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HAPPILY EVER AFTER?

VARIATION IN TRAJECTORIES OF AMERICAN MARITAL QUALITY

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Abstract

Perhaps no subject in the study of the American family has been the subject of more research than marital quality. Because marriage at once serves as the most intimate of all personal relationships and as the basis of the family, perhaps the most fundamental social unit, the health and strength of marriage in the United States is a matter of great concern to policymakers, scholars, and the general public. Recent advances in the scientific study of marriage and marital quality have allowed marital researchers to begin to examine marriage longitudinally, resulting in debate about how marital quality changes over time. This debate has centered largely on two theories. The first perspective, known as the U-shaped Curve, suggests that marital quality takes a curvilinear function as a marriage matures, with high initial marital quality followed by declines and a subsequent uptick at later marital durations. The second, termed Continual Decline, suggests that marital quality deteriorates continually at all marital durations.

In this dissertation, I examine the evidence for these two perspectives and suggest that a new conceptualization of the problem is needed: rather than seeking for the *way* marital quality changes over time, we should seek to examine the *ways* individuals experience marital change over the life course. To do this, I leverage data and methods that shed light on variation in longitudinal trajectories of marital quality from both the beginning and the end of marriage and for different groups.

This monograph begins by empirically examining the possibility that not all individuals experience similar longitudinal changes in marital quality. Results from latent class growth analyses reveal the heterogeneous paths married individuals travel along the marital life course. Confirming prior work on the topic, I find that a single trajectory

inadequately represents the marital experiences of individuals in the NLSY79. I find two trajectories of marital happiness and communication and three trajectories of marital conflict. Covariates such as socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics are used to examine the extent to which these features distinguish pathways of marital change in marital quality.

Next, this monograph looks for evidence of differences in marital quality across major axes of familial and social stratification, such as divorce status, cohabitation experience, and race-ethnicity. Previous work has often compared the overall or average level of marital quality between cohabitators and non-cohabitators, people whose marriages are headed for divorce and people whose marriages are stable for long periods of time, and members of varying race-ethnicities. The analyses employ multigroup latent growth curves to examine trajectories of marital quality by cohabitation experience, divorce status, and race-ethnicity. The multigroup growth curves make it possible to examine *changes* in marital quality over time in addition to measuring differences in *levels* of reported marital quality.

Third, this monograph addresses a question that has never been examined in prior work: is there variation in trajectories of marital quality prior to divorce? Most work on trajectories of marital quality has begun at the beginning of the marriage and looked forward in time. However, with an event like divorce, it is also possible to begin at the end of the marriage and look backward in time. Results using latent class growth analyses suggest two distinct trajectories for marital happiness and communication and three for conflict. Covariates tapping socioeconomic status, past relationship history, family

background, work history, psychological functioning, and demographic characteristics are used to examine the extent to which these characteristics distinguish pathways of change in marital quality prior to divorce.

In sum, this dissertation provides a better understanding of the pathways married couples travel along the road to marital bliss or blunder, shedding light on the social processes governing contemporary patterns of marital quality.

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Chapter 1

Introduction

Few institutions throughout human history have shaped the structure of people's lives as much as marriage. Recorded history provides only a handful of instances of societies in which marriage was not a defining feature of the way personal and social life was organized (Murdock, 1949), and the contemporary United States is no exception to this rule. Traditionally, marriage has offered Americans a script for gendered expectations regarding breadwinning, the division of household labor, and the bearing and rearing of children, in addition to serving as a prominent marker in the transition to adult roles such as economic independence and regular sexual activity. Despite the untethering of marriage from its moral, social, and legal moorings (Cherlin, 2004), marriage continues to figure prominently in America's public policy and collective psyche.

The ubiquity of marriage is well documented. Most Americans today desire and plan to marry (Thornton & Young-DeMarco, 2001), regardless of social class or race-ethnicity (Edin & Kefalas, 2005; Tucker, 2000). Because marriage is simultaneously a very public institution and the most intimate of all personal relationships (Cherlin, Cross-Barnet, Burton, & Garrett-Peters, 2008), the stability and quality of marriage is of considerable importance to social scientists, policymakers, and the debating public (McLanahan, Amato, & Furstenberg, 2007).

The concern with marital stability and quality is not without merit. Having a happy and stable marriage has been shown to be associated with a number of positive outcomes, such as adult physical and mental health (Hawkins & Booth, 2005; D. R. Johnson & Wu, 2002; Waite & Gallagher, 2001)¹ and better social, psychological, and academic outcomes for children (Amato, 2010). Consequently, a significant amount of research to date has attempted to answer questions regarding how marital quality changes as a marriage matures. Indeed, the ebbs and flows of marital happiness, marital communication, and marital conflict have been the subject of much conversation in the scholarly literature, with marital happiness and satisfaction occupying a prominent position. These research efforts have resulted in a vast literature examining marital change (Karney & Bradbury, 1995) in the context of increasing family diversity (Casper & Bianchi, 2000; Coontz, 2005).

Changes in cohabitation, divorce, and nonmarital childbearing have highlighted the increasing family diversity. While scholars have explored family diversity in many settings (Demo, 2010), an often-unacknowledged assumption regarding family diversity is that marriage is a homogenous (and perhaps homogenizing) institution. In other words, the implicit supposition is that marital quality changes in predictable ways (U-shaped Curve, Continual Decline, etc.). Thus, changes in relationship quality in other family forms such as cohabitation can be meaningfully compared against marital quality. However, the possibility of diversity *within* marriage itself, resulting in a wide range of marital experiences, problematizes marriage's taken-for-granted status.

¹ Recent work (Musick & Bumpass, 2012) suggests at least some of these benefits may extend to cohabitation as well.

This dissertation is fundamentally interested in how marital quality changes over time, with a goal of providing empirical evidence of heterogeneity² in changes in marital quality. To do this, I employ longitudinal data from the National Longitudinal Survey of Youth-1979 cohort. The results demonstrate that not all marital experiences are alike, suggesting the need for a better understanding of the personal and social dynamics governing variation in contemporary patterns of marital quality.

Measuring Marital Quality

Although seemingly commonsense notions abound regarding what makes for a good or bad marriage, the scholarly endeavor of defining what is meant by the term has turned into a complicated undertaking. The difficulty in assessing marital quality can be illustrated simply, with an example taken from Amato, Booth, Johnson, and Silver (2007):

Consider a husband and wife who have strong feelings of love for one another but fight frequently. How does this marriage compare with a marriage in which spouses no longer have strong feelings of love for one another, yet maintain a cooperative relationship, are committed to the stability of their union, and are determined to raise their children together? Is marital quality higher in the first or the second marriage? (p.36)

Marital quality often means different things, not only to individual couples, but also to the scholars who study them. Widespread interest in the topic has led to thousands of studies and hundreds of scales and measures designed to assess some aspect of marital quality, a reflection of the lack of consensus among researchers about the meaning of what it means to have a ‘good’ marriage (Amato et al., 2007; D. R. Johnson, 1995, 2001). It is not uncommon for researchers with different aims to develop scales tailored to their

² Unless otherwise noted, I use the terms heterogeneity and variation interchangeably throughout.

research-specific needs (D. R. Johnson, 2001). For example, a marital therapist may administer a 250-item scale of marital quality when attempting to distinguish between a well functioning and highly conflictual marriage. Employing such scales on a nationwide sample, however, is difficult.

Thus, the scale used to measure marital quality often varies by researcher's aims and interests. If proper measurement is paramount, it may be appropriate to employ a scale requiring intense data collection efforts on a smaller, less representative sample than if one was interested in making generalizable statements about the state of American marriage.

As a result, there are several schools of thought regarding the conceptualization and measurement of marital quality in industrial societies (Glenn, 1990; D. R. Johnson, 1995). Distinctions between the perspectives often hinge on whether the measures used for marital quality include behavioral as well as evaluative components, and whether a single or multiple instruments should be used. The perspectives can be allocated into one of three main camps: marital quality as adjustment, marital quality as global evaluation, and marital quality as multidimensional construct.

The marital adjustment perspective, with roots in marital therapy, seeks to identify factors associated with troubled and well-adjusted marriages in an effort to improve marital functioning (Spanier, 1976; Spanier & Lewis, 1980). This perspective often focuses on the level of cohesion in the marriage as well as the amount and intensity of a couple's disagreements. In addition, this perspective is interested in partners' problem solving skills and the level of commitment to the relationship. Questionnaire items include those that distinguish between troubled and well-adjusted marriages, while

items that do not are often excluded, resulting in a somewhat mechanistic approach to the study of marital quality. Marital adjustment measures then aggregate many facets of marital quality together to yield a single score of marital adjustment. Scholars who embrace the marital adjustment perspective often pursue a single ordering of marriages, ranging from well adjusted to troubled marriages.

Second, the global or subjective evaluation perspective argues that how partners' feel about their unions, reflected in overall happiness or satisfaction, is the most valid indicator of marital quality. Studies focusing solely on marital satisfaction or marital happiness can be said to be in accord with this perspective. Marital quality, according to this perspective, consists of the ways married people feel about their marriages. Thus, scholars espousing this view see indicators such as marital interaction and conflict as predictors of partners' global evaluation of feelings such as happiness and satisfaction toward the marital relationship. A perspective focusing solely on marital participants' evaluations of the marriage, advocates argue, may be helpful in clarifying links between marital happiness and other constructs of interest.

The third perspective treats marital quality as a multidimensional construct, that is, as a set of traits, attitudes, and behaviors that together constitute a reliable and valid measurement of the quality of a marriage. Marital quality here serves as an umbrella term grouping together distinct concepts, each of which is measured separately. By including a scale that taps people's happiness or satisfaction with marriage, like the subjective evaluation perspective, and by including measures of other dimensions, such as conflict and interaction, like the marital-adjustment perspective, scholars working from this

perspective can incorporate many of the benefits gained from the marital adjustment and evaluation perspectives.

Treating marital quality as a multidimensional construct has several distinct advantages. First, unlike the marital adjustment perspective, the assessment of the various components of marital quality enables researchers to disentangle the positive (marital happiness, satisfaction, interaction, etc.) and negative (conflict, problems, divorce proneness, etc.) dimensions of marital quality (D. R. Johnson, White, Edwards, & Booth, 1986). Because combining both positive and negative dimensions of marital quality may obscure differences between scale items and lead to ambiguous findings (Fincham & Rogge, 2010), this crucial advantage allows for individuals to exhibit a variety of marital quality profiles. Second, focusing on marital quality as a multidimensional construct is more likely to lead to clear, interpretable results. Using marital quality to refer only to global assessments of the marriage is too limited because it does not allow for the measurement of behavioral and evaluative components that tap the dynamic nature of marital relations (D. R. Johnson, 1995). For example, knowing that people are unsatisfied and unhappy with their marriages tells us little about the patterns of interaction in the marriage because some individuals may report high satisfaction in marriages with little interaction, whereas others may report low satisfaction in otherwise similar circumstances. Third, a conceptualization of marital quality as an implicit rank ordering of marriages from good to bad makes it difficult to decipher the marital quality in certain types of marriages. For example, it is difficult to say whether the marital quality is higher in a relationship characterized by high levels of conflict but similarly high levels of relationship commitment than in one characterized by low levels of conflict but

correspondingly low commitment. Fourth, much theoretical work has focused on either marital happiness or marital dissolution (Anderson, Van Ryzin, & Doherty, 2010; Knapp & Holman, 2010; Lavner & Bradbury, 2010). However, some scholars, building on insights from attachment theory, point out that in adulthood the primary and fullest attachment is prototypically marriage. This leads to an interesting implication—if marriage is a beneficial pair-bond, as attachment theory suggests, then one may accrue at least some of the advantages of marriage independent of the level of satisfaction in the marriage. Thus, a good marriage is often more than satisfaction (Selcuk, Zayas, & Hazan, 2010). Fifth, an important theoretical aspect to consider when thinking about marital quality is that it involves multiple levels of analysis. Marital quality is a function of both subjective assessments of the marriage made by individuals (marital satisfaction and happiness) and a product of the couple's interaction and communication with one another, thereby emphasizing the dialogical and interpretive nature of marital quality (Knapp & Lott, 2010). In light of these considerations, I adopt the third perspective, marital quality as multidimensional construct, for this dissertation.

Conceptualizing and Theorizing Longitudinal Trends in Marital Quality

The scholarly consensus for many years was that marital quality, often conceptualized as marital happiness or satisfaction, formed a U-shaped curve characterized by a “honeymoon” phase with high levels of happiness, a decline in happiness during the middle years of marriage (when couples are raising children and paying off mortgages and other debts) and an increase in happiness at later ages (when children have left the parental home and spouses enjoy the benefits of asset accumulation and retirement) (Glenn, 1990; Karney & Bradbury, 1995). This perspective enjoyed such

widespread agreement that one prominent marriage scholar described the U-shaped curve as “about as close to being certain as anything ever is in the social sciences” (Glenn, 1990, p. 823).

More recent work, however, has questioned the primacy of the U-shaped curve. Glenn (1998), using repeated cross-sections from the General Social Survey, found no evidence of an upturn in marital success across five decades of marriage and concluded that the apparent increase in marital quality in late-term marriages (shown in cross-sectional studies) is due largely to older cohorts being happier than younger cohorts. Similarly, VanLaningham, Johnson, and Amato (2001) found no upturn in marital happiness during the later years of marriage but that marital happiness declined continuously at all marital durations. These studies suggested that marital quality declines over time but provided no evidence of a reversal at later marital durations. In contrast, Kamp Dush, Taylor, and Kroeger (2008) found that marital happiness followed a U-shaped pattern over a 20-year period and other studies found that some marriages in the United States follow this pattern as well (Anderson et al., 2010; Lavner & Bradbury, 2010). Thus, there is debate about whether there is an upturn at high marital durations, creating the famous u-shaped curve of marital quality, or if marital quality continues to decline as the marriage matures.

Despite disagreement regarding *how* marital quality changes with time, both the u-shaped curve and the continual decline perspectives agree that marital quality is a dynamic feature of romantic relationships, and that individuals in these unions undergo ebbs and flows in the quality of their marriage. In this dissertation, I focus on several

theories that attempt to elucidate the factors driving these changes. In other words, these theories provide guidance regarding *why* marital quality changes with marital duration.

The first perspective, termed the life course approach, suggests that historical context, the timing and sequencing of events, and the roles and relationships individuals pursue and assume combine to shape individuals' and cohorts' movement through time and influence a variety of outcomes, including intimate personal relationships such as marriage (Elder, 1998). However, these choices are contingent upon the opportunities and constraints of prevailing cultural norms and sociostructural arrangements, as well as relationship factors unique to each couple's interactions (Bengtson & Allen, 1993).

According to the marital life course perspective, marital quality during the initial stages of marriage should be high because marriage is seen as an important transition marked by optimism for and confidence in the relationship's future and because lovers are often on their best behavior (although this may lead to disillusionment later on (Huston & Houts, 1998)). After this 'honeymoon' period, however, marital quality declines, as couples encounter economic, social, and familial difficulties. Although increases on certain fronts (economic well-being; the accumulation of assets; community integration; the exit of children from the home; and the reduction of stress often associated with retirement) may provide some reason for continued marital stability, developmental changes and adjustments coupled with other circumstances (drug and alcohol use; insufficient employment; the death of a child; changes in health status; or financial distress) may strain the relationship, leading to a downturn in marital quality and stability. Certain events such as job loss, marital infidelity, the death of a child, economic misfortune, or domestic violence may produce precipitous and acute declines

in marital quality, occasioning the emergence of distress and potential marital dissolution (Huston & Houts, 1998). The life course perspective therefore suggests that most marriages begin high in of marital quality (the honeymoon period), followed by declines.

Similarly, the vulnerability-stress-adaption (Karney & Bradbury, 1995) and life events/accommodation models (Huston, Niehuis, & Smith, 2001) suggest that enduring vulnerabilities, such as family background or premarital relationship experiences, that couples bring to the relationship combine with internal (e.g., infidelity, drug and alcohol use, violence, etc.) and external (insufficient employment, the death of a child, changes in health status, or bankruptcy) factors to influence marital quality. The positive, neutral, or negative influence from these factors, however, can be mitigated or exacerbated by a couple's adaptive processes. For example, a couple with few pre-relationship vulnerabilities that encounters minimal external and internal stresses and shocks may be able to maintain higher levels of marital quality over time than other couples, especially if the couple possesses good conflict resolution and communication skills.

Additional perspectives delineate other reasons for longitudinal shifts in marital quality. Spouses who are initially well-matched on educational, economic, religious, and other preferences may experience declines in marital quality if the characteristics of either spouse change, because the 'goodness-of-fit' declines between the spouses (Pineo, 1961). Social exchange theory asserts that as partners' behaviors, attitudes, or personalities shift, marital quality may decline due to the deterioration of the exchange within the marriage (Levinger, 1979). Thus, individuals who espouse and/or engage in beliefs and behaviors that decrease the attractions of the relationship may experience declines in marital quality. Pushed to the extremes, declining marital quality may

decrease the marriage's attraction and increase the desirability of alternatives to it, leading to marital dissolution.

Thus far, the perspectives have suggested reasons for shifts, most often downward, in marital quality over time. However, an additional perspective, enduring dynamics, suggests reasons why marital quality may remain stable over time. In this model, couple dynamics that develop relatively early in a relationship—even prior to marriage—form the foundation for subsequent marital quality (Huston & Houts, 1998; Huston, Niehuis, et al., 2001). This is because both partners enter the relationship with a unique set of personality characteristics, attitudes, values, social skills, and attachment styles that result in stable configurations of relationship quality that carry over into the early years of marriage and beyond. Presumably, healthy marriages result from positive traits that spouses bring to the marriage, whereas negative traits are largely responsible for marital problems, unhappiness, and instability. Moreover, relationship quality is relatively stable over time because the constellation of individual characteristics that shape relationship quality change slowly, if at all. Alternatively, couples may agree to maintain marital quality at an established level to mitigate against the negative consequences of shifting environmental circumstances (D. R. Johnson, Amoloza, & Booth, 1992), with the net result being stability in marital quality.

Notably, any theory claiming explanatory power regarding longitudinal trends in marital quality must also deal with developmental change and comparative stability because longitudinal shifts are likely to arise from the interaction between these two phenomena (D. R. Johnson et al., 1992). Developmental change is said to have occurred when a shift in the mean level of an attribute such as marital quality can be observed in a

population. Comparative stability, in contrast, taps the extent to which a couple (or individual) maintains the same position relative to other couples on a given attribute over time. Thus, if aggregate marital quality declined in a given population over a 10-year period, this could be taken as evidence for developmental change. Further, if the change was uniform for everyone (e.g., all couples experienced the same drop in marital happiness), then there has also been comparative stability. However, if couples near the top of the distribution at the beginning of the period are at or near the bottom at the end of the same period and we observe the same drop in aggregate marital quality (so that some couples dropped more than others), then we have evidence of both instability and developmental change. On the other hand, even if there has been no aggregate shift in marital quality yet some marriages have become more and some less happy over time compared to other marriages, there has been comparative instability without developmental change. Thus, the two components of change must be appraised separately. The first, developmental change, is a population-level consideration of the aggregate level of marital quality and the second focuses on shifts in the rank-order of individual marriages in the same population.

Importantly, note that despite the important nature of questions regarding developmental change and comparative stability, such issues remain largely outside the scope of this dissertation. As such, I make but brief mention of these significant concepts in the remainder of the text. They are, however, worthy of further consideration and substantial future work.

Overview

This dissertation sets out to examine the relationship between marital quality and marital duration. While prior research has attempted to elucidate how marital quality changes over time, my focus is on variation in the way marital quality changes longitudinally. This dissertation comprises three empirical examinations of ways that individuals experience different trajectories of marital quality over time. I first use latent class growth analyses (LCGA) to assess unobserved in trajectories of marital quality (Chapter 2). I then examine variation in trajectories of marital quality by observed characteristics, including divorce status, cohabitation experience, and race-ethnicity (Chapter 3) using multigroup latent growth curves. The final empirical chapter uses LCGA to examine variation in trajectories of marital quality prior to divorce (Chapter 4).

Chapter 2-Variation in Trajectories of Marital Quality

Prior work on longitudinal trends in marital quality has often assumed that all marriages follow similar trajectories that can be meaningfully summarized and represented as a single trajectory over time and then provided evidence about what the shape or trajectory looks like. An alternative approach to aggregate patterns of marital change involves an investigation of the possibility of variation in trajectories of marital quality, followed by an effort to understand the circumstances under which a particular theory applies, thereby leaving the door open to theoretical diversity.

There is reason to believe that not all individuals experience marital change in the same way. Although societal understandings suggest that most marriages begin at relatively high levels of marital quality, some marriages (about 20%) appear to experience categorically different (i.e., higher) levels of marital discord (Beach, Fincham,

Amir, & Leonard, 2005). In a seminal piece on the topic, Gottman (1993) described validators, volatiles, and avoiders, while unstable marriages comprised hostile and hostile/detached patterns of marital interaction. Thus, there is evidence from recent research for variation in trajectories of marital quality and that attempts to describe aggregate shifts in marital happiness and marital conflict using a single trajectory may be inadequate (Anderson et al., 2010; Kamp Dush & Taylor, 2011; Lavner & Bradbury, 2010). Marital quality likely declines over time, but not all individuals are likely to experience changes in their marital quality in the same way.

The analyses from chapter 2 empirically examine this possibility and reveal the heterogeneous paths married individuals travel along the marital life course. Confirming prior work on the topic, I find that a single trajectory inadequately represents the marital experiences of individuals in the NLSY79. I find two trajectories of marital happiness and communication and three trajectories of marital conflict. Covariates such as socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics are used to examine the extent to which these features distinguish pathways of marital change in marital quality.

Chapter 3-Variation by Divorce Status, Cohabitation Experience, and Race-Ethnicity

Following on the heels of evidence of heterogeneity in trajectories of marital happiness, communication, and conflict found in Chapter 2, Chapter 3 looks for evidence of differences in marital quality across major axes of familial and social stratification, such as divorce status, cohabitation experience, and race-ethnicity. Despite considerable research on marital quality, we know relatively little about differences in the way marital

quality changes across time for different groups of people, such as cohabitators, individuals headed for divorce, and racial and ethnic minorities (Amato et al., 2007). Previous work on the topic has often compared the overall or average level of marital quality between cohabitators and non-cohabitators, people whose marriages are headed for divorce and people whose marriages are stable for very long periods of time, and members of varying race-ethnicities, often using traditional OLS methods. However, this is less than ideal from a life course perspective. A life course perspective emphasizes the importance of examining intra- and inter-individual change in marital quality (Amato et al., 2007).

The analyses in Chapter 3 employ multigroup latent growth curves to examine trajectories of marital quality for cohabitators versus those who marry directly and people heading for divorce versus continuously married couples, respectively. I also examine trajectories of marital quality for Black, Hispanic, and White individuals. The multigroup growth curves make it possible to examine *changes* in marital quality over time in addition to measuring differences in *levels* of reported marital quality, as previous research has often done. Doing so builds on and advances research by capturing more accurately the heterogeneity in the ways individuals experience marital quality over the life course.

Chapter 4-Variation in Trajectories of Marital Quality Prior to Divorce

Most work on trajectories of marital quality has begun at the beginning of the marriage and looked forward in time. However, with an event like divorce, it is also possible to begin at the end of the marriage and look backward in time. Previous work has yet to take up the question of variation in trajectories of marital quality prior to divorce, the focus of Chapter 4, although prior research provides some reason to expect

variation in trajectories of marital quality prior to divorce. Huston, Caughlin, Houts, Smith, and George (2001) found that not all individuals whose marriages ended in divorce experienced similar marital changes prior to dissolution. 'Early exiters', who divorced after 2-6 years of marriage, reported ambiguity about the relationship and their partner soon after the marriage. This increase in ambiguity was accompanied by more negativity, resulting in quick divorces. In contrast, 'delayed-action' divorces were characterized by the highest levels of initial affection, love, and happiness (even higher than couples who were happily married more than a decade later). These individuals experienced sharp declines in their marital quality but remained in the relationship longer than the 'early exiters', despite the absence of romance, perhaps in hopes of regaining previously attained marital success.

Thus, prior research on marital quality prior to divorce suggests several groups of individuals whose marriages will eventually end in divorce. One group is characterized by greater marital conflict and low initial levels of marital happiness that persist throughout the marriage and a second group characterized by higher initial levels of marital happiness and steep declines, accompanied by low levels of conflict. Another, less frequently considered, possibility is that a group may have moderate or even high marital quality and not decline prior to divorce. However, empirical evidence is lacking because these possibilities have not been empirically examined.

Chapter 4 provides such empirical tests. The results lend credence to prior work suggesting the possibility of variation in the way marriages change prior to divorce, although the shape of the trajectories is somewhat surprising. Results suggest two distinct trajectories for marital happiness and communication and three for conflict. However, the

majority of the observed between-group differences (i.e., differences between the differing trajectories) are in the overall *level* of happiness (the intercept) rather than in the way marital quality *changes* in the years preceding the divorce (the slopes and quadratic terms). As in Chapter 2, covariates tapping socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics are used to examine the extent to which these characteristics distinguish pathways of change in marital quality prior to divorce.

Expected Contributions

In sum, this dissertation will make several contributions to sociological and family scientific understanding of longitudinal trends in marital quality. First, I provide evidence of variation in trajectories of marital quality. This contribution can perhaps best be summed up thusly: while prior research has attempted to elucidate the *way* that marital quality changes, my goal in this dissertation is to demonstrate that such efforts may be better spent demonstrating the *ways* that marital quality changes over time. Scholars have only just begun to take up this question (Anderson et al., 2010; Kamp Dush & Taylor, 2011; Lavner & Bradbury, 2010), and extant studies make causal inference difficult due to limitations regarding sampling, the choice of time metric, and the measurement of marital quality, among others (James & Amato, 2011).

Second, this dissertation moves beyond the many available typologies and taxonomies of marital quality. The focus here is on changes in marital quality both within and between individuals, rather than focusing on a single time point. Thus, I examine longitudinal groupings of individuals undergoing distinct experiences of marital change.

There are several prominent examples of marital typologies or taxonomies (Amato et al., 2007; Fitzpatrick, 1988; Gottman, 1993; Hetherington & Kelly, 2003; M. P. Johnson, Huston, Gaines, & Levinger, 1992; Lavee & Olson, 1993; Scanzoni, 1980; Snyder & Smith, 1986), but many of these categorizations of marriage and marital quality are based on a single dimension of time from a cross-sectional sample. Although some are longitudinal, none of them follows a large, nationwide sample of married individuals over the same extended period of time (nearly 20 years) as the current study. This dissertation, using latent class growth analyses, extends existing categorizations of marital quality by examining the influence of time on marital quality more stringently than prior work.

