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Marital Happiness and Psychological Well-Being Across the Life Course*

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Abstract: Using data from six waves of the Study of Marital Instability over the Life Course ($N = 1{,}998$), we conducted a latent class analysis to test for distinct marital happiness trajectories. We found three distinct marital happiness trajectories: low, middle, and high happiness. Initial levels of life happiness were strongly associated with membership in the marital happiness trajectories and with various demographic and attitude-related control variables. Using fixed effects regression with time-varying covariates, we also found that marital happiness trajectory membership was associated with subsequent changes in both life happiness and depressive symptoms. All respondents experienced a decrease in life happiness between Wave 1 and the end of their observed time in their marriage, but respondents in the high marital happiness trajectory experienced the smallest decline. Respondents in both the high and middle marital happiness trajectories also experienced a decline in depressive symptoms across time. Intervention and policy implications are discussed.

Key Words: depression, latent class analysis, marital happiness, marital satisfaction, well-being.

In February 2006, President George W. Bush reauthorized the Temporary Assistance to Needy Families program and extended the original legislation such that, currently, $100 million a year is provided for programs that promote healthy marriage via the Healthy Marriage Initiative. One of the main theoretical assumptions of this legislation is that adults are better off in terms of health and psychological well-being if living in households having marital unions. However, recent evidence has suggested that marriage is not beneficial for all spouses with respect to health and well-being (Hawkins & Booth, 2005; Williams, 2003). Our study extends this work by using latent class methods to establish trajectories of marital happiness and then linking trajectories of marital happiness to both positive and negative aspects of psychological well-being. We used six waves of data from the Study of Marital Instability over the Life Course (Booth, Johnson, Amato, & Rogers, 2003), collected from 1980 to 2000, to examine these associations.

Marital Happiness Over Time

In the marital literature, marital quality or health has been broadly defined. For example, marital happiness, marital conflict, marital commitment, social support, marital interaction, marital discord, forgiveness, and domestic violence have each been conceptualized as dimensions of marital quality and are sometimes combined as a single indicator of marital quality (Stanley, 2007). Marital scholars have recently critiqued research that uses global indicators of marital quality, particularly widely used global evaluators that include the Dyadic Adjustment Scale

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(Spanier, 1976) and the Marital Adjustment Test (Locke & Wallace, 1959). Scholars have called instead for a more nuanced view of various indicators of marital quality (Amato, Booth, Johnson, & Rogers, 2007; Fincham & Beach, 2006). We chose to focus our investigation on a single dimension of marital quality—marital happiness, that is, an overall appraisal of the degree of happiness with various dimensions of one's marriage. Marital happiness is a powerful indicator of marital quality, although it does not capture specific behavioral correlates. For example, marital happiness correlates with other indicators of marital quality, such as marital interaction, marital conflict, marital problems, and divorce proneness (Amato et al., 2007). Marital happiness has also been found to correlate with the presence of children in the household, household income, welfare use, egalitarian attitudes, traditional marital attitudes, religiosity (Amato et al., 2007), and the interdependence of familial and friendship networks (Kearns & Leonard, 2004). Thus, we use the term "marital happiness" to indicate variables used in past research to measure satisfaction or happiness with various domains of the marriage. We use "marital quality" to indicate global evaluations of marriage that may include behavioral indicators (such as the amount of conflict) or indicators of social comparison (e.g., would the respondent marry his/her spouse again if they had their life to live over). Examples of marital quality measures include the aforementioned Marital Adjustment Test and Dyadic Adjustment Scale.

Thus far, much of the work on marital happiness over the life course has focused on mean changes in marital happiness over time. Previous work found that marital happiness followed a U-shaped curve, declining in the early years of marriage and increasing through the later years (Glenn, 1989; Peterson, 1990). More recently, scholars have attributed the upturn in the U-shaped curve to the cross-sectional data used in earlier work (Glenn, 1998). VanLaningham, Johnson, and Amato (2001), also using the Study of Marital Instability over the Life Course with fixed effects pooled-time series methods, found that marital happiness declined at all measured durations. Similarly, Umberson, Williams, Powers, Chen, and Campbell (2005) used growth curve analysis and found that, in general, marital quality declined over time.

The marital population, however, is heterogeneous. Attempts to illuminate the diversity of marital experiences across time have been few. In a notable exception, Beach, Fincham, Amir, and Leonard (2005) conducted a taxometric analysis of the Marital Adjustment Test. This analysis indicated that about 20% of respondents were dissatisfied with their relationships or in discordant relationships, whereas approximately 80% were free of discord or satisfied with their relationships over time. In a validation of their taxometric analysis, Beach et al. also found that discordant and nondiscordant couples differed significantly on the Multidimensional Satisfaction Scale (Kearns & Leonard, 2004), a measure similar to our measure of marital happiness. We used latent class analysis (LCA), a statistical method for identifying unmeasured group membership among subjects (Muthén, 2004) to identify trajectories of marital happiness over 20 years. We hypothesized two trajectories of marital happiness over time. First, we expected a low marital happiness trajectory characterized by a consistent decline in marital happiness over time. Considering the work of Beach et al., we expected only a minority of respondents (roughly 20%) to demonstrate this low trajectory. Second, we expected to find a high marital happiness trajectory characterized by maintained high happiness over time.

Marital Happiness and Psychological Well-Being

Proulx, Helms, and Buehler (2007) recently conducted a meta-analysis examining 93 studies of marital quality and individual well-being. They found that marital quality and psychological well-being were positively related both concurrently and over time such that higher levels of marital quality were associated with greater individual well-being. Yet, each study that was cited in their analysis treated marital quality as a continuous variable, and the analysis did not explore whether the association between marital quality and individual well-being differed for highly satisfied versus dissatisfied marriages. In an exception to this work that was not included in the meta-analysis, Hawkins and Booth (2005) identified unhappy marriages as those that scored below the mean of marital happiness among respondents who were present in each of the first four waves of the Study of Marital Instability over the Life Course. They found that spouses who were continuously married and who reported a mean or higher level of marital happiness had greater individual well-being over time than did continuously unhappily married respondents, even after taking into account initial levels of marital happiness. In

another example, Kamp Dush and Amato (2005) found that spouses who scored one standard deviation above the mean of marital happiness had significantly greater subjective well-being than spouses who scored one standard deviation below the mean. However, both of these papers did not include a systematic evaluation to distinguish satisfied from unsatisfied marriages. Using the mean or standard deviation to identify satisfied and unsatisfied marriages may not distinguish meaningful thresholds of unhappy versus happy marriages. In particular, a mean or median split could inflate the number of unhappy couples identified. The clear advantage of using a method such as LCA is to do a systematic analysis to determine group membership and patterns of change over time.

