

What's love got to do with it? Homogamy and dyadic approaches to understanding marital instability

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Abstract

The determinants of marital instability is an important area of research for demography, sociology and economics. A host of public policy outcomes are significantly affected by family breakdown. Yet we know little about the factors which currently determine marital longevity. This is attributable to inadequate data and statistical methodology. This paper improves our understanding of the issue through the use of rich longitudinal data and the application of advanced research approaches.

Using data from waves 1–7 of HILDA, 2,482 married couples—where both partners are respondents in the first wave—are traced over six years to identify factors associated with marital instability. The data are analysed dyadically; that is, the characteristics of both partners in each couple are considered in tandem. This allows assessment of whether marriages between partners with similar characteristics (homogamy) are more likely to last than are marriages between dissimilar partners, or whether particular characteristics of wives or husbands—independent of their partners—are more strongly associated with marital stability. Cox proportional hazards model with time-varying covariates is used to assess the association of characteristics with marital separation.

We find the following factors are associated with higher risk of marital separation: large age difference between husband and wife, wife has a much stronger preference than her husband for a(nother) child, young age at marriage, separation of husband's parents, resident children born before marriage, dissatisfaction with the relationship, low household income, husband is unemployed, wife drinks more than her husband, and one spouse smokes where the other does not.

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WORK IN PROGRESS. DO NOT CITE.

Introduction

Based on 2000–2002 marriage and divorce rates, 72 per cent of the Australian population will legally marry at some point in their lives; of these marriages, one-third are expected to end in divorce (Jain 2007) and others will end in permanent separation without the formality of divorce (Hewitt, Baxter and Western 2005). Marital breakdown is experienced by a significant proportion of the Australian population.

The economic and social consequences of marital breakdown are well documented. Divorced people have lower levels of general wellbeing (Amato 2000), lower rates of home ownership and less wealth in later life than do the married (de Vaus et al. 2007). Children of divorced parents have lower scores on indicators of behaviour, psychological adjustment, scholastic success, social interactions and self-concept than do children of continuously married parents (Amato 2001). The economic cost of divorce to the Australian community is large: direct costs were estimated at three billion dollars per annum in the mid-1990s (HOR 2008). The financial costs to mothers and their children are considerable as well (Gray and Chapman 2007).

Using data from the first seven waves of the Household, Income and Labour Dynamics in Australia Survey (HILDA), this study adds to previous Australian and international research on the correlates of marital dissolution by investigating individual and couple characteristics associated with marital instability. The paper begins with a review of relevant literature and theory, the data and method are then described, and results of the analysis discussed.

Becker's model of marital utility

This study takes its cue from the seminal work by Becker, Landes and Michael (1977), which states that the only circumstance under which a marriage will dissolve is if the joint marital utility is less than the joint utility of ending the marriage. Thus marriages of homogamous couples are likely to be more stable than those of couples with dissimilar characteristics, since like traits such as religion and age are complementary and tend to maximise gain from the marriage (Becker 1973).

Homogamous attributes considered in this research include country of birth, age, preference for a child or another child, religiosity, education, and drinking and smoking behaviours.

According to Becker et al. (1977), exceptions to the homogamy hypothesis are traits associated with the division of labour within marriage. All else being equal, spouses who assume distinct marital roles—such as wage earner and child rearer—have lower marital dissolution rates than do couples with less differentiated duties, since specialisation means greater gain from remaining married (Becker et al. 1977).

An extension of this is the 'independence hypothesis'; that women with higher human capital in terms of market productivity are more likely to divorce, because their marital utility is lower than that of wives in traditional breadwinner-model marriages. They have the means and resources to leave a marriage (Chan and Halpin 2003). In this framework, rising divorce rates over the twentieth century are considered to have resulted—in part—from rising female labour force participation rates (Jalovaara 2003). Others argue that the specialisation model and independence hypothesis are becoming increasingly irrelevant as gender roles continue to blur (Lyngstad 2004).

Although the focus of this paper is the association between marital homogamy and marital stability, we also test the independence hypothesis by considering the impact of wives' economic-utility characteristics controlling for their husbands' characteristics. The expected effect is not always clear. For example, for some given distribution of marital duties, more-educated couples will have higher utility on average than will less-educated couples, decreasing their risk of union dissolution.

However more-educated couples are also less likely to specialise (that is, assume traditional gender roles), increasing the probability of dissolution (Becker et al. 1977). Additionally, educated wives are more likely to have the resources required to survive post-married life, which reduces their marital utility relative to the utility of becoming single.

Under the independence hypothesis, more highly educated women, women who are employed, or women with a strong work history would be associated with higher marital separation rates than other women.

The sections below discuss characteristics of husbands and wives—individually and dyadically—that have been found to be associated with marital instability. These characteristics are categorised below and in our models as ‘Background’, ‘Marriage and children’, ‘Attitudinal’, ‘Socio-economic’ and ‘Lifestyle’.

Background characteristics

Ethnicity. A number of studies have found an association between ethnicity and risk of marital dissolution. Becker et al. (1977) hypothesise that interracial marriages are at greater risk than are same-race unions due to lower marital utility. Research in the United States supports this hypothesis (Bratter and King 2008; Bumpass, Martin and Sweet 1991; Lehrer 2008). Partners of differing ethnicities are more likely to have dissimilar cultural backgrounds and views of marriage (Bratter and King 2008; Hewitt 2008; Lehrer 2008) and may encounter disapproval of their relationship (Bratter and King 2008), leading to reduced gains from marriage. In addition, if one or more partners have migrated, this may add to marital stress (Hewitt 2008).

Separation/divorce of parents. A strong predictor of marital dissolution is separation or divorce of the parents of either husband or wife, or both (Amato 1996; Bratter and King 2008; Bumpass et al.; Butterworth et al. 2008; Hewitt et al. 2005; Wolfinger 2003). Amato (1996) concludes that intergenerational transmission of divorce occurs because children of divorced parents are more likely to see marital dissolution as normative, and are more likely to have interpersonal styles that are not conducive to marital harmony. Butterworth et al. (2008) and Bumpass et al. (1991) find that the association between parental divorce and marital instability is stronger where the marriage of the husband’s parents failed, while Amato (1996) found the risk of marital dissolution was higher when wives’ parents had divorced.

Marriage and children

Marriage order. Second and higher-order marriages—where the previous marriage or marriages ended in divorce—are known to be less stable in general than first marriages. Poortman (2007), following Becker et al. (1977), posits four main reasons for this. The first is that people in second-plus unions are selected on the basis that their former marriage did not last, and are thus more likely to have personal characteristics that increase the risk of marital separation. Secondly, children and other connections to previous unions may increase conflict in the current relationship. Third, the marriage market will probably be smaller second time around, making it less likely that a good match will be found. Finally, the experience of marital breakdown may result in greater caution and lower levels of commitment in a subsequent marriage.

Marital duration. In general, the length of a marriage is inversely related to its likelihood of dissolution. This is partly due to heterogeneity in the married population; those most likely to separate tend to do so early. In addition, accumulation of marital-specific capital—including children, spousal compatibility and familiarity—increases marital utility over time (Becker et al. 1977; Bracher et al. 1993).