Third, this dissertation will make several theoretical contributions. Prior theoretical work on longitudinal trends in marital quality has offered conflicting evidence regarding how marital quality changes over time (the U-shaped curve vs. the continual decline) as well as why marital quality should change over time (life course, enduring dynamics, exchange theory, etc.). This dissertation, with its focus on variation, can shed light on the disparate findings observed to date because variation in marital quality among the married population in the United States may help explain the contrasting results. For example, it is possible that some portion of married individuals experience U-shaped trajectories of marital happiness, whereas others experience continual declines. The methods used here are able to tease apart such nuances. Additionally, it is unlikely that a single theory of marital change is universally applicable. The focus on variation and the circumstances in which a given theory is most likely to be of greatest relevance

may yield a more comprehensive picture regarding the role each theory plays in explaining patterns of marital quality.

The final contribution involves methodology. What few studies there are that analyze variation in trajectories of marital quality each suffer from certain limitations. Lavner and Bradbury (2010) had data from a particular region of California that tracked a small sample of newlyweds over the first four years of marriage. In contrast, the NLSY79 tracks a large, nationwide sample of married respondents across 18 years of marriage. Anderson, Van Ryzin, and Doherty (2010) employed national data from the Marital Instability over the Life Course study but assessed only marital happiness among couples who remained continuously married throughout the observation window. Because individuals headed for divorce report different patterns of marital happiness than continuously married individuals (Huston, Niehuis, et al., 2001) and divorce is so commonplace (Gibbs & Payne, 2010), assessments of variation in trajectories of contemporary America marital quality are incomplete without individuals whose marriage ended in divorce, as I do here. Finally, Kamp Dush and her colleagues (Kamp Dush & Taylor, 2011) examined how marital quality changed between 1980 and 2000. The use of survey wave as the time metric yields information about how marital happiness and communication changed during those years, but it is less clear how changes between 1980 and 2000 compare to changes tracked from the beginning of the relationship. Thus, by employing a large, nationwide sample of both continuously married individuals as well as those headed for divorce, and by employing marital duration for the time metric, I am able to overcome many of the methodological limitations of extant studies on variation in longitudinal trajectories of marital quality.

In sum, this dissertation will contribute to the literature by casting light on the variation in contemporary patterns of marital change, both from the beginning of marriage and prior to divorce. Additionally, I focus on change over time within and between individuals, rather than using data from a single point in time to provide a nuanced examination of the circumstances under which theories are likely to be the most salient. Finally, the data and methods employed here provide a broader picture of contemporary experiences of longitudinal change in marital quality.

Chapter 2

Variation in Trajectories of Marital Quality

Despite societal notions that marriage and family are historically static institutions, it is now well documented that the American family has undergone a tremendous amount of change (Coontz, 2005; Degler, 1980; Mintz & Kellogg, 1989). In fact, in the past 60 years, we have witnessed dramatic shifts in cohabitation, nonmarital fertility, and relationship dissolution (Cherlin, 2010). Individuals are delaying marriage and childbearing, women, particularly married women, have entered the labor force in large numbers, and a greater number of people are raising children without a romantic, stable partner (Casper & Bianchi, 2000).

One result of the increasing diversity of family experiences in the contemporary United States is increased attention to the implications of marriage for personal well-being (Amato et al., 2007). For example, some concern has focused on the quality and stability of contemporary romantic unions, because these have been tied to a number of factors impacting future quality of life, such as adult physical and mental health (Hawkins & Booth, 2005; D. R. Johnson & Wu, 2002) and social, psychological, and academic outcomes for children (Amato, 2010). Because of this, the consequences of poor marriages and the benefits of stable, high quality ones, have been the subject of both scholarly and political debate (McLanahan et al., 2007).

A significant amount of research to date has attempted to answer questions regarding how marital quality changes as a marriage matures. Indeed, the ebbs and flows of marital happiness, marital communication, and marital conflict have been the subject

of much conversation in scholarly literature, with marital happiness occupying a particularly prominent position. These research efforts have resulted in a vast literature examining marital change.

One often-unacknowledged assumption in scholarly exuberance to untangle differences between marriages of varying quality is that a single trajectory adequately represents the marital experiences of most people. Although some studies have addressed why some marriages are of higher quality than others are, virtually everything we know on the topic is based on the average trajectory of marital quality. It remains unknown whether patterns identified in previous literature adequately describe patterns of marital change for all individuals in the population or whether groups of persons that follow distinct trajectories of marital quality can be deciphered from extant data.

The goal of this paper is twofold. First, I ask whether patterns identified in previous literature regarding the relationship between marital quality and marital duration communicate population trajectories of marital quality in a satisfactory manner or if these representations of the average trajectory of marital quality obscure theoretically interesting and empirically distinct groups. The second research question is contingent upon the first. If there is evidence of different groups of people who follow different pathways of marital quality, which factors predict this heterogeneity in experiences of marital change? In other words, what do these groups look like and which factors predict membership in the various trajectories of change in marital quality?

I use Latent Class Growth Analyses (Nagin, 2005) to establish trajectories of marital happiness, communication, and conflict and then link these trajectories to respondent's socioeconomic status, past relationship history, family background, work

history, psychological functioning, and demographic characteristics to examine the extent to which these features distinguish pathways of change in marital quality.

Variation in Longitudinal Trends of Marital Quality

Much research effort to this point has been expended in attempts at empirical elucidation between the u-shaped curve and continual decline hypotheses. Papers have often been conceptually structured as attempts to adjudicate between the two perspectives, inevitably coming down on one side or the other (Glenn, 1998; L. Kurdek, 1999; VanLaningham, Johnson, & Amato, 2001). However, there is another way of approaching the issue of how to describe population patterns of marital change. Rather than attempting to decide whether the proper way to describe marital quality is by embracing the U-shaped Curve or Continual Decline hypothesis, it may be more advantageous to explore the possibility that both perspectives may be valid and the circumstances under which each perspective is likely to find the greatest support. In other words, rather than assuming that all marriages follow the same general trajectory over time and then seeking to identify what that trajectory looks like, it may be beneficial to investigate the possibility of variation in trajectories of marital quality. We can then seek to understand the circumstances under which a particular theory applies. Thus, the first research question examined here is whether there is evidence for variation in individuals' experience of marital change.

This paper attempts to get at questions surrounding variability in experiences of marital change (i.e., whether some marital quality trajectories are better explained by the u-shaped curve or the continual decline perspective).

There is reason to believe that not all individuals experience marital change in the same way. The assumption that one trajectory of marital quality can adequately capture the heterogeneous marital experiences in the married population seems untenable. Although societal understandings suggest that most marriages begin at relatively high levels of marital quality, some marriages (about 20%) appear to experience categorically different (i.e., higher) levels of marital discord (Beach et al., 2005). Similarly, social psychologists, using intensive observational data, have proposed that some marriages may experience a greater amount of change than others do. In a seminal piece on the topic, Gottman (1993) described validators, volatiles, and avoiders, while unstable marriages comprised hostile and hostile/detached patterns of marital interaction. Further, Gottman found that couples in these marital types could be distinguished from one another primarily in how they interacted when attempting to solve a marital problem. However, it should be pointed out that the focus of these pieces was not on describing trajectories of marital quality. Rather, the focus was on describing typologies of marriage. Still, these articles lead us to expect that not all marriages change in the same way.

Recent work has employed latent class analysis and related techniques such as group-based modeling (Nagin, 2005) to look for evidence of variation in trajectories of marital quality. Kamp Dush, Taylor, and Kroger (2008) found three trajectories, characterized by high, middle, and low levels of marital happiness, the latter two following patterns resembling a U-shaped Curve and the third group remaining stable at high levels of marital happiness. Similarly, Anderson and his colleagues (2010) found five distinct trajectories of marital happiness, varying from high and low but stable trajectories to patterns more in line with the patterns described by the u-shaped curve

hypothesis and the continual decline hypotheses. Likewise, Lavner, using the marital adjustment test (Locke & Wallace, 1959) to measure marital satisfaction among newlyweds, found five trajectories, including three comparatively stable groups (at high, moderately high, and moderate initial levels of satisfaction) and two groups that experienced substantial declines and subsequent rebounds in marital satisfaction.

Scholars have also examined marital quality measures other than marital happiness/satisfaction. Kamp Dush and Taylor (2011) explored trajectories of marital conflict and found, in line with Beach et al. (2005), that about 80% of marriages experienced relatively low levels of conflict and a minority of marriages (20%) that experienced higher levels of conflict. Thus, there is evidence from recent research for variation in trajectories of marital quality. More specifically, recent work by the authors cited suggests that attempts to describe aggregate shifts in marital happiness and marital conflict using a single trajectory may be inadequate. The second goal of this paper is to link variation in trajectories of marital happiness, communication, and conflict to respondent's socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics to see if these features distinguish the pathways of marital quality individuals travel. An obvious question regarding variation in marital quality trajectories is whether marriages headed for divorce exhibit different patterns of marital change than more stable marriages. Not surprisingly, this appears to be the case. Individuals whose marriages ended in divorce were found to be more likely to be on trajectories characterized by high levels of marital conflict and less likely to be on trajectories of lower marital conflict (Kamp Dush & Taylor, 2011). Similarly, individuals on high happiness trajectories were less likely to

experience subsequent marital dissolution, whereas the reverse was true for individuals on low happiness trajectories (Kamp Dush et al., 2008). Additionally, Anderson et al. (2010) found substantially higher divorce rates among those who experienced the greatest declines in their marital satisfaction. Other factors that have been found to distinguish individuals reporting high, middle, and low trajectories of marital quality (measured in these studies as either marital happiness or marital conflict) include race-ethnicity, age at marriage, parental divorce, the number of children in the home, and work hours (Anderson et al., 2010; Kamp Dush & Taylor, 2011; Kamp Dush et al., 2008). Additionally, individuals in trajectories marked by low levels of marital happiness may also report more marital problems, less time spent together, and greater perceived marital hardship (Lavner & Bradbury, 2010).

However, several significant shortcomings in each of the pieces looking for variation in trajectories of marital quality make it difficult to come to firm conclusions. For one, decisions about the time metric often dampen interpretability. Kamp Dush and her colleagues (Kamp Dush & Taylor, 2011; Kamp Dush et al., 2008) examined how marital quality changed between 1980 and 2000. The use of survey wave as the time metric yields information about how marital happiness and communication changed during those years, but it is less clear how changes between 1980 and 2000 compare to changes tracked from the beginning of the relationship. Relatedly, Lavner and Bradbury (2010) followed a sample of newlyweds over just the first several years of marriage. What remains unclear, then, is the extent to which the results from these studies might be comparable to a study that uses marital duration to follow a sample of individuals over a

much longer period. Consequently, this study employs marital duration as the time metric to explore patterns of change in marital quality over the first 30 years of marriage.

Another problem involves the use of different marital cohorts, often defined as 10-year intervals (Glenn, 1998). Because older cohorts report higher levels of marital quality (Glenn, 1990; VanLaningham et al., 2001), any longitudinal assessment of marital change may be biased if the results draw on several cohorts who married in different historical periods (Kamp Dush & Taylor, 2011; Kamp Dush et al., 2008). Further bias may ensue if the sample is limited only to continuously married respondents because of the negative relationship between marital quality and the likelihood of marital dissolution (Anderson et al., 2010). This paper draws upon data in which the respondents were ages 14-22 in 1979 and nearly 2/3 of whom (64%) married between 1978 and 1988. Thus, the majority of marriages in this paper come from a single marital cohort (and nearly all from the same birth cohort), thereby alleviating worries about bias from cohort differences.

A third potential issue involves the conceptualization of marital quality itself. Scholarly debate has often focused on marital happiness or satisfaction (D. R. Johnson, 2001), which some have suggested may be the result of the culturally hegemonic focus on self-fulfillment in romantic relationships (Amato, 2007). But because using happiness/satisfaction as the defining characteristic of a high-quality marriage, other ways of thinking about what it means to have a successful romantic relationship have received less attention. Particularly, research examining variation in longitudinal trajectories of marital quality has employed marital happiness or marital satisfaction (Anderson et al., 2010; Kamp Dush et al., 2008; Lavner & Bradbury, 2010). Thus, we know relatively little about how indicators of marital quality other than marital

satisfaction or happiness change¹. In this paper, I examine ebbs and flows in marital happiness, marital conflict, and marital communication, thereby contributing to a broader conceptualization of marital quality, in conformity with scholars that view marital quality as an umbrella term encompassing a set of conceptually distinct but empirically correlated dimensions (Amato et al., 2007).

Data and Methods

Data

To assess the relationship between dimensions of marital quality and marital duration, I employed the nationally representative, longitudinal data available in the National Longitudinal Survey of Youth-1979 (NLSY79). The original sample included 12,685 people, born between 1957 and 1964 and aged 14-22 when first interviewed in 1979, who were interviewed annually between 1979 and 1994, and biennially thereafter with the last available data wave coming from 2008. 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 below, were then repeated every two years until the latest wave, collected in 2008. Because only women's marital quality was ascertained at all available time points, I restrict my analyses to women who report at least one valid value of each dimension of marital quality, starting in 1992. Due to the potentially confounding role of higher-order

¹ See Kamp Dush and Taylor (2011) for an exception.

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 provide no measure of marital quality. All growth curve and mixture models analyses were weighted. The final analytic sample size was 2,640 women. Note as well that these limitations mean that my findings are likely only representative of women who did not marry early in the life course and who were born in the late 1950s and early 1960s. Importantly, to the extent to which findings here accord with results from other studies, these findings may be informative about general trends.

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 is survey year. Thus, I reconstructed the dataset so that each respondent's reports of marital happiness, communication, and conflict are aligned according to when the marriage began through the first 30 years of marriage². This was complicated by the fact that marital quality was not collected for the first time until 1992, a point at which many respondents were already married. For instance, someone 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. The initial measurement of person's marital quality, taken in 1992, would therefore be placed in the

² For cohabitators, their marital quality is coded from the beginning of the relationship. For instance, if a respondent began cohabiting with their spouse two years prior to marriage, the first year of reported marital quality would be considered as marital quality in year three. I only employ reports of marital, not relationship, quality in this paper.

12th year of marriage, with each subsequent measurement of marital quality falling in the 14th, 16th, 18th, 20th, 22nd, 24th, 26th, and 28th years of marriage³. 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 16 of the marriage.

Following prior research (Anderson et al., 2010), I combined observations into 2 year ‘buckets’ to deal with data sparseness. Thus, all observations covering years 0 and 1 were placed into the same bucket, years 2 and 3, 4 and 5, etc. Two-year buckets were selected to maximize the number of observations in each bucket while ensuring that no respondent had multiple 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 in 1992. Similarly, data could be structurally missing due to right censoring, meaning the respondent was still married in 2008 when the observation window closed. For example, an individual who married for the first time in 2008 would only contribute information for the first year of marriage, with missing data for the rest of the years of marriage. Third, data could be missing due to divorce. Finally, attrition created missing data as well. I used Heckman’s (1979) two-step method to correct for attrition bias. I first estimated a probit regression

³ I have information on up to 16 years of marital quality data, so respondents could contribute at most 9 observations of marital quality for the 9 time points (even years between 1992 and 2008).

equation to model the attrition of respondents from the panel, then calculated lambda--the probability of dropping out of the panel--for each case. Lambda served as an additional covariate in preliminary analyses. Adjusting for attrition bias, however, had no substantive implications for the findings, so I omit further discussion.

Variables

Marital Quality—I conceptualize marital quality as a multidimensional construct encompassing both behavioral and attitudinal elements. Although it would be ideal to have additional dimensions of marital quality, the NLSY79 does contain three constructs tapping dimensions of marital quality. The first, marital happiness, is measured by the asking the respondent the following question, “Would you say that your marriage is very happy, fairly happy, not too happy?” and is measured on a three point scale (1=*very happy* to 3=*not too happy*). Marital communication was measured by asking respondents how often (1=*almost every day* to 4=*less than once a month*) respondents laughed together or calmly discussed something with their spouse, respectively. The third dimensional of marital quality, marital conflict, is also a scale, this time assessing how often (1=*often* 4=*never*) 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. Variables used to assess communication and conflict were added together using a summative index. The alpha was .78 for conflict and .79 for communication. All three 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.

Independent Variables—The independent variables, used to predict membership in the trajectories of marital quality, were grouped into six broad categories comprising socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics. All covariates are time-invariant, meaning they were measured on a single occasion.

Variables used to measure socioeconomic status included the respondent's income, education level, and whether the respondent had ever lived in poverty. Income was measured by the mean household income a respondent reported between 1979 and 2008, measured in \$10,000 dollar increments (1=*less than \$10,000* to 12=*more than \$110,000*). Income was logged to deal with skew. The respondent's education was measured by their highest grade completed in 2008. The final variable tapping socioeconomic status was a dummy variable indicating whether the respondent ever reported a household income that fell below the federal poverty line (1=*yes*).

Four variables assessed respondent's relationship features. Dummy variables for whether the respondent cohabited prior to marriage (1=*yes*) and whether the respondent's marriage ended in divorce (1=*yes*) were included, as well as a continuous measure of respondents' marital duration prior to 1992. Additionally, respondents' gender attitudes were included as a covariate (1=*strongly disagree* 2=*disagree* 3=*agree* 4=*strongly agree*), coded in the direction of more gender egalitarian attitudes. Questions about gender attitudes included whether the respondent believed a woman's place is in the home, a wife with a family has no time for other employment, a working wife feels more useful,

traditional husband/wife roles are best, men should share housework, and women are happier in traditional gender roles. Higher scores on the gender attitudes variable indicate more egalitarian gender attitudes.

I also examined whether family background was related to the trajectories of marital quality. The family structure of the respondent's family of origin was measured with a dummy variable indicating whether the respondent lived with both biological parents at age 14 (1=*yes*).

Respondents' work history was measured by taking the average number of hours worked per year as well as a dichotomous variable indicating whether the respondent had experienced a spell of unemployment (actively seeking but unable to procure employment; 1=*yes*).

Psychological functioning was measured using two well-known and extensively tested scales, the Rosenberg Self-Esteem Scale (Rosenberg, 1979) and Rotter's Locus of Control (measured in 1979; see Rotter, 1966). A respondent's self-esteem, assessed in 1980, 1987, and 2006, was measured using the score that was closest to (and preceded) the marriage year. Additional information on these measures can be found in the works cited.

Finally, the demographic characteristics of the respondents included race\ethnicity (dummies for *African American* and *Hispanic*, respectively; non-African American, non-Hispanic was the reference category), urban residence (1=*yes*), nativity (1=*foreign-born*), the ages at which the respondent's first marriage took place and at the first interview, and the number of children ever born to the respondent, topcoded at four or more children.

Analytic Strategy

I employed semiparametric group-based mixture modeling, also known as latent growth class analysis (LCGA; see Jung & Wickrama, 2008; Nagin, 2005 for more information) to look for variation in trajectories of marital quality, the first research question. Similar to more traditional methods for longitudinal data, LCGA models the relationship between time and marital quality with a polynomial function, in this case with intercept, slope, and quadratic terms. In contrast to hierarchical and growth-curve modeling, however, this approach does not assume a single, dominant trajectory that most people follow. Instead, these group-based methods assume that the population consists of an unknown number of groups, each with a distinct trajectory (B. O. Muthén, 1999; Nagin, 2005). The goal of the analysis is to identify the number of distinct trajectory groups that best represents the patterns observed in the data. Importantly, these patterns are best viewed as reasonable approximations of respondents' experiences of marital quality (Lavner & Bradbury, 2010; Nagin, 2005).

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 separated 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 (LRT), the Vuong-Lo-Mendell-Rubin LRT and the Lo-Mendell-Rubin Adjusted LRT, both of which compare a model with K classes (e.g., 3 classes) with $K-1$ classes (e.g., 2 classes).

Throughout the selection process, emphasis was placed on the substantive interpretability of the model, in light of prior research and theory.

Parameters defining the shape of the trajectory were free to vary across groups. These parameters were then used to calculate each individual's probability of group membership, with individuals assigned to the group in which they had the highest posterior probability (i.e., likelihood of membership). Six percent of cases had a posterior probability greater than .4 in more than one trajectory of happiness. The comparable numbers are 1% and 7% for marital communication and marital conflict, respectively. Once group membership was ascertained, the models assume no variation within groups by constraining the variance parameters across groups to be zero for the intercept, slope, and quadratic terms. This is based on the assumption that heterogeneity in marital happiness, communication, and conflict was accounted for in predicting trajectories and that once an individual is assigned to a group, they are assumed to be similar on levels of happiness to others in that same group (i.e., individuals within the same group are more similar to each other than they are to individuals on the other trajectories). Importantly, although the models assume no within-group variation, a given individual's actual marital quality trajectory may vary somewhat from the overall group trajectory.

The models were estimated in Mplus (B. O. Muthén, 1999; L. K. Muthén & Muthén, 2010). Mplus uses full-information maximum likelihood techniques to deal with missing data, which uses all available observations of marital happiness, communication, and conflict to estimate the model. The procedure does not require that all respondents contribute an equal number of marital quality assessments and is particularly useful when the assessment periods are not identical across respondents (Lavner & Bradbury, 2010). I

originally fixed the intercept, slope, and quadratic terms to zero for the years 0 and 1 of the marriage (the first 'bucket'), 2 for years 2 and 3 (the second bucket), etc., with the final bucket being fixed at 30 for years 30 and 31. These models failed to converge adequately. To achieve convergence, I followed the recommendation of Muthén & Muthén (2010) and divided the time periods by 10, resulting in values of 0, .2, .4, .6, .8, 1.0...2.0...3.0. Using these new weights, the models converged and the results are reported below. The results reflect the reduced weights, although I transformed the results back to years to construct the figures.

To estimate the influence of covariates on the likelihood of group membership, I employed logistic regression, binary or multinomial depending on the number of classes, to predict class membership. I exported the results from the latent class growth analyses from Mplus to Stata. The output included a variable indicating the class to which each respondent was assigned (i.e., the highest posterior probability), along with variables indicating the respondent's probability of membership in each latent class. The logistic regressions were weighted by the probability of membership of being in the assigned class (e.g., some individuals in a given class had a probability of 1 for membership in that class, whereas others had a probability of .6 of being in that same class). Weighting in this manner incorporated uncertainty about class membership into the results from the logistic regression equations (Kamp Dush & Taylor, 2011). Because Full Information Maximum Likelihood methods were not implemented in Stata 11, multiple imputation techniques (10 datasets) were used to deal with missing data for this portion of the analysis.

Results

The mean, standard deviation, and range of all variables used in the analysis are displayed in Table 1. Across all nine waves of data, respondents reported high levels of marital happiness and communication and modest levels of conflict. The average household income was around \$43,000 and most respondents reported some college attendance. Interestingly, a slight majority of respondents reported having lived at least one year in poverty during their lifetime. Twenty-three percent and 33% of respondents experienced divorce and premarital cohabitation, respectively. Although these numbers may appear low at first glance, readers should remember that because of data limitations, marriages that ended prior to 1992 could not be included in the analyses here. Furthermore, the percent cohabitators and divorcees are further suppressed by my exclusion of higher-order marriages. Respondents had been married about 8 years prior to the first marital quality observation and espoused somewhat traditional gender attitudes. Demographically, the sample consisted primarily of non-Black, non-Hispanic women with two children.

Marital Happiness

I began by estimating a single-group model (Table 2 and Figure 1), analogous to a latent growth curve. The trajectory displayed in Figure 1 (labeled as 'LGC (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 was not strong enough to yield a noticeable change in the trajectory in Figure 1.

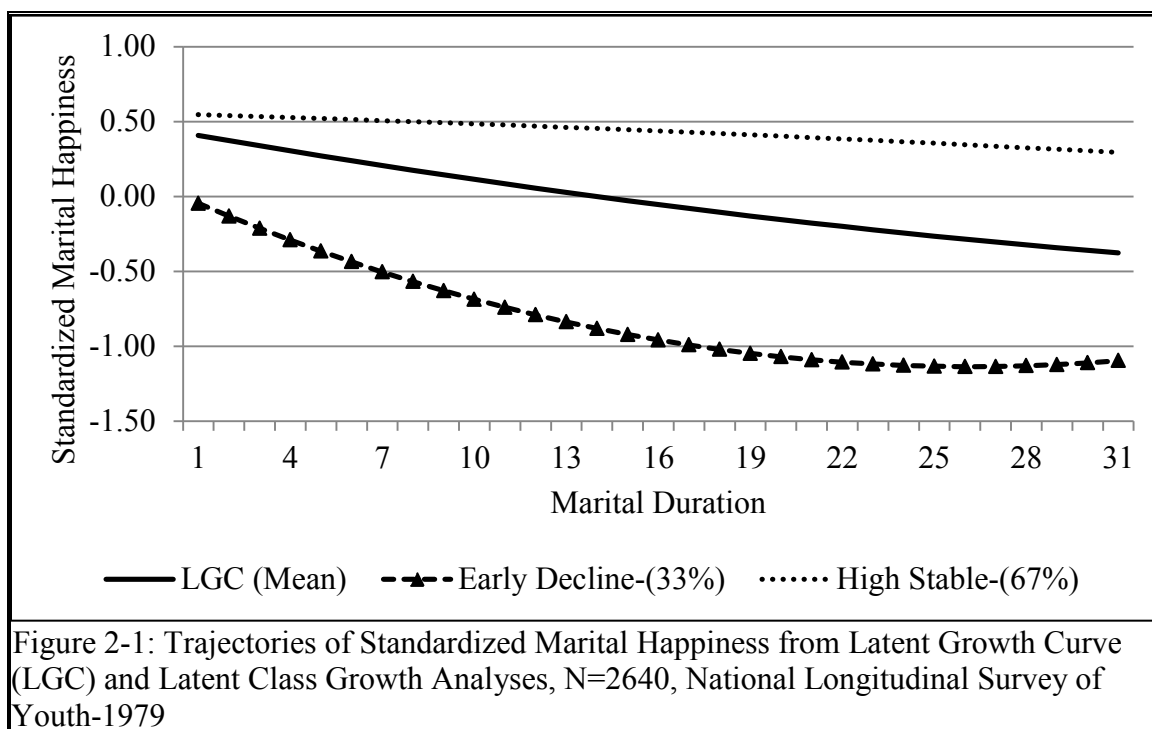
Table 2-1: Mean, Standard Deviation, and Range of all Variables Used in the Analyses			
	Mean	SD	Range
Marital Quality			
Marital Happiness	2.65	.49	1-3
Marital Communication	11.19	1.40	3-12
Marital Conflict	18.77	4.47	10-36
Socioeconomic Status			
R's average household income	49,917	53,888	2,748-1,057,448
R's Education	14.06	2.96	0-20
R experienced poverty	0.52		0-1
Relationship Features			
Marriage ended in divorce	0.22		0-1
R and Spouse lived together prior to marriage	0.33		0-1
R's prior marital duration	7.93	5.62	0-27
R's Gender attitudes	9.90	3.32	5-20
Family Background			
R lived with both parents @ 14	0.79		0-1
Work History			
Average hours R worked	1,305	608	0-2,896
R experienced 1+ spells of unemployment	.51		0-1
Psychological Functioning			
R's esteem quartile	1.70	1.23	0-3
R's locus of control	1.62	1.37	0-3
Demographic Characteristics			
R is Black	0.10		0-1
R is Hispanic	0.06		0-1
R is non-Black, non-Hispanic	0.84		0-1
R's # of children	1.98		0-4
R was born in the U.S.	.95		0-1
Age in 1979	17.62	6.89	13-49
R's age at marriage	24.63	2.82	14-22
<i>Note:</i> Estimates are weighted and based on 2,640 married women from the National Longitudinal Survey of Youth-1979 cohort. Standard deviations for dichotomous variables omitted.			

