When She Earns More Than He Does: A Longitudinal Study of Dual-Earner Couples

In a random sample of 286 full-time-employed dual-earner couples, we tested 3 competing hypotheses: when wives earn more than their husbands, (a) each partner’s marital-role quality (MRQ) decreases; (b) his MRQ increases, whereas effects on her MRQ are mixed; and (c) relationships vary with gender-role beliefs (i.e., gender-role ideology and subjective rewards of salary). We conceptualized salary as a couple-level predictor with 4 components, 2 time varying and 2 time invariant, and estimated the relationship between 2 time-varying components and MRQ. Women’s MRQ was not significantly related to change in relative earnings. However, among men, the relationship varied by salary rewards.

One of the most dramatic recent changes in the American workforce is the preponderance of dual-earner couples. It is estimated that 78% of workers are married to employed spouses, and in 1997, about 23% of women in dual-earner couples were earning as much or more than their husbands (Bureau of Labor Statistics, 1997). Although certain stress-related work-family issues confronting dual-earner couples have received considerable research attention (e.g., work-family conflict), others, such as what happens when she earns more than he earns, have not. There is considerable interest within both sociology and psychology in the relationship between earnings and such outcomes as marital quality, satisfaction, power, and disruption within couples.

Now that the prevalence of dual-earner couples is high enough to permit study in random samples and with the availability of longitudinal couple data and statistical techniques for modeling change over time within couples (Barnett & Brennan, 1997; James, Barnett, & Brennan, 1998; Raudenbush, Barnett, & Brennan, 1995), we have the opportunity to estimate the relationship between change over time in earnings and change over time in marital outcomes. In this analysis, we use longitudinal data from a random sample of 286 full-time-employed dual-earner couples to address two major questions: (a) what is the relationship between relative earnings over time and change...
over time in his evaluation of his marital-role quality (MRQ) and (b) what is the relationship between relative earnings over time and change over time in her MRQ? In addition, given attitudinal changes toward increased egalitarianism in gender-role ideology (GRI), especially among men in dual-earner couples (Bond et al., 1998), and changes in male and female identification with the provider role (Hood, 1986; Potuchek, 1997), we estimated the within-couple relationships between earnings and MRQ over time in the context of these two attitudes.

**LITERATURE REVIEW**

Sociologists and psychologists have been interested in the within-couple relationship between earnings (absolute and relative) and marital outcomes. Researchers within each discipline tend to focus on different outcomes, with corresponding differences in the unit of analysis and in the proposed underlying processes and moderators. Within family sociology, effects of gender-role reversal in earnings are treated by dominant theories of marital stability and disruption; within psychology, these effects are treated primarily by theories addressing marital quality and its correlates (e.g., division of household and child care labor, marital power and equality). Marital disruption requires a couple-level unit of analysis, whereas marital quality outcomes may be studied at the individual level (Heckert, Nowak, & Snyder, 1998).

Family sociologists tend to work within a functionalist framework, focusing on gender-role specialization and role complementarity within marital dyads. Psychologists also address gender roles but primarily from the perspective of gender-role identity theory, which locates the critical underlying processes linking relative earnings to marital outcomes within individuals. These differing approaches entail different potential moderators. Some family sociologists propose gender-specific effects of salary inequalities, suggesting that gender may moderate the relationship between salary and marital outcomes. Psychologists, in addition to studying the effects of gender, also examine individual differences in attitudes such as identification with the provider role and GRI as moderators of earnings-outcome relationships.

**Gender-Role Specialization and Complementarity**

Family sociologists have, since the 1940s, tended to work within a functionalist framework, of one form or another (Becker, 1981; Parsons, 1949). Within this framework, gender-role specialization and complementarity are viewed as key to marital stability and, presumably, to marital quality. Thus, they argue that family functioning is optimized when the husband specializes in market work and the wife in domestic work. Each trades the fruits of her/his skills, ensuring the stability of the marriage.

**The independence model.** As women invest in market work, they become less specialized in the domestic arena and more economically independent, leading thereby to a "decline in the desirability of marrying or staying married" (Oppenheimer, 1997, p. 432). In this view, the unit of analysis is the marital dyad, and deviation from the traditional model of the breadwinner husband and the stay-at-home wife is a threat to dyad stability, with likely negative consequences for both spouses. Although the present analysis concerns marital quality, not marital stability, the posited consequences of deviation from gender-role specialization are the same, if not greater, because marital disruption is presumably rooted in poor MRQ, along with other social, economic, and psychological factors.

Findings from several studies support this view. For example, Heckert et al. (1998) found that the greater the wife's dependence on her husband for financial support, the lower the likelihood of marital dissolution. Oppenheimer (1997) reported that as women's earnings rise, they become more economically independent, with an attendant decline in desire for marriage. Within couples, this *independence hypothesis* suggests that as a wife's earnings rise, she will evaluate her marriage less favorably. In support of this hypothesis, Rossi and Rossi (1996) conclude.

Marriages in which women earn as much as their husbands, together with the even smaller minority of marriages in which wives earn more than their husbands, have higher rates of divorce than traditional marriages of higher-earning husbands to homemakers or part-time employed wives (p. 18, see also Benson-von der Ohe, 1987; Poppenoe, 1987).

**The revised independence model.** In spite of some support, historical evidence indicates that income equality is not synonymous with low gains to marriage and may in fact be associated with high gains. Thus, according to Oppenheimer, the strict functionalist model is "a high risk and inflexible
strategy for independent nuclear families and one that is in strong contrast to contemporary family patterns” (1997, p. 431).

