (2005). We did so in the following ways: (1) by including a more complete set of control measures, (2) by assessing daily job satisfaction at work, (3) by assessing work affect in the afternoon at work, (4) by assessing home affect in the evening at home, (5) by utilizing employees’ spouses or significant others to assess their home affect, and (6) by including assessments of employees’ level of work-family role integration as a potential moderator of the job satisfaction–home affect and job satisfaction–marital satisfaction relationships. As a result, our study promises to answer this question with greater clarity: Do linkages exist between employees’ job satisfaction and their home affect (i.e., positive linkage for positive affect and negative linkage for negative affect) and between their job satisfaction and marital satisfaction (positive linkage), and are each of these linkages weaker for employees who have less (rather than more) work-family role integration?

Managers can benefit from enhanced understanding about job satisfaction–related work-family spillover too. First, if daily job satisfaction has an impact on employees’ feelings experienced in the family domain, managers could perhaps influence the occurrence and timing of positive and negative work events. For example, managers could schedule work events or interactions in such a way that negative events rarely occur and positive events occur toward the end of the workday in order to enhance employees’ well-being later at home. Second, because organizational policies can influence the extent to which employees’ work and family roles are integrated (Kossek, Lautsch, & Eaton, 2005; Rothbard et al., 2005), information regarding the extent to which work-family role integration influences spillover might help managers decide to implement various flexible work-life policies in order to increase or decrease work-family role integration, depending on whether the spillover is preponderantly positive or negative in nature within their company or work group.

This article proceeds as follows: First, we review literature guiding hypotheses regarding home affect and level of marital satisfaction we expect to see associated with higher rather than lower levels of job satisfaction. Second, we review literature guiding hypotheses regarding the likely moderating (strengthening) effect we expect employees’ level of work-family role integration to have on linkages between job satisfaction and outcomes from the family domain. Third, we describe the study that tested our hypotheses and its results. We conclude by discussing our findings’ implications for managers as well as for management scholars who are interested in better understanding when employees are more versus less likely to experience job satisfaction–related work-family spillover.

**HYPOTHESES**

The phenomenon of mood spillover is one of the reasons we believe it is likely that employees who experience high daily job satisfaction on a particular workday—a marker of a good day at work—are more likely to experience positive affect at home. Empirical support for this view comes from Judge and Ilies’s (2004) finding that employees who report higher levels of daily job satisfaction at work generally report significantly higher levels of positive home affect later in the day. The fact that this relationship has been inconsistently observed across studies, for the possible reasons that we explained earlier, suggests there is need to reexamine an assumed relationship of home affect with employees’ daily job satisfaction. Thus, we predict:

**Hypothesis 1.** On days when employees experience high daily job satisfaction, they experience higher positive affect at home, compared to days when they experience low daily job satisfaction.

**Hypothesis 2.** On days when employees experience high daily job satisfaction, they experience lower negative affect at home, compared to days when they experience low daily job satisfaction.

Our reason for distinguishing between positive and negative home affect is that theory on affective experiences specifies that pleasant events and experiences are more relevant to positive affect, whereas unpleasant events and experiences are more relevant to negative affect (see Watson, 2000). In addition to its influence on the affective states experienced by employees at home, daily job satisfaction is also likely to influence evaluations such as daily marital satisfaction. In this regard, Zedeck discussed spillover in terms of attitudes and stated that “it is also assumed that attitudes at work become engrained and carried over into home life” (1992: 8). Authors of previous work regarding the spillover of daily job satisfaction onto other attitudes have suggested that mood is a primary mechanism responsible for such spillover (e.g., Heller &
Wattson, 2005). That is, daily job satisfaction spills over onto daily marital satisfaction by coloring employees’ assessments of their marriages via an affective pathway (Heller & Watson, 2005). These authors asserted that, because attitudes have important affective components, job satisfaction at work influences marital satisfaction at home because the two attitudes are associated with mood at work and at home, respectively, and work mood spills over to mood at home.

Besides the affective mechanism, to the extent that work and family roles are not completely segmented, employees are likely to discuss their work experiences and perhaps their subjective assessments of their workdays with their spouses or significant others after work. For those who thus discuss their work experiences, sharing positive work experiences (which cause high job satisfaction) should increase daily marital satisfaction, as suggested by laboratory research showing that when couples shared positive events, their relationship satisfaction increased (Gable, Gonzaga, & Strachman, 2006). There is also empirical evidence supporting an intrapersonal link between daily job and daily marital satisfaction. Heller and Watson (2005) found that job satisfaction at work, measured in the afternoon, predicted marital satisfaction measured at night over multiple days (within individuals). These authors did not, however, examine the influence of work–family role integration on the process of spillover from work to family; we turn to this influence next. Drawing on the theorizing and empirical evidence reviewed above, we predict:

**Hypothesis 3.** On days when employees experience high daily job satisfaction, they report higher marital satisfaction for that day (“daily marital satisfaction”), compared to days when they experience low daily job satisfaction.

