Published in final edited form as:

Soc Sci Res. 2015 January ; 0: 16–30. doi:10.1016/j.ssresearch.2014.07.010.

Variation in Trajectories of Women's Marital Quality

Spencer L. James^a

Spencer L. James: spencer_james@byu.edu

^aSchool of Family Life, Brigham Young University. 2061 JFSB, Provo, UT, 84602. Tel: 801-422-6682

Abstract

I examine variation in trajectories of women's marital quality across the life course. The analysis improves upon earlier research in three ways: (1) the analysis uses a sequential cohort design and data from the first 35 years of marriage; (2) I analyze rich data from a national sample; (3) I examine multiple dimensions of marital quality. Latent class growth analyses estimated on data from women in the National Longitudinal Survey of Youth-1979 (N = 2604) suggest multiple trajectories for each of three dimensions of marital quality, including two trajectories of marital happiness, two trajectories of marital communication, and three trajectories of marital conflict. Socioeconomic and demographic covariates are then used to illustrate how factors such as income, cohabitation, and race-ethnicity set individuals at risk of poor marital quality throughout the life course by differentiating between high and low trajectories of marital quality. Women on low marital quality trajectories are, as expected, at much greater risk of divorce. Taken together, these findings show how fundamental socioeconomic and demographic characteristics contribute to subsequent marital outcomes via their influence on trajectories of marital quality as well as providing a better picture of the complexity in contemporary patterns of marital quality.

Keywords

relationship quality; latent class analysis; National Longitudinal Survey of Youth-1979; socioeconomic status; cohabitation; divorce

1. Introduction

Despite societal notions that marriage and family are historically static institutions, research shows that the American family has undergone a tremendous amount of change. In fact, in the past 60 years, we have witnessed dramatic shifts in cohabitation, nonmarital fertility, and relationship dissolution (Cherlin, 2009). Individuals are delaying marriage and childbearing;

© 2014 Elsevier Inc. All rights reserved.

¹Supplemental analyses examined whether the results were similar when all women who divorced after only a few years of marriage are excluded from the sample. The results were robust to this alternative specification.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

women, particularly married women, have entered the labor force; and more people are raising children without a romantic, stable partner.

One result of the increasing diversity of family experiences in the contemporary United States is greater attention to the implications of marriage for personal well-being, as well as a desire for greater clarification regarding both the causes and consequences of high quality marriages (Cherlin, 2009). A significant amount of research has examined how marital quality changes as marriages mature (Amato et al., 2007) as researchers have examined the ebbs and flows of long-term, romantic relationships.

However, researchers often assume that most people experience a single, average trajectory of marital quality and this assumption has led to two theories of how marital quality changes over time—the U-shaped curve and continual decline perspectives (Glenn, 1998). As a result, virtually everything we know about how marital quality changes over time is based on the notion that most marriages change in similar ways (Anderson et al., 2010). Therefore, this paper focuses on whether this notion of similarity is true or whether some people follow markedly different trajectories of marital quality. If there are multiple trajectories of marital quality, we may need to rethink our conceptualization of marital quality across the life course, as this would constitute a misunderstanding of marriage, a fundamental social institution.

This is not to say that the possibility of multiple trajectories of marital quality has not been examined before. It has (Anderson et al., 2010; Birditt et al., 2012; Kamp Dush and Taylor, 2012; Kamp Dush et al., 2008; Lavner and Bradbury, 2010). But the number of studies is small and limited by important methodological and theoretical shortcomings detailed in section 4. This article enhances our understanding of variation in trajectories of marital quality by overcoming these methodological and theoretical shortcomings as no article to date has been able to address the shortcomings in the same paper (i.e., track a national sample of marriages from the beginning of the marriage for 35 years to examine multiple dimensions of marital quality), making this the most extensive examination to date of variation in trajectories of marital quality.

This paper has several goals. The first is to examine whether a single trajectory representing the average relationship between marital quality and marital duration adequately captures people's marital experiences or whether it obscures distinct subgroups (i.e., variation) following qualitatively different trajectories. The second goal is to demonstrate the key role socioeconomic and demographic characteristics (e.g., income, premarital cohabitation, and race-ethnicity) play in sorting people into these varying trajectories, with individuals from traditionally disadvantaged groups faring poorly. The third goal is to examine whether membership in a specific marital quality trajectory influences the likelihood of subsequent divorce. To achieve these goals, I used latent class growth analyses to establish trajectories of marital happiness, communication, and conflict and then examine if socioeconomic and demographic characteristics served as risk factors for poor marital quality trajectories over the life course. Finally, I examined the link between being in a given marital quality trajectory and the likelihood of divorce.

2. Variation in Longitudinal Trends of Marital Quality

Previous researchers have attempted empirical tests between the U-shaped curve (marital quality begins high, declines, and then increases again at later marital durations) and continual decline hypotheses (marital quality begins high, then declines continually throughout the marriage; see Amato et al., 2007 for an overview of both perspectives). Papers have often been conceptually structured as attempts to adjudicate between the two perspectives (Glenn, 1998; Vaillant and Vaillant, 1993; VanLaningham et al., 2001). Another way of conceptualizing marital quality across the life course is to investigate the possibility of variation in trajectories of marital quality rather than assuming all marriages follow the same general trajectory over time. In this paper, I ask whether it is possible for each theoretical perspective (U-shape vs. continual decline) to represent the pattern of marital change for some subgroup of the population. Thus, this paper attempts to get at questions surrounding variability in experiences of marital change (i.e., whether marital quality trajectories are better explained by the U-shaped curve or the continual decline perspective).

Recent work, aided by advances in statistical techniques such as latent class analysis and group-based modeling (Nagin, 2005), has raised the possibility that married couples follow one of several trajectories of marital happiness/satisfaction (Anderson et al., 2010; Kamp Dush et al., 2008; Lavner and Bradbury, 2010) and marital conflict (Kamp Dush and Taylor, 2012)—while marital quality tends to decline with time, the decline is much sharper for some than others. The pattern appears somewhat different for marital conflict. Kamp Dush and Taylor (2012) found three subgroups (high, medium, and low) of marital conflict trajectories and that shifts in marital conflict over time were less dramatic than for marital happiness.

Despite this recent work, it is difficult to draw firm inferences from the results because of methodological and conceptual problems. These limitations, which deal with issues such as the time metric used, the measurement of the dependent variable, marital quality, and sampling, are detailed in section 4, so I forgo additional discussion of them here.

This recent work, however, speaks to the debate between the U-shape curve and the continual decline perspectives. Although many scholars believe there is little credible evidence for the U-shaped curve (Glenn, 1998; VanLaningham et al., 2001), the most recent work (Anderson et al., 2010; Kamp Dush et al., 2008) suggests marital quality, whether measured as marital happiness or marital conflict, follows a U-shaped curve for at least some individuals.

Thus, questions about the U-shaped curve or continual decline perspectives may need to consider whether it is possible for both the U-shaped curve *and* the continual decline perspective to contribute meaningfully to our understanding of marital change—they may represent different trajectories *within the same married population*. Thus, it may be premature to declare the debate between the U-shaped curve and continual decline perspectives over.

This paper moves the literature forward in several ways. First, I press for a more nuanced view of the two perspectives by suggesting both perspectives are necessary for

understanding how marital quality changes as marriages mature. Second, I examine the correlates of trajectories of marital quality, linking socioeconomic and demographic predictors to each trajectory. Finally, I link these trajectories of marital quality to the probability of subsequent divorce, a question previously unexamined.

3. Theoretical Perspectives on Marital Quality Trajectories

3.1. Why Marital Quality Changes

Two theories, marital life course and enduring dynamics, provide guidance regarding *why* marital quality changes with marital duration. These are distinguished from the U-shaped curve and continual decline perspectives, which tell us *how* marital quality changes. The first, marital life course perspective, asserts the quality of a marriage is a function of many factors, such as historical context, the timing and sequencing of events and transitions, and changing spousal roles over time (Elder, 1998), which influence the marriage as the couple experience life together. As a marriage matures, shifts in economic well-being, employment, social support and friendship networks, the number of children in the household, physical health, and other factors influence multiple dimensions of marital quality (Amato et al., 2007). The longer a couple is together, the greater the likelihood intrinsic developmental changes may either tax a relationship or result in more profound depths of appreciation and commitment (Johnson et al., 1992). Thus, marital life course perspective emphasizes romantic relationships such as marriage change in dynamic ways over time (Anderson et al., 2010).