Age at marriage. Early age at marriage is found to be correlated with an increased risk of marital instability (Becker et al. 1977; Chan and Halpin 2008; Lehrer 2008). Young newly-weds will likely have spent a shorter period on the marriage market than older people, and will have less idea of what constitutes an optimal match, increasing the probability of low marital gain and, hence, union dissolution (Becker et al. 1977). Young people are also more likely to be lacking the interpersonal skills and economic resources associated with marital success (Hewitt 2008).

However marriage at ages beyond the norm may also be associated with higher rates of dissolution. Similar to the reasoning above for marriage order, those marrying at older ages have less choice on the marriage market, and may enter sub-optimal relationships. Women especially may choose to reduce their expectations of a partnership so as to marry before reaching the end of their reproductive years (Becker et al. 1977).

Age difference. Many studies show that disparities in age between husband and wife are associated with higher rates of divorce. This is especially true if a man is significantly younger than his wife (Chan and Halpin 2003; Lehrer 2008; Teachman 2002). This may be due to differences in values associated with birth cohort, or marital strain caused by power imbalances within the union (Bumpass and Sweet 1970).

Cohabitation. The overwhelming bulk of research on cohabitation and marital instability finds that cohabitation before marriage is linked to a greater probability that the marriage will fail (Amato 1996; Hohmann-Marriott 2006; Teachman 2002; Wagner and Weiss 2006). This is in line with prior Australian research (Bracher et al. 1993; Butterworth et al. 2008; Hewitt, Baxter and Western 2005).

De Vaus et al. (2003) discuss three possible reasons for this relationship. The first is that the process of cohabitation can cause or strengthen convictions that marriage is not inviolate, leading to an increased propensity to end a marriage once it is contracted. Second, the link between cohabitation and divorce may work through individual characteristics; people with certain combinations of traits are both more likely to enter de facto relationships, and to divorce, independent of whether or not they cohabited before tying the knot. Third, comparing dissolution rates by length of marriage may lead to overestimation for marriages preceded by cohabitation, since these unions extend back before the beginning of formal marriage. In this case, comparing dissolution rates by living-together duration may give more accurate results.

De Vaus et al. (2003) posit that if the second reason above is correct, then its effect should decrease as the proportion of the population who live together before marriage increases. This is because people who form de facto relationships are less and less likely to have personal characteristics associated with marital instability. In support of this theory, de Vaus et al. (2003) find that, with and without a control for living-together duration, the difference in marital separations between couples who cohabited before marriage and those who did not, is statistically insignificant for recent marriage cohorts.

Children before this marriage. As noted in the discussion above on marriage order, children from previous unions may bring about conflict in subsequent marriages, resulting in reduced probability that the marriage will be maintained. Similarly, children from a current union, but born before marriage, may be associated with increased risk of marital dissolution if birth prompted a marriage that otherwise would not have occurred (Hewitt 2008).

Number and age of resident children. According to Becker et al. (1977), all else being equal, couples with young children have more stable marriages than do couples without children, since

children are 'marital-specific capital'. An Australian study found that resident children aged five years and under decreased the probability of marital dissolution. The study concluded that this may be because wives—as primary care givers—are more dependent on their partners when young children are present, and thus will be less likely to terminate the union. Alternatively, couples who would otherwise separate may choose to remain together for the sake of the children (Bracher et al. 1993).

Recent research from the United Kingdom finds that the effect of children has been reversed; the presence of children, especially two or more children, raises the risk of divorce for recent marriage cohorts. The authors speculate that attitudes towards children may have changed; fathers may now be more likely to shirk their paternal responsibilities; or the norming of divorce may mean that recent cohorts see ending a marriage as an acceptable response to the stress of parenthood. Finally, the authors conclude that they 'are more inclined to seek the answer in changes in the timing of fertility in interaction with the changing timing and nature of partnership, than in profound changes in the moral disposition of the British population' (Chan and Halpin 2003).

Attitudinal characteristics

Preferences for more children. According to the homogamy hypothesis, partners with the same desires for future children should have stronger unions than couples with dissonant fertility preferences. Research findings have been mixed. A longitudinal U.S. study found that marriages were more likely to end if the wife wanted fewer children than her husband (Coombs and Zumeta 1970). Clarkwest (2007) concluded that differences between spouses in desired number of children is correlated with a higher risk of marital dissolution. However Thomson (1997) found that a couple's childbearing intentions or desires are not associated with union breakdown.

Religion and religiosity. If homogamous marriages are more stable, then couples with shared religious beliefs—or shared lack of religious beliefs—and similar levels of religiosity would be expected to have a lower risk of separation than couples with different religions and levels of religiosity. However this effect might be confounded through the influence of religion itself. Many religions' teachings on the sanctity of marriage and primacy of the family unit may mean that the religiosity of one spouse has a protective effect on the marriage through increased psychological costs of union dissolution, irrespective of the beliefs of the other partner (Lehrer 2004).

Satisfaction with life/satisfaction with relationship. Clearly, couples who rate their relationship highly are more likely to have a stable union than couples who are unhappy with their marriage. In the mid-1970s, Ross and Sawhill (1975) hypothesised that as divorce became more normative, and as the traditional demarcation of marital roles became more relaxed, couples in unsatisfying marriages would be more likely to end their relationship. This would mean a lower proportion of marriages succeeding, but those that did would in general be more satisfying than those in the past.

Research in the Western world consistently shows that marital separation is more often initiated by the wife than by the husband (Hewitt et al. 2006; Kalmijn and Poortman 2006; Smith 1997; Zeiss et al. 1981). Given this, it might be expected that a wife's satisfaction with the marital relationship, and with life in general, would be a more significant determinant of marital stability than is her husband's satisfaction.

Socio-economic characteristics

Education. The expected effect of education on the risk of marital dissolution depends on which theory is applied. Under the homogamy hypothesis, couples with similar levels of education have increased value consensus, leading to raised marital utility and lower separation rates. However

more-educated couples are likely to have less-defined marital roles, increasing the probability of marriage breakdown (Becker et al. 1977). Under the independence hypothesis, educated women are more likely to have the resources required to survive post-married life, increasing the gain of becoming single relative to the gain of remaining married.

Some studies conclude that educational homogamy is correlated with marital stability (Jalovaara 2003; Tzeng 1992; Weiss and Willis 1997). Others find no such effect (Chan and Halpin 2003; Lyngstad 2004). Recent Australian research reported that educationally heterogamous marriages were at greater risk of dissolution, particularly those in which the wife was much more highly educated than her husband (Butterworth et al. 2008).

Employment status. Previous research in Australia indicated that the relationship between women's employment and marital instability had attenuated over time (Bracher et al. 1993), and a recent study found no correlation (Butterworth et al. 2008). This lends credence to the argument that the independence hypothesis is less relevant in an era where most women work outside the home (Lyngstad 2004). However research in Australia (Bracher et al. 1993; Butterworth et al. 2008) and internationally (Hansen 2005; Jalovaara 2003; Jensen and Smith 1990; Kiernan and Mueller 1999) consistently finds strong effects for unemployment, particularly male unemployment, on the risk of marital dissolution.

