

Given the prominence of marital dissolution in American life in recent decades, it is important to understand what contributes to or deters it. This article focuses on spouses' shared leisure activities as a possible deterrent. An "attachment hypothesis"—that spouses' shared leisure time is a form of pleasurable interaction that strengthens the attachment between them and helps prevent marital break-up at the time and into the future—is tested in the context of controls for a variety of hypotheses. The empirical tests are supportive of the attachment hypothesis and suggest that, because couples with children have less shared leisure time, children can contribute to marital break-up as well as help prevent it.

Marital Stability and Spouses' Shared Time

A Multidisciplinary Hypothesis*

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Despite persistently high economic costs of marital dissolution for women and children (Duncan and Hoffman, 1985; Weitzman, 1985; Masnick and Bane, 1980; Espenshade, 1979; and Hoffman, 1977), divorce has become a much more common feature of American life in recent decades. Couples entering marriages in 1970 were 60% more likely to subsequently divorce than were couples who became married in 1950 (Cherlin, 1981), and between 1970 and the mid-1980s the percentage of ever-married persons in the United States who were in the divorced status at a given time more than doubled (Bureau of the Census, 1985). This trend has been a strong contributor to estimations that one-quarter to one-half of the children in this country are spending part of their childhood with only one parent present (Hofferth, 1985; Furstenberg, Nord, Peterson, and Zill, 1983; Hill, 1983; Glick, 1980; Bumpass and Rindfuss, 1979; Bane, 1976). Especially in light of the sizable body of evidence that divorce can be

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harmful to children, we face an important need to better understand why this increase in divorce has occurred and thus to better understand the process of marital break-up—what contributes to it and what helps prevent it.

Economists in particular have emphasized the importance of the specialization of work roles in marital decisions, with specialization believed to add to the cohesiveness of a marriage by increasing the economic gains to marriage. But work is not the only activity in which adults engage. In 1975-1976 one-quarter (23.6%) of an adult's time, on average, was spent in leisure activities. This suggests that the leisure time spouses spend together could be an important force in maintaining a marriage. Many events may stress or strain a marriage, and pleasurable time together may help counterbalance the stress and strain.

This article explores, in a multidisciplinary context, the association between spouses' shared time and the permanence of marriage. The emphasis is on shared leisure time as both a short-run and a long-run cohesive force. Tests of this are made in the context of controls for a number of other factors that may influence marital stability. Part of the tests involves an examination of the extent to which spouses' shared leisure time is an intervening factor in the relationship between children and dissolution. The 1975-1981 Time Use Longitudinal Panel Study, a national study, is used for this research.

THEORETICAL FRAMEWORK AND ATTACHMENT HYPOTHESIS

Our analytical framework draws on the theory of several social science disciplines, with their diversity of perspectives regarding marriage and marital stability. Marriage is viewed as an economic, social, and social-psychological institution, with the act of maintaining or dissolving the marriage predicted on the basis of hypotheses drawn from the social science literature, in conjunction with data limitations restricting empirical representation of theoretical constructs. The new home economics (e.g., Becker, Landes, and Michael, 1977), exchange theory (e.g., Lewis and Spanier, 1979), and prior interdisciplinary syntheses (e.g., Ross and Sawhill, 1975) figure prominently in this framework. The central idea is that the net benefits of a marriage, the net benefits of alternatives, and external

pressures—pressures from parents, friends, and religious institutions—play crucial roles in a marriage's initiation and maintenance over time. Data limitations, however, result in an emphasis mostly on the net benefits of marriage.

Our focus is a posited influence of the spouses' attachment, with the strength augmented or reduced by the quantity and quality of spousal interaction and the attachment carrying over from one time period to the next. In particular, we propose an "attachment hypothesis," which maintains that spouses' shared leisure time reflects enjoyable interaction that draws spouses closer together, benefiting both of them and helping maintain the marriage in the distant as well as immediate future.

The attachment hypothesis is not entirely unique in that it involves elements of both exchange theory and the new home economics. The idea of immediate effects of spouses' shared time is found in exchange theory, with larger amounts of spousal interaction thought to contribute to marital quality and hence marital stability. But that theory places no emphasis on the possibility of long-term effects. Such a possibility becomes more apparent in the new home economics framework, with its "marriage-specific capital"—investments (such as the compatibility of spouses, knowledge of one's partner, and children) that are significantly less valuable if the marriage dissolves. The attachment between spouses could be thought of as a form of marriage-specific capital, with pleasurable shared time an input that augments the specific capital and thus discourages marital dissolution both in the present and in the future. In this sense, the shared activities have both long- and short-run effects on marital dissolution. While the new home economics depicts a role for spouses' attachment—as marriage-specific capital termed "compatibility"—that theory makes no note of the resources needed to amass such capital. The attachment hypothesis points to shared leisure time as an important input.

Research on the role of spouses' shared leisure time in marital stability is scarce. Varga (1972) performs a multinational comparison of divorce rates and the average amount of leisure time spouses spend at home, showing an almost perfect negative correlation across 11 countries, although some types of leisure activities such as TV-watching do not exhibit this pattern. This type of ecological correlation analysis, however, is quite precarious, particularly in light of substantial cultural differences across the countries regarding the social acceptability of divorce.

