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The 20-Year Trajectory of Marital Quality in Enduring Marriages: Does Equity Matter?

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Abstract

I examine the trajectory of marital quality as a function of relationship equity with data from a six-wave panel study of 704 married respondents between 1980 and 2000. Reporting that one “gives more” to the marriage (subjective underbenefit) is more likely for women than men at any given marital duration. Respondent’s relative contribution to income, paid labor, housework, and health (objective underbenefit) raises this probability for women of average religiosity. For the more religious, objective underbenefit has no effect on women’s sense of underbenefit, but *reduces* men’s sense of underbenefit. Objective underbenefit lowers women’s, but raises men’s, marital quality, at any marital duration. The relevance of equity was not diluted by the passage of time in marriage.

Keywords

equity theory; gender differences; growth-curve modeling; longitudinal research; marriage; marital quality

Equity theorists maintain that dyadic relationships are imbalanced whenever peoples’ rewards are incommensurate with their contributions to the relationship. Such imbalance generates psychological distress, which tends to erode relationship quality (Hatfield, Rapson, & Aumer-Ryan, 2008). There is substantial support for these principles in relationships between acquaintances, employers and employees, or customers and proprietors (see Adams, 1965 or Hatfield, Walster, & Berscheid, 1978 for reviews of the experimental evidence). Whether such a return-on-investment mentality operates in intimate relationships, on the other hand, is the subject of considerable debate (see Hatfield, et al., 2008, for a review). Studies abound suggesting that romantic relationships are also subject to equity principles (e.g., Buunk & Van Yperen, 1991; DeMaris & Longmore, 1996; Frisco & Williams, 2003). Other research, however, finds little or no evidence for the relevance of equity considerations among intimate couples (e.g., Felmlee, Sprecher, & Bassin, 1990; Gager & Sanchez, 2003). Thus, to date, the degree to which the calculus of equity enters into intimate relationships is still an open question. This is especially the case for long-term, or “enduring,” marriages. Crystallized in the usual vows taken in the marriage ceremony in the U.S., the spirit of marriage is, in the ideal, inconsistent with the tallying of incurred costs and benefits. Spouses in stable marriages are believed to be more concerned with each other’s welfare than with any immediate reciprocity of exchange (Holmes & Levinger, 1994). To assess whether such relationships also evidence the operation of equity principles should afford an especially stringent test of equity theory’s universal applicability. This was the goal of the current study.

In particular, this study re-examines the influence of inequitable relationship exchange on marital quality. In the process, I attempt to address several shortcomings in the corpus of research on this topic. First, many studies are based on those involved in relatively short-lived relationships (Felmlee et al., 1990; Floyd & Wasner, 1994; Sprecher, 2001). Although a preoccupation with the fairness of exchange may be relevant in short-term liaisons, longer-term commitments, especially stable marriages, should be less characterized by such concerns. I therefore employ a large national sample of respondents who have been married for at least 20 years. Second, most research is based either on cross-sectional data or, at most, two measurement occasions. Little is therefore known about how relationship inequity might affect the pattern of change in marital quality throughout the course of the marriage. I employ six waves of data that span 20 years to elucidate the manner in which inequity relates to the *trajectory* of marital quality over time. Third, much prior research has relied exclusively on respondents' subjective perceptions of inequity to tap the exchange balance in their relationship. In this study, I employ both subjective and objective measures of inequity to untangle the effects of imbalanced exchanges.

Equity Theory

Equity theory begins with profit maximization as a general human motive in relationship transactions. Because unfettered self-aggrandizement is inimical to good social relations, however, this motive is usually tempered by a concern with social justice (Hatfield et al., 2008). People are most comfortable when their relationships are characterized by equitable exchanges. Equitable exchanges occur when each person's outcome-to-input ratio, with respect to the resources traded, is the same (Adams, 1965). That is, each person's return is commensurate with his or her investment. When one person is unduly profiting from the exchange, that person is said to be overbenefited, and the other partner is correspondingly underbenefited. Under these conditions, both partners become uncomfortable. The overbenefited are likely to experience guilt and shame, while the underbenefited may feel anger and resentment (Hatfield et al.). These emotions bring about pressure for a restoration of exchange balance. Equity can be restored via an actual alteration in the terms of the exchange. Failing that, equity can be restored through cognitive means by altering one's valuation of inputs and outcomes. Ultimately, relationships that remain characterized by inequity are at increased risk of termination (DeMaris, 2007; Frisco & Williams, 2003; Joyner, 2009).

The Nature of Exchange in Romantic Relationships

Employer-employee or proprietor-customer relationships are characterized by the exchange of money for services or goods rendered in return. Romantic relationships are based on a different bartering system. Marriage represents a cooperative venture on the part of two individuals to share their lives. Couple households, especially those with children, are sustained by the contributions of both partners to a variety of shared goals. In essence, each partner exchanges the same types of "commodities" with the other partner. Hence, each spouse may contribute to paid work, housework, childcare, physical and emotional nurturance of household members, and stewardship of the family's social and recreational life. Each spouse's input to the relationship in a given domain—e.g., housework—is the other's outcome, and vice-versa (Canary and Stafford 1992; Cook and Hegvedt 1983; Mirowsky, 1985). In most marriages, each partner's contribution in a given domain is not the same. This implies that one spouse is inputting more but getting back a smaller outcome, in the form of the other spouse's contribution. However, there can be equity *across* the domains of exchange provided that imbalances in one area are compensated by imbalances of the opposite kind in another area. DeMaris and Longmore's (1996) analysis of married couples, for example, found that, on average, wives spend more than twice as many hours per week doing housework, compared to husbands. Nevertheless, both spouses saw this

division of labor as less unfair to the wife the greater the husband's relative contributions to the areas of childcare and paid work.

Applicability of Equity Theory to Marriage

Many scholars have applied the principles of equity theory to romantic relationships (e.g., DeMaris, 2007; Frisco & Williams, 2003; Joyner, 2009). They view dating and mating rituals as driven by market forces, analogous to those regulating commodities. Such forces are a natural response to the erosion of traditional societal regulations governing the marital institution. Given the gradual deinstitutionalization of marriage from earlier eras to modern times, few societal restrictions remain to guarantee marital permanence (Cherlin, 2004; Coontz, 2004, 2005). As others have observed, individual gratification and fulfillment have supplanted duty and obligation as the principal reasons for remaining in a marriage (Amato, 2004). In such a social climate, monitoring the equitableness of one's marital exchange takes on special importance. Attending to the costs and benefits of one's relationship on a regular basis is a means of assessing whether adequate "return" on one's marital "investment" is being realized. Should that not be the case, marital dissatisfaction should ensue. Consistent with these dynamics, several studies have found inequitable relationships to be less satisfactory than others (Buunk & Mutsaers, 1999; Buunk & Van Yperen, 1991; Van Yperen & Buunk, 1990). And a handful of studies show that inequitable marriages are more likely to dissolve (DeMaris; Frisco & Williams; Joyner). In sum, based on this body of work I expect underbenefit, whether objective or subjective, to be negatively associated with marital quality in the same degree, regardless of how long the couple has been together.