Oppenheimer distinguishes gender-specific effects of wives’ relative earnings on marital stability and quality in developing her view that negative outcomes for both spouses are not inevitable when wives’ earnings increase relative to their husbands’. According to this model, higher income, whatever the source, improves the quality of family life, thereby contributing to family stability (Cherlin, 1979; Ross & Sawhill, 1975). Hence, husbands’ increased earnings raise family income and thereby improve marital stability and quality (Ono, 1998). Wives’ increased earnings also add to family income, thereby increasing marital quality; however, for wives, there is the offsetting hypothesized independence effect of her earnings on marital stability (Oppenheimer, 1997, p. 442). Thus, as husbands’ earnings increase, husbands’ and wives’ MRQ should increase, whereas increases in wives’ earnings over time should have unambiguously positive effects on husbands’ MRQ but mixed effects on wives’ MRQ. In general, most tests of these hypotheses have used the individual, not the couple, as the unit of analysis (Oppenheimer, 1997). In the present study, we use a within-couples analysis to test these hypotheses.

Support for the revised independence model comes from several studies. In a large-scale longitudinal analysis, Ono (1998) found a U-shaped effect of wives’ earnings on marital separation. In particular, a marriage in which the wife had no earnings was more than twice as likely to dissolve as a marriage in which the wife earned between $1 and $18,000 yearly. In contrast, when she earned more than $18,000, the couple was 1.3 times more likely to separate than when she earned between $1 and $18,000. In the same study, the higher the husband’s earnings, the lower the odds of separation, even after controlling for wife’s earnings. Thus, as predicted by the revised independence model, husband’s salary appears to have unambiguously positive effects on marital outcomes, whereas results for wife’s salary are mixed. This study also underscores the importance of estimating the effect of each spouse’s earnings in the context of the other spouse’s earnings. However, the study did not examine the magnitude and direction of the within-couple salary gap, leaving unaddressed the question of the relationship of salary gap over time to marital outcomes.

Wilkie, Perree, and Ratcliff (1998) found that more equitable sharing of breadwinning offered more benefits to marital satisfaction for husbands than for wives. However, their respondents only had to have worked 1 hour in the previous week to be considered employed. It is not clear whether these findings would generalize to more conventionally defined dual-earner couples. In another study, the higher wives’ earnings, the higher the family income, which decreased wives’ and husbands’ perception of economic hardship, which decreased their levels of depression. Wives’ earnings decreased their husband’s depression almost as much as it did their own (Ross & Huber, 1985).

Studies of the relationship between social class and marital outcomes bear on this discussion. In a study of marital conflict, Perry-Jenkins and Folk (1994) provide some mixed support for the revised independence model. In their sample of full-time employed couples, they defined social class in terms of each partner’s occupation as either middle or working class. Among couples in which both partners were middle-class, which are probably most similar to the couples in the present study, the wife’s proportion of the family income was positively related to her reports of marital conflict but not to her husband’s. To the extent that marital conflict is synonymous with reduced marital satisfaction, then the prediction from the revised independence model that wives’ relative earnings would have mixed effects on wives’ marital satisfaction (i.e., increase marital conflict) was partially supported. However, the lack of effects for husbands does not support the prediction that wives’ increased relative earnings should increase husbands’ marital satisfaction (i.e., decrease marital conflict).

Overall, studies of the relationship between salary and marital stability have led to mixed results (Bumpass, Martin, & Sweet, 1991; Cherlin, 1979; Greerstein, 1990; Hanan & Tuma, 1978; Hoffman & Duncan, 1995; Moore & Waite, 1981; Ono, 1998; Ross & Sawhill, 1975; South & Lloyd, 1995; Tseng, 1992; Tseng & Mare, 1995). Problems in the conceptualization of the salary variable may have contributed to the mixed findings. Although the revised independence hypothesis implies that the relative earnings of wives might be an important gain to marriage, using the ratio of wives’ to husbands’ earnings alone “can lead to ambiguous results” (Oppenheimer, 1997, p. 443). The ratio could be relatively high because the wife’s earnings are higher compared with those of other women, indicating greater financial independence. Alternatively, “the ratio could also
be high because the husband's earnings are low compared to other men, while the wife herself may also be in a very weak labor-market position [and thus not independent]" (Oppenheimer, 1997, p. 443). This problem arises in part because the tendency to focus heavily on wives' absolute and relative earnings often results in a failure to adequately control for husbands' earnings.

These problems are potentially more acute in studies of change over time in relative salaries. Knowing that one partner's salary has changed over time provides no information about change over time in the magnitude and direction of the difference between the partners. For example, if the other partner's salary also changes over time but in a complementary fashion, then the direction and magnitude of the gap between the partners will remain the same. It is critical to have salary data from both spouses and to calculate a couple mean salary, because the meaning of a gap may differ at different levels of the couple mean salary (Oppenheimer, 1997).

**Gender-Role Identity Theory**

Another reason for the mixed results described above may be that the relationship between relative earnings within couples and marital outcomes differs depending on the meanings that husbands and wives attach to their relative financial contributions. Such attitudinal variables are more explicitly addressed by the psychological research tradition, in which there has been recent interest in understanding the conditions under which partners' relative earnings are related to marital outcomes. These inquiries focus on the potential moderating effects of identification with the provider role and GRI.

Although wives' economic dependence on their husbands has been somewhat reduced in the last few decades, women's typically lower wages and fewer work hours keep the contribution of most employed wives at less than 50% of the family income. But it is not the continued economic inferiority of wives that is seen as potentially problematic in current psychological research. Rather, the concern is that if wives' earnings begin to approach or even exceed the economic contributions of their husbands, their husbands' self-esteem will decline (Menaghan, 1991, pp. 437–438). Here, too, the prevailing research design focuses on the relationship between wives' absolute or relative earnings and husbands' and wives' marital experiences, but the theoretical grounding is largely within gender-role identity theory.

Most empirical studies focus on relative earnings, not on the subjective rewards associated with earnings. For example, even when wives are earning as much as or more than their husbands (Steil & Weltman, 1991), there is pervasive evidence that both define the man as the primary provider. In another study of married couples, women who earned more than their husbands had greater concerns about arousing competitive feelings in their husbands than any other group, whereas husbands in the high-wage earner group were the least concerned with issues of competition with their wives (Steil & Weltman, 1997).

