Marriage, Children and Subjective Well-being

Michael Shields
Department of Economics, University of Melbourne

and

Mark Wooden
Melbourne Institute of Applied Economic and Social Research,
University of Melbourne

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INTRODUCTION

Subjective well-being (from hereon, referred to as SWB) is an area of research that has the been subject of a great many empirical studies, the large majority of which have at least made some attempt to control for variations across individuals in familial characteristics. As observed by Diener et al. (1999) in their review of this literature, analyses of cross-section data have consistently found that married persons report being happier and more satisfied with their lives than unmarried persons. Such findings are consistent with the widely held view that marriage, by providing emotional and financial support, can directly enhance personal well-being.

While, a priori, the effects of children are less certain, the omission of controls for parental status from analyses of inter-personal differences in happiness or life satisfaction would be no less noticeable. To the extent that they confer utility on parents, we would expect children to enhance personal well-being. On the other hand, children are costly and are often the source of considerable anxiety and stress, which can be expected to reduce life satisfaction. Very differently, it might be that most people either achieve the family size desired or come to be contented with the size achieved, and hence the presence of children would have no impact on SWB (Evans and Kelley 2002). In a review of the earlier research Diener (1984) concluded that most studies report that the presence of children either has a negative effect or no effect on SWB. More recent research is consistent with this observation, with some studies finding that a negative effect dominates (e.g., Clark and Oswald 1994, Marks and Fleming 1999, Clark, Georgellis and Sanfey 2001, Frijters, Haisken-DeNew and Shields 2002, Di Tella, MacCulloch and Oswald 2003), while others have reported insignificant relationships (e.g., Mastekaasa 1994a, Stack and Eshleman 1998, Evans and Kelley 2002).

There is thus a clear consensus among researchers about the need to control for both marital and parental status when analyzing measures of SWB. Despite this, however, many studies of SWB have continued to treat family characteristics as little more than influences that once controlled for, can be safely ignored. Even among those studies that have focused specifically on the influence of the family, the emphasis has tended to be on one specific aspect.

In this study we examine a number of related issues that have either tended to be neglected in previous research or have been considered in isolation of each other. First, we explicitly distinguish marital unions according to whether or not that union is the subject of a registered marriage. Second, we test whether there is a "honeymoon effect" associated with marriage by examining whether well-being changes with the length of a marriage. Third, we test whether the lower levels of well-being typically reported following separation and divorce dissipate with time. Fourth, among those in formal marriages we distinguish between first, second, and subsequent marriages, while among those cohabiting we distinguish between the never married and those who have been previously married. Fifth, in isolating the possible impacts of children on SWB, we distinguish children according to their age. Moreover, we move beyond the focus on

dependent children to consider whether the presence of adult children can impact on SWB. Sixth, we interact both the number of dependent children and the number of adult children with marital status.

A final feature of this analysis of note is the data source – a large nationally representative sample of Australian households and their members. As previously observed by Stack and Eshleman (1998), existing evidence on the relationships between family structure and SWB has tended to be dominated by US data, and hence analyses employing data from other countries are needed to determine whether existing findings are culture specific. Additionally, the data set is extremely rich in its content, allowing inclusion of an extensive set of controls for other variables typically presumed to influence SWB.

RESEARCH QUESTIONS

Marriage vs Cohabitation: Is There a Difference?

It has been well established that married individuals are happier and more emotionally stable than their unmarried counterparts (see Diener 1984, Coombs 1991 and Diener et al. 1999 for reviews of this literature). One of the major reasons advanced to explain this finding is social isolation – unmarried persons are less happy because they are more likely to be living alone and absent the continuing companionship that we typically associate with marriage. However, if this is so, it follows that it is not the institution of marriage that is important for well-being, but living with other people, and in particular with a partner who can provide emotional and physical support. Alternatively, if it is commitment that makes formal marriage so rewarding, as is often argued (e.g., Mastekaasa 1993, Waite and Gallagher 2000) and given a formal marriage implies a greater level of commitment thus enhancing the expectation of a long-term stable relationship (as argued by Evans and Kelley 2002), then we might expect the levels of SWB reported by unmarried couples to be lower than that reported by married couples.

