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Are the Negative Effects of Divorce on Well-Being Dependent on Marital Quality?

We test the so-called escape hypothesis, which argues that for people from a poor marriage, a divorce has a less negative or even a positive effect on well-being. In an analysis of two waves of the National Survey of Families and Households (N = 4,526), we find only limited evidence. When people divorce from a dissatisfactory or unfair marriage, they experience smaller increases in depression than when they divorce from a less dissatisfactory and less unfair marriage. For marital conflict, we find no interaction. Marital aggression seems to increase the negative effect of divorce, especially among women, suggesting that notions about the accumulation of problems after divorce need to be considered in combination with notions of escape.

The positive effects of marriage on individual well-being and health have been documented extensively (Ross, Mirowsky, & Goldsteen, 1990). One line of research has compared people before and after the entry into marriage (Horwitz, Raskin White, & Howell-White, 1996; Mastekaasa, 1992). Another line of research has focused on what happens when people separate, divorce, or experience the death of their spouse (Amato, 2000; Booth & Amato, 1991; Fokkema & Dykstra, 2002). More recent studies combine the two designs and look at all marital transitions in

one study (Barrett, 2000; Joung, Van de Mheen, Stronks, Van Poppel, & Mackenbach, 1998; Marks & Lambert, 1998; Williams & Umberson, 2004). Even though the effects of entering marriage are not of the same magnitude as the effects of leaving marriage, all lines of research seem to come to the same conclusion that marriage enhances well-being and health. Part of these associations result from more healthy people being selected into marriage (and less healthy people being selected into the divorced state), but most studies show that the protective effect of marriage remains after selection is taken into account (Lillard & Waite, 1995; Waite & Gallagher, 2000).

Although there is consensus on the notion that marriage has a protective effect on well-being and health, it is also recognized that not all marriages are alike. If the marriage effect results from some form of protection or spousal influence, it is plausible that some marriages are more protective than others and that this will depend on the quality of the marriage. Starting from this general idea, a research tradition has developed that examines the effects of marital quality on health. Research in this tradition consistently shows that poor marital quality—however it is measured—has a strong negative effect on the mental and physical health of husband and wife (Fincham & Beach, 1999; Kiecolt-Glaser & Newton, 2001; Lennon & Rosenfield, 1994; Ross, Mirowsky, & Huber, 1983). These studies are not only important for clarifying some of the underlying mechanisms for why marriage may protect people but also important in that they emphasize the heterogeneity that exists in the married population.

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Unfortunately, the two lines of research discussed above have remained rather separate. The former tradition compares persons inside and outside of marriage, whereas the latter tradition compares people inside of marriage. When integrating the two lines of research, important new substantive questions arise. Rather than asking whether marriage itself has a positive effect on health, the question is which *type* of marriage has a positive effect and which type of marriage has a negative effect (Gove, Hughes, & Briggs Style, 1983; Waite & Gallagher, 2000)? A parallel question is whether a divorce can have both negative and positive effects on health, depending on the quality of the preceding marriage? Just as one expects that being alone is better for one's health than being in a poor-quality marriage, one would expect that divorcing from a poor-quality marriage will be less detrimental to one's health than divorcing from a not so poor marriage. In the former case, one could even argue that a divorce is a *solution* rather than a *problem*. Although the ending of a marriage will probably still be perceived as a disappointment, it will also bring relief, thereby mitigating the possible negative effects of a divorce or even making the transition to divorce a positive rather than a negative experience.

The interaction between marital quality and divorce is also of more general importance for research on divorce. The research literature on divorce in the past decades has often focused on negative outcomes: negative effects of divorce on mental and physical health, negative effects on women's economic well-being (Smock, 1994), negative effects on men's family relationships (Seltzer, 1991), and negative effects on social networks and integration (Gerstel, Kohler Riessman, & Rosenfield, 1985). At the same time, it has also been recognized that there is considerable *heterogeneity* in the effects of divorce. In their famous book on the aftermath of divorce, Wallerstein and Kelly (1980), for example, argued that the dilemma of divorce lies in the fact that even though a divorce is generally a negative experience for children, it is often psychologically beneficial for the adults involved (Wallerstein & Kelly, 1980, p. 306). More recently, Amato (2000, p. 1282) has stated in his recent review of the divorce literature, "research on the contingencies that determine whether divorce has positive, neutral, or negative long-term consequences for adults and children is a high priority."

Although the notion of heterogeneous divorce effects has been used extensively when the focus is on children, for example, in the literature on the positive effects of divorce on children from high-conflict marriages (Amato & Sobolewski, 2001; Hanson, 1999; Morrison & Coiro, 1999), it has not often been followed when the focus is on the divorcees themselves. In this article, we focus on one important source of this heterogeneity: the quality of the marriage. Our research question is as follows: Are the consequences of divorce for a person's well-being less negative when the quality of the (preceding) marriage was low? We review the theoretical reasons for expecting an interaction effect, and we discuss previous research. We conclude that the moderating role of marital quality has not yet been firmly established. We then analyze the interaction effect by using a large-scale panel survey, the National Survey of Families and Households (NSFH) (Sweet, Bumpass, & Call, 1988). This survey contains information on a large number of people who experienced a divorce or separation; it contains repeated measures of mental health, as well as information on multiple indicators of marital quality.

HYPOTHESIS AND PRIOR EVIDENCE

It is generally recognized that a divorce can have three different effects on a person's well-being. The first effect is often called a crisis effect. A divorce can be a highly disturbing and emotional experience, and this alone would lead to a reduction in well-being (Booth & Amato, 1991; Wallerstein & Kelly, 1996; Williams & Umberson, 2004). The crisis effect is mostly temporary. Second, a divorce means the ending of a supportive partner relationship and, hence, the loss of a resource (McLanahan & Sandefur, 1994; Williams & Umberson, 2004). A decline in resources can reduce health and will probably have long-term consequences unless a person starts living with a new partner. The third effect, which is most relevant here, is the notion that a divorce can be a relief from marital problems. If problems in marriage have a negative effect on health, the ending of a problematic marriage implies some sort of relief (Wheaton, 1990; Williams, 2003). The relief is not limited to the immediate aftermath of a divorce. In principle, it is a lasting effect because people remain removed from the troubled marriage. Note that relief can occur in conjunction with the crisis effect: People may be relieved

even though they are still experiencing their life as stressful and turbulent.

The three arguments together imply an interaction effect. For people who are in a good marriage, a divorce means a crisis and a loss of a resource, adding up to a decline in well-being. For people who are in a poor marriage, however, there will be both negative and positive effects of divorce. On the one hand, they will experience the negative crisis and loss effect, but they will also experience a relief effect. If the relief effect is relatively weak, the overall decline in well-being will be less negative. If the relief effect is strong, the change in well-being can be positive. In the remainder of this article, we call this *the escape hypothesis*, and we make a distinction between a strong and a weak version of the hypothesis. The weak version argues that the divorce effect is less negative when the initial marital quality is low; the strong version argues that the divorce effect is positive when the initial quality is low. Note that both versions imply an interaction effect of divorce and marital quality. To see which pattern prevails, the main effects and the interaction effects need to be considered in combination.