Several other scholars, however, believe equity principles to be inapplicable in romantic relationships, especially long-term marriages. They argue that, for most spouses, marriage is contrary to the keeping of relational balance sheets. As it is communal, rather than individual, in orientation, each spouse is supposedly more concerned with the other's welfare than with keeping track of who owes what to whom (Holmes & Levinger, 1994). Grote and Clark's (2001, p. 282) position is representative of this view. They do not believe "...that members of well-functioning, happy couples routinely keep track of who has contributed exactly what to the relationship and whether the relationship is fair in the sense of equity being continuously monitored." Accordingly, many studies fail to find evidence that equity considerations play any part in either the quality or the stability of romantic relationships. Gager and Sanchez (2003), for example, failed to find any effect of inequity in the household division of labor on the risk of subsequent divorce. In a similar vein, other researchers have generally found little influence of equity considerations on the quality or longevity of dating relationships, once other factors were taken into account (Felmlee, et al., 1990; Lujanksy & Mikula, 1983). If this view of romantic relationships is correct, then being on the underbenefit side of the marital exchange—whether objectively or subjectively—should have minimal impact on marital quality. And any deleterious effect of underbenefit should dissipate the longer the marriage has been together.

The Influence of Gender

For several reasons, one might expect women to be more sensitive than men to inequity in their relationships and to react to it more negatively. Women are believed to give more than they receive in relationships, especially with respect to interpersonal resources such as self-disclosure, emotional support, and empathic understanding (Buunk & Van Yperen, 1991; Grote & Clark, 2001; Van Yperen & Buunk, 1990). Differential socialization experiences also lead women to prioritize intimate relationships differently from men. For women, more so than men, satisfactory intimate relationships are central to well being (Sprecher, 2001). Because their intimacy skills are more developed than men's, they may more often feel shortchanged than men in this domain (Vangelisti & Daly, 1997). Women may therefore be

more likely than men to monitor their levels of rewards and costs in relationships. This is especially important given the modern concern with gender equality in marriage, particularly among women (Wilcox & Nock, 2006; Vangelisti & Daly). Studies have found women to be more likely than men to report being underbenefited, and less likely to report being overbenefited, in romantic relationships (Buunk & Van Yperen, 1991; Davidson, 1984; Van Yperen & Buunk, 1990). Women's relationship satisfaction is also more negatively impacted by perceived relationship injustice (Baxter, 1986; Grote & Clark, 2001). And women's, more so than men's, perceptions of relationship inequity have been found to presage subsequent breakups (DeMaris, 2007; Frisco & Williams, 2003; Joyner, 2009). These observations lead me to expect women to be more likely to report being subjectively underbenefited in marriage than men. I also anticipate a stronger connection between objective and subjective underbenefit for women. And I expect that the effect of either subjective or objective underbenefit on marital quality will be more corrosive for women than men.

Other Conditioning Factors

Monitoring exchange tradeoffs and responding to inequity should also be conditional on other social characteristics. Three, in particular, are whether the marriage was preceded by a period of cohabitation, the respondent's religiosity, and the respondent's gender-role traditionalism. Cohabitors have been found to be more unconventional in both attitudes and behavior, compared to noncohabitors (Booth & Johnson, 1988; DeMaris & Macdonald, 1993). Those who have cohabited prior to marrying have already displayed a wary approach to commitment with their more gradual immersion in a formal union (Gillis, 2004; Kiernan, 2004). They should be correspondingly more attuned to the costs and benefits of the relationship than noncohabitors, and more distressed when these are out of balance. In contrast, the more religious should be less affected by relationship inequities. Most religious teaching encourages an unselfish dedication to the preservation of marital harmony over gratification of one's own selfish desires (Hansen, 1987; Scanzoni & Arnett, 1987). Those for whom religion occupies a more central role in their lives should be less likely both to recognize, and to respond with distress to, inequity (Wilcox & Nock, 2006). Similarly, those who have more traditional gender-role ideologies are expected to be less disturbed by inequity than others. The traditional view of marriage entails a complementary arrangement characterized by sex-specialized marital roles (Sanchez, Manning, & Smock, 1998). In contrast to more egalitarian couples, traditionals are likely to expect asymmetry in relationship contributions, and may therefore not react as negatively to exchange imbalances. These considerations imply the following hypotheses. I expect objective inequity to have a stronger effect both on the perception of injustice and on marital quality for cohabitors, the less religious, and the less traditional, at any given marital duration. Similarly, net of objective inequity, the *perception* of injustice will have a stronger effect on marital quality for these same groups.

Subjective vs. Objective Equity Assessment

Subjective equity refers to the individual's *perception* of whether his or her relationship is equitable, regardless of its "true" state. Objective equity pertains instead to the balance of each partner's *actual* contributions to the relationship. Most previous work testing equity theory in romantic relationships relies exclusively on subjective reports of felt injustice to tap inequity (e.g., Buunk & Van Yperen, 1991; Frisco & Williams, 2003; Glass & Fujimoto, 1994). The respondent is thus asked to report a sentiment, which is then used to "predict" another sentiment, say, relationship satisfaction. Although sentiments can indeed influence other sentiments, a theory that only relates sentiments to each other is lacking in explanatory power. How is a causal relationship between the two sentiments to be distinguished from the simple tendency for people to be consistent in their feelings? That is, if one is unhappy with

one's relationship, this is likely to be reflected in reporting both a low level of happiness, and a high level of felt injustice. A related problem is that the determination of which sentiment has causal priority can be elusive. Grote and Clark (2001) argue, in fact, that the priority belongs to relationship distress rather than felt injustice.

This study therefore includes a more objective measure of spousal inequity, in addition to a subjective assessment. It is based on contributions to the areas of earned income, paid labor hours, household labor hours, and health status. Husbands' relative contributions in these four domains of marital exchange have been found in earlier work to influence partners' perceptions of relationship fairness (DeMaris, 2007; DeMaris & Longmore, 1996). Including relative contributions to tap objective inequity in the marital exchange avoids some of the causal ambiguity inherent in perceptual measures (Mirowsky, 1985). It is not likely, for example, that spouses' distributions on measures of income, work hours, housework hours, or health are a function of the current happiness in their marriage. Survey questions asking for such purely demographic information have an additional advantage. As their ultimate purpose in assessing marital equity would be opaque to respondents, their answers are not likely to be colored by their feelings about the marriage (Mirowsky)

Because people's sense of injustice should be reflective of real exchange imbalances, I expect objective and subjective underbenefit to be associated. I also expect that objective underbenefit predicts marital dissatisfaction due to the intervening awareness of being underbenefited. Hence, subjective underbenefit should mediate most of the influence of objective underbenefit on marital quality. Nevertheless, objective inequity may also affect current marital quality via two other intervening factors. First, as Hatfield and her colleagues (2008) suggest, individuals in inequitable marriages are more likely than those who are equitably treated to risk extramarital affairs. Alternative romantic partners may hold the promise of a more equitable exchange, compared to the current spouse. DeMaris (2007) found husbands' objective contributions to their marriages to be positively related to their extramarital sexual involvement among those who later divorced. Prins, Buunk, and Van Yperen (1993) similarly found inequity to predict extramarital sexual involvement among women in their sample. Second, being underbenefited in an intimate relationship typically arouses anger in the exploited partner (Hatfield, et al.). As Grote and Clark (2001) observe, the discovery of inequity often leads to a series of accusations and counteraccusations in which each partner claims to be the exploited party. These arguments can easily become acrimonious enough to eventuate in physical violence. The occurrence of either infidelity or physical violence in a couple's recent past should have a corrosive affect on current marital quality, net of their current assessments of relationship equity. In sum, the final expectations are that any lingering direct effect of objective underbenefit on marital quality will be mediated by the occurrence of infidelity or marital violence in the recent past.