The literature relating spouses' shared activities to marital satisfaction is more plentiful, tending to show a positive relationship between spousal interaction and marital satisfaction. Snyder (1979) finds that a measure of spouses' common interests and the amount and quality of shared leisure time ranks high as a predictor of overall marital satisfaction. Orthner (1975) also finds a positive relationship between measures of the amount of time spouses spend together in leisure activities and marital satisfaction, although his results suggest that the strength of the relationship can vary by the degree of interaction and by the stage of the marital career. A potential problem with these findings, however, is that causality may run in both directions, with marital satisfaction both affected by and itself affecting the amount of shared time. White (1983) posits such dual causality and indeed does find evidence of it.

A further caution in drawing conclusions from research on marital satisfaction is that marital satisfaction findings are not always directly applicable to marital stability. For example, a paradox seems to exist regarding the role of children in marriage: The presence of children tends to *decrease marital satisfaction* but *increase marital stability*. Not only is this paradox a caution against applying marital satisfaction findings directly to marital stability, it may involve spousal interaction directly. While children may serve as barriers to marital break-up for a number of reasons, they may also reduce spousal interaction, which decreases marital satisfaction and hence marital stability. The stabilizing and destabilizing forces of children may, indeed, operate simultaneously. Theoretical arguments for the stabilizing forces of children are found in Thornton's (1977) multi-disciplinary review noting a variety of reasons for children *preventing marital dissolution*—parents feel divorce is harmful to children, divorce can weaken bonds with their children, and/or divorce can increase the economic burden of raising children. Children also appear as a form of marriage-specific capital, a preventative of marital dissolution, in the new home economics. On the other hand, children could reduce marital satisfaction and hence *contribute to marital break-up* either by increasing conflict in the household or, because of their time-intensive requirements, by reducing interaction between spouses (White, Booth, and Edwards, 1986; Glenn and McLanahan, 1982; Houseknecht, 1979; Campbell, Converse, and Rodgers, 1976; Miller, 1976; Figley, 1973; Ryder, 1973; Feldman, 1971; and Hicks and Platt, 1971).

If the attachment hypothesis holds, we would expect spouses' shared leisure time to reduce chances of subsequent marital dissolution, and we would expect at least part of the effect to operate independent of the immediate level of marital satisfaction. We would also expect a strong inverse relationship between shared leisure time and the presence of children. Additionally, presence of children should exhibit more of a preventative, as opposed to a contributory, effect on marital dissolution when controlling for spouses' shared leisure time.

OTHER FACTORS

Our model of marital dissolution controls for variables thought to be associated with:

- (1) other constraints in the form of marriage-specific capital;
- (2) role specialization;
- (3) assortative mating;
- (4) esteem for the husband varying with his success as a breadwinner;
- (5) heterogeneity;
- (6) economic resources reducing interpersonal tensions;
- (7) greater assets increasing costs of divorce;
- (8) correspondence between spouses' values;
- (9) deviation between actual and expected marital roles;
- (10) social constraints.

A brief description of the hypotheses underlying each of these factors follows, with corresponding empirical representations outlined in Table 1.

As noted earlier, the new home economics concludes that an increase in marriage-specific capital would be expected to reduce the chances of marital dissolution since that capital would be worth less if the marriage ends. The forms of marriage-specific capital most emphasized are children and products of married life that tend to increase with the duration of the marriage. Research tends to yield the expected effects of children and of duration of marriage, although not without exception (Johnson and Skinner, 1986; Peters, 1986a, 1986b; Morgan and Rindfuss, 1985; Koo and Janowitz, 1983; Mott and Moore, 1979; Becker, Landes, and Michael, 1977; Cherlin, 1977;

TABLE 1
Definitions, Means, and Standard Deviations for Variables
Used in Empirical Analysis

	Mean/ Proportion	Standard Deviation
Whether divorced or separated within five years - takes on a value of 1 if the couple was together throughout the interviewing year 1975-76, neither spouse died before recontact in 1981, but the couple was no longer living together at the time of recontact; otherwise takes on a value of 0.	.101	
Total shared leisure time (hours per week) - weekly average of the total time the randomly selected spouse reported having spent in leisure activities with the other spouse. The leisure activities consist of participation in organizations, socializing, active recreation, TV watching, and non-TV passive recreation such as reading, listening, or conversing.	17.71	9.92
Shared organization time (hours per week) - that part of total shared leisure time that involved participation in or travel to and from meetings or activities involving organizations, predominately religious and familial organizations.	0.99	2.17
Shared social time (hours per week) - that part of total shared leisure time involving travel to or doing social activities not associated with an organization, predominantly activities such as visiting with others, movie-going, parties, sports events, and being in bars.	4.10	4.24
Shared recreational time (hours per week) - that part of total shared leisure time involving travel to or doing active recreational activities, predominantly bowling, swimming, skating and skiing, fishing, boating, camping, or pleasure drives.	1.68	3.22
Shared TV-watching time (hours per week) - that part of total shared leisure time involving TV watching.	7.74	6.89
Shared non-TV passive leisure (hours per week) - that part of total shared leisure time involving low-energy activities other than TV watching. These activities were mostly conversations, reading, relaxing and listening to the radio.	3.19	3.50
Marital satisfaction - based on both spouse's separate responses to the question "Taking things all together, how would you describe your marriage--would you say your marriage was very happy, a little happier than average, just about average, or not too happy?"		
NOT GOOD=Neither spouse answered "very happy" to the question.	0.324	
GOOD=Otherwise.	0.676	