In contrast, the second perspective, the enduring dynamics model, holds that relationship quality remains relatively stable over time. Couple dynamics that develop relatively early in a relationship—even prior to marriage—form the foundation for subsequent marital quality because both partners enter the relationship with certain personality characteristics, attitudes, values, social skills, and attachment styles (Holman, 2001; Huston et al., 2001b). These traits result in stable configurations of relationship quality that carry into the early years of marriage and beyond. Moreover, relationship quality is relatively stable over time because the constellation of individual characteristics that shape relationship quality change slowly, if at all.

3.2. Predicting Marital Quality Trajectories

If marriages follow different trajectories over the life course, a natural question involves who ends up on which trajectory. This paper seeks to improve our understanding of variation in longitudinal trends in marital quality, address substantial limitations in previous work, and also to examine predictors of trajectory membership, or who ends up on trajectories of poor marital quality.

Unlike previous research that compares mean differences between demographic groups (e.g., racial differences in marital quality), this article compare *trajectories* of marital quality instead. This makes it possible to examine the influence of covariates such as income, cohabitation, and race-ethnicity on the entire trajectory of marital quality (rather than its constituent parts of intercept and slope), leading to a more holistic understanding of the association between marital quality and sociodemographic influences. Theoretically, this

paper focuses on socioeconomic and demographic characteristics that place people at ‘risk of risks’ (Link and Phelan, 1995) of poor marital outcomes. Thus, I demonstrate that differing trajectories of marital quality are, in large part, a function of socioeconomic and demographic inequality, including income, race-ethnicity, and premarital cohabitation.

Particularly, I view these sociodemographic factors as the result of social sorting processes that give rise to social inequality, largely because of the role these factors play in the allocation of resources and opportunity. Although social stratification is generated through a variety of mechanisms (neighborhoods, schools, family structure, peer and social networks; see Western et al., (2012)), these sorting processes influence a variety of marital experiences and outcomes, including marital communication, marital happiness, marital conflict, and marital stability/divorce.

The result of these sorting processes is that sociodemographically disadvantaged individuals are likely to follow different trajectories of marital quality—rather than mere deviations in marital satisfaction—than their more privileged counterparts. While prior research has identified that individuals who are disadvantaged along social and demographic lines often report lower marital quality (Bradbury, 1998a; Bradbury et al., 2000; Bulanda and Brown, 2007; Kamp Dush and Taylor, 2012) and are at greater risk of divorce (Amato, 2010), little research has explored whether such factors place people on altogether different trajectories of marital happiness, communication, and conflict. That is, although previous work has established a difference in levels, the literature has yet to address whether social and demographic disadvantage also predicts different trajectories of marital quality across the life course.

Likewise, previous work has examined the relationship between marital quality and the probability of divorce. Not surprisingly, the link is fairly robust (although the pattern does not always hold (Amato and Hohmann-Marriott, 2007)): divorcing individuals often reported lower marital quality compared to individuals in intact marriages (Huston et al., 2001a), perhaps because divorcing couples displayed more negative communication and emotion as newlyweds (Gottman, 1994) and lower initial levels of (Huston et al., 2001b; Karney and Bradbury, 1995) and more rapid declines in marital quality (Lavner and Bradbury, 2010). Thus, prior work has considered whether these dissimilarities are due to static differences between divorced and intact couples, but research has not yet examined whether membership in different trajectories of marital quality has implications for divorce. Some work has hinted at this possibility (Lavner and Bradbury, 2012) and some researchers have used divorce as an indicator of selective attrition when predicting membership in marital quality trajectories (Kamp Dush and Taylor, 2012). However, to my knowledge this paper is the first to examine whether membership trajectory, not merely static intergroup differences in either the overall level (intercept) or pace of change (slope) in marital quality, predicts subsequent divorce using national, longitudinal data.

In sum, previous work on longitudinal trends in marital quality has given rise to a debate between the U-shape curve and continual decline perspectives. However, rather than conceptualizing the issue as a debate between the two perspectives, we may need to envision multiple trajectories of marital quality and initial research along these lines (Anderson et al.,

2010; Kamp Dush and Taylor, 2012; Kamp Dush et al., 2008; Lavner and Bradbury, 2010), building on prior taxometric work (Beach et al., 2005), has demonstrated such may be the case. However, the extant literature suffers from several shortcomings, both methodological and theoretical, that make drawing inferences to population processes and dynamics tenuous. In contrast, this paper addresses the major issues in previous work identified above while linking those trajectories to antecedents such as sociodemographic variables and subsequent marital stability, meaning the findings from this paper are likely to provide both a more accurate representation of changes in marital quality over time as well as a clearer picture of the causes and consequences of shifts in marital dynamics over the life course.

Although this study is somewhat exploratory, several overarching proposition motivated this research. First, I expected that it is possible to distinguish different trajectories of marital quality. Second, I expected traditionally disadvantaged groups to be overrepresented in trajectories that suggest more troubled marriages. Finally, I expected individuals on trajectories of lower marital quality to be more likely to divorce than those on higher trajectories.

4. Methodological Concerns

In light of the unsettled debate about the longitudinal shape(s) of marital quality, it becomes paramount to understand and surmount methodological concerns in previous work that uses group-based methods to examine variation in trajectories of marital quality

First, issues surrounding how to treat time complicate possible conclusions. For instance, measuring changes in marital quality by survey wave (Kamp Dush et al., 2008) makes it difficult to know how such changes map onto shifts in marital quality by marital duration. Similarly, tracking newlyweds through the first several years of marriage provides detailed evidence about how marital satisfaction changes during the newlywed years (Lavner and Bradbury, 2010) but sheds little light on the long-term health of a marriage. Thus, to help overcome past limitations I track a sample of married individuals from the beginning of their marriages and follow them for up to 35 years.

The second issue involves sampling. Problems may arise when studies mix multiple marriage cohorts (Glenn, 1998). Because older cohorts report higher marital quality (Glenn, 1998; VanLaningham et al., 2001), previous work (Anderson et al., 2010; Kamp Dush, 2013) may be biased due to inter- (rather than intra-) cohort differences or because the sample is limited only to continuously married respondents. Finally, two of the previous five studies in this area have racially and geographically homogenous samples (Birditt et al., 2012; Lavner and Bradbury, 2010). To overcome these limitations, the national data for this paper come from a single birth cohort (born between 1957 and 1964). Thus, the estimates from this paper should be less biased than more homogenous samples that conflate cohorts, exclude divorced individuals, or have limited racial or geographic diversity.

A third and final issue involves the conceptualization of marital quality itself. Scholarly debate has often focused on marital happiness or satisfaction as the primary indicator of marital quality, likely the result of viewing self-fulfillment as a primary purpose for romantic relationships. Because research on variation in longitudinal trajectories of marital

quality has overwhelmingly employed happiness/satisfaction (Anderson et al., 2010; Brown et al., 2012; Kamp Dush et al., 2008; Lavner and Bradbury, 2010), we know little about how indicators of marital quality other than marital satisfaction or happiness change in large, national samples. Because prior research has identified that marital patterns and processes vary according to the particular dimensions measured (Johnson et al., 1986), examining multiple dimensions is important due to the unique role of each dimension in providing information about the set of traits, attitudes, and behaviors that together form our understanding about marital quality. This study examines three indicators of marital quality separately: marital happiness, marital communication, and marital conflict. To my knowledge, this paper is the first to examine variation in three dimensions of marital quality. Further, this is the first paper to tie multiple dimensions of marital quality trajectories to subsequent divorce in a national sample.

5. Data and Methods

5.1. Data

To assess the relationship between dimensions of marital quality and marital duration, I employed the National Longitudinal Survey of Youth-1979 (NLSY79). The original sample included 12,686 men and women, born between 1957 and 1964 and aged 14 to 22 when first interviewed in 1979. These individuals were interviewed annually between 1979 and 1994, and biennially thereafter until 2010. Funded by the Bureau of Labor Statistics, the NLSY79 focuses on a variety of issues, including labor market behavior, educational experiences, family background, government program participation, union formation history, and financial well-being.