There are two main perspectives linking marital quality and psychological well-being in the literature (Proulx et al., 2007). The stress generation model (Davila, Bradbury, Cohan, & Tochluk, 1997) posits that individuals with low psychological well-being encounter stressful interactions with their spouses and that, in turn, these stressful interactions lead to even greater declines in psychological well-being. For example, a wife with low psychological well-being might withdraw from family life, creating tension in her marital relationship and causing arguments with her husband. In turn, this tension might lead to further deterioration in the wife's well-being.

The second perspective linking marital quality and psychological well-being is the marital discord model of depression (Beach, Sandeen, & O'Leary, 1990). This theoretical model has drawn from clinical work on depressed individuals who were unhappy with their marriages. This model has posited that low-quality marriages lead to an increased risk of depression because spouses are among the most important sources of social support, thus normally serving as a strong protective factor against depression (Brown, Andrews, Harris, Adler, & Bridge, 1986). However, within unhappy marriages, this social support is lacking. Further, this model has argued that the stressful and hostile family environment common to unhappy marriages also increases the risk for lower levels of psychological well-being.

Thus, in combining the stress generation and martial discord models, our second hypothesis is that low levels of life happiness at Wave 1 will predict a low marital happiness trajectory, whereas high levels of life happiness at Wave 1 will serve as a protective factor and will predict a high marital happiness trajectory. Our third hypothesis is that membership in the low marital happiness trajectory will predict an increase in depressive symptoms and lower life happiness over time, whereas membership in the high marital happiness trajectory will predict a decrease in depressive symptoms and higher life happiness over time.

The Measurement of Psychological Well-Being

Psychological well-being is a complex construct that contains various dimensions. For example, psychological well-being includes both the presence of "positive affect, and the relative absence of psychological distress" (Williams, 2003, p. 474). Considering both positive and negative indicators of psychological well-being allows for a broader understanding of the association between marital happiness and psychological well-being. The two components of positive affect that have most frequently been examined are life satisfaction and general happiness, whereas depressive symptoms are the most commonly studied aspect of negative affect (Keyes, Shmotkin, & Ryff, 2002). Within this analysis, we focus on life happiness as our measure of positive affect, and on depressive symptoms as our measure of negative affect.

Competing Explanations

Because we sought to eliminate sources of unmeasured heterogeneity within our models, we controlled for a variety of demographic, family, education, economic, gender relations, and attitude/value-related variables in our models that have been associated both with differences in psychological well-being (Mirowsky & Ross, 2003) and in marital happiness (Amato, Johnson, Booth, & Rogers, 2003). By controlling for these variables and eliminating them as competing explanations for the association between low or high marital happiness trajectories and psychological well-being, we better established the robustness of the associations between marital happiness and psychological well-being.

Method

Data and Analytic Sample

The analysis was based on the study of Marital Instability over the Life Course (Booth et al., 2003).

Telephone interviewers used a random digit dialing procedure to obtain a national sample of 2,034 married individuals who were 55 years of age or younger in 1980. At Wave 2 in 1983, 1,592 (78%) of the respondents from the original sample were successfully reinterviewed. At Wave 3 in 1988, 1,341 (66%) were reinterviewed. At Wave 4 in 1992, 1,183 (58%) were reinterviewed. At Wave 5 in 1997, 1,077 (53%) were reinterviewed. At Wave 6 in 2000, 962 (47%) were reinterviewed. Those respondents who were male, non-White, remarried, with less education, and with more traditional gender attitudes were significantly more likely to be lost from the sample due either to nonresponse or death. Because of selective attrition from the study, we tested for the robustness of our estimates by running our trajectory models with and without the individuals who were lost from the study. We based the trajectory analysis on the 1,998 people with a value on marital happiness at Wave 1. All other descriptive statistics and analyses excluded two respondents who have missing data on life happiness at Wave 1.

Measures

Marital happiness. We used a marital happiness scale (alpha reported in Table 1) that is the average of seven indicators of marital happiness. The first five questions measured the amount of happiness with the (1) extent of understanding received from spouse, (2) amount of love received, (3) sexual relationship, (4) spouse as someone to do things with, and (5) spouse's faithfulness. Each of the variables were coded such that 0 = *not too happy*, 1 = *pretty happy*, and 2 = *very happy*. Also included was (6) a global evaluation of the marriage as *very happy*, *pretty happy*, or *not too happy*. The final item was (7) the strength of feelings of love respondent has for spouse, coded as: 0 = *not too strong* or *not strong at all*, 1 = *pretty strong*, and 2 = *extremely strong* or *very strong*. We took the average of these items at each wave and we recoded the mean to be a 5-point ordinal variable with values of 0, .5, 1, 1.5, and 2. We did this to reduce the number of unique values of marital happiness for model convergence.

Life happiness. Life happiness was conceptualized as a positive emotional state that persists over extended periods, irrespective of temporary fluctuations in affect level (Argyle, 1999). The single-item rating of life happiness was "Overall, how happy would you say you are these days? Would you say you are (1) *very happy*, (2) *pretty happy*, or (3) *not very happy*?" Life happiness was recoded such that higher scores indicated more life happiness.

Depressive symptoms. We used the Langner (1962) scale to assess depressive symptoms with respect to feelings of depression and anxiety, as well as somatic symptoms such as headaches and sleeplessness. Sample items included, "How often in the last year have you found yourself wondering if anything is worthwhile anymore?" and "How often in the last year did you feel isolated and alone, somewhat apart from others, even among friends?" (1 = *never*, 2 = *sometimes*, 3 = *often*). The sum of the 8 items served as the measure. Note that depressive symptoms were only measured at Waves 2 through 6. Life happiness and depressive symptoms were significantly negatively correlated ($r = -.35$, $p < .05$).

Control Variables

All covariates were measured in 1980 unless noted. Marital duration was a continuous variable coded as the number of years respondent had been married in 1980. Ever divorced was coded as 1 (*respondent divorced his/her 1980 spouse at a future wave*) or 0 (*respondent was continuously married to spouse or marriage ended because of death*).