TABLE 1 Continued

	Mean/ Proportion	Standard Deviation
Whether both spouses find time with each other enjoyable - based on both spouse's separate answers to the question "Generally speaking, would you say that the time you spend together with your (husband/wife) is extremely enjoyable, very enjoyable, enjoyable, or not too enjoyable.		
NO=Neither spouse answered either "extremely enjoyable" or "very enjoyable."	0.194	
YES=Otherwise.	0.806	
Number and ages of children - reflects both number of natural or adopted children of either spouse living with the couple and the age of the youngest such child.		
No children.	0.269	
1-2 Children with youngest under age 6.	0.239	
3+Children with youngest Under age 6.	0.137	
1-2 Children with youngest age 6 or older.	0.213	
3+ Children with youngest age 6 or older.	0.141	
# Years married - based on randomly selected spouse's report of what year they were married.	11.57	8.86
Respondent's age at first marriage - based on randomly selected spouse's report of age at time of interview and year when first married.	21.46	3.38
Whether black - based on interviewer's report of racial or ethnic group of randomly selected spouse.		
YES=black.	0.032	
NO=otherwise.	0.969	
Region - based on address of household.		
West	0.165	
North Central	0.361	
Northeast	0.221	
South	0.253	
Ln Assets (ln \$) - natural log of the sum of \$1 plus randomly selected spouse's estimate of amount of money left over if the family living there sold all their major possessions turned all investments and other assets to cash and paid all their debts. (The addition of \$1 is to preclude taking the ln of zero.)	8.42	3.64
Husband's earnings (thousands of dollars) - randomly selected spouse's report of what the husband earned in the form of total wages, salary, bonuses, and commissions on all jobs in 1975.	7.311	2.923
Wife's earnings (thousands of dollars) - randomly selected spouse's report of what the wife earned in the form of total wages, salary, bonuses, and commissions on all jobs in 1975.	2.306	2.901

(continued)

TABLE 1 Continued

	Mean/ Proportion	Standard Deviation
Whether conflict in spouses' sex role attitudes - based on responses of each spouse to the statement that some work is men's work and some is women's and they shouldn't be doing each others'.		
YES=one spouse agrees or strongly agrees with the statement, whereas the other spouse does not agree.	0.436	
NO=both spouses agree or strongly agree with the statement, or both spouses do not agree.	0.564	
Whether role conflict for wife - based on wife's response to the statement that some work is men's work and some is women's and they shouldn't be doing each others' and on her reported time spent in market work.		
YES=wife agrees/strongly agrees with the statement but she still works in the labor market, or she doesn't agree with the statement yet she doesn't work in the labor market.	0.474	
NO=otherwise.	0.526	
Whether conflict for husband about wife's role - based on husband's response to statement that some work is men's women's and they shouldn't be doing each others' and on his wife's reported time spent in market work.		
YES=husband agrees/strongly agrees with the statement but his wife works in the labor market, or he doesn't agree with the statement yet his wife is not working in the labor market.	0.460	
NO=otherwise.	0.540	

Thornton, 1977; Hoffman and Holmes, 1976; Ross and Sawhill, 1975; Bumpass and Sweet, 1972; Hicks and Platt, 1971).

Role specialization is another control factor. According to the role specialization hypothesis, found in both exchange theory and the new home economics, specialization by the spouses in work roles (generally dividing the work along traditional lines) is believed to add to the cohesiveness of a marriage by increasing the economic gains to maintaining the marriage. Thus, controlling for the husband's earnings, higher earnings by the wife would serve as evidence of less role specialization, and thus a greater chance of divorce. Findings in the literature tend to support this hypothesis (Peters, 1986a; Ross and Sawhill, 1975).

Several hypotheses are applicable to another factor thought to contribute to marital stability—husband's earnings. One hypothesis is that men's earnings are positively sorted on in the optimal sorting of marriage partners, and that an increase in positively sorted factors

lowers the probability of marital dissolution by raising the gains from marriage (Becker, Landes, and Michael, 1977). Another hypothesis, termed the husband-wife role affect model, depicts the husband's degree of success as a breadwinner as a factor affecting the mutual esteem and affection that spouses have for each other, given that social expectations cast the husband in the role of primary breadwinner (Cutright, 1971). In a different theory, husband's earnings level may reflect personal characteristics that are associated with success in general, including marriage as well as the labor market. Thus husband's earnings would be reflective of heterogeneity with regard to the presence of successful qualities in the husband. Another possibility is that high levels of earnings on the part of the husband, as well as level of assets in general, allow the couple to avoid environmental factors such as crowding that can contribute to tension in the marital relationship. A positive effect of level of assets on marital stability could, however, result for a different reason. Cutright's (1971) constraint hypothesis depicts the costs of dissolving a marriage as an increasing function of the level of assets. The evidence regarding effects of husband's earnings and assets do not allow us to choose among these hypotheses, and, indeed, not all findings are supportive of the expected effects (Peters, 1986a; Becker, Landes, and Michael, 1977; Ross and Sawhill, 1975).