The first three hypotheses concern the spillover of daily job satisfaction onto home affect and daily marital satisfaction. Our main focus is on the spillover of daily job satisfaction, and not on the spillover of mood, because day-to-day differences in daily job satisfaction largely reflect differences in an employee’s subjective assessment of the quality of his or her workday, whereas mood at work can be subject to work and nonwork influences, such as internal feelings (Watson, 2000). Nevertheless, mood spillover is a causal mechanism that may explain the spillover of daily job satisfaction onto employees’ experiences in the family domain (see Heller & Watson, 2004). Therefore, in addition to examining the direct spillover effect of daily job satisfaction on mood at home and marital satisfaction (Hypotheses 1–3), we also examine whether daily job satisfaction spillover is independent of mood spillover, on an exploratory basis.

### The Influence of Work-Family Role Integration on the Spillover of Daily Job Satisfaction

According to role boundary theory, individuals create and maintain boundaries around the work and family domains as a way of simplifying and ordering their environment (Ashforth et al., 2000; Nippert-Eng, 1996). The boundaries separating work and family roles are idiosyncratic, and differences among employees’ degrees of work–family role integration–segmentation, which fall on a continuum ranging from high segmentation to high integration (Olson-Buchanan & Boswell, 2006), are influenced by the natures of their jobs and their individual characteristics (Kossek et al., 2005). Therefore, individuals differ in the extent to which they allow, consciously or not, their daily job assessments to influence their feelings and attitudes. That is, work–family role segmentation limits the psychological influence of work on the family domain, thus limiting the spillover of job satisfaction. Individuals who segment their work and family roles are less likely to think about work while they are at home because they focus primarily on the role relevant to the life domain in which they are operating at that time. Therefore, the home affect of employees with low work–family role integration (i.e., high work–family role segmentation) should be less strongly influenced by the quality of their work experiences (reflected in daily job satisfaction) than is the home affect of those with high work–family role integration. In addition, employees with highly integrated work–family roles are more likely to discuss their work experiences and subjective assessments of their workdays with their spouses or significant others after work, therefore showing a stronger link between their daily job satisfaction and daily marital satisfaction (than those employees with segmented work and family roles will show). Therefore, we predict:

**Hypothesis 4.** The tendency for employees with higher (rather than lower) daily job satisfaction to experience higher positive affect at home (as predicted by Hypothesis 1) is stronger for employees who are more rather than less work–family role-integrated.

**Hypothesis 5.** The tendency for employees with higher (rather than lower) daily job satisfaction to experience lower negative affect at home (as predicted by Hypothesis 2) is stronger for employees who are more rather than less work–family role-integrated.
Hypothesis 6. The tendency for employees with higher (rather than lower) daily job satisfaction to experience higher daily marital satisfaction at home (as predicted by Hypothesis 3) is stronger for employees who are more rather than less work-family role-integrated.

METHODS

Participants

The sample of employees included in the current study participated in a broader study on work and family by Ilies, Schwind, Wagner, Johnson, DeRue, and Ilgen (2007). However, with the exception of the scores reflecting employees’ positive and negative affect at work (assessed at the end of the workday), none of the variables used in that study were used in the hypothesis tests reported here. We recruited participants from a pool of university employees including administrative professionals, supervisors, and clerical-technical employees. In the recruitment e-mail, we briefly described the study and emphasized that, to enroll in it, employees had to be married oring with a significant other, and their spouses/significant others needed to agree to participate. Interested participants were directed to an online registration page where they created a unique user name and password. The first 150 individuals to register were allowed to participate in the study and comprised our initial sample.

Participation in the study was voluntary, and employees and their spouses/significant others were compensated for their participation (employees received up to $75, and spouses/significant others up to $40, depending on how many surveys they completed). Of the university employees who signed up to participate in the study, 147 completed an initial survey requesting demographic information. Of this sample, 7 individuals indicated they were not married or did not live with a significant other willing to participate. Twenty additional participants did not respond to any of the daily surveys at work. Although we do not know the reasons that prevented each of these employees from participating, we received e-mails from several individuals who indicated that they could not continue participating because their spouses or significant others could no longer participate; they had received new work assignments; they had to travel during the study period and could not fulfill the study requirements; or health or family issues prevented continuing. Four of the remaining participants did not complete any home measures, and thus their data were not usable. Six additional participants were eliminated from the final analyses because they did not complete the final measure of work-family role integration. Finally, after matching the work and home data from employees and spouses or significant others, we removed data for 9 of the remaining participants because they did not have at least four matched sets of responses.

In sum, the final sample consisted of 101 employees and their spouses or significant others (67 percent of the initial sample). We obtained job titles for all of the employee participants in the final sample. An analysis of these job titles revealed that participants held jobs dealing with secretarial or administrative support work (34%), communications and coordination (15%), research activities (13%), information technology (13%), and other areas (25%).