Somewhat surprisingly, given the marked rise in most Western countries in the numbers of persons choosing to live together as couples without marrying, these hypotheses have received relatively little attention from researchers. Most researchers instead have, at least implicitly, chosen to treat persons cohabiting in unmarried (or de facto) relationships as if they were either married or single (and in many cases it is unclear which assumption has been adopted). Notable exceptions here are Kurdek (1991), Mastekaasa (1994b), Stack and Eshleman (1998), Marks and Fleming (1999) and Evans and Kelley (2002). Kurdek (1991), using data from a nationally representative sample of US citizens, found that unmarried persons who cohabited reported happiness levels that were significantly higher than single persons but lower than those reported by married persons. Broadly similar results were obtained by Stack and Eshleman (1998) in their study using data from samples of individuals drawn from 17 different countries, and by Marks and Fleming in their Australian samples. Such findings are thus consistent with both the social isolation and commitment hypotheses. In contrast, Mastekaasa (1994b), using data from Norway, found that cohabitants reported levels of life satisfaction that were not significantly different from married persons, a result that possibly reflects the greater acceptance of cohabitation in Scandinavian countries. Evans and Kelley (2002), on the other hand, in their recent analysis of life satisfaction data collected from a large

sample of Australian citizens, could find no evidence that unmarried couples were happier than single persons. Indeed, for women they found that de facto relationships were associated with significantly lower levels of life satisfaction relative to the levels reported by women who had never married.

One weakness of all of these studies is that the data employed are now quite dated and dominated by observations from the 1980s. The data used by Kurdek (1991), Mastekaasa (1994b) and by Stack and Eshleman (1998) were collected over the periods 1987 to 1988, 1984 to 1986 and 1981 to 1983, respectively. Somewhat differently, Marks and Fleming (1999) used pooled panel data collected from four separate youth cohorts over the period 1980 to 1995. Only for the oldest two cohorts, however, were individuals followed for very long (i.e., beyond the age of 24 years), and in both of these cases the majority of data points were from the 1980s. Finally, the data used by Evans and Kelley (2002) comprised pooled cross-section observations collected in a number of waves over the period 1984 to 2001. Nevertheless, the earlier waves were by far the largest and hence the majority of their sample came from the period 1984 to 1989.

This predominance of 1980s data is of large importance when considering the experiences of citizens of Anglo-Saxon societies, such as the USA and Australia. In both these cases the treatment of de facto couples by judicial and government institutions has clearly been changing over time. Indeed, at the start of the 21st century, persons living in de facto relationships can, in Australia at least, expect the same legal rights as married persons. As a result, it is now relatively uncommon for individuals to enter formal marriage without a period of preceding cohabitation – 72 per cent of those who married in Australia in 2001 cohabited prior to marriage (ABS 2002). We thus expect that, in more recent data, differences in the levels of SWB between persons living as couples in legal marriages and those living together without being married are likely to be very small.

Does SWB Decline with Marriage Duration?

A widely held belief is that marital satisfaction is highest during the initial years of marriage – the honeymoon effect – and then gradually declines with duration of marriage. Moreover, such views receive empirical support from panel studies on marital success and failure (e.g., Glenn 1998, VanLaningham, Johnson and Amato 2001). Cross-section analysis, however, is complicated by selection effects. That is, unhappy marriages are more likely to end in separation (and divorce) and hence the longest marriages are also likely to be the happiest. This suggests that any inverse relationship between marriage duration and SWB will be under-estimated, especially at the upper end of the distribution. Indeed, we might expect the relationship between duration of marriage and SWB to be best captured by a quadratic specification, with a U-shaped relationship expected (as is often found in research on marital satisfaction). That is, SWB is likely to be greatest for persons in both new marriages and long-running marriages.

Does SWB Recover Following Separation and Divorce?

Another well established finding is that among single people, it is the divorced that express the lowest levels of SWB (see Amato 2000 for a recent review). Most researchers explain this in terms of stress. The process of separation and divorce is typically stressful, even if anticipated, and invariably involves major changes in a person's life. Thus even if

separation is perceived is desirable, it is still likely to induce considerable stress. Where researchers are in less agreement is over the question of whether such effects are permanent or transitory. As summarized by Amato (2000, p. 1273), in one perspective – the crisis model – separation and divorce are stressful experiences that individuals gradually adjust to and eventually return to their pre-separation level of functioning. In contrast, in the chronic strain model, separation and divorce is associated with strains and hardships that are more permanent, such as loneliness and increased financial stress.

Are Persons in Second Marriages Any Less Happy than Persons in First Marriages?