A factor that is thought to influence marital stability via marital satisfaction is the degree to which the values of spouses are similar. The values of spouses tend to be traits that are positively sorted on, with large discrepancies between these traits reducing the gains to marriage. The values themselves may include sex role orientations, and indicators of the degree of correspondence in spouses' values can include age at marriage and an assessment of the degree to which spouses find time together enjoyable. Regarding sex role attitudes, each spouse may have either traditional or nontraditional orientations, and these orientations may or may not coincide. The lack of correspondence would be indicative of a conflict of values, resulting in lower marital satisfaction and thus a greater likelihood of divorce or separation. With respect to age at marriage, both economic models and social-psychological models posit that those who marry young may marry before their values and expectations for adult life are well formulated, with life-cycle transitions that produce incompatibility between spouses more likely to occur subsequent to the marriage. Spouses finding time with each other enjoyable, on the other hand,

can reflect similarity of interests or values. Presumably, if the values of the two spouses were quite different, their interaction would be conflict-ridden and thus unpleasant, reducing the gains to marriage. Most empirical tests of the effects of similarity of values include only one of these indicators—age at marriage. This one indicator repeatedly has proven to have a significant relationship to marital stability in the expected direction, but less is known of the others. (See Peters, 1986a; Morgan and Rindfuss, 1985; Becker, Landes, and Michael, 1977; Hoffman and Holmes, 1976; Ross and Sawhill, 1975; Bumpass and Sweet, 1972; Hicks and Platt, 1971.)

What may be termed the ideological consistency hypothesis may also play a role in the quality or permanency of marital relationships. This hypothesis extols the benefits of spouses being in roles that correspond to their ideological beliefs about desirable marital roles. Incongruity between role performance and ideology reduces satisfaction, and the incongruity can take different forms. The marital role a person finds him- or herself in may fail to correspond to their own ideology, or their beliefs about the proper role for their spouse may fail to match their spouse's behavior.

Other potential influences on marital dissolution include aspects of the social environment reflecting feelings about the extent to which families should remain intact. Measures such as race, region of the country, city size, and religion are thought to represent these factors. Being black, living in the West, living in a large city, and not attending church on a regular basis all tend to contribute to marital instability, although their effects sometimes fail to achieve significance at the .05 level (Johnson and Skinner, 1986; Peters, 1986a, 1986b; Hoffman and Holmes, 1976; Ross and Sawhill, 1975; Bumpass and Sweet, 1972).

THE DATA

The data for our analysis come from the 1975-1981 Time Use Longitudinal Panel Study collected by the University of Michigan's Survey Research Center. The study involves initial observations for randomly selected respondents and their spouses, if any, at three to four points in time during the space of a year spanning 1975 and 1976, and a follow-up again five years later, in 1981. The central feature of the data is measurement of time allocation based on multiple one-day diaries.

The portion of the study we use involves both a sample of marriages and a sample of days about which time diary information was collected. The sample of marriages is an equal-probability-of-selection, national sample of 280 couples married throughout the 1975-1976 interviewing year, with the husband under age 54 in 1975, at least one of the spouses interviewed again in 1981, and the marriage either remaining intact or dissolving because of divorce or separation by the first contact in 1981. During 1975-1976 each spouse provided self-reported time diaries and additional, largely self-reported, contextual details about themselves and their family. Somewhat more comprehensive information was collected from the spouse chosen on a random basis as the household's "designated respondent."

The sample of days consists of three to four days about which detailed time use information was collected from both spouses in a married couple. Each couple's sample of days was spaced roughly at quarterly intervals over the year's time. Because time use patterns vary substantially by day of the week, one Saturday, one Sunday, and at least one weekday were included in each couple's collection of days. From this, weekly estimates of time use were constructed, differentially weighting the days to represent the seven days of a week.

The information supplied in the 1975-1976 time diaries yields substantial detail about each couple's time allocation prior to any marital disruption. The time diary consists of a respondent's verbal report to an interviewer of a complete chronology of events for the entire preceding day (24 hours) starting at midnight of the day.¹ A feature of the time diary particularly suited to our analysis is the diary's inclusion of reports of who the randomly designated respondent was with when doing an activity.

Our focal dependent variable indicates whether a couple was divorced/separated versus still together five years after the initial observation year. A couple is classified as having divorced or separated between 1975 and 1981 if the designated respondent's 1981 household did not contain the 1975 spouse and the 1975 spouse was not lost to death. In our empirical model all predictor variables are measured as of the initial 1975-1976 situation, with marital disruption possible at any time in the subsequent five-year interval.

Because the time diary itself is a substantial time burden and because multiple distinct interviews were taken, the cumulative response rate in the Time Use Longitudinal Panel Study is low.² In

recognition of potential problems due to differential nonresponse, the study provides weights correcting for differential nonresponse.

Research on the quality of the time use data in the Time Use Longitudinal Panel Study tends to support the reliability and validity of the time diary measures. Juster (1985) reports evidence indicating that the quality of time use measurements is higher when the survey is longitudinal rather than cross-sectional and describes a number of analyses using the 1975-1976 data that yield plausible results consistent with other known facts. More specifically for our analysis, he finds support in the 1981 follow-up for the validity of measures of spouses' shared time. Comparing each spouse's report of whether the other spouse was present at the time (data collected from both spouses in 1981), he finds that overall the separate reports of the two spouses match in 80% of the waking hours of the day.