In the present analysis, we distinguish two aspects of gender-role identity: subjective rewards of salary (i.e., salary affect) and GRI. This distinction reflects Hood's (1986) pioneering work in distinguishing the provider role (i.e., felt responsibility for providing and recognition as the provider) from labor-force participation, absolute or relative income, and GRI.

**Salary affect.** Most hypotheses derive from the widely held belief that the good-provider role is central to men's, but not women's, self-definitions (Hood, 1986; Perry-Jenkins & Courter, 1990; Potuchek, 1997). It follows that men should experience higher subjective rewards than women from the income they earn.

The focus in these studies on marital quality rather than disruption underscores the need to gather data from both members of a couple. As noted by Thompson and Walker (1989), marital satisfaction is a relationship property and should be assessed as such, and no one partner can be a reliable source for data on the other partner's MRQ. Yet few studies collect salary and MRQ data from both partners in a couple. Moreover, most studies that have collected such data from both partners have analyzed the data separately by gender, thereby precluding an explicit test of the effect of gender and underexploiting the richness of the couple data.

In general, few researchers have measured wives' and husbands' salary affect, focusing instead on their labor-force status and salaries (see Potuchek, 1997 for an exception).

**Gender-role ideology.** Among wage and salaried workers, women tend to have more egalitarian GRI than men; however, the gap is closing. Between 1977 and 1997, there was a 23% increase
in the number of employed men who endorsed egalitarian gender-role beliefs (Bond et al., 1998), including the belief that it is not better for men to earn money and women to care for home and children. This overall picture is reflected in the present sample. Although more wives than husbands endorsed egalitarian beliefs, in half of the couples, the husbands were at least as egalitarian as their wives, and in a third of the couples, the husbands were more egalitarian than their wives (James et al., 1998).

Earlier studies indicate that GRI is related to salary and has indirect effects on the relationship between salary and MRQ. For example, in one study, wives who endorsed a conventional division of labor earned a lower proportion of the family income than wives who held egalitarian gender-role beliefs, whereas husbands who supported their wives’ employment earned a higher proportion of the family income than did husbands who held traditional gender-role beliefs (Wilkie et al., 1998). Although one might expect egalitarian men to share the providing role more equally, the authors interpret this finding as suggesting that men may more readily approve the dual-earner model when their wife is the “junior partner” in earnings, an interpretation which acknowledges that there may be bidirectional causality in the relationship between GRI and salary. It is important to note, however, that in these analyses, GRI was defined as an individual- and not a couple-level variable. Previous research suggests that GRI is a better predictor of psychological distress when conceptualized as a couple-level variable (James et al., 1998).

Support for the moderating effect of GRI comes from a study that did have a measure of this variable. A previous analysis of the present sample found that couple-level GRI had differential effects on psychological distress within couples (James et al., 1998). Among wives, change over time in several aspects of GRI was unrelated to change in distress over time. However, among husbands, the magnitude and direction of GRI gap from their spouse did predict distress. Specifically, if the husband’s traditionality was greater than his wife’s, his distress was also greater, and if over time he became increasingly traditional relative to her (and to the couple mean), his distress increased. It may well be that the GRI × Gender effect is similar when MRQ rather than distress is the outcome.

In the present analysis, we advance the literature in several ways. We have longitudinal data from both partners in a large random sample of full-time-employed, dual-earner couples. We conceptualize salaries within couples not as a ratio, but as both a couple mean and a deviation score reflecting the magnitude and direction of the difference between partners’ salaries at each point in time. Finally, we employ an analysis strategy that retains the couple membership of the participants, thereby exploiting the richness of the couple data and allowing for an explicit test of gender effects.

We test the following eight hypotheses:

1a. Based on the functionalist theory of the family, the higher salary a wife earns relative to her husband over time, the lower his MRQ over time, and
1b. The higher salary a wife earns relative to her husband over time, the lower her MRQ over time.

2a. Based on the revised independence theory, the higher salary a wife earns relative to her husband over time, the higher his MRQ, and
2b. The higher salary a wife earns relative to her husband over time, the more mixed the effects on her MRQ; that is, either smaller gains or actual losses.

3a. Based on gender-role identity theory, the higher salary a wife earns relative to her husband over time, the lower his MRQ over time (as in Hypothesis 1a), but this relationship is conditioned by his salary affect (subjective rewards of salary).
3b. The higher salary a wife earns relative to her husband over time, the lower her MRQ over time (as in Hypothesis 1b), but this relationship is conditioned by GRI, and
3c. The higher salary a wife earns relative to her husband over time, the lower his MRQ over time (as in Hypothesis 1a), but this relationship is conditioned by GRI, and
3d. The higher salary a wife earns relative to her husband over time, the lower her MRQ is over time (as in Hypothesis 1b), but this relationship is conditioned by GRI.

**Method**

**Sample**

The data come from a 2-year, three-wave data collection from a random sample of 300 dual-earner couples in which both members were employed full-time and the men were 25 to 40 years old at
the first data collection. The sample was stratified on parental status; at the first wave, 60% (n = 180) were parents. At the third data collection 30 (25%) of the 120 couples who had originally been childfree had had a child, 78 couples (65%) were still childfree, and 12 couples (10%) had either dropped out of the study or had not provided data on parental status. The attrition rate across the three waves was 8%.