Demographic and family. Age at first marriage was a continuous variable coded as the age of the respondent at 1980 marriage. Gender was coded 1 = *female*. Race was coded 1 = *White*. Marital duration was coded as the number of years the respondent was married. Homogamy was measured as a dichotomous variable where 1 = *respondent and spouse were different races, different education levels* (defined as a difference of 4 or more years)*, or different ages* (defined as a difference of 6 years or more). Parental divorce was coded 1 = *either respondent's or respondent's spouse's parents divorced*. Remarriage was coded 1 = *either respondent or their spouse were in a second or higher-order marriage*. Premarital cohabitation was coded as 1 = *lived together before marriage*. Children less than 18 years of age was coded as the total number of children less than 18 years old reported in the household at each wave.

Education and economic. Education was coded as three dichotomous variables where less than high school was coded as 1 = *11 or fewer years of education*, high school was coded as 1 = *12 years of education*, and some college was coded as 1 = *13 or more years of education for both husbands and wives*. Family

Table 1. *Means and Standard Deviations[a] (in parentheses) of All Variables in Analysis (N = 1996)*

Variables	Wave 1		Range	α
Marital happiness	1.64	(0.42)	0 – 2	0.86
Life happiness	1.41	(0.57)	0 – 2	—
Depressive symptoms[b]	3.09	(2.67)	0 – 13	0.75
Last wave in 1980 marriage				
Wave 2	.15		0 – 1	—
Wave 3	.09		0 – 1	—
Wave 4	.07		0 – 1	—
Wave 5	.05		0 – 1	—
Wave 6	.38		0 – 1	—
Demographic and family				
Age	35.35	(9.21)	16 – 55	—
Age at marriage	22.89	(5.38)	14 – 53	—
Female	0.60		0 – 1	—
White	0.88		0 – 1	—
Years married	12.45	(9.16)	0 – 38	—
Homogamy index	0.47		0 – 1	—
Parental divorce—R or Spouse	0.28		0 – 1	—
Remarriage—R or Spouse	0.20		0 – 1	—
Premarital cohabitation	0.16		0 – 1	—
Children less than 18	1.40	(1.22)	0 – 7	—
Education and economic				
Less than high school—Wife	0.10		0 – 1	—
High school—Wife	0.43		0 – 1	—
Greater than high school—Wife	0.46		0 – 1	—
Less than high school—Husband	0.12		0 – 1	—
High School—Husband	0.32		0 – 1	—
Greater than high school—Husband	0.55		0 – 1	—
Family income	27,516 (13,267)		2,500 – 65,000	—
Public assistance	0.10		0 – 1	—
Wife employed full time	0.31		0 – 1	—
Wife extended hours	0.12		0 – 1	—
Husband employed	0.91		0 – 1	—
Gender relations				
Husband share housework	0.27	(0.18)	0 – 1	—
Equal decision making	0.50		0 – 1	—
Attitudes and values				
Religiosity	3.67	(1.21)	1 – 5	
Traditional gender attitudes	2.37	(0.46)	1 – 4	0.71
Traditional marriage attitudes	2.61	(0.41)	1 – 4	0.59
N	1,996			

[a]Standard deviations given for continuous variables only. [b]Measured at Wave 2.

income was coded in thousands of 1980 dollars at each wave. The log of family income was used in all regression models. Public assistance was coded at each wave as a dichotomous variable where 1 = *any form of reported public assistance*. Wives' employment status was measured at each wave by two variables, including wife employed full time, where 1 = *wife worked 35 – 45 hours per week*, and wife extended hours, where 1 = *wife ever worked extended hours* (46 or more hours per week). Husband employment

was measured at each wave and coded as 1 = *husband employed*.

Gender relations. Husbands' housework was coded at each wave as the proportion of housework done by the husband in response to the question: "In every family there are a lot of routine tasks that need to be done, such as cleaning the house, doing the laundry, cleaning up after meals, cooking dinner, and so on. How much of this kind of work is usually done by you?" Response options included *none* (0), *less than half* (.25), *about half* (.50), *more than half* (.75), and *all of it* (1). For wives, the variable was reverse coded to represent the husband's share. Equal decision making was constructed from the question: "Overall, considering all the kinds of decisions you two make, does your spouse more often have the final word, or do you?" Equal decision making was coded as 1 = *responses that referred to compromised or shared decision-making* and 0 = *dominance by one spouse*.

Attitudes and values. Religiosity was measured as "In general, how much do your religious beliefs influence your daily life?" (1 = *none*, 5 = *very much*). Note that this variable was not measured at Wave 2; hence, we do not use it in our change analyses as we do not have complete longitudinal data on this variable. Traditional gender attitudes were coded at each wave as a 7-item scale that included questions such as, "A woman's most important task in life should be taking care of her children" and "Even though a wife works outside the home, the husband should be the main breadwinner, and the wife should have responsibility for the home and children" (1 = *strongly disagree*; 2 = *disagree*; 3 = *agree*; 4 = *strongly agree*). All items were scored in the direction of traditional attitudes, and the mean of the responses served as the scale score. Traditional marriage attitudes were measured at each wave with six questions, including "Couples are able to get divorced too easily today" and "Marriage is for life, even if the couple is unhappy" (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*). Items were scored in the direction of support for lifelong marriage, and the mean served as the scale score.

Analytic Strategy

Steps in the analysis. To test the number, shape, levels, and sample percentages of marital happiness trajectories, we used LCA of trajectories. There are various models available within the family of mixture modeling with longitudinal data including LCA, latent class growth analysis, and growth mixture models. Muthén (2004) provided an excellent review of these techniques, including their application and the choices between them in terms of addressing specific research questions and general model fit. We chose this strategy because of its parsimony, the fit between the observed data and estimated parameters, and the assumptions of the model that were appropriate for our marital happiness variable. This semiparametric, group-based method uses a multinomial modeling strategy to map group trajectories existing as latent classes in the data (Jones, Nagin, & Roeder, 2001; Land, 2001).

Because the assumption that the entire population will fall into these distinct group trajectories is not likely, these models allow for "fuzziness" while classifying generally distinct groups of experience over age or time (Nagin, 1999). In other words, any individual is classified into the group most representative of her or his values on the observed variables over time. This is achieved through probabilities of class membership generated for each individual, with each individual "assigned" to the class or trajectory for which that individual has the highest predicted probability of class membership. A parametric model of $f(\mathbf{y},\lambda)$ may be assumed for marital happiness, where $\mathbf{y} = (y_1, y_2 \ldots y_T)$ is the longitudinal sequence of observed levels of these constructs across T periods. If it is assumed that subgroups exist and differ in parameter values, the model may be rewritten as:

$$\begin{aligned} f(\mathbf{y}) &= \sum_{k=1}^{K} \Pr(C=k)\Pr(\mathbf{Y}=y \,\big|\, C=k) \\ &= \sum_{k=1}^{K} p_k f(\mathbf{y},\lambda_k) \end{aligned} \tag{1}$$

In Equation (1), p_k is the probability of belonging to class k with corresponding parameter(s) λ_k, and λ_k is dependent on time.