Financial status. Economic hardship can increase personal stress levels, leading to strained marital relations (Bradbury and Norris; Wolcott and Hughes 1999). In addition, reduced financial resources within the marriage may raise the relative utility of ending the relationship. Research findings have been mixed. Some studies have found that household income is inversely associated with the risk of union dissolution (Chan and Halpin 2003; Jalovaara 2003) while others find no correlation (Jensen and Smith 1990).

Lifestyle

Alcohol consumption. Applying the homogamy hypothesis, couples with similar drinking patterns should be less likely to end their marriage than couples with disparate levels of alcohol consumption. This is in fact what some research has found: unions are more stable if husband and wife have concordant drinking patterns (Homish and Leonard 2007; Ostermann et al. 2005).

Ostermann et al. (2005) outline three ways in which high alcohol consumption by either partner could raise the risk of marital dissolution. The first is that sustained heavy drinking during the search for a spouse could lead to a suboptimal match. Heavy drinkers are more likely to marry young, suggesting a shorter search time for a mate. They may also be viewed as inferior potential partners because of their high alcohol consumption, and associated problems such as poor health.

Second, alcohol abuse may hinder fulfillment of the agreed marital role—including basic domestic tasks or participation in the workforce—leading to decreased marital utility and a higher probability of separation. Finally, the spouse of a heavy drinker may anticipate that the drinking will reduce or stop at some point. If this does not occur, the perceived gain from ending the marriage may increase (Ostermann et al. 2005).

In their study of middle-aged Americans, Ostermann et al. (2005) did not find that heavy drinking by one or both partners was associated with marital breakdown. However other research concludes that high alcohol consumption is linked to increased risk of union dissolution (Caces et al. 1999; Power and Estauigh 1990).

Smoking. Similar to the homogamy argument for alcohol consumption, couples who either both smoke or both do not smoke should be at less risk of separation than couples in which one partner smokes and the other does not, all else being equal.

However Butterworth et al. (2008) find that smoking by one or both spouses is associated with higher probability of marital breakdown. They conclude that individuals who smoke are more likely to be socially and economically disadvantaged, and these people are at greater risk of marital instability.

A study based on the U.S. National Longitudinal Survey of Youth (Fu and Goldman 2000) found an elevated risk of marital dissolution for smokers, but were unable to test the impact of concordant smoking behaviour in a couple. Using the same dataset, Compton (2009) argues that couples in which one or both partners ‘heavily discount the future’ are more likely to indulge in risky practices such as smoking, and are also more likely to end a marriage. Thus the association between smoking and marital dissolution works through the relationship of both to an individual’s high time preference.

Data

The data used in this study are from the Household, Income and Labour Dynamics in Australia Survey (HILDA), a household-based representative longitudinal survey that currently has available seven annual waves for the period 2001–2007. Wave 1 sampled 7,682 households. The sample for this study is limited to the 2,482 couples who were legally married, coresident, under age 60 years, and both interviewed in the first wave of HILDA. These couples are traced over the subsequent six waves to determine which remained together, and which divorced or separated.

The number of male and female respondents by characteristics in our wave 1 sample, and the proportion who had separated by wave 7, are shown in Table 1. For characteristics of the marriage—such as marital duration and number and age of co-resident children—results are shown in the ‘Females’ column. Where different marriage characteristics were reported by husband and wife, the wife’s responses are reported. As in the discussion above, characteristics are classified as ‘Background’, ‘Marriage and children’, ‘Attitudinal’, ‘Socio-economic’ and ‘Lifestyle’. In total, 10.7 per cent of couples had separated by wave 7 of the survey.

Table 2 shows the breakdown of the dyadic variables used in the analysis, with characteristics of husbands and wives considered in tandem. Again, the number of cases in wave 1, and the percentage separated by wave 7 are given.

Below is a description of the data in Tables 1 and 2.

Country of birth (‘In which country were you born?’). HILDA does not record ethnicity or race, so we use country of birth to proxy ethnicity and culture. There were 1,806 male respondents born in Australia and 676 men born elsewhere. Women born in Australia numbered 1,834 with the remaining 648 born overseas. Whether respondents were male or female, born in Australia or elsewhere, 10–11 per cent of the sample in wave 1 had separated by wave 7 (Table 1). For couples where both partners were born in Australia, 11 per cent separated, for those both born in the same country other than Australia, 8 per cent separated, and for those both born in different countries, 12 per cent had separated by wave 7 (Table 2).

Current age. Age at the time of the survey does not enter our analysis, since we account for both age at marriage and length of marriage. From the descriptive data, there appears to be a strong inverse relationship between age at wave 1 and subsequent marital breakdown. For men, 20 per cent

of those under the age of 30 experienced separation, falling to 5 per cent for those aged over 50. Similar results are evident for the female sample (Table 1).

Parents ever separated/divorced ('Did your mother and father ever get divorced or separate?'). From Table 1, 16 per cent of men and women whose parents ever separated or divorced experienced marital separation, compared to 10 per cent for those whose parents did not separate. From Table 2, couples for whom one or both sets of parents had separated, themselves experienced a separation probability of 15–16 per cent. Couples whose parents' marriages remained intact had separation rates of 10 per cent.

Length of marriage (calculated from date of marriage: 'In what month and year were you married?'). As with current age, there appears to be an inverse relationship between length of marriage and separation. Eighteen per cent of couples married for less than five years had separated by wave 7, compared to four per cent of couples married for more than 20 years (Table 1).

Age at marriage (calculated from date of birth and date of marriage). Men and women married under the age of 30 years experienced a probability of separation of 9–10 per cent, increasing to 16 per cent for men and 19 per cent of women married at age 35 years and over (Table 1). Table 2 gives data on the age difference at marriage. Marriages in which the husband was one year younger to eight years older than his wife had separation rates of 9–10 per cent. Marriages in which the husband was nine or more years older, or two-plus years younger than his wife experienced a separation rate of 17 per cent.

Marriage order ('How many times, in total, have you been legally married?'). Ten per cent of men and women in first marriages had separated by wave 7, compared to 15 per cent of men and 17 per cent of women in second-plus marriages (Table 1). The lowest separation rates were experienced by couples where the marriage was the first for both partners, and the highest by spouses both in a second or higher-order marriage (Table 2).

Lived together before this marriage ('Some people live together before marrying, did you and your wife/husband live together before marrying?'). Couples who did not live together before marriage had a 7 per cent probability of separation, while 15 per cent of couples who cohabited before marriage experienced separation (Table 1).

Children before this marriage (calculated from dates of birth of resident children and date of marriage). One-fifth of couples with children born before marriage—either in previous relationships or in the same relationship but before marriage—had separated by wave 7, compared to nine per cent of couples without children born before marriage (Table 1).