We should also consider the role of gender. Ever since the classic work of Goves and his colleagues, authors have been examining gender differences in the benefits of marriage and in the health costs of divorce (Gove & Tudor, 1973). Recent analyses of the issue show that the experience of a divorce increases women's depression more than it increases men's depression, whereas the entry into marriage reduces men's alcohol consumption more than it reduces women's alcohol consumption (Marks & Lambert, 1998; Simon, 2002). Other analyses confirm that the benefits of entering marriage are greater for men, but they also find that for older persons, a divorce has a more negative health effect for men than for women (Williams & Umberson, 2004). Results are sometimes inconsistent, in part because men and women have different ways of expressing psychological distress (Simon, 2002; Umberson, Chen, House, Hopkins, & Slaten, 1996).

We expect that the interaction effect will be stronger for women. Research on marital functioning has suggested that differences in marital quality are more consequential for the health and well-being of women than for men (Kiecolt-Glaser & Newton, 2001), suggesting that an escape from an unhappy marriage brings greater relief for women. This pattern implies that the interaction effect will be stronger for women. It can also be argued that women more often escape from an unhappy marriage than men. Women more often take initiative to divorce, for example (Kitson, 1992), but that itself does not suggest that the interaction effect will be different for women than for men.

Next to testing our main hypotheses, we also consider control variables at the first interview that may affect changes in well-being (Tausig, Michello, & Subedi, 1999). We expect that older persons will have more negative changes in well-being than younger persons. Persons in less advantaged positions in society (i.e., nonemployed persons and persons with a low income and a low education) may also experience less positive or more negative changes in well-being. People with children at home may also be more vulnerable. We also include repartnering because it is often found that health and well-being can improve after repartnering (Williams & Umberson, 2004).

Prior Studies

Insofar as we know, four studies have formally tested the interaction effect, excluding those studies providing indirect evidence (Booth & Amato, 1991; Ren, 1997). The first study comes from Wheaton (1990), who analyzed Canadian panel data. Wheaton finds that people who divorced from a marriage with many problems had lower symptoms of distress 2–4 years after the divorce, whereas people who divorced from a marriage with no or few problems had higher levels of distress. Although the effect was found in only two of the four (separately analyzed) subgroups, Wheaton nevertheless concluded in favor of the escape hypothesis.

In an analysis of a panel survey in the Detroit Metropolitan Area, Aseltine and Kessler (1993) find that, for both men and women, the effect of separation and divorce is more negative when there were fewer problems in the marriage. For men, this finding was consistent with a strong version of the escape effect. Men divorcing from poor marriages have fewer symptoms than others and thus appear to experience a positive divorce effect. For women, the interaction effect was found as well, but there was no sign of positive divorce effects; divorced women from poor marriages also had higher levels of depression, although less so than divorced women from good marriages.

Third, Prigerson, Maciejewski, & Rosenheck (1999) analyzed the first two waves of the Americans' Changing Lives panel data and found a significant interaction for two of the seven recorded symptoms of health problems. More specifically, they found that among those who divorced, persons who rated their marriage as harmonious were more likely to report arthritis and hypertension 1 year later than those in unhappy marriages. For those who remained married, there was no clear effect.

Another and more recent analysis of the Americans' Changing Lives survey includes all three waves and is the best study of the interaction effect so far (Williams, 2003). Williams (2003) compared persons between subsequent waves of the survey and first shows that people who divorced have lower levels of well-being in the next wave, after controlling for the influence of well-being in the first wave. Well-being was measured by a depression scale on the one hand and a life satisfaction scale on the other hand. Next, Williams shows that there is a positive interaction effect of divorce and marital harmony on well-being. The findings are in line with the escape hypothesis, although it is also shown that the divorce effect does not become positive for low levels of marital harmony (pp. 482 – 483).

A drawback of some of the studies discussed above is that they are based on small numbers of cases. Although the total samples are generally large, the number of people who experience a divorce during the panel period is small: 35 in the study of Prigerson et al. (1999), 60 in that of Wheaton (1990), and 61 in that of Aseltine and Kessler (1993). These numbers are low, especially considering the fact that interaction effects are often tested on specific subgroups. In Wheaton's article, for example, the interaction effect is only found in two subgroups of 27 and 13 divorcees (p. 217). Similarly, in the study of Aseltine and Kessler, the interaction effects are calculated for subsamples of men and women with 28 and 33 separated cases, respectively (p. 243). The analysis of Williams (2003) is the most sophisticated, but it does not report the number of divorcees. Using other information in Williams' tables, we estimate the number of divorcees in her study at 103 women and 62 men, which is also not large but clearly larger than in the other studies. Note that the analyses in Williams were done separately by gender.

Statistical significance is obviously an important guide, but significance tests are sensitive to the violation of statistical assumptions when the number of cases is so low. As a result, we believe that the interaction hypothesis needs an additional test with a larger sample. An additional issue is that some of the studies have used panel data that are rather closely spaced: 1 year in the study of Prigerson et al. (1999), 4 years in that of Wheaton (1990), and 3 years in that of Aseltine and Kessler (1993). When a divorce has occurred very recently, the crisis effect, which is strongest immediately after the actual divorce, might obscure a possible relief effect. It therefore seems important to reexamine the issue for a somewhat wider time span.

METHOD

We use data from Waves 1 and 2 of the NSFH (Sweet et al., 1988). The first was collected in 1987 and 1988 and was based on a national probability sample of adults in the United States. It included a main cross-section sample of 9,643 households plus a double sampling of African Americans, Puerto Ricans, Mexican Americans, single-parent families and families with stepchildren, cohabiting couples, and recently married persons (N = 13,007). The response rate was 74%. Primary respondents and their spouses were again interviewed between 1992 and 1994 (N = 10,005). The interval between the waves is 5.8 years on average. Excluding respondents who had died, the response rate for the second wave was 82%. As is discussed below, we control for selective sample attrition.