A series of models was run specifying 1 – 5 clusters or classes, We chose a model on the basis of a number of criteria including overall and component model fit and analysis of residuals. Overall model fit includes the chi-squared test statistic (L^2) and relevant p value. We used a boostrap p value because it is shown to perform better when there is missingness in the data. A nonsignificant p value ($>.05$) represents a model with adequate fit. The

relative fit statistics for all models are presented in Appendix 1. The 3-cluster, or class, model (highlighted in the table) presented the best overall fit because, on the whole, the BIC, AIC, and CAIC represented the largest significant reductions compared to previous models. The Classification Error was also relatively close to zero (.19). Residuals were also examined as to reduce them toward 0 in the chosen model (models not shown). In addition, parameter fit was used along with outputted assigned classes to check the estimated parameters of each class against the observed data (models not shown).

Latent class analyses predicting marital happiness trajectories were performed in *Latent Gold 3.0* (Vermut & Magidson, 2004). We first created a baseline model for marital happiness, including controls for marital duration in 1980 and selective attrition through an indicator of divorcing over the 20-year observation period. Sensitivity analyses with a time-varying control for divorce (1983, 1988, etc.) were also run, but no differences in results were found. We next examined the role of life happiness and identified covariates in selection into the marital happiness trajectories. We ran logistic regression models in Latent Gold predicting trajectory membership from life happiness and the identified covariates. Next, we used Stata (v. 10) to examine change in life happiness and depressive symptoms over time. Note that *Latent Gold* computes a predicted probability of membership in each class, and respondents are assigned to the class for which they have the highest predicted probability of class membership. In other words, the models in Latent Gold treat the class membership as unknown rather than known as in Stata. This limitation may lead to decreased standard errors in estimating models in Stata. Hence, our first step for the change models was to output a set of dichotomous variables from the model estimated modal clusters for marital happiness for each individual along with the predicted probability for each respondent of being in a particular class. We created a single variable that was the predicted probability that a respondent was assigned to their Latent Gold model estimated modal cluster. This variable ranged from 0.44 to 1 with a mean of 0.81. Fewer than 10% of our sample used to predict change in life happiness and fewer than 6% of our sample used to predict change in depressive symptoms had greater than a .4 predicted probability of membership in more than one class. Thus, our sample overall fit well into their predicted class. We then used the predicted probability of trajectory membership variable as a probability weight in Stata.

Next, we ran weighted fixed effects (also known as change score models) regression models in Stata. Fixed effects regression is particularly appropriate for two reasons. First, we hypothesized that psychological well-being as measured at baseline (life happiness) was a factor selecting respondents into his or her marital happiness trajectories. Failing to adequately account for this selection through a within-person model would lead to biased estimates (Johnson, 2005). Second, one of the most significant advantages of fixed effects analysis is that all time-invariant sources of heterogeneity are implicitly controlled for in the model (Johnson). Because an individual is being compared to their own score at the earlier wave, any variable that may affect their well-being that is stable, such as race, education, parental divorce, or childhood socioecomonic status, is differenced out. We included the time-varying covariates of family, economic, gender relations, and attitude and value-related control variables as possible mediators of the change in positive and negative affect over time.

To conduct these fixed effects regressions, we used two waves of data, which we refer to as the baseline and final waves. First, we stacked our data such that for life happiness, the baseline data were data from the first wave, and the respondent's final wave in their 1980 marriage served as the data for the final wave. Note that individuals who attritted after Wave 1 or who did not report life happiness at the final reported wave in their 1980 marriage were dropped from the sample. For depressive symptoms, Wave 2 served as the baseline wave because depressive symptoms were not measured at baseline. Again, the respondent's final wave in their 1980 marriage served as the final wave. Those individuals who attritted prior to or at Wave 2 or whom were missing data on depressive symptoms at the final wave in the 1980 marriage were not in this analysis. Once we created the two-stacked datasets, we ran fixed effects regression models for life happiness and fixed effects negative binomial regression models for depressive symptoms. We used the negative binomial regression model for the count variable of depressive symptoms because this variable was skewed (skewness = 1.02) (Land, McCall, & Nagin, 1996).

Model assumptions and missing data. Because the models employed a multinomial modeling strategy, the assumption is a categorical dependent variable

(assumed by default to be ordinal in *Latent Gold*) (Vermut & Magidson, 2004). Analyses of trajectories were replicated using both continuous and categorical (nominal) specifications with no differences in substantive findings. As per previous research, once group membership was established, the assumption is that there is no variation within groups. In other words, although heterogeneity in marital happiness was accounted for in predicting trajectories, once an individual was coded as ''high'' she/he is assumed to be similar on levels of happiness compared to all others in the ''high'' group. We noted that categorization of individuals on marital quality in previous research (Beach et al., 2005; Hawkins & Booth, 2005) follows the same assumption. The missing data function (default in *Latent Gold*) computes the likelihood function of each individual given all available information. Therefore, individuals were allowed attrition because of mortality or nonresponse while still contributing to the analyses until they dropped out (Vermut & Magidson).

Results

Descriptive Statistics

Table 1 reports means and standard deviations (run in Stata) for marital happiness (at each wave in Table 2), the psychological well-being indicators, and the covariates at Wave 1. The descriptive statistics indicate that the participants were generally happy with their marriages and enjoyed relatively high levels of psychological well-being. The majority (38%) of respondents made it to Wave 6 in their 1980 marriage, followed by 15% reaching Wave 2. Respondents exited their 1980 marriages because of divorce (26%), widowhood (6%), or attrition (68%) (these percentages not shown). The sample was, on average, 35 years of age at Wave 1, had a greater proportion of wives than husbands, was predominantly White, and had been married for 12.5 years in 1980. About 47% of the sample was homogomous, and a majority grew up with stably married parents. A majority of the sample were in their own first marriages and did not live together before marriage. In 1980, the average number of children less than 18 currently in the household was between one and two.