Unfortunately, the NLSY79 did not begin asking questions about marital quality until 1992, 13 years after the first interview was conducted. These questions, described in section 5.3, were then repeated every two years until the latest wave, collected in 2010; I therefore have 10 waves of data. Because only women's marital quality was ascertained at all available time points (reducing the sample by half), I restricted my analyses to women who report at least one valid value of each dimension of marital quality (see sections 5.2 and 5.4), starting in 1992. Due to the potentially confounding role of higher-order marriages, I simplified my analyses by further restricting the sample to women in first marriages. Women who married and divorced prior to 1992 were also excluded because they provided no measure of first marital quality¹. All growth curve and mixture models analyses were weighted for differential selection into the sample and account for the oversamples. The final analytic sample size was 2,604 women.

5.2. Time Metric

The selection of the time metric is a crucial aspect of any investigation involving longitudinal data because it holds important implications for the substantive interpretability of the model (Nagin, 2005). Because of the data structure, the inherent time metric in the NLSY79 (and nearly all large-scale surveys) is survey year. Thus, I reconstructed the dataset so each respondent's reports of marital happiness, communication, and conflict aligned according to when the marriage began through the first 35 years of marriage, sometimes

referred to as an accelerated or sequential cohort design (cohabitators' marital duration was coded from the beginning of the relationship rather than the marriage). This was complicated by the fact that reports of marital quality were not collected for the first time until 1992, a point at which many respondents were already married (note that this is not the first article to use these data to examine longitudinal trends in marital quality; see Tach and Halpern-Meekin (2009). For instance, a woman who married in 1980 would have been in her 12th year of marriage when the NLSY79 began collecting information on the quality of the relationship. The person in this instance would therefore receive missing data until the 12th year of marriage (see below for information on how missing data were treated). The initial measurement of the person's marital quality, taken in 1992, would therefore be placed in the 12th year of marriage, with each subsequent measurement of marital quality falling in the 14th, 16th, 18th, 20th, 22nd, 24th, 26th, 28th, and 30th years of marriage, assuming the person did not attrite and the marriage remained intact. This procedure was followed for all individuals who married prior to 1992. The same procedure was followed for individuals whose marriages began in 1992 and afterward by placing the measurement taken from the first year the respondent reported a first marriage and placing it in year 1 and aligning the data accordingly in each subsequent year up to year 18 of the marriage.

Following prior research (Anderson et al., 2010), I combined observations into 2-year "buckets" for analysis, meaning that observations from years 0 and 1 of the marriage were placed in a single "bucket", those from 2 and 3 in another "bucket", etc., up to year 34 and 35. Because the data were collected every two years, following this procedure maximized the number of observations in each bucket and ensured that no respondent had multiple marital quality observations in the same bucket.

There were multiple reasons for data to be missing in the dataset. First, missing data could be structurally missing because it was left-censored. This occurred because the respondent married prior to the commencement of marital quality data collection in 1992. Second, data could be structurally missing due to right censoring, meaning the respondent was still married in 2010 when the observation window closed. For example, an individual who married for the first time in 2010 would only contribute information for the first bucket, with missing data at remaining marital durations. Third, data could be missing due to divorce. Fourth, attrition created missing data as well. Full-Information Maximum Likelihood techniques were used to deal with missing data. To test the sensitivity of the results to bias due to the different types of missing data, I constructed four dummy variables indicating each reason for a particular data point to be missing. I then examined if the dummy variables for each missing data type predicted membership in any of the marital quality trajectories. The results (available upon request) suggested patterns of missing data were unlikely to have influenced the results presented here.

5.3. Variables

4.3.1 Dependent Variables—I employ two constructs, marital quality and divorce, as dependent variables in this paper. Marital quality was conceptualized as a multidimensional construct encompassing both behavioral and attitudinal elements. Although it would be ideal to have additional dimensions of marital quality, the NLSY79 contains three constructs

tapping dimensions of marital quality. The first, marital happiness, was measured by asking the respondent the following question, “Would you say that your marriage is very happy, fairly happy, not too happy?” and was measured on a three point scale (1 = *very happy* to 3 = *not too happy*). Marital communication was measured by asking respondents how often (1 = *less than once a month* to 4 = *almost every day*) respondents laughed together, talked about the day, or calmly discussed something with their spouse, respectively. The third dimension of marital quality, marital conflict, also a scale, assessed how often (1 = *never* to 4 = *often*) respondents reported arguing with their spouse over chores and responsibilities, children, money, showing affection, religion, leisure, drinking, other women, his relatives, and her relatives. Responses to all questions were coded in the direction of higher levels of happiness, communication, and conflict. Items used to assess communication and conflict were added together using a summative index. The average alpha was .78 for conflict (SD of cross-wave alphas = .01) and .79 for communication (SD of cross-wave alphas = .02). All variables tapping marital quality were standardized in order to facilitate interpretability of the results in standard deviation terms, thereby enabling comparisons across dimensions of marital quality. The results using the unstandardized variables (not shown) are available upon request. The second dependent variable, divorce, was a dummy variable indicating if the marriage ended in marital dissolution (1 = *yes*).

4.3.2 Independent Variables—The independent variables, used to examine covariation in membership in the trajectories of marital quality, comprised socioeconomic status, past relationship history, family background, demographic characteristics, and employment. All covariates are time-invariant due to the theoretical question being asked here, which involves examining the associations with these covariates and trajectory membership. Variables used to measure socioeconomic status included the respondent's income and education level. Income was measured by the mean household income a respondent reported between 1979 and 2008, measured in \$10,000 increments (1 = *less than \$10,000* to 12 = *more than \$110,000*). Income was logged in the analyses to deal with skew. The respondent's education was measured by their highest grade completed in 2008.

Three variables assessed respondent's relationship features: dummy variables for whether the respondent cohabited prior to marriage (1 = *yes*) or experienced a premarital birth (1 = *yes*), as well as an indicator of respondents' marital duration prior to the first marital quality observation in 1992 (to account for initial differences in marital duration) were each included in the model.

Respondents' family of origin structures were measured with a dummy variable indicating whether respondents lived with both biological parents at age 14 (1 = *yes*). The final category, demographic characteristics, included the respondents' race-ethnicity (*African American* and *Hispanic* versus *Other*, which was overwhelmingly *white*, but included Asians, Pacific Islanders, Native Americans, etc.), age at marriage, age at first interview, and the number of children ever born to the respondent, topcoded at four or more children.

Respondents' employment activities were measured by their average job satisfaction (1 = *dislike very much* to 4 = *like very much*), average weeks spent unemployed, and average work hours (in 100 hour increments) over the year.

5.4. Analytic Strategy

I employed semiparametric group-based mixture modeling, also known as latent class growth analysis (LCGA; see Nagin (2005) for more information) to examine variation in trajectories of marital quality, the first research question. LCGA models the relationship between time and marital quality with a polynomial function, in this case with an intercept and a linear and quadratic slope. In contrast to hierarchical and growth-curve modeling, however, this approach does not assume a single, dominant trajectory. Instead, these group-based methods assume the population consists of an unknown number of groups with separate trajectories (Muthén, 1999). Thus, the analytic strategy for the first research question involved the identification of the optimal number of groups, the shape of each trajectory, and the proportion of the population from which the sample was drawn belonging to each group.

Decisions about the number of groups were informed by several factors including entropy (the extent to which cases can be unambiguously classified into a given number of groups; ranges from 0 to 1, with higher numbers indicating less ambiguity); the BIC, where smaller numbers indicate better fit, and two likelihood ratio tests, the Vuong-Lo-Mendell-Rubin (VLMR) and the Lo-Mendell-Rubin (LMR), both of which compare a model with K classes (e.g., 3 classes) with K-1 classes (e.g., 2 classes). Throughout the process, the substantive interpretability of the model was emphasized in light of prior research and theory.

Once group membership was ascertained, the models assumed no within-group variation. This was based on the assumption that once an individual is assigned to a group they are similar on happiness, communication, or conflict, to others in that same group. Consequently, although the models assumed no within-group variation, a given individual's actual marital quality trajectory varied somewhat from the overall group trajectory.

The models were estimated in Mplus (Muthén and Muthén, 2010), which uses Full Information Maximum Likelihood techniques to deal with missing data, using all available observations of marital happiness, communication and conflict to estimate the model. The procedure is particularly useful when the assessment periods are not identical across respondents (Lavner and Bradbury, 2010). Next, I employed logistic regression, binary or multinomial depending on the number of classes, to predict class (trajectory) membership. (I use the terms *class*, *group*, and *trajectory* interchangeably, as all three refer to differing experiences of marital change.) The logistic regressions accounted for the probability of membership of being in the assigned class, since the probability of class membership differed by individual, thereby incorporating uncertainty about class membership into the results from the logistic regression equations. The final step involved estimating the likelihood of divorce for individuals in each trajectory. This was done by employing membership trajectory in an equation predicting divorce, taking into account the influence of the covariates described above. Because Mplus allows trajectories from LCGA models to be predicted by covariates and serve as predictors of subsequent outcomes in the same model, I estimated all three steps simultaneously, meaning information and uncertainty from previous steps is included in later ones.