Concentrating on the data-quality implications of relying on a sample of days for assembling the time use measures, Kalton (1985) calculates the variation in reliability of time use estimates according to the number of days sampled and the type of activity of interest. He concludes that with the differing estimates of reliability for the various activities a sample of two weekdays per respondent has significant advantages. Combining that with the knowledge that time use patterns for Saturdays, Sundays, and weekdays are quite different leads him to conclude that the design of the 1975-1976 time use collection is in the main consistent with an optimal sample design.

ASSOCIATION BETWEEN SHARED LEISURE TIME AND MARITAL STABILITY

In 1975-1976 couples averaged 17.7 hours per week of shared leisure time (about 15% of their waking time). A one-standard-deviation movement away from the mean left them with less than half that amount of shared leisure time (7.8 hours per week). This is the focal variable for our analysis of the attachment hypothesis. The bulk of our tests of the hypothesis rest on the results of four LOGIT analyses with an indicator of whether the marriage dissolved within five years as the dependent variable. T-statistics are provided for individual coefficients, and a chi-square statistic tests the joint hypothesis that all coefficients for a categorical variable are zero. No

overall goodness-of-fit statistic is provided since Aldrich and Nelson (1984, p. 59) recommend that such summary statistics in LOGITs be used with "extreme caution, if at all." LOGIT analysis is necessitated by the dependent variable's dichotomous nature, in conjunction with its skewed distribution (10.1% of the couples became divorced or separated).

From LOGIT #1 (first column of numbers in Table 2), we find evidence of a significant positive relationship between spouses' shared leisure time and marital stability, controlling for a number of other factors that could influence marital stability. The LOGIT coefficient on shared time in the marital dissolution equation is negative (hence, a positive association with marital stability) and significantly different from zero with 99% confidence. And, indeed, the association is a strong one. The LOGIT coefficients are difficult to interpret directly but can be used to construct estimates of the probability that the dependent variable equals 1, $P(Y = 1)$, when the couple is "average" on all but the predictor of interest.³ The estimate for $P(Y = 1)$ when the couple is average on all of the predictors included in LOGIT #1 is .046.⁴ This probability of marital dissolution within five years doubles with a one-standard-deviation decrease in shared leisure time from its mean value. Likewise, the probability is cut in half by a one-standard-deviation increase in shared leisure time. Thus $P(Y = 1)$ shifts from .023 to .092 when spouses' shared leisure time is changed from a one standard-deviation-above-the-mean value to a one-standard-deviation-below-the-mean value.

The shift in the probability of marital dissolution associated with spouses' shared time is stronger than that associated with a number of other factors. Several factors exhibit no statistically significant relation to marital stability. These include an indicator of the similarity of spouses' values (whether the spouses' sex role attitudes conflicted), somewhat crude indicators of pressures from the social environment (race and region), the couples' monetary assets, and both husband's and wife's earnings. In addition, the support for the attainment hypothesis thus far evidenced is stronger than the support for the ideological consistency hypothesis. One indicator of that hypothesis (whether the husband's ideas about women's roles conflicted with the behavior of the wife) shows no statistically significant association to marital stability. The other indicator (whether the wife's ideas about women's roles conflict with her behavior) evidences a weaker association than that of shared leisure

TABLE 2
 LOGITs with Whether Divorced or Separated Within Five Years as Dependent Variable (t-ratio in parentheses)

Predictor Variable	#1	#2	#3	#4
Total Shared Leisure Time	-.074** (-2.71)	-.072** (-2.59)	-	-
Shared Organization Time	-	-	-	-.141 (-0.75)
Shared Social Time	-	-	-	.022 (0.37)
Shared Recreational Time	-	-	-	-.215* (-2.13)
Shared TV-Watching Time	-	-	-	-.085* (-2.23)
Shared Non-TV Passive Leisure Time	-	-	-	.001 (0.01)
Marital Satisfaction				
Good	-	CHISO=7.09** -.549** (-2.66)	-	-
Not Good	-	1.145** (2.66)	-	-
Whether Both Spouses Find Time with Each Other Enjoyable				
Yes	CHISO=3.77 + -.206 + (-1.94)	CHISO=0.01 0.013 (0.10)	CHISO=5.79* -.243* (-2.41)	CHISO=2.40 -.176 (-1.55)
No	.856 + (1.94)	-.054 (-0.10)	1.008* (2.41)	.728 (1.55)
Number and Ages of Children				
No Children	CHISO=12.63* .847+ (1.94)	CHISO=14.29** 1.043* (2.30)	CHISO=11.18* 0.514 (1.21)	CHISO=11.13 .934* (2.05)