Hypotheses

To summarize, the following hypotheses are tested in this study. Except where explicitly differentiated, all references to "underbenefit" refer to both objective and subjective underbenefit.

- H1** Objective underbenefit is positively associated with subjective underbenefit.
- H2** Greater underbenefit is associated with lower marital quality.
- H3** The negative effect of underbenefit on marital quality diminishes in magnitude with increasing marital duration.
- H4** Women register a greater level of subjective underbenefit than men.

- H5** The effect of objective on subjective underbenefit is stronger for women than men.
- H6** The effect of underbenefit on marital quality is stronger for women than men.
- H7** Objective underbenefit has a stronger effect on subjective underbenefit for cohabitators, the less religious, and the less traditional.
- H8** Underbenefit has a stronger effect on marital quality for cohabitators, the less religious, and the less traditional.
- H9** The negative effect of objective underbenefit on marital quality is partially mediated by subjective underbenefit, and partially mediated by the occurrence of infidelity and spousal violence.

Methods

The Data

Data are taken from the survey of Marital Instability Over the Life Course (Booth, Johnson, Amato, & Rogers, 2003). This is a panel study of individuals in the continental U.S. between the ages of 18 and 55 in 1980, with a telephone, who were married and living with the spouse. The sample was selected using a random-digit-dialing cluster technique, with a second random procedure determining whether to interview the husband or wife. Data were collected via telephone interviews and mail-back questionnaires. Follow-up re-interviews were conducted in 1983, 1988, 1992, 1997, and 2000. The initial sample consisted of 2,033 respondents. By 2000 only 962 of the original respondents remained in the study. Attrition was greatest in the first follow-up interview, and then decreased in subsequent waves. The most common sources of attrition were refusal and inability to locate the respondent (Booth et al.).

Sample Selectivity

The target population for the current study consists of enduring marriages. Hence I limited the sample to those respondents who remained married to the 1980 spouse throughout all six waves of the study, a total of 704 respondents (434 females, 270 males). All respondents had been married to the current spouse for at least 20 years by wave six. The sample was predominantly White Non-Hispanic, with 93.9% of respondents falling into this category. Other ethnicities represented were White Hispanic (2.8%), Black (2.3%) and Other (1%). Average age of respondents in 1980 was 35.63 (SD = 8.78).

This sample represents a very select subset of the original group. However, this selectivity is deliberate. I chose a group of enduring marriages in order to provide the most stringent test of the relevance of equity in marriage. A statistical comparison of the analytic sample with the 1,329 respondents excluded from the study revealed several key significant differences in 1980. Included respondents were higher in average education level, family income, and religiosity, and lower in average sex-role traditionalism. They were less likely to be minorities, to have cohabited with the spouse before marrying, to have experienced parental divorce, and to have been married before. Their marriages appeared to be more satisfactory according to several criteria. They scored higher on average marital quality and were less likely to report a sense of subjective inequity in the marriage (see below for the measures employed for these factors). They were less likely to say that their spouse was the less intelligent partner. And they were less likely to have experienced both spouse abuse and infidelity in the marriage. (Statistical results are available from the author upon request.) In short, the analytic sample appears to be characterized initially by precisely those attributes one associates with the most stable marriages.

Outcome Measures

Two outcome measures were used in the study. Both are within-subjects factors. That is, they can take on different values in each wave of the survey. The first is the *subjective underbenefit* indicator, coded 1 if the respondent said he or she “gives more” to the marriage than the spouse, and 0 otherwise. The second measure was a nine-item scale of marital quality. Items required respondents to rate their happiness with various aspects of their marriage, such as “the extent of understanding received from your spouse,” and “the sexual relationship.” The scale is similar to that used to measure marital happiness in Amato et al. (2003) but was modified for the current project. The items referring to happiness with “the spouse as someone who takes care of things around the house,” and “the spouse’s faithfulness” were not used. As contributions to housework and the occurrence of infidelity were utilized as predictors of marital quality, comparable measures were not included as part of the outcome. Because the nine items were in different metrics, they were standardized first, and then summed to form the *marital quality scale*, where higher values indicated greater marital quality (alpha reliabilities ranged from .83 in wave 1 to .90 in wave 6).

Within-Subjects Predictors

The measure of objective inequity was motivated by Adams’ (1965) principle that an exchange relationship is equitable whenever the ratio of outcome to input is the same for each participant. The incorporation of multiple outcomes and inputs is readily accomplished by taking the product of outcome/input ratios over all relevant domains of exchange. In the current study, the ratios were inverted: respondent’s contribution (input) was divided by spouse’s contribution (outcome) in each domain, and then the product of ratios was computed. This produced a scale of objective underbenefit, such that higher values reflected greater relative contributions by the respondent. For mathematical tractability, the natural log of the product of ratios was actually used in all analyses. This strategy has been employed in prior research to tap objective inequity in marriage (DeMaris, 2007; DeMaris & Longmore, 1996).

In each wave information for both spouses was available to create ratios for four key domains: annual income, hours spent in paid labor, effort expended in housework, and self-assessed health. (Information about contributions to childcare was not included so that the index would be equally relevant to the childless.) Respondents were asked to indicate the percent of the total family income they contributed. It is assumed that total family income is simply the sum of husband’s and wife’s incomes. Therefore letting $p = \text{percent}/100$, I created the ratio of respondent’s to spouse’s income as $p/(1 - p)$. To avoid undefined ratios or ratios of 0—for which the log is undefined—I recoded 0 % as .5% and 100% as 99.5%. A similar approach was used for the housework-hours ratio. Respondents were asked how much of the routine household tasks were done by themselves. Response options were “none,” “less than half,” “about half,” “more than half,” and “all of it.” Following Amato et al. (2003), I assigned codes of 0, .25, .5, .75, and 1, respectively to these responses. Again, to avoid numerical problems, I used .005 in place of 0 and .995 in place of 1. The respondent/spouse ratio of housework effort was again constructed by letting p equal respondents’ proportion of housework and using $p/(1 - p)$. Respondents were asked to list the number of hours they and their spouses worked in the average week. After recoding 0 to .5, I simply took the ratio of respondent’s to partner’s hours. Finally, respondents were asked to rate their and their spouse’s health on a scale of “excellent” (4) to “poor” (1). Relative health contribution was simply the ratio of respondent’s to spouse’s health rating. The log of the product of these four ratios constituted the *objective underbenefit index*.