6. Results

The weighted mean, standard deviation, and range of all variables used in the analysis are displayed in Table 1. Across all 10 waves of data, respondents reported high levels of marital happiness and communication and modest levels of conflict. The average household income was around \$50,000, and most respondents reported some college attendance. About 40% of respondents reported premarital cohabitation and about one-fifth reported a premarital birth. Respondents had been married an average of 8 years prior to the first marital quality observation. Demographically, the sample was predominantly non-Black, non-Hispanic, had two children, and married in their mid-20s.

6.1. Marital Happiness

I began by estimating a single-group model (Table 2), analogous to a latent growth curve. The trajectory displayed in the top panel of Figure 1 (labeled as “Overall Sample (Mean)”) therefore constitutes the average trajectory of marital quality among married women in the NLSY79. On average, women reported relatively high initial levels of marital happiness, with the average marriage starting out about .4 standard deviations above the overall mean. Over time, however, marital happiness tended to decline steadily, resulting in a drop of about .8 standard deviations 30 years later. Although the quadratic term was positive and significant, the effect of this nonlinear term was not particularly strong.

However, as mentioned previously, this trajectory may not adequately represent the marital experience of all individuals. Although this is where many studies have finished the investigation, the latent growth curve of the overall sample, again displayed in the top panel of Figure 1, represents a single-group model that assumes marital happiness changes in similar ways for everyone. To decipher how much a single trajectory of marital quality adequately represented how marital happiness changed for women in the NLSY79, I turned to the results of the latent class growth analyses, which assumed the population from which the sample was drawn consists of an unknown number of trajectories of marital happiness. Note that these fit indices come from models that do not include any covariates or the distal outcome (Nagin, 2005). For marital happiness, substantive interpretability, theory, and the fit statistics suggested a two-class model fit the data better ($BIC = 44627.087$; Entropy = .85;) than either a single-group model ($BIC = 41899.71$; Entropy not applicable) or a model with 3 ($BIC = 43416.01$; Entropy = .82) or more classes (entropy continued to decline in higher class models, with BIC falling only slightly), based on the high entropy score, lower BIC, and the significant likelihood ratio tests ($p < .01$ only for 2 class model). I chose the 2 class model both because of substantive interpretability and because previous work has shown the bootstrapped likelihood ratio tests to be the most consistent indicator of classes (Nylund et al., 2007). This logic also applies to communication and conflict.

These results are presented numerically in the top panel of Table 2 and graphically in the top panel of Figure 1 and provide evidence of heterogeneity in trajectories of marital happiness.

The first group, consisting of 66% of the sample, began their marriages at comparatively high levels of marital happiness, about one-half of a standard deviation above the overall mean (intercept = 0.59, $p < .001$). However, these high levels of happiness declined linearly

(slope = -0.10, $p < .05$), resulting in a modest drop in happiness as the marriage matured. This group, marked by high initial levels of marital happiness and moderate declines thereafter, follows what I term the 'High Decline' trajectory.

The experience of change in marital happiness of the High Decline group contrasts with the second group (34%). Unlike those in the High Decline group, those in the second group experienced significantly lower levels of happiness from the beginning of the marriage. Respondents in this second group reported initial levels of marital happiness that were about $\frac{1}{2}$ standard deviations below those in the High Decline group ($I = 0.03$, n.s.). In addition, unlike the stability of the first group, the group experienced dramatic declines in their marital happiness over time ($S = -0.89$, $p < .001$) and this decline was significantly greater than the decline in the High Decline Group. After approximately 20 years of marriage, the model predicts marital happiness for this group had declined by more than one standard deviation, a sharp drop. These individuals also experienced a slight uptick in marital happiness, reporting a modest rebound in the ensuing years ($Q = 0.17$, $p < .001$). Thus, despite some evidence of a modest uptick in marital happiness, as predicted by the U-Shaped curve perspective, it seems a misnomer to call this the U-Shaped group as these women did not regain most of the ground lost since the beginning of the marriage. Instead, the pattern looks much like a flattened fish hook. There remains, however, a noticeable uptick. As a result, I call this the "Low Rebound" group.

Thus, the results provide evidence of heterogeneity in trajectories of marital quality and that experiences of marital change, at least for marital happiness, are not uniform (i.e., not everyone experiences similar changes in marital happiness over time). The second research question deals with how well we can predict trajectory membership based on respondents' sociodemographic characteristics. As a result, I estimated a binary logistic regression model predicting membership in the High Decline (compared to the Low Rebound) group. Because the results for marital happiness are estimated simultaneously, the results also account for uncertainty in group membership assignment.

The results of the binary logistic regression equation are found in the top panel of Table 3 under the column labeled "Happiness". The results suggest sociodemographic characteristics such as income, education, cohabitation, and having a premarital birth differentiate between individuals on the High Decline trajectory and those on the Low Rebound trajectory. Women with high levels of (logged) household income and who lived with both parents at age 14 were more likely than their counterparts to be on the High Decline trajectory, whereas membership on the Low Rebound trajectory was more likely among women with a premarital birth and those who reported premarital cohabitation. Finally, job satisfaction and the number of hours spent working also differentiated between those on the high and low trajectories of marital happiness.

Finally, I examined whether membership trajectory predicted divorce. These results can be found in the bottom panel of Table 3. As expected, membership in the Low Rebound group was associated with higher odds of divorce than in the High Decline group ($OR = 4.22$, $p < .001$). To facilitate interpretation, I also provide the probability of divorce for each group. For those in the High Decline group, the probability that marriage ends in divorce was just .

13. In contrast, the probability of divorce in the Low Rebound group was much higher at .38. (Although these numbers might be lower than expected based on the commonly held notion that half of marriages end in divorce, these numbers exclude higher-order marriages, marriages that ended before 1992, and marriages that may yet end in divorce.)

6.2. Marital Communication

The same set of analyses performed for happiness were also performed for marital communication and marital conflict. The latent growth curve (labeled “Overall Sample (Mean)”) for marital communication is found in the middle panels of both Figure 1 and Table 2. Similar to marital happiness, women initially reported relatively high levels of marital communication, about .30 standard deviations above the overall across-person, across-wave mean. However, these high levels of communication failed to remain steady, however, as the average couple reported a relatively steep drop ($S = -.29, p < .001$) over time, although this drop became less steep as the marriage matured ($Q = 0.05, p < .001$), eventually bottoming out around one-tenth of a standard deviation below the mean.

However, the overall sample's latent growth curve (the solid line in the middle panel of Figure 1) represents the average trajectory of marital communication and fails to assess the potentially diverse experiences of marital communication across the life course. The middle panel of Figure 1 also displays the trajectories of marital communication obtained from the latent class growth analyses, whereas the final two columns of the middle panel of Table 2 present the numerical results of the same model. A two-class model ($BIC = 42963.94$; Entropy = .92; LRT p values all $> .001$) again fit the data best compared to higher class models (i.e., BIC for 3 Class = 41408.23; Entropy .88; LRT p values all $> .05$) and suggested the presence of a High Decline group (87% of the sample) that reported much higher levels of communication than those in the second group, which I again term the Low Rebound group (13%). Those in the High Decline group experienced marital communication levels that were nearly three-fourths of a standard deviation above the Low Rebound trajectory, a statistically significant difference. Furthermore, although both groups experienced subsequent declines in marital communication, the declines were significantly greater for those in the Low Rebound group (-1.12 vs. $-.14$), who also experienced increases in their marital communication during the later years of marriage ($Q = 0.03, p < .001$).

In sum, there is again evidence of heterogeneity in trajectories of marital communication. For some individuals, marital communication begins at relatively high levels and declines only modestly, whereas for others initial levels of marital communication are much lower, followed by steep declines then a modest subsequent rebound.

Presented in the third column, top panel of Table 3 are the results from the binary logistic regression equation predicting membership in the High Decline trajectory relative to membership in the Low Rebound trajectory, accounting for the probability of membership in the most likely class. Individuals with high levels of income and higher marital duration (to some extent indicating those who marry early) were more likely to be in the High Decline group, whereas premarital cohabitation and African-American race-ethnicity were associated with a greater likelihood of membership in the Low Rebound trajectory.