Of course, one obvious solution to both loneliness and financial pressures is remarriage, but are second (and subsequent) marriages associated with the same (or higher) levels of SWB experienced during the first marriage? Empirical research on this issue is both relatively limited and mixed in terms of findings. Studies that have focused on differences in marital happiness across marriages (as distinct from global measures of SWB) have typically not found significant differences between first and second marriages (e.g., Johnson and Booth 1998, Rogers 1999), a result which is consistent with Evans and Kelley (2002), who found in their Australian cross-section that persons who have re-married are no less satisfied with their lives than persons in their first marriage. Longitudinal studies of marriage transitions, however, are less positive. Spanier and Furstenberg (1982), for example, could find little evidence that remarriage enhanced the well-being of previously divorced persons, though arguably their sample was too small to reveal significant associations. More positive results were reported by Marks and Lambert (1998) using a much larger nationally representative sample, though again statistical significance was generally not achieved.

Do Children Raise or Lower SWB?

As noted earlier, there is considerable evidence to suggest that persons with dependent children have lower levels of SWB than those without dependents, findings that have been interpreted by some (e.g., McLanahan and Adams 1987) as symptomatic of the decline in the economic benefits of children and one of the factors contributing to the decline in fertility levels in most Western nations. A more complete assessment of the perceived benefits of children, however, requires adopting a lifetime perspective. Marks and Fleming (1999), for example, argue that the relationship between children and SWB is likely to be age (and gender) specific. Most obviously, younger children will be both more demanding on the time of parents than older children and impose greater costs (especially childcare costs). This suggests the need for interacting measures of the presence of children with their age. Like most researchers, however, Marks and Fleming are only concerned with children living at home. They thus ignore the potential benefits that children might provide to their parents after leaving home. Research on SWB needs to take into account not just the impact of children when young, but their impact as they mature. Nevertheless, while there are a number of studies of the impact of childlessness on the SWB of older adults (e.g., Koropeckyj-Cox 1998, 2002, Zhang and Hayward 2001), we are unaware of any study that has attempted to examine how the impact of children of different ages, and including adult children, impacts on SWB within a more general population sample.

Do the Effects of Children on Parental Well-being Vary with Marital Status?

Studies of SWB have generally assumed that any effects from children will impact on all parents equally. There are, however, good reasons to expect that children will interact with marital status in their impact on parents' well-being. Most obviously, we would expect the costs of children, both in economic and psychological terms, to be greater for single parents than married parents (Glenn and Weaver 1979). In the case of divorced parents the effects may be especially acute. It has been established, for example, that the adjustment by mothers to divorce is negatively associated with the number of children (e.g., Garvin, Kalter and Hansell 1993).

DATA AND METHOD

Sample

The data used in this analysis come from the first wave of the Household, Income and Labour Dynamics in Australia (HILDA) Survey. Described in more detail in Watson and Wooden (2002a), the HILDA Survey is based on similar studies conducted in both Germany and the UK (the German Socio-Economic Panel and the British Household Panel Survey respectively). The HILDA Survey thus involved the selection of a large nationally representative sample of households and then seeking interviews with members of those households. Specifically, a household interview was sought with at least one adult member. Individual interviews were then sought with all household members over the age of 15 years on the 30 June preceding interview. In addition to the collection of data through personal interview, all persons completing a personal interview were given a self-completion questionnaire that they were asked to return after completion either by mail or by handing it to the interviewer at a subsequent visit to the household. Almost all of the interviews were conducted during the period between 24 August 2001 and 21 December 2001.

Households were selected into the sample by a multi-stage process. First, a random sample of 488 Census Collection Districts (CDs), based on 1996 Census boundaries, was selected from across Australia (each of which consists of approximately 200 to 250 households). Second, within each of these CDs all dwellings were fully enumerated and a sample of 22 to 34 dwellings randomly selected.[1] Third, given dwellings can contain more than one household, rules were devised for the selection of households within dwellings. These rules stipulated that where a dwelling contained three or fewer households, all such households should be sampled. Where there were four or more households occupying one dwelling, all households had to be enumerated and a random sample of three households obtained (based on a predetermined pattern).

After adjusting for out-of-scope dwellings (e.g., unoccupied, non-residential) and households (e.g., all occupants were overseas visitors) and for multiple households within dwellings, the total number of households identified as in-scope was 11,693. Interviews were completed with all eligible members at 6872 of these households and with at least one eligible member at a further 810 households. The total household response rate was, therefore, 66 per cent.