We select respondents who were married and aged 17 – 70 years during Wave 1 and for whom marital history in Wave 2 was available. After selecting cases on the basis of the respondent's marital history (explained below), we get a sample of 5,054 respondents. We subsequently excluded cases with missing information on the independent and dependent variables ($n = 528$), yielding an analytical sample of 4,526 cases with which we can assess the overall effect of divorce on well-being (Table 3). As can be observed in Table 1, not all cases in the analytical sample have valid information on all five measurements of marital quality. Especially on items referring to conflict and physical aggression, there was partial nonresponse. Additional analysis showed that this partial nonresponse does not significantly predict attrition or the chance of divorce (results not shown). To retain

Table 1. *Descriptive Information on Dependent and Independent Variables, U.S. Men and Women Aged 18 – 70 Years in 1987 – 1988*

	Proportion	M/Proportion	SD	Range	n
Marital transitions					4,526
Continuously married	0.877				3,969
Married – divorced	0.054				244
Married – separated	0.027				122
Married – divorced – cohabiting	0.015				68
Married – divorced – married	0.023				104
Married – separated – cohabiting	0.004				19
Depressive symptoms (T1)		7.570	7.580	0 – 36	4,526
Depressive symptoms (T2)		7.780	7.700	0 – 36	4,526
Age		39.700	12.600	18 – 70	4,526
Black	0.110				4,526
Education		12.900	2.810	0 – 20	4,526
Log income ($) (T1)		10.420	0.920	0 – 14	4,526
Income missing	0.160				4,526
Employed (T1)	0.730				4,526
Children aged <19 years present (T1)	0.430				4,526
Marital satisfaction (T1)		5.940	1.330	1 – 7	4,341
Fairness toward respondent (T1)		2.850	0.310	1 – 3	4,281
Marital conflict (T1)		0.890	1.240	0 – 5	4,049
Marital aggression (verbal) (T1)		2.640	1.560	0 – 8	4,199
Marital aggression (physical) (T1)		0.142	0.349	0 – 1	4,029

Note: Standard deviations not reported for dichotomous variables. *n* refers to cases without attrition.

maximal statistical power, we use all available cases when testing the interaction between divorce and marital quality separately for each measurement of marital quality. The number of cases in our final models in Table 4 varies from 4,029 for physical aggression to 4,341 cases for marital satisfaction.

Marital Transitions

In both waves, respondents reported elaborately about their current marriage and their marital history. All marital transitions between the first and second interview were recorded (Table 1). From this information, we assessed whether a person divorced and, if so, whether a person remarried or started living together again (we use the word repartnering to denote both options). The variables are coded as follows: The dummy variable divorce is coded 1 if a person *divorced and stayed single*, also coded 1 if a person *divorced and repartnered*, and 0 if a person *remained married to the same partner*. The second dummy variable is repartnered, which is coded 1 if a person *repartnered after divorce* and 0 *otherwise*. This so-called cumulative coding

scheme implies that the divorce effect measures the difference in well-being between the single divorced and the married, whereas the repartnering effect measures the difference in well-being between the repartnered and the single divorced.

The reason to include a separate variable for repartnering is that health and well-being can improve after repartnering. We should note, however, that the repartnering effect in our analysis may be an overstatement of the true repartnering effect if the more healthy respondents are more likely to repartner. We can control for health and well-being during marriage, but we cannot control for health and well-being after divorce and before repartnering.

Note the following details about the marital transitions. A divorce indicates whether the partner and the respondent had divorced or separated after the first interview. Cohabiting relationships in Wave 1 and separations of cohabiting relationships are excluded. There were too few such separations to study them separately, and including them with the divorced does not seem wise given the important differences between cohabiting and married relationships. Married in Wave 1 can be

married for the second time. Respondents whose partner died between the two interviews were not included in our analytic sample.

In 43 cases, a divorce took place within 6 months after the first interview (7% of all divorces in the sample). We excluded these respondents from the final sample because their initial level of well-being is probably influenced by the divorce process. We want the initial measurement of well-being to reflect the predivorce situation as well as possible without tapping the temporary effect of the stress that the (legal) divorce process involves. In our final sample, 557 respondents (12%) experienced a divorce or separation between 1987 – 1988 and 1992 – 1994 (191 or 34% of these repartnered).

Dependent Variable: Well-Being

Our central measure of well-being is depressive symptoms. The Depressive Symptom scale is an abbreviated version of the Center for Epidemiologic Studies Depression Scale, a commonly used measure of depressed mood that has high construct validity and internal consistency (Radloff, 1977). Respondents reported the number of days during the previous week that they experienced the following: "you were bothered by things that usually don't bother you?," "you felt lonely?," "you felt you could not shake off the blues, even with the help of your family or friends?," "your sleep was restless?," "you felt depressed?," "you felt that everything you did was an effort?," "you felt fearful?," "you had trouble keeping your mind on what you were doing?," "you talked less than usual?," "you did not feel like eating, your appetite was poor?," "you felt sad?," and "you could not get going?." Following Radloff (1977), we sum the weighted answers (*not at all* = 0, *1 – 3 days* = 1, *4 – 6 days* = 2, *everyday* = 3). In both waves, the reliability coefficient was high ($\alpha = .92$). We also examined a scale that uses the expanded answering categories for each item (from 0 to 7), but the correlation of that scale is $r = .98$ with the original scale. Means and standard deviations are in Table 1.

Moderators: Marital Quality

Much has been written about the measurement of marital quality (Booth, Johnson, White, & Edwards, 1986; Glenn, 1990; Sabatelli, 1988). We have no theoretical predictions about which

aspects of marital quality would be most relevant, and we therefore use as much information as is available in the data. Earlier validations of these measures in the NSFH can be found in Xu (1998). Five indicators of marital quality are available at both waves.

Marital satisfaction is a general indicator and was measured by a single item: "Taking all things together, how would you describe your relationship?" This item has a seven-point scale indicating *very unhappy* (1) to *very happy* (7).

The second indicator concerns marital conflicts. Respondents were asked how often they had had open disagreements about each of the following during the last year: household tasks, money, spending time together, sex, in-laws, having a(another) child, and children. Answer categories were *never, once month or less several times a month, once a week, several times a week,* and *almost every day.* We exclude the items about children because these are only applicable to younger couples and those with children. The scale is the number of domains over which the couples had disagreements at least several times a month and ranges from 0 to 5 ($\alpha = .75$).

Marital aggression is measured with five items. We explored whether there was one underlying dimension in these items and found a distinction between verbal and physical aggression. We therefore constructed two scales. The Verbal Marital Aggression scale is based on the following two items: (a) how often (according to the respondent) the respondent and partner argued heatedly or shouted at each other (0 = *never*, 1 = *seldom*, 2 = *sometimes*, 3 = *very often*, and 4 = *always*) and (b) how often (according to the respondent) the respondent and partner discussed their disagreements calmly (4 = *never*, 3 = *seldom*, 2 = *sometimes*, 1 = *very often*, and 0 = *always*). The two items were summed into a scale ranging from 0 to 8.

The Physical Marital Aggression scale is based on the following two items: (a) how often (according to the respondent) the respondent and partner ended up hitting or throwing things at each other (0 = *never*, 1 = *ever*) and (b) whether the respondent *or* the partner reported any actual hitting in their marriage in the past 12 months (0 = *respondent and partner report no hitting*, 1 = *respondent and/or partner reports hitting*). We constructed a new variable coded 1 if a person reports a *positive score on either item* and 0 *otherwise*.