Number of resident children (calculated from natural, adopted, step, and foster children who usually reside in the household). Eight per cent of couples without children separated. Of couples with children, separation probabilities were 13 per cent for couples with one child, and 11 per cent for those with two or three-plus children (Table 1).

Age of youngest resident child (calculated from dates of birth of natural, adopted, step, and foster children who usually reside in the household). Fourteen per cent of parents with children under the age of five years had separated by wave 7, falling to seven per cent of parents with children aged fifteen or over (Table 1).

Like to have a(nother) child (Would you like to have [a child of your own /more children] in the future?... pick a number between 0 and 10... The more definite you are that you would like to have [a child/more children], the higher the number you should pick. The more definite you are that you

do not want to have [a child/more children], the lower the number'). Ten per cent of men and women who stated in wave 1 they would not like a(nother) child (0–2) separated over subsequent waves, increasing to 13 per cent of men and 15 per cent of women who were unsure (3–7). Separation probabilities for males and females who stated they would like to have another child were 13 per cent (8–10) (Table 1). Table 2 shows the difference between husband and wife in their preference for another child. Where spouses had similar preferences in wave 1—measured as giving the same number, or one digit different, on the 0 to 10 scale—ten per cent separated by wave 7. The highest separation proportions were experienced by couples in which the wife scored 5 to 10 points higher on the 0 to 10 scale than her husband, indicating a much stronger preference for another child compared to her husband's preference.

Religiosity ('On a scale from 0 to 10, how important is religion in your life?'). For those who rated religion as unimportant (0–4), 12 per cent of men and 13 per cent of women had separated by wave 7, compared with 9 per cent of men and women who stated that religion was important (5–10) (Table 1). Couples where both partners indicated that religion was important had lower separation rates than couples for whom religion was unimportant (Table 2).

Satisfaction with life ('All things considered, how satisfied are you with your life?...pick a number between 0 and 10 to indicate how satisfied you are.'). Most respondents indicated 8, 9 or 10 on the satisfaction-with-life scale in wave 1. Of these, 9 per cent had separated by wave 7. Fourteen per cent of respondents who stated satisfaction of 7 or below separated over the same period (Table 1). Where both husband and wife were satisfied with life, seven per cent separated, increasing to 11 per cent in cases where the wife was satisfied but the husband was not, 15 per cent for a satisfied husband and dissatisfied wife, and 20 per cent where both partners were dissatisfied (Table 2).

Satisfaction with relationship ('How satisfied are you with your relationship with your partner?'). More than three-quarters of respondents picked 8, 9 or 10 on a scale from 0 to 10, of which 9 per cent subsequently separated. Of the sample who indicated 0–7, 21 per cent of males and 19 per cent of female separated (Table 1). More than one-third of couples where both partners indicated dissatisfaction with the relationship experienced separation by wave 7, falling to five per cent for couples where both partners were satisfied (Table 2).

Education ('Looking at SHOWCARD C7a, what qualifications have you completed?'). Nine per cent of men and women with a bachelor degree or higher separated by wave 7 compared to 11 per cent of men and women without a bachelor degree (Table 1). Where both husband and wife had a bachelor degree or higher, separation rates were seven per cent. For other couple combinations separation rates were 11–12 per cent (Table 2).

Equivalised household income. This is a derived variable based on annual income of household residents from all sources, adjusted by the Consumer Price Index to 2001 dollars (ABS 2009), and adjusted for number of household residents using the Australian Bureau of Statistics' equivalence scale (ABS 2006). Couples with equivalised household income of less than \$20,000 at wave 1 experienced a separation rate of 15 per cent, decreasing to 8 per cent for those on \$40,000 or more (Table 1).

Employment status. Ten to eleven per cent of men and women who worked part time or full time, or who were not in the labour force, had separated by wave 7. Twenty per cent of men and women unemployed at wave 1 experienced separation (Table 1).

Years in paid employment ('Now of these years/months [since you left full-time education for the first time], how many years/months in total have you spent...in paid work?'). For men with fewer than 15 years in the paid workforce at wave 1, 17 per cent had separated by wave 7, falling to 6 per

cent for men with more than 30 years of labourforce experience. For women, the comparative statistics are 12 per cent to 6 per cent (Table 1).

Perceived prosperity ('Given your current needs and financial responsibilities, would you say that you and your family are...Prosperous / Very comfortable / Reasonably comfortable / Just getting by / Poor / Very poor'). Around two-thirds of respondents stated that they were reasonably comfortable, very comfortable or prosperous. Of these, nine per cent separated, compared to 15–16 per cent of respondents who indicated that they were very poor, poor or just getting by (Table 1). The highest separation rates, at 16–17 per cent, were experienced by couples in which the husband stated the family was very poor to just getting by, while the wife either indicated the same or rated the family as comfortable to prosperous (Table 2).

Alcohol consumption ('On a day that you have an alcoholic drink, how many standard drinks do you usually have? 13 or more / 9 to 12 / 7 to 8 / 5 to 6 / 3 to 4 / 1 to 2'. Skipped for 'I have never drunk alcohol' and 'I no longer drink'). Almost half of the men in the sample stated that they had three or more standard drinks on the days they consumed alcohol, compared to just over one-fifth of the women. Of men and women who did not drink or indicated 1–2 drinks, 9–10 per cent had separated by wave 7. Twelve per cent of men and 15 per cent of women who claimed three or more drinks separated (Table 1). The lowest separation rates (9–10 per cent) were experienced by couples in which the wife consumed 0–2 drinks, whether or not her husband had 0–2 or 3+ drinks (Table 2).

Smoking ('Do you smoke cigarettes or any other tobacco products? No, I have never smoked / No, I have given up smoking / Yes'). Twenty-two per cent of male respondents and 17 per cent of female respondents stated in wave 1 of HILDA that they smoked. Nine per cent of non-smokers and 17–18 per cent of smokers experienced marital separation by wave 7 (Table 1). Separation rates were lowest for non-smoking couples (Table 2).

Method

Divorce or separation was considered to have occurred if at least one partner was interviewed in a wave subsequent to wave 1 and reported their marital status as either separated or divorced. Couples were censored at the date (month and year) of separation/divorce. Couples in which neither partner was interviewed in subsequent waves were right censored at last wave of interview. The death of a spouse also led to right censoring. All couples still married at wave 7 were right-censored at that point.

Cox proportional hazards model was used to measure the hazard of marriages—observed in wave 1 of HILDA—ending in separation or divorce by wave 7. The Cox hazard function takes the form:

$$h_i(t) = h_0(t) \exp(x_i \beta) \quad [1]$$

where $h_i(t)$ is the hazard of separation/divorce occurring at marriage duration t for the i th couple; x_i is the set of covariates specific to the i th couple; β is the set of coefficients estimated to fit the Cox model; and $h_0(t)$ is the baseline hazard function—the hazard function resulting from covariate values all set to zero (Cox 1972; DeMaris 2004).

One advantage of the Cox model is that the functional form of the hazard over time t does not have to be defined. Dividing both sides of equation [1] by $h_0(t)$ gives:

$$\frac{h_i(t)}{h_0(t)} = \exp(x_i\beta) \quad [2]$$

where $\frac{h_i(t)}{h_0(t)}$ is the ratio of the separation hazard of the i th couple relative to the baseline hazard.