Within the 7682 households at which interviews were conducted, there were 19,917 people. Of this group, 4790 were under 15 years of age on the preceding 30 June and

hence were ineligible for an interview in Wave 1. This left 15,127 persons eligible for a personal interview, 13,969 of whom completed the Person Questionnaire.

As discussed in Wooden et al. (2002), these response rates compare favourably with the rates achieved in the first waves of similar major household panel surveys. They are also well in excess of the rates typically reported in other Australian surveys that have attempted to measure life satisfaction. More importantly, comparison with population benchmark data from official Australian Bureau of Statistics (ABS) sources suggests that the sample has characteristics that are broadly in line with what would have been expected if the sample were truly random. There is, however, at least one major disparity, with residents from Sydney under-represented, a result that Wooden et al. (2002) attribute to both greater difficulties making contact with some Sydney residents (e.g., those in living in high-rise apartments) and a greater reluctance to participate because of time commitments.

Measuring SWB

The dependent variable used in this analysis is a subjective measure of global life satisfaction. It comprises a single item scored on a 0-10 scale. The item was worded as follows:

"All things considered, how satisfied are you with your life?"

A visual aid (i.e., a show card) was then used to graphically portray the scale respondents were to use in answering this question. Only the extreme values on the scale were labelled, with a score of 0 described as "totally dissatisfied" and a score of 10 as "totally satisfied".

While single-item measures are often regarded as problematic, in the area of SWB it has been well-established that single item measures perform as well as, if not better than, multi-item measures (e.g., Andrews and Withey 1976). As a consequence, their use is widespread. The item used here, for example, is very similar to an equivalent item that has been asked as part of the German Socio-Economic Panel since 1984, and has formed the basis for a number of studies into life satisfaction in that country (e.g., Winkelmann and Winkelmann 1998, Clark et al. 2001, Frijters et al. 2002). It is also very close to the overall life satisfaction item used in the World Values Survey (Inglehart et al. 2000).

A summary of the distribution of responses to the life satisfaction question is provided in Table 1. As can be seen, responses are highly skewed towards high levels of satisfaction, with the modal response being 8, but with almost 40 per cent selecting 9 or 10. Given the possibility of bias as a result of self-selection (i.e., a tendency for the most happy to be more likely to respond), we also report the distribution after weighting the population to reflect established population norms. The distribution is almost identical, but with a very small difference at the upper end of the distribution. In other words, the impact of self-selection on measured life satisfaction appears to be minimal.

TABLE 1. OVERALL LIFE SATISFACTION: DISTRIBUTION OF RESPONSES

Response	Unweighted		Weighted	
	N	% (of valid N)	N	% (of valid N)
0	38	0.3	42456	0.3
1	31	0.2	32049	0.2
2	79	0.6	83989	0.6
3	123	0.9	133417	0.9
4	192	1.4	210047	1.4
5	737	5.3	793415	5.3
6	838	6.0	923969	6.1
7	2387	17.1	2662915	17.6
8	4132	29.6	4466742	29.6
9	2676	19.2	2861904	19.0
10	2718	19.5	2888406	19.1
Don't know / not stated	18		20234	
Total	13969		15119543	

In Table 2 we report mean life satisfaction scores (together with standard deviations) disaggregated by sex, marital status and the presence of dependent children under the age of 15 years. The figures reported in this table indicate that:

i. consistent with the figures reported in Table 1, weighting the data to population norms has a very small and ultimately negligible impact on mean life satisfaction;

ii. women were slightly more likely to report higher levels of life satisfaction than men, a result that is consistent with other recent evidence for Australia (see Cummins et al. 2001);[2]

iii. in line with previous research, married people report noticeably higher levels of life satisfaction than single persons, while the least satisfied of all are separated and divorced persons; and

iv. for all gender and marital status groups, the presence of dependent children is associated with noticeably lower levels of self-reported life satisfaction.