The employees had an average age of 42.7 years and an average tenure of 12.7 years. Seventy-eight percent were female; 48 percent had no children at home; and 43 percent had one or two children living at home. In the final sample, all but one of the focal participants were married, and the one exception lived in a domestic partnership. No demographic measures were obtained from spouses or significant others. We performed independent sample t-tests to compare the demographic data from the employees included in the data analysis with the demographic data of the employees who submitted the latter but did not complete the entire study. We found no significant differences between the two groups of employees on any of the demographic variables mentioned above.

Procedures

Surveys were used to assess perceptions and/or feelings from employees and their spouses/significant others. These surveys were given via the internet to employees at work and provided to their spouses/significant others on paper. A paper survey was also given to the employees in this study to use when reporting their daily marital satisfaction in the evening of each workday. The paper surveys contained an instruction to immediately seal them in accompanying envelopes addressed to the researchers and to mail these the next morning. Telephone interviews with employees’ spouses or significant others also occurred between 7 and 9 p.m. of each workday of the study (beginning in phase 2).

In phase 1 of the study, the employees’ Internet-based survey assessed demographic variables and various individual difference variables such as “trait positive affect” and “trait negative affect.” Employees’ spouses or significant others also completed a paper survey in which they rated their spouses’/significant others’ general levels of job satisfaction and their own global marital satisfac-
tion (spouses returned the surveys directly to the researchers in postage-paid envelopes).

In phase 2 of the study, which began one week after the completion of phase 1, the employees completed an Internet survey in the morning and in the afternoon of each workday, and in the evening at home, they completed a paper survey that asked them to rate their level of marital satisfaction for that day (i.e., daily marital satisfaction). Employees’ morning survey assessed their positive and negative affect (“morning positive and negative affect at work”) as a control for possible serial effects, as explained in the section on control variables below. Employees’ afternoon survey assessed their daily job satisfaction and work positive affect and work negative affect (“afternoon positive and negative affect at work”). In contrast to the employees, during phase 2 the spouses and significant others completed one survey per workday, in the form of a telephone interview. The interviewer (who phoned between 7 and 9 p.m.) was a representative of a survey research organization and asked each spouse/significant other to rate the affective state of his or her spouse/significant other (the employee).

In phase 3 of the study, which began on the Monday following the completion of phase 2, the employees completed an internet survey that assessed the extent to which they integrated their work and family roles. No surveys or telephone interviews were provided to employees’ spouses or significant others during phase 3 of the study.

Because all participants had Monday to Friday work schedules, the two-week duration of the study gave each participant the opportunity to respond to 10 surveys of each type (morning, afternoon, and evening), with each spouse/significant other also having the opportunity to respond to 10 surveys. We obtained 838 morning surveys and 796 afternoon surveys from employees at work (response rates of 83 and 79 percent, respectively). Employees responded to 867 surveys from home (an 86 percent response rate), and spouses/significant others responded to a total of 621 nightly surveys (a 61 percent response rate).

Measures

**Job satisfaction.** Two types of job satisfaction were assessed, the first from the perspective of the employee and the second from the perspective of the employee’s spouse or significant other. Our measure of employees’ job satisfaction from their spouses’/significant others’ perspective was general job satisfaction of the employee, assessed via the five-item Brayfield-Rothe Index (Brayfield & Rothe, 1951). The items were modified to reflect the rating perspective (e.g., “[first name of focal employee] feels fairly satisfied with his/her present job”). Our measure of job satisfaction from the employee’s perspective was daily job satisfaction of the employee, also assessed via the five-item Brayfield-Rothe Index (Brayfield & Rothe, 1951) modified to represent state, rather than global, evaluations of job satisfaction. The scale included the following items: “Right now, I find real enjoyment in my work,” “During most of the past hour I have felt enthusiastic about my work,” “At this very moment, I feel fairly satisfied with my job,” “Right now, each minute of work seems like it will never end” (reverse-coded), and “At the present time, I consider my job rather unpleasant” (reverse-coded). Both job satisfaction measures used a rating scale ranging from 1, “strongly disagree,” to 5, “strongly agree.”

**Employees’ daily marital satisfaction.** The daily marital satisfaction of employees was assessed using a five-item scale (Norton, 1983) adapted to represent state satisfaction. Items included, “Right now, I feel that I have a good marriage or relationship,” “At this moment, I feel that my relationship with my partner is very stable,” “Today, our marriage has been very strong,” “Today, I have really felt like part of a team with my partner,” and “My relationship with my partner has made me happy today” (1 = “strongly disagree,” to 5 “strongly agree”) (The individual who was not officially married was instructed to evaluate his/her satisfaction with the relationship as if he/she were married.)