However, as mentioned previously, this trajectory may not adequately represent the marital experience of all individuals. The latent growth curve displayed in Figure 1 represents a single-group model that assumes marital happiness changes in similar ways

for everyone. To decipher the extent to which a single trajectory of marital quality adequately represents how American women in the NLSY79 experienced change in marital happiness, we turn to the results of the latent class growth analyses, which assume that the population from which the sample was drawn consists of an unknown number of trajectories of marital happiness that individuals may experience. Table 3 presents the model fit statistics used in determining how many groups (trajectories of marital quality) best fit the data. For marital happiness, substantive interpretability, theory, and the fit statistics displayed in Table 3 suggested that a two-class⁴ solution fit the data best. These results are presented numerically in the top panel of Table 4 and graphically in Figure 1.

Table 2-2: Latent Growth Curve Analysis of Three Dimensions of Standardized Marital Quality, N=2640, National Longitudinal Survey of Youth-1979			
	Marital Happiness	Marital Communication	Marital Conflict
Intercept	0.41***	0.26***	0.008
Slope	-0.36***	-0.26***	0.228***
Quadratic	0.03*	0.04*	-.115***
Model Fit Indices			
CFI	0.92	0.92	0.96
TLI	0.93	0.92	0.97
RMSEA	0.04	0.04	0.03
Note: Sample includes 2,640 women. CFI = confirmatory fit index, TLI = Tucker Lewis fit index, RMSEA = root mean square error of approximation. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed)			

⁴ In what follows, I will use the terms ‘class’, ‘group’, and ‘trajectory’ interchangeably. All three terms refer to the differing experiences of marital change.



The findings suggest that tracking mean levels of marital quality obscures important differences in the ways groups of people experience changes in marital happiness over time, evidence of heterogeneity in trajectories of marital happiness. The first of the two groups, consisting of 67% of the sample, began their marriages at comparatively high levels of marital happiness, about one-half of a standard deviation above the overall mean. Although Table 4 and Figure 1 show that the happiness reported by this group appeared to decline over time, this decline was not significant (for either the slope or the quadratic term). This group, marked by high initial levels of marital happiness and relative immutability thereafter, follows what I term the ‘High Stable’ trajectory. The experience of change in marital happiness of the High Stable group is in sharp contrast to the second group. Unlike those in the High Stable group, those in the second group (the ‘Early Decline’ group) experienced much lower initial levels of happiness. In

fact, respondents in the Early Decline group reported initial levels of marital happiness that were about one-half standard deviations below those in the High Stable group, a significantly different starting point (intercept) than the High Stable group. In addition, unlike the stability of the first group, the 33% of the sample in this second group experienced more dramatic (and statistically significant) changes in their marital happiness over time. After approximately 20 years of marriage, marital happiness for this group had declined by over a full standard deviation, a sharp drop.

	# of Classes	BIC	# of free parameters	VLMR pvalue	LMR pvalue	Entropy
Happiness	1 (LGC)	39563.44				1
	2	39647.83	23	0.00	0.00	0.83
	3	38551.76	27	0.17	0.18	0.81
	4	38071.96	31	0.66	0.66	0.77
	5	37739.74	35	0.35	0.36	0.77
Communication	1 (LGC)	37872.64				1
	2	37835.42	23	0.00	0.00	0.93
	3	36408.57	27	0.71	0.71	0.92
	4	35541.27	31	0.59	0.60	0.88
	5	34978.11	35	0.72	0.72	0.87
Conflict	1 (LGC)	36108.80				1
	2	38888.22	23	0.00	0.00	0.77
	3	37429.49	27	0.00	0.00	0.74
	4	36850.35	31	0.27	0.28	0.74
	5	36540.05	35	0.15	0.15	0.72

Note: Selected models in in bold. BIC=Bayesian Information Criterion, VLMR=Vuong-Lo-Me Rubin Likelihood Ratio test for $k-1$ (H_0) versus k classes. LMR=Lo-Mendell-Rubin Adjusted Likelihood Ratio test. Entropy assesses the extent to which cases can be unambiguously separated into a given number of groups.

However, these individuals also experienced a slight uptick in marital happiness

predicted by the Early Decline curve perspective, rebounding marginally during the next

10 years. However, they do not regain much of the ground lost since the beginning of the marriage.

Thus, Figure 1 and the top panel of Table 4 provide evidence of heterogeneity in trajectories of marital happiness 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 the extent to which heterogeneous differences in experiences of marital change can be predicted by respondents' socioeconomic status, relationship features, family background, work history, psychological functioning, and demographic characteristics. To address this question, I exported the results of the LCGA into Stata and performed a binary logistic regression predicting membership in either the High Stable Early Decline group.

Results were weighted by the probability of membership in the most likely class to account for the fact that, as noted above, some respondents had a relatively high probability of being in both groups. Table 5 contains the results of the binary logistic regression predicting membership in the High Stable group, with the Early Decline group as the reference category. Individuals with high levels of average household income were more likely to be on the High Stable trajectory, as were women with higher levels of self-esteem and stable family backgrounds. In contrast, individuals who cohabited prior to

		Early Decline (33%)	High Stable (67%)
Marital Happiness	Intercept	-0.046 ^a	0.546*** ^b
	Slope	-0.866*** ^a	-0.060 ^b

		Quadratic	0.172*** ^a	-0.008 ^b	
			High Decline (87%)	Low U-Shape (13%)	
Marital Communication	Intercept		0.361*** ^a	-0.536** ^b	
	Slope		-0.134*** ^a	-1.061*** ^b	
	Quadratic		0.032** ^a	0.233* ^b	
			High Conflict (20%)	Moderate Conflict (46%)	Low Conflict (34%)
Marital Conflict	Intercept		0.843*** ^a	0.029 ^b	-0.757*** ^c
	Slope		0.529*** ^a	0.31*** ^{a,b}	0.226** ^b
	Quadratic		-0.213*** ^a	-0.134*** ^{a,b}	-0.111*** ^b

Note: Sample includes 2,640 women. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). Superscripts denote significant between-group differences within row (based on Wald tests of parameter constraints) on the intercept, slope, and quadratic terms. Coefficients with the same superscripts are not significantly different from each other. Those with different superscripts are significantly different from each other at the $p < 0.05$ level.

marriage and whose marriages ended in divorce were more likely to experience the Early Decline trajectory, along with African Americans and women with increasing numbers of children.

Marital Communication

The procedures for the analyses regarding marital communication and marital conflict followed the same pattern as that for marital happiness. The latent growth curve for marital communication is found in Table 2 and Figure 2. Similar to marital happiness, marital communication began at relatively high levels initially, with respondents reporting marital communication levels .25 standard deviations above the overall across-

person, across-wave mean. These initially high levels of communication did not remain steady, however, as the average couple reported a relatively steep drop (indicated by a negative slope) over time, although this drop became less steep over time (indicated by a positive quadratic term), eventually bottoming out around .20 standard deviations below the mean.

The first research question asks whether the changes in marital communication displayed by the latent growth curve ('LGC (Mean)' in Figure 2) adequately represent the potentially diverse experience of changes in marital communication. Figure 2 also displays the trajectories of marital communication obtained from the Latent Class Growth analyses, whereas the middle panel of Table 4 presents the numerical results from the

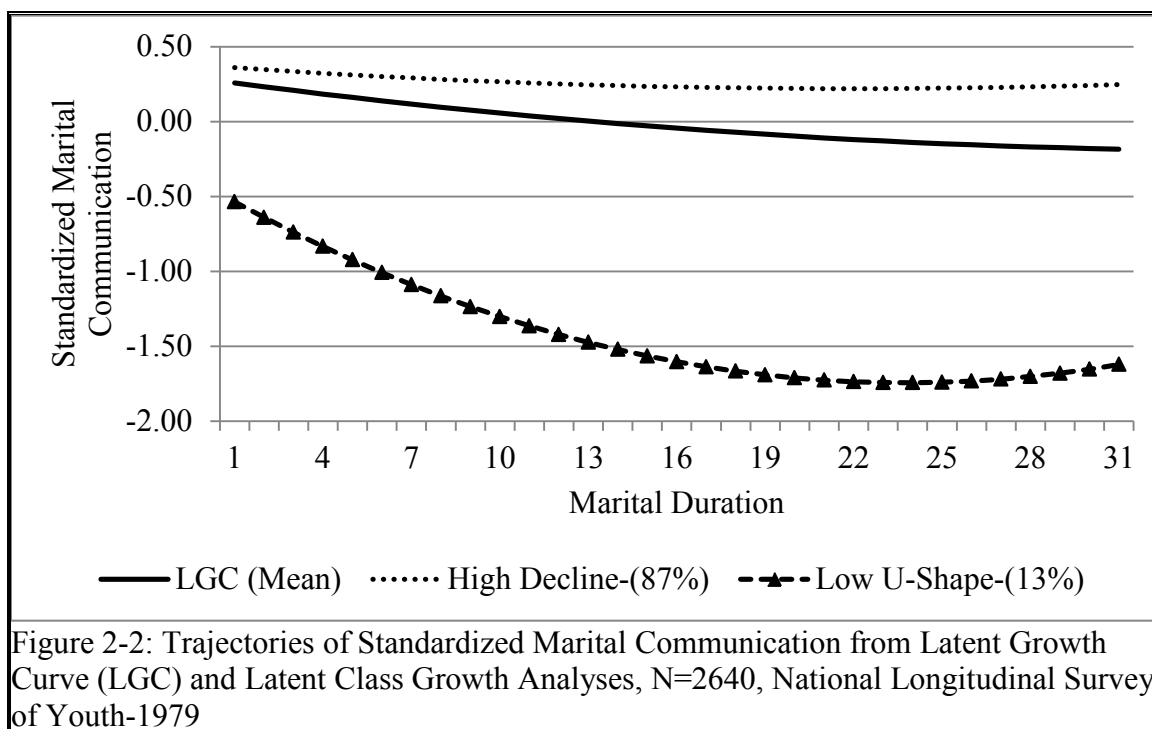
Table 2-5: Predictors of Membership in Trajectories of Standardized Marital Happiness, N=2640, National Longitudinal Survey of Youth-1979		
	High Stable (ref.=Low U-Shape)	exp(b)
Socioeconomic Status		
R's average household income (logged)	0.26** (0.09)	1.30
R's Education	-0.04+ (0.02)	0.96
R experienced poverty	-0.18+ (0.11)	0.83
Relationship Features		
Marriage ended in divorce	-1.04*** (0.11)	0.35
R and Spouse lived together before marriage	-0.22* (0.10)	0.80
R's prior marital duration	0.06*** (0.01)	1.06
R's gender attitudes	-0.01 (0.02)	0.99
Family Background		
R lived with both parents @ 14	0.22* (0.10)	1.25
Work History		

Average hours R worked (*100)	-0.02* (0.01)	0.98
R experienced 1+ spell of unemployment	-0.18+ (0.10)	0.83
Psychological Functioning		
R's esteem quartile	0.29*** (0.05)	1.34
R's locus of control	-0.00 (0.04)	1.00
Demographic Characteristics		
R is Black	-0.44*** (0.12)	0.65
R is Hispanic	-0.04 (0.12)	0.96
R's # of children	-0.10* (0.04)	0.90
R was born in the U.S.	0.30+ (0.16)	1.35
R's Age in 1979	-0.07** (0.02)	0.93
R's Age at Marriage	0.01 (0.01)	
Constant	-0.64 (1.07)	
Log Likelihood	-1,476.93	
Sample Size	2,640.00	
Nagelkerke R2	.15	
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard errors in parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$;		
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.		

same model. A two-class solution was found once again optimal (see Table 3). The two classes looked similar to those obtained for marital happiness, where one group, a High Decline group (87% of the sample), reported higher levels of communication than the Low U-Shape group (13%). The difference in the intercepts (.36 vs. -.54) indicates that those in the High Decline group experienced marital communication levels that were nearly 1 standard deviation above those in the Low U-Shape trajectory; this difference is

statistically significant. Furthermore, although both groups experienced subsequent declines in marital communication, the declines were significantly greater for those in the Low U-Shape group. However, those in the Low U-Shape group also experienced increases in marital communication during the later years of marriage, again, a significant difference. To sum, there is again evidence of heterogeneity in trajectories of marital communication. For some, 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 and a modest subsequent uptick.

Presented in Table 6 are the results for the binary logistic regression model predicting membership in the High Decline trajectory relative to membership in the Low U-Shape trajectory, weighted by the probability of membership in the most likely class. Individuals with high levels of income, self-esteem, and later ages at marriage were more likely to be in the High Decline group, whereas experiencing divorce, having greater numbers of children, and reporting African American race-ethnicity was associated with a greater likelihood of membership in the Low U-Shape trajectory.



Marital Conflict

The final dimension of marital quality examined here is marital conflict. The latent growth curve for marital conflict can be found graphically in Figure 3 and the tabular results in the final column of Table 2. Initial levels of marital conflict did not

Table 2-6: Predictors of Membership in Trajectories of Standardized Marital Communication, N=2640, National Longitudinal Survey of Youth-1979

	High Decline (ref.=Low U-Shape)	exp(b)
Socioeconomic Status		
R's average household income (logged)	0.29* (0.13)	1.34
R's Education	-0.01 (0.03)	0.99
R experienced poverty	-0.27+ (0.15)	0.76
Relationship Features		
Marriage ended in divorce	-0.94***	0.39

R and Spouse lived together prior to marriage	(0.13) -0.15	0.86
R's prior marital duration	(0.13) 0.05***	1.05
R's gender attitudes	(0.01) -0.07**	0.93
	(0.03)	
Family Background		
R lived with both parents @ 14	0.01 (0.14)	1.01
Work History		
Average hours R worked (*100)	-0.00 (0.00)	1.00
R experienced at least one spell of unemployment	-0.02 (0.13)	0.98
Psychological Functioning		
R's esteem quartile	0.26*** (0.07)	1.30
R's locus of control	-0.06 (0.05)	0.94
Demographic Characteristics		
R is Black	-0.73*** (0.15)	0.48
R is Hispanic	0.20 (0.18)	1.23
R's # of children	-0.11* (0.05)	0.89
R was born in the U.S.	0.40+ (0.21)	1.48
R's Age in 1979	-0.13*** (0.03)	0.87
R's Age at Marriage	0.02** (0.01)	1.02
Constant	1.52 (1.49)	
Log Likelihood	-966.79	
Sample Size	2,640.00	
Nagelkerke R2	.14	
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard error parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.		

differ appreciably from the overall mean level of conflict, although women did report increasing marital conflict over time, followed by a decline after the first decade of marriage.

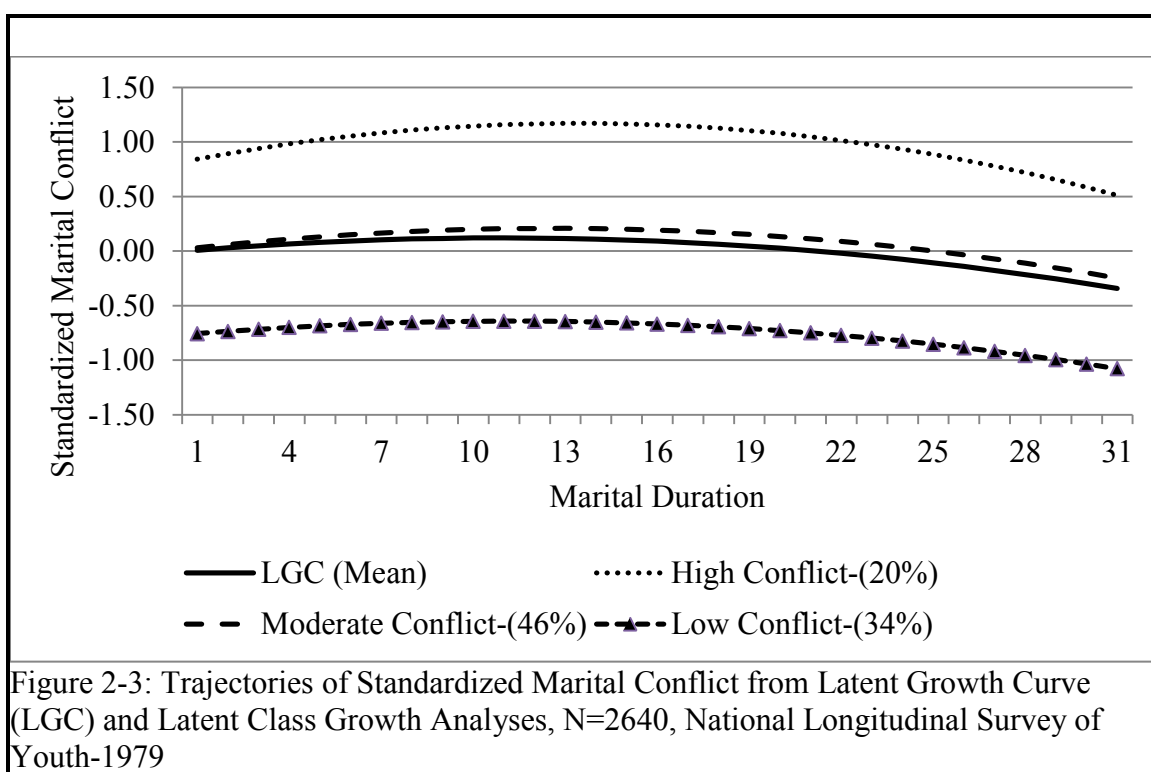
Results from the LCGA again provide evidence against the view that most individuals experience marital conflict similarly across the life course and suggest that the heterogeneity in marital conflict change is substantial. These results are displayed in the bottom panel of Table 4 and Figure 3. A three class solution was optimal (see Table 3) for marital conflict, resulting in trajectories of marital conflict characterized by high, moderate, and low levels of conflict.

The most striking differences appear to lie in initial levels of marital conflict. Women in the High Conflict group began their marriages nearly 1 standard deviation above those in the Moderate Conflict group, and more than 1.5 standard deviations above those in the Low Conflict group. All three trajectories of marital conflict produced hill-shaped plots, suggesting increases in conflict in the first few years of marriage, followed by declines thereafter.

In terms of between-group differences, the results also revealed that the groups all differed significantly from one another in initial levels of conflict. In addition, the High Conflict group reported a greater increase (slope) in conflict and a more precipitous fall thereafter (quadratic term) than the Low Conflict group. The analogous coefficients for the Moderate Conflict group were not significantly different from either the High or Low Conflict group.

The next question at this point deals with what predicts membership in each of these trajectories.

That is, what predicts membership on the high conflict trajectory relative to membership in the low conflict trajectory? The results of the multinomial logistic regression, weighted by probability of membership the most likely class, can be found in Table 7. Unlike the results for happiness and communication, the results for marital conflict provide no evidence that household income or race predicts trajectory membership. Individuals of all levels of income and all racial- ethnic statuses



appear to be proportionally represented on all trajectories of marital conflict. Consistent with the results for the other dimensions of marital quality, however, individuals who did not cohabit prior to marriage, did not experience divorce, and who had fewer children were more likely to be on trajectories characterized by lower levels conflict, along with women with higher levels of self-esteem.

At this point, one may wonder if the results displayed above are being driven by selective attrition out of divorce. That is, could the results suggesting support for the U-shape curve, for example, seen for all three outcomes in the latent class growth analyses⁵, be biased because women with the 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 levels in the sample. To examine this possibility, I re-estimated the models, restricting the sample to those individuals who remained continuously married throughout the survey. The results, (available upon request) yielded substantively similar results to those shown above, suggesting that the increase in marital happiness and communication and the decrease in

Covariates	High Conflict (ref.) vs.				Low Conflict (ref.) vs.	
	Moderate Conflict	exp(b)	Low Conflict	exp(b)	Moderate Conflict	exp(b)
Socioeconomic Status						
R's Average Household Income (log)	0.00	1.00	0.15	1.16	-0.14	0.87
	(0.11)		(0.12)		(0.10)	
R's Education	0.06*	1.06	0.04	1.04	0.02	1.02
	(0.03)		(0.03)		(0.02)	
R experienced poverty	0.12	1.13	0.10	1.11	0.02	1.02
	(0.13)		(0.14)		(0.11)	
Relationship Features						
R's Marriage Ended in Divorce	-0.42**	0.66	-0.74***	0.48	0.32**	1.38
	(0.13)		(0.15)		(0.12)	
R and Spouse lived together prior to marriage	-0.23*	0.79	-0.57***	0.57	0.34**	1.40
	(0.11)		(0.13)		(0.11)	
R's prior marital duration	-0.02	0.98	0.02	1.02	-0.04*	0.96

⁵ The u-shape curve for conflict is an inverted u-shape.

R's gender attitudes	(0.02) -0.01 (0.02)	0.99	(0.02) -0.01 (0.02)	0.99	(0.02) -0.00 (0.02)	1.00
Family Background						
R Lived w/ Both Parents @14	0.19 (0.12)	1.20	0.13 (0.14)	1.14	0.06 (0.11)	1.06
Work History						
Average hours R worked (*100)	0.00 (0.00)	1.00	-0.00 (0.00)	1.00	0.00+ (0.00)	1.00
R Experienced Unemployment	-0.30* (0.12)	0.74	-0.24+ (0.13)	0.79	-0.06 (0.10)	0.94
Psychological Functioning						
R's Esteem Quartile	0.16** (0.06)	1.18	0.39*** (0.07)	1.47	-0.22*** (0.05)	0.80
R's Locus of Control	-0.13** (0.05)	0.88	-0.15** (0.05)	0.86	0.02 (0.04)	1.02
Demographic Characteristics						
R is Black	-0.23 (0.15)	0.80	-0.29+ (0.16)	0.75	0.07 (0.13)	1.07
R is Hispanic	-0.19 (0.15)	0.83	-0.22 (0.16)	0.80	0.03 (0.13)	1.03
R's # of Children	- 0.17*** (0.05)	0.84	-0.42*** (0.06)	0.66	0.24*** (0.05)	1.28
R was born in the U.S.	-0.36 (0.22)	0.70	-0.58* (0.24)	0.56	0.22 (0.19)	1.25
R's Age in 1979	0.01 (0.03)	1.01	-0.05 (0.03)	0.95	0.06* (0.03)	1.06
R's Age at Marriage	-0.01 (0.01)	0.99	0.03* (0.02)	1.03	-0.05*** (0.01)	0.95
Constant	1.35 (1.37)	1.00	0.13 (1.48)		1.23 (1.22)	
Log Likelihood	-2,310.45					
Sample Size	2,638					
Nagelkerke R2	0.11					
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard errors in parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$;						
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.						

marital conflict cannot be entirely due to selective attrition out of the married population via divorce.

Discussion

This paper, based on data from the national longitudinal study of youth, 1979 cohort, highlighted how marital quality changes with marital duration and provided new insights into contemporary patterns of both healthy and unhealthy marriages. Prior research has attempted to decipher whether the U-shaped curve or continual decline perspective represents the 'true' way that marital quality covaries with marital duration. The results suggested we need both perspectives in order to understand contemporary patterns of marital change. The presence of groups that followed the patterns predicted by both perspectives leads to the conclusion that the complex ways marital quality changes with time is likely deserving of far more research.

The results also suggested the importance of emphasizing variation in trajectories of marital quality by showing that not all married respondents experienced marital change similarly. For example, the results suggested the presence of two trajectories for marital happiness, a High Stable group and a Low U-Shape group. The results for marital communication reinforced this conclusion, with communication showing two groups (High Decline and Low U-Shape) and conflict three (High, Moderate, and Low conflict).

These results provide some insights into how commonly studied correlates of marital quality are related to membership in each trajectory. Several correlates consistently differentiated between respondents' experiences of marital happiness, communication, and conflict. In line with prior research (Amato et al., 2007; Bradbury, Fincham, & Beach, 2000), income, premarital cohabitation, and Black race-ethnicity

were associated with marital quality. As income increased, so did the probability of membership in high happiness and communication trajectories. Similarly, those who chose to forgo premarital cohabitation were disproportionately represented in groups that experienced lower levels of marital conflict and high happiness. African Americans were also more likely to be on marital trajectories characterized by lower (and more rapidly declining) communication and higher conflict. Notably, three correlates of marital quality were associated with all three dimensions of marital quality studied here—whether the marriage ended in divorce, the respondent's self-esteem, and the number of children the respondent had. As with previous studies (Amato & Rogers, 1997, 1999; Anderson et al., 2010), I found that individuals whose first marriages eventually ended in divorce were more likely to be on trajectories characterized by lower marital happiness, less communication, and more conflict, as were individuals with lower self-esteem and greater numbers of children.

The current 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 stable over the life course as a result of stable characteristics that may result in varying initial levels of marital quality, the results showed that 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. Nevertheless, consistent with a marital life course model, which suggests that marital quality is dynamic, the results also showed that couples experienced substantial changes in marital quality over time. Changes, sometimes even rapid changes, were observed in the three

dimensions of marital quality over the life course, suggesting the importance of focusing attention to broad trends that move beyond individual developmental processes, as well as the salience of conceptualizing marital quality as a multidimensional construct of empirically correlated but conceptually distinct indicators, in line with the life events/accommodation and vulnerability-stress-adaptation model.