The sample was drawn from the town lists of all residents of two socioeconomicly diverse towns with a large proportion of working women. The participation rate among eligible couples whom we were able to contact was 68% (Barnett, Marshall, Raudenbush, & Brennan, 1993). The population of these towns is overwhelmingly White, as is the sample. The sample was 97% Caucasian, 1% Hispanic, 1% African American, and 1% Native American or other. The sample is better educated than the population of the two towns. Of the men, 73% completed a BA or more, compared with 58% of men ages 25 to 44 in the two towns. Comparable figures for the women are 74% for the sample and 58% for the population. The men and women in the sample, on average, had completed about 16 years of schooling (M = 16.26, SD = 2.34 and M = 16.17, SD = 2.14, for men and women, respectively). However, there was a wide range of educational attainment: Among the men, 29% had not completed college, whereas 39% had some graduate education; among the women, 28% had not completed college, compared with 38% who had some postcollege education.

The mean income for families with husband and wife employed are similar. $71,339 for the two towns, $73,548 for the greater Boston area, and $76,953 for the sample (U.S. Bureau of the Census, 1990). The majority of both men and women were employed in managerial or professional occupations (68% of the men and 71% of the women). Some 25% of the women, compared with less than 18% of the men, were employed in technical, sales, or administrative support occupations. Finally, more men than women (15% compared with 4%) were employed in either service, precision production, crafts, or repair occupations or as operators or laborers. On average, at the first data collection, the men in the sample were 34.55 years old (SD = 4.37), whereas the women were 33.64 (SD = 4.85) years old. On average, the couples had been married 8.90 years (range: 1–22 years, SD = 5.45), and for couples with children, the average family size was 1.91 children (range: 1–4, SD = 0.70). Most of the couples (63%) were rearing preschool- or school-aged children: 40% had at least one preschooler in the home, and 23% had at least one school-aged child in the home. In contrast, only 16% had at least one teenage child in the home.

Procedures

Respondents were interviewed separately in their homes or offices by trained interviewers. The interval between interviews was approximately 1 year (12–15 months). Before each interview, respondents received a packet to fill out and return at the interview. Each partner was instructed to complete the forms individually. Each couple received $25 for participating in each wave.

Measures

Salary. We heed Oppenheimer’s (Oppenheimer, 1997) advice and use mean and difference, not ratios, to capture the within-couple salary difference. We use actual salary data for each partner at three points in time to assess four variables, reflecting couple mean salary, change over time in couple mean salary, magnitude and direction of within-couple salary gap, and change over time in magnitude and direction of within-couple salary gap.

Salary affect. We define salary affect as the degree to which each partner feels subjectively rewarded by the salary associated with her or his job, operationalized as a five-item scale assessing the extent to which each participant experiences the monetary aspects of his or her work as rewarding or of concern. Sample items include being rewarded by “making good money compared to others in the field” and being concerned about “the income on this job.” Cronbach’s alpha for the scale is .78 (.64 for women, .73 for men in Wave 1; Barnett & Brennan, 1995). Confirmatory factor analysis demonstrated that salary affect is a distinct dimension of job experiences for both women and men (Barnett & Brennan, 1995).

Gender-role ideology. Respondents used a four-point scale to indicate the extent of their agreement with 12 statements about “appropriate” behavior for men and women (Mason & Bumpass, 1975). Scores are computed so that high scores reflect traditional (vs. egalitarian) ideology. Cronbach’s alpha is .75 (.65 for women, .66 for men).
in Wave 1) in the present sample (James et al., 1998). Although it could be argued that salary affect may be a product of GRI, these indicators were uncorrelated for both men \((r = .008, p = .89)\) and women \((r = .018, p = .378)\). Nor were these indicators correlated with negative affectivity, often seen as a trait underlying self-report indicators of psychological well-being (Brennan & Barnett, 1998).

**Marital-role quality.** MRQ was measured using a 52-item scale (Barnett et al., 1993). Respondents indicated on a four-point scale the degree to which each item was currently rewarding or of concern. Cronbach's alpha is .93 for rewards (.93 for women, .93 for men) and .89 for concerns (.90 for women, .89 for men) in the present sample.

**Control variables.** Negative affectivity (Spielberger, 1983), education, occupational prestige, number of hours worked, years partnered, parental status, change in hours worked, and change in parental status were our control variables.

Each of the predictors that may change over time (i.e., salary, salary affect, GRI, number of hours worked, and parental status) was divided into a change and an average component to allow the explicit modeling of change in each predictor to change in MRQ.

**Analytic Overview**

Longstanding difficulties in analyzing couple data have been addressed successfully in recent years through the use of two approaches that accommodate the fact that outcome variables measured on members of a couple are likely to be correlated. Both multilevel modeling (also called hierarchichal linear modeling or HLM; Almeida & Kessler, 1998; Barnett et al., 1993; Windle & Dumenci, 1997) and structural equation models (Cook, 1998; Kurdek, 1998; Teachman, Carver, & Day, 1995) accommodate the intercorrelations found in data on couples. Further, recent work using multilevel modeling (Barnett, Brennan, Raudenbush, Pleck, & Marshall, 1995; Karney & Bradbury, 1995, 1997; Raudenbush et al., 1995) and structural equation modeling (Willett & Sayer, 1994) has advanced the study of change using a class of models described as growth models (see MacCallum, Kim, Malarkey, & Kiecolt-Glaser, 1997 for a comparison of these two approaches).

The present analysis makes use of advances both in the study of couples and in growth modeling. We address these features of our data using the multilevel modeling approach proposed by Raudenbush et al. (1995). In this model, husbands' and wives' values for MRQ are treated as separate but correlated outcomes. This model is multivariate in that the two outcomes, although allowed to be related, are modeled separately. A key feature of the multivariate approach is that the models for husbands and wives may contain variables that have the same value for both spouses (e.g., years married), as well as variables that have independent values for each spouse (e.g., years of education). As proposed by Raudenbush et al. (1995), combining the growth model with a measurement model using parallel observations for each member of a couple to obtain estimates of male and female true scores for MRQ, it is possible to estimate a model with linear and quadratic growth terms by using just three time points. In this model, the male and female intercepts, as well as each of the growth parameters, are estimated as random effects (i.e., these effects are allowed to vary across couples). Further, in the growth model, outcomes may be modeled by a combination of time-varying and time-invariant predictors.