Turning to the education and economic variables, the sample was predominantly working and middle class with a majority of spouses having at least a high school education and many having at least some college. The mean of family income at Wave 1 was $27,516 in 1980 dollars or $70,184 in 2007 dollars, with only 10% of respondents reporting use of public assistance. In 1980, about a third of the wives were employed full time, with

Table 2. *Sample Percentages, Means, and Fit Statistics for Marital Happiness Trajectories*

	Marital Happiness			
	High	Middle	Low	Full[a]
Sample %	38%	41%	21%	—
Mean				
1980	1.92	1.64	1.16	1.64 (0.42)
1983	1.89	1.54	1.06	1.58 (0.43)
1987	1.90	1.51	0.92	1.57 (0.44)
1993	1.89	1.48	0.89	1.58 (0.45)
1997	1.89	1.47	0.94	1.60 (0.44)
2000	1.94	1.63	1.12	1.71 (0.43)
Covariates	OR[b]	OR	OR	
Years married - 1980	1.00	0.99***	1.01	
Ever divorced	0.59***	0.84***	2.01***	
L^2 (Npar)				7350.70 (42)
Bootstrap *p* value (SE)				0.86 (0.02)
BIC				−6252673.38

[a]Mean and standard deviation at each wave for the full sample. [b]Odds ratios, or exponetiated cofficients, reported.

12% reporting working extended hours. Ninety-one percent of husbands were employed. Turning to gender relations, husbands generally did approximately 27% of the housework in these families. However, note that this variable was categorical and thus respondents chose from husband doing 0 chores to the next highest category of husband doing 25% of chores, so this variable may be inflated. Approximately half the respondents reported that he or she and his or her spouse made decisions jointly. The sample was religious and had slightly more traditional attitudes toward gender and marriage.

Latent Class Analysis

Results for the LCA of marital happiness can be seen in Figure 1 and Table 2. First, the overall mean trajectory was a slightly U-shaped curve. However, results from the LCA indicated three latent classes of marital happiness trajectories across 20 years. First, a stable high marital happiness trajectory was found, representing 38% of the sample. This group was between a half and three fourths of a standard deviation above the mean for marital happiness over time. Following conventions outlined by Amato et al. (2007) that an effect size of less than one fifth of a standard deviation difference between groups is weak, between .20 and .39 of a standard deviation is moderate, between .40 and .59 are strong, and an effect size of .60 or greater is very strong, the difference between the high marital happiness group and the middle marital happiness group that lies at the mean would translate into a very strong effect. Second, a middle marital happiness trajectory was also found, representing 41% of respondents, for whom average marital happiness was just at or below the mean at each time point. This curve gradually decreased in happiness across the first 17 years of the study and experienced an upturn in the 20th year. Third, a low marital happiness trajectory (between 1 and 1.5 standard deviations below the mean at each time point and about 2 standard deviations below the high marital happiness group, a very strong difference between groups) was also found, representing 22% of respondents. These respondents at Wave 1 were relatively unhappy with their relationships compared to the other groups and continued to decline, bottoming out around Year 12 and subsequently experiencing a slight recovery in the later years of the marriage.

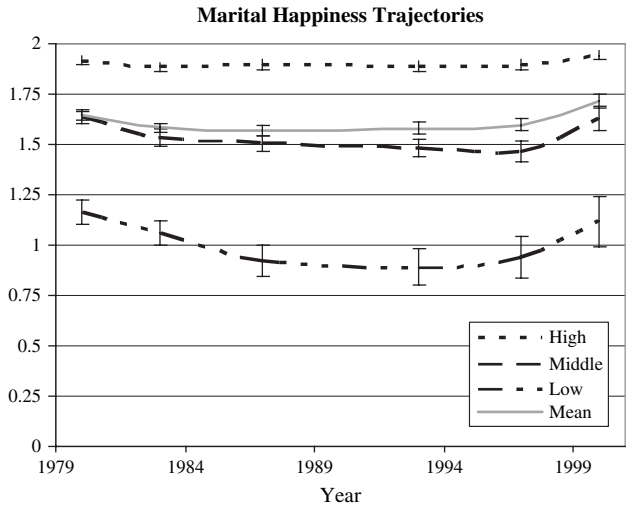

Figure 1. Marital Happiness Trajectories, 1980 – 2000.

Thus, in support of the first hypothesis, we found low and high marital happiness trajectories over time. Consistent with Beach et al. (2005), about 20% of respondents were in unhappy marriages. Also consistent with the first hypothesis and Beach et al., about 80% of respondents were in high and middle marital happiness trajectories over time. However, contrary to Beach et al., we found that about half of the respondents in the "happy" marriages were in a middle marital happiness trajectory over time, whereas the other half were in the most happy of marriages in the high marital happiness trajectory. On the basis of this finding, we would expect to see these respondents in the middle marital happiness group to fall somewhere in between respondents in the high and low marital happiness trajectories in terms of their psychological well-being. These respondents should be advantaged in terms of psychological well-being over their unhappy counterparts but not as advantaged as their more happily married counterparts.

Models Predicting Marital Happiness Trajectories From Wave 1 Life Happiness

We began our examination of the association between marital happiness and psychological well-being by running logistic regression models in Latent Gold predicting membership in the high, middle, and low marital happiness trajectories at Wave 1 from life happiness at Wave 1, controlling for initial levels of family, education, economic,

gender relations, and attitude and value-related variables. Results including exponentiated coefficients, or odds ratios, are reported in Table 3. We found that for each point increase in life happiness, respondents had 274% greater odds of membership in the high marital happiness trajectory as compared to the middle or low marital happiness trajectories. Similarly, for each point increase in life happiness, respondents had 77% lower odds of membership in the low marital happiness trajectory as compared to the high or middle marital happiness trajectories. We find no significant association between life happiness and membership in the middle marital happiness trajectory as compared to the high or low marital happiness trajectories.

Demographic and work variables were also related to which marital happiness trajectory respondents were assigned to. Respondents who did not divorce in the future, husbands, Whites, respondents with fewer children, and wives who worked extended hours had greater odds of being in the high marital happiness as opposed to middle or low marital happiness trajectories. Respondents who were married fewer years at Wave 1, who cohabited prior to marriage, and who did not work extended hours had greater odds of being in the middle marital happiness trajectory as compared to the high or low marital happiness trajectories. Finally, respondents who were married more years at Wave 1, respondents who divorced in the future, wives, non-Whites, and respondents who married at later ages had greater odds of being in the low marital happiness trajectory as compared to the middle or high marital happiness trajectories.