As with any study, this one suffers from several limitations. First, because the NLSY79 asked questions regarding marital quality only to women, the extent to which the findings are generalizable to men is unknown. However, it is important to note that despite evidence that women tend to report lower *levels* of marital quality than men (Skinner, Bahr, Crane, & Call, 2002), evidence of differences in how marital quality *changes* over time is much weaker. Amato, Booth, Johnson, and Rogers (2007) found that women tend to report lower levels of marital happiness but that changes in marital quality were similar for men and women, suggesting that patterns of change in marriage may not be gendered to the same extent as the overall level of marital quality. Additionally, the fact that women tend to report lower levels of marital quality may render the estimates presented conservative, since marital quality would almost certainly be higher if men were included in the sample. A second limitation deals with the absence of early marriages from the sample because young marriages occurred in the early years of the NLSY79, before marital quality data were available. Because we know that marriages contracted at early ages tend to be less stable (Glenn, Uecker, & Love, 2010), their absence from this sample likely serves to bias the estimates upward. I also have limited dimensions of marital quality, and future work should examine whether the

patterns I observe here for happiness, communication, and conflict are similar to patterns observed for other dimensions of marital quality.

Despite these limitations, these results have important implications in several practical arenas. First, the emphasis on variation in trajectories of marital quality can help inform research aimed at better understanding certain subpopulations, because not all individuals follow the same path of marital happiness, marital communication, or conflict. An understanding of the heterogeneity in these trajectories may facilitate more targeted interventions such as relationship education and couple therapy by demonstrating the variation in marital quality, rather than the traditional dichotomy of distressed vs. well-adjusted marriages pervasive in therapeutic settings

These findings shed light on the policy arena as well. Recent efforts by the federal government to boost marriage and strengthen families, particularly low-income families with children, have shown some promise, but more can be done if we wish to reap the benefits of happy and healthy marriages as a society. For example, monolithic approaches, programs, or policies to improving existing marriages or encouraging new ones may be ineffective, not because they don't work but because they are based on the assumption that most individuals experience similar trajectories of marital quality, which does not appear to be the case. Thus, a more nuanced approach, one characterized by a willingness to explore the conditions under which theories are most likely to be of the greatest predictive statistical power, substantive interest, or policymaking relevance, is needed.

Chapter 3

Longitudinal Patterns of Marital Quality: The Case of Divorce, Cohabitation, and Race-Ethnicity

Societal shifts in nonmarital childbearing, divorce, and cohabitation over the last half of the 20th century coupled with dramatic increases in single motherhood and women's labor force participation have reshaped the face of the American family and the place of marriage within it (Casper & Bianchi, 2000; Coontz, 2005). In particular, these changes have highlighted the increasing family diversity, leading many to question the previously favored role of marriage in shaping American society (Cherlin, 2004). While scholars have explored family diversity in many settings, an often-unacknowledged assumption regarding family diversity is that marriage is a homogenous (and perhaps homogenizing) institution against which all other family forms can be meaningfully compared. However, it is possible that there is diversity *within* marriage itself, resulting in a wide range of marital experiences. In this paper, I focus on one understudied part of the diversity of family experiences—differing trajectories of marital change based on divorce status, premarital cohabitation experience, and race-ethnicity.

A significant amount of research to date has attempted to answer questions regarding how marital quality changes as a marriage matures. Indeed, the ebbs and flows of marital happiness, marital communication, and marital conflict have been the subject of much conversation in the scholarly literature, with marital happiness occupying a particularly prominent position. These research efforts have resulted in a vast literature examining marital change (Karney & Bradbury, 1995), and some of this research has

attempted to elucidate differences in marital experiences depending on whether the couple cohabited prior to marriage (Brown, 2003; Brown & Booth, 1996), whether the marriage ended in divorce (Caughlin & Huston, 2006; Gottman, 1994; Huston, Niehuis, et al., 2001), or by race-ethnicity (Bryant et al., 2010). In general, the literature has suggested that cohabitators, individuals headed for divorce, and racial minorities report lower marital quality than non-cohabitators, continuously married individuals, and Whites. Most of this research, has, however, examined the overall *level* of marital quality, rather than differences in the way marriages *change* over time for these groups. In this paper, I begin to fill this gap in the literature by using growth curve analysis to examine trajectories of marital happiness, communication, and conflict, respectively and compare these trajectories by divorce status, premarital cohabitation experience, and race-ethnicity using multigroup latent growth curve models. The analyses employ data from the National Longitudinal Survey of Youth-1979 cohort.

Variation in Marital Quality by Cohabitation, Divorce, and Race-ethnicity

Despite the considerable research done on marital quality, we know relatively little about differences in the way marital quality changes across time for different groups of people, such as cohabitators, divorcés, and racial and ethnic minorities (Amato et al., 2007).

Previous research on marital quality differences between cohabitators and non-cohabitators generally supports the proposition that, on average, cohabitators tend to report poorer marital quality and experience greater marital instability than those who move directly into marriage (Jose, O'Leary, & Moyer, 2010), both because of selection into and the experience of cohabitation. Those who cohabit tend to be less religious (Glezer, 1997;

Stanley, Whitton, & Markman, 2004; Thornton, Axinn, & Hill, 1992), advocate greater gender equality (Le Bourdais & Lapierre-Adamcyk, 2004), report lower levels of education (Bumpass & Lu, 2000; McGinnis, 2003) and are more apt to have experienced a parental divorce (Glezer, 1997; Kamp Dush, Cohan, & Amato, 2003). Because cohabiting relationships tend to be relatively short-lived, individuals with experience in cohabiting unions may be more likely to view romantic relationships as temporary. Awareness of relationship impermanency may reduce investment in a relationship, potentially resulting in a poorer quality marriage as well as a lower threshold for leaving it (Brown & Booth, 1996; Qian, Lichter, & Mellot, 2005). These differences may stem largely from the lack of institutionalization regarding cohabitation (Nock, 1995). In spite of cohabitation's widespread diffusion, it is not yet governed by strong consensual social norms and formal laws. Consequently, cohabiting couples may not benefit from the same level of social support that married couples do. Relationship 'inertia' may lead some couples to make relationship transitions by "sliding into" cohabitation, rather than making an explicit decision to cohabit (Stanley, Rhoades, & Markman, 2006), resulting in sub-optimal matches, perhaps due in part to relationship-specific capital (children, possessions, pets, etc.) accumulated during cohabitation. Recent research by Kamp-Dush, Cohan, and Amato (2003) found that even when accounting for mechanisms through which individuals select into cohabitation and comparing across two U.S. marriage cohorts, cohabitators continued to report poorer marital quality and increased marital instability.

Importantly, this large body of literature examines the influence of premarital cohabitation on subsequent marital quality and stability (Seltzer, 2000), but most of this

research examines differences in levels of marital quality at a given time point between those who did and did not cohabit (Smock, 2000). This ‘snapshot’ approach of comparing marital quality between cohabitators and non-cohabitators, while yielding valuable information on differences in the average level of marital quality between cohabitators and non-cohabitators, is less than ideal from a life course perspective because it tells us little about how cohabitators differ from non-cohabitators in their overall level of marital quality or if marriages preceded by cohabitation decline more rapidly than relationships that did not. Tach and Halpern-Meekin’s (2009) study is informative on this point. Although cohabitators reported lower levels of marital quality throughout the marriage, they found that cohabitators experienced similar declines in marital quality over time for cohabitators and non-cohabitators. These results suggest the importance of examining trajectories of marital quality for cohabitators and non-cohabitators, given the disparity between initial differences in marital quality and changes in the relationship over time.

Like cohabitation, some work has examined how marriages that remain intact differ from marriages that end in divorce (Huston, Caughlin, et al., 2001; L. A. Kurdek, 2005). Prior research has indicated that individuals whose marriages result in divorce often have lower marital quality compared to individuals in stable marriages (Gottman, 1994). Divorcing couples displayed more negative communication and emotion as newlyweds as well (Lavner & Bradbury, 2011). Compared to stably married couples, couples who divorced reported lower initial levels of marital quality (Huston, Niehuis, et al., 2001; Karney & Bradbury, 1995). In addition, these couples often experienced more rapid declines in the quality of their marriage (Lavner & Bradbury, 2010) because shifts in affective dimensions over the first two years of the marital relationship were frequently

more dramatic for couples who divorced than those who remained married; the same is true of individuals who experienced increases in relational ambivalence (Huston, Niehuis, et al., 2001). As a result of these and other experiences, positive affect is often replaced by negative and perhaps neutral affect (Kayser & Rao, 2006) as divorcing partners begin to ‘uncouple’ (Vaughan, 1986).

Thus, prior research has established that couples who divorce tend to begin their marriages at lower levels than their continuously married counterparts do, but that divorcing relationships also change in dramatic ways. However, many of these studies suffer from the same limitations described above. Namely, many studies comparing marital quality levels between divorced and continuously married individuals use small, often unrepresentative samples often consisting of White, middle-class individuals. The extent to which these results generalize to the broader American population remains unknown. Thus, this paper builds on prior research by employing data from the National Longitudinal Study of Youth-1979 to examine trajectories of marital happiness, communication, and conflict.

The final social dimension for potential variation in marital quality experiences is that of race-ethnicity. Although researchers have been aware of race-ethnic differences in marital stability for some time (Raley & Bumpass, 2003), racial differences in marital quality have received less attention (Bryant et al., 2010). When researchers have examined differences in race, they have tended to focus primarily on Black-White differences, with only sparse mention of other ethnic groups, such as Hispanics.

On average, Blacks tend to report the lowest levels of marital quality and have the highest risk of divorce (Broman, 2005), although a recent study found that the

comparatively high risk of divorce among Blacks can be explained by their lower marital quality (Bulanda & Brown, 2007). Despite widespread economic hardships, Mexican Americans, by far the largest Hispanic subgroup, have similar levels of marital quality to Whites but better communication (Bulanda & Brown, 2007). This suggests that aspects of culture, such as collectivism and familism, may mitigate the effect of economic hardship on marital quality among Mexican Americans (Oropesa, 1996). In contrast, economic factors may figure more prominently in the quality of Black marriages. Declining economic prospects among many Black men, low returns to education, and disproportionately high rates of incarceration have all contributed to both the ‘retreat from marriage’ and marital instability among African Americans (Oppenheimer, 1988; Western & Wildeman, 2009; Wilson, 1987). Research has shown that black women especially emphasize the economic prospects of potential partners (Edin & Kefalas, 2005) and black men are more likely to hold jobs requiring shift work, which has been linked to poor marital quality (Clark-Nicolas & Gray-Little, 1991). Similarly, some scholars have argued that the lower marital quality in African American marriages is a combination of the lingering effects of slavery, class and culture effects, and marriage market influences (Amato, 2011).

To sum, previous work has often examined differences in the level of marital quality at a given time point, which is less than ideal from a life course perspective. A life course perspective emphasizes the importance of examining intra- and inter-individual change in marital quality (Amato et al., 2007). I take a life course perspective in this paper by examining trajectories of marital quality for cohabitators versus those who marry directly and divorcing versus stably married couples. I also examine trajectories of

marital quality for Black, Hispanic, and White individuals. Doing so makes it possible to examine *changes* in marital quality over time instead of measuring differences in *levels* of reported marital quality at one or two points in time, as previous research has often done. Doing this builds on and advances research by capturing more accurately the heterogeneity in the ways individuals experience marital quality over the life course.

Limitations of Prior Work on Longitudinal Trends in Marital Quality

Shortcomings in extant literature make it difficult to draw firm inferences regarding the relationship between marital duration and marital quality. These issues largely fall into two broad categories—study design and sampling concerns, and measurement.

First, many study designs make it difficult to assess the relationship between marital duration and marital quality. Many studies on the topic have employed either cross-sectional designs or use two waves of data to examine how transitions such as childbearing and employment impact marital quality (Bradbury, 1998). Such designs provide only limited information about how marital quality changes as a marriage matures because cross-sectional studies necessarily confound cohort and period effects and two-wave studies are unable to detect non-linear patterns of marital quality. Further, cross-sectional studies have no way of dealing with the selective attrition of poor-quality relationships out of the population of marriages, meaning that cross-sectional studies are likely biased toward selecting high-quality marriages into their samples because such marriages are at risk of inclusion for a greater period of time.

The second issue involves sampling. The samples of many previous studies consist largely of White, middle-class individuals from specific geographic regions (see,

for example, L. Kurdek, 1999; Leonard & Roberts, 1998). Furthermore, although family psychologists have produced many high-quality empirical and theoretical studies of the earlier, honeymoon, periods of marriage (Noller & Feeney, 1998; Veroff, Douvan, Orbuch, & Acitelli, 1998) and others have focused on the later stages of life (Carr et al., 2000; Umberson & Williams, 2005), we know considerably less about the middle stages of the marital life course. In particular, only a few studies have followed married couples for more than 10 years (Hill & Peplau, 1998; Huston, Niehuis, et al., 2001; Lindahl, Clements, & Markman, 1998). Given differences in the population of married individuals in the United States, such as heterogeneity across cohabitation history, age, marital duration, race, education, and geographic region, studies using data collected from a nationally representative sample of married individuals, such as this one, are desirable to shed light on the extent to which patterns and trends observed in varying geographic areas and within certain sub-groups are generalizable to the broader American population.

Data and Method

Data

To assess the relationship between dimensions of marital quality and marital duration, I employed the nationally representative, longitudinal data available in the National Longitudinal Survey of Youth-1979 (NLSY79). The original sample included 12,685 people, born between 1957 and 1964 and aged 14-22 when first interviewed in 1979, who were interviewed annually between 1979 and 1994, and biennially thereafter with the last available data wave coming from 2008. 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 below, were then repeated every two years until the latest wave, collected in 2008. Because only women's marital quality was ascertained at all available time points, I restrict my analyses to women who report at least one valid value of each dimension of marital quality (see below), starting in 1992. Due to the potentially confounding role of higher-order marriages, I will simplify my analyses by further restricting the sample to women in first marriages. Women who married and divorced prior to 1992 are also excluded because they provide no measure of marital quality. All growth curve and mixture models analyses are weighted. The final analytic sample size was 2,640 women. Note as well that these limitations mean that my findings are likely only representative of women who did not marry early in the life course and who were born in the late 1950s and early 1960s. To the extent that findings here accord with results from other studies, these findings may be informative about general trends.

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 is survey year. Thus, I reconstructed the dataset so that each respondent's reports of marital happiness, communication, and conflict are aligned

according to when the marriage began through the first 30 years of marriage¹. This was complicated by the fact that marital quality was not collected for the first time until 1992, a point at which many respondents were already married. For instance, someone 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. The initial measurement of 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, and 28th years of marriage². 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 16 of the marriage.

Following prior research (Anderson et al., 2010), I combined observations into 2 year 'buckets' to deal with data sparseness. Thus, all observations covering years 0 and 1 were placed into the same bucket, years 2 and 3, 4 and 5, etc. Two-year buckets were selected to maximize the number of observations in each bucket while ensuring that no respondent had multiple marital quality observations in the same bucket.

¹ For cohabitators, marital quality is coded from the beginning of the relationship. For instance, if a respondent began cohabiting with their spouse two years prior to marriage, the first year of reported marital quality would be considered as marital quality in year three. I only employ reports of marital, not relationship, quality in this paper.

² I have information on up to 16 years of marital quality data, so respondents could contribute at most 9 observations of marital quality (even years between 1992 and 2008).

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 in 1992. Similarly, data could be structurally missing due to right censoring, meaning the respondent was still married in 2008 when the observation window closed. For example, an individual who married for the first time in 2008 would only contribute information for the first year of marriage, with missing data for the rest of the years of marriage. Third, data could be missing due to divorce. Finally, attrition created missing data as well.

Variables

Marital Quality—I conceptualize marital quality as a multidimensional construct encompassing both behavioral and attitudinal elements. Although it would be ideal to have additional dimensions of marital quality, the NLSY79 does contain three constructs tapping dimensions of marital quality. The first, marital happiness, is measured by the asking the respondent the following question, “Would you say that your marriage is very happy, fairly happy, not too happy?” and is measured on a three point scale (1=*very happy* to 3=*not too happy*). Marital Happiness ranged from 1 to 3. Marital communication was measured by asking respondents how often (1=*almost every day* to 4=*less than once a month*) respondents laughed together or calmly discussed something with their spouse, respectively and ranged from 3 to 12. The third dimension of marital quality, marital conflict, is also a scale, this time assessing how often (1=*often* 4=*never*) 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. Responses ranged from 10-36 on the final scale. Variables used to assess communication and conflict, respectively, were added together using a summative index. The alpha was .78 for conflict and .79 for communication. All three 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.

Respondents' marital histories were used to determine if the first marriage ended in divorce, which occurred for 22% of the sample. Respondents were also asked whether they cohabited with their spouse prior to marriage, with about 33% reporting they did so. Race-ethnicity was reported by the respondent. Ten percent of the sample reported Black race-ethnicity, 6% Hispanic, and 84% reported non-Black, non-Hispanic. Although the variable is termed 'non-Black, non-Hispanic', this category consists overwhelmingly of non-Hispanic Whites³, so I will refer to this category as White in the remainder of the paper.

Analytic Strategy

I used latent growth curve analysis to assess trajectories of marital happiness, communication, and conflict for cohabitators and non-cohabitators, divorced and continuously married respondents, and by race-ethnicity (Duncan, Duncan, Strycker, Li, & Alpert, 1999; Preacher, Wichman, MacCallum, & Briggs, 2008). Three random effects were estimated: an intercept, a linear slope, and a quadratic term. All models were estimated in *Mplus* with maximum likelihood estimation (L. K. Muthén & Muthén,

³ According to the 1980 Census, only 2.5% of the non-Black, non-Hispanic population was not White.

2010). Mplus uses full-information maximum likelihood techniques to deal with missing data, which uses all available observations of marital happiness, communication, and conflict to estimate the model. The procedure does not require that all respondents contribute an equal number of marital quality assessments and is particularly useful when the assessment periods are not identical across respondents (Lavner & Bradbury, 2010). I originally fixed the intercept, slope, and quadratic terms to zero for the years 0 and 1 of the marriage (the first 'bucket'), 2 for years 2 and 3 (the second bucket), etc., with the final bucket fixed at 30 for years 30 and 31. These models failed to converge. To achieve convergence, I followed the recommendation of Muthén & Muthén (2010) and divided the time periods by 10, resulting in values of 0, .2, .4, .6, .8, 1.0...2.0...3.0. Using these new weights, the models converged and the results are reported below. The results reflect the reduced weights, although I transformed the results back to years to construct the figures. I used Heckman's (1979) two-step method to correct for attrition bias. I first estimated a probit regression equation to model the attrition of respondents from the panel, then calculated lambda--the probability of dropping out of the panel--for each case. Lambda served as an additional covariate in preliminary analyses. Adjusting for attrition bias, however, had no substantive implications for the findings, so I omit further discussion.

Results

Table 1 presents the weighted means and standard deviations for the three dimensions of marital quality by divorce status, premarital cohabitation experience, and race-ethnicity. Individuals whose marriages ended in divorce reported, on average, less happiness, poorer communication, and more conflict than individuals who remained

continually married throughout the observation period did. Similarly, women who reported cohabiting with their husbands prior to marriage reported, on average, slightly less marital happiness and poorer communication and more conflict, although mean differences between cohabitators and non-cohabitators are smaller than between divorced and continuously married individuals.

Marital Quality	Grand Marital Happiness		Grand Marital Communication		Grand Marital Conflict	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Divorced	2.41	0.65	10.65	2.06	20.32	5.18
Continuously Married	2.72	0.41	11.35	1.10	18.30	4.09
Cohabited	2.61	0.52	11.16	1.51	19.07	4.55
Married Directly	2.67	0.48	11.21	1.34	18.62	4.43
Black	2.49	0.53	10.64	1.97	19.52	4.94
Hispanic	2.61	0.45	11.09	1.29	19.54	4.51
White	2.67	0.43	11.27	1.18	18.62	3.87

Note: Estimates are weighted and based on 2,640 married women from the National Longitudinal Survey of Youth-1979 cohort.

The results for race-ethnicity are perhaps the most interesting. Little work has examined Hispanic patterns of marital quality relative to Blacks and Whites. Hispanics experience similar levels of economic disadvantage as Blacks but prior work has suggested that Hispanics exhibit family patterns more similar to Whites than Blacks (Bulanda & Brown, 2007; Oropesa, 1996). A cursory examination of the means displayed here support this assertion. Blacks report notably lower levels of happiness and communication than either Whites or Hispanics, while differences in the mean level of happiness and communication between Hispanics and Whites appear minimal. In contrast, mean levels of conflict for Blacks and Hispanics appear similarly higher when compared to non-Hispanic Whites.

Table 3-2: Latent Growth Curve Analysis of Three Dimensions of Standardized Marital Quality, N=2640, National Longitudinal Survey of Youth-1979			
	Marital Happiness	Marital Communication	Marital Conflict
Intercept	0.41***	0.26***	0.008
Slope	-0.36***	-0.26***	0.23***
Quadratic	0.03*	0.04*	-.12***
Model Fit Indices			
CFI	0.92	0.92	0.96
TLI	0.93	0.92	0.97
RMSEA	0.04	0.04	0.03
Note: Sample includes 2,640 women. CFI = confirmatory fit index, TLI = Tucker Lewis fit index, RMSEA = root mean square error of approximation. * p < .05, ** p < .01, *** p < .001 (two-tailed)			

To test the extent to which these differences in average level of marital happiness, communication, and conflict hold up to empirical scrutiny, I estimated multigroup latent growth curve models. Initially, I estimated single-group latent growth curve models to assess overall trends in marital change over time prior to examining potential trends by divorce status, cohabitation experience, and race-ethnicity. The numerical results are displayed in Table 2. With respect to marital happiness, the intercept (0.41) was positive and significant, which indicates that the mean level of marital happiness was .4 standard deviations above average at the beginning of the marriage. The linear slope (-.36) was negative and significant, which indicates a tendency for marital happiness to decline after the early years of marriage. The positive and significant quadratic term (0.03) indicates a slight flattening of the downward trend in happiness later in marriage. The trajectory of marital happiness (and other dimensions of marital quality) is shown in Figure 1. The figure reveals that happiness decreased nearly linearly for the first decade of marriage, falling nearly one-half of a standard deviation and then declining at a slightly less sharp rate through the remainder of the marriage.

The model for communication suggested that the initial level of communication in the marriage was above average (0.26) but declined (slope=-0.26) after the early years of marriage. The positive and significant quadratic term (0.04) indicates a slight flattening of the downward trend in communication in later marriage, similar to the pattern observed for marital happiness. The middle panel of Figure 1 shows the trajectory for marital communication. High initial levels of communication were followed by a sharp decline in communication through the first decade of marriage. These declines flattened out during the later years of marriage.

The intercept for marital conflict was not significant, which indicates that the mean for initial levels of conflict was close to the grand mean. A positive linear trend (0.23) and negative quadratic trend (-0.12) emerged. The bottom panel of Figure 3 shows a modest increase in conflict during the first decade of marriage, followed by a steep decline in subsequent years, resulting in a hill-shaped curve for marital conflict. The bottom panel in Table 2 shows three fit indices: the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). Acceptable values for the CFI and the TLI are .90 and above, and acceptable values for the RMSEA are .08 or less (Kline, 2011). By these criteria, the growth curve models for all five outcomes fit the data well. The same measures of model fit are shown for all the multigroup models below as well. With the exception of marital happiness and

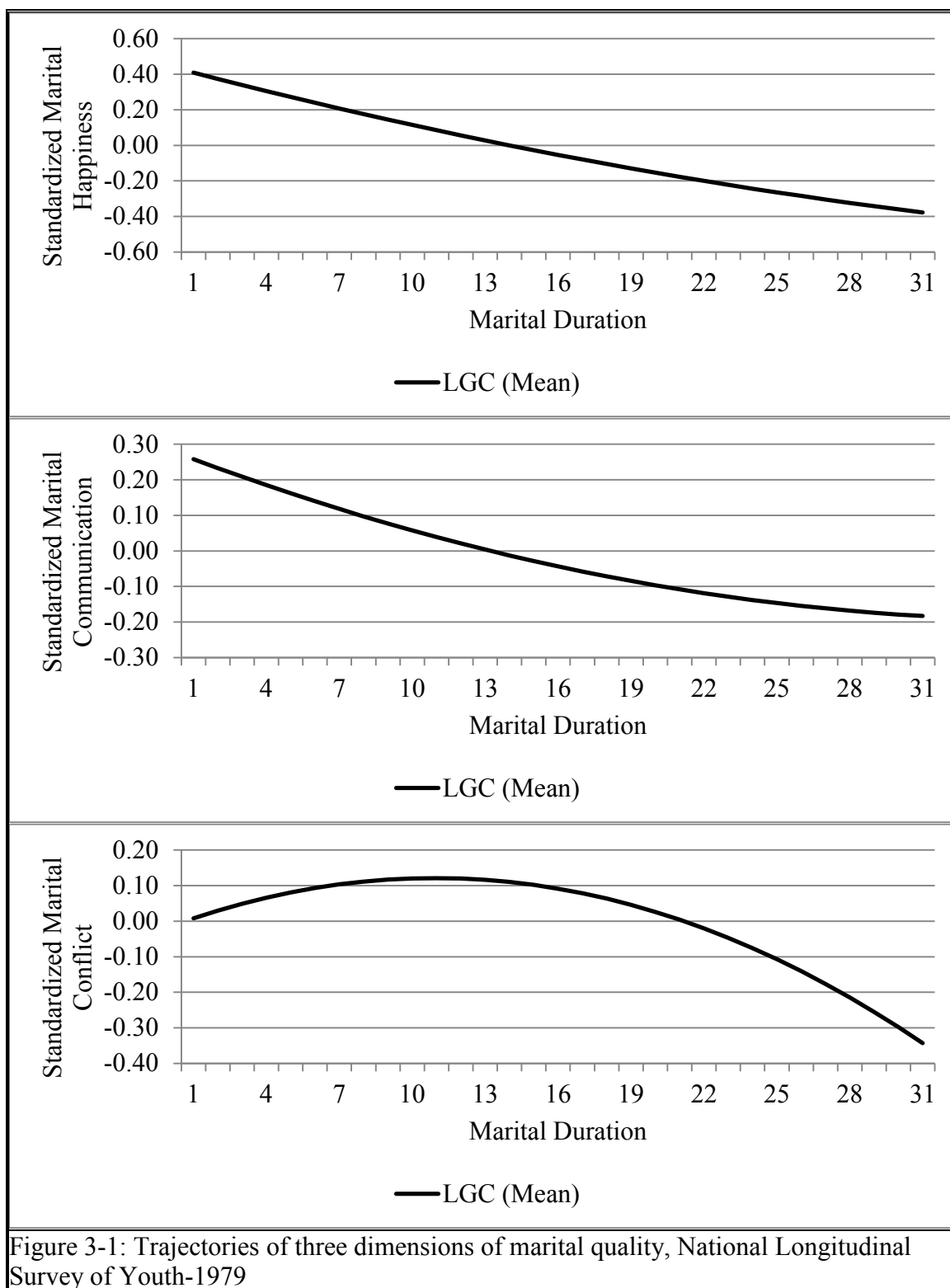


Figure 3-1: Trajectories of three dimensions of marital quality, National Longitudinal Survey of Youth-1979

marital communication for race-ethnicity, which are very close to levels of acceptable fit for the CFI and TLI (Table 5), all multigroup models fit the data at acceptable levels.