Membership trajectory was also associated with subsequent divorce, as illustrated by the bottom panel of Table 3. The probability of divorce in the Low Rebound trajectory (.43) is significantly higher than in the High Decline group (.18), with those in the Low Rebound group experiencing odds of divorce 3.5 times higher their counterparts in the High Decline trajectory.

6.3. Marital Conflict

Marital conflict is the final dimension of marital quality examined here. The results for the overall sample's growth curve for marital conflict appear in the bottom panels of Figure 1 and Table 2. On average, initial levels of marital conflict did not differ appreciably from the overall mean level of conflict ($I = 0.6$, n.s.), although women did report increasing marital conflict over time ($S = 0.14$, $p < .01$), followed by a decline after the first decade of marriage ($Q = -.08$, $p < .001$).

As with the previous two marital quality dimensions, the results from the LCGA again provided evidence against the view that most individuals experience marital conflict similarly across the life course and suggest substantial heterogeneity in how marital conflict changes with time. A 3-class solution was optimal for marital conflict (2 classes: BIC = 44429.04, Entropy = .76, pvalues for LRTs all $< .001$; 3 classes: BIC = 42781.25, Entropy = .76, pvalues for LRTs all $< .001$, indicating better fit than 2 class model; 4 classes: BIC = 42273.56, Entropy = .75, pvalues all $> .05$), resulting in three trajectories of marital conflict characterized by high, moderate, and low conflict.

These results are displayed in the bottom panels of Table 2 and Figure 1, which show the overall shape of the trajectories appears similar, with all three groups reporting increasing levels of conflict during the first decade, followed by declines thereafter. Despite the increase for all three groups, the increase for the High Conflict group was significantly larger than the increased conflict of the other two groups. The main differences between the three groups appear to lie in initial levels of marital conflict. The amount of conflict present at the beginning of the marriage showed stark differences between the groups. For example, women in the High Conflict group began their marriages nearly .8 standard deviations above those in the Moderate Conflict group, and 1.5 standard deviations above those in the Low Conflict group. Thus, for marital conflict, stark differences in marital conflict at the outset of the marriage persist, whereas changes over time tend to be similar across individuals, although those in the High Conflict group did report modestly (and significantly) larger initial increases.

I next examined the role of sociodemographic characteristics in sorting individuals into these conflict trajectories. In other words, what predicts membership on the high conflict trajectory relative to membership in the low conflict trajectory? The results of the multinomial logistic regression, accounting for differential probability of membership in the most likely class, are found in the top panel of Table 3. One of the most notable findings is that most differences occurred between the High Conflict and the other two trajectories, with very few differences found between Moderate and Low Conflict groups. The only variables found to distinguish between those on the Moderate Conflict and Low Conflict trajectories were the number of children the respondent had, with those in the Moderate Conflict group

reporting more children, and job satisfaction. In contrast, individuals who had cohabited prior to marrying and who reported lower levels of income were more likely to be on the High Conflict group, compared to individuals on either the Moderate or Low Conflict trajectories. Additionally, women's education, number of children, and age at marriage distinguished between the High and Low Conflict trajectories.

Additionally, it appears that membership on low quality (i.e., higher conflict) trajectories was associated with an increased probability of divorce. Not surprisingly, the group with the highest probability of divorce is the High Conflict group (.37, see the bottom panel of Table 3). Those in the Moderate and Low Conflict groups were substantially less likely to divorce ($p(\text{divorce}) = .15$ and $.18$).

6.3 The Intersection of Happiness, Communication, and Conflict

Finally, it may be worthwhile to consider how different combinations of happiness, communication, and conflict combine to shed light on what types of marriages are prevalent in the sample. At first blush, combining all three dimensions of marital quality into a single measure may seem prudent, as previous work has often done (Bradbury, 1998b; Johnson, 2001; Spanier, 1976). But this approach is likely to be unsatisfactory because combining dimensions of marital quality obscures differences between the dimensions and distorts marital processes and outcomes (Amato et al., 2007), particularly if dimensions tap both positive and negative aspects of the marriage (Johnson et al., 1986), as would be required here. Additionally, each dimension provides unique information but remains correlated with the other dimensions, as would be predicted (the correlation between happiness and communication was .54, happiness and conflict -.34, and -.23 for communication and conflict).

One way to gain insights into the prevalence of various combinations of marital quality dimensions without running the risks involved with combining multiple dimensions of marital quality is to examine the intersection of the three dimensions. Table 4 presents the crosstabulation of the 12 possible combinations of happiness, communication, and conflict. This three-way table displays the frequencies and prevalence of the different configurations of marital quality. Clearly, two such configurations are the most prevalent in the sample. Over 50% of women reported marriages with both high communication and happiness trajectories over the life course and either low (26%) or moderate (26.3) conflict. These groups are nearly three times the size of the next closest group at 9.9% of the sample. Marriages characterized by low happiness, communication, and conflict are the rarest at just two percent of marriages.

6.4 Stylized Parameterization vs. True Variability in Trajectories of Marital Quality

Although the findings from this paper improve our understandings of longitudinal trajectories of marital quality, the findings remain a highly stylized and parameterized version of reality. Because there are as many marital quality trajectories as there are women in the sample, stating that there are two trajectories for happiness and communication and three for conflict may not fully capture variability.

Importantly, however, this point is true of nearly every statistical method used in the social sciences (all types of regression, ANOVA, structural equation modeling, etc.). This paper, with its improved methodology and use of long-term nationally representative data, likely provides a more accurate representation of the variability in marital quality trajectories than previous work employing traditional regression techniques, which pares the variability in the way marital quality changes over time down to a single trajectory (based on the mean).

However, exploring the true extent of variability in marital quality is a worthwhile goal. In exploratory analyses, I estimated three multilevel random-effects models (available from the author) using happiness, communication, and conflict as dependent variables, respectively, and marital duration and duration squared as independent variables (with random slopes and a random intercept). The random slopes and intercept yield a picture of the expected variability in marital quality trajectories across time by telling us where we expect to find the trajectories of about 95% (± 2 standard deviations of the random slopes and intercepts) of respondents. The results suggested that those at the highest levels of happiness begin their marriages 1.5 standard deviations above the average and slowly become happier over time. In contrast, those in the least happy marriages begin their marriages .85 standard deviations below the overall average and decline at a steady pace throughout the marriage. The spread was similar for communication and conflict. Importantly, these are the extreme ends of the distribution; the bulk of the predicted individual trajectories fall in the middle.

6.5. Sensitivity Analyses

However, any claims regarding variation in longitudinal trends in marital quality must first deal with three problems. I addressed each of these in subsequent analyses (not shown but available upon request). First, the role of selective attrition (due to divorce) is unclear. That is, the results suggesting partial support for the U-Shape curve seen for all three outcomes in the latent class growth analyses (Low Rebound Group for happiness and communication, inverted U-shapes for conflict) may be biased because women with lower marital quality left the sample through divorce. Such an occurrence could potentially create an artificial bump in marital quality at later ages by leaving only those with the highest marital quality in the sample. To examine this possibility, I restricted the analyses to those individuals who remained continuously married throughout the observation period and re-estimated the models. The results yielded substantively similar results to those shown above (including a positive quadratic term), though the increase was slightly smaller. This suggests a portion of the observed uptick in marital quality is likely due to selective attrition, but the increase in marital happiness and communication and the decrease in marital conflict is, at least in part, substantive.

Another question is whether the uptick in marital happiness at later marital durations is an artifact of the analysis. Because these models specify a quadratic growth pattern (described in section 5.4), a curvilinear effect may be observed if the data trend upward over time. However, given the debate in the literature about whether marital happiness trends upward or levels off at later marital durations, an alternative model specification and subsequent comparison seems desirable. Consequently, I re-estimated the models using a logarithmic growth pattern because a logarithmic curve does not allow for the possibility of an upward

trend in happiness at later marital durations. Thus, if the observed upward trend in marital happiness for the Low Rebound group is a data artifact, the logarithmic specification should fit the data better than the quadratic one (i.e., smaller BIC). This was not the case (results available upon request). The BIC for the quadratic specification for happiness was 42317.73 compared to 42336.69—a difference of 18.96. The lower BIC (and AIC; not shown) for the quadratic term suggests the quadratic specification fits the data better (or at least not worse) than the logarithmic specification and provides evidence against the view that the upward trend in marital happiness in late-term marriages is a data artifact (similar results were found for marital communication).