Turning to the gender relations and attitude-related controls, we found that husbands who did

Table 3. *Logistic Regressions Predicting Marital Happiness Trajectory Membership From Life Happiness and Covariates*

	High	Middle	Low
Covariates	OR[a]	OR	OR
Life happiness	3.74***	1.17	0.23***
Years married	0.99	0.99***	1.03***
Divorced 1980 – 2000	0.52***	0.89	2.16***
Female	0.86***	0.94	1.23***
White	1.24***	1.04	0.77***
Age at marriage	0.98	0.99	1.03***
Parental divorce—R or Spouse	0.94	0.97	1.10
Premarital cohabitation	0.93	1.19***	0.90
Remarriage—R or Spouse	1.00	0.96	1.04
Children less than 18	0.92*	1.00	1.09
Husband's education	1.01	1.03	0.96
Logged family income	1.04	0.85	1.13
Public assistance	0.99	1.14	0.88
Wife employed full time	1.08	1.03	0.90
Wife extended hours	1.16*	0.83***	1.04
Husband employed	1.07	0.94	0.99
Husband share housework	2.11***	1.30	0.37***
Equal decision making	1.25***	1.01	0.79***
Religiosity	1.10***	1.04	0.87***
Traditional gender attitudes	0.96	0.87	1.20
Traditional marriage attitudes	1.74***	1.13	0.51***
L^2 (Npar)	13319.27 (84)		
Bootstrap p value (SE)	0.63 (0.02)		
BIC	−79681897.44		

[a]Odds ratios, or exponetiated cofficients, reported.
*$p < .05$. ***$p < .001$.

a greater proportion of the housework and respondents who reported equal decision making in their marriages had greater odds of being in the high marital happiness trajectory over the middle and low marital happiness trajectories. On the other hand, husbands who did a lower proportion of the housework and respondents who did not report equal decision making had greater odds of being in the low marital happiness trajectory as compared to the high or middle marital happiness trajectories. Turning to attitudes, higher religiosity and greater belief in lifelong marriage were associated with greater odds of being in the high marital happiness trajectory over the middle or low marital happiness trajectories. However, lower religiosity and traditional marriage attitudes were associated with greater odds of being in the low marital happiness trajectory as compared to the high or middle marital happiness trajectories.

Models Predicting Change in Life Happiness and Depressive Symptoms

Turning to the association between the marital happiness trajectories and the psychological well-being over time, we ran fixed effects regression models predicting change in life happiness and depressive symptoms for each respondent at the final wave the respondent reported membership in his or her 1980 marriage. Note that the natural change in life happiness and depressive symptoms over time was measured by a dummy variable that was equal to 0 at baseline and 1 at the final wave in the 1980 marriage. Beginning with the results for life happiness, Models 1 through 3 illustrate that those in the low marital happiness trajectory experienced a significant decrease in life happiness from baseline to the final wave in the 1980 marriage, even after controlling for time-varying covariates. Indeed, the inclusion of time-varying covariates strengthened the effect and the coefficient for change between the baseline and the final wave in the 1980 marriage. In fact, the coefficient for change actually doubled in size for those in the low marital happiness trajectory. The coefficient of the main effect for change from baseline to the final wave in the 1980 marriage represents the overall effect of being in the low marital happiness class because it served as the excluded group in Table 4.

The interaction effect coefficients in Table 4 indicate that the middle marital happiness trajectory did not experience a significantly different change in life happiness compared to the low marital happiness trajectory. In contrast, the interaction term for the high marital happiness trajectory in Model 1 indicated that the high marital happiness trajectory did not decline in life happiness over time. The overall change coefficient for life happiness for the high marital trajectory would equal the coefficient for the natural change in life happiness over time, -0.12, plus the coefficient for the interaction for the high marital happiness trajectory, .12 or 0. However, the addition of the time-varying covariates accounted for some of the stability in life happiness for the high marital happiness trajectory over time. Thus, in Models 2 and 3, the overall change coefficient for the high marital happiness trajectory was -0.09 and -0.13, respectively. Additional analyses (not shown) with the high marital happiness trajectory as the excluded group indicated that these changes in life happiness between baseline and the last wave in the 1980 marriage were significant. However, there was still an advantage to being in the high marital happiness trajectory because the magnitude of the decline for the high marital happiness trajectory was lower than for the low marital happiness trajectory.

With regards to the controls, we found in Model 2 that a decrease in children under 18 in the household and an increase in family income both increase life happiness. These results remain significant in Model 3, and additionally, we found that an increase in equal decision making and an increase in traditional marriage attitudes were also associated with an increase in life happiness from Wave 1 to the final wave in the 1980 marriage. Consistent with much sociological research, we did not find large R-squares either for the within-person or between-person analyses, indicating that more microbehavioral indicators may be the mechanisms linking marital happiness trajectories and life happiness.

Turning to depressive symptoms, we only found a main effect for change in depressive symptoms between Wave 2 and the final wave in the 1980 marriage for the low marital happiness trajectory when no covariates were included in the model. In Model 4, respondents in the low marital happiness trajectory experienced a significant decline in depressive symptoms over time, but this association was mediated by change in the covariates—in particular, the children less than 18 variable. Depressive symptoms increased with the addition of children under the age

Table 4. *Fixed Effects Regression Models for Life Happiness and Fixed Effects Negative Binomial Regression Models for Depressive Symptoms*