Method

A multivariate regression framework is used to identify and quantify the impact of family characteristics on the level of life satisfaction. The dependent variable, however, does not have the properties usually assumed for ordinary least squares estimation. The dependent variable is a subjective assessment of an individual's life satisfaction scored on an ordinal scale, in this case ranging from 0 to 10. This variable is thus clearly not linear (since it is truncated at 0 and 10) and there is the strong likelihood that least squares estimation would give rise to out-of-range predictions (especially given the relatively large number of cases at the upper limit). Furthermore, no significance can be attached to the unit

distance between the set of observed values on this scale. That is, it cannot be assumed that the distance between say 8 and 9 on this scale is the same as the distance between 3 and 4. The ordered probit model was specifically developed for such situations and hence is employed here. It is important to realise that while more conventional least squares results provide qualitatively similar results (that is, the signs and significance levels on explanatory variables are mostly unaffected by the choice of estimator), the estimated magnitude of the impacts can and does vary quite noticeably.

TABLE 2. OVERALL LIFE SATISFACTION: SAMPLE MEANS (AND STANDARD DEVIATIONS) BY SEX, MARITAL STATUS AND PRESENCE OF DEPENDANTS

	With dependants	*No dependants*	*Total*
Men			
Couple – married	7.87 (1.46)	8.27 (1.59)	8.10 (1.55)
Couple – cohabiting	7.63 (1.72)	7.94 (1.50)	7.83 (1.59)
Single – separated	6.71 (2.19)	7.05 (2.17)	7.01 (2.17)
Single – divorced	7.06 (1.73)	7.21 (2.10)	7.20 (2.17)
Single – widowed	8.00 (2.65)	8.14 (1.77)	8.14 (1.78)
Single – never married	6.75 (2.13)	7.71 (1.73)	7.70 (1.74)
Total	7.81 (1.53)	7.94 (1.72)	7.90 (1.67)
Women			
Couple – married	8.06 (1.56)	8.35 (1.57)	8.23 (1.54)
Couple – cohabiting	7.81 (1.78)	6.72 (1.87)	7.88 (1.67)
Single – separated	6.72 (1.87)	6.83 (2.30)	6.78 (2.11)
Single – divorced	7.14 (1.78)	7.49 (1.84)	7.39 (1.82)
Single – widowed	7.62 (1.56)	8.36 (1.61)	8.35 (1.61)
Single – never married	6.98 (2.12)	7.91 (1.55)	7.80 (1.65)
Total	7.84 (1.67)	8.10 (1.65)	8.02 (1.66)

Note: Figures in parentheses are standard deviations.

In addition to controls for marital status and children, all estimated equations include an extensive array of controls. While the make-up of the set of control variables is largely data driven, the HILDA Survey dataset is very rich, and hence the set of variables included here is very broad. Stack and Eshleman (1998), for example, are only able to include controls for sex, age, church attendance, education, employment status, subjective health and satisfaction with financial situation (and the last two of these controls are clearly endogenous). In this analysis a more extensive array of controls are available. Specifically, we include controls for: age, which following other recent research (e.g., Clark et al. 2001, Frijters et al. 2002, Di Tella et al. 2003) is specified as a quadratic; country of birth; English language ability; the presence of health conditions and disabilities disaggregated by severity; education; employment status; the number of other persons in the household (that is, other than a partner or own childen); household

income per 'equivalised' household member[3]; home ownership; the importance of religion (assessed on an 11-point scale); an individual's discount rate (as represented by the length of time horizon for savings and investment decisions); whether the respondent was living with both of their own parents at age 14; locality (represented here by 487 dummy terms for each of the CDs sampled, less one omitted to act as the reference group); the degree of suspicion about the interview (as assessed by the interviewer); and the presence of other adults during the interview.

A common practice in research employing multiple regression analysis is to omit cases where there is missing data on any variable of interest, raising the possibility of selection bias. We largely avoid this problem by creating dummy variables identifying non-response on items where non-response is relatively high. This was of most importance when dealing with household income. According to Watson and Wooden (2002b) an estimate of total household gross income can only be derived in 71 per cent of cases in the HILDA Survey sample, a result of both missing data on some income components and non-respondents within households.

Finally, all models are estimated separately for men and women. As observed by Stack and Eshleman (1998, p. 528), this is likely to be of particular importance for analyzing the effects of marriage given widespread beliefs that marriage benefits men more than women. More generally, the estimation of gender-specific models is becoming much more widespread, with the hypothesis of parameter equality typically rejected in large samples (e.g., Clark et al. 2001, Frijters et al. 2002).