The hazard ratio is assumed to be constant over marital duration t , with the hazard for couple i equal to $\exp(x_i\beta)$ multiplied by the (undefined) baseline hazard. That is, any two hazards are proportional over time (Cox 1972; DeMaris 2004). We verified the proportional hazards assumption by analysing the Schoenfeld residuals (Cleves et al. 2004).

In using the Cox model, we set time t equal to marriage duration, since the risk of separation varies over the life of a marriage. Our observation begins at wave 1 of couples who are already married. This means, in all cases, there is some unobserved duration between the commencement of marriage ($t=0$) and wave 1 of HILDA. The Cox model deals with this through left truncation or delayed entry, recognising that couples were at risk of separation for some known, but unobserved, period before the survey, and that entry to observation is conditional on the marriage having survived to the point of observation (DeMaris 2004).

The Cox model allows for time-varying covariates; that is, independent variables that change over the period of observation—such as number and age of children—can be altered in the model at the point t of change. In this research we use this feature to update marital characteristics at each survey wave in the analysis.

A number of previous studies have used HILDA data to consider correlates of marital instability. De Vaus et al. (2003; 2005), Hewitt et al. (2005; 2006), Hewitt (2008) and Hewitt and de Vaus (2009) based their research on marital histories of respondents collected in the first wave of HILDA, and so were able to examine characteristics of one partner associated with union dissolution. Bradbury and Norris (2005), Butterworth et al. (2008) and Butterworth and Rodgers (2008) tracked couples in wave 1 of HILDA over succeeding waves to determine individual and couple characteristics at wave 1 that were correlated with subsequent marital breakdown.

To our knowledge, this is the first marital-dissolution study based on HILDA that uses Cox regression and time-varying covariates updated for each observed survey wave. This allows us to consider the impact of potentially impermanent characteristics (such as education and religiosity) as immediate factors associated with marital instability.

Results

Figure 1 shows the Kaplan-Meier marriage survival curve, a non-parametric estimate of the probability that a married couple has not experienced separation by marital duration t , based on unweighted HILDA data:

$$S(t) = \prod_{j=0}^t \left(\frac{n_j - d_j}{n_j} \right) \quad [3]$$

where n_j is the number of couples at risk of separation at marriage duration j and d_j is the number of separations at duration j . This can be regarded as a cross-sectional, or period, measure of the cumulative risk of separation. That is, the figure shows a survival curve for a hypothetical marriage cohort based on duration-specific marital separation probabilities observed over the period 2001–

2007. It shows that about 25 per cent of couples can expect to experience separation by marriage duration 6 years, and 50 per cent by duration 26 years.

Cox model results are shown in Table 3. The ‘Hazard ratio’ is the impact on the probability of marital separation of the given category relative to the reference category, controlling for all other variables. For example, a hazard ratio of 1.90 means that the probability of separation for the given category is 90 per cent higher than for the reference category. A hazard ratio of 0.65 means the probability of separation for the given category is 35 per cent less than for the reference category.

The ‘p-value’ column gives the probability of a Type-I error: what is the probability of the sample yielding the observed separation hazard ratio, if the given category and the reference category actually had the *same* separation hazard in the population from which the sample was drawn? In this paper, p-values of less than 0.05 are considered to be significant; that is, the separation hazards for characteristics with p-values of less than 0.05 can reliably be considered different from the hazard of the reference characteristic. Shading in Table 3 indicates characteristics with a p-value of less than 0.05.

Model 1 analyses all the variables previously discussed. Model 2 excludes the ‘satisfaction with life’ and ‘satisfaction with partner’ covariates, since these may mediate the effect of the other variables if certain characteristics lead to dissatisfaction with either life or the relationship, which then leads to separation. Results of Model 1 are discussed first.

Of the dyadic variables, where characteristics of husband and wife are considered jointly, the following were significant in terms of their impact on marital separation. Couples in which the husband’s parents had separated or divorced, but the wife’s parents had not, were almost 90 per cent more likely to separate themselves than couples where neither partner had experienced parental separation. There was no differential effect found if the wife’s parents had separated, or if both sets had separated. The latter is likely due to the small number of cases (n=13).

Age difference between husband and wife was clearly linked to marital instability. Unions in which the husband was two or more years younger than his wife were 53 per cent more likely to experience separation or divorce than couples where the husband was one year younger to three years older. Additionally, husbands nine or more years older than their wives were associated with a doubled risk of separation.

Couples for whom the union was a second or higher-order marriage for both partners had an increased likelihood of separation of 90 per cent compared to spouses both in their first marriage.

Marriages in which the wife had a much stronger preference than her husband for a child, or another child, were at more than twice the risk of separation than marriages where preferences were in agreement. No other child preference differentials were significant.

As might be expected, satisfaction with the relationship was strongly correlated to the probability of marital separation. A dissatisfied husband and a satisfied wife had 37 per cent less chance of separation than a dissatisfied couple, while a satisfied husband and dissatisfied wife had 49 per cent less chance of separation than a dissatisfied couple. Couples with both partners satisfied with the relationship experienced one-fifth the separation risk of partners where both were dissatisfied. Their risk was significantly less than that of the other three categories.

Smoking couples are not significantly different from non-smoking couples in terms of separation risk. However couples where one spouse smokes but the other does not are at increased risk of marital separation (Model 1, Table 3).

The following dyadic variables were not significant in Model 1: country of birth, religiosity, satisfaction with life, education, perceived prosperity, and alcohol consumption. Religiosity was entered into the model in a number of different ways, including a structure similar to ‘Difference in preference for a(nother) child’, however none of the structures tried were significant.

In terms of the non-dyadic variables, age at marriage of the husband at 25-plus years was associated with significantly lower risk of separation than marriage under the age of 25 years. Resident children born before the marriage under consideration increased the probability of marital separation by almost two-thirds. A strong preference of the wife for a(nother) child reduced the hazard of separation. Each increase in 1 point on the 0 to 10 scale for ‘Would you like to have a(nother) child in the future?’, decreases the risk of separation by 6 per cent.

Couples with equivalised household income of \$30,000–\$39,999 in 2001 dollars had half the risk of separation of couples with household income less than \$20,000, and husband’s unemployment was associated with a tripled probability of separation.

Cohabitation before marriage, number and age of resident children, wife’s employment status, and husband’s and wife’s years in paid employment do not significantly affect separation risk.

A second model is given in Table 3 to see whether the ‘satisfaction with life’ and ‘satisfaction with relationship’ variables are mediating the effect of other variables. Removing the two satisfaction variables in Model 2 changes the results in small but important ways. The effects of (1) the husband marrying at age 35 or over, (2) the husband being two-plus years younger, or nine-plus years older than his wife, and (3) second-plus marriages for both partners become insignificant

However, husband’s perceived prosperity goes from being insignificant in Model 1 to highly significant in Model 2, suggesting that unhappiness with the relationship was dampening this effect in Model 1. Relationships in which the husband feels the family is very poor, poor or just getting by—independent of his wife’s perception—have a two-thirds higher probability of separation than relationships in which both husband and wife indicate that they are comfortable to prosperous.