1-2 Children with Youngest Under Age 6	-1.150* (-2.30)	-1.263* (-2.45)	-1.038* (-2.15)	-1.139* (-2.20)
3+ Children with Youngest Under Age 6	-1.212 (-1.56)	-1.509+ (-1.81)	-1.006 (-1.31)	-1.253 (-1.59)
1-2 Children with Youngest Aged 6 or Older	.026 (0.05)	.024 (0.04)	.131 (0.09)	.049 (0.09)
3+ Children with Youngest Age 6 or Older	1.464* (2.50)	1.573** (2.57)	1.550** (2.73)	1.287* (2.14)
# Years Married	-.141** (-3.38)	-.160** (-3.55)	-.124** (-2.99)	-.141** (-3.34)
Designated Respondent's Age at First Marriage	-.149+ (-1.73)	-.161+ (-1.79)	-.140+ (-1.68)	-.174* (-2.02)
Whether Black	CHISO=1.50	CHISO=2.97+	CHISO=2.25	CHISO=1.92
Yes	1.169 (1.22)	1.735+ (1.72)	1.415 (1.50)	1.344 (1.39)
No	-.038 (-1.22)	-.056+ (-1.72)	-.046 (-1.50)	-.044 (-1.39)
Region	CHISO=4.52	CHISO=4.37	CHISO=2.53	CHISO=4.27
West	-.340 (-0.57)	-.282 (-0.47)	-.305 (-0.54)	-.718 (-1.08)
North Central	-.521 (-1.54)	-.540 (-1.57)	-3.64 (-1.13)	-.390 (-1.11)
Northeast	.746+ (1.76)	.726+ (1.66)	.471 (1.14)	.753+ (1.65)
South	.312 (0.77)	.319 (0.77)	.306 (0.78)	.367 (0.89)
Ln Assets	-.032 (-0.52)	-.030 (-0.47)	-.009 (-0.14)	-.024 (-0.37)
Husbands' Earnings (thousands of dollars)	.100 (1.20)	.200 (1.52)	.100 (0.89)	.100 (1.17)

(continued)

TABLE 2 Continued

Predictor Variable	#1	#2	#3	#4
Wife's Earnings (thousands of dollars)	.012 (0.14)	-.043 (-0.46)	-.020 (-0.24)	.011 (0.13)
Whether Conflict in Spouses' Sex Role Attitudes	CHISQ=0.0003	CHISQ=0.28	CHISQ=0.08	CHISQ=0.002
Yes	-.004 (-0.02)	-.156 (-0.53)	.077 (0.29)	.014 (0.05)
No	.003 (0.02)	.121 (0.53)	-.059 (-0.29)	-.011 (-0.05)
Whether Role Conflict for Wife	CHISQ=2.75+	CHISQ=3.04+	CHISQ=2.46	CHISQ=3.30+
Yes	.433+ (1.66)	.464+ (1.74)	.395 (1.57)	.494+ (1.82)
No	-.390+ (-1.66)	-.419+ (-1.74)	-.356 (-1.57)	-.446+ (-1.82)
Whether Conflict for Husband About Wife's Role	CHISQ=0.87	CHISQ=0.25	CHISQ=0.56	CHISQ=0.30
Yes	.257 (0.93)	.141 (0.50)	.109 (0.75)	.154 (0.54)
No	-.218 (-0.93)	-.120 (-0.50)	-.169 (-0.75)	-.131 (-0.54)
Constant	2.585 (1.29)	2.634 (1.23)	1.133 (0.60)	2.717 (1.34)
Sample Size	280	280	280	280

+Significant at .10 level; *significant at .05 level; **significant at .01 level.

time. Conflict for the wife places the otherwise average couple at a .070 probability of marital dissolution, whereas absence of such conflict places them at a .032 probability level.

The predictive strength of spouses' interaction is on a par with children and two indicators of the similarity of spouses' values—the extent to which spouses enjoy each other's company and an indicator the designated respondent's age at first marriage. The otherwise-average couple with no children has a .102 probability of marital dissolution, as opposed to a .014-.015 probability for the otherwise-average couple with one to two children. Spouses' enjoyment of each other's company lowers the otherwise-average couple's probability of marital disruption from .103 if they don't enjoy each other's company to .038 if they do. Regarding age at first marriage, the otherwise-average couple's probability of marital dissolution goes from .026 if the designated respondent is one standard deviation older than average at first marriage (25.7 as opposed to 21.8 years old) to .080 if he or she is one standard deviation younger than average (17.9 years old) when first married.

Only one of the other factors examined—duration of the marriage—registers a stronger relation to marital stability than spouses' shared time. The otherwise-average couple whose marriage has lasted 20.4 years—one standard deviation above the mean of 11.6—registers a probability of marital dissolution equal to .014, whereas the otherwise-average couple married only 2.7 years (one standard deviation below the mean) shows a much higher probability of .145.

LOGIT #1, though documenting a strong association between shared leisure time and marital stability, does not confirm causal linkages, nor does it isolate the more immediate association between spousal shared time and marital stability from a longer lasting relationship. LOGIT #2 attempts to clarify these points by adding a control for marital satisfaction to the marital dissolution equation. The idea is that the immediate level of marital satisfaction is the likely mechanism through which the probability of divorce and levels of spousal interaction feed into one another on a short-term basis. Controlling for marital satisfaction should reveal a longer-run relationship less clouded by ambiguity in direction of causality, although crudeness in our measure of marital satisfaction may interfere.⁵