The next step in the analysis compared trajectories of marital quality for two groups of spouses: those who remained continuously married and those who divorced. The results, shown in Table 3 and Figure 2, were obtained from multigroup latent growth curve models (Kline, 2011). The top panel of Table 3 shows the equations for respondents who remained married. Because the majority of respondents did not divorce, the parameter estimates for this group are similar to the estimates for the full sample (shown in Table 2). The positive and significant intercept for this group (0.44) indicates that marital happiness was about one-half standard deviations above the mean at the beginning of the marriage, followed by declines as the marriage matured (slope=-.25). The second panel shows coefficients for respondents who divorced. Figure 2 shows the growth curves for the two groups. (I did not extend the curve beyond the 25th year of marriage due to the small number of divorces beyond that marital duration.) Among divorced women, the intercept for marital happiness was positive and significant (0.31). This result indicates that women whose marriage ended in divorce scored about one-third of a standard deviation above the mean. On average, divorcing individuals began their marriages less happy with their marriages than their continuously married counterparts did, though this difference was not significant. In contrast, the gap between divorcing and stably married respondents increased significantly over time, evidenced by the significant difference between the slopes (-0.25 vs. -0.73)⁴. The intercept for marital communication

⁴ The model for marital happiness proved inestimable with the inclusion of a quadratic term for the divorced group. This parameter was fixed at 0, as were the variance and covariances for the divorced group.

in the second panel of Table 3 indicated that marital communication was above average at the beginning of the marriage and declined thereafter (see middle figure of Figure 2).

Table 3-3: Results from multigroup latent growth curves of three dimensions of marital quality for divorced and continuously married individuals, National Longitudinal Survey Of Youth-1979			
	Marital Happiness	Marital Communication	Marital Conflict
Continuously Married (n=2033, weighted=78%)			
Intercept	0.44*** ^a	0.25*** ^a	-0.11** ^a
Slope	-0.25*** ^a	-0.14*** ^a	0.30*** ^a
Quadratic	0.02	0.02 ^a	-0.14*** ^a
Divorced (n=607, weighted=22%)			
Intercept	0.31*** ^a	0.18 ^a	0.25* ^b
Slope	-0.73*** ^b	-0.32 ^a	0.34 ^a
Quadratic	0.00	-0.19 ^b	-0.19* ^a
Model Fit Indices			
CFI	0.92	0.93	0.95
TLI	0.92	0.93	0.96
RMSEA	0.05	0.04	0.04
Note: Sample includes 2,640 women. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). All analyses are weighted. Superscripts denote the level of significance within row between the intercepts, slopes, and quadratic terms, respectively, between the groups. Coefficients with the same superscripts are not significantly different from each other. Those with different superscripts are significantly different from each other at the $p < 0.05$ level. Coefficients represented as '0.00' were fixed in the model due to a linear association with time.			

The analysis for marital conflict indicated that continuously married spouses reported below average initial levels of conflict (-0.11). However, conflict increased over the next decade before falling during the later years of marriage. The significant and

The same issue arose and the same approach taken with the quadratic term for cohabitators' (Table 4) and Hispanics' (Table 5) marital communication.

positive intercept for marital conflict for the divorcing group indicated that conflict was .25 standard deviations above average at the beginning of the marriage, significantly higher than were those in intact marriages. The increase and subsequent decline in conflict among those headed for divorce are similar to those observed in the non-divorced group.

Table 4 presents the results for the multigroup LGC models for cohabitators and those who married directly. The corresponding graphical depictions of these trajectories can be found in Figure 3. The top panel in the top half of Table 4 shows the equations for respondents who did not cohabit. The second panel shows coefficients for respondent who chose to live with their spouse prior to marriage. The intercept for marital happiness among those who married directly was 0.42 and 0.33 among cohabitators, indicating that both groups reported above average marital happiness at the beginning of the marital relationship. Both groups experienced declines in happiness over time, with a slight flattening of the trend for non-cohabitators. However, cohabitators and non-cohabitators had similar intercepts, slopes, and quadratic terms, suggesting that individuals who cohabit have similar trajectories of marital happiness over time as those who do not cohabit. The story is much the same for communication and conflict. Cohabitators' trajectories of marital quality do not appear to differ appreciably from those who married directly.

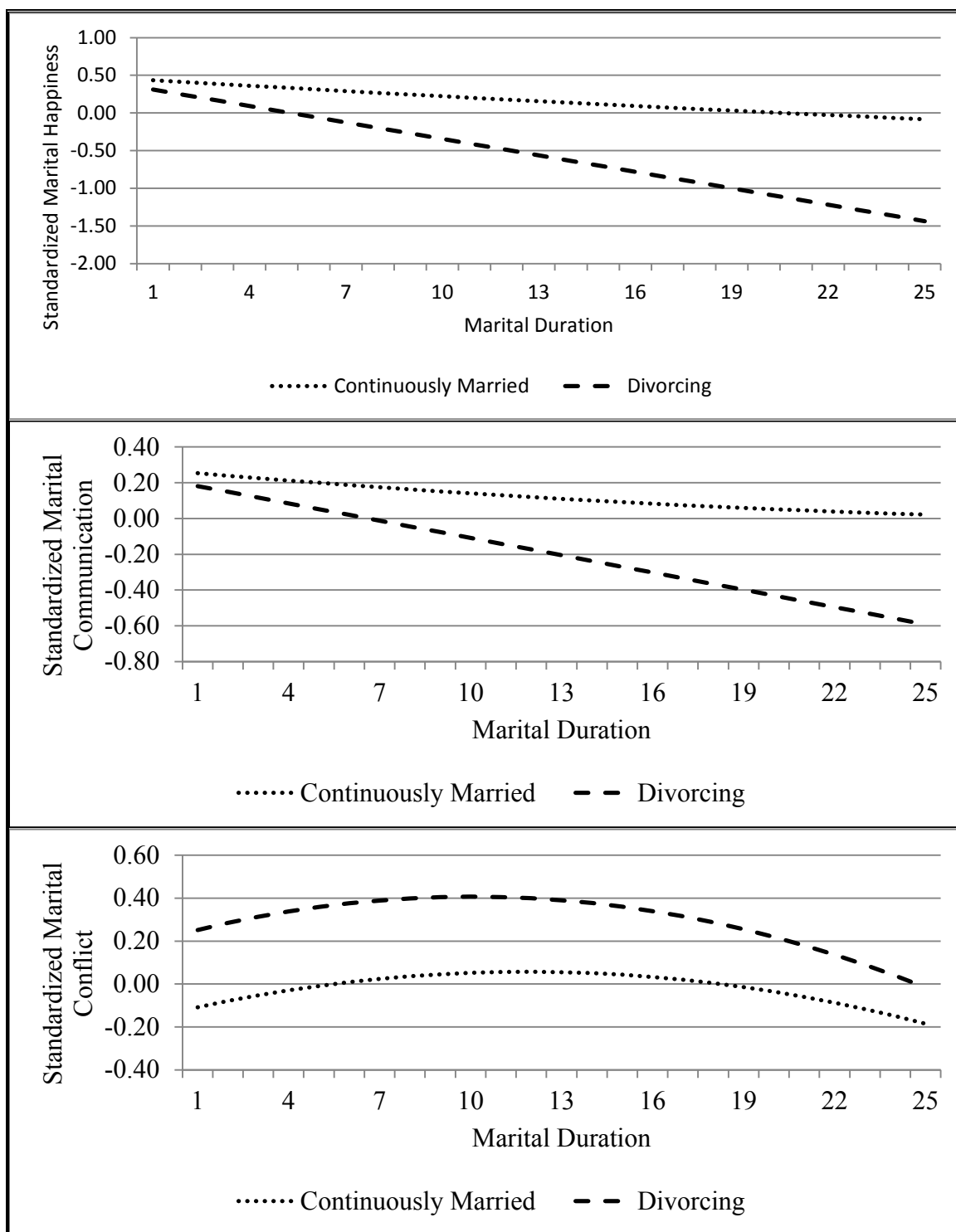


Figure 3-2: Trajectories (based on multigroup latent growth curves) of three dimensions of marital quality for divorcing and continuously married individuals, National Longitudinal Survey of Youth-1979

This result—cohabitators experience similar trajectories of marital quality as non-cohabitators—is the subject of debate. If marital quality declines as relationships mature (Glenn, 1998; L. Kurdek, 1999), however, (Glenn, 1998; D. R. Johnson & Wu, 2002; L. Kurdek, 1999), using the length of marriage as the time metric, as previous research has often done, essentially starts the clock sooner for cohabitators than for marrieds. I provide empirical evidence of this possibility in Table 4 by comparing the trajectories of marital quality for cohabitators and non-cohabitators using both the length of the relationship (top half of Table 4), as this paper does, and the length of marriage (bottom half of Table 4). Notably, the intercept for marital happiness among cohabitators is lower when using marital duration. When marital happiness is measured from the beginning of the relationship, the intercept is 0.33. If happiness is measured from the beginning of the marriage, the intercept for cohabitators drops to 0.28. Additionally, the difference in the intercepts for cohabitators and those who marry directly is now significant.

Finally, I explore the evidence for variation in trajectories of marital quality by race-ethnicity. Table 5 presents the numerical results. Racial differences in trajectories of marital quality can be seen in Figure 4. Whites report the highest initial levels of marital happiness and communication and the lowest levels of conflict, followed by Hispanics, and then Blacks. This initial pattern, with Whites reporting the highest marital quality, Blacks the lowest, and Hispanics in the middle, generally holds throughout the marital life course. For marital happiness, the intercept for Whites is significantly higher than the intercept for Hispanics or Blacks, although I observe no differences in the slopes by race-ethnicity. Interestingly, although Blacks report the lowest initial marital happiness, the

Table 3-4: Results from multigroup latent growth curves of three dimensions of marital quality by cohabitation status and two measures of duration, National Longitudinal Survey Of Youth-1979.			
	Marital Happiness	Marital Communication	Marital Conflict
<i>Duration of Relationship (used for analysis)</i>			
Married Directly (n=1759, weighted=67%)			
Intercept	0.42**** ^a	0.26**** ^a	0.004 ^a
Slope	-0.35**** ^a	-0.27**** ^a	0.21**** ^a
Quadratic	0.04** ^a	0.05***	-0.11**** ^a
Cohabited (n=881, weighted=33%)			
Intercept	0.33**** ^a	0.27**** ^a	0.02 ^a
Slope	-0.36**** ^a	-0.25**** ^a	0.27**** ^a
Quadratic	0.02 ^a	0.00	-0.13**** ^a
Model Fit Indices			
CFI	0.92	0.89	0.95
TLI	0.93	0.90	0.96
RMSEA	0.04	0.05	0.04
<i>Duration of Marriage</i>			
Married Directly (n=1759, weighted=67%)			
Intercept	0.42**** ^a	0.18**** ^a	0.004 ^a
Slope	-0.35**** ^a	-0.26**** ^a	0.21**** ^a
Quadratic	0.04** ^a	0.06**** ^a	-0.11**** ^a
Cohabited (n=881, weighted=33%)			
Intercept	0.28**** ^b	0.14* ^a	0.08 ^a
Slope	-0.39**** ^a	-0.33** ^a	0.19* ^a
Quadratic	0.034 ^a	0.07 ^a	-0.12**** ^a
Model Fit Indices			
CFI	0.92	0.91	0.96

TLI	0.93	0.91	0.96
RMSEA	0.04	0.05	0.04

Note: Sample includes 2,640 women. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). All analyses are weighted. Superscripts denote the level of significance within row between the intercepts, slopes, and quadratic terms, respectively, between the groups. Coefficients with the same superscripts are not significantly different from each other. Those with different superscripts are significantly different from each other at the $p < 0.05$ level. Coefficients represented as '0.00' were fixed in the model due to a linear association with time.

positive and significant quadratic term(0.11) indicates that Whites report higher levels of communication than Blacks or Hispanics at the beginning of the marriage. As the marriage matures, however, Blacks and Whites experience the most rapid declines in communication, with Hispanics experiencing a more gentle decrease in communication over time. The predicted level of communication for Whites remains higher than that of Hispanics throughout the first 30 years of marriage, with Blacks below the other two groups, although Blacks make up some, but not all, of the ground lost with a modest uptick during the third decade of marriage.

In terms of conflict, the patterns is reasonably clear—Whites begin marriage with lower levels of conflict than Blacks and Hispanics, and this difference persists in the ensuing years.

Figure 4 shows a modest increase in conflict during the early years of marriage for all groups, followed by a decline. Whites experience the greatest increase in conflict during the early years, although the difference is significant only relative to Blacks. All groups decline in later years at similar rates. The trajectories for all three race-ethnicities form hill-shaped curves.

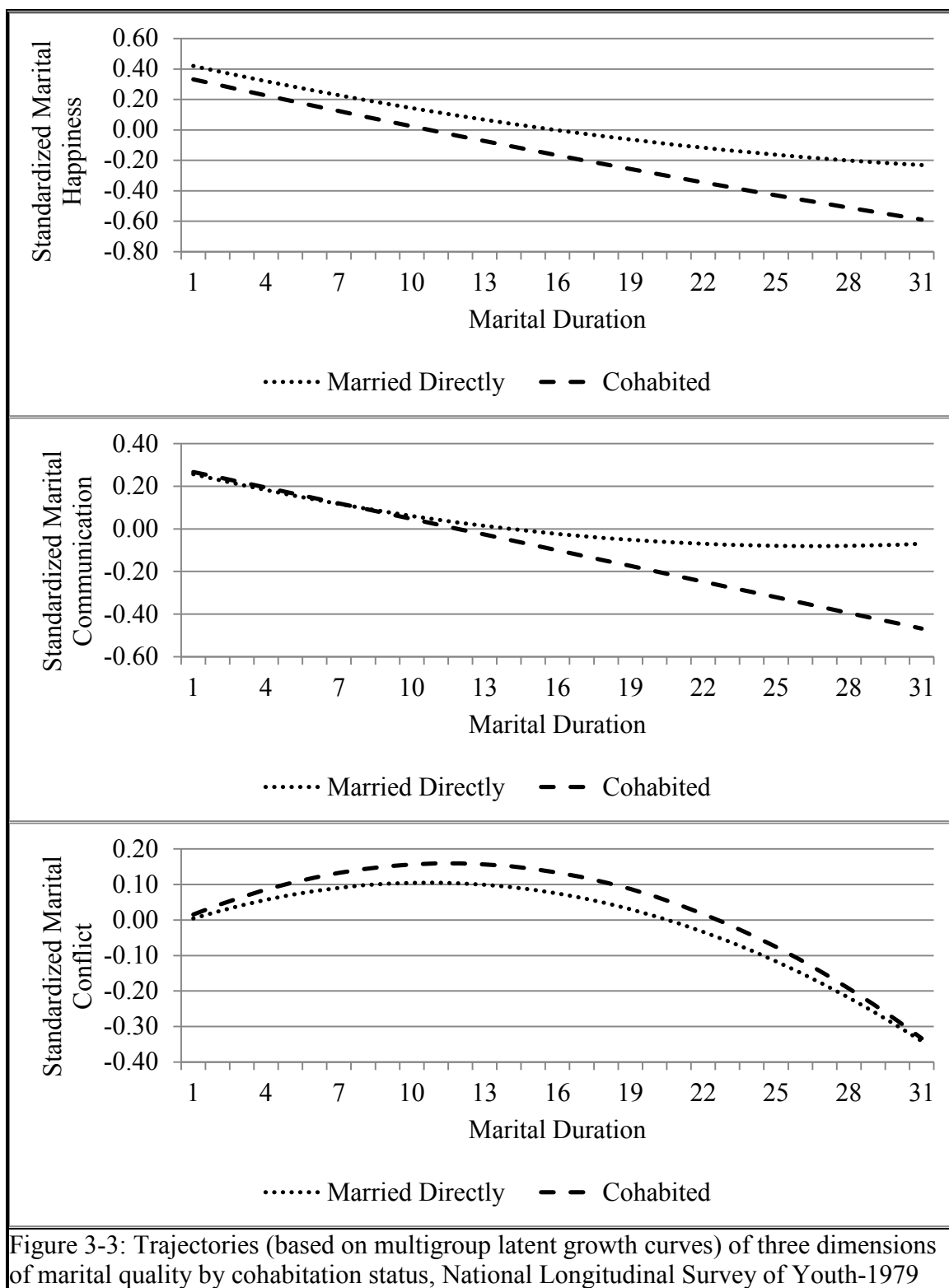


Figure 3-3: Trajectories (based on multigroup latent growth curves) of three dimensions of marital quality by cohabitation status, National Longitudinal Survey of Youth-1979

Table 3-5: Results from multigroup latent growth curves of three dimensions of marital quality by race-ethnicity, National Longitudinal Survey Of Youth-1979.			
	Marital Happiness	Marital Communication	Marital Conflict
Hispanic (n=610, weighted=10%)			
Intercept	0.25*** ^a	0.10 ^a	0.22*** ^a
Slope	-0.34*** ^a	-0.12*** ^a	0.09 ^{a,b}
Quadratic	0.06* ^{a,b}	0.00	-0.06* ^a
Black (n=530, weighted=6%)			
Intercept	0.12 ^a	0.23 ^a	0.28*** ^a
Slope	-0.5*** ^a	-0.52*** ^b	0.04 ^a
Quadratic	0.11* ^a	0.12* ^a	-0.07 ^a
White (n=1500, weighted=84%)			
Intercept	0.46*** ^b	0.30*** ^b	-0.05 ^b
Slope	-0.36*** ^a	-0.26*** ^b	0.27*** ^b
Quadratic	0.03 ^b	0.04* ^a	-0.13*** ^a
Model Fit Indices			
CFI	0.88	0.88	0.94
TLI	0.89	0.89	0.95
RMSEA	0.05	0.05	0.04
<p>Note: Sample includes 2,640 women. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). All analyses are weighted. Superscripts denote the level of significance within row between the intercepts, slopes, and quadratic terms, respectively, between the groups. Coefficients with the same superscripts are not significantly different from each other. Those with different superscripts are significantly different from each other at the $p < 0.05$ level. Coefficients represented as '0.00' were fixed in the model due to a linear association with time.</p>			

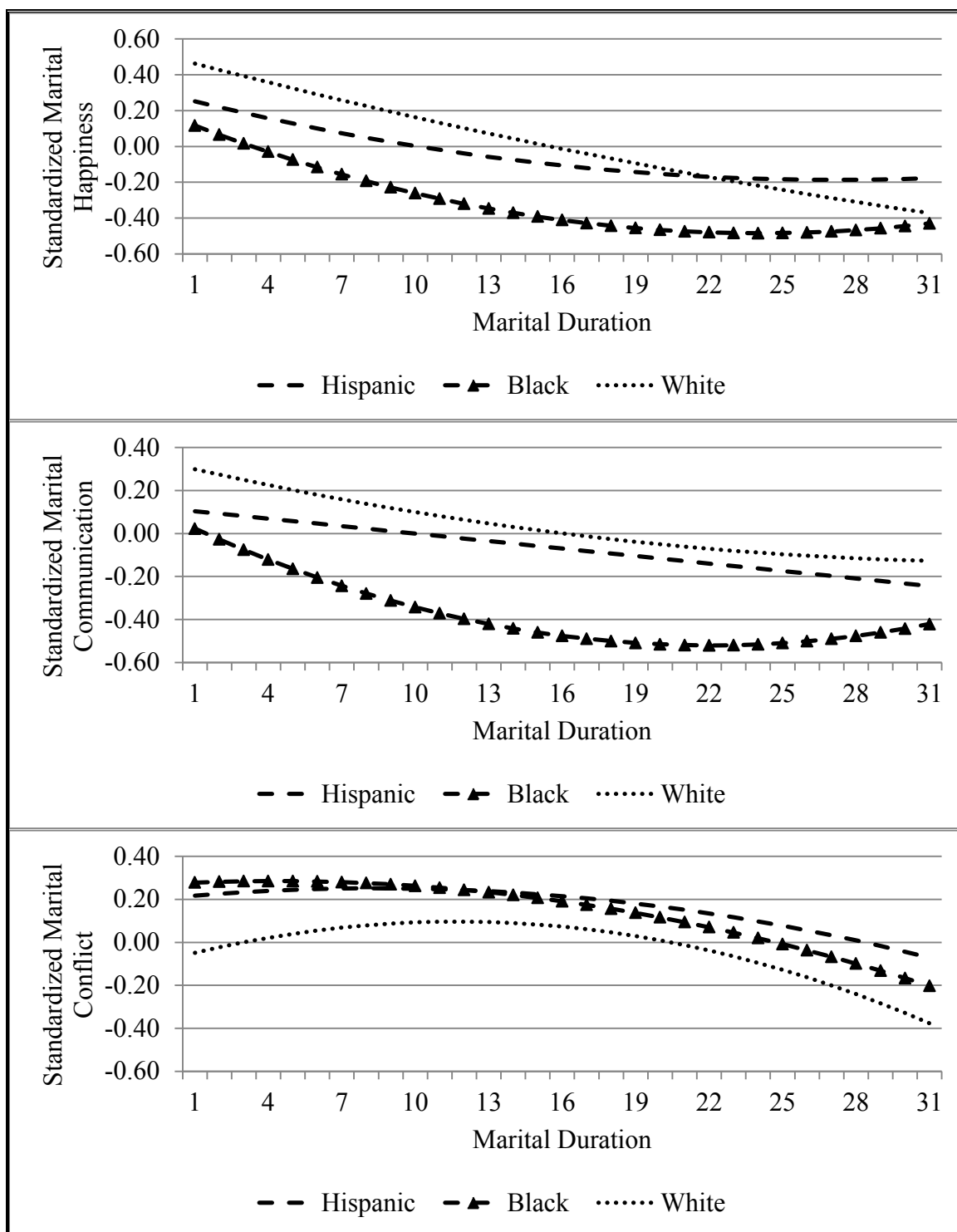


Figure 3-4: Trajectories (based on multigroup latent growth curves) of three dimensions of marital quality by race-ethnicity, National Longitudinal Survey of Youth-1979

Discussion

The goal of this paper, based on data from the NLSY79, was to examine the evidence for variation in the ways married individuals experience marital change. To do this, I examined three axes of familial and social stratification—divorce status, cohabitation experience, and race-ethnicity (Cherlin, 2010). Multigroup latent growth curves were used to examine not just differences in the overall *level* of marital quality between these groups but also to examine potential variation in how marital quality *changes*.

The results provided a nuanced picture that moved beyond traditional representations of divorcés, cohabitators, and racial and ethnic minorities experiencing lower levels of marital quality than their continuously married, non-cohabiting, and White counterparts (Adelmann, Chadwick, & Baerger, 1996; Broman, 2005). To be sure, the findings demonstrate the salience of the more general trend regarding the marital quality disadvantage experienced by individuals who are members of minority groups or who choose to explore non-traditional family forms. Divorcés, cohabitators, and racial and ethnic minorities do tend to report lower happiness, poorer communication, and more conflict.

However, the gaps between the groups are often small and statistically insignificant. For example, much has been made of differences in marital quality between individuals whose family formation choices are marked by premarital cohabitation. On average, previous research has found that cohabitation is negatively associated with subsequent marital quality (Kamp Dush et al., 2003). However, as the results demonstrate, although women who marry directly report higher levels of happiness and

communication and lower levels of conflict throughout marriage, in no case does this difference achieve statistical significance. Thus, when trajectories, rather than overall levels, of marital quality over time are studied, the gap between cohabitators and non-cohabitators narrows considerably, providing further support for Tach and Halpern-Meekin's (2009) finding that marital quality declines at the same rate for all couples regardless of cohabitation status.

I provide empirical evidence for one explanation of the discrepancy in previous research examining whether cohabitators score higher, lower, or the same on measures of marital quality. Some studies have reported a positive effect, some a negative one, and still others found no relationship between premarital cohabitation and marital quality (Smock, 2000). Previous work has often used the beginning of the marriage as the time metric. If marital quality declines as a romantic relationship matures, one would expect cohabitators to report lower marital quality because using the length of marriage as the time metric starts the clock sooner for cohabitators than for marrieds. When estimates using the two approaches to the time metric, relationship duration and marriage duration, are directly compared, as seen in Table 4, the intercept for marital happiness among cohabitators was lower when using marital duration and the difference in the intercepts for cohabitators and direct marriers became significant. In other words, using the length of marriage rather than the length of the relationship can lead to the erroneous conclusion that cohabitators begin their marriages at lower levels of marital happiness than those who marry directly, a point made salient because marital happiness is one of the most commonly studied dimensions of marital quality (Amato et al., 2007; Glenn, 1998).

However, the results also provide evidence of group differences in the experience of marital change across divorce status and race-ethnicity. The results suggested that divorced individuals experienced a more rapid decline in their marital happiness, in line with previous research (Anderson et al., 2010; Huston, Niehuis, et al., 2001). Similarly, although divorced and continuously married respondents experienced declines in communication over the marital life course, this decline appears to stabilize at later marital durations for individuals who remain married, resulting in comparatively higher marital communication for this group. Additionally, I found support for Gottman's (1994) assertion that couples who eventually divorce experience higher levels of conflict in the early years of matrimony and that these differences persist throughout the marriage.