Similarly, the ‘Standard drinks per day’ indicator becomes significant in Model 2. Wives who consume three or more alcoholic drinks on drinking days with husbands who consume 0–2 drinks are associated with higher probability of marital separation than couples where both partners consume fewer than three standard drinks.

Discussion

Using seven waves of data from the HILDA survey, 2001–2007, we examine the hypothesis that homogamous marriages are more stable than unions in which couples have dissimilar characteristics.

The strength of our research is related to the fact that the characteristics of both partners in a couple are analysed in tandem, and that the characteristics are collected close to the time of marital breakdown rather than some years after (as in retrospective analysis) or some years before (as in prospective analysis with time-invariant covariates).

Couples with similar characteristics may be less likely to separate because shared values, beliefs and social status increase compatibility and marital utility (Ortega et al. 1988) while heterogamous unions may be inherently unstable due to ‘conflict, dissonance and power imbalance’ (Butterworth et al. 2008).

In this research, we find weak support for the homogamy hypothesis. Couples close in age, where the husband is one year younger to three years older than his wife, have less than half the separation risk of couples where the husband is nine or more years older than his wife, and about two-thirds the risk of unions in which the husband is two or more years younger. Spouses with similar preferences for a(nother) child experience 50 per cent fewer separations than couples where the wife expresses a strong desire for another child, but the husband does not. Smoking and non-smoking couples are not significantly different from each other in terms of separation hazards. However relationships in which one, but not both, partners smoke are at increased risk of separation of between 75 and 91 per cent over relationships in which both husband and wife do not smoke (Table 3).

Homogamy in terms of country of birth, religiosity, education levels, and alcohol consumption are not important (Table 3).

The independence hypothesis postulates that women are more likely to leave a marriage if they have the resources to do so, measured in terms of education and connection to the labour force. Using Australian data we find no support for this. Wife's education, employment status and years in paid work have no significant correlation with the risk of marital separation (Table 3).

However we find that some economic variables—particularly those signalling financial stress—are important. Controlling for other variables, couples with an equivalised household income of less than \$20,000 (roughly the bottom 25 per cent of the sample) have twice the separation risk of couples with an equivalised household income of between \$30,000 and \$40,000 (corresponding to the second highest quintile). An unemployed husband has three times the risk of separation of a working man. In Model 2, unions in which the husband indicates that his family is very poor, poor, or just getting by are associated with an increased risk of two-thirds over couples in which both partners signal they are comfortable, very comfortable or prosperous (Table 3).

Other variables associated with marital instability are as follows. Separation of the husband's parents increases by almost 90 per cent the probability that he will also experience separation, as does a second-plus marriage for both partners. A husband's age at marriage under 25 years doubles the risk of separation.

Resident children born before marriage, either to the couple or in a previous union, lift the separation hazard by almost two-thirds. The number and age of resident children have no effect, however the wife's desire for a(nother) child significantly reduces the risk of separation.

In Model 1, marriages in which only one partner is dissatisfied with the relationship have reduced risk of separation compared to marriages in which both spouses are dissatisfied. Satisfaction of both partners is associated with a separation hazard one-fifth that of unions in which both spouses are dissatisfied.

Conclusion

Our research on the determinants of marital (in)stability utilises the unusual strengths of HILDA in two main ways. First, in terms of method we have, for one of the first times, exploited a strength of panel data by incorporating the effects on marital separation of changes over time in the independent variables. Second, because HILDA has similar information on all adult family members, the analysis has been able to determine relationships dyadically; that is, by testing interactive effects between variables measured for each of the individuals in a couple.

Specifically we have been able to test: the role of homogamy (similarities between partners); the efficacy of the so-called ‘independence hypothesis’ (are women with greater market opportunities more likely to separate); and gender differences in reaction to financial and economic stress.

With respect to the first, couple concordance in age, preferences for future children and smoking practices are associated with marital stability. Perhaps surprisingly, we find that the following differences in variables between marriage partners are not associated with separation: education, country of birth, and religiosity.

Non-homogamy variables, those that are not a reflection of similarities or differences between spouses, can be critical to marital stability or instability. The most important of these from our exercise are level of relationship satisfaction, household income, unemployment of the husband, and husband’s age at marriage. In line with work by de Vaus et al. (2003; 2005) we find no link between cohabitation and subsequent marital separation.

It is clear that characteristics of men and women can have quite different impacts on marital stability. Unemployment of the husband, but not the wife, and perceived financial stress by the husband, but not the wife, are associated with increased risk of marital separation. Similarly, a wife with a much stronger desire than her husband for a future child raises the risk of separation. However the reverse situation does not.

Our analysis also provides insights into the independence hypothesis—the notion that marriages are more likely to last the more clearly defined are marital gender roles, and the less it appears that woman are able to be economically independent. We find no evidence for this proposition, in terms of the role of female education and labour market status. This might, of course, be a relatively recent phenomenon.

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Table 1. Data description. Sample by sex and other covariates in wave 1, and % separated by wave 7

	Covariate	Males		Females	
		Number	% separated	Number	% separated
	Total	2,482	10.7	2,482	10.7
Background					
Country of birth	Australia	1,806	10.7	1,834	11.0
	Other	676	10.8	648	10.0
Current age	Under 30 years	197	19.8	301	17.6
	30–39	781	13.4	940	12.6
	40–49	901	10.2	837	9.0
	50–59	603	5.0	404	5.0
Parents ever separated/divorced	No	2,263	10.2	2,257	10.1
	Yes	219	16.4	225	16.4
Marriage and children					
Length of marriage	0–4 years			473	17.8
	5–9 years			428	14.0
	10–19 years			800	11.0
	20+ years			780	4.4
Age at marriage	Under 25 years	1,013	10.1	1,416	9.4
	25–29 years	764	9.0	604	9.9
	30–34 years	400	11.3	283	13.4
	35+ years	304	16.4	179	19.0
Marriage order	First marriage	2,156	10.0	2,173	9.8
	Second or higher-order marriage	326	15.3	309	16.8
Lived together before this marriage	No			1,320	6.7
	Yes			1,162	15.2
Children before this marriage	No			2,067	8.9
	Yes			415	19.8
Number of resident children	0			596	8.4
	1			510	12.7
	2			839	11.1
	3+			537	10.8
Age of youngest resident child	0–4			687	14.2
	5–14			791	11.6
	15+			408	6.6
Attitudinal					
Like to have a(nother) child	Would not like (0–2)	1,586	10.3	1,721	9.8
	Unsure (3–7)	271	12.9	226	15.0
	Would like (8–10)	428	13.1	456	13.2
Religiosity	Religion is unimportant (0–4)	1,326	12.3	1,002	13.3
	Religion is important (5–10)	1,153	8.8	1,477	8.9
Satisfaction with life	Dissatisfied (0–7)	766	13.8	654	14.4
	Satisfied (8–10)	1,713	9.3	1,827	9.4
Satisfaction with relationship	Dissatisfied (0–7)	384	21.4	467	18.8
	Satisfied (8–10)	1,951	8.8	1,899	8.8
Socio-economic					
Education	Bachelor degree or above	599	8.8	564	8.9
	No bachelor degree	1,883	11.3	1,917	11.3
Equivalised household income	Under \$20,000			636	14.6
	\$20,000–\$29,999			759	10.7
	\$30,000–\$39,999			557	8.8
	\$40,000+			530	8.1
Employment status	Works 0–34 hours per week	158	10.8	907	10.4
	Works 35+ hours per week	2,064	10.5	792	10.0
	Unemployed	69	20.3	58	20.7
	Not in the labour force	190	9.5	725	11.2
Years in paid employment	0–14 years	447	17.4	1,159	12.4
	15–19 years	390	11.8	483	11.8
	20–29 years	908	11.1	637	8.3
	30+ years	734	5.6	202	5.9
Perceived prosperity	Comfortable to prosperous	1,609	8.5	1,656	8.6
	Very poor to just getting by	737	15.2	709	15.8
Lifestyle					
Standard drinks per day	0–2	1,278	9.3	1,834	9.5
	3+	1,049	12.0	499	15.0
Smoking	No	1,937	9.0	2,059	9.2
	Yes	545	16.7	423	18.2