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Life Happiness		Life Happiness		Life Happiness		Depressive Symptoms		Depressive Symptoms		Depressive Symptoms	
	B		*B*		*B*		*B*		*B*		*B*	
Change from baseline[a] to final wave in '80 marriage	−0.12**	(0.05)[d]	−0.24***	(0.05)	−0.25***	(0.05)	−0.12*	(0.06)	−0.03	(0.06)	0.00	(0.06)
Change × Low Marital Happiness Trajectory[b]	—		—		—		—		—		—	
Change × Middle Marital Happiness Trajectory[c]	0.07	(0.05)	0.10	(0.06)	0.09	(0.06)	−0.16*	(0.07)	−0.15*	(0.07)	−0.14	(0.07)
Change × High Marital Happiness Trajectory[c]	0.12*	(0.05)	0.15*	(0.06)	0.12*	(0.06)	−0.19**	(0.07)	−0.16*	(0.07)	−0.13	(0.07)
Children less than 18	—		−0.03*	(0.01)	−0.03*	(0.01)	—		0.06**	(0.02)	0.05*	(0.02)
Family income	—		0.14***	(0.04)	0.12**	(0.04)	—		−0.03	(0.05)	−0.01	(0.05)
Public assistance	—		0.01	(0.07)	0.01	(0.07)	—		0.16	(0.12)	0.16	(0.12)
Wife employed full time	—		−0.03	(0.04)	−0.02	(0.04)	—		0.06	(0.05)	0.07	(0.05)
	—						—					
Wife extended hours	—		−0.06	(0.05)	−0.05	(0.05)	—		0.10	(0.06)	0.13*	(0.06)
Husband employed	—		−0.07	(0.04)	−0.06	(0.04)	—		−0.01	(0.06)	−0.03	(0.06)
Husband share housework	—		—		0.01	(0.11)	—		—		−0.17	(0.13)
Equal decision making	—		—		0.07*	(0.04)	—		—		−0.18***	(0.04)
Traditional gender attitudes	—		—		−0.10	(0.05)	—		—		0.19**	(0.07)
Traditional marriage attitudes	—		—		0.16***	(0.05)	—		—		−0.15*	(0.07)
Constant	1.45***	(0.01)	0.17	(0.39)	0.09	(0.43)	2.93***	(0.26)	3.97***	(0.74)	4.31***	(0.92)
Observations	2,960		2,756		2,754		2,326		1,978		1,972	
Respondents	1,480		1,473		1,472		1,163		989		986	
R-squared within	0.01		0.03		0.04		—		—		—	
R-squared between	0.23		0.05		0.11		—		—		—	
F	3.05*		3.50***		3.95***		—		—		—	
Chi-square	—		—		—		101.10***		76.91***		108.82***	

[a]Baseline is Wave 1 for life happiness and Wave 2 for depressive symptoms. [b]The low marital happiness trajectory is the excluded group. [c]Variable represents an interaction between the variable change between baseline and the final wave in the 1980 marriage and the given marital happiness trajectory. [d]Standard errors in parentheses.

***$p < 0.001$. **$p < 0.01$. *$p < 0.05$.

of 18 in the household, and it appears that the decline in depressive symptoms experienced by the low marital happiness trajectory was at least partially a result of individuals in this trajectory-experiencing children under the age of 18 leaving their household. In supplemental analyses (not shown), we found that when the excluded group was varied, regardless of covariates, respondents in the middle and high marital happiness trajectories declined in depressive symptoms over time. These effects were further illustrated by the interaction effects.

In Models 4, 5, and 6 in Table 3, we found that respondents in both the middle and the high marital happiness trajectories experienced a greater decline in depressive symptoms as compared to the low marital happiness trajectory between Wave 2 and the final wave in the 1980 marriage. Although the interactions remained significant at the $p < 0.05$ level in Models 4 and 5, they rose to a $p < .06$ for the middle marital happiness trajectory interaction coefficient and $p < .09$ for the high marital happiness trajectory interaction coefficient in Model 6. Thus, it appears that for depressive symptoms, the gender relations and attitude and value-related covariates at least partially explained the association between the marital happiness trajectories and the depressive symptoms. Model 6 indicates in addition to having children under 18 leave the household, respondents who experienced a decrease in the wife working extended hours, an increase in equal decision making, a decrease in traditional gender attitudes, and an increase in traditional marriage attitudes experienced a significant decrease in depressive symptoms between Wave 2 and the final wave in the 1980 marriage. Thus, it appears that at least part of the mechanisms linking the decline in depressive symptoms experienced by both the middle and the high marital happiness trajectories were declines in wives' work, better gender relations, and more conservative marriage attitudes.

We conducted supplementary fixed effects logit (for dichotomous indicators) and regression (for continuous indicators) analyses (not shown) predicting change in the time-varying covariates between Wave 1 and the final wave in the 1980 marriage by marital trajectory membership. These analyses were also weighted and were run only for those time-varying covariates that were significant in our models. We found that all trajectories decreased in the number of children less than 18 over time but that the high marital happiness trajectory decreased in a significantly greater magnitude than both the middle and the low marital happiness trajectories. We also found that all trajectories increased their income over time but that the magnitude of change was significantly greater for the high and middle marital happiness trajectories. We found no evidence of change or differences by trajectory membership in wives' extended hours. Turning to gender relations, we found no significant interactions for traditional gender attitudes but instead found that all trajectories declined in endorsement of traditional gender attitudes. For equal decision making, we found that only the high and middle marital happiness trajectories became significantly more equal in decision making over time. We also found that the interaction effect for the high marital happiness trajectory was significant, indicating that the high marital happiness trajectory had a greater likelihood of becoming more equal in decision making as compared to both the low and the middle marital happiness trajectories. Finally, we found that traditional marriage attitudes increased only in the high and middle marital happiness trajectories, and further, the magnitude of the change was significantly higher in the high marital happiness trajectory.

Discussion

We have found that happy marriages can be distinguished from unhappy marriages. Based on the work of Beach et al. (2005), we expected to find about 80% of our respondents in happy marriages and about 20% of our respondents in unhappy marriages. This hypothesis was supported. We found that 38% of our respondents were in a stable high marital happiness trajectory over time, and 41% were in a largely stable middle marital happiness trajectory. We would characterize respondents in both of these trajectories as in relatively happy marriages over time, consistent with our first hypothesis. Also, consistent with Beach et al. and as hypothesized, we found that only 21% of our respondents were in a low marital happiness trajectory over time or in a relatively unhappy marriage (characterized as not meeting the needs of the respondent). The low happiness trajectory declined through the first 12 years of the survey and experienced an uptick at the end. Therefore, we agree with Beach et al. that about 20% of couples are unhappy in their marriages but would argue that all "happy"

marriages are not created equal. Given our findings, only about 38% of respondents, or half of those in happy marriages, are in the happiest of marriages. Distinguishing high from middle happiness marriages may be a useful tool for researchers and practitioners who want to examine happy marriages and their practices and habits in order to understand how to help unhappy couples change negative patterns of interaction.

Supporting our second hypothesis, we found that psychological well-being predicted trajectories of marital happiness. Respondents with the greater levels of life happiness were more likely to be in the highest marital happiness trajectory over time. Similarly, respondents with the lowest levels of initial life happiness were most likely to be in the low marital happiness trajectory over time. It is possible that, because respondents were distressed, their marriages followed a negative trajectory over time because of stressful interactions engendered by the distressed spouse. Because we lacked a measure of well-being prior to the respondents' marriages, we are unable to address in these models possible selection effects that may have affected these findings. That is, respondents with the lowest levels of well-being may have self-selected into the most unhappy of marriages or unhappy marriages may have led to low levels of well-being. To attempt to address the latter half of this selection question, we turn to the fixed effects regression results.