With respect to race-ethnicity, the results demonstrated the complexity of the intersection between family patterns and racial and ethnic relations in the United States. Although Whites entered marriage with more happiness, better communication, and less conflict than Hispanics or Blacks (Adelmann et al., 1996; Bulanda & Brown, 2007), this advantage did not always persist throughout the marital life course. For example, the uptick in marital happiness at later marital durations was greater for Blacks than Whites⁵, allowing Blacks who remained continuously married for over two decades to regain some, but not all, of the ground previous lost. For Hispanics, the decline in

⁵ This uptick could also be due to selective attrition out of marriage among Blacks with poor-quality marriages, although this would not change the fact that, in the absence of racial differences in the mechanisms selecting low marital quality individuals out of marriage, the Black-White marriage gap narrows substantially at later durations.

communication was less dramatic than for Whites and Blacks, again narrowing the racial gap as individuals traverse the marital life course. In addition, the initially low levels of conflict for Whites appeared to dissipate over time. Whites reported greater increases in conflict over the first decade of marriage than Blacks or Hispanics, indicating that the gap in marital conflict narrowed considerably as marriages entered their second decade.

The results stressed the importance of focusing on variation in trajectories of marital quality. The results clearly illustrate that levels of and changes in marital quality are not uniform across the married population. Notably, I found no evidence of differences in trajectories of marital quality between couples who married directly and those who cohabited. However, the findings illustrate that individuals whose marriages ended in divorce began their marriages with more conflict and experienced a greater decline in happiness than continuously married couples. Additionally, Black and Hispanics, when compared to Whites, displayed different starting points and change patterns in marital quality over time.

These findings point to an interesting possibility—the marital quality gap by divorce experience, cohabitation status, and race-ethnicity may attenuate at later marital durations. It is difficult to say definitively whether this narrowing is substantively important because the increased similarity could be a sign of increasing homogeneity in the married population as poor-quality marriages drop out, essentially resulting in what one could term a ‘survivor’ effect. Nevertheless, future work should explore the issue to examine whether early differences in marital quality weaken as marriages enter their second, third, or even fourth decade. Are the narrowing differences due to the selective attrition described above? Is there evidence of a floor effect, wherein developmental

change (D. R. Johnson et al., 1992) results in long-term marriages eventually settling at a low but stable level, regardless of race-ethnicity, divorce status, or cohabitation? Or are the results due to substantively meaningful intergroup shifts in marital quality? The answers to these questions may also provide insights into why some individuals remain in long-term, low-quality marriages, a topic about which we know very little (Hawkins & Booth, 2005).

The current study also casts light on theories of marital quality. Consistent with the enduring dynamics and social exchange models, the results showed that couples who divorced (compared with couples who stayed together) had more troubled relationships throughout their marriages. Specifically, these couples reported higher levels of conflict and more rapid declines in happiness. But consistent with a marital life course and life course/accommodation model, I also observed changes, sometimes even rapid changes, in the three dimensions of marital quality over the life course, suggesting the importance of focusing attention to broad trends that go beyond individual developmental processes, as well as the salience of conceptualizing marital quality as a multidimensional construct of empirically correlated but conceptually distinct indicators. The results showed that couples experienced substantial changes in relationship quality over 20 years of marriage. Among couples who remained together, marital quality tended to decline during the first decade of marriage and flatten out during the second decade. Among couples who eventually divorced, in contrast, all dimensions of marital quality showed a more rapid decline. Additionally, the results also suggested that the U-shaped Curve of marital happiness may be more salient for Blacks than either Whites or Hispanics and that the U-shaped Curve was consistently supported for marital conflict, where trajectories produced

hill-shaped curves. In summary, the results suggested that insights from several theoretical perspectives are necessary to understand marital change and that no particular perspective was universally supported.

This paper is not without limitations. First, because the NLSY79 asked questions regarding marital quality only to women, the extent to which the findings are generalizable to men is unknown. However, it is important to note that despite evidence that women tend to report lower *levels* of marital quality than men (Skinner et al., 2002), evidence of differences in how marital quality *changes* over time is much weaker.

Amato, Booth, Johnson, and Rogers (2007) found that women tend to report lower levels of marital happiness but that changes in marital quality were similar for men and women, suggesting that patterns of change in marriage may not be gendered to the same extent as the overall level of marital quality. The fact that women tend to report lower levels of marital quality may render the estimates here presented conservative, since marital quality would almost certainly be higher if men were included in the sample. Another limitation deals with the absence of early marriages from the sample because young marriages occurred in the early years of the NLSY79, before marital quality data were available. Because we know that marriages contracted at early ages tend to be less stable (Glenn et al., 2010), their absence from this sample likely serves to bias the estimates upward. I also have limited dimensions of marital quality, and future work should examine whether the patterns I observe here for happiness, communication, and conflict are similar to patterns observed for other dimensions of marital quality. A final limitation involves the relatively aged sample. Because the NLSY79 tracks women born in the 1950s and 1960s, the demographic characteristics of this sample are different from those

today. However, the NLSY79 remains the best source for studying trajectories of marital quality in a national sample. Despite the rapid growth of the Hispanic population, (Passel & Cohn, 2011), research suggests that shifts in the racial-ethnic composition of the U.S population between 1980 and 2000 were generally not associated with shifts in marital quality over the same period (Amato et al., 2007), lending some credence to the findings offered here.

Despite these limitations, these results build on and advance our understanding of marital processes by more accurately capturing the heterogeneity in the ways individuals experience marital quality over the life course. The assumption, so prevalent in prior research, that marriage itself is sufficiently homogenous to serve as a meaningful comparison to other family forms may need to be reconsidered, given the complex and nuanced patterns of variation in individuals' experiences of marital change.

Chapter 4

Heterogeneity in Trajectories of Marital Quality Prior to Divorce

Estimates suggest that approximately half of all ever married individuals will experience divorce during their lifetime (Gibbs & Payne, 2010). In fact, recent estimates suggest that only about half of all marriages will last more than 20 years (Copen, Daniels, Vespa, & Mosher, 2012). Although individuals experiencing divorce may pass through several (but not necessarily all) 'stages' of 'relational breakdown' (Rollie & Duck, 2006), scholars have often assumed that marital deterioration tends to be gradual, characterized by slow but steady declines in the quality of the marriage. The implicit assumption behind research on relationship processes and quality prior to divorce is that most relationships follow a uniform pattern prior to legal marital dissolution.

However, recent work suggests that patterns of marital quality leading to divorce may be more complex than previously thought. Although marital dissolution is often preceded by a period of unhappiness and dissatisfaction, many marriages that end in divorce do not appear highly distressed. Many spouses reported low levels of negative marital quality, such as conflict, and at least moderate levels of positive marital quality, such as happiness and interaction, in the years leading to divorce (Amato & Hohmann-Marriott, 2007). Some divorced couples showed stably high levels of relationship satisfaction in the first four years of marriage (Lavner & Bradbury, 2011), suggesting that not all couples who will eventually divorce experience similar patterns of marital quality in the years leading up to dissolution (Hetherington, 2003).

The aim of this paper is to empirically examine the pathways of marital change for individuals whose first marriages ended in divorce. Despite suggestive evidence that not everyone experiences changes in marital quality in similar ways, the divorce literature has yet to address the potential heterogeneity in the way that marital happiness, communication, and conflict change in the years leading to divorce. Further, research has not yet employed models and methods that allow the documentation of the relative proportion of the population that follows each distinct trajectory. In other words, I ask whether there are multiple trajectories of marital happiness, communication, and conflict patterns. For example, there may be some marriages with stably high levels of happiness and communication that deteriorate rapidly preceding marital dissolution and others that experience consistently low levels of happiness and communication prior to divorce. Instead of a rapid decline prior to divorce, another group may start high and gradually but consistently exhibit decline over a long period of time. Another, less considered, possibility, is that a group may have moderate or even high marital quality and not decline prior to divorce.

This paper, then, investigates the extent to which individuals follow distinct trajectories of marital quality, here indicated by marital happiness, communication, and conflict (each of which is examined separately), in the years leading to divorce. I then use indicators of socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics to distinguish individuals whose pathways of marital quality prior to divorce are likely to follow each observed trajectory.

To do this, I employ Latent Class Growth Analyses (LCGA) to examine data collected between 1979 and 2008 from female participants¹ in the National Longitudinal Survey of Youth-1979 cohort. In so doing, I illustrate, for the first time, avenues individuals may traverse on their way to marital decline and dissolution by documenting the shape and pattern of marital quality prior to divorce, a topic on which there is very little previous work. Along the way, I examine how patterns predicted by theories of marital decline combine to influence contemporary patterns of marital change prior to dissolution.

Marital Quality Prior to Divorce

This paper aims to understand longitudinal patterns in trajectories of happiness, communication, and conflict in the years leading to divorce. The years leading to divorce have often been characterized as turbulent, and for good reason (Fine & Harvey, 2006). Divorce engenders complex emotions, including hurt, pain, anger, fear, and jealousy, with grief playing a prominent role. Prior to relationship dissolution, happiness often declines, communication becomes fraught with anxiety, and conflict escalates (Emery, 2012).

Because intimate relationships are among the most important factors for human development, the quality of a marriage can promote or undermine physical health, mental well-being, and social competence (Hetherington, 2003; Waite, 1995). To date, there is limited research on marital quality trajectories among divorced individuals, although some work has examined how marriages that remain intact differ from marriages that end in divorce (Huston, Caughlin, et al., 2001; L. A. Kurdek, 2005).

¹ Only female respondents were asked to report marital quality.

Prior research has indicated that individuals whose marriages result in divorce often have lower marital quality compared to individuals in stable marriages (Gottman, 1994). Divorcing couples displayed more negative communication and emotion as newlyweds as well (Lavner & Bradbury, 2011). Compared to stably married couples, couples who later divorced reported lower initial levels of marital quality (Huston, Niehuis, et al., 2001; Karney & Bradbury, 1995). In addition, these couples often experienced more rapid declines in the quality of their marriage (Lavner & Bradbury, 2010) because shifts in affective dimensions over the first two years of the marital relationship were frequently more dramatic for couples who divorced than those who remained married; the same is true of individuals who experienced increases in relational ambivalence (Huston, Niehuis, et al., 2001). As a result of these and other experiences, positive affect is often replaced by negative and perhaps neutral affect (Kayser & Rao, 2006) as divorcing partners begin to ‘uncouple’ (Vaughan, 1986).

Thus, prior research has established that couples who divorce tend to begin their marriages at lower levels than their continuously married counterparts, but that divorcing relationships also change in dramatic ways. However, no published studies to the best of my knowledge have examined trajectories of marital quality into divorce. One of the key contributions of this paper is that I examine longitudinal patterns of changes in marital quality prior to divorce *among the divorced*, rather than comparing them to stably married individuals. A second contribution lies in my investigation of variation in the way individuals experience marital change during the same period, a topic the divorce literature has yet to examine.

Despite the lack of research on the topic, prior research does provide some reason to expect variation in trajectories of marital quality prior to divorce. Huston, Caughlin, Houts, Smith, and George (2001) found that not all divorced individuals experienced similar marital changes prior to dissolution. 'Early exiters', who divorced after 2-6 years of marriage, reported ambiguity about the relationship and their partner soon after the marriage. This increase in ambiguity was accompanied by more negativity, resulting in quick divorces. In contrast, 'delayed-action' divorces were characterized by the highest levels of initial affection, love, and happiness (even higher than couples who were happily married more than a decade later). These individuals experienced sharp declines in their marital quality but remained in the relationship longer than the 'early exiters', despite the absence of romance, perhaps in hopes of regaining previously attained marital success.

Variation in trajectories of marital quality prior to divorce may also be the result of differing levels of commitment. Amato and Hohmann-Marriott (2007) used a cluster analysis of divorced couples and found two groups. Couples in the first group reported frequent arguments, physical aggression, and thoughts of divorce with little marital happiness and minimal interaction, whereas couples in the second cluster reported fewer arguments, little physical aggression, fewer thoughts of divorce, and moderate levels of marital happiness and interaction. They concluded that the accumulation of risk factors shared by both groups may lead to divorce via high levels of conflict and unhappiness or low levels of commitment, further evidence for heterogeneity in the marital pathways traveled by individuals whose marriages are heading toward divorce.

Thus, prior research on marital quality trajectories prior to divorce suggests at least two groups of divorcés. One group is characterized by greater marital conflict and low initial levels of marital happiness that persist throughout the marriage and a second group characterized by higher initial levels of marital happiness and steep declines, accompanied by low levels of conflict. . Another, less considered, possibility, is that a group may have moderate or even high marital quality and not decline prior to divorce.

The approach here, which employs latent class growth analysis, builds on and extends prior research in several ways. Research has often compared changes in marriage patterns among divorced versus continuously married individuals. Research to date has not examined differences in longitudinal trajectories of marital quality among the divorced themselves. Instead, research has often examined how a given variable may influence the probability of divorce or differences in levels of psychological distress or social support, for example, between divorced and non-divorced couples (L. A. Kurdek, 2005; Lavner & Bradbury, 2010). Although such an undertaking is a useful endeavor, a focus on how marital quality patterns differ between divorced versus married individuals does not explicitly map out trajectories of marital quality prior to divorce, as the current paper does.

Furthermore, to my knowledge, no papers have employed methods that examine heterogeneity in longitudinal trajectories of marital quality among divorced individuals. Although Amato and Hohmann-Marriott (2007) used cluster analysis, this produced a typology of marital quality groups prior to divorce. In contrast, I look for variation in trajectories of marital change across multiple dimensions of marital quality, including marital happiness, communication, and conflict. To put it simply, I am interested in the

differential experiences of marital change among the divorced rather than in comparing how certain factors may differ between married and divorced couples. Commonly studied correlates of marital quality, such as socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics, are then used to predict membership in the observed trajectories.

Theories of Marital Change Prior to Divorce

This paper draws on several theories of marital change, exchange, life course and enduring dynamics, that lead to different conclusions about the expected trajectory of marital quality among married individuals. These two theories also suggest that different factors predict initial levels of and changes in marital quality prior to divorce.

The first perspective, termed the life course approach, suggests that historical context, the timing and sequencing of events, and the roles and relationships individuals pursue combine to shape individual's movement through time and influence a variety of outcomes, including intimate personal relationships such as marriage (Elder, 1998). However, these choices are contingent upon the opportunities afforded and constraints imposed by prevailing cultural norms and sociostructural limitations, as well as relationship factors unique to each couple's interactions (Bengtson & Allen, 1993).

According to the marital life course perspective, marital quality during the initial stages of marriage should be high because marriage is seen as an important transition marked by optimism for and confidence in the relationship's future and because lovers are often on their best behavior (although this may lead to disillusionment later on (Huston & Houts, 1998)). After this 'honeymoon' period, however, marital quality declines, as couples encounter economic, social, and familial difficulties. Although

increases in economic well-being, the accumulation of assets, community integration, the exit of children from the home, and the reduction of stress often associated with retirement may each provide some reason for continued marital stability, developmental changes and adjustments coupled with circumstances such as drug and alcohol use, insufficient employment, the death of a child, changes in health status, or financial distress may strain the relationship, leading to a downturn in marital quality and stability. Certain events such as job loss, marital infidelity, the death of a child, economic misfortune, or domestic violence may produce precipitous and acute declines in marital quality, the result being the emergence of distress and potential marital dissolution (Huston & Houts, 1998). The life course perspective therefore suggests that most marriages begin with high levels of marital quality (the honeymoon period), followed by declines.

The second perspective, the enduring dynamics model, suggests that marriages that ended in divorce may have exhibited low levels of marital quality from the beginning of the marriage because the level of relationship quality is established early in the relationship, perhaps even prior to the marriage (Huston, Caughlin, et al., 2001; Huston & Houts, 1998). Marital quality stabilizes quickly and remains steady throughout because the same constellation of characteristics and preferences, such as personality traits, attitudes and values, social skills, and attachment styles, endure the transition from dating to marriage and change slowly, if at all. If this theory holds, then, we would expect individuals whose marriages eventually end in divorce to begin their marriages at comparatively low levels of marital quality and for these differences to persist throughout the marriage, due to pre-marital factors, including differences in family background such

as parental divorce and education; individual traits such as education and self-esteem prior to union formation; and relationship characteristics like premarital cohabitation. In other words, the enduring dynamics perspective suggests that persistent vulnerabilities may lead to lower overall levels of marital quality among those who will eventually divorce and to marital decline and dissolution.

Another commonly employed theoretical perspective is exchange theory (Levinger, 1979), which suggests that commitment to a relationship depends not only on rewards (marital happiness or satisfaction) but also on available alternatives. Thus, people may choose to end a relationship because happiness is low or because conflict is high. On the other hand, people may divorce due to the availability of a better option, in spite of moderate or high marital quality. The first situation assumes a continuously low or a gradual decline in happiness. The second possibility assumes that marital quality may never be low, except perhaps immediately preceding the divorce.

To summarize, the marital life course, enduring dynamics, and exchange theory perspectives suggest differing trajectories of marital quality prior to divorce. Marital life course and exchange theory suggest high levels of marital quality initially, followed by declines thereafter. Furthermore, certain events may precipitate declines in marital quality prior to divorce. In contrast, the enduring dynamics perspective focuses on pre-marital conditions that remain relatively stable throughout the life course, suggesting that individuals whose marriages end in divorce begin their marriages at low levels of marital quality and remain at such levels until marital dissolution.

Methods

Sample

The National Longitudinal Survey of Youth-1979 (NLSY79), which includes interviews spanning 1979-2008 with 12,685 people, born between 1957 and 1964 and aged 14-22 when first interviewed in 1979, was employed. Interviews were conducted annually between 1979 and 1994, and biennially thereafter with the last available data collected in 2008. Funded by the Bureau of Labor Statistics, the NLSY79 focuses on issues such as labor market behavior, educational experiences, family background, government program participation, union formation history, and financial well-being.

Questions about marital quality were asked starting in 1992 and were repeated biennially through 2008. Because only women's marital quality was ascertained at all available time points, I restrict my analyses to women who report at least one valid value on each dimension of marital quality (see below), starting in 1992. Due to their potentially confounding role, higher-order marriages were excluded. Women who married and divorced prior to 1992 were also excluded due to insufficient information on marital quality.

Data for this paper were taken from a larger sample of married women in the NLSY79. The broader sample of married respondents from which this sample was drawn contained information on 2,640 married women. Of these, 597 women reported a divorce between 1992 and 2008. The results below are based on these 597 women, although, to aid interpretability, the grand sample means and standard deviations used for standardizing the dependent variables come from the broader sample of all married

respondents (see below). All growth curve and mixture model analyses were weighted to adjust for survey design effects.

Variables

Marital Quality—I conceptualize marital quality as a multidimensional construct encompassing both behavioral and attitudinal elements. Although it would be ideal to have additional dimensions of marital quality, the NLSY79 does contain three constructs tapping dimensions of marital quality prior to divorce. The first, marital happiness, is measured by the asking the respondent the following question, “Would you say that your marriage is very happy, fairly happy, not too happy?” and is measured on a three point scale (1=*very happy* to 3=*not too happy*). Marital communication was measured by asking respondents how often (1=*almost every day* to 4=*less than once a month*) respondents, respectively, laughed together or calmly discussed something with their spouse. The third dimension of marital quality, marital conflict, is also a scale, this time assessing how often (1=*often* 4=*never*) 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. Variables used to assess communication and conflict were added together using a summative index. The alpha was .78 for conflict and .79 for communication. All three 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.

To facilitate interpretation, each marital quality indicator was standardized using the grand sample means and standard deviations (across the nine waves) from the larger sample of 2,640 cases described above, thereby enabling interpretation of change over time in standard deviation units. Doing so also set the results for the divorced individuals studied here on the same scale of marital happiness, communication, and conflict as continuously married couples. For example, the 0 line in Figures 1 through 3 represents the average level of marital quality in the sample of 2,640 married women (including marriages that did and did not end in divorce). The results using the unstandardized variables (not shown) are available upon request.

Independent Variables—The independent variables, used to predict membership in the trajectories of marital quality prior to divorce, were grouped into six broad categories comprising socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics. All covariates are time-invariant, meaning they were measured on a single occasion.

Variables used to measure socioeconomic status included the respondent's income, education level, and whether the respondent had ever lived in poverty. Income was measured by the mean household income a respondent reported between 1979 and 2008, measured in \$10,000 dollar increments (1=*less than \$10,000* to 12=*more than \$110,000*). Income was logged to deal with skewness. The respondent's education was measured by their highest grade completed in 2008. The final variable tapping socioeconomic status was a dummy variable indicating whether the respondent ever reported a household income that fell below the federal poverty line (1=*yes*).

Four variables assessed respondent's relationship features. Dummy variables for whether the respondent cohabited prior to marriage (1=*yes*) and whether the respondent's marriage ended in divorce (1=*yes*) were included, as well as measures of respondents' marital duration prior to 1992. Additionally, respondents' gender attitudes were included as a covariate (1=*strongly disagree* 2=*disagree* 3=*agree* 4=*strongly agree*), coded in the direction of more gender egalitarian attitudes. Questions about gender attitudes included whether the respondent believed a woman's place is in the home, a wife with a family has no time for other employment, a working wife feels more useful, traditional husband/wife roles are best, men should share housework, and women are happier in traditional gender roles.

I also examined whether family background was related to the trajectories of marital quality. The family structure of the respondent's family of origin was measured with a dummy variable indicating whether the respondent lived with both biological parents at age 14 (1=*yes*).

Respondents' work history was measured by taking the average number of hours worked per year as well as a dichotomous variable indicating whether the respondent had experienced a spell of unemployment (actively seeking but unable to procure employment; 1=*yes*).

Psychological functioning was measured using two well-known and extensively tested scales, the Rosenberg Self-Esteem Scale (measured in 1980, 1987, and 2006; see Rosenberg, 1979) and Rotter's Locus of Control (measured in 1979; see Rotter, 1966). A respondent's self-esteem was measured using the score that was closest to (and preceded)

the marriage year. Additional information on these measures can be found in the works cited.

Finally, the demographic characteristics of the respondents included race\ethnicity (dummies for *African American* and *Hispanic*, respectively; non-African American, non-Hispanic was the reference category), urban residence (1=*yes*), nativity (1=*foreign-born*), the ages at which the respondent's first marriage took place and at the first interview, and the number of children ever born to the respondent, topcoded at four or more children.

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 is survey year. I reconstructed the dataset so that each respondent's reports of marital happiness, communication, and conflict aligned with the number of years prior to marital dissolution. This was accomplished by subtracting the survey year from the year the marriage ended and then aligning the marital quality measures accordingly. Thus, if a marriage ended in 1993, marital quality measures from 1992 would be placed in the first year prior to divorce. In contrast, I placed marital quality measures from 1992 in the 16th year prior to divorce for women whose marriages ended in 2008. Because the marital quality measures only span from 1992 and 2008², the results below only apply to the 15 years preceding divorce. Because the median marital duration among women whose first marriages ended in divorce is 7.9 years (Kreider,

² Because some marriages began prior to 1992, I originally included a control for marital duration prior to 1992 in all models. This variable was dropped, however, when it became clear that its inclusion did not improve fit nor alter the substantive conclusions of the paper.

2005) and because approximately 75% of first marriages that end in divorce last less than 20 years (Payne, 2011), this appears to be only a modest limitation. Following prior research (Anderson et al., 2010), I combined observations into 2 year 'buckets' to deal with data sparseness. Thus, all observations covering years 0 and 1 prior to divorce were placed into the same bucket, years 2 and 3, 4 and 5, etc. Two-year buckets were selected to maximize the number of observations in each bucket while ensuring that no respondent had multiple marital quality observations in the same bucket. There were multiple reasons for data to be missing in the dataset. 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 in 1992. Additionally, attrition created missing data as well. I used Heckman's (1979) two-step method to correct for attrition bias. I first estimated a probit regression equation to model the attrition of respondents from the panel, then calculated lambda--the probability of dropping out of the panel--for each case. Lambda served as an additional covariate in preliminary analyses. Adjusting for attrition bias, however, had no substantive implications for the findings, so I omit further discussion.

Analytic Strategy

I employed semiparametric group-based mixture modeling, also known as latent growth class analysis (LCGA; see Jung & Wickrama, 2008; Nagin, 2005 for more information) to look for variation in trajectories of marital quality prior to divorce. Similar to more traditional methods for longitudinal data, LCGAs model the relationship between time and marital quality with a polynomial function, in this case with intercept, slope, and quadratic terms. In contrast to hierarchical and growth-curve modeling,

however, this approach does not assume a continuous distribution of trajectories within the studied population, the patterns of which are summarized using a single coefficient. Instead, these group-based methods assume that the population consists of an unknown number of groups, each with a distinct trajectory (B. O. Muthén, 1999). The goal of the analysis is to identify the number of distinct trajectory groups that best represents the patterns observed in the data. Importantly, these patterns are best viewed as reasonable approximations of respondents' experiences of marital quality prior to divorce (Nagin, 2005).

Thus, the analytic strategy involved the identification of the optimal number of trajectory (group), 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. Throughout the selection process, emphasis was placed on the substantive interpretability of the model, in light of prior research and theory. Additional factors that informed decisions about the number of groups to retain included entropy (the extent to which cases can be unambiguously separated 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 (LRT), the Vuong-Lo-Mendell-Rubin LRT and the Lo-Mendell-Rubin Adjusted LRT, both of which compare a model with K classes (e.g., 3 classes) with $K-1$ classes (e.g., 2 classes).

Parameters defining the shape of the trajectory were free to vary across groups. These parameters were then used to calculate each individual's probability of group membership, with individuals assigned to the group in which they had the highest posterior probability (i.e., likelihood of membership). Seven percent of cases had a

posterior probability greater than .4 in more than one trajectory of marital happiness. The comparable numbers are 2% and 8% for marital communication and marital conflict, respectively. Once group membership was ascertained, the models assume no variation within groups by constraining the variance parameters within groups to be zero for the intercept, slope, and quadratic terms. This is based on the assumption that heterogeneity in marital happiness, communication, and conflict was accounted for in predicting trajectories and that once an individual is assigned to a group, they are assumed to be similar on levels of marital quality to others in that same group (i.e., individuals within the same group are more similar to each other than they are to individuals on the other trajectories). Importantly, although the models assume no within-group variation, a given individual's actual marital quality trajectory may vary somewhat from the overall group trajectory.

The models were estimated in Mplus (L. K. Muthén & Muthén, 2010). Mplus uses full-information maximum likelihood techniques to deal with missing data, which uses all available observations of marital happiness, communication and conflict to estimate the model. The procedure does not require that all respondents contribute an equal number of marital quality assessments and is particularly useful when the assessment periods are not identical across respondents (Lavner & Bradbury, 2010).