Table 2. Dyadic data description. Sample characteristics in wave 1, and % separated by wave 7

Covariate	Number	% separated
Country of birth		
Both born in Australia	1,572	10.8
Both born in same country (not Australia)	295	8.1
Born in different countries	613	11.7
Parents ever separated/divorced		
Both sets did not separate/divorce	2,051	9.6
Husband's separated, wife's did not	206	16.5
Husband's did not separate, wife's did	210	15.7
Both sets separated/divorced	13	15.4
Age difference		
Husband 1 year younger to 3 years older	1,463	9.5
Husband 4–8 years older	597	9.4
Husband 9+ years older	155	16.8
Husband 2+ years younger	267	16.9
Marriage order		
Both 1st marriage	1,994	9.7
Husband's 1st marriage, Wife's 2nd+ marriage	160	13.8
Husband's 2nd+ marriage, Wife's 1st marriage	177	11.3
Both 2nd+ marriage	149	20.1
Difference in preference for a(nother) child		
Husband and wife have similar preference $[-1 \leq W-H \leq 1]$	1,778	9.8
Wife moderately stronger preference $[2 \leq W-H \leq 4]$	135	15.6
Wife much stronger preference $[5 \leq W-H \leq 10]$	112	17.9
Husband moderately stronger preference $[-4 \leq W-H \leq -2]$	124	16.1
Husband much stronger preference $[-10 \leq W-H \leq -5]$	119	14.3
Religiosity		
Both religion is unimportant (0–4)	785	13.6
Husband unimportant, Wife important	541	10.4
Husband important, Wife unimportant	217	12.0
Both important (5–10)	936	8.1
Satisfaction with life		
Both dissatisfied (0–7)	309	20.4
Husband dissatisfied, Wife satisfied	460	10.9
Husband satisfied, Wife dissatisfied	365	15.3
Both satisfied (8–10)	1,341	7.2
Satisfaction with relationship		
Both dissatisfied (0–7)	251	34.7
Husband dissatisfied, Wife satisfied	171	23.4
Husband satisfied, Wife dissatisfied	246	18.3
Both satisfied (8–10)	1,633	4.8
Education		
Both bachelor degree or above	308	6.8
Husband bachelor degree or above, Wife no bachelor degree	291	11.3
Husband no bachelor degree, Wife bachelor degree or above	257	11.7
Both no bachelor degree	1,623	11.2
Perceived prosperity		
Both comfortable to prosperous	1,255	9.0
Husband comfortable to prosperous, Wife very poor to just getting by	335	7.8
Husband very poor to just getting by, Wife comfortable to prosperous	245	15.5
Both very poor to just getting by	480	16.5
Standard drinks per day		
Both 0–2	1,102	8.9
Husband 0–2, Wife 3+	136	14.0
Husband 3+, Wife 0–2	673	10.1
Both 3+	341	15.0
Smoking		
Both do not smoke	1,593	7.8
Husband does not smoke, Wife smokes	317	17.4
Husband smokes, Wife does not smoke	181	16.6
Both smoke	230	19.1

Data source: HILDA Release 7.

Table 3. Cox regression results, dyadic analysis, marital dissolution across 7 waves by selected covariates

Covariate	MODEL 1		MODEL 2	
	Hazard ratio	p-value	Hazard ratio	p-value
Background				
Country of birth				
Ref cat: Both born in Australia				
Both born in same country (not Australia)	1.042	0.885	1.126	0.667
Both born in different countries	0.824	0.262	0.874	0.434
Parents ever separated/divorced				
Ref cat: Both sets did not separate/divorce				
Husband's separated, wife's did not	1.886	0.002	1.905	0.002
Husband's did not separate, wife's did	1.350	0.170	1.430	0.092
Both sets separated/divorced	1.913	0.384	2.166	0.291
Marriage and children				
Husband's age at marriage				
Ref cat: under 25 years				
25–29 years	0.508	0.001	0.498	0.000
30–34 years	0.389	0.001	0.412	0.001
35+ years	0.431	0.045	0.517	0.110
Age difference				
Ref cat: Husband –1 to 3 years older				
Husband 4–8 years older	1.393	0.088	1.316	0.151
Husband 9+ years older	2.236	0.019	1.945	0.051
Husband 2+ years younger	1.534	0.045	1.450	0.077
Marriage order				
Ref cat: Both 1st marriage				
H 2nd+ marriage, W 1st marriage	0.796	0.490	0.775	0.439
H 1st marriage, W 2nd+ marriage	0.760	0.383	0.917	0.777
Both 2nd+ marriage	1.898	0.045	1.788	0.066
Lived together before this marriage				
Ref cat: No				
Yes	1.298	0.143	1.373	0.074
Children before this marriage				
Ref cat: No				
Yes	1.644	0.015	1.501	0.046
Number of resident children				
Ref cat: 0				
1	2.152	0.216	2.344	0.167
2	2.609	0.123	2.422	0.154
3+	1.437	0.572	1.407	0.593
Age of youngest resident child	0.998	0.900	0.991	0.653
Attitudinal				
Wife would like to have a(nother) child	0.936	0.045	0.917	0.007
Difference in preference for a(nother) child				
Ref cat: $-1 \leq W-H \leq 1$				
$2 \leq W-H \leq 4$	1.306	0.364	1.570	0.122
$5 \leq W-H \leq 10$	2.099	0.023	2.745	0.002
$-4 \leq W-H \leq -2$	1.144	0.622	1.284	0.357
$-10 \leq W-H \leq -5$	1.289	0.330	1.551	0.086
Religiosity				
Ref cat: Both religion is unimportant (0–4)				
H unimportant, W important	0.967	0.863	0.965	0.853
H important, W unimportant	1.220	0.381	1.313	0.227
Both important (5–10)	0.844	0.393	0.803	0.259