We found mixed support for our third hypothesis. Consistent with our third hypothesis, we found that respondents in high and middle marital happiness trajectories declined in depressive symptoms over time, whereas respondents in low marital happiness trajectories did not decline in depressive symptoms over time once time-varying covariates were taken into account. Contrary to our third hypothesis, we found that all respondents declined in life happiness over time but that the magnitude of the decline was least for those in the high marital happiness trajectory. Overall, consistent with Hawkins and Booth (2005) and Kamp Dush and Amato (2005), we found that respondents in the low marital happiness trajectory had the lowest levels of psychological well-being. But, we also found that over time those respondents in the happiest of marriages, once time-varying covariates were taken into account, were not shielded from a decline in positive affect as measured by life happiness. The benefit of being in the high happiness trajectory was that these respondents did not decline as far in life happiness and decreased their depressive symptoms. Overall, we found that there does appear to be psychological benefits to membership in happier marriages and that there does also appear to be detriments to being in relatively unhappy marriages. These findings support both the stress generation and marital discord models in that both models predict that marital distress leads to an increased risk of lower psychological well-being. Therefore, it would seem that interventions to improve marriages may have a positive side effect of improving the well-being of spouses in unhappy marriages.

Potential mechanisms linking our marital happiness trajectories to change in psychological well-being over time included changes in gender relations and marital attitudes. We found evidence that only the middle and high marital happiness trajectories became more equal in their decision making and more conservative in their attitudes toward traditional marriage. In each case, the high marital happiness trajectory experienced the greatest magnitude of change of the three marital happiness trajectories. Equity theory argues that fairness is of great importance in intimate relationships and fosters intimacy (Walster, Berscheid, & Walster, 1973). That the respondents in the middle and high marital happiness trajectories were becoming increasingly equitable is further evidence that these marriages were indeed more intimate, satisfying marriages. With regard to traditional marriage attitudes, husbands and wives who subscribed to the belief that marriage should last forever have been found to enjoy higher marital quality and stability (Amato & Rogers, 1999). It is not surprising then that respondents in happier marriages become more supportive of the institution of marriage as these spouses are enjoying the institution.

There are some important limitations to this work. First, we have single-reporter data and cannot compare husbands and wives' assessments of the same marriages. Future work should attempt to replicate these trajectories and their association with psychological well-being using couple data. Second, there is attrition in this sample, which limits generalizability, since over time the sample becomes increasingly self-selected. Related to this because these data start in 1980 there could be cohort effects as found by VanLaningham et al. (2001), especially because the U.S. marital population became more diverse over those 20 years (U.S. Census Bureau,

2001). Thus, our sample is not representative of all married individuals currently in the U.S. population. A final note on the sample is that marital duration at baseline was not uniform, and we do not have a premarital measure on these respondents. Future work using a more recent marital cohort, longitudinal data including premarriage measurement and a more stable sample should replicate these findings. A final weakness of this work is that we relied on questionnaire data as opposed to more rich observational data to assess marital quality. If we had more micro or observational data, we may have been able to identify other important mechanisms by which marital happiness and psychological well-being are linked. Further, we only examined one aspect of marital quality—marital happiness. Future work should both examine associations of these marital happiness trajectories with other indicators of marital quality, as well as examine the patterns of change in other indicators of marital quality.

Although there are limitations, we believe that the strengths of this study—20 years of rich data on these marriages and psychological well-being along with a large nationally representative sample—outweigh its weaknesses. We find that there are distinctly happy and unhappy marriages in the United States and that these marriages have implications for the psychological well-being of spouses. There are several important policy implications of our work. First, it is possible to identify happily married spouses, and our study indicates that on average, about 40% of married spouses are very happy with their marriage and are able to maintain this marital happiness over 20 years. We know very little about this group, as most studies of marriage either focus on the risk factors of divorce and discord, or group all spouses together, examining them as a whole. We would first argue that policymakers shaping the ''healthy'' marriage agenda would be well advised to find married spouses that have maintained a high level of marital happiness for 20 years to serve as mentors. This understudied population would likely have much advice to give. Indeed, Ooms (2001) argued that in low-income communities such as those targeted by the Healthy Marriage Initiative: ''The need for marriage mentors is acute. Few young people today, especially those growing up in disadvantaged communities, have known examples of strong, healthy, egalitarian marriages that last'' (p. 11). We would also argue that research on these marriages is lacking as well.

Practitioners and clinicians may do well to heed our findings regarding potential mechanisms. A particularly promising place to focus intervention may be on gender relations. In particular, we find strong evidence that spouses in marriages that became more equitable also improved in their psychological well-being. We also find evidence reinforcing previous work by Davila et al. (1997) and Beach et al. (1990) that marital quality and psychological well-being are connected. Therefore, a focus on improving marital quality, and perhaps a focus in particular on helping couples share power over decisions in marriage, may foster intimacy in the couple, improving both the marriage and the individual psychological well-being. Our study provides hope that if practitioners and our government policies can successfully improve intimate relationships through marriage mentor programs, therapy, or other prevention/intervention efforts, family well-being in the United States would improve, and children living with partnered couples may find themselves in families marked by less tension and depression.

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Appendix. *Table of Model Fit Indices used for Model Selection*

	L^2	BIC(L^2)	AIC(L^2)	CAIC(L^2)	Npar	*df*	*p* value	SE	Class. Err.
1-Cluster	9562.88	−6250597.96	−1637869.12	−7074313.96	24	823716	0.00	0.00	0.00
2-Cluster	7777.24	−6252315.20	−1639636.76	−7076022.20	33	823707	0.66	0.02	0.10
3-Cluster	7350.67	−6252673.38	−1640045.33	−7076371.38	42	823698	0.86	0.02	0.19
4-Cluster	7276.50	−6252679.14	−1640101.50	−7076361.09	51	823689	0.92	0.01	0.25
5-Cluster	7206.30	−6252680.95	−1640153.70	−7076360.95	60	823680	0.89	0.01	0.27

Notes. In comparing models, a number of relative fit statistics were used that weight on model parsimony using the number of parameters estimated (Npar). These include the BIC (Bayes information criterion), AIC (Akaike information criterion), CAIC (Consistent AIC, which penalizes for sample size as well as model complexity), and Classification Error (a summary statistic of how closely each individual's assigned class matches their probability of being in that class). The best fitting model would minimize the values of each of these statistics, with a heuristic of a difference of 6 or more for the BIC, AIC, and CAIC constituting a significant improvement in fit.