A third issue involves period (events occurring in the same year that affect all marriages) and cohort effects (unique characteristics about people married in the same time period), which can distort marital duration effects. To test this, I estimated multilevel random-effects models (available upon request) that included marital duration, marital duration squared, dummy variables for each year data were collected (1992 reference category), and dummy variables comparing which decade the marriage began (1970 (reference), 1980, 1990, or 2000). The results suggested that happiness, communication, and conflict all significantly declined across survey years (i.e., were significantly lower than in 1992), even after controlling for marital duration and its squared. Although the cause of these effects is unclear, this underlines the importance of controlling for possible period effects. In terms of cohort effects, only 1 of the 9 possible comparisons was significant, suggesting that cohort effects were minimal.

7. Discussion

This paper asks a central question: are there multiple trajectories of marital happiness, communication, and conflict over time in a national sample of marriages spanning several decades? Given the preponderance of papers assuming that most marriages follow a single trajectory over time, this is an important question to answer, particularly if we can decipher consequences for following various trajectories. Using a national sample of married women from the National Longitudinal Study of Youth-1979, I found evidence for multiple trajectories of marital happiness (2), marital communication (2), and marital conflict (3) across the first 35 years of marriage and tied each of these trajectories to subsequent marital stability. Furthermore, I found socioeconomic and demographic characteristics such as race, income, and premarital cohabitation influenced the way marital quality played out across the life course and showed such factors worked to sort people into different trajectories of marital quality based on sociodemographic characteristics; these trajectories were tied, in turn, to the likelihood the marriage ended in divorce. It should be noted, though, that the effect of sociodemographic characteristics may vary. For example, the effect of cohabitation on marital outcomes may not be consistent (Cohen and Manning, 2010) and may be particularly weak or even nonexistent when cohabitation experience is limited to the eventual partner (Jose et al., 2010).

In distinguishing between various trajectories of marital quality, this paper also found some evidence supporting both the continual decline and U-shaped curve perspectives, although support for the latter was only marginal. The findings suggest that pathways of marital

change are complex and contrasting the two perspectives leads to a false dichotomy. Some marriages experienced an uptick in marital happiness (about 35% of marriages observed) and communication (about 15%) at later marital durations, congruent with expectations of curvilinearity from the U-shaped curve perspective (although part of the uptick can be accounted for by selective attrition via divorce). Importantly, though, the uptick in marital happiness and communication and the decrease in conflict at later marital durations does not return marital quality to the levels seen earlier in the marriage. Thus, while I find some support that marital quality improves at later marital durations, the longitudinal pattern bears little resemblance to a 'U'. Instead, the pattern looks more like a fishhook.

Continual decline supporters can rightly point out a majority of marriages experienced continual declines in happiness (65%) and communication (85%) throughout the life course, with no subsequent rebound. The exception to the trend is marital conflict, which peaks about 10-15 years into the marriage and declines thereafter for all marriages (despite greater initial increases in high conflict marriages), supporting the U-shaped curve perspective. Thus, greater understanding of marital quality leads to an interesting conclusion: rather than assuming all marriages follow the same longitudinal trajectory and then seeking to identify that trajectory, it may be more enlightening to examine the circumstances where each perspective is likely to find support.

Interestingly, the uptick at later marital durations occurred solely for those already on lower-quality trajectories, where low-income women, racial minorities, and those who had previously cohabited were disproportionately represented. Somewhat in contrast to evidence that the U-shaped curve was a data artifact (Glenn, 1998), this research suggests the possibility that marital quality may improve at later marital durations for at least some groups, such as African Americans, low income earners, and premarital cohabitators. However, the reported increase in marital quality failed to close the gap between these groups and their more privileged counterparts.

An interesting consequence of this paper, then, is that there is essentially no support for the theory that marriages follow a U-shaped curve, despite modest upticks at later marital durations. A majority of marriages followed the continual decline trajectory, and even those in the Low Rebound group of happiness and communication did not experience a return in quality to honeymoon levels. The question, then, regards the implication of this finding. For example, what are the sociological implications if all trajectories of happiness and communication decline throughout the life course? On one level, it is important to keep in mind that this sample is restricted to married women born in the middle of the 20th century. But such declines may speak to issues of gender and marital formation patterns. For example, continuous declines may be linked to gender imbalances that result from the perceived differences in the perceived costs and benefits of both marriage and divorce. It is also possible that declines in happiness and communication over the life course could also have implications for women delaying childbearing and marriage, although such effects would largely be via social capital mechanisms, as young women observe declines in others' marriages and decide in favor of cohabitation. To the extent that marital trends are different from cohabitation, marriage may become an increasingly unsatisfactory arrangement, particularly if individual fulfillment continues as a primary reason for getting and staying

married. Continuous declines may also be tied to dissatisfaction with gender roles and the distribution of domestic work. However, if true, one would expect such dissatisfaction to decline over time as children leave home. But explanations of declining satisfaction post-childrearing are not well understood, making it likely that that gendered norms around housework and other tasks persist into later marital durations, perhaps reshaping and metamorphosing instead of dissipating with the exit of children. Future research comparing men and women from a national sample over a comparable period of time as that observed here are needed to assess these possibilities. These results, however, are specific to a single birth cohort (born 1957-1964), which may or may not be similar to other cohorts.

Another notable finding was that sociodemographic characteristics including race and income predict membership in low marital quality trajectories. Although the implications of this finding are complex and require future research, it appears clear that not all women experience similar risk of poor marital trajectories. Rather, a social sorting process works to place people at risk of risks, meaning that sociodemographically disadvantaged women are more likely than their more privileged counterparts to follow trajectories of poor marital quality and divorce. The effects of poor marital quality on children and adults are well documented (Amato and Booth, 1997), including adult physical and mental health problems (Hawkins and Booth, 2005; Johnson and Wu, 2002), even survivorship (Yang and Schuler, 2009) and social, psychological, and academic outcomes for children (Moore et al., 2011). These effects are largely amplified when the marriage ends in divorce (Amato, 2010, Amato and Booth, 1997).

In this light, it is important to note that the influence of race and income on trajectories of marital quality should not be solely interpreted as a 'race (or income) effect', but rather the result of a set of cultural mores and socially constructed arrangements that place downward pressure on marital quality throughout the life course. These forces are also deeply intertwined with racial and socioeconomic differentials in marital dissolution. Studying the intergenerational influences of this process should be a top priority for scholars in light of shifting demographic trends among America's children and considering that segregation is greater among black and Hispanic children than among their adult counterparts (Frey, 2011).

Another contribution of this paper is a move away from using individual characteristics to predict levels of or changes in (intercepts and slopes) marital quality and a move toward a more realistic focus on trajectories of marital quality over the life course. Such a focus emphasizes how social sorting processes along sociodemographic lines result in some of the most privileged individuals in society having much higher quality marriages than their less privileged counterparts. Because these differences persist across the marital life course race/ethnic minorities and those with low levels of education and income are dramatically less likely to experience high marital quality across the life course, resulting in stark differences in the probability of divorce, which often leads to greater socioeconomic deprivation (Amato, 2010). Taken together, the process linking sociodemographic predictors to varying trajectories of marital quality that result in differential probability of divorce helps explain extant patterns of socioeconomic and racial stratification. It may be more theoretically informative to examine several decades of changes in marital quality, rather

than cross-sectional or a relatively limited number of time points, when predicting the influence of marital quality on individual's life course pathways.

This study also casts light on theories of marital quality that provide some guidance on *why* marital quality should change over time. Consistent with the enduring dynamics model, which holds that marital quality is relatively constant across the life course, the results showed some couples began their marriages at much lower levels of marital happiness and communication and higher levels of conflict than did others and that these differences persisted throughout the first 30 years of marriage. Consistent with a marital life course approach, which suggests marital quality is dynamic, the results also showed couples experienced substantial changes in marital quality over time. Changes, even rapid changes, were observed, suggesting the importance of broad trends as well as developmental processes, in line with the life events/accommodation and vulnerability-stress-adaptation model (Karney and Bradbury, 1995).