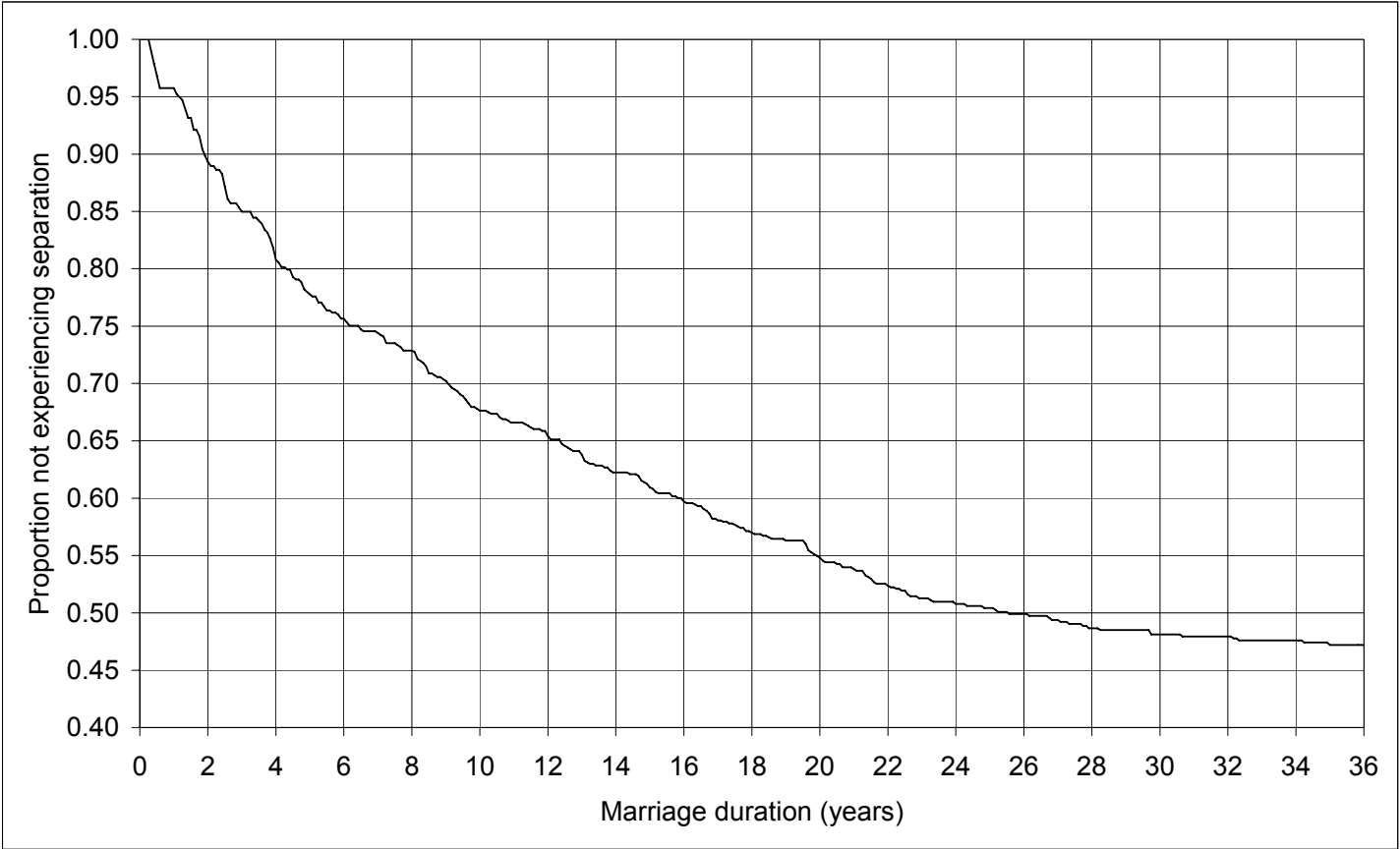
Data source: HILDA Release 7.

Table 3 cont. Cox regression results, dyadic analysis, marital dissolution across 7 waves by selected covariates

Covariate	MODEL 1		MODEL 2	
	Hazard ratio	p-value	Hazard ratio	p-value
Attitudinal				
Satisfaction with life				
Ref cat: Both dissatisfied (0–7)				
Husband dissatisfied, Wife satisfied	0.857	0.484		
Husband satisfied, Wife dissatisfied	1.039	0.859		
Both satisfied (8–10)	0.868	0.486		
Satisfaction with relationship				
Ref cat: Both dissatisfied (0–7)				
Husband dissatisfied, Wife satisfied	0.628	0.030		
Husband satisfied, Wife dissatisfied	0.511	0.001		
Both satisfied (8–10)	0.189	0.000		
Socio-economic				
Education				
Ref cat: Both bachelor degree or above				
H bachelor degree+, W no bachelor degree	1.760	0.066	1.765	0.063
H no bachelor degree, Wife bachelor degree+	1.297	0.417	1.318	0.387
Both no bachelor degree	1.245	0.423	1.073	0.797
Equivalised household income				
Ref cat: Under \$20,000				
\$20,000–\$29,999	0.832	0.335	0.893	0.552
\$30,000–\$39,999	0.501	0.005	0.542	0.013
\$40,000+	0.807	0.412	0.858	0.563
Husband's employment status				
Ref cat: Works 0–34 hours per week				
Works 35+ hours per week	1.101	0.721	1.146	0.610
Unemployed	3.229	0.022	3.540	0.012
Not in the labour force	0.683	0.434	0.600	0.289
Wife's employment status				
Ref cat: Works 0–34 hours per week				
Works 35+ hours per week	1.217	0.239	1.255	0.167
Unemployed	1.486	0.350	1.635	0.241
Not in the labour force	0.765	0.257	0.689	0.114
Husband's years in paid employment				
	0.969	0.090	0.972	0.108
Wife's years in paid employment				
	0.996	0.756	0.991	0.486
Perceived prosperity				
Ref cat: Both comfortable to prosperous				
H comfortable/prosperous, W very poor/just getting by	0.653	0.164	0.765	0.377
H very poor/just getting by, W comfortable/prosperous	1.336	0.182	1.679	0.016
Both very poor to just getting by	1.273	0.192	1.662	0.005
Lifestyle				
Standard drinks per day				
Ref cat: Both 0–2				
Husband 0–2, Wife 3+	1.666	0.060	1.725	0.044
Husband 3+, Wife 0–2	1.128	0.503	1.099	0.597
Both 3+	1.302	0.191	1.429	0.074
Smoking				
Ref cat: Both do not smoke				
Husband does not smoke, Wife smokes	1.912	0.000	2.307	0.000
Husband smokes, Wife does not smoke	1.748	0.019	2.069	0.002
Both smoke	1.386	0.146	1.413	0.119

Data source: HILDA Release 7.

Figure 1. Kaplan-Meier survival curve, marriages not experiencing separation by time since marriage (years), Australia, 2001–2007



Data source: HILDA Release 7.