**Spouses’ global marital satisfaction.** We used Norton’s (1983) scale, with general instructions, to measure spouses’/significant others’ marital satisfaction. This measure differed from the daily measure in that it referred to global, rather than daily, marital satisfaction. The scale items were, “I feel that I have a good marriage or relationship,” “I feel that my relationship with my partner is very stable,” “Our marriage is very strong,” “I really feel like part of a team with my partner,” and “My relationship with my partner makes me happy.” We used this one-time global rating of spouses’/significant others’ marital satisfaction to provide some external validity to the employee’s ratings of marital satisfaction; we did not measure spouses’/significant others’ daily satisfaction because the focus of the job satisfaction-marital satisfaction analyses was on employees’ own marital satisfaction. The spouses’/significant others’ marital satisfaction measure used the same five-point scale as the two measures described above.
Employees' positive and negative afternoon affect at work. We assessed employees’ positive and negative affect at work during the afternoon (afternoon positive affect at work and afternoon negative affect at work) of each workday of the study with the 20 adjectival descriptors of mood from the Positive and Negative Affect Schedule (PANAS; Watson & Clark, 1994). Specifically, the ten adjective descriptors from the positive scale were “interested,” “enthusiastic,” “excited,” “strong,” “proud,” “alert,” “inspired,” “attentive,” “active” and “determined.” The ten adjectives from the negative scale were “upset,” “irritable,” “distressed,” “guilty,” “scared,” “ashamed,” “nervous,” “jittery,” “afraid” and “hostile.” This survey was administered daily over the internet. Employees were asked to indicate the extent to which they experienced each of the feelings described by the PANAS adjectives at the time they were completing the survey (1 = “slightly or not at all,” to 5, “very much”).

Employees’ home positive and negative affect. To assess the home positive and negative affect of the focal employees in this study, their spouses or significant others were asked by telephone to indicate, via a five-point scale, the extent to which they believed that the focal employee had experienced various positive and negative affective states or emotions that evening. The telephone interviewer presented the 20 adjective descriptors from the PANAS (see above) in a random order, interspersing positive and negative affect descriptors. The telephone interviewer instructed spouses/significant others to select one of the following answers: “slightly or not at all,” “a little,” “moderately,” “quite a bit,” or “very much,” and these responses were coded 1, 2, 3, 4, and 5, respectively.

Employees’ work-family role integration. The extent to which each participant in the study integrated work and family roles was measured using a slightly modified version of the three-item Work-Family Role Integration-Blurring Scale (Desrochers et al., 2005). At the end of the study, participants responded to the following items: “It is often difficult to tell where my work life ends and my family life begins,” “I tend to integrate my work and family duties when I work at home,” and “In my life, there is a clear boundary between my career and my role as a parent or family member” (reverse-scored). The anchor points for the scale used to measure work-family role integration ranged from 1, “strongly disagree,” to 5, “strongly agree,” and therefore, higher scores are associated with more integrated work-family roles.

Control variables. Because work-family spillover effects are likely to depend on the amount of time elapsed between the assessment of work and home variables, we constructed time lag variables measuring the time elapsed between each end-of-workday job satisfaction survey and (1) the employee’s home survey assessing daily marital satisfaction, and (2) the time when the employee’s spouse/significant other responded to the phone interview. We controlled for these amounts of time in all the within-individual analyses.

For the analyses predicting positive and negative affect at home, to account for possible autocorrelation in the home affect scores, we controlled for the positive and negative affect scores employees had reported in the morning from work. These control variables were assessed every morning, via the internet, using the same scales and response options used to assess afternoon positive and negative affect at work (see above).

Finally, following the suggestion of an anonymous reviewer, we created two job type classifications; we defined the first type as a supporting role at work, which included such time-bound jobs as secretary, administrative assistant, and other similar positions; we defined the second type as more autonomous roles, which included jobs such as human resource analyst, communications manager, and editor. The primary distinction we sought to highlight concerned the relatively rigid temporal and spatial requirements of the supporting roles, versus the more flexible boundaries of the autonomous roles, and our implicit expectation was that employees with more autonomous jobs would have more work-family role-integrated roles. We included the job type classification as a control in the analyses examining the moderating influence of work-family role integration on the strength of the job satisfaction spillover.

Analytic Strategy
To test the intraindividual spillover effects of daily job satisfaction and the cross-level moderating hypotheses, we used a hierarchical linear modeling (HLM) framework. For each criterion, we tested a model that regressed daily criterion scores on the daily job satisfaction scores at the first level (within participants) of analysis. Importantly, the daily job satisfaction scores were centered relative to each respondent’s average score to form deviations from respondents’ characteristic means. As many authors have explained (e.g., Ilies, Scott, & Judge, 2006; Sonnentag, 2003), this centering approach eliminates all the between-individual variance in the predictor scores and therefore the estimates represent strictly within-individual associations.

To test our hypothesis that employees will experience higher positive affect at home on days when
they have experienced higher daily job satisfaction (Hypothesis 1), we estimated a model (model 1) that predicted home positive affect with morning positive affect at work (to account for autocorrelation), time lag (to control for time trends), and daily job satisfaction, at the first level of analysis in HLM. No predictors were included at the second level of analysis. This same procedure was used to test our hypothesis that the converse would also be true—namely, that employees will experience lower negative affect at home on days when they have experienced higher daily job satisfaction (Hypothesis 2), the only difference being the use of home negative affect as the criterion and of morning negative affect at work as the methodological control variable.