RESULTS

The results from the ordered probit estimation of our basic model are reported in Table 3. A summary of various extensions to this model is then reported in Table 4. The first point to note about the results reported in Table 3 is that most of the coefficients on the control variables are in line with both expectations and previous research. Thus we find that:

(i) age exhibits the U-shaped relationship with life satisfaction found in multivariate research employing large samples (with life satisfaction lowest at around 44 years for men and 42 years for women);

(ii) life satisfaction is lowest for persons from a non-English speaking background, especially women, and especially if their English language speaking ability is poor;

(iii) the effects of education on life satisfaction, while relatively small, are negative, possibly the result of high aspirations that have yet to be met (Clark and Oswald 1994);

(iv) levels of life satisfaction are strongly affected by the presence of health conditions and disabilities that limit activity;

(v) persons not in employment but who are actively looking for work (that is, the unemployed) express the highest levels of dissatisfaction, while the most satisfied are persons who are neither employed nor looking for work (so long as this situation is not the result of poor health);

(vi) the presence of persons other than immediate family members in the household has predictable effects, with children enhancing satisfaction of men but reducing it for women, and adults enhancing satisfaction of women but not men;

(vii) satisfaction levels rise with household income per head, though the magnitudes of the estimated coefficients suggest that the effect is relatively small and that very large increases in income are required to raise life satisfaction scores by even one point on the scale;

(viii) homeowners tend to be more satisfied with their lives than renters;

(ix) religion tends to be an influence that enhances life satisfaction;

(x) persons who are more forward looking in their financial planning and savings behaviour are more satisfied, though the effect is only pronounced among women; and

(xi) more stable home environments when young (as represented by living with two parents at age 14) are associated with greater levels of life satisfaction.

One unexpected finding is the coefficient on the indigenous identifier. Other things held constant, Aboriginal and Torres Strait Islander men score higher on the life satisfaction scale than non-indigenous men. Moreover, the size of the effect is relatively large. Among indigenous women, the size of the differential is smaller, and statistically insignificant.

The second point about these results that should be noted is that while the overall explanatory power of model is impressive, we nevertheless are still only explaining a minority of the variation in the dependent variable. This is not particularly surprising and is consistent with the view that by far the most important predictors of variations across individuals in well-being are unobserved influences, and especially personality traits.

The third point to note is that while the types of influences on life satisfaction are broadly the same for men as they are for women, as hypothesized, the magnitude of the estimated coefficients are different, and a formal test provides strong support for rejecting the hypothesis of parameter equality.[4]

We turn now to the results on the variables at the center of this analysis.

Marital Status

Looking first at the estimated coefficient on the variable representing married persons we find, consistent with previous research, that married persons are indeed more satisfied with their lives than non-married persons. Note further that the magnitude of the estimated coefficient in the male equation is not significantly different from that in the female equation. In other words, there is little support in these data for the hypothesis that marriage benefits men more than it does women.

These results also suggest that the adverse effects of marital disruption on SWB may not be as large, and certainly not as long lived, as is usually assumed. While it is true that persons who are currently single as a result of a separation or divorce are the least satisfied, compared with other single persons the size of the effect is only significant for women, and even then the effect largely disappears by the time a divorce is finalized. In

other words, after an initial adjustment period, levels of life satisfaction among divorcees are no different than among other single people who have never married.

Marriage vs Cohabitation

The results reported in Table 3 suggest that the advantages from marriage for SWB mainly flow through the benefits from companionship rather than from some commitment effect. As with persons living in registered marriages, persons cohabiting (or living in de facto marriages) are also more likely, other things held constant, to report being satisfied with their lives than persons without a partner. Furthermore, while the estimated coefficients suggest that persons in formal marriages are, on average, more satisfied than persons in de facto marriages, the size of that differential is not large enough to achieve statistical significance at conventional levels. This finding provides some support for our hypothesis that differences between married relationships and cohabiting relationships in 2001 are likely to be relatively small.

Of note, this result does appear to be sensitive to model specification. In particular, the gap between the coefficients on the married and cohabitant dummies widens noticeably when the location dummies are excluded suggesting that there is a tendency for married and cohabiting couples to live in distinctly different locations, and it may be these differing patterns of residential location that explain part of the raw differential in SWB between married and cohabiting couples.

Marriage and Partnership Duration

To examine the question of whether or not the higher levels of life satisfaction reported by both married and cohabiting persons declines over time, we augmented the basic specification with measures of marriage duration and duration of cohabitation. As can be seen from