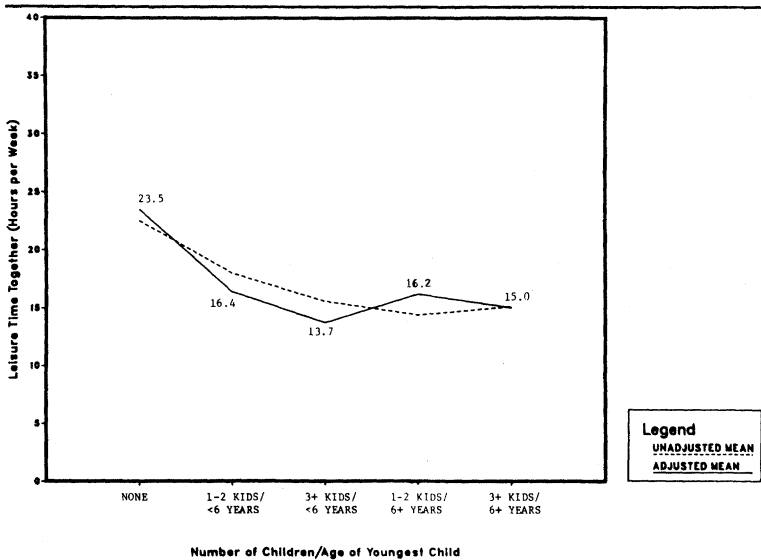
From LOGIT #2 we see that spouses' shared leisure time does exhibit an association with marital stability independent of our

rather crude control for marital satisfaction.⁶ Indeed, the coefficient on spouses' shared leisure time remains virtually unchanged. This is supportive of a long-run causal link from spouses' interaction to marital stability.

SPOUSES' LEISURE TIME TOGETHER AND CHILDREN

A further test of the attachment hypothesis is whether it helps account for counteracting influences of children on marital stability. To do so, spouses' shared time and children must be interrelated. For this investigation we move temporarily from analyses with shared leisure time as a predictor to an analysis with it as the dependent variable (see Figure 1). We find that the presence of children is a powerful explanatory factor for variation in spouses' shared leisure time. Of six categorical predictors of hours per week of shared leisure time, the one measuring the number and ages of children proved the strongest. This finding is similar to that of White, Booth, and Edwards (1986), and the relationship is in a direction consistent with the attachment hypothesis. Couples with no children spend from 7 to 10 more hours of leisure time together than do couples with children. The largest difference is between the no-children couples and the couples with three or more children, the youngest under age 6. But the presence of any children in the household is the primary factor: Presence of children is associated with less shared leisure time.

To complete the test for spouses' leisure time accounting for a mixed relationship between children and marital stability, we compare the predictive patterns of children in marital dissolution equations with and without spouses' shared leisure time specified as a predictor. LOGITs #1 and #3 of Table 2 show that the presence of children, regardless of how many or how old, is associated with a lower probability of divorce or separation when *total shared leisure time* is added to the dissolution equation. The relationship varies substantially with the number and ages of children, a finding that is consistent with Thornton's (1977) observation of a U-shaped relationship between the number of children and marital instability. However, across all four categories of number and ages of children where children are present, the coefficients become more negative when shared leisure time is added. At the same time, the coefficient



NOTE: These results are based on a Multiple Classification Analysis with the following factors included, in order of explanatory power: number and ages of children present in the household, number of years married, region, wife's labor market hours, family income, and respondent's age at first marriage. "Beta" (a measure of the ability of the predictor to explain variation in the dependent variable adjusting for the effects of all other predictors) is used to rank explanatory power.

Figure 1: Relationship Between Leisure Time Together and Number and Ages of Children

for the category representing no children becomes more positive. This finding also supports the idea that children indirectly contribute to marital instability by reducing the amount of spousal interaction in the form of shared leisure time. Direction of causality cannot, however, be confirmed in this analysis because measures of children and shared spouses' time are contemporaneous at a single point in time.

LEISURE ACTIVITIES MOST PREDICTIVE OF MARITAL DISSOLUTION

Having established a link between spouses' shared time and marital stability, we turn briefly to an examination of what types of

leisure activities have the strongest link. In LOGIT #4, Table 2, *total shared leisure time* is disaggregated into time spent in the five major types of activities underlying it. Of these five, only two—recreation and TV-watching—are significantly related to marital stability at conventional levels of confidence. The coefficients on *shared recreational time* and *shared TV-watching time* are both negative and significantly different from zero with 95% confidence. Shared leisure time in organizations, in socializing and entertainment, and in non-TV passive leisure activities show no association significant at conventional levels. These activities include such things as church attendance, visiting with others, attending parties, going to the movies, reading newspapers, household conversations, and just relaxing.

We can compare the relative strength of association of *shared recreational time* and *shared TV-watching time*. The average couple (average defined in terms of LOGIT #4 predictors) falls from .042 probability of marital disruption to a .021 probability if they increase their *shared recreational time* from its average level of 1.7 hours per week to a one-standard-deviation-higher level of 4.9 hours per week.⁷ The same reduction in probability of marital break-up can be obtained with a one-standard-deviation-higher-than-average increase in *shared TV-watching time*. However, a larger absolute amount of time is involved when the change involves *shared TV-watching time*. The change from average to one standard deviation above average involves 3.2 hours per week of *shared recreational time* but 6.9 hours per week of *shared TV-watching time*. Thus a marginal hour of shared recreational activity is more strongly related to marital stability than one of shared TV-watching, although both are associated with lower probabilities of marital break-up.

SUMMARY AND CONCLUSIONS

We hypothesize that shared leisure time helps strengthen marriage by providing pleasurable marital interaction that binds the spouses closer together, improving chances for a stable marriage both in the short run and over the long run. The results of a set of LOGIT analyses of marital dissolution based on the 1975-1981 Time Use Longitudinal Panel are consistent with this hypothesis. The relationship between spouses' shared leisure time and marital stability

also helps account for counterbalancing forces in the relationship between children and marital stability. While children can serve as a barrier to marital break-up, they also can contribute to marital dissolution. Spouses with children in the home have less leisure-time interaction, and lower amounts of shared leisure time are associated with a greater likelihood of marital disruption.