We also recognize that if we are to understand the relationship between change over time in salary within couples and change over time in MRQ, the time-invariant or stable components of salary and MRQ must be distinguished from the time-varying components (Barnett et al., 1995). A time-invariant component is an average score on the dimension of interest over the data collection periods, whereas a time-varying component is the deviation from that average at each data collection point. Specifically, we conceptualize salary and MRQ as couple-level, not individual-level, variables. Thus, couples can be described in terms of their mean score on a variable at any point in time and in terms of the magnitude and direction of the difference between partners' scores at any point in time. Independent of the couple's mean score, the gap between partners' scores can vary, and the gap can favor one partner or the other. In addition, over time, the couple mean score may vary, as may the magnitude and the direction of the gap between partners' scores.

Our focus is on estimating the effects of the time-varying predictors on the outcome variable (MRQ). The inclusion of time-varying predictors is useful for two reasons. The modeling of time-varying covariates is important because the relationship of change in a predictor variable to
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Table 1. Husbands' and Wives' Salaries and Salary Difference

<table>
<thead>
<tr>
<th></th>
<th>Husband's Salary</th>
<th>Wife's Salary</th>
<th>Difference Between Husband and Wife</th>
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<tbody>
<tr>
<td>N</td>
<td>293</td>
<td>297</td>
<td>292</td>
</tr>
<tr>
<td>Minimum</td>
<td>$5,000*</td>
<td>$5,000*</td>
<td>($75,000)</td>
</tr>
<tr>
<td>Maximum</td>
<td>$160,000</td>
<td>$175,000</td>
<td>$134,800</td>
</tr>
<tr>
<td>Median</td>
<td>$42,000</td>
<td>$32,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Mean</td>
<td>$47,792</td>
<td>$35,477</td>
<td>$12,715</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>$24,214</td>
<td>$19,540</td>
<td>$26,819</td>
</tr>
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*Only 10 respondents earned less than $10,000 per year in Year 01, when these salary figures were collected. In most cases, these low salaries were due either to the respondent having been employed for only part of the previous year or to the respondent being self-employed or employed by a family business from which they were drawing only a nominal salary.

change in the outcome variable may be of theoretical importance and because many of the threats to causal inference that plague cross-sectional studies are ruled out by observing change. Specifically, the threats posed to inference by a stable respondent trait, such as negative affectivity (Brennan & Barnett, 1998), that may be related both to self-reports of satisfaction in one social role (e.g., job) and to satisfaction in another role (e.g., marriage) are eliminated. Although stronger than traditional cross-sectional models in ruling out threats to causal inference, growth models are not, however, a panacea and cannot rule out, for example, whether the threat posed by a reverse causal argument or by omission of a mediating or moderating variable from the analysis (i.e., model misspecification).

**Results**

**Descriptive Results**

In general, the women in this sample were more egalitarian in their GRI than were their husbands (for men: $M = 1.55, SD = 0.34$; for women: $M = 1.45, SD = .31$). The observed difference between men and women in the sample (.09) differed significantly from zero ($p < .001$); however, the effect size was only .03, indicating that the difference, although statistically significant, was trivially small. There was great overlap between male and female values for GRI in this sample. In 173 of the original 300 couples at Time 1, the woman was more egalitarian than her spouse, whereas in 105 couples, the husband was more egalitarian than his wife. For 22 couples, the partners did not differ in their GRI.

Wives reported feeling more subjectively rewarded by their salaries than did their husbands (for men: $M = 2.81, SD = 0.53$; for women: $M = 2.93, SD = 0.58$). This difference was significant ($p = .022$), although the magnitude was small ($d' = 0.19$). In 157 of the 300 couples at Time 1, the woman reported greater salary affect than did her husband, whereas in .18 couples, the husband reported greater salary affect than did his wife. For 25 couples, the partners reported equal salary affect.

Table 1 presents descriptive statistics on husbands' and wives' salaries at Time 1. In general, husbands earned more than wives in this sample, though the range of salaries was similar. Consequently, the average salary gap favored men. In 200 couples, the man earned more than his wife, whereas in 86 couples, the woman earned more than her husband. The six remaining couples reported the same salary for each partner. Thus, in this sample, the wife earns as much as or more than her husband in 31.5% of the couples, compared with 23% in a nationally representative sample (Bureau of the Census, 1998). This difference is no doubt largely attributable to the sample design, which required that both spouses be full-time employed.

Among the couples in which the wife earned more than the husband, she earned, on average, 59% of the household income. In terms of actual earnings, these wives earned between $1,000 and $75,000 more than their husbands ($M = 14,111.51, SD = 14,318.78, $Mdn = 10,000$).

**Results of the Hierarchical Linear Models**

We fit two hierarchical linear models to our data. First was a null, or baseline, model containing only male and female intercepts and the growth parameters (Raabu et al., 1995). The second model was an explanatory model. In reporting our results, we elected to use robust standard errors (Bryk, Raudenbush, & Congdon, 1996; Chou, Bentler, & Satorra, 1991). Robust standard errors are comparatively insensitive to outlying values.
Further, robust standard errors are less biased than conventional standard errors in cases in which there is some nonlinearity of the relationship between predictor and outcome.

**Baseline Model**

First, we estimated the baseline model containing only the outcome (MRQ), the dummy variables representing male and female intercepts of MRQ, and terms representing linear and quadratic change (acceleration and deceleration). This model provided estimates of the variance for each of the six random terms in the model (male intercept, male linear growth, male quadratic growth, female intercept, female linear growth, and female quadratic growth). For each of these parameters, the random component; that is, the variance of these parameters across couples, was significantly different from zero beyond the .001 level of probability. That is, couples varied significantly with regard to each member’s level of MRQ and in the tendency to change over time. This model provided baseline estimates of the variance in each of these parameters for us to assess the proportion of variance explained when we added our explanatory variables to the model. Also of interest in the baseline model is the fact that women showed a significant tendency to become less satisfied over time with the quality of their marriages ($-0.624$, $t = -2.652$, $p = .008$), whereas there was no significant trend for men ($0.194$, $t = .898$, $p = .369$). Neither men nor women showed a significant mean level of acceleration or deceleration over the period.