To test our hypothesis that employees will experience more daily marital satisfaction on days when they have experienced higher daily job satisfaction (Hypothesis 3), we estimated a model that predicted daily marital satisfaction with daily job satisfaction and time lag, at the first level of analysis in HLM (no predictors were used at the second level). Because we did not have measures of morning marital satisfaction, unlike with the tests of the first two hypotheses, we did not control for morning scores on the criterion.

In supplemental analyses, we also examined whether the effects specified in Hypotheses 1, 2, and 3 were maintained when mood spillover was controlled for. To test this, we estimated model 2 for each of the three criteria, a procedure identical to the model described above, with the exception that we also included the afternoon affect at work scores as predictor variables at the first level of analysis. Theorizing and empirical findings by Judge and Ilies (2004) support the tendency for positive affect in one domain (e.g., at work) to spill over to positive affect, but not negative affect, in a different domain (e.g., home), and the tendency for negative affect in one domain (e.g., at work) to spill over to negative affect, but not positive affect, in a different domain (e.g., home). For this reason, when predicting home positive affect we included afternoon positive affect at work as a predictor; and when predicting home negative affect, we included afternoon negative affect at work as a predictor. In contrast, when predicting daily marital satisfaction, employees’ positive and negative affect assessed in the afternoon at work were included as predictor variables since we did not have strong reasons to believe that one of the affect variables would be more relevant than the other for marital satisfaction.

To test our interaction hypotheses (Hypotheses 4, 5, and 6), all of which regard how the strength of employees’ work-family role integration affects the main effects predicted by our first three hypotheses, we estimated model 3, which was constructed by adding work-family role integration and job type at the second level of analysis in HLM, as predictors of the first-level intercepts and slopes, to the model used to test Hypotheses 1, 2, and 3 (i.e., to model 1). This addition constituted the only difference between the two sets of analyses (that is, model 3, used to test Hypothesis 4, was identical to model 1, used to test Hypothesis 1, with the exception of the two predictors included at the second level of analysis in model 3). As noted, job type was included as a control variable, whereas work-family role integration was the substantive moderator specified in Hypotheses 4, 5, and 6.

**RESULTS**

Table 1 presents the between- and within-individual correlations among the variables used to test the hypotheses and the internal consistency reliabilities of the scores (for the daily variables, the internal consistency values represent averages computed over days). As noted, to validate the self-reported scores with those provided by an independent source, we also collected one-time, general, spousal/significant other ratings of employees’ job satisfaction and ratings of spouses’/significant others’ own marital satisfaction. The correlation between averaged (self-reported) daily job satisfaction scores and one-time spousal reports was .38 (p < .01), and the average level of employees’ daily marital satisfaction correlated at .46 (p < .01) with the marital satisfaction of their spouses/significant others.

Interestingly, at the between-individual level, the average affect scores provided by the spouses/significant others did not correlate consistently with the average daily satisfaction scores provided by the employees. We suspect that the low cross-sectional validity of the aggregate affect scores was caused by augmented effects of rating biases such as acquiescence (Watson & Tellegen, 2002). However, acquiescence error is less pronounced in single ratings, and we essentially controlled for acquiescence in intraindividual analyses by centering the predictor scores relative to their means for each participant (see Watson and Tellegen [2002] for an in-depth treatise on acquiescence in single ratings and aggregated scores). Indeed, at the intraindividual level, home positive and negative affect (spouse-reported) correlated with the daily satisfaction scores in the expected directions. Importantly, within individuals, spousal reports of employees’ affect were significantly correlated with self-reports that we collected for the broader work-family research project (Ilies et al., 2007) for both positive
Hypothesis Tests

Hypothesis 1 predicted that on days when employees experience high daily job satisfaction, they will experience higher positive affect at home than they will on days when they experience low daily job satisfaction. Support for this is seen in Table 2, which shows a positive and significant effect of daily job satisfaction on positive affect at home ($\beta = 0.15, p < .01$) in our test of model 1 to predict positive affect at home.

Hypothesis 2 predicted that on days when employees experience high daily job satisfaction, they will experience lower negative affect at home than they will on days when they experience low daily job satisfaction. Support for this is seen in Table 2, which shows a negative and significant effect of daily job satisfaction on negative affect at home ($\beta = -0.17, p < .01$) in our test of model 1 to predict negative affect at home.

Hypothesis 3 predicted that on days when employees experience high daily job satisfaction, they will report higher daily marital satisfaction than they will on days when they experience low daily job satisfaction. This hypothesis was also supported, as seen in Table 2: The effect of daily job satisfaction on daily marital satisfaction was positive and significant ($\beta = 0.10, p < .05$) in our test of model 1 to predict daily marital satisfaction.