Several other within-subjects factors were necessary covariates in the models. Total *family income* was measured in thousands of dollars. Respondent education was measured as *years*

of schooling completed in each wave. Each survey wave included a *sex-role traditionalism scale* constructed by Booth et al. (2003; see also Amato et al., 2003). It consists of seven items (e.g., “A woman’s most important task in life should be taking care of her children”) and is coded so that higher scores reflect greater traditionalism (alpha reliabilities ranged from .57 in 2000 to .73 in 1988). *Preschool child at home* was a dummy reflecting the presence of a child under 6 in the household in any given wave. *School-age child at home* was a dummy for the presence of a child between 6 and 18. The identification of infidelity was based on a question in each wave asking “Have you had a problem in your marriage because one of you...” followed by several events, including “Has had a sexual relationship with someone else?” The risk period referred to in each interview was the entire duration of the marriage, rather than the period since the last interview. Therefore the *marital infidelity flag* was coded 0 until the first occasion on which either spouse was mentioned as contributing to this problem. At that point it was changed to 1 and remained at that value on all subsequent waves. As Previti and Amato (2004) acknowledge, this item most likely underestimates the incidence of unfaithfulness. Nevertheless, it has been used to tap infidelity in previous work using these data (Amato & Previti, 2003; Amato & Rogers, 1997; Previti & Amato, 2004). Spouse abuse was coded using a similar strategy. In each wave, respondents were presented with this question: “In many households bad feelings and arguments occur from time to time. In many cases people get so angry that they slap, hit, push, kick, or throw things at one another. Has this ever happened between you and your (husband/wife)?” The *spousal violence flag* was coded 0 until the first wave in which this question received a “yes” response and was coded 1 thereafter.

Between-Subjects Predictors

Between-subjects factors were all time-invariant characteristics of the marriage measured in the baseline (1980) survey. *Male respondent* was a dummy for male respondents. *Years married at baseline* was the number of years married at the 1980 interview. *Cohabited before marriage* is a dummy coded 1 if the respondent and spouse had cohabited before getting married, and 0 otherwise. *Minority respondent* was a dummy coded 1 for respondents identified as being of Hispanic, Black, or “other” ethnicity. White was the contrast category. *Either partner’s parents have divorced* was a dummy identifying cases in which either spouse’s parents had divorced. *Either partner married before* similarly flagged cases in which either spouse had been previously married. *Religiosity* was based on a single item used by others to tap this construct (Amato et al., 2003). Respondents were asked to rate how much religious beliefs influenced their daily lives on a scale from “none” (1) to “very much” (5). The *relative attractiveness and intelligence* of the respondent vis-à-vis the spouse constituted additional equity measures. But as this information was only collected at baseline, it could not be incorporated into the objective underbenefit index. Respondents were presented with the following item regarding physical attractiveness: “When you compare how attractive you are in relation to your (husband/wife), would you say (he/she) is more attractive than you, about the same, or less attractive than you?” A similarly worded question was asked about relative intelligence. *Spouse less attractive than respondent* and *spouse less intelligent than respondent* are dummies representing, respectively, cases in which the respondent identified the spouse as the less attractive or less intelligent partner.

Statistical Analysis

I employ both linear and nonlinear growth-curve analysis to model the means of the outcome variables. Subjective underbenefit was modeled as a function of time since baseline, objective underbenefit, and several controls. I estimated a marginal, or population-averaged, logistic regression model for the probability of reporting one gives more to the marriage than the spouse (Fitzmaurice, Laird, & Ware, 2004). This is analogous to logistic regression models used in cross-sectional analyses, in which regression coefficients are

considered fixed parameters. Parameters were estimated via the technique of generalized estimating equations (GEE). GEE is the logistic regression analog of generalized least squares (GLS). That is, it adjusts for the dependence of responses across time periods taken from the same respondent. These estimates are consistent, provided that the mean response is correctly modeled, and their sampling distributions are asymptotically normal. Model-based standard errors are reported. These yield best standard error estimates provided that the estimated error covariance structure is close to the true one (Fitzmaurice et al.).

Mean marital quality was analyzed using the linear mixed-effects model (Fitzmaurice et al., 2004). Mean marital quality was modeled as a function of time since baseline, subjective and objective underbenefit, and controls. Serial correlation due to repeated measures on the same subjects is modeled by specifying one or more of the equation parameters for the within-subjects factors as random elements. Which particular effects are to be considered random depends on whether they exhibit significant variability across subjects. In the current study, the equation intercept, the effect of time since baseline, and the effect of subjective underbenefit are all specified as random parameters. Following others' recommendations (Fitzmaurice et al.), I estimate model effects using restricted maximum likelihood estimation (REML). In contrast to ML, nested models estimated with REML cannot be compared using deviance statistics. I therefore rely on the Akaike and Bayesian Information Criteria (AIC and BIC, respectively) for model comparison purposes. For both indices, smaller values are indicative of better-fitting models.

Data Setup and Other Issues

To implement both GEE and REML estimation, data were converted from person-level to person-period format. For the analysis of subjective underbenefit, each respondent contributed six observations to the person-period file, one for each measurement occasion. Given a total of 704 respondents, there were 4,224 person-periods in the analysis of subjective underbenefit. For marital quality, one respondent was missing all but the baseline measurement and thus only contributed one observation. All others contributed six. Therefore, there were 4,219 person-periods in the analysis of marital quality. The explanatory variables exhibited few missing data problems, with no more than six percent of respondents missing data for any given factor. Simple mean substitution was employed to impute these values. Missing imputation for within-subjects factors was based on occasion-specific means. In addition, imputations for the objective underbenefit index in each wave were gender-specific. As a check on the reliability of this imputation strategy, full models for each response were re-estimated using multiple imputation to replace all missing data. Coefficients and *p*-values were virtually identical to those using the simpler imputation strategy, and so are not shown. (They are available from the author upon request, however.) *Time since baseline*, representing the longitudinal component of marital duration in the study, was coded in years since the 1980 survey. Its six values were 0, 3, 8, 12, 17, and 20. *Years married at baseline* was included in all models to allow discrimination of the longitudinal from the cross-sectional effects of time in the analysis (Fitzmaurice et al., 2004).

Results

Descriptive statistics for all study variables (see Table 1) are based on the 4,224 person-periods (hereafter referred to simply as "observations"). On average, 14%, or one in seven, observations are characterized by a subjective sense of injustice. The approximately zero mean for the marital quality scale is an artifact of its being the sum of standardized items, and is therefore uninformative. The scale is negatively skewed, with most respondents registering relatively high marital quality. The slightly negative mean for the objective underbenefit index suggests that, on average, respondents are mildly overbenefited;

however, means differ by gender. Across the six waves (results not shown), the index mean ranges from $-.3$ to -2.5 for wives, and from 1.1 to 3.9 for husbands. This suggests that, on average, husbands are objectively underbenefited and wives are overbenefited. However, this is due to the fact that half of the scale consists of domains—income and paid work hours—in which men's contributions typically exceed women's. The average of $-.11$ is due to the preponderance of females (62%) in the sample.