As with any study, this one has limitations. First, because only women reported marital quality, it is unknown how the results generalize to men. However, because changes in marital quality are similar for men and women, despite differences in levels (Amato et al., 2007), I would likely draw similar conclusions if men were included (Jackson et al., 2014). Second, the sample excludes marriages that ended before 1992, when marital quality data became available. This limitation also means that I am unable to fully address period effects over the decades of observed marriages, meaning that large-scale social, economic, and political changes that influenced all marriages will not be fully detected here. Similarly, my information from the early years of marriage, when marital quality is remarkably malleable (Bradbury, 1998a), comes primarily from those who married relatively late. Future research should determine whether these results hold up with different samples of women. Additionally, I use a single-item measure of marital happiness. However, research has shown that a single-item marital happiness measure performs similarly to a multi-item scale (Johnson, 1995). Importantly, though, these data provide the most recent long-term snapshot of inter- and intra-personal trends in marital quality, especially from a national sample.

In sum, longitudinal patterns of marital quality are complex and, in many instances, inconsistent across studies. This paper sheds light on how and why this occurs by demonstrating that not all marriages change in the same way. I found multiple trajectories of marital happiness (2), marital communication (2), and marital conflict (3). Socioeconomic and demographic characteristics such as race, income, and premarital cohabitation were linked to the marital trajectory people followed. Because these trajectories lead to dramatically higher probabilities of divorce those on high marital quality pathways, along with divorce's concomitant disadvantages (Amato, 2010), the links between sociodemographic characteristics, marital quality trajectories, and subsequent marital outcomes such as divorce provide one way racial and socioeconomic disparities translate into increasing inequality in the contemporary United States.

Acknowledgments

I thank Paul Amato, Alan Booth, Valarie King, David Johnson, David Eggebeen, Dean Busby, Alan Hawkins, Tim Heaton, and Kevin Shafer for helpful comments. I also wish to acknowledge support by the National Institute of

Child Health and Human Development, Family Demography Training Grant (No. T-32HD007514) to the Pennsylvania State University Population Research Institute.

References

- Amato PR. Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*. 2010; 72:650–666.10.1111/j.1741-3737.2010.00723.x
- Amato, PR.; Booth, A. A generation at risk: Growing up in an era of family upheaval. Harvard University Press; Cambridge, MA: 1997.
- Amato, PR.; Booth, A.; Johnson, DR.; Rogers, SJ. Alone together: How marriage in America is changing. Harvard University Press; 2007.
- Amato PR, Hohmann-Marriott B. A comparison of high- and low-distress marriages that end in divorce. *Journal of marriage and family*. 2007; 69:621–638.10.1111/j.1741-3737.2007.00396.x
- Anderson JR, Van Ryzin MJ, Doherty WJ. Developmental trajectories of marital happiness in continuously married individuals: A group-based modeling approach. *Journal of Family Psychology*. 2010; 24:587–96.10.1037/a0020928 [PubMed: 20954769]
- Beach SR, Fincham FD, Amir N, Leonard KE. The taxometrics of marriage: Is marital discord categorical? *Journal of Family Psychology*. 2005; 19:276–285. [PubMed: 15982105]
- Birditt KS, Hope S, Brown E, Orbach TL. Developmental Trajectories of Marital Happiness Over 16 Years. *Research in Human Development*. 2012; 9:126–144.10.1080/15427609.2012.680844
- Bradbury, TN. The developmental course of marital dysfunction. Cambridge University Press; Cambridge, MA: 1998a.
- Bradbury, TN. The Developmental Course of Marital Dysfunction. Cambridge University Press; Cambridge, MA: 1998b. Introduction: The developmental course of marital dysfunction; p. 1-8.
- Bradbury TN, Fincham FD, Beach SR. Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of marriage and family*. 2000; 62:964–980.
- Brown E, Birditt KS, Huff SC, Edwards LL. Marital dissolution and psychological well-being: Race and gender differences in the moderating role of marital relationship quality. *Research in Human Development*. 2012; 9:145–164.
- Bulanda JR, Brown SL. Race-ethnic differences in marital quality and divorce. *Social Science Research*. 2007; 36:945–967.10.1016/j.ssresearch.2006.04.001
- Cherlin, AJ. The Marriage-Go-Round: The State of Marriage and the Family in America Today. Alfred Knopf; New York: 2009.
- Cohen JA, Manning WD. The Relationship Context of Premarital Serial Cohabitation. *Social Science Research*. 2010; 39:766–776.
- Elder GH. The life course as developmental theory. *Child Development*. 1998; 69:1–12.10.2307/1132065 [PubMed: 9499552]
- Frey, WH. America's diverse future: Initial glimpses at the US child population from the 2010 Census. Washington, D.C.: 2011.
- Glenn ND. The course of marital success and failure in five American 10-year marriage cohorts. *Journal of Marriage and the Family*. 1998; 60:569–576.10.2307/353529
- Gottman JM. The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology*; *Journal of Consulting and Clinical Psychology*. 1993; 61:6–15.10.1037/0022-006x.61.1.6
- Gottman, JM. The Relationship between Marital Processes and Marital Outcomes. Lawrence Erlbaum Associates, Inc; Hillsdale, NJ: 1994. What Predicts Divorce?.
- Hawkins DN, Booth A. Unhappily ever after: Effects of long-term, low-quality marriages on well-being. *Social Forces*. 2005; 84:451–471.
- Holman, TB. Premarital prediction of marital quality or breakup: Research, theory, and practice. Springer; 2001.
- Huston TL, Caughlin JP, Houts RM, Smith SE, George LJ. The connubial crucible: Newlywed years as predictors of marital delight, distress, and divorce. *Journal of Personality and Social Psychology*. 2001a; 80:237–252.10.1037/0022-3514.80.2.237 [PubMed: 11220443]

- Huston TL, Niehuis S, Smith SE. The early marital roots of conjugal distress and divorce. *Current Directions in Psychological Science*. 2001b; 10:116–119.10.1111/1467-8721.00129
- Jackson JB, Miller RB, Oka M, Henry RG. Gender Differences in Marital Satisfaction: A Meta-analysis. *Journal of Marriage and Family*. 2014; 76:105–129.10.1111/jomf.12077
- Johnson, DR. Assessing marital quality in longitudinal and life course studies. In: Conoley, J.; Werth, EB., editors. *Family Assessment*. Buros Institute of Mental Measurements; Lincoln, NE: 1995. p. 155–202.
- Johnson, DR. Measuring marital relations. In: Touliatos, J.; Perlmutter, BF.; Holden, GW., editors. *The Handbook of Family Measurement Techniques*. Sage; Newbury Park, CA: 2001.
- Johnson DR, Amoloza TO, Booth A. Stability and developmental change in marital quality: A three-wave panel analysis. *Journal of Marriage and the Family*. 1992; 54:582–594.10.2307/353244
- Johnson DR, White LK, Edwards JN, Booth A. Dimensions of marital quality: Toward methodological and conceptual refinement. *Journal of family issues*. 1986; 7:31–49.
- Johnson DR, Wu J. An empirical test of crisis, social selection, and role explanations of the relationship between marital disruption and psychological distress: A pooled time-series analysis of four-wave panel data. *Journal of marriage and family*. 2002; 64:211–224.
- Jose A, O'Leary KD, Moyer A. Does Premarital Cohabitation Predict Subsequent Marital Stability and Marital Quality? A Meta-Analysis. *Journal of Marriage and Family*. 2010; 72:105–116.10.1111/j.1741-3737.2009.00686.x
- Kamp Dush CM. Marital and cohabitation dissolution and parental depressive symptoms in fragile families. *Journal of marriage and family*. 2013; 75:91–109.10.1111/j.1741-3737.2012.01020.x [PubMed: 23671351]
- Kamp Dush CM, Taylor MG. Trajectories of marital conflict Across the life course: Predictors and interactions with marital happiness trajectories. *Journal of Family Issues*. 2012; 33:341–368.10.1177/0192513x11409684 [PubMed: 22328798]
- Kamp Dush CM, Taylor MG, Kroeger RA. Marital happiness and psychological well-being across the life course. *Family Relations*. 2008; 57:211–226.10.1111/j.1741-3729.2008.00495.x [PubMed: 23667284]
- Karney BR, Bradbury TN. The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin*. 1995; 118:3–34.10.1037/0033-2909.118.1.3 [PubMed: 7644604]
- Lavner JA, Bradbury TN. Patterns of change in marital satisfaction over the newlywed years. *Journal of Marriage and Family*. 2010; 72:1171–1187.10.1111/j.1741-3737.2010.00757.x [PubMed: 21116452]
- Lavner JA, Bradbury TN. Why do even satisfied newlyweds eventually go on to divorce? *Journal of Family Psychology*. 2012; 26:1–10.10.1037/a0025966 [PubMed: 22040353]
- Link BG, Phelan J. Social Conditions As Fundamental Causes of Disease. *Journal of Health and Social Behavior*. 1995; 35:80–94. [PubMed: 7560851]
- Moore, KA.; Kinghorn, A.; Bandy, T. Parental Relationship Quality and Child Outcomes Across Subgroups, *Child Trends Research Briefs*. Child Trends; Washington, DC: 2011.
- Muthén BO. Finite mixture modeling with mixture outcomes using the EM algorithm. *Biometrics*. 1999; 55:463–469. doi:<http://dx.doi.org/10.1111/j.0006-341X.1999.00463.x>. [PubMed: 11318201]
- Muthén, LK.; Muthén, BO. *Mplus User's Guide*. Sixth. Muthén & Muthén; Los Angeles, CA: 2010.
- Nagin, DS. *Group-based Modeling of Development*. Harvard University Press; Cambridge, MA: 2005.
- Nylund KL, Asparouhov T, Muthén BO. Deciding on the Number of Classes in Latent Class Analysis and Growth Mixture Modeling: A Monte Carlo Simulation Study. *Structural Equation Modeling*. 2007; 14:535–569.10.1080/10705510701575396
- Spanier GB. Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and Family*. 1976; 38:15–28.
- Tach LM, Halpern-Meekin S. How Does Premarital Cohabitation Affect Trajectories of Marital Quality? *Journal of Marriage and Family*. 2009; 71:298–317.10.1111/j.1741-3737.2009.00600.x
- Vaillant CO, Vaillant GE. Is the U-curve of marital satisfaction an illusion? A 40-year study of marriage. *Journal of marriage and family*. 1993; 55:230–239.10.2307/352971