**Explanatory Model**

In our analysis, we proposed a single explanatory model. The model consisted of the control variables (see Measures), some time varying, some time invariant, and some with both time-invariant and time-varying components. Included in this model were predictors representing couple mean salary, husband-wife salary gap, salary affect, and GRI (also viewed as having a couple mean and a gap, see James et al., 1998). Our priori model specified main effects for each of the two time-varying salary variables. These effects were estimated using both the stable (i.e., average over the three time points) and time-varying (each time point’s difference from the temporal average) components of each predictor.

Additionally, in accordance with our hypotheses, our a priori model specified two- and three-way interaction terms between gender, GRI, and the change components of salary and salary affect. In contrast to some traditional approaches in which interaction terms are added only when main effects prove to be significantly different from zero, our approach minimized multiple-hypothesis testing and also reduced the likelihood of overlooking effects because the model had been misspecified because of the omission of interaction terms. Further, work by James et al. (1998) demonstrated that when predicting psychological distress, interactions of components of GRI and job role quality were significantly different from zero despite one or more of the component main effects failing to differ from zero.

After fitting the explanatory model, we first evaluated the variance estimates and compared them with those from the baseline model. Table 2 displays both sets of variance estimates, as well as the overall proportion of variance accounted for by adding the explanatory variables to the model. Of note is the fact that the explanatory model accounted for more of the variance in male MRQ (16.3%) than in female MRQ (11.9%). Additionally, the explanatory model accounted for only small bits of the variation among men and women in the sample in the change in MRQ—either in linear change or in the tendency to accelerate or decelerate over the period.
When She Earns More Than He Does

Table 3. Coefficients for Time-Varying Covariates in Predicting Change in Marital-Role Quality

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Female</th>
<th></th>
<th></th>
<th>Male</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>T ratio</td>
<td>Coefficient</td>
<td>SE</td>
<td>T ratio</td>
</tr>
<tr>
<td>Work hours</td>
<td>-0.047</td>
<td>0.035</td>
<td>1.338</td>
<td>0.047</td>
<td>0.038</td>
<td>1.239</td>
</tr>
<tr>
<td>Parental status</td>
<td>-2.647</td>
<td>1.294</td>
<td>-2.045*</td>
<td>-0.814</td>
<td>1.227</td>
<td>-0.664</td>
</tr>
<tr>
<td>GRI difference</td>
<td>0.246</td>
<td>0.812</td>
<td>0.303</td>
<td>-0.537</td>
<td>0.686</td>
<td>0.783</td>
</tr>
<tr>
<td>Couple average GRI</td>
<td>-3.372</td>
<td>1.818</td>
<td>-1.854</td>
<td>2.836</td>
<td>1.610</td>
<td>-1.761</td>
</tr>
<tr>
<td>Couple mean salary</td>
<td>0.253</td>
<td>0.298</td>
<td>0.844</td>
<td>0.287</td>
<td>0.268</td>
<td>-1.069</td>
</tr>
<tr>
<td>Salary difference</td>
<td>0.088</td>
<td>0.151</td>
<td>-0.582</td>
<td>0.308</td>
<td>0.136</td>
<td>2.265*</td>
</tr>
<tr>
<td>Salary affect</td>
<td>0.144</td>
<td>0.103</td>
<td>1.400</td>
<td>0.306</td>
<td>0.131</td>
<td>2.335*</td>
</tr>
<tr>
<td>Couple mean salary × GRI</td>
<td>4.327</td>
<td>2.302</td>
<td>1.880</td>
<td>-3.308</td>
<td>2.658</td>
<td>-1.245</td>
</tr>
<tr>
<td>Couple mean salary × couple</td>
<td>1.501</td>
<td>5.229</td>
<td>0.287</td>
<td>1.783</td>
<td>4.300</td>
<td>0.415</td>
</tr>
<tr>
<td>Average GRI × salary affect</td>
<td>-0.211</td>
<td>0.273</td>
<td>-0.772</td>
<td>0.289</td>
<td>0.247</td>
<td>1.170</td>
</tr>
<tr>
<td>Salary difference × GRI</td>
<td>0.124</td>
<td>1.153</td>
<td>0.107</td>
<td>0.960</td>
<td>1.227</td>
<td>0.783</td>
</tr>
<tr>
<td>Change in salary affect</td>
<td>-3.997</td>
<td>2.588</td>
<td>-1.545</td>
<td>2.501</td>
<td>2.293</td>
<td>-1.090</td>
</tr>
<tr>
<td>Salary difference × couple</td>
<td>0.323</td>
<td>0.179</td>
<td>1.804</td>
<td>0.226</td>
<td>0.107</td>
<td>2.104*</td>
</tr>
</tbody>
</table>
| Average GRI × salary affect    | **Note** GRI, gender-role ideology

*p ≤ .05

The explanatory model may be compared with a model containing only control variables by means of a multivariate hypothesis test (Bryk & Raudenbush, 1992; Bryk et al., 1996). The addition of explanatory variables to the model did improve model fit (χ² = 67.529, df = 39, p = .003).

Next we examined the regression coefficients. As described below, a number of the predictor variables had coefficients which differed significantly from zero for men, for women, or for both.

**Time-Varying Predictors**

The effects of time-varying predictors are displayed in Table 3. In general, it was the men in the sample whose MRQ was more sensitive to changes in the time-varying predictors. For men, changes in the salary gap were predictive of MRQ. Specifically, as the within-couple salary gap favoring her increased over time, his MRQ decreased, and conversely, as the salary gap favoring him increased over time, his MRQ increased. Thus, there is support for Hypothesis 1a, that male MRQ decreases as the wife earns increasingly more relative to her husband.