A few other characteristics are worthy of mention. Children were present in households much of the time. Eighteen percent of observations were characterized by the presence of preschool children, while fully 48% had school-age children at home. Relatively few instances of marital infidelity were acknowledged, with only 5% of observations affected by this issue. On the other hand 27% of observations revealed spousal violence to have occurred. On average, respondents had been married about 13 years at baseline, 12% had cohabited before marrying, 6% were minorities, 14% had been married previously, and 23% of respondents or their spouses had experienced a parental divorce. On the other hand, relatively few respondents saw themselves inequitably matched with the spouse in terms of looks or intelligence. Only 4% thought their spouse was less attractive and 7% thought their spouse was less intelligent at baseline.

Modeling Subjective Underbenefit

The first phase of the multivariate analysis addressed how respondents' perceptions that they were giving more to the marriage were related to objective inequity in the marriage. Table 2 presents a series of logistic regression models for subjective underbenefit. Model 1 includes only time—both longitudinal and cross-sectional components—and respondent's gender. The trajectory of subjective underbenefit with time is flat. Neither the number of years married at baseline nor the passage of time during the course of the study alters the probability of subjective injustice. "Initial status" is the equation intercept, and suggests that the probability of reporting being underbenefited for wives in 1980 was about .185. Men are significantly less likely than women to report being underbenefited. At any given marital duration their odds of so doing are 70% lower.

Model 2 adds the objective underbenefit index, and its effect is positive and significant. This suggests that, net of time and gender, the greater the respondent's relative objective contribution to the marriage, the more he or she feels underbenefited. Does this effect diminish with marital duration? In the next step I tested the interactions between the objective index and both components of time (results not shown). Both were very small and nonsignificant ($p > .5$), suggesting that the effect of objective on subjective underbenefit was invariant across marital duration. Model 3 suggests that this effect *is* conditioned by gender, however. The main effect of the objective underbenefit index of .04 is positive and significant, but pertains to women. Its interaction with gender is also significant, but opposite in sign. For men, the effect of objective inequity is $.04 - .06 = -.02$. Further testing shows this to be nonsignificant. That is, women's sense of giving more than their spouse to the marriage is elevated by their relative objective contributions to the marriage; men's is not.

In subsequent models, I added the covariates of relative attractiveness and intelligence, cohabiting status, traditionalism, and religiosity, and tested their interaction with objective inequity (results not shown). Traditionalism and religiosity were both centered on their means to facilitate interpretation. Model 4 presents the resulting model that retains only the significant terms from these last runs. As is evident, objective underbenefit interacts separately with religiosity and with gender. The effect of objective underbenefit is $.04 - .07$ Male - .02

Religiosity—The coefficient of .04 for women of average religiosity is positive and significant. For women one standard deviation above mean religiosity, however, the effect is .0127 and no longer significant. Thus, for more religious women, the perception of underbenefit is no longer sensitive to their objective marital contributions. For men, the effect of objective underbenefit at one standard deviation above mean religiosity is $-.061$ and is also significant. Contrary to expectation, religious men appear to be *less* inclined to see themselves as underbenefited the more they contribute objectively. Additionally, and in line with equity principles, spouses are more likely to feel underbenefited if they perceive their spouse as less intelligent than they.

As a last step, I tested for the possibility of a nonlinear effect of objective underbenefit on the log odds of saying one gives more to the marriage. The research hypothesis posited that the relationship would be linear. The odds of seeing oneself as the primary contributor should increase the greater one's relative objective contribution. Nevertheless, one might expect a sense of injustice to accelerate once objective contributions passed the parity point—a value of 1 on the index. To examine this, I re-estimated Model 4 using a linear spline function with a knot at zero (the parity point for the logged product) for the objective underbenefit index. This allows the slope for objective underbenefit to change—to become more positive, in particular—at parity. However, neither the spline function nor its interaction with gender were significant. This suggests that, for both genders, any effect of objective underbenefit was strictly linear. The discriminatory power of the model is relatively weak: only about five percent of the variability in subjective underbenefit is accounted for by the full model.

Modeling Marital Quality

The analysis of marital quality is shown in Table 3. Again a series of nested models is presented. Model 1 includes time since baseline, gender, and their interaction. Although the interaction of gender with both time components was tested, only its interaction with the longitudinal part was significant. The trajectory in marital quality is flat for women: the effect of passing time is $-.03$ and nonsignificant. However, for men, it is $-.03 + .07 = .04$ and significant. These findings suggest that, although women's marital quality remains at a stable level with the passage of time in marriage, men's increases at a rate of .04 units per year, on average.

A key question is whether marital quality is affected by objective underbenefit and whether this effect interacts with gender. Accordingly, the effect of objective underbenefit when added by itself (results not shown) was not significant, but a substantial interaction with gender was obtained, as shown in Model 2. The effect of women's objective contribution is $-.08$ and significant. At any given marital duration, the greater their relative contribution, the lower their marital quality. In contrast, the effect for men is $-.08 + .16 = .08$, and also significant. Thus, for men, the more they contribute, the happier they are.

Is the effect of objective underbenefit strictly linear, however? According to equity theory, both over- and underbenefit promote distress. This implies that marital quality should increase as objective contributions approach parity, but diminish again as they exceed parity. To test this possibility, I employed a linear spline function in objective underbenefit with a knot at zero, along with terms capturing its interaction with gender. At the least, this specification allows for the possibility that, say, for women, the negative effect of objective underbenefit on marital quality becomes stronger once relative contributions exceed parity. But no evidence for such a trend emerged (results not shown). The effect of objective inequity on marital quality was also hypothesized to wane over time. Accordingly, its interaction with time since baseline was added next (results not shown). But this term also proved to be nonsignificant.

I had hypothesized that the effect of objective underbenefit would be at least partially mediated by a subjective sense of injustice. Subjective underbenefit was added to the model to test this proposition. The results are shown in Model 3 in Table 3. Clearly, subjective underbenefit has a large and significant main effect. Perceiving that one gives more to the marriage than the spouse lowers average marital quality by about 3 units. The main effect of objective underbenefit, which represents the effect for women, drops by about 25%, but remains significant. This suggests that, even after holding constant women's *perceptions* of giving more in marriage, their greater objective contribution still reduces average marital quality. Subsequent testing (results not shown) revealed the effect of subjective underbenefit to be invariant to both passing time in the marriage and to gender. Perceiving that one gives more in a marriage apparently diminishes average marital quality to the same extent for both men and women. And this effect does not diminish over time.

In subsequent steps, I added the main effects of premarital cohabitation, religiosity, and sex-role traditionalism, and tested their interactions with both objective and subjective underbenefit (results not shown). None of the interactions were significant. Only religiosity had a significant main effect, so it was retained in the model. I next added the block of additional control variables to the model, again retaining only the significant effects. Model 4 shows these results. At any given marital duration, more family income and greater religiosity enhance average marital quality, whereas having school-aged children at home or thinking of one's spouse as the less intelligent partner diminish it. Net of other factors, both components of time have negative significant effects. The negative effect of time since baseline pertains to women, and reflects a decline in average marital quality over the survey period for them. The effect of years married at baseline, on the other hand, holds for both genders. It suggests that the longer the marital duration at baseline, the lower the average marital quality at any given time.