Four items about the fairness of tasks were presented regarding household chores, working for pay, spending money, and child care. We use the first three items to construct a measure of fairness toward the respondent. Previous research has shown that perceived unfairness in personal relationships has an asymmetric effect. The degree of underbenefiting has a strong negative effect on well-being, whereas the degree of overbenefiting has a much smaller effect on well-being (Sprecher, 1986). For that reason, we primarily focus on the degree to which respondents perceive the marriage as fair to themselves. We recoded each item as follows: 1 = *very unfair to me*, 2 = *somewhat unfair to me*, 3 = *fair to both or unfair to the partner*. The resulting scale is the average of the three items (ranging from 1 to 3). It is also possible to include underbenefiting and overbenefiting simultaneously, but additional analyses indicate that the interaction effects do not change when doing this.

In Table 1, the means and standard deviations of the quality measures are presented. In the regression models, the five quality measures (except physical aggression, which is dichotomous) were standardized (separately for men and women).

Analytic Strategy

We first test whether there is an effect of divorce on depression. To do this, we present effects of a transition to divorce between the two waves on the change in well-being between Wave 1 and Wave 2 (Table 3). Hence, we use the change score method rather than the regressor variable method, as advocated by Allison (1990) and more recently also by Johnson (2005). The change in depression applies to a period of 6 – 7 years, and the divorce can have occurred at any point in between that interval (except that it may not have occurred in the first 6 months after the first wave, as explained above). The average interval since the divorce in Wave 2 is almost 3 years. We abstain from systematically incorporating the effects of time since the divorce on changes in well-being because our main concern is with how the overall effect of divorce depends on prior marital quality. Additional analyses show that for the divorced, the effect of the number of years since the divorce on the change in depression is negative, as one would expect ($b = -0.91$, $p < .01$).

Next, we add interaction effects of the five marital quality indicators and divorce to test the escape hypothesis. This model also includes interaction effects of the marital quality indicators and repartnering. Because of the cumulative coding scheme for divorce and repartnering, the interaction effect of divorce and marital quality tells us how marital quality affects the change in depressive symptoms for the single divorced vis-à-vis the married. The interaction effect of repartnering and marital quality tells us if the interaction effect is stronger or weaker for the repartnered than for the divorced. To obtain the interaction effect for the repartnered vis-à-vis the married, the two interaction effects need to be summed (see appendix). We include marital quality indicators and their interactions with divorce and repartnering one by one in the change models (Table 4).

Because some respondents were not interviewed in the second wave, the estimates of our effects can be biased by selective attrition (Groves & Couper, 1998). To correct for attrition, we apply Heckman's two-stage model of sample selection bias (Heckman, 1979; Winship & Mare, 1992). The first part of this procedure is a probit model for the probability that the respondent remains in the sample in Wave 2, having been interviewed in Wave 1 (i.e., the selection model). The second part is a linear regression model for the change in depressive symptoms for those who are observed in both waves. This model includes as an independent variable the hazard of being excluded from the second wave as predicted by the probit model. By including this latent trait in the model, the bias in the other effects because of selective attrition is minimized (Heckman, 1979). As identifying instruments for the selection equation, we use a series of variables that affect response while not affecting the change in depressive symptoms. More specifically, we use the following identifying instruments (all pertaining to Wave 1): how much interest the respondent had in the first interview, church attendance, the number of voluntary associations of which the respondent was a member, the number of informal social contacts, the initial level of depressive symptoms, and a measure of partial nonresponse.

Interest in the interview was measured using the average of three ratings by the interviewer (how well the respondent understood the questions, how cooperative the respondent was, and how much interest the respondent had in the interview). Church attendance indicates whether the respondent attended church in the past 12 months. Voluntary associations are measured as the number of associations of which the

respondent was a member (from a list of 15 groups). Social contacts are measured by the average of four items: the number of evenings spent with relatives, with friends, with coworkers, and with neighbors. Our general expectation is that response in later waves is fostered by social integration and by the degree of interest in the initial survey (Groves & Couper, 1998).

Control Variables

In the regression models, we do not control for characteristics in Wave 2. Several such characteristics may appear important at first, for example, income position, housing situation, and so forth, but such variables are only important if one wants to statistically *interpret* the divorce effect (McLanahan and Sandefur, 1994). For example, including income measures at Wave 2 may lead to a reduction in the divorce effect for women, but if this is true, it is because a divorce leads to lower income (for women). All our control variables are measured in Wave 1, that is, prior to the divorce. Wave 1 control variables are important because they may affect the chances of divorce while simultaneously affecting health. Excluding such variables would lead to a spurious divorce effect.

The control variables are the respondent's age, age squared, race/ethnicity (Black vs. all others), highest completed education, presence of children under 18 years of age, income, and employment. We include these variables because they are known to affect well-being (Tausig et al., 1999) and they may also be correlated with the likelihood of experiencing a divorce (South, 2001; South & Spitze, 1986). Age and education are measured in years. Income is the annual household income. The measure is logged to avoid extreme incomes from having too much weight. Missing is assigned the mean income,

and a binary variable is included indicating whether income was missing. Race, employment, and the presence of children are dichotomous variables.

RESULTS

Before turning to the regression results, we discuss the correlations in Table 2. First, we notice that the four measures of marital quality have modest correlations. The correlations are between .14 and .38 for women and between .08 and .39 for men. For men, marital fairness has the weakest correlations with the other scales. The strongest correlation is between verbal aggression and marital conflict. For women, physical aggression has the weakest correlation, and there is less variation among the other correlations than for men. The fact that the correlations among these marital quality indicators are not very high indicates that it is important to develop multiple tests of the escape hypothesis.

Table 2 also shows that depressive symptoms are correlated over time, although not very strongly ($r = .39$ for men and .38 for women). These correlations suggest that there is quite a bit of change in depressive symptoms over the course of time. Obviously, measurement error will reduce the observed temporal stability as well. Finally, we see that marital quality in the first wave is negatively correlated with depressive symptoms in the second wave. For both men and women, marital conflict has the strongest correlation with later depressive symptoms. This pattern confirms one of the assumptions in our reasoning: that marital quality and health are positively linked. We should note, however, that this correlation is probably reduced by divorce.