In contrast, Hypothesis 1b was not supported. A woman's MRQ did not decrease as she earned increasingly more relative to her husband. Indeed, the effect did not differ from zero and had an opposite sign.

Relatedly, Hypothesis 2a, that the higher salary a wife earns relative to her husband over time the higher his MRQ, was not supported. However, Hypothesis 2b, that the effects may be mixed for women (i.e., positive effects on her MRQ may be offset by negative ones), has some support from the interaction effects results (see Hypothesis 3b below).

Hypotheses 3a–3d are based on gender-role identity theory. Hypotheses 3a and 3b posit that the relationships between MRQ and salary gap for men and for women are conditioned by salary affect. Hypotheses 3c and 3d posit that these relationships are conditioned by GRI. Hypothesis 3a is supported, whereas Hypothesis 3b receives ambiguous support. Men's perceived MRQ was sensitive to changes in salary affect, such that increasing subjective rewards associated with salary over time were associated with increased satisfaction with the marital role. For women, the effect of salary affect was about half the magnitude of the effect for men and did not differ significantly from zero; however, the male and female coefficients could not be distinguished from one another statistically (χ² = 1.048, df = 1, p > .306).

For men, these two effects, changes in salary gap and changes in salary affect, interacted positively with one another. Specifically, for men who experienced both a decrease in the positive salary gap from their wives and who increased in the
degree to which they were subjectively rewarded by their salaries, the resulting decrease in their MRQ was even greater than the sum of the two main effects. Conversely, for men who experienced a decrease in the positive salary gap from their wives and who decreased in the degree to which the subjective rewards of salary were salient for them, the resulting change in MRQ was marginal.

This same interaction came close to significance for women and could not be distinguished from the male coefficient for the same term ($\chi^2 = 0.284$, $df = 1$, $p > .5$). Thus, Hypothesis 3b, that the effect of salary gap on women’s MRQ would be moderated by their salary affect, receives ambiguous support. Women reap less gain to their MRQ from the combination of an increasing salary gap in their favor and increasing salary affect.

In sum, when she earns more than he earns, her evaluation of the quality of the marriage decreases, especially in the context of high salary affect. If she earns increasingly more than he earns and he is increasingly subjectively rewarded by salary, then his MRQ decreases sharply. In contrast, if he is increasingly subjectively rewarded by his salary, then his MRQ is relatively unaffected if there is an increasingly large salary gap in her favor. In contrast, when she earns more than he earns, her evaluation of the marriage is not significantly affected, even when considered in the context of her salary affect. For neither men nor women were the effects of change in salary gap in predicting MRQ moderated by GRI, failing to support Hypotheses 3c and 3d.

Background Variables

Time-invariant variables cannot be related to changes in MRQ. However, several time-invariant control variables were related to average MRQ. For both men and women, negative affectivity (Spielberger, 1983) played a predictive role. Although for both members the coefficient was modest and negative (i.e., the greater the negative affectivity, the lower the reported MRQ), the coefficient was smaller for men ($-0.292$, $t = -3.234$, $p = .002$) than for women ($-0.527$, $t = -6.50$, $p < .001$). For men, occupational prestige was a significant positive predictor of MRQ ($0.086$, $t = 2.540$, $p = .011$), whereas for women, the relationship could not be distinguished from zero statistically ($0.060$, $t = 1.578$, $p = .114$). On the other hand, older women rated MRQ lower than did younger women ($-0.319$, $t = -2.192$, $p = .028$); for men, the effect of age was trivial ($-0.099$, $t = -0.722$, $p = .470$).

Men and women also differed in how the number of hours worked per week was related to the quality of their marriages. For men, there was a significant positive relationship between the average number of hours worked per week over the study period and MRQ ($0.149$, $t = 3.503$, $p = .001$); that is, men who worked longer hours on the average were more satisfied with their marital roles. For women, there was no relationship, positive or negative, between working more hours and the quality of their marriages ($0.048$, $t = 0.772$, $p = .440$).

Two of our control variables had a time-varying component. For neither men nor women was the effect of changes in the number of work hours related to their marital quality. For women, change in parental status was negatively related to MRQ ($-2.647$, $t = -2.045$, $p = .041$). Thus, for women, the event of having a first child during the study period was associated with lower MRQ. The effect of changing parental status on men’s MRQ could not be distinguished from zero ($-0.814$, $t = -0.664$, $p = .507$).

Discussion

The main findings of this longitudinal analysis are (a) change in women’s earnings relative to their husbands’ over time has no significant effects on their evaluation of the quality of their marital relationships and (b) changes in men’s earnings relative to their wives’ have significant effects on men’s MRQ, especially in the context of heightened salary affect. In contrast, change in GRI did not moderate the relationship between change in salary and change in MRQ for husbands or wives. Future research should examine the question of whether change in GRI might moderate the relationship between stable components of MRQ and of salary. Unfortunately, we could not assess the moderating effects of race and class on these relationships because this sample was predominantly White and middle-class. Further research will be needed to determine whether these findings will generalize to dual-earner couples who vary in race and class.

For husbands who earn increasingly more over time relative to their wives, MRQ increases, especially if the men derive growing subjective rewards from their own salaries. In contrast, among married men for whom earnings are not so prized, a widening salary gap was not strongly associated
with MRQ. For women, on the other hand, change over time in the salary gap had no significant impact on MRQ, even when considered in the context of GRI or their salary affect.