A final hypothesis suggested that objective inequity would affect marital quality partly by raising the risk of infidelity and spousal violence. These factors were therefore added to the model, and the result is shown as Model 5. Not surprisingly, both of these time-varying covariates have a significant negative effect on average marital quality at any given time. However, they do not account for any of the remaining effect of objective underbenefit, as its coefficient remains unchanged. We notice, also, that the longitudinal effect of time is no longer significant with these factors added. This suggests that the deleterious effect of passing time on marital quality, for women, is partially accounted for by its association with the accumulated risk of infidelity and violence. R-squared analogs in the bottom of the table suggest a modest level of discriminatory power. Twenty-one percent of the variability in marital quality within respondents is accounted for by the passage of time as well as the other time-varying model covariates. Overall, fifteen percent of the variability in marital quality across all observations is accounted for by the model.

Discussion

The title of this piece poses the question: does equity matter in enduring marriages? The answer appears to be a qualified "yes." Several research hypotheses regarding inequity in marriage were supported. To begin, respondents' identification of themselves as giving more to the marriage, the measure of subjective inequity, was sensitive to the objective exchange balance in the marriage, as expected. The importance of this finding is twofold. First, peoples' sense of the fairness inherent in their relationships is not capricious, as it reflects the actual balance of each spouse's objective contributions to the marriage. In other words, inequity is not just "in the eye of the beholder," but is grounded in empirical reality. Second, this finding is inconsistent with the notion that the awareness of inequity is irrelevant to

long-term marriages (Holmes & Levinger, 1994) or is predicated on marital distress (Grote & Clark, 2001).

On the other hand, this finding was moderated by gender: it only applied to women in the current study. Men's tendency to see themselves as underbenefited was unrelated to their relative objective contributions to the marriage. Men's insensitivity in this regard is surprising, and requires future scrutiny. In this study, women were also more likely than men to see themselves as underbenefited in the marriage at any given time. That equity considerations matter more to women than men is consistent with much prior research (Baxter, 1986; Frisco & Williams, 2003; Grote & Clark, 2001). Some suggest that the typical marital bargain simply favors men (Buunk & Van Yperen, 1991; Van Yperen & Buunk, 1990; Grote & Clark; Holmes & Levinger, 1994). This may explain why women are more likely to report being underbenefited. But it does not account for why objective underbenefit has a stronger effect on women's perception of being exploited.

An anonymous reviewer, however, suggested that this effect could be driven by women's primary responsibility for childcare. That is, in households with younger children, wives who shoulder most of the responsibility for childcare *and* contribute more to income and housework might understandably feel underbenefited. Similarly, husbands in households with young children may be contributing more work hours and income *because* their wives are more involved with childcare. Hence their objective contributions might be linked to a greater appreciation for their wives' efforts in caring for their children. To assess this possibility I examined three-way interactions among gender of respondent, objective underbenefit, and the presence of preschool and school-age children in their effects on both subjective underbenefit and marital quality (results not shown). No interaction terms reached conventional significance levels, although the three-way interaction involving preschool children approached significance for subjective underbenefit ($p = .072$). The trend was in the predicted direction in the sense that the negative (but nonsignificant) association of objective with subjective underbenefit observed for males was more pronounced with preschool children present. Nevertheless, more research effort needs to be expended to understand why objective contributions appear to have differential effects for men versus women.

The effect of objective underbenefit on the subjective perception of underbenefit was further moderated by religiosity. The positive effect of objective on subjective underbenefit ceased being significant for more religious women. Again, this was consistent with expectation. Compared to less spiritual women, those with a more spiritual orientation likely expect marriage to involve more self-sacrifice (Wilcox & Nock, 2006). Their religious teaching may also lead them away from an exchange orientation in marriage. Buunk and Van Yperen (1991) have found equity concerns to be much less paramount for those low in exchange orientation. For more religious men, the effect of objective on subjective underbenefit was significant in the opposite direction. They were *less* likely to report underbenefit the greater their objective contributions. This finding is puzzling, but nevertheless highlights gender distinctions in the response to objective inequity that warrant further investigation.

The trajectory in marital quality over time was also affected in hypothesized ways by both subjective and objective inequity. Once again, gender differences were in evidence. Women's average marital quality was diminished by increasing levels of their relative objective contributions to the marriage, as expected. Men's average marital quality, in contrast, was *elevated* by increasing objective contributions. This may simply be an artifact of the positive effect of their objective contributions on their wives' happiness. Without couple-level data, however, this possibility could not be further pursued. The hypothesis that the perception of underbenefit would have a more corrosive effect on marital quality for

women than men was not supported. Both men and women were equally distressed by *feeling* underbenefited.

As noteworthy as the findings were some of the nonfindings. Contrary to expectation, neither objective nor subjective underbenefit interacted with sex-role traditionalism. The latter's moderating power in the equation for subjective underbenefit may have been usurped by religiosity, as those with traditional family ideologies also tend to be more religious. Thus religiosity, not sex-role traditionalism, proved to be the moderating factor. My hypothesis that the wariness of cohabitators toward marriage would translate into a stronger effect of inequity for them was also not supported. Those who cohabited with their spouses prior to 1980 may have been initially less committed to the institution of marriage (DeMaris & Macdonald, 1993). However, the selective nature of marriages that survive for at least 20 years may render any such initial differences moot.

As hypothesized, the effect of objective underbenefit on marital quality was partially mediated by the ensuing perception of being exploited. Nevertheless, objective underbenefit remained significant, net of this perception. The influence of objective underbenefit on marital quality apart from respondents' awareness of it defies easy explanation. DeMaris' (2007) analysis of recently separated respondents found husbands' relative objective contributions while married to be predictive of their extramarital involvement, as reported afterwards. However, in the current study, the remaining effect of objective underbenefit was not mediated by either infidelity or marital violence.

Perhaps the most glaring nonfinding was that increasing marital duration failed to temper any of the effects of inequity. Regardless of initial marital duration or the passage of time in the marriage, the effects of inequity on marital outcomes were invariant: For women, in particular, the probability of perceiving underbenefit was elevated by greater objective contributions to the marriage. And both objective and subjective underbenefit were associated with reduced marital quality. This is contrary to a romantic and idealized conception of marital partners as being above such considerations (Grote & Clark, 2001; Holmes & Lvinger, 1994). Instead, it is consistent with prior work that finds equity issues to be pervasive in romantic relationships regardless of the level of involvement (e.g., Frisco & Williams, 2003; Longmore & DeMaris, 1997; Van Yperen & Buunk, 1990).