The shared leisure time category most strongly associated with marital stability is recreation. Activities such as out-of-doors activities, active sports, card games, and travel related to recreation are what couples tend to spend most of their active leisure time together doing. Marital stability is also related to joint TV-watching, a finding that contradicts Varga's (1972) multinational aggregate analysis but is consistent with Kelly's (1983) view that TV-watching is not as passive an activity as many believe.

Our findings suggest a possible role for spouses' shared leisure time in the increase in divorce rates over recent decades. Increased participation of married women in the labor force has been viewed as a factor directly contributing to marital instability because greater earnings on the part of the wife reduce the economic gains to marriage. But this trend may have an indirect impact as well because it may mean less shared leisure time for couples. If this is so, then the secular increase in divorce may in part result from a secular decline in the amount of shared leisure time.

Further research on the role of spouses' shared time is clearly in order. Additional tests of the direction of causality in the relationship are needed. A central aspect of the attraction hypothesis proposed here—that spouses' shared leisure time affects marital stability in the short run via immediate levels of marital satisfaction and in the long run as well—has been crudely tested in our analysis. Better measures of marital satisfaction in a longitudinal panel of marriages would help clarify this aspect of the attraction hypothesis as well as better identify the direction of causality in the relationship between leisure time and marital stability.

Other aspects of the relationship also merit further research. Effects of shared leisure time may vary over the course of a marriage, possibly with greatest benefits accruing early in the marriage when the stock of shared experiences is lowest. The effects could also vary by gender of the spouse, with greater marital benefits for either the husband or the wife. Also, we have not yet clearly established the functional form for the relationship between spouses' shared leisure

time and marital stability. Is the relationship linear or more like an inverted U-shape, with both small and very large amounts of shared leisure time associated with higher probabilities of marital disruption? Is there a temporal pattern in the relationship, possibly with small amounts of shared leisure time followed by large amounts being less conducive to permanence in a marriage than a steady flow of either large or small amounts? In a related vein, is the relationship sensitive to other life events such as retirement, unemployment, death of a family member, or grown children leaving the home?

Study of the shared-time/marital-stability relationship should be expanded to work time as well. It may be that shared work time is also conducive to marital stability, although probably less so than shared leisure time. With the support for the attachment hypothesis demonstrated in this article, these topics clearly merit future research.

NOTES

1. If the day was a weekend day, a slightly longer time lapse was allowed between the reported day and the day of interview.

2. The response rate for our particular subsample—married couples with the husband under age 54—is not readily available. However, of the entire time use sample of 1,519 adults of all ages who were initially interviewed as designated respondents in the study, about 40% completed both the multiple interviews in 1975-1976 and at least the first interview in 1981. In addition, the initial interview also involved considerable nonresponse; however, it is difficult to tell how much of that was due to unoccupied or demolished dwellings being erroneously listed in the sample frame.

3. An alternative, and technically superior, procedure is to compare average (across individuals) expected probabilities calculated at the *individual* level for different values of the independent variable under investigation. This is often referred to as the "sample enumeration method." It eliminates distortions arising from the nonlinearity of the LOGIT specification. In the present case, these distortions have only a minimal impact on the qualitative results. Regardless of the procedure used, for instance, a one-standard-deviation increase in shared time in the context of Table 2's LOGIT #1 specification is associated with a marital dissolution rate half as large as that at the average value. The increase in the probability of marital dissolution associated with a one-standard deviation decrease in shared time is, however, somewhat more modest using sample enumeration. With this method, the average probability of dissolution shifts from .101 to .057 for the noted increase in shared time, and to .168 for the corresponding reduction in shared time.

4. For all categorical variables, the log-odds for the "average" with regard to that factor is computed using the weighted sum of the category-specific coefficients. The estimate of $P(Y = 1)$ for the average observation is not, in general, identical to the proportion with a value of 1 on the dependent variable.

5. The distribution of spouses' separate reports of marital satisfaction that underlie our measure are strongly skewed toward the upper end. It is possible that the study design contributed to the skewness since the report of marital satisfaction by one spouse was likely to be made in the presence of the other one. For this reason we have not used the full detail of the measure and have, instead, created a dichotomous variable reflecting whether neither spouse was at the high end of reported marital satisfaction. That situation is considered to represent marital satisfaction that is "not good," whereas all other combinations of the two spouses' reports are termed "good."

6. Despite the simple dichotomy for marital satisfaction, that factor is predictive of marital stability with 99% confidence and its predictive strength is somewhat larger than that of spouses' shared time. The otherwise-average couple (average defined in terms of the LOGIT #2) with marital satisfaction classified as "good" is estimated to have a .023 probability of break-up, whereas their peers with marital satisfaction classified as "not good" register a .116 probability of marital dissolution. Also, the predictive power of the extent to which the spouses enjoy each others' company, a factor expected to be closely associated with marital satisfaction, falls sharply with the addition of the marital satisfaction measure.

7. A one-standard-deviation-lower-than-average value on *shared recreational time* would involve negative levels of time. Thus we have switched to a comparison of average with one standard deviation above average.

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