Overall, there was some support for theories predicting a main-effect relationship between relative earnings and MRQ. Specifically, the functionalist theory predicting that the higher salary a wife earns relative to her husband, the lower would be both spouses' MRQ was partially supported. For full-time-employed men in dual-earner couples, MRQ is related to the magnitude and direction of the salary gap. However, among their wives, in general, MRQ does not depend on traditional female economic dependence. Stated differently, there is no evidence that decreased gender-role specialization within the couple, as operationalized by increases over time in her relative earnings, are related to decreased MRQ for women. In spite of the dominance of functionalist theories in family sociology, these longitudinal findings raise serious questions about the predictive validity of their premises. Thus, the presumed risk of marital disruption related to her increased relative earnings may not be as high as predicted.

Neither was there strong support for the two hypotheses derived from the revised independence theory. In general, change over time in a wife's earnings relative to her husband's was not associated with his increased MRQ over time. However, there was some support for the hypothesis that increased relative earnings on her part would be associated with mixed effects on her MRQ.

With respect to the gender-role theory, we found support for the interaction effects, but not the main effects, hypotheses, but only among men and only for salary affect. Again, for men, change over time in the within-couple salary gap favoring men was associated with increased MRQ, but only if the men reported escalating subjective rewards from their own salaries. For their counterparts who did not increasingly value their own salaries, an increasing salary gap in their own favor was not associated with increased MRQ. Thus, the strength of men's identification with this particular tenet of the male gender role has powerful effects on their MRQ under conditions of increasing disparity between their earnings and those of their wives.

As women increasingly work full-time and for the full year and men's earnings continue to stagnate or decline, women's earnings are catching up to men's, albeit slowly. In this climate, the MRQ of men in full-time-employed dual-earner couples who derive high subjective rewards from their earnings is more vulnerable than that of their wives and that of their male counterparts who do not so highly value the subjective rewards from their earnings.

It appears that older theories relating salary differentials to marital disruption and satisfaction are not a good fit with present realities. For the most part, these theories were formulated at a time when there was far more gender specialization within the family. These theories burgeoned during the 1950s to 1970s. Although many sociologists now consider that time period to be aberrant (Coontz, 1997; Oppenheimer, 1997; Skolnick, 1993), it has nevertheless become a benchmark for research and conceptualization in sociology and in psychology. During those years of the “family wage,” men were the major, if not sole, providers. Now most families have come to depend on wives' earnings to maintain their living standards. Moreover, in 1997, women's earnings exceeded those of their husbands in about 23% of dual-earner couples, a situation that may well have seemed inconceivable to early theorists.

As Oppenheimer (1997) notes.

The combined income of the two-earner family has come to form the social standard, rather than the husband's salary alone. To the extent that this is the case, it becomes increasingly difficult for single earners and married couples with more traditional division of labor to achieve the same level of living as the two-earner family. Hence, the mutual dependence of the two-earner family may not only contribute to their own gain to marriage but may also reduce the relative gain to being single and to marriages characterized by a specialized division of labor. (pp. 448-449)

It may have been hard for early theorists to foresee that in the future, some men would not be threatened by the loss of the sole-provider (or primary-provider) role. It would certainly have been a stretch for Parsons, who claimed to have articulated a theory of the family for all times (1949), to imagine that marriages might actually be more durable and more satisfying when gender-role specialization was reduced and both partners were significant financial contributors. But times have changed, and theories may now need to change as well. Indeed, specialization now "entails considerable risk." (Oppenheimer, 1997, p. 447) for couples and for their individual partners.

Further, it appears that men's MRQ is vulnerable to inconsistencies between their gender-role beliefs and their relative earnings. Men who are
living nontraditional lives but whose gender-related attitudes are traditional (as evidenced by their high subjective rewards they derive from their salaries) are particularly vulnerable to low MRQ if their wives' earnings increase over time relative to their own. Because the percentage of women in two-earner couples whose earnings are as great or greater than their husbands' has been rising steadily and is likely to continue rising, this growing group of husbands is in a precarious position. Thus, for traditionally oriented men, being a good provider and having their wives economically dependent on them affirmed their value and was a guarantor of marital stability. As their wives' earnings approach their own, there is the potential in this group of men for feelings of loss of value in their own eyes and perhaps eventually in the eyes of their wives. Because MRQ is relational (Raudenbush et al., 1995), it is likely that his low MRQ will have a depressing effect on her MRQ.

In contrast, it appears that full-time-employed married women in dual-earner couples are less vulnerable to these effects on MRQ. These gender differences may well be due to the differential prominence given historically to breadwinning and providing among employed men and women. Whereas among men, identification with the male gender role was tantamount to identification with the provider role and with it, reaping high subjective rewards from the monetary aspects of their jobs, the same was not true for women. Indeed, many married employed women historically (as well as presently) have not identified strongly with the role of provider (Haas, 1987; Potuchek, 1997). Also, it is likely that women's historic segregation into low-paying jobs and underemployment have acted as a brake on the extent to which they focused on the subjective rewards associated with their salaries.

Compared with men's focus on relative earnings, previous research with this sample suggests that women's MRQ is strongly associated with their husbands' relative contribution to child care (Ozere, Barnett, Brenner, & Sperling, 1998). The more child care their husbands did relative to their own, the more positively wives evaluated their marriages. In contrast, relative contribution to child care was unrelated to husbands' evaluation of the quality of their marriages. Unfortunately, no information was provided on the moderating effect of either GRI or salary affect.

Thus, among these nontraditional couples, each partner's evaluation of the quality of the marriage seems to be particularly reactive, but in different ways, to the other partner's behavior in their supposed area of gender-specialization. Full-time-employed men in dual-earner couples, at least those who endorse traditional gender beliefs, are likely to experience low MRQ when their wives' success in the income-producing area threatens their own need to be the primary provider. In contrast, among full-time-employed women in dual-earner couples, high MRQ is associated with greater participation by their husbands in the area of child care. There was no evidence to suggest that these women were acting as gatekeepers, limiting their husbands' involvement in this previously female preserve. However, we do not know whether these findings would differ among women who varied in the traditionality of their gender-role beliefs.

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