Although this study's findings provide evidence for the salience of equity considerations in marriage, some limitations should be kept in mind. First, generalizability of findings is limited, for the most part, to longer-term marriages of White respondents. Due to minority underrepresentation in the analytic sample, it was not possible to examine separate models by minority status. To the extent that equity is not universally employed among other ethnic groups as the primary justice norm, the current results may not apply to them. Second, effect sizes for the objective inequity measure are uniformly small, with coefficients generally under .1 in absolute value. Objectively, then, the exchange balance in the marriage matters, but not dramatically so. Subjective reports of being the primary giver in the marriage have a substantially stronger "effect" on marital quality. But, as acknowledged above, this factor is much more susceptible to reverse influence. Third, only a few types of spousal contributions could be objectively captured. The domains measured—income, paid labor, household labor, and health—are certainly critical to sustaining a marriage. Yet many of the less tangible, but equally important, resources partners contribute were not available in the dataset. Examples are the quality of a partner's skills as a parent, lover, or initiator of fun and adventure, and all varieties of "emotion work." This includes confiding innermost thoughts and feelings, providing praise and support of the partner, or trying to elevate the partner's mood (Minnotte, Stevens, Minnotte, & Kiger, 2007). The latter are skills women are especially likely to display, and they are typically presumed to be women's province

(Burleson, 1997; Vangelisti & Daly, 1997). Their exclusion likely results in a biased estimate of which gender is, on average, underbenefited. However, this does not imply that the *effect* of objective underbenefit on the study's outcomes would be biased. Nevertheless, measures of emotion work and other affective contributions need to be incorporated into the calculation of objective inequity in future studies.

Marriage represents a considerable investment in time, energy, emotion, and often, property. It also entails various opportunity costs, not the least of which are partners foregone. As recently as a half century ago, when age at first marriage was at its nadir for both genders, whether one would make such an investment was relatively unquestioned (Coontz, 2005). Nor was it debatable whether one would at least *try* to remain married despite its having ceased to provide any personal gratification. With the disappearance of societal norms that reinforced the value of matrimony and encouraged marital perseverance, the onus is on individuals to infuse marriage with the same meaning. For members of micro-cultures with more traditional or religious prescriptions and proscriptions surrounding marriage, the old guidelines still apply. For others, an accounting of gains and losses incurred in the marriage likely fills the vacuum left by the retreat of social mores. The principles entailed in equity theory appear to be germane to this enterprise.

References

- Adams, JS. Inequity in social exchange. In: Berkowitz, L., editor. *Advances in experimental social psychology*. New York: Academic Press; 1965. p. 267-299.
- Amato PR. Tension between institutional and individual views of marriage. *Journal of Marriage and Family*. 2004; 66:959-965.
- Amato PR, Rogers SJ. A longitudinal study of marital problems and subsequent divorce. *Journal of Marriage and the Family*. 1997; 59:612-624.
- Amato PR, Previti D. People's reasons for divorcing: Gender, social class, the life course, and adjustment. *Journal of Family Issues*. 2003; 24:602-626.
- Amato PR, Johnson DR, Booth A, Rogers SJ. Continuity and change in marital quality between 1980 and 2000. *Journal of Marriage and Family*. 2003; 65:1-22.
- Baxter LA. Gender differences in heterosexual relationship rules embedded in break-up accounts. *Journal of Social and Personal Relationships*. 1986; 3:289-306.
- Booth A, Johnson D. Premarital cohabitation and marital success. *Journal of Family Issues*. 1988; 9:255-272.
- Booth, A.; Johnson, DR.; Amato, PR.; Rogers, SJ. Marital instability over the life course [United States]: A six-wave panel study, 1980, 1983, 1988, 1992-1994, 1997, 2000 [Computer file] 1st ICPSR version. University Park, PA: Anal Booth et al., Pennsylvania State University [producers]; Ann Arbor, MI: Inter-University Consortium for Political and Social Research [distributor]; 2003. 1998
- Burleson BR. A different voice on different cultures: Illusion and reality in the study of sex differences in personal relationships. *Personal Relationships*. 1997; 4:229-241.
- Buunk BP, Mutsaers W. Equity perceptions and marital satisfaction in former and current marriage: A study among the remarried. *Journal of Social and Personal Relationships*. 1999; 16:123-132.
- Buunk BP, Van Yperen NW. Referential comparisons, relational comparisons, and exchange orientation: Their relation to marital satisfaction. *Personality and Social Psychology Bulletin*. 1991; 17:709-717.
- Canary DJ, Stafford L. Relational maintenance strategies and equity in marriage. *Communication Monographs*. 1992; 59:243-267.
- Cherlin AJ. The deinstitutionalization of American marriage. *Journal of Marriage and Family*. 2004; 66:848-861.
- Cook KS, Hegvedt KA. Distributive justice, equity, and equality. *Annual Review of Sociology*. 1983; 9:217-241.

- Coontz S. The world historical transformation of marriage. *Journal of Marriage and Family*. 2004; 66:974–979.
- Coontz, S. *Marriage, a history: From obedience to intimacy or how love conquered marriage*. New York: Penguin; 2005.
- Davidson B. A test of equity theory for marital adjustment. *Social Psychology Quarterly*. 1984; 47:36–42.
- DeMaris A. The role of relationship inequity in marital disruption. *Journal of Social and Personal Relationships*. 2007; 24:177–195.
- DeMaris A, Longmore MA. Ideology, power, and equity: Testing competing explanations for the perception of fairness in household labor. *Social Forces*. 1996; 74:1043–1071.
- DeMaris A, MacDonald W. Premarital cohabitation and marital instability: A test of the unconventionality hypothesis. *Journal of Marriage and the Family*. 1993; 55:399–407.
- Felmlee D, Sprecher S, Bassin E. The dissolution of intimate relationships: A hazard model. *Social Psychology Quarterly*. 1990; 53:13–30.
- Fitzmaurice, GM.; Laird, NM.; Ware, JH. *Applied longitudinal analysis*. Hoboken, NJ: Wiley; 2004.
- Floyd FJ, Wasner GH. Social exchange, equity, and commitment: Structural equation modeling of dating relationships. *Journal of Family Psychology*. 1994; 8:55–73.
- Frisco ML, Williams K. Perceived housework equity, marital happiness, and divorce in dual-earner households. *Journal of Family Issues*. 2003; 24:51–73.
- Gager CT, Sanchez L. Two as one? Couples' perceptions of time spent together, marital quality, and the risk of divorce. *Journal of Family Issues*. 2003; 24:21–50.
- Gillis JR. Marriages of the mind. *Journal of Marriage and Family*. 2004; 66:988–991.
- Glass J, Fujimoto T. Housework, paid work, and depression among husbands and wives. *Journal of Health and Social Behavior*. 1994; 35:179–191. [PubMed: 8064124]
- Grote NK, Clark MS. Perceiving unfairness in the family: Cause or consequence of marital distress? *Journal of Personality and Social Psychology*. 2001; 80:281–293. [PubMed: 11220446]
- Hansen GL. The effect of religiosity on factors predicting marital adjustment. *Social Psychology Quarterly*. 1987; 50:264–269.
- Hatfield E, Rapson RL, Aumer-Ryan K. Social justice in love relationships: Recent developments. *Social Justice Research*. 2008; 21:413–431.
- Hatfield, E.; Walster, GW.; Berscheid, E. *Equity: theory and research*. Boston: Allyn and Bacon; 1978.
- Holmes, JG.; Levinger, G. Paradoxical effects of closeness in relationships on perceptions of justice: An interdependence-theory perspective. In: Lerner, JJ.; Mikula, G., editors. *Entitlement and the affectional bond*. New York: Plenum Press; 1994. p. 149–173.
- Joyner K. Justice and the fate of married and cohabiting couples. *Social Psychology Quarterly*. 2009; 72:61–76.
- Kiernan K. Redrawing the boundaries of marriage. *Journal of Marriage and Family*. 2004; 66:980–987.
- Longmore MA, DeMaris A. Perceived inequity and depression in intimate relationships: The moderating effect of self-esteem. *Social Psychology Quarterly*. 1997; 60:172–184.
- Minnotte KL, Stevens DP, Minnotte MC, Kiger G. Emotion-work performance among dual-earner couples: Testing four theoretical perspectives. *Journal of Family Issues*. 2007; 28:773–793.
- Mirowsky J. Depression and marital power: An equity model. *American Journal of Sociology*. 1985; 91:557–592.
- Previti D, Amato PR. Is infidelity a cause or a consequence of poor marital quality? *Journal of Social and Personal Relationships*. 2004; 21:217–230.
- Prins KS, Buunk BP, Van Yperen NW. Equity, normative disapproval and extramarital relationships. *Journal of Social and Personal Relationships*. 1993; 10:39–53.
- Sanchez L, Manning WD, Smock PJ. Sex-specialized or collaborative mate selection? Union transitions among cohabitators. *Social Science Research*. 1998; 27:280–304.
- Scanzoni J, Arnett C. Enlarging the understanding of marital commitment via religious devoutness, gender role preferences, and locus of marital control. *Journal of Family Issues*. 1987; 8:136–156.