- VanLaningham J, Johnson DR, Amato PR. Marital happiness, marital duration, and the U-shaped curve: Evidence from a five-wave panel study. *Social Forces*. 2001; 78:1313–1341.10.1353/sof.2001.0055
- Western B, Bloome D, Sosnaud B, Tach LM. Economic Insecurity and Social Stratification. *Annual Review of Sociology*. 2012; 38:341–359.
- Yang HC, Schuler TA. Marital Quality and Survivorship. *Cancer*. 2009; 115:217–228. [PubMed: 18951520]

Highlights for Variation in Trajectories of Women's Marital Quality

- I examine variation in trajectories of women's marital quality.
- Latent class growth analyses suggest multiple trajectories of marital quality.
- Income, race-ethnicity, and cohabitation predict trajectory membership.
- Women on low marital quality trajectories are at much greater risk of divorce.
- These findings provide a picture of the complexity in contemporary patterns of marital quality.

Figure 1. Trajectories of Standardized Marital Happiness, Communication, and Conflict from Overall Growth Curve (LGC) and Latent Class Growth Analyses, N = 2604, NLSY-1979

Table 1
Mean, Standard Deviation, and Range of all Variables Used in the Analyses

	Mean	SD	Range
Marital Happiness ^a	2.65	0.50	1-3
Marital Communication ^a	11.19	1.40	3-12
Marital Conflict ^a	18.69	4.46	10-36
Divorce	0.22		0-1
R's average household income (logged)	51,370.76	53,612.96	2528-1,057,448
R's Education	14.04	3.00	0-20
R and Spouse lived together prior to marriage	0.40		0-1
R's prior marital duration	8.24	5.70	0-32
R lived with both parents @ 14	0.80		0-1
R is Black	0.10		0-1
R is Hispanic	0.06		0-1
R's # of children	2.01	1.48	0-10
R's Age in 1979	17.64	2.80	14-22
R's Age at Marriage	24.05	8.17	13-51
Premarital Birth	.22		0-1
Job Satisfaction	3.33	0.42	1-4
Weeks Unemployed	2.27	2.55	0-22.3
Weekly Work Hours (in 100s)	13.07	6.07	0-28.9

Note: Estimates are weighted and based on 2,604 married women from the National Longitudinal Survey of Youth-1979 cohort.

^aVariable was standardized prior to analyses using the procedures outlined in the text. Standard deviations for dichotomous variables omitted.

Table 3
Sociodemographic Characteristics Predicting Membership in Trajectories of Marital Happiness, Communication, and Conflict, NLSY79 (N = 2604)

	Happiness	Communication	Conflict
	High Decline (ref.= Low Rebound)	High Decline(ref.= LowRebound)	MC vs. LC HC vs. LC HC vs. MC
R's average household income (logged)	0.63*** (0.13)	0.67*** (0.16)	-0.22 (0.143)
			-0.56*** (0.15)
R's Education	-0.07** (0.03)	-0.01 (0.03)	-0.03 (0.03)
			-0.08* (0.04)
R and Spouse lived together prior to marriage	-0.40*** (0.12)	-0.26 (0.16)	0.12 (0.16)
			0.52*** (0.16)
R's prior marital duration	0.04* (0.02)	0.05* (0.02)	0.002 (0.03)
			-0.002 (0.02)
R lived with both parents @ 14	0.43** (0.13)	0.01 (0.18)	-0.02 (0.18)
			-0.10 (0.17)
R is Black	-0.15 (0.15)	-0.48** (0.18)	0.06 (0.21)
			-0.04 (0.20)
R is Hispanic	-0.16 (0.14)	-0.04 (0.18)	0.19 (0.17)
			0.15 (0.18)
R's # of children	-0.09 (0.05)	-0.09 (0.06)	0.33*** (0.07)
			0.45*** (0.07)
R's Age in 1979	-0.06* (0.03)	-0.09* (0.04)	0.05 (0.04)
			0.03 (0.04)
R's Age at Marriage	0.02* (0.01)	0.03** (0.01)	-0.03 (0.02)
			-0.04** (0.01)
R premarital birth	-0.42* (0.19)	-0.25 (0.22)	-0.64* (0.27)
			-0.13 (0.25)
R's Job Satisfaction	1.73*** (0.18)	0.88*** (0.20)	-0.68*** (0.20)
			-1.29*** (0.22)
			-0.61*** (0.21)

	Happiness		Communication		Conflict	
	High Decline (ref.= Low Rebound)	High Decline(ref.= LowRebound	MC vs. LC	HC vs. LC	HC vs. MC	
R's # of weeks unemployed	-0.03 (0.03)	-0.05 (0.03)	-0.04 (0.04)	0.03 (0.03)	0.07* (0.03)	
R's Hours Working (in 100s)	-0.06*** (0.01)	-0.05** (0.02)	0.04** (0.015)	0.06*** (0.02)	0.02 (0.02)	
Constant	9.56*** (1.44)	-6.407 (1.758)	3.87* (1.69)	9.56*** (1.74)	5.69** (1.80)	
Log Likelihood	-22152.315					
Sample Size	2,604					

Trajectory Membership Predicting Divorce (Probability of Divorce)

	Probability of Divorce	Threshold	OR
Happiness			
Low Rebound	0.38	0.48	4.22*** (Low Vs. High)
High Decline	0.13	1.92	
Communication			
Low Rebound	0.43	0.27	3.49 (Low vs. High)
High Decline	0.18	1.52	
Conflict			
Low Conflict	0.15	1.73	1.28*** (MC vs. LC)
Moderate Conflict	0.18	1.48	0.39*** (MC vs. HC)
High Conflict	0.37	0.53	3.32*** (HC vs. LC)

Note:

*** p<.001,

** p<.01

* p<.05;

p(divorce) = 1/(1 + e^{-x})threshold; LC = Low Conflict; MC = Moderate Conflict; HC = High Conflict

Table 4
The Intersection of Trajectories of Happiness, Communication, and Conflict; NLSY79 (N = 2604)

Hp - Cm - Cf	Count	Proportion
Hi - Hi - Hi	199	0.076
Hi - Hi - Mo	676	0.260
Hi - Hi - Lo	684	0.263
Hi - Lo - Hi	13	0.005
Hi - Lo - Mo	28	0.011
Hi - Lo - Lo	13	0.005
Lo - Hi - Hi	258	0.099
Lo - Hi - Mo	235	0.090
Lo - Hi - Lo	122	0.047
Lo - Lo - Hi	199	0.076
Lo - Lo - Mo	123	0.047
Lo - Lo - Lo	54	0.021

Hp = Marital Happiness; Cm = Marital Communication; Cf = Marital Conflict. Hi = High; Lo = Low; Mo = Moderate. High, Moderate, and Low refer to trajectory membership.