What are the effects of divorce on depressive symptoms? We present results for the full sample

Table 2. *Correlations Between Marital Quality and Depressive Symptoms (Women Above, Men Below Diagonal)*

	1	2	3	4	5	6	7
1. Depressive symptoms (T1)	—	.383	−.241	−.186	.319	.220	.146
2. Depressive symptoms (T2)	.385	—	−.155	−.142	.237	.186	.139
3. Marital satisfaction (T1)	−.170	−.082	—	.360	−.311	−.343	−.172
4. Fairness toward respondent (T1)	−.139	−.089	.174	—	−.301	−.252	−.127
5. Marital conflict (T1)	.290	.181	−.263	−.228	—	.384	.281
6. Marital aggression (verbal) (T1)	.176	.113	−.292	−.142	.350	—	.312
7. Marital aggression (physical) (T1)	.126	.042	−.118	−.069	.228	.275	—

Note: Sample includes the divorced between T1 and T2. No T2 marital quality variables available for the divorced.

as well as for men and women separately. We present both the more conservative two-tailed tests and the more liberal one-tailed tests (both at $p < .05$). One can argue for a one-tailed test because the escape hypothesis is directional.

Table 3 shows that people who experience a divorce have a significantly greater increase in depressive symptoms between the two waves than people who remain married. This change is significant and substantial in magnitude. The effect is 2.03, which amounts to 27% of the standard deviation in depressive symptoms. When looking at the effects for men and women separately, we see that the effect is significant for women but not for men. A test indicates that the effect of divorce on depressive symptoms is stronger for women than for men ($z = 2.62$, $p = .01$). For women, the relative magnitude of the

Table 3. *Regression of Change in Depressive Symptoms: Estimates From Heckman Selection Models*

	All		Women		Men	
	b	*SE*	*b*	*SE*	*b*	*SE*
Equation for change in depressive symptoms						
Male	−0.319	0.275				
Age	−0.059	0.075	0.092	0.103	−0.213	0.111†
Age squared	0.001	0.001	−0.001	0.001	0.003	0.001*
Black	1.679	0.437*	1.945	0.639*	1.536	0.590*
Education	−0.121	0.052*	−0.194	0.080*	−0.060	0.068
Income	−0.200	0.154	−0.304	0.216	−0.087	0.221
Income missing	0.942	0.366*	0.765	0.489	1.209	0.549*
Employed	0.120	0.333	−0.028	0.399	0.510	0.637
Children	0.076	0.281	−0.087	0.393	0.192	0.400
Divorce	2.028	0.459*	2.947	0.638*	0.853	0.653
Repartnered	−1.390	0.740†	−1.729	1.043†	−0.949	1.037
Constant	5.574	1.971*	4.897	2.744†	5.855	2.860*
Selection equation						
Male	−0.129	0.040*				
Depression T1	−0.026	0.003*	−0.023	0.004*	−0.028	0.004*
Age	0.031	0.010*	0.029	0.014*	0.037	0.015*
Age squared	0.000	0.000*	0.000	0.000*	−0.001	0.000*
Black	−0.216	0.057*	−0.298	0.080*	−0.143	0.080†
Education	0.039	0.007*	0.048	0.011*	0.034	0.010*
Income	0.069	0.019*	0.083	0.027*	0.054	0.028*
Income missing	−0.213	0.048*	−0.209	0.064*	−0.221	0.074*
Employed	0.032	0.046	0.054	0.056	−0.005	0.085
Children	−0.072	0.041†	−0.096	0.057†	−0.048	0.060
Interest in interview	0.123	0.020*	0.131	0.030*	0.113	0.027*
No church attendance	−0.090	0.045*	−0.109	0.065†	−0.072	0.062
Voluntary associations	0.016	0.009†	0.008	0.013	0.022	0.012†
Social contact scale	−0.002	0.016	0.000	0.022	−0.003	0.023
Partial nonresponse	−0.130	0.072†	−0.146	0.099	−0.105	0.104
Constant	−1.338	0.290*	−1.596	0.411*	−1.299	0.414*
Model parameters						
Rho	−0.573	0.033*	−0.532	0.051*	−0.615	0.042*
Sigma	8.914	0.129*	9.165	0.178*	8.528	0.185*
Lambda	−5.104	0.349*	−4.874	0.533*	−5.242	0.447*
n (excluding attrition)	4,526		2,025		2,501	
n (including attrition)	5,884		2,686		3,198	

Note: Control and selection variables are measured at T1.

*$p < .05$ (two tailed). †$p < .05$ (one tailed).

effect is 38% of (women's) standard deviation in depressive symptoms, which is a strong effect. That a divorce has more negative consequences for the well-being of women than for men is in line with previous findings in the literature (Simon, 2002).

We also see a negative effect of repartnering, indicating that people who repartnered after divorce experience a smaller increase in depressive symptoms. The effect is only significant in the full sample and in the female sample and only when a one-tailed test is used. When looking at the magnitude of the effect, we see that the increase in depressive symptoms for divorced women who remain single is 2.95, whereas the increase in depressive symptoms for divorced women who repartner is $2.95 - 1.73 = 1.22$, which is 58% smaller. Further tests indicate that the effect of repartnering is not significantly different for men and women ($z = 0.61, p = .54$).

Some of the control variables also have an effect on the change in depressive symptoms. Blacks experience more serious setbacks in well-being than others (a larger increase in depressive symptoms). Education has a negative effect for the full sample and for women, showing that the increase in depressive symptoms is smaller for higher educated women. For men, we also observe age effects. A graphical examination of the linear and quadratic effect shows that the deterioration in well-being becomes increasingly serious when men are older.

The selection equation shows that attrition is selective in a number of respects. Respondents with more depressive symptoms are less likely to participate again. There are also significant effects of gender, age, race, education, income, and having children, showing that attrition is selective with respect to demographic characteristics as well. The pattern of effects is generally in line with earlier findings in nonresponse studies (Groves & Couper, 1998). We also find significant effects of our identifying instruments. Respondents who had more interest in the survey were more likely to participate again. In addition, church membership and membership in voluntary associations are positively related to participation in the second wave. Nonresponse in the income variable in Wave 1 and partial nonresponse on the identifying variables are also significant predictors of participation in the second wave. Social contacts are not related to attrition.

The lambda coefficient at the bottom of Table 3 shows that unobserved factors that make remain-

ing in the panel more likely are negatively associated with the change in depressive symptoms. In other words, those who are least likely to participate again are also the ones who have a stronger increase in depressive symptoms. Without correcting for selective attrition, the divorce effect is somewhat smaller ($b = 1.83$ vs. $b = 2.05$), showing that selective attrition leads to a small *underestimate* of the divorce effect.

In the remainder of the analysis, we examine whether the effect of divorce is conditional on the quality of the marriage. We conduct this analysis for both men and women. Note that the absence of an average divorce effect for men does not imply that a test of the escape hypothesis is superfluous. To the contrary, an average effect of 0 can be composed of positive effects for some men and negative divorce effects for other men, depending on marital quality or on other things.