Hypothesis 4 predicted that the tendency for

### Table 1

<table>
<thead>
<tr>
<th>Variables $^b$</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Afternoon positive affect at work (self-rated)</td>
<td>2.93</td>
<td>0.79</td>
<td>(.94)</td>
<td>–.15**</td>
<td>.39**</td>
<td>–.01</td>
<td>.09†</td>
<td>–.14*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Afternoon negative affect at work (self-rated)</td>
<td>1.22</td>
<td>.33</td>
<td>–.08</td>
<td>(.86)</td>
<td>–.35**</td>
<td>.03</td>
<td>.07*</td>
<td>.18**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Daily job satisfaction (self-rated, at work, in the afternoon)</td>
<td>3.66</td>
<td>0.59</td>
<td>.54**</td>
<td>–.24*</td>
<td>(.86)</td>
<td>.08*</td>
<td>.10**</td>
<td>–.18*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Daily marital satisfaction (self-rated, at home, in the evening)</td>
<td>4.11</td>
<td>0.59</td>
<td>.15</td>
<td>–.02</td>
<td>.13</td>
<td>(.93)</td>
<td>.10*</td>
<td>–.16**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Home positive affect (spouse-rated, at home, in the evening)</td>
<td>2.89</td>
<td>0.69</td>
<td>.12</td>
<td>–.06</td>
<td>–.03</td>
<td>.06</td>
<td>(.88)</td>
<td>–.11*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Home negative affect (spouse-rated, at home, in the evening)</td>
<td>1.24</td>
<td>0.29</td>
<td>–.26*</td>
<td>.09</td>
<td>–.24*</td>
<td>–.05</td>
<td>.09</td>
<td>(.91)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. General job satisfaction (spouse-rated; one-time rating)</td>
<td>3.56</td>
<td>0.72</td>
<td>.17</td>
<td>–.02</td>
<td>.38**</td>
<td>.09</td>
<td>.18</td>
<td>–.22*</td>
<td>(.83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Spouse general marital satisfaction (spouse-rated; one-time rating)</td>
<td>4.34</td>
<td>0.71</td>
<td>–.11</td>
<td>.14</td>
<td>–.01</td>
<td>.46**</td>
<td>.19</td>
<td>–.12</td>
<td>.17</td>
<td>(.91)</td>
<td></td>
</tr>
<tr>
<td>9. Work-family integration (self-rated; one-time rating)</td>
<td>2.34</td>
<td>0.73</td>
<td>–.02</td>
<td>.10</td>
<td>.07</td>
<td>–.11</td>
<td>–.01</td>
<td>.14</td>
<td>.17</td>
<td>.19†</td>
<td>(.72)</td>
</tr>
<tr>
<td>10. Job type (coded from job titles)</td>
<td>0.34</td>
<td>0.48</td>
<td>.05</td>
<td>–.25*</td>
<td>.03</td>
<td>–.02</td>
<td>.14</td>
<td>–.11</td>
<td>.06</td>
<td>–.07</td>
<td>–.19*</td>
</tr>
</tbody>
</table>

$^a$ The correlations below the diagonal represent between-individual associations (for variables 1 through 8, we computed the between-individual correlations using individuals’ aggregated scores; $n = 86–101$, pairwise). The correlations above the diagonal represent within-individual associations (over time) and were estimated from fixed-effects HLM models with single level 1 predictors and no level 2 predictors ($n = 621–867$, pairwise). Reliabilities are reported on the diagonal; for the within-individual variables, reliability values were averaged over measurements.

$^b$ Job type was coded as follows: support role (e.g., secretarial) = 1, other = 0. The morning affect control variables (self-rated by employees at work) are not included in this table.

$^† p < .10$

$^* p < .05$

$^{**} p < .01$

$^{***} p < .001$

Two-tailed tests.
employees with higher (rather than lower) daily job satisfaction to experience higher positive affect at home (as predicted by Hypothesis 1) will be stronger for employees who are more rather than less work-family role-integrated. As shown in Table 3, which presents the estimates for model 3, the data supported this hypothesis in that the interactive effect of daily job satisfaction and work-family role integration was positive and significant when predicting home positive affect. Figure 1 depicts this interactive effect graphically, showing that individuals with highly integrated work and family roles experience a strong, positive relationship between self-ratings of daily job satisfaction at work and spousal ratings of their positive affect at home, whereas the relationship was weak (actually negative) for those with segmented roles.

Hypothesis 5 predicted that the tendency for employees with higher (rather than lower) daily job satisfaction to experience lower negative affect at home (as predicted by Hypothesis 2) will be stronger for employees who are more rather than less work-family role-integrated. This hypothesis was also supported by the data, as evidenced by the negative and significant effect for the interaction between daily job satisfaction and work-family role integration when predicting home negative affect (see Table 3). This interactive effect is illustrated in Figure 2, which shows that individuals with highly integrated work and family roles strongly feel the effects of a dissatisfying day on the job, resulting in high levels of negative affect on days when they report low daily job satisfaction, and low levels of negative affect on days when they experience high daily job satisfaction. In contrast to the employees rating high on work-family role integration, those employees with segmented roles experienced a positive (albeit weak) relationship between daily job satisfaction and negative affect, and there were relatively large differences in home negative affect on days of dissatisfying work between employees with highly integrated, versus highly segmented, roles.

Finally, Hypothesis 6 predicted that the tendency for employees with higher (rather than lower) daily job satisfaction to experience more daily marital satisfaction at home (as predicted by Hypothesis 3) will be stronger for employees who are more rather than less work-family role-integrated. This hypothesis did not receive support, as the interactive effect of daily job satisfaction and
work-family role integration was not significant when predicting daily marital satisfaction.