- Sprecher S. Equity and social exchange in dating couples: Associations with satisfaction, commitment, and stability. *Journal of Marriage and Family*. 2001; 63:599–613.
- Van Yperen NW, Buunk BP. A longitudinal study of equity and satisfaction in intimate relationships. *European Journal of Social Psychology*. 1990; 20:287–309.
- Vangelisti AL, Daly JA. Gender differences in standards for romantic relationships. *Personal Relationships*. 1997; 4:203–219.
- Wilcox WB, Nock SL. What's love got to do with it? Equality, equity, commitment and women's marital quality. *Social Forces*. 2006; 84:1321–1345.

Table 1

Descriptive Statistics for Study Variables

Variable	Range	<i>M</i>	<i>SD</i>
<i>Outcomes</i>			
Subjective Underbenefit	0 – 1	.14	.34
Marital Quality Scale	–30.79 – 7.87	–.01	6.43
<i>Within-Subjects Predictors</i>			
Time Since Baseline (in Years)	0 – 20	10.00	7.14
Objective Underbenefit Index	–13.87 – 15.09	–.11	4.56
Family Income (in Thousands)	2.5 – 65	43.36	17.16
Years of Schooling	1 – 28	14.21	2.75
Sex-Role Traditionalism Scale	7 – 28	15.56	2.92
Preschool Child at Home	0 – 1	.18	.38
School-age Child at Home	0 – 1	.48	.50
Marital Infidelity Flag	0 – 1	.05	.22
Spousal Violence Flag	0 – 1	.27	.45
<i>Between-Subjects Predictors</i>			
Male Respondent	0 – 1	.38	.49
Years Married at Baseline	0 – 38	13.06	8.84
Cohabited Before Marriage	0 – 1	.12	.32
Minority Respondent	0 – 1	.06	.24
Either Partner's Parents Have Divorced	0–1	.23	.42
Either Partner Married Before	0 – 1	.14	.34
Religiosity	1 – 5	3.77	1.17
Spouse Less Attractive than Respondent	0 – 1	.04	.20
Spouse Less Intelligent than Respondent	0 – 1	.07	.26

Note: *N* = 4,224 Person-Periods.

Table 2

GEE Coefficient Estimates (Standard Errors) for Logistic Regression Models of Subjective Underbenefit

Predictors	Model 1	Model 2	Model 3	Model 4
<i>Within-Subjects</i>				
Initial Status	-1.48 *** (.15)	-1.44 *** (.14)	-1.41 *** (.15)	-1.47 *** (.16)
Time Since Baseline	.00 (.01)	.00 (.01)	.00 (.01)	.00 (.01)
Objective Underbenefit Index		.02 * (.01)	.04 ** (.01)	.04 ** (.01)
<i>Between-Subjects</i>				
Years Married at Baseline	.00 (.01)	.00 (.01)	.00 (.01)	.00 (.01)
Male Respondent	-1.20 *** (.18)	-1.30 *** (.18)	-1.18 *** (.18)	-1.19 *** (.19)
Male Respondent × Objective Underbenefit Index			-.06 * (.03)	-.07 * (.03)
Religiosity ^a				.05 (.07)
Spouse Less Intelligent				.70 ** (.27)
Religiosity ^a × Objective Underbenefit Index				-.02 * (.01)
$R^2_{y,\hat{y}}$				.05

Note: $N = 4,224$ person-periods.^aVariable is centered around its mean.*
 $p < .05$.**
 $p < .01$.***
 $p < .001$.

Table 3
Restricted Maximum Likelihood Coefficient Estimates (Standard Errors) for Linear Mixed-Effects Models of Marital Quality

Predictors	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Within-Subjects</i>					
Initial Status	.56 (.39)	.34 (.40)	1.03 ** (.37)	1.30 ** (.43)	1.55 *** (.43)
Time Since Baseline	-.03 (.01)	-.02 (.01)	-.01 (.01)	-.04 ** (.02)	-.03 (.02)
Objective Underbenefit Index		-.08 ** (.03)	-.06 * (.03)	-.06 * (.03)	-.06 * (.03)
Subjective Underbenefit			-3.06 *** (.34)	-3.07 *** (.34)	-3.02 *** (.33)
Family Income				.02 ** (.01)	.02 ** (.01)
School-Age Child at Home				-.56 *** (.16)	-.49 ** (.16)
Marital Infidelity Flag					-1.78 *** (.52)
Spousal Violence Flag					-1.51 *** (.29)
<i>Between-Subjects</i>					
Years Married at Baseline	-.03 (.02)	-.03 (.02)	-.03 (.02)	-.06 ** (.02)	-.06 ** (.02)
Male Respondent	-.55 (.44)	-.61 (.46)	-1.01 * (.44)	-.73 (.43)	-.77 (.43)
Male Respondent × Time Since Baseline	.07 ** (.02)	.08 ** (.02)	.07 ** (.02)	.07 ** (.02)	.07 ** (.02)
Male Respondent × Objective Underbenefit Index		.16 *** (.05)	.13 ** (.04)	.12 ** (.04)	.13 ** (.04)
Religiosity ^a				.67 *** (.15)	.59 *** (.15)
Spouse Less Intelligent				-2.50 *** (.67)	-2.31 *** (.65)
AIC	25,654.00	25,650.90	25,389.60	25,351.80	25,310.40
BIC	25,672.20	25,669.10	25,421.50	25,383.70	25,342.30
R^2_{ε}					.21
$R^2_{\overline{y\hat{y}}}$					.15

Note: $N = 4,219$ person-periods.

^a Variable is centered around its mean.

* $p < .05$.

.100 > *p*

.10 > *p*
**