Before we turn to the analysis of conditional effects, we need to establish that there is in fact heterogeneity in the effects of divorce, an important assumption in our reasoning. To do that, we present the frequency distribution of changes in depressive symptoms after a divorce in Figure 1. As can be seen, there is considerable heterogeneity. Some people experience small increases in depressive symptoms, whereas others experience stronger increases. More importantly, there are also many people who experience decreases in depressive symptoms. This heterogeneity shows that an important assumption in our reasoning is met as well: Consequences of divorce for well-being vary from positive to negative.

FIGURE 1. CHANGES IN DEPRESSIVE SYMPTOMS BETWEEN WAVE 1 AND WAVE 2 FOR RESPONDENTS WHO EXPERIENCED A DIVORCE BETWEEN WAVE 1 AND WAVE 2
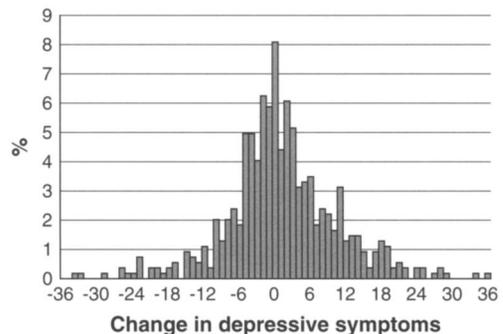
We present the tests of the escape hypothesis in Table 4. To make the presentation efficient, we show only the main effects of divorce and repartnering, as well as the two interaction effects of marital quality (with divorce and with repartnering). In the way we parameterize the variables, the interaction effect of marital quality and divorce pertains to divorced respondents who did not repartner. The interaction of marital quality and repartnering indicates whether the interaction of marital quality and divorce is stronger or weaker when the respondent repartners than when the respondent does not repartner. To see

what the interaction effect is for the repartnered vis-à-vis the married, we need to sum the two interaction effects.

We have five marital quality indicators so that we can consider five interaction effects. We estimate these effects for the full sample as well as for men and women separately. Of these 15 tests, six are statistically significant, and of those, four are in the predicted direction. Although we look at the results in more detail below, we first conclude that the *overall* evidence for the escape hypothesis is weak. The specific results, however, suggest important qualifications of this conclusion.

Table 4. *Main and Interaction Effects of Divorce and Marital Quality on Change in Depressive Symptoms*

	All		Women		Men	
	b	*SE*	*b*	*SE*	*b*	*SE*
Model 1						
Divorce	2.786	0.486*	3.950	0.692*	1.468	0.675*
Repartnering	−2.406	0.783*	−3.226	1.109*	−1.504	1.092
T1 marital satisfaction	0.703	0.148*	0.852	0.211*	0.549	0.203*
Interaction effect with divorce	0.943	0.408*	1.096	0.568†	0.927	0.583
Interaction effect with repartnering	−1.626	0.671*	−2.479	0.913*	−0.672	0.988
Model 2						
Divorce	2.306	0.471*	3.644	0.665*	0.733	0.658
Repartnering	−1.774	0.763*	−2.475	1.074*	−0.941	1.073
T1 fairness toward respondent	0.441	0.146*	0.428	0.214*	0.450	0.195*
Interaction effect with divorce	1.101	0.412*	1.617	0.538*	0.319	0.659
Interaction effect with repartnering	−1.474	0.655*	−2.045	0.849*	−0.586	1.048
Model 3						
Divorce	2.294	0.495*	2.933	0.695*	1.564	0.698*
Repartnering	−1.619	0.810*	−1.224	1.157	−2.113	1.118†
T1 marital conflict	−0.762	0.153*	−0.846	0.216*	−0.641	0.214*
Interaction effect with divorce	0.082	0.425	0.590	0.590	−0.574	0.604
Interaction effect with repartnering	0.321	0.720	−0.273	0.969	0.922	1.086
Model 4						
Divorce	2.028	0.488*	2.938	0.684*	0.910	0.688
Repartnering	−1.433	0.790†	−1.713	1.097	−1.059	1.145
T1 marital aggression (verbal)	−0.481	0.149*	−0.448	0.209*	−0.498	0.210*
Interaction effect with divorce	0.891	0.436*	0.957	0.614	0.745	0.612
Interaction effect with repartnering	0.072	0.740	0.359	0.992	−0.119	1.131
Model 5						
Divorce	2.117	0.553*	2.247	0.760*	2.025	0.801*
Repartnering	−1.446	0.888	−0.518	1.213	−2.834	1.296*
T1 marital aggression (physical)	−0.828	0.437†	−0.608	0.596	−1.123	0.637†
Interaction effect with divorce	0.587	1.092	3.332	1.563*	−2.154	1.506
Interaction effect with repartnering	0.148	1.876	−5.075	2.849†	5.340	2.466*

Note: All models control for age, ethnicity, T1 income, employment, children aged <19 years in household, repartnering, and education. Marital quality indicators except physical aggression are standardized. Models controlled for sample selection bias.

*p < .05 (two tailed). †p < .05 (one tailed).

We first look at the two positively phrased indicators of marital quality. The interaction effect of divorce and marital satisfaction is significant for the full sample and significant for the female sample. The sign is also in the predicted direction: The higher the degree of satisfaction with the marriage, the greater the increase in depressive symptoms. The results for men are not statistically significant, but a formal test does not confirm that the interaction effect is weaker for men than for women ($z = 0.22, p = .82$). Moreover, the magnitude of the interaction for men is only slightly smaller than it is for women.

For fairness toward the respondent, we see the same result. The interaction is positive and significant in the full sample and in the female sample. Hence, the more fair the marriage was, the more depressive symptoms people have after divorce. Or to put it another way, the increase in depressive symptoms is reduced when people divorce from a marriage that was unfair to them. Both these results are in line with the escape hypothesis. For men, the interaction effect seems weaker when looking at the magnitude of the effect ($b = 0.32$ vs. $b = 1.62$). The formal test of this difference, however, is not significant ($z = 1.50, p = .13$).

The models for marital satisfaction and fairness also show that the intermediating role of marital quality is weakened for those who repartner. The interaction with divorce is significant and positive, and the interaction with repartnering is significant and negative. The sum of these two effects is $0.943 - 1.626 = -0.68$ for marital satisfaction and $1.101 - 1.474 = -0.373$ for fairness. Additional analyses indicate that these effects are not significant ($p = .31$ and $p = .66$). In other words, the escape hypothesis only applies when people do not repartner.

We subsequently look at the three negatively phrased indicators (marital conflicts, verbal marital aggression, and physical marital aggression). We see that the interaction effect of divorce and marital conflict is not statistically significant, either in the full sample or in the male and female samples. The interaction effect of divorce and verbal aggression is statistically significant, but the sign is positive. This result indicates that people who divorce from a marriage characterized by verbal aggression experience a stronger increase in depressive symptoms than people who divorce from a marriage without verbal aggression. This result is contrary to the escape hypothesis. Analyses separately for men and women show that this effect is not significant but the magnitude of the effect is similar. Hence, the effect becomes nonsignificant because the statistical power declines when analyzing men and women separately. A test that compares the interaction effect for men and women is not significant ($z = 0.30, p = .76$). For that reason, the result in the full sample is preferred.