Supplemental Results

To test whether the effects specified in Hypotheses 1, 2, and 3 are maintained when mood spill-over is controlled, we did several supplemental tests. First, we tested whether daily job satisfaction predicts home affect when afternoon affect at work is controlled. Introducing the positive and negative affect scores reported by employees at the end of their workdays (on the same survey on which they reported job satisfaction) into the regressions pre-
dicting home affect did not diminish the effect of daily job satisfaction on home positive affect (the standardized regression coefficient actually increased by .01), whereas the effect of daily job satisfaction on home negative affect decreased slightly in magnitude (from –0.17 to –0.13) but remained statistically significant (p < .05). The individual effect of daily job satisfaction on daily marital satisfaction predicted by Hypothesis 3 was also maintained when we introduced work positive and negative affect scores into the regression predicting daily marital satisfaction (see Table 2).

Second, we tested whether work-family role integration moderated the spillover of mood from work to home; results supported such a moderating effect only for positive affect. That is, the results of multilevel models predicting home affect scores reported by spouses or significant others with work affect scores reported by employees in the afternoon and including work-family role integration as a cross-level moderator showed that work-family role integration strengthened the relationship between work positive affect and home positive affect; although work negative affect had a significant effect on home negative affect, work-family role integration did not influence the strength of this effect (these results are not shown in the tables).

Finally, although job type did not moderate the spillover of daily job satisfaction onto home positive and negative affect, it had a significant moderating effect on the relationships between daily job satisfaction and daily marital satisfaction ($\beta = -0.16, p < .05$). This moderating effect showed that employees with support roles (e.g., secretary) experienced less spillover between their daily job and marital satisfaction than those with more autonomous work roles.

**DISCUSSION**

The findings of the present study allow us to make three conclusions that offer novel contributions to the literature on work-family spillover. Our first conclusion is that the spillover of daily job satisfaction does not exist only at the experiential level but that, in fact, employees express the affective results of daily job satisfaction at home in such a way that others can observe them. This first conclusion is based on the results indicating that employees’ daily job satisfaction ratings are related to spousal/significant other evaluations of the employees’ affective states at home. Second, we can conclude that the spillover of daily job satisfaction onto both mood at home and daily marital satisfaction cannot be fully explained by work-to-home mood spillover, because the effects of daily job satisfaction were maintained (or decreased, but were nonetheless significant) when we controlled for the effects of mood at work. Third, this study attests to the importance of individual differences in work-family role integration in spillover from work to family; this conclusion is driven by the finding that the extent to which employees integrate their work and family roles is positively related to the strength of the spillover of daily job
satisfaction onto positive and negative affect at home. We next identify theoretical and practical implications corresponding to these three main conclusions enabled by our findings.

Affective Outcomes of Job Satisfaction Are Expressed in the Family

As we explained in the introduction, a recent stream of research has shown that daily job satisfaction influences employee’s reports of home affect and marital satisfaction (Heller & Watson, 2005; Judge & Ilies, 2004). Our study extends these previous contributions by showing that daily job satisfaction influences not only what employees experience in their family roles but also what their spouses or significant others observe. Given the importance of affect for employees’ social behavior in their family roles (Ilies et al., 2007; Repetti, 1989), showing that daily job satisfaction influences spousal/significant other assessments of employee home affect should be a first step toward developing a more comprehensive model that specifies not only how employees’ work lives influence their own family lives, but also how employees’ work lives influence the lives of their spouses/significant others and other family members. For example, our finding that job satisfaction–influenced affect is somehow observed by spouses/significant others suggests that it is possible that employees’ affective states are also transmitted to spouses and other family members, perhaps via emotional contagion (Hatfield, Cacioppo, & Rapson, 1994; Ilies, Wagner, & Morgeson, 2007).

In addition, although we collected spousal/significant other reports of employee home affect, we did not assess spouses’ or significant others’ own reactions to employees’ work experience or job satisfaction. As an anonymous reviewer suggested, it is possible that spouses/significant others respond to employees’ job dissatisfaction with greater intimacy and support, thereby ameliorating the negative effect of job dissatisfaction on employees’ home affect. Following this argument, it is possible that daily job satisfaction would be negatively related to positive home affect when spousal support and intimacy are very high. We cannot test these possibilities with our data; thus we recommend that future research measure spousal support and intimacy and examine the role of these reactions in the spillover process.

Mood Spillover Does Not Completely Explain Job Satisfaction Spillover

Mood spillover is an important mechanism linking work and family domains, and indeed, our data support the existence of mood spillover in that work affect scores reported by employees in the afternoon were related to the spouse/significant other reports of affect for both positive and negative affect. Nevertheless, our results showed that work-to-home mood spillover could not fully explain the spillover of daily job satisfaction onto both mood at home and daily marital satisfaction. We believe this finding is an important contribution because it suggests that, in addition to the affective pathway proposed by other authors (e.g., Heller & Watson, 2005), there must be other pathways—such as recalling or discussing the day’s work events and experiences in the family—through which daily job satisfaction influences affect and satisfaction at home. Our data do not allow us to test these speculations, but our findings suggest that developing and testing a conceptual model that specifies additional mechanisms (beyond mood spillover) that might explain the spillover of job satisfaction would be a fruitful endeavor.