Because I modeled marital quality prior to divorce, the procedures used to obtain estimates of the intercept, slope, and quadratic terms diverged somewhat from more traditional approaches. Traditional growth curve and mixture modeling techniques usually give the initial measurement of interest a time score of 0. Subsequent time scores are given positive numbers corresponding to the time between measurements (Preacher et

al., 2008), thereby enabling the researcher to begin at the first wave and ‘look forward’ in time. In contrast, the approach used here sets the initial time score at 0 and subsequent waves’ time scores at negative values, indicating the number of years (in 2-year buckets) prior to divorce, enabling me to begin at the time of divorce and ‘look backward’ in time to examine variation in the trajectories of marital quality prior to divorce. The intercept for each model was fixed at the year of or the year prior to the divorce (due to the 2-year buckets). I then estimated trajectories of marital quality up to 15 years prior to marital dissolution.

I originally assigned time scores at 0 for the years 0 and 1 prior to divorce (the first bucket and -2 for the 2nd and 3rd years (the second bucket), etc., with the final bucket being assigned a -14 for years 14 and 15. These models failed to converge adequately. To achieve convergence, I followed the recommendation of Muthén & Muthén (2010) and divided the time periods by 10, resulting in values of 0, -0.2, -0.4, -0.6, -0.8, -1.0, -1.2, and -1.4. Using these new weights, the models converged and the results are reported below. The results reflect the reduced weights, although I transformed the results back to years to construct the figures.

To estimate the influence of covariates on the likelihood of group membership, I employed logistic regression, binary or multinomial depending on the number of classes, to predict class membership. I exported the results from the latent class growth analyses from Mplus to Stata. The output included a variable indicating the class to which each respondent was assigned (i.e., the highest posterior probability), along with variables indicating the respondent’s probability of membership in each latent class. The logistic regressions were weighted by the probability of membership of being in the assigned

class (e.g., some individuals in a given class had a probability of 1 for membership in that class, whereas others had a probability of .6 of being in that same class). Weighting in this manner incorporated uncertainty about class membership into the results from the logistic regression equations (Kamp Dush & Taylor, 2011). Because Full Information Maximum Likelihood methods were not implemented in Stata 11, multiple imputation techniques (10 datasets) were used to deal with missing data for this portion of the analysis.

Results

Table 1 presents sample statistics for the data used in this study, which focuses exclusively on divorced individuals. The descriptive statistics suggest that the average individual in the sample had a household income of approximately \$40,000, some college education, and had experienced at least one spell of unemployment during their lifetime. Nineteen percent of the sample was Black or Hispanic and 43% lived with their spouse prior to marriage. The average respondent in this study worked about 1300 hours in a given year and married in their mid-20s.

Because the goal of this paper is to examine longitudinal trajectories of marital quality, I began the analysis by estimating three separate latent growth curves that track the way that marital happiness, communication, and conflict change, on average over time.

Marital Happiness

The first column of Table 2 presents the intercept, slope, and quadratic terms, along with several measures of model fit for the latent growth curve of marital happiness prior to divorce. The results are also presented graphically in Figure 1, represented by the

Table 4-1: Mean, Standard Deviation, and Range of all Variables Used in the Analyses			
	Mean	SD	Range
Marital Quality			
Marital Happiness	2.41	0.65	1-3
Marital Communication	10.65	2.06	3-12
Marital Conflict	20.32	5.18	10-36
Socioeconomic Status			
R's average household income	40,671	40,808	3,107.82-24,5342
R's Education	13.78	2.94	6-20
R experienced poverty	0.66		0-1
Relationship Features			
R and Spouse lived together before marriage	0.43		0-1
R's prior marital duration	7.96	5.38	0-23
Family Background			
R lived with both parents @ 14	0.72		0-1
Work History			
Average hours R worked	1,332	598	0-2787
R experienced 1+ spells of unemployment	0.59		0-1
Psychological functioning			
R's esteem quartile	1.68	1.26	0-3
R's locus of control	1.73	1.39	0-3
Demographic Characteristics			
R is Black	0.12		0-1
R is Hispanic	0.07		0-1
R is non-Black, non-Hispanic	0.81		0-1
R's # of children	1.88	1.42	0-4
R was born in the U.S.	0.95		0-1
R lived in South in 1979	0.33		0-1
Age in 1979	17.16	2.79	14-22
R's age at marriage	23.72	6.17	14-44
<i>Note: Estimates are weighted and based on 597 married women from the National Longitudinal Survey of Youth-1979 cohort. Standard deviations for dichotomous variables omitted.</i>			

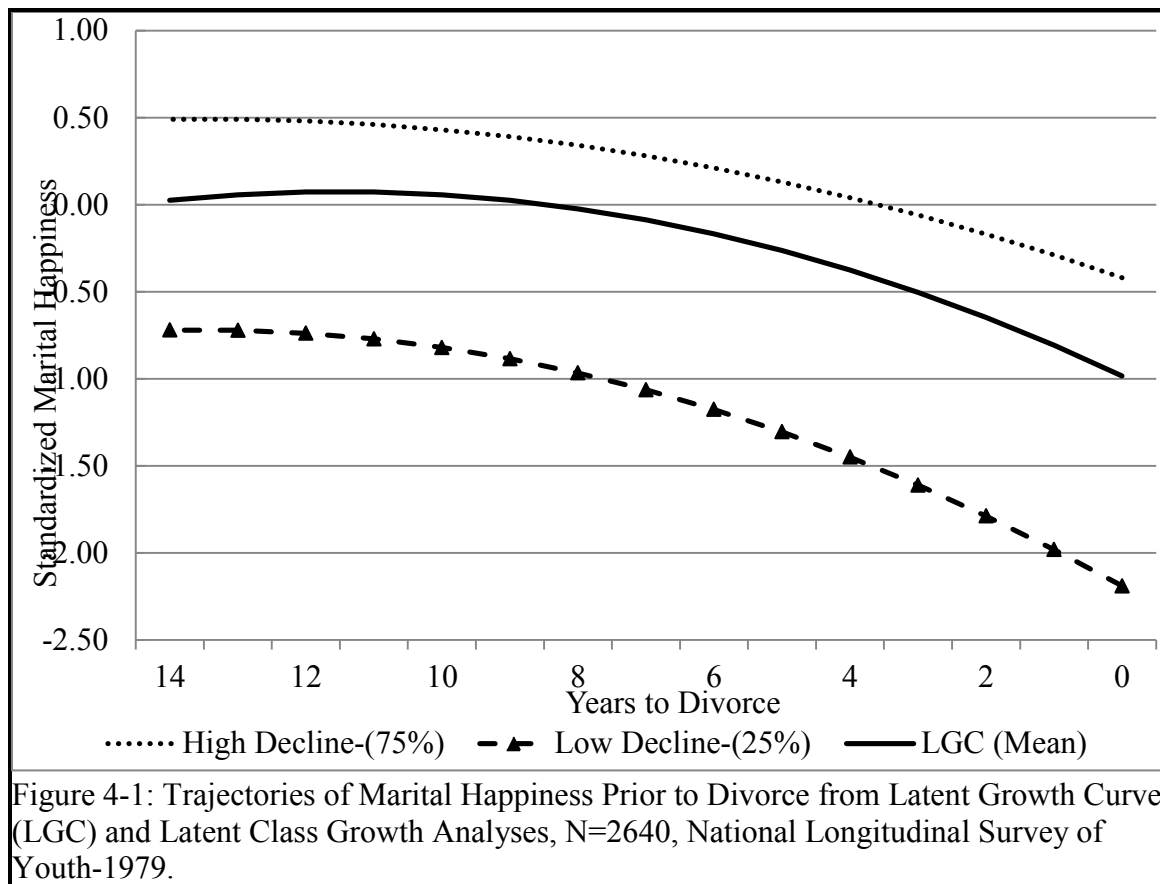
solid black line. The intercept of -0.983 indicates that respondents reported that their marital happiness was about one standard deviation below the mean for the larger sample that includes both divorced and continuously married couples, immediately preceding the divorce. Not surprisingly, married women were quite unhappy with their marriages around the time of divorce. The results also suggest a decline in happiness in the years

leading to divorce (slope=-0.184) and an accelerated decline in marital happiness as the divorce grew imminent (quadratic=-0.008). Interestingly, the reported level of marital happiness of divorced women up to 14 years prior to the divorce was roughly equal to the average level of marital happiness reported by continuously married women, although this would only apply to the minority of women whose first marriages lasted this long. Marital happiness quickly declined and plummeted noticeably as divorce approached, as illustrated in Figure 1.

Thus, results from the latent growth curve for marital happiness suggest that, on average, individuals whose first marriages resulted in divorce experienced average levels of marital quality more than a decade prior to divorce, followed by declines thereafter, with an accelerated decline as the divorce approached (this, however, would only apply to the minority of women whose first marriages lasted this long). However, the extent to which these results adequately capture the experiences of everyone in the population or whether certain subgroups experienced different shifts in marital happiness in the years leading up to marital dissolution remains unclear. To address this question, I turn to the results of the latent class growth analyses.

The latent class growth analysis of marital happiness provides empirical evidence of the variation in longitudinal trajectories of marital happiness. Measures of model fit (located in Table 3) suggested that a two-class model fit the marital happiness data well and this model is presented in the top panel of Table 4. The first class, which I term the 'High Decline' group (75% of the sample), is characterized by high levels of marital happiness throughout the marriage, followed by a steep drop (slope=-0.134) in marital happiness thereafter and an accelerated decline (quadratic=0.005) as marital dissolution

	Marital Happiness	Marital Communication	Marital Conflict
Intercept	-0.983***	-0.818***	0.361***
Slope	-0.184***	-0.149***	0.026
Quadratic	-0.008***	-0.006***	0.003
Model Fit Indices			
CFI	0.92	0.91	0.99
TLI	0.92	0.92	0.99
RMSEA	0.034	0.034	0.017
Results are based on three separate analyses.			



becomes imminent. The second class, the Low Decline group (25% of the sample), reported much lower levels of marital happiness throughout the marriage, even up to 14 years prior to divorce. However, changes in marital happiness were similar in the second

group (slope=-0.217, quadratic==0.008) to those in the first group, with a comparable drop and

	# of Classes	BIC	# of free parameters	VLMR pvalue	LMR pvalue	Entrop y
Happiness	1 (LGC)	5862.69				1
	2	5876.10	15	0.03	0.032	0.68
	3	5820.34	19	0.52	0.53	0.59
	4	5803.62	23	0.37	0.37	0.62
	5	5057.93	27	0.97	0.97	0.66
Communication	1 (LGC)	6116.67	13			1
	2	6029.26	15	0.10	0.10	0.93
	3	5843.55	19	0.36	0.37	0.89
	4	5744.34	23	0.73	0.73	0.82
	5	5708.65	27	0.77	0.77	0.83
Conflict	1 (LGC)	4990.311				1
	2	5205.73	15	0.00	0.00	0.60
	3	5051.76	19	0.06	0.07	0.69
	4	5029.55	23	1.00	1.00	0.61
	5	5025.98	27	0.00	0.00	0.57

Note: Selected model in in bold. BIC=Bayesian Information Criterion, VLMR=Vuong-Lo-Mendell-Rubin Likelihood Ratio test for $k-1$ (H_0) versus k classes. LMR=Lo-Mendell-Rubin Adjusted Likelihood Ratio test. Entropy assesses the extent to which cases can be unambiguously separated into a given number of groups.

accelerated decline prior to dissolution. This was supported by the Wald tests of equality, marked by superscripted letters in Table 4, which indicated that the difference in the intercepts of the group groups was significant. However, the difference in the slope and quadratic terms were not. Thus, although both groups experienced drops over their marital happiness and accelerated declines as the divorce approached, these declines were similar for both groups; although the groups differed in their overall level of marital happiness throughout the marriage, happiness declined at a similar pace for both groups.

		High Decline (75%)	Low Decline (25%)	
Marital Happiness	Intercept	-0.419*** ^a	-2.19*** ^b	
	Slope	-0.135*** ^a	-0.217*** ^a	
	Quadratic	-0.005* ^a	-0.008* ^a	
		High Decline(88%)	Low Decline(13%)	
Marital Communicatio n	Intercept	-0.36** ^a	-3.997*** ^b	
	Slope	-0.105*** ^a	-0.434** ^b	
	Quadratic	-0.004 ^a	-0.019 ^a	
		High Conflict (20%)	Moderate Conflict (46%)	Low Conflict (34%)
Marital Conflict	Intercept	1.831*** ^a	0.543*** ^b	-0.613*** ^c
	Slope	0.052 ^a	0.021 ^a	0.021 ^a
	Quadratic	0.005 ^a	0.002 ^a	0.004 ^a

Note: Sample includes 2,640 women. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed). Superscripts denote the level of significance within row between the intercepts, slopes, and quadratic terms, respectively, between the groups. Coefficients with the same superscripts are not significantly different from each other. Those with different superscripts are significantly different from each other at the $p < 0.05$ level.

The next question involved the extent to which background characteristics such as socioeconomic status, past relationship history, family background, work history, psychological functioning and demographic characteristics differentiate between membership in the two trajectories. The results of the binary logistic regression equation, weighted by the probability of membership in the most likely class to account for uncertainty in the class assignment process, are presented in Table 5, with the ‘Low Decline’ group serving as the reference category.

On average, individuals with higher parity (more children) had a higher probability of membership in the Low Decline group than the High Decline group. Women with no children had a predicted probability of .84 of membership in the high decline group, compared to .67 for women with four or more children (holding all other

Table 4-5: Predictors of Membership in Trajectories of Marital Happiness Prior to Divorce, N=597, National Longitudinal Survey of Youth-1979		
	High Decline vs. Low Decline	exp(b)
Socioeconomic Status		
R's average household income (logged)	0.34 (0.23)	1.40
R's Education	-0.04 (0.05)	0.96
R experienced poverty	0.27 (0.26)	1.31
Relationship Features		
R and Spouse lived together prior to marriage	0.04 (0.21)	1.04
R's prior marital duration	0.01 (0.03)	1.01
Family Background		
R lived with both parents @ 14	0.16 (0.23)	1.17
Work History		
Average hours R worked (*100)	-0.04 (0.02)	0.96
R experienced at least one spell of unemployment	-0.06 (0.23)	0.94
Psychological functioning		
R's esteem quartile	0.16 (0.10)	1.17
R's locus of control	0.00 (0.10)	1.00
Demographic Characteristics		
R is Black	-0.15 (0.28)	0.86
R is Hispanic	0.50 (0.29)	1.65+
R's # of children	-0.24 (0.09)	0.79**
R was born in the U.S.	0.96 (0.39)	2.61*
R lived in South in 1979	0.01 (0.24)	1.01
R's Age in 1979	-0.13 (0.06)	0.88*
R's Age at Marriage	-0.01	0.99

Constant	(0.03) 0.02 (2.51)
Log Likelihood	-282.93
Sample Size	597
Nagelkerke R2	0.08
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard errors in parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.	

variables in the model at their respective means). Being born in the United States was associated with an increased probability of membership in the group that experienced continually higher levels of marital happiness (High Decline) than foreign-born women (predicted probabilities = .78 versus .57). Additionally, women who were younger in 1979 also had a higher probability of membership in the High Decline group. The predicted probability for women who were 14 at the initial survey wave was .83, significantly higher than .63, the corresponding number for 22 year-old women.

Despite the breadth of covariates explored, however, very few of the variables were associated with the probability of membership in high decline vs. low decline group. Individuals with high levels of income and education and low levels of poverty were approximately equally represented in both the High Decline and Low Decline groups. The models also provided no evidence that relationship features, family background, work history or psychological functioning were differentially associated with an increased likelihood of membership in either class. Nor did I find any evidence of racial or ethnic differences.

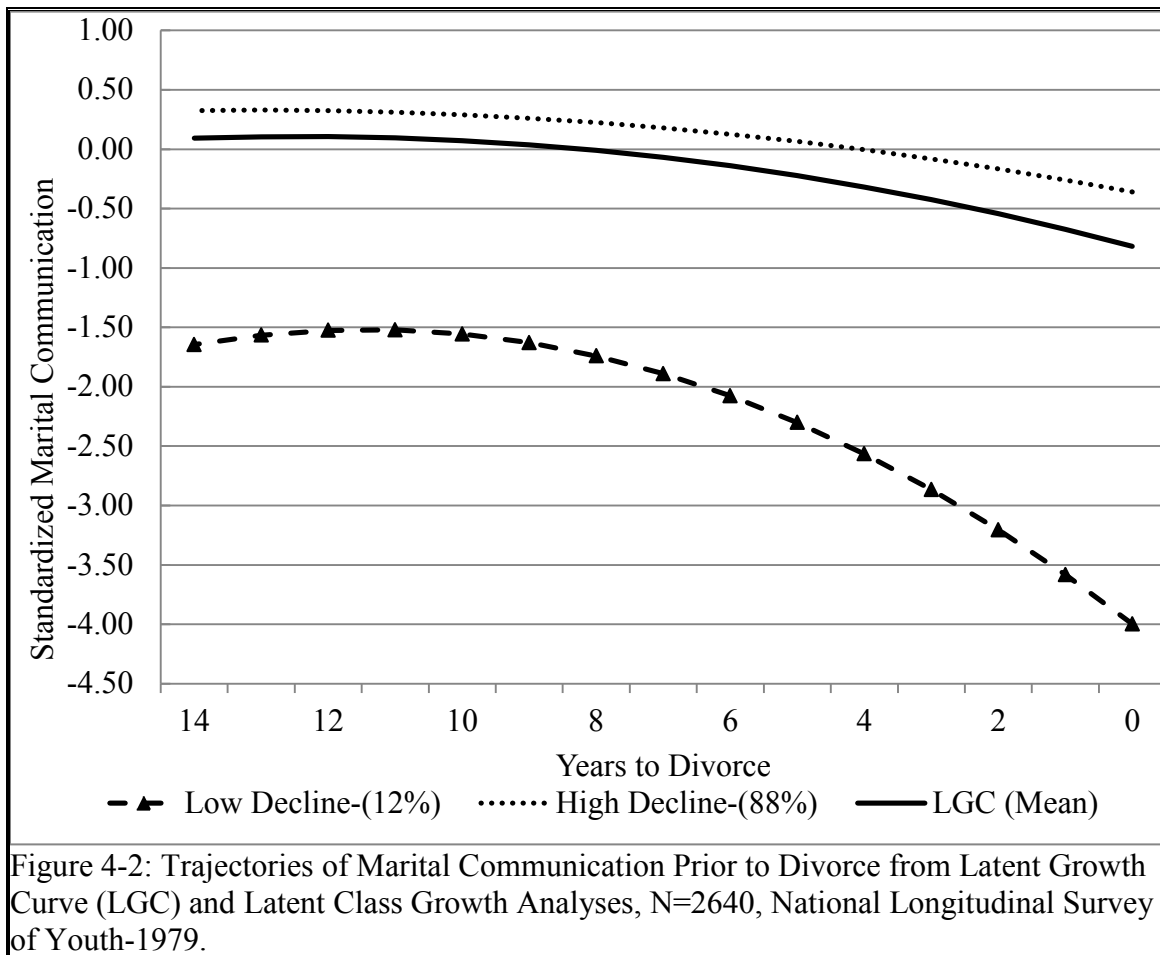
Marital Communication

The second column of Table 2 presents the results of the latent growth curve for marital communication; similar to the results for marital happiness, Figure 2 depicts the

predicted patterns of change in communication prior to divorce (again represented by the solid black line). At the time of divorce, marital communication was, on average, more than .8 standard deviations below the mean for all women. However, Figure 2 suggests that women in these marriages also reported average levels of communication up to 14 years prior to dissolution among those who remained married this length of time. Marital communication in these marriages declined (slope=-0.149) in subsequent years and experienced a notable acceleration in that decline approaching divorce (quadratic=-0.006).

However, the results from Figure 2 and the second column of Table 2 represent the mean trajectory of communication in these women's marriages. It is possible that the focus on the mean trajectory or communication in latent growth curves obscures certain subpopulations that experience different trajectories. The middle panel of Table 4, along with Figure 2, presents the results of the latent class growth analysis that examines the possibility of heterogeneity in longitudinal trajectories of marital communication.

As with marital happiness, measures of model fit suggested that a two-class model was optimal, particularly the high entropy and deviance-based hypothesis tests (not shown but available upon request). The results suggested the presence of a High Decline group (88% of the sample) whose communication was at or above average more than a decade prior to divorce but who experienced a decline as divorce approached



(slope=-0.105; this only applies to women whose marriages lasted nearly 1.5 decades). In contrast to marital happiness, however, the High Decline group did not appear to experience an accelerated decline as divorce became imminent. The same pattern is observed for the Low Decline group (declining communication but no acceleration toward the end of the marriage), except the Low Decline group (12% of the sample) reported lower levels of communication throughout the marriage.

The two groups differed significantly in both intercept and slope, according to Wald tests. Individuals in the High Decline group experienced higher levels of marital

communication preceding marital dissolution than the Low Decline group. Additionally, the decline over time in marital communication was greater in the Low Decline group.

Table 6 presents the results of the binary logistic regression model estimated to assess the extent to which covariates differentiated individuals in the High vs. Low Decline group. Similar to marital happiness, observed differences in terms of socioeconomic status, relationship features, family background, work history, and psychological functioning were minimal. However, African American women were disproportionately represented in the Low Decline group. African American women had a predicted probability of 0.92 of membership in the Low Decline group, compared to 0.81 of membership in the High Decline group. Higher levels of parity were once again associated with increased likelihood of membership in the Low Decline group as well. Individuals with no children had a predicted probability of 0.95 of membership in the High Decline group, compared to 0.82 for women with four or more children. Thus, for marital communication, traditional socio-demographic indicators such as race and parity appear to be the best predictors of variation in trajectories of marital communication, with African-American women and women with higher levels of parity experiencing lower levels of marital communication.

Marital Conflict

The results for marital conflict, the third and final dimension of marital quality studied here, can be found in the third column of Table 2 and Figure 3. The latent growth curve (the solid black line in Figure 3) revealed that, on average, women reported levels of conflict that were .36 standard deviations above the overall mean immediately before

Table 4-6: Predictors of Membership in Trajectories of Marital Communication Prior to Divorce, N=597, National Longitudinal Survey of Youth-1979		
	High Decline vs. Low Decline	exp(b)
Socioeconomic Status		
R's average household income (logged)	0.29 (0.33)	1.34
R's Education	0.07 (0.08)	1.07
R experienced poverty	0.41 (0.34)	1.51
Relationship Features		
R and Spouse lived together prior to marriage	0.03 (0.27)	1.03
R's prior marital duration	-0.00 (0.04)	1.00
Family Background		
R lived with both parents @ 14	-0.33 (0.32)	0.72
Work History		
Average hours R worked (*100)	-0.05 (0.03)	0.95
R experienced at least one spell of unemployment	0.18 (0.30)	1.20
Psychological functioning		
R's esteem quartile	0.17 (0.14)	1.19
R's locus of control	-0.12 (0.12)	0.89
Demographic Characteristics		
R is Black	-1.04 (0.36)	0.35**
R is Hispanic	0.48 (0.41)	1.62
R's # of children	-0.35 (0.11)	0.70**
R was born in the U.S.	0.89 (0.49)	2.44+
R lived in South in 1979	0.29 (0.29)	1.34
R's Age in 1979	-0.12 (0.07)	0.89+
R's Age at Marriage	-0.02 (0.04)	0.98

Constant	1.07 (3.47)
Log Likelihood	-197.62
Sample Size	597
Nagelkerke R2	0.13
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard errors in parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$	

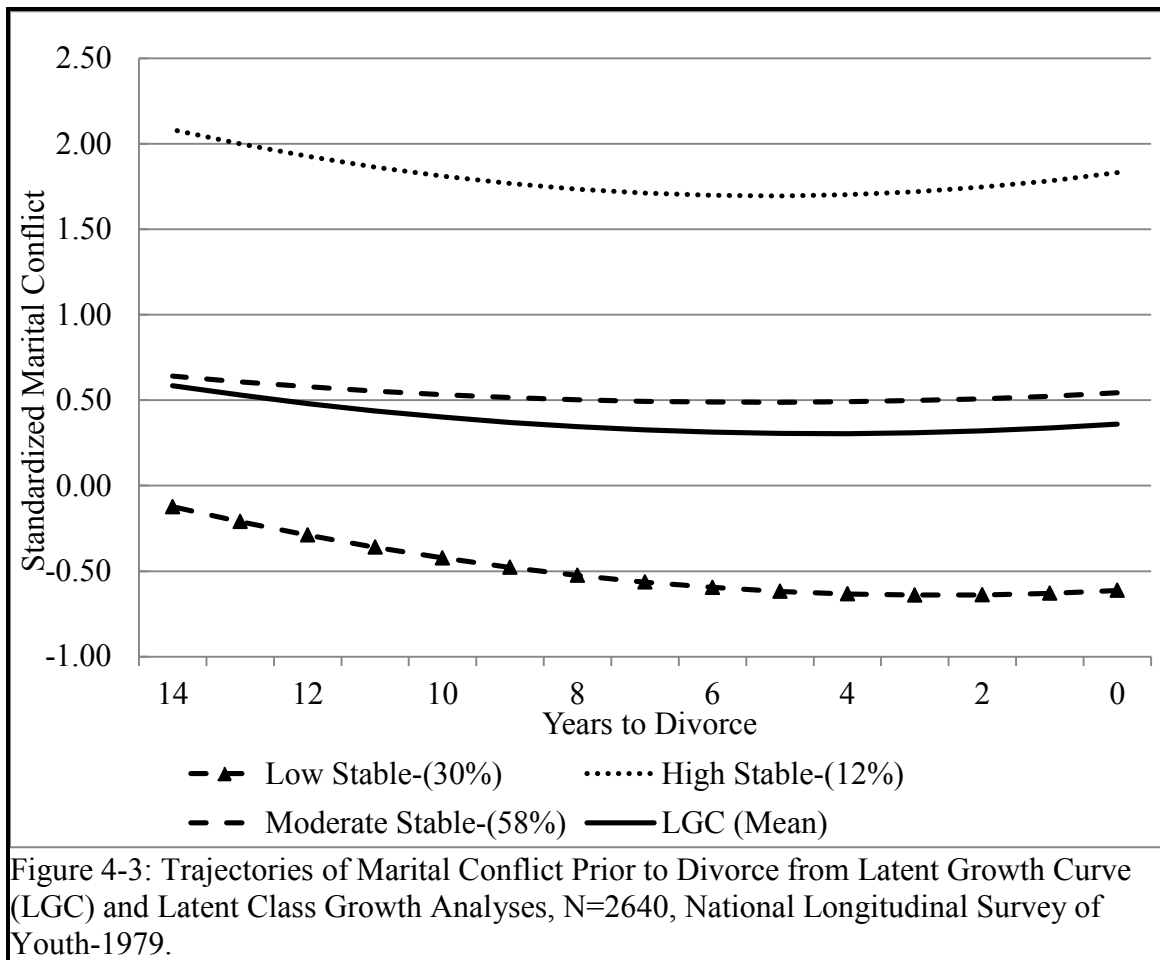


Table 4-7: Predictors of Membership in Trajectories of Marital Conflict Prior to Divorce, N=597, National Longitudinal Survey of Youth-1979						
Covariates	Low Conflict vs. (ref.)				High Conflict vs. (ref.)	
	Moderate Conflict	exp(b)	High Conflict	exp(b)	Moderate Conflict	exp(b)
Socioeconomic Status						
R's average household income (logged)	-0.44 (0.22)	0.64*	-0.34 (0.34)	0.71	-0.09 (0.31)	0.91
R's Education	-0.02 (0.05)	0.98	-0.03 (0.07)	0.97	0.01 (0.07)	1.01
R experienced poverty	-0.21 (0.25)	0.81	-0.36 (0.40)	0.70	0.15 (0.37)	1.16
Relationship Features						
R and Spouse lived together prior to marriage	0.58 (0.21)	1.79**	0.38 (0.30)	1.46	0.20 (0.27)	1.22
R's prior marital duration	-0.05 (0.04)	0.95	-0.08 (0.05)	0.92	0.03 (0.04)	1.03
Family Background						
R lived with both parents @ 14	0.07 (0.22)	1.07	0.56 (0.35)	1.75	-0.50 (0.32)	0.61
Work History						
Average hours R worked (*100)	-0.01 (0.02)	0.99	0.01 (0.04)	1.01	-0.02 (0.03)	0.98
R experienced at least one spell of unemployment	0.16 (0.22)	1.17	0.70 (0.35)	2.01*	-0.54 (0.32)	0.58+
Psychological functioning						
R's esteem quartile	-0.04 (0.10)	0.96	-0.19 (0.16)	0.83	0.14 (0.15)	1.15
R's locus of control	-0.01 (0.09)	0.99	0.26 (0.15)	1.30+	-0.28 (0.14)	0.76*
Demographic Characteristics						

R is Black	-0.50 (0.28)	0.61+	0.23 (0.40)	1.26	-0.73 (0.37)	0.48+
R is Hispanic	-0.14 (0.27)	0.87	-0.04 (0.39)	0.96	-0.10 (0.35)	0.90
R's # of children	0.15 (0.10)	1.16	0.54 (0.14)	1.72***	-0.38 (0.12)	0.68**
R was born in the U.S.	0.18 (0.41)	1.20	0.33 (0.63)	1.39	-0.15 (0.59)	0.86
R lived in South in 1979	0.19 (0.22)	1.21	0.18 (0.34)	1.20	0.00 (0.31)	1.00
R's Age in 1979	0.13 (0.06)	1.14*	0.12 (0.08)	1.13	0.00 (0.07)	1.00
R's Age at Marriage	-0.06 (0.03)	0.94+	-0.10 (0.05)	0.90*	0.03 (0.04)	1.03
Constant	4.73+ (2.56)		1.29 (3.96)		3.44 (3.55)	
Log Likelihood				-455.47		
Sample Size				597		
Nagelkerke R2				0.13		
Notes: Coefficients and standard errors are based on 10 multiply imputed data sets. Standard errors in parentheses. Estimates are weighted by probability of membership in most likely class. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.						

the divorce, according to the results of the latent growth curve. This suggested that conflict is relatively high just prior to divorce. In contrast to happiness and conflict, however, I found no evidence that levels of conflict change over time prior to divorce. Neither the slope nor the quadratic term was significantly different from zero, suggesting a remarkable amount of stability in marital conflict prior to divorce.