For physical aggression, the results are in the same direction but they are only significant for women. Moreover, a formal test indicates that the interaction is stronger for women than for men ($z = 2.64, p = .008$). Hence, women who divorce from a marriage characterized by physical aggression experience a greater increase in depressive symptoms than women who divorce from a marriage not characterized by physical aggression. This result is also in contrast to the escape hypothesis.

The interaction of marital aggression and repartnering is not significant for verbal aggression. Hence, the larger increase in depressive symptoms when people divorce from a marriage characterized by aggression also applies to the case where people repartner. We do note, however, that the interaction of divorce and physical aggression for women is significantly reduced when women repartner. The interaction is 3.33 for divorced women who remain single and $3.33 - 5.08 = -1.75$ for women who repartner. An additional test indicates that this sum is not statistically significant. Hence, physical aggression in marriage does not interact with divorce when women repartner.

To see what the interaction effects imply, we present the interaction effects graphically in Figure 2. On the vertical axis of each of the subfigures, we present the effect of divorce on change in depressive symptoms. The higher the number, the more positive the change score and, hence, the more negative the effect of divorce on well-being. On the horizontal axis, we have different levels of marital quality, ranging from poor to good and scaled in standardized scores. The lines in the figures show how the effect of divorce depends on marital quality. The lines are presented separately for people who divorce and stay single and for people who repartner after divorce. Because marital quality indicators have long tails on the low-quality side, we ignored the 5% poorest relationships (ascertained using dissolved relationships). The figures are limited to our strongest results. Figure 2a presents the effects of marital satisfaction for the full sample, Figure 2b presents the effects of marital fairness for the full sample,

FIGURE 2. EFFECTS OF DIVORCE ON CHANGES IN DEPRESSIVE SYMPTOMS BY INITIAL LEVEL OF MARITAL QUALITY
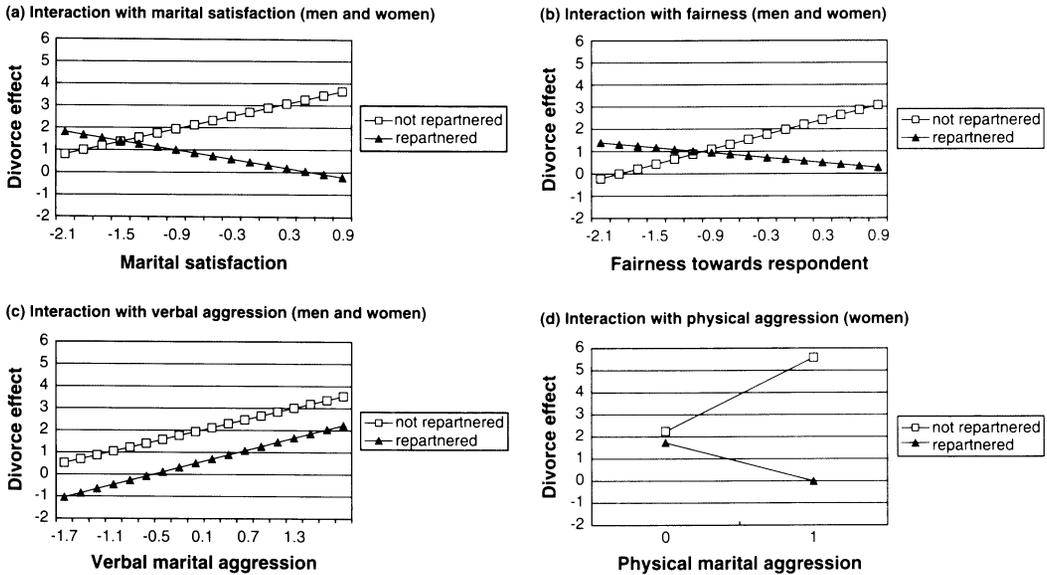AND BY REPARTNER STATUS

(a) Interaction with marital satisfaction (men and women)

(b) Interaction with fairness (men and women)

(c) Interaction with verbal aggression (men and women)

(d) Interaction with physical aggression (women)

Figure 2c presents the effects of marital verbal aggression for the full sample, and Figure 2d presents the effects of marital physical aggression for the female sample. In this last subfigure, the marital quality variable is dichotomous.

Figure 2a shows that people who divorce when they are highly dissatisfied with their marriage experience a smaller increase in depressive symptoms after divorce. The more satisfied they were with the marriage, the more negative the consequences for their well-being (i.e., the greater the increase in depressive symptoms). For marital fairness, we see a similar pattern (Figure 2b). When people divorce from a marriage that they perceived as unfair, they experience a smaller increase in depressive symptoms. This result is also in line with the hypothesis. We do not see, however, that the divorce effect on depressive symptoms becomes *negative* when the marriage was very unsatisfactory or very unfair. In other words, for those who do not repartner, people do not experience a decline in depressive symptoms when leaving a very poor marriage. This result is in contrast to the strong version of the escape hypothesis. For the repartnered, the lines are flatter and follow an opposite nonsignificant trend.

Figure 2c shows the results for verbal aggression for the full sample. The figure shows that

the more aggression there was in the marriage, the larger the increase in depressive symptoms. The differences in the divorce effects are considerable, and the effect on depressive symptoms for the highest level of aggression is substantial (almost a full standard deviation increase). Figure 2d for women shows that the same result applies to physical aggression: The increase in depressive symptoms is larger when there was violence in the marriage. Here we also see a tendency for repartnering to compensate for the effects more strongly when the effects on well-being are more negative. The results are clearly in contrast to the escape hypothesis.

CONCLUSION AND DISCUSSION

In this article, we analyzed the escape hypothesis using national and high-quality panel data that are about 6 – 7 years apart. We used five alternative measures of marital quality, and we analyzed about 550 respondents who experienced a divorce or separation from a marriage. In line with earlier research, we find that divorce leads to higher levels of depressive symptoms for women. No overall negative effects were found for men. Subsequently, we tested whether there was an interaction effect of divorce and marital quality.

In contrast to earlier studies, we find weak overall evidence for the escape hypothesis. For two of the five indicators, we have positive evidence. When using marital satisfaction and fairness toward the respondent as indicators, we find that at low levels of marital quality, there is indeed a smaller increase in depressive symptoms after divorce than at higher levels of quality. Even in poor marriages, however, the effect on depressive symptoms is positive, showing that people do not improve their well-being after divorce. Hence, in these two instances, it is only the weak version of the escape hypothesis that is confirmed, not the strong version.