Work-Family Role Integration Has an Important Role in the Spillover Process

Unlike previous researchers examining daily job satisfaction spillover, we followed Ashforth et al.’s (2000) request for empirical research examining the concept of role segmentation-integration by integrating role boundary theory with spillover theory and testing whether work-family role integration moderates the strength of the within-individual effects of daily job satisfaction on affect at home and daily marital satisfaction. In this respect, our finding that the extent to which employees integrate their work and family roles is positively related to the strength of the spillover of daily job satisfaction onto positive and negative affect at home represents a novel contribution to the literature.

With increasing interest in telecommuting and flexible work arrangements (Conlin, 2006), organizations must consider the implications of such work arrangements for employee attitudes and well-being. As an increasing amount of work is brought home, time and space boundaries, which are largely a function of the job, become blurred. This could lead to greater work-family role integration and, presumably, greater spillover of job attitudes onto attitudes and affective states in the home domain. Our results showing that job type did not moderate the spillover of daily job satisfaction suggest that the moderation of spillover may be a result of boundary permeability, which is a psychological aspect of integration (rather than a structural aspect associated with the job) that employees...
can control to some extent. Therefore, a potential application of this research is to train employees on how to integrate work and family roles, so that the employees can experience greater personal benefit from their positive reactions to, and evaluations of, work.

Although our emphasis has been on the relationship between daily job satisfaction and home outcomes, employees with highly integrated work and family roles experience higher levels of negative affect and lower levels of positive affect when they are dissatisfied with their work. Therefore, training employees in how to segment their work and family roles, especially when their jobs are frustrating or dissatisfying, can minimize the negative impact of their work evaluations on their personal well-being. Clearly, the utility of each approach (training employees to integrate versus segment their work-family roles) is contingent upon the typical level of satisfaction that employees have with their jobs. Nevertheless, it would be useful for work-family research to examine the effects of work-family role integration for positive and negative spillover separately. If employees could learn how to maximize positive spillover and counteract the effects of negative spillover (perhaps using mood repair strategies), their family lives and general well-being would be enhanced.

Following other authors (e.g., Kossek et al., 2005), we believe that work-family role integration is influenced by both job characteristics and individual differences, yet it seems that the latter is more relevant for the current study because all the individuals comprising our sample had jobs that were similar in terms of the flexibility of their work-role time boundary (all participants worked on an 8–5 schedule). In our view, future research that differentiates between person-based and job-based components of work-family role integration can further contribute to the literature on work-family spillover by examining which aspect is more important in moderating the spillover effects. Differentiating such components would also be valuable for practitioners because it would reveal the extent to which organizations can influence work-family role integration through job design.

Another area in which future research can contribute to the work-family literature concerns work-family enhancement. In our view, the integration of work and family roles represents a means by which employees can capitalize on the positive facets of their jobs. By psychologically increasing the permeability of the boundary between work and family roles, individuals eliminate the walls between the two roles, thereby permitting positive work experiences to enrich not only their roles as employees, but also their roles as spouses/significant others and parents. Because work can be a source of enriching and fulfilling experiences (Csikszentmihalyi & LeFevre, 1989), we propose that by integrating work and family domains employees can magnify the benefits of the positive features of work, and we suggest that future research should examine the role of work-family role integration in work-family enhancement.

Limitations of the Study and Future Research Needs

The present research entails several limitations. First, even though the spousal/significant other reports of employees’ affect converged with self-reports, other factors besides employees’ affective states may have influenced the spousal/significant other ratings. For instance, it is possible that employees shared the highlights or frustrations of the day with their spouses or significant others, thereby enabling the latter to make inferences regarding the employees’ affective states at home. We suggest that future research on job satisfaction spillover include a measure assessing the extent to which employees discuss their workdays with their spouses or significant others; such a research design would enable one to examine the extent to which interpersonal sharing of work events is responsible for the effects of self-rated job satisfaction on spouse/significant other-rated home affect. Second, our sample was unbalanced on gender (only 22 percent male), which limits the generalizability of these results. Furthermore, this imbalance precluded us from conducting meaningful analyses by gender, such as examining whether gender predicts work-family role integration or spillover strength. To address this limitation, we suggest that future research on this topic should recruit gender-balanced samples. A final limitation is that because the work-family role integration measure was given after the daily surveys were completed, it is possible that the daily surveys had a reactive effect on participants’ responses on the work-family role integration scale.

Conclusion

The present study contributes to the literature on work and family by examining the spillover of daily job satisfaction to the home domain using multisource, multimethod data in a within-individual design. In addition, the study extends the work-family literature both theoretically and empirically by proposing and testing a model that
supports the integration of spillover theory and role boundary theory.

REFERENCES


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