This surprising stability is also found in the results from the latent class growth analysis, presented in the bottom panel of Table 4 and Figure 3. The measures of model fit (see Table 3) suggested that a three class solution provided the best fit to the data. The three classes were characterized by differing overall levels of conflict throughout the marriage but similar changes in conflict prior to divorce. Individuals in the high conflict group reported higher levels of conflict throughout the marriage than women in the moderate or low conflict groups. Wald tests once again suggested that the intercepts in the three groups differed significantly and that all three groups appeared to experience similar changes in conflict over time (i.e., stability).

Table 7 presents the results from the multinomial logistic regression equation predicting membership in each class, weighted by probability of membership in the highest class. Unlike happiness, and communication, individuals with higher levels of income were more likely to be in the Low Conflict group than the Moderate Conflict group. As income increased, so did the predicted probability of membership in the low conflict group. For example, women living in households with an annual income of approximately \$20,000 had a predicted probability of 0.27 of membership in the low conflict group. This increased to 0.42 for those making more than \$100,000. In contrast,

individuals with household incomes of \$20,000 had a 0.62 predicted probability of membership in the moderate conflict group and those making substantially more (>\$100,000) had a predicted probability of 0.48. Compared to women who did not cohabit, women who lived with their spouses prior to marriage had a higher probability of membership in the Moderate Conflict group relative to the Low Conflict group (0.65 vs. 0.24). Additionally, the number of children a respondent had was again associated with the probability of group membership. Individuals with greater numbers of children were more likely to experience a High Conflict and Moderate Conflict trajectory than a Low Conflict one. Marrying at later ages was also associated with decreasing likelihood of membership in the High Conflict group compared to the Low Conflict group.

Discussion

The goal of this paper was to empirically examine pathways of marital change among individuals whose first marriages ended in divorce. Despite suggestive evidence of heterogeneity in trajectories of marital quality prior to marital dissolution, the literature has yet to assess how marital happiness, communication, and conflict change in the years leading up to the divorce in a longitudinal sample of national respondents. Further, research has yet to document whether individuals heading toward divorce experience similar changes in their marriage or whether there is evidence of variation in the ways individuals experience marital change as divorce approaches. Additionally, we know little about factors that may distinguish the likelihood that individuals follow any given path over another. This paper, then, investigated the extent to which individuals followed distinct trajectories of marital quality in the years leading to divorce.

Using Latent Class Growth Analysis, I found pervasive evidence against the conventional view that most divorcing individuals experience similar marital quality prior to divorce. Although nearly all distressed marriages exhibited declining happiness and communication and stable conflict, some marriages were happier, had better communication, and reported less overall conflict than others. In no case did the results of the LCGAs suggest that a single trajectory of marital quality, whether defined by happiness, communication, or conflict, adequately represented the marital quality experiences of women in the NSLY79.

For marital happiness, the results suggested two distinct trajectories prior to divorce, characterized by high and low levels of happiness throughout the relationship, respectively. Both of these groups, however, experienced deteriorating marital happiness over time and an accelerated decline in the years prior to marital dissolution; the magnitude of the overall decline and accelerated as divorce approached appeared to be similar for both groups.

The findings for communication also suggested the presence of at least two groups with distinct longitudinal trajectories. The first group reported above average marital communication as long as 14 years prior to divorce and steady declines in the years leading to divorce. The second group reported much poorer marital communication throughout the marriage and steeper declines than the first group. In contrast to the results for marital happiness, neither of the two marital communication groups experienced an accelerated decline in the years immediately preceding divorce.

The greatest amount of variation in trajectories of marital quality prior to divorce was found for marital conflict, where a three class solution was found to fit the data best.

These three groups were characterized by high, moderate, and low levels of conflict prior to dissolution. The differences in conflict throughout the marriage were particularly striking, with women in the low conflict group reporting levels of conflict over 1.5 standard deviations below women in the high conflict group, a very large difference. This is striking in light of the fact that all individuals examined here divorced, indicating that only a minority (12%) of divorced women reported very high levels of conflict. The remainder (88%) reported either elevated or average. Interestingly, I found no evidence that marital conflict changed in the years prior to divorce for any group, nor did I find any indication that conflict accelerated in the years immediately preceding divorce. This suggests remarkable stability in trajectories of marital conflict prior to divorce, in line with prior work on marital conflict (Kamp Dush & Taylor, 2011).

The combined findings for marital happiness, communication, and conflict suggest that traditional methods such as random and fixed effects and latent growth curves may not provide all information necessary for understanding the complex patterns of marital change in the years prior to divorce. Because traditional methods assume that a single trajectory of marital change adequately represents all marital experiences, such methods may obscure significant variation in patterns of marital change. This paper, with its emphasis on the possibility of multiple trajectories of marital happiness, communication, and conflict, provides an initial look at this variation, and documents for the first time the empirical evidence of heterogeneity in trajectories of marital quality prior to divorce, along with the approximate proportion of the population from which the sample was drawn that follows each trajectory (see Table 2).

The current study also provides insights into how frequently studied correlates of marital quality are related to membership in each trajectory. The only correlate that consistently differentiated between trajectories of marital happiness, communication, and conflict was the number of biological children the respondent had. On average, women with more children tended to report membership in trajectories characterized by lower levels of happiness and communication and higher levels of conflict prior to divorce, supporting prior work in the area (Amato, 2010; Dew & Wilcox, 2011; Lavner & Bradbury, 2010). The study also revealed that many variables commonly associated with overall levels of marital quality did not differentiate between the heterogeneous marital experiences of divorcing women, despite the wide swath of variables studied, including indicators of socioeconomic status, past relationship history, family background, work history, psychological functioning, and demographic characteristics. For instance, household income and education, traditional indicators of socioeconomic status, did not appear to distinguish between members of the varying classes of marital happiness or communication, suggesting that individuals with high levels of income and education may experience either high or low levels of marital communication and happiness prior to divorce, despite the well-known socioeconomic divide in levels of marital quality more generally (Amato et al., 2007). Higher levels of household income were generally associated with membership in trajectories characterized by less marital conflict, though.

Scholarly debate has also centered on the role of premarital cohabitation on subsequent marital outcomes (Kamp Dush et al., 2003; Manning & Smock, 2005; Smock, 2000; Teachman, 2003). I found no evidence that premarital cohabitators were more likely to experience more detrimental trajectories of marital happiness or communication prior

to divorce than women who married directly. However, women who lived with their spouse prior to marriage were more likely to experience moderate, rather than low levels of marital conflict prior to divorce.

The findings of this study also speak to several prominent theories of marital change, life course, life events/accommodation, enduring dynamics, and exchange theory. The life course model and exchange theory views marital quality as dynamic in nature and proposes that a major life transition such as divorce is often preceded by declines in the quality of a marriage. Support for these perspectives was found in the fact that all groups of happiness and communication, respectively, experienced declines in the years prior to divorce, with marital happiness showing an accelerated decline in the years immediately preceding the divorce. Incidentally, this may also suggest the presence of developmental change over time for these two outcomes (Amato et al., 2007; D. R. Johnson et al., 1992). Additional support was found in the fact that the two communication groups experienced different slopes, suggesting that marital communication declined more rapidly for the group with lower communication. The current study also found support for the enduring dynamics perspective, which holds that marital quality is a relatively stable phenomenon over time because of early relationship, even premarital, characteristics. Consistent with this second perspective, my results showed that some women who later divorced had lower levels of marital happiness and communication and higher levels of conflict than other women throughout the marriage, some even up to 14 years prior to the divorce. For all three outcomes, the difference in the intercept was significant for all groups. Furthermore, I found no evidence that marital conflict changes prior to dissolution. The combination of distinct differences in the

overall level of marital quality between the groups and the temporal stability of marital conflict suggest the importance of characteristics and dynamics that establish the quality of the relationship during the early stages of courtship and marriage.

As with any study, this one has several limitations. First, because the NLSY79 asked questions regarding marital quality only to women, the extent to which the findings are generalizable to men is unknown. However, it is important to note that despite evidence that women tend to report lower *levels* of marital quality than men (Skinner et al., 2002), evidence of differences in how marital quality *changes* over time is much weaker. Amato, Booth, Johnson, and Rogers (2007) found that women tend to report lower levels of marital happiness but that changes in marital quality were similar for men and women, suggesting that patterns of change in marriage may not be gendered to the same extent as the overall level of marital quality. Additionally, the fact that women tend to report lower levels of marital quality may render the estimates presented conservative, since marital quality would almost certainly be higher if men were included in the sample. A second limitation deals with the absence of early marriages from the sample. Because we know that marriages contracted at early ages tend to be less stable (Glenn et al., 2010), their absence from this sample means I am unable to capture some of the most troubled marriages. I also have limited dimensions of marital quality, and future work should examine whether the patterns I observe here for happiness, communication, and conflict are similar to patterns observed for other dimensions of marital quality, such as marital interaction, problems, and divorce proneness. A third limitation is the issue of endogeneity, or reverse causation, in the results from the logistic regression equations. Because many correlates of marital quality have been shown to be both a cause and

consequence of marital quality (Amato & Booth, 1997), the causal ordering of these processes is complex and multidirectional. Consequently, I make no claims regarding causality. Additionally, because I could only observe marital quality for up to 15 years prior to divorce, the extent to which the observed patterns continue past the 15 year mark remains an open question.

Despite these limitations, these results provide a better understanding of marital processes and marital change. Previous work on marital quality among divorcés suggested the presence of two types of marriages that end in divorce, one characterized by low marital commitment and distress and another by high distress and poor relationship skills (Amato & Booth, 1997; Amato & Hohmann-Marriott, 2007). Overall, the evidence provided in this paper provides support for this general conclusion, with some important extensions. The results for marital happiness and communication both suggested two trajectories of marital quality prior to divorce, characterized by high and low levels of happiness and communication, respectively. Groups displaying high, moderate, and low marital conflict were also found. This evidence of differences in the overall level of marital quality among divorcing individuals supports Amato and colleagues' broader conclusion regarding the diversity of marital experiences leading to divorce. However, it is notable that most of the variation in trajectories of marital happiness, communication, and conflict prior to divorce was found in the overall level rather than the rate of change (i.e., the intercepts rather than the slopes)—most marriages appeared to change (or not change, in the case of marital conflict) in similar ways, at least for the outcomes studied here, in the years leading to divorce. Notably, however, marital communication declined more rapidly for individuals in the low communication group

and some respondents whose marriages eventually ended in divorce reported lower levels of marital quality than others more than a decade before the relationship's legal dissolution. Additionally, marital happiness appears to undergo an accelerated decline in the years immediately preceding divorce, a pattern not observed for communication or conflict.

To conclude, this paper provides evidence, for the first time, of variation in trajectories of marital quality prior to divorce. The results presented here suggest that not all divorcing marriages have similar levels of marital quality and that some marriages prior to divorce are of much poorer quality than others. Clearly, not all divorcing couples have distressed marriages. With increasing family diversity, understanding these heterogeneous pathways traveled by individuals heading toward divorce may become increasingly important.

Chapter 5

Conclusion

Perhaps no subject in the study of the American family has been the subject of more research than marital quality (Bradbury et al., 2000; Glenn, 1990; Groves & Ogburn, 1976; Knapp & Lott, 2010; Mowrer, 1932; Spanier & Lewis, 1980; Terman, Bittenwieser, Ferguson, Johnson, & Wilson, 1938). Because of the duality of marriage, which at once serves as the most intimate of all personal relationships and as the basis of the family, perhaps the most fundamental social unit, the health and strength of marriage in the United States is a matter of great concern to policymakers, scholars, and the general public (McLanahan et al., 2007). Despite the tremendous amount of work on how marital quality changes as a marriage matures, only a small fraction of scholarly output on the topic has focused on whether all individuals experience similar shifts in the quality of their marriage.

This dissertation set out to examine the case for variation in trajectories of marital quality. Unlike previous work, which has often focused on differences in overall levels of marital quality, I explored whether some groups experienced higher initial levels of marital quality as well as what happened to these differences over time. Doing so enabled me to examine both inter- and intra-individual change in marital quality, something that previous studies have rarely been able to do with longitudinal, nationwide data. Broadly speaking, this dissertation focused on questions about how marital happiness, marital communication, and marital conflict changed over time.

By taking a wide lens to examine marital quality across 16 years (from 1992-2008), this dissertation demonstrates that variation in trajectories of marital quality is prevalent and pervasive across the marital life course. Such variation is visible from the very beginning of many marriages, with some married women reporting higher levels of marital happiness, better communication, and less conflict than other women. This constitutes clear evidence against the prevailing though often unacknowledged view that a single trajectory of marital quality is sufficient to describe patterns of marital change.

Further evidence against this view is found in the preponderance of differential experiences of marital quality across several axes of familial and social significance. For example, divorcing women tended to report less happiness and communication and more conflict than their non-divorcing counterparts. I also observed differences by race-ethnicity. Non-Hispanic White women entered marriage with more happiness, better communication, and less conflict than their Hispanic or Black counterparts, although these advantages did not always persist. Interestingly, I find almost no evidence of differences in trajectories of happiness, communication, or conflict between individuals who cohabited with their spouse prior to marriage and those who married directly.

However, this dissertation is not without limitations. First, because the marital quality measures examined here come solely from women, the extent to which the findings are generalizable to men is unknown. However, it is important to note that despite evidence that women tend to report lower *levels* of marital quality than men (Skinner et al., 2002), evidence of differences in how marital quality *changes* over time is much weaker. Amato, Booth, Johnson, and Rogers (2007) found that women tend to report lower levels of marital happiness but that changes in marital quality were similar

for men and women, suggesting that patterns of change in marriage may not be gendered to the same extent as the overall level of marital quality. Additionally, the fact that women tend to report lower levels of marital quality may render the estimates presented conservative, since marital quality would almost certainly be higher if men were included in the sample. A second limitation deals with the absence of early marriages from the sample because young marriages occurred in the early years of the NLSY79, before marital quality data were available. Because we know that marriages contracted at early ages tend to be less stable (Glenn et al., 2010), their absence from this sample likely serves to bias the estimates upward. I also have limited dimensions of marital quality, and future work should examine whether the patterns I observe here for happiness, communication, and conflict are similar to patterns observed for other dimensions of marital quality.

One particularly innovative aspect of this dissertation is the investigation of trajectories of marital quality prior to divorce, a topic that has received only scant mention in prior literature. Here again I found evidence against the predominant, if not unappreciated, assumption that most divorcing couples undergo similar changes in their marriage as divorce approaches (Emery, 2012; Rollie & Duck, 2006), although most differences were observed in the overall level of happiness, communication, and conflict rather than the way marital quality changes in the years preceding divorce.

At this point, one may ask a perhaps obvious question: given evidence of variation in trajectories of marital quality, what predicts which particular path individuals are likely to follow? The results suggest several possible answers. The most consistent and often the strongest predictor of which marital quality pathway given individual takes

was the number of children in the household, with individuals with fewer children tending to be disproportionately concentrated on trajectories characterized by high happiness and communication and low conflict. The influence of children on marital quality has been the subject of much debate (Bradbury, 1998; Dew & Wilcox, 2011; Twenge, Campbell, & Foster, 2003). The results from this dissertation add to this ongoing conversation by demonstrating that the number of children one has appears to be linked not only to the overall level of marital quality but also shapes the association between marital quality and marital duration by influencing one's longitudinal trajectory of marital happiness, communication, and conflict. This remains true whether one examines trajectories of marital quality starting at the beginning of the marriage or if assessing marital quality prior to divorce. Other predictors, such as family background, work history, and psychological functioning, were less consistent in differentiating between membership in the various trajectories of marital quality. However, individuals with low levels of income and members of racial-ethnic minorities tended to be disproportionately represented on low happiness, poor communication, and high conflict trajectories, further evidence of the magnitude and precariousness of social inequality.

This dissertation also holds implications for several prominent theories of marital change. Despite prior work attempting to delineate between two (or more) theories and then testing to examine which theory receives the most support (Glenn, 1998; Huston, Niehuis, et al., 2001; L. Kurdek, 1999; VanLaningham et al., 2001), a victor in the contest for theoretical supremacy has yet to emerge. One might argue, based on the results presented here, that at least part of the reason for the lack of theoretical clarity is that the amount of variation in trajectories of marital quality is underappreciated. I found

circumstances that supported many aspects of several prominent theories of marital change. For example, consistent with an enduring dynamics and social exchange perspective, I found that divorcing individuals experienced lower initial levels of marital happiness and communication and greater conflict. Furthermore, differences nearly always persisted throughout the marriage. Additionally, initial differences in marital quality were often substantial, indicating that early—perhaps even premarital—couple dynamics likely influenced whether one was able to successfully build and maintain a happy and healthy marriage. Still, marital quality usually did not remain stable over time. Congruent with a life course and life-event/accommodation model, I observed changes, sometimes even rapid, in marital happiness, communication, and conflict. Additionally, while most individuals experienced declines in marital quality over time, the magnitudes of decline was greater for some women than for others.

Thus, there appears to be ample room for what one might term theoretical diversity. A composite model, one that acknowledges that insights from all theoretical perspectives can be molded into an emergent model of marital change, is needed. This more general model acknowledges the importance of relationship problems as early predictors of divorce (Gottman, 1994; Huston, Caughlin, et al., 2001; Huston, Niehuis, et al., 2001) but also recognizes that marriages undergo significant and perhaps predictable sequences of change throughout the marital life course. Karney and Bradbury's (1995) vulnerability-stress-adaptation (VSA) model seems a good place to start. According to this model, vulnerabilities that spouses bring to their marriages, such as poor relationship skills or negative personality traits, and life events, whether positive or negative, influence couples' marital quality, mitigated by a couple's adaptive processes, like

conflict resolution and communication skills. The VSA seems a good example of a theory that grants that marital problems can emerge quite early in a relationship while also allowing for the subsequent growth or deterioration that inevitably follow the vicissitudes of marital life.

However, it must be noted that even the VSA model is incomplete, as further theoretical work is needed to explain why some dimensions of marital quality display markedly different patterns of patterns of longitudinal change than others. Theoretical elucidation is needed to understand why the same vulnerabilities, stressors, and adaptations result in differing patterns of happiness, communication, and conflict *for the same couple*. For example, do some vulnerabilities or stressors influence happiness more than communication or conflict? Are some dimensions of marital quality, such as conflict (an action), more susceptible to adjustments and reparation than other dimensions, such as happiness (a belief)? It may also be helpful if debates about which theory receives the most support yield to discussions regarding the circumstances under which each theory is likely to hold the greatest predictive power and theoretical leverage, coupled with an emphasis on how portions of each theory may be combined into a more general model.

This dissertation also contributes to the marital quality literature with several methodological advances. I employ a longitudinal, nationwide dataset that includes both stably married and divorcing individuals, use marital duration¹ as my time metric, and examine three dimensions of marital quality, something that previous work on variation in trajectories of marital quality has been unable to do (Anderson et al., 2010; Kamp Dush & Taylor, 2011; Lavner & Bradbury, 2010). Perhaps more importantly, this

¹ Note that the duration of marriage is counted from the beginning of the relationship among cohabitators.

dissertation moves beyond ‘snapshots’ typologies and taxonomies of marital quality (Amato et al., 2007; Fitzpatrick, 1988; Gottman, 1993; Hetherington & Kelly, 2003; M. P. Johnson et al., 1992; Lavee & Olson, 1993; Scanzoni, 1980; Snyder & Smith, 1986) by incorporating the time dimension more fully into the analysis using latent class growth analyses. Doing so enabled me to represent more accurately the heterogeneity in marital quality trajectories over time, providing a better picture of the complexity and nuance that characterize contemporary patterns of marital quality.

In sum, this dissertation has provided compelling evidence of variation in trajectories of marital quality—not all experiences of marital change are similar. Thus, we may need to reconsider the notion that a single trajectory of marital quality can adequately summarize an entire population’s marital profile, since this assumption buttresses debates about the association between marital quality and marital duration (U-shaped Curve vs. Continual Decline) and about which theory best represents why marital quality changes or remains stable (Marital Life Course, Enduring Dynamics, Exchange Theory, Life Events/Accommodation, VSA, etc.).

Additionally, such an emphasis on variation within marriage itself should serve to uproot the implicit assumption, often made when comparing other relationship forms, like cohabitation, to marriage that marriage is a homogenous (and perhaps homogenizing) institution. Given the wide range of marital experiences demonstrated herein, further examinations of variation *within* marriage itself may provide greater leverage for understanding patterns and processes of contemporary relationship quality.

It is my hope that this dissertation will spur further work on how romantic relationships change over time. Perhaps the most important point of this work, quite

simply, is that a one-size-fits-all approach to studying longitudinal trends of marital quality is insufficient. There are multiple patterns of marital change, and multiple avenues through which such change occurs. Furthermore, these patterns are contingent upon the particular dimension of marital quality examined, reinforcing the importance of viewing marital quality as a multidimensional construct of conceptually distinct but empirically correlated measures of a 'good' marriage. In light of such heterogeneity, a renewed effort to understand the theoretical underpinnings of these patterns may be merited. For starters, an acknowledgement that marital quality changes in multiple ways over time calls for multiple theories to understand the contexts and circumstances that generate these pathways. In the meantime, our search for a grand, unifying theory of marital quality may need to take a backseat to efforts aimed at improving our grasp of the theoretical mechanisms driving these differences.

To conclude, perhaps the primary contribution of this dissertation should be a better understanding of the pathways married couples travel along the road to marital bliss or blunder. Married individuals appear to follow several distinct pathways through marriage, characterized by a number of trajectories in marital quality over time. A greater focus in future research on the variation in the pathways individuals travel across the marital life course will allow us greater understanding of the social processes governing contemporary patterns of marital quality.

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PEER-REVIEWED JOURNAL ARTICLES

2013 James, Spencer L. and Brett A. Beattie. "Reassessing the Link between Women's Premarital Cohabitation and Marital Quality." Forthcoming at *Social Forces*

2013 James, Spencer L. and Paul R. Amato. "Self-Esteem and the Reproduction of Social Class." Forthcoming at *Social Science Quarterly*

2011 Amato, Paul R., Jennifer Buher-Kane, and Spencer L. James. "Reconsidering 'The Good Divorce?'" *Family Relations* 60(5):511-524.

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MANUSCRIPTS UNDER REVIEW

James, Spencer L. and Paul R. Amato. "Tracing Patterns of Marital Quality Across the Life Course: Evidence from Latent Growth Curves."

Shafer, Kevin and Spencer L. James. "The Role of Socioeconomic Status for First and Second Marriage Entry: Within and Between Gender Differences."

Goodsell, Todd, Spencer L. James, Jeremy B. Yorgason, and Vaughn R.A. Call. "Intergenerational Assistance to Adult Children: Gender and Number of Sisters and Brothers."

James, Spencer L. and Kevin Shafer. "Temporal Differences in Remarriage Timing: Comparing Divorce and Widowhood."