Another contribution of our study is that we find contrary evidence. For marital conflict, we find no significant interaction effect. Moreover, for marital aggression, we find significant interaction effects opposite from the direction expected. These results show that a high amount of verbal or physical aggression in marriage is associated with more detrimental effects of divorce on well-being. This is an important observation, but it runs counter to the escape hypothesis.

Why do we find these inconsistent results? A first counterargument is that the problems that people are facing in their marriage do not end after the divorce. Several authors have shown that conflicts can linger on, especially when children or other issues keep former spouses tied to each other (Fischer, De Graaf, & Kalmijn, 2005; Kline, Johnston, & Tschann, 1991; McLanahan & Sandefur, 1994). More importantly, it has been found that there is a positive correlation between conflicts and fights during marriage and conflicts and fights after divorce (Fischer et al., 2005). Hence, for poor marriages, a possible escape effect may be counteracted by continued conflict. This explanation is in line with the exceptions that we find: The interaction effects of verbal and physical marital aggression are significant but in the opposite direction. Escaping from an aggressive marriage may not increase well-being because the divorce is a trigger for even more problems after the divorce. Future research should focus on measuring these conflicts after divorce and assess how such postdivorce conflicts affect well-being.

A second counterargument can perhaps be developed by considering the various comparison groups that are involved in the interaction effect. More specifically, we not only need to look at people who divorce from a bad marriage but also need to consider what happens to people who stay in a poor marriage and what happens to people who end a *good* marriage. For example, it is possible that people who stay in a bad marriage are less sensitive to marital problems than people who leave a bad marriage (Amato & Rogers, 1997). This pattern will tend to reduce the interaction effect. Also, one may wonder why people divorce if their marriage is not poor. Although these cases certainly exist—many people divorce for what some would describe as little reason, such as not being able to communicate or not loving each other enough (De Graaf & Kalmijn, 2006; Kitson, 1992)—it is also plausible that these people have other reasons for separating. For example, people who separate for *minor* reasons may be more likely to have nontraditional family values (De Graaf & Kalmijn, 2006), which in turn may make them less distressed when they divorce (Simon & Marcussen, 1999). In short, the two comparison groups may contain selected respondents, which blurs the comparison with the *normal* group of people who leave a bad marriage. Future research can focus on the possibly confounding role of these selection effects.

Another contribution of our research is that, when the escape hypothesis is confirmed, the confirmation is limited to respondents who did not repartner. When people repartner after divorce, the divorce effect does not depend on marital quality. We should be careful, however, in making strong claims about the *effect* of repartnering because we do not measure well-being *after* divorce and *before* repartnering. Repartnering after divorce may be selective with respect to *changes* in well-being after divorce, and this can only be established with three-wave panel data. Nonetheless, our results do suggest that repartnering can compensate for the negative effects on well-being, especially when the previous marriage was rather good and the increase in depressive symptoms was strong.

We have also looked at gender differences, and our main results are in line with previous findings. Women are more strongly affected by divorce than men, at least when depressive symptoms are the outcome variable. For other outcomes that are related to health (e.g., alcohol consumption), previous studies have found that men are affected more strongly (Simon, 2002). Gender differences are less clear when looking at the interaction effects. For instance, we find significant interactions for marital satisfaction in the full sample

and the female sample and insignificant interactions in the male sample. Tests indicate, however, that the interaction effects are generally not weaker for men, except for physical aggression in the marriage. This result demonstrates that the statistical power to detect such gender differences in the *interaction* effects is still too limited. Our analyses provided more statistical power than previous studies, but still more powerful designs are needed to test these three-way interactions.

Although our test provides only weak support for the escape hypothesis, this does not mean that the divorce effect is unconditional. There is much heterogeneity in the consequences of divorce. We have shown that some men and women experience a decline in well-being after divorce, whereas others experience an improvement. Future research needs to examine other aspects of the marital relationship that may explain this heterogeneity in the consequences of divorce. Economic and sociological theories about the benefits of marriage generally look at aspects such as specialization, economic scale advantages, partner support, and normative approval. It will be important to consider these in combination with the literature on marital quality. Even though the escape hypothesis does not seem to be valid for most standard measures of marital quality, it may still be valid for other characteristics of the marriage.

NOTE

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APPENDIX

We use a cumulative contrast for the dummy variables that model the effects of divorce and repartnering. The coding is as follows—we have three groups:

$X = 1$ married T1 – T2

$X = 2$ divorced and not repartnered

$X = 3$ divorced and repartnered

We construct dummy variables as follows (cumulative contrast):

$D = 1$ if $X = 2$ or $X = 3$ ($D = 0$ otherwise)
$R = 1$ if $X = 3$ ($R = 0$ otherwise)

The model without interactions and other covariates is

$$Y = b_0 + b_1D + b_2R + e$$

With expected values

$$E(Y \mid X = 1) = b_0$$
$$E(Y \mid X = 2) = b_0 + b_1$$
$$E(Y \mid X = 3) = b_0 + b_1 + b_2$$

Comparing expected values yields the correct interpretations of the coefficients:

$$E(Y \mid X = 2) - E(Y \mid X = 1) = b_1.$$

which is the contrast between divorced and married

$$E(Y \mid X = 3) - E(Y \mid X = 2) = b_2.$$

which is the contrast between repartnered and divorced.

To obtain the contrast between repartnered and married, the divorce effect and repartnered effect need to be summed:

$$E(Y \mid X = 3) - E(Y \mid X = 1) = b_1 + b_2$$

The model with interactions is

$$Y = b_0 + b_1D + b_2R + b_3Q + b_4[D{\times}Q]$$
$$+ b_5[R{\times}Q] + e$$

where Q is marital quality.

The contrast between divorce and married depends on quality as follows:

$$E(Y \mid X = 1) = b_0 + b_3Q$$
$$E(Y \mid X = 2) = (b_0 + b_1) + (b_3 + b_4)Q$$
$$E(Y \mid X = 3) = (b_0 + b_1 + b_2)$$
$$+ (b_3 + b_4 + b_5)Q$$

Hence, the difference between divorced and married depends on marital quality as follows:

$$E(Y \mid X = 2) - E(Y \mid X = 1) = b_1 + b_4Q.$$

In other words, b_4 is the interaction of quality and divorce for those who do not repartner. The difference between repartnered and divorced depends on marital quality as follows:

$$E(Y \mid X = 3) - E(Y \mid X = 2) = b_2 + b_5Q.$$

In other words, b_5 tells us whether the interaction of divorce and quality is stronger or weaker for the repartnered. To obtain the contrast between repartnered and married, the interaction effects need to be summed:

$$E(Y \mid X = 3) - E(Y \mid X = 1) = (b_1 + b_2)$$
$$+ (b_4 + b_5)Q.$$

Thus, the interaction effect of divorce and quality for the repartnered equals $b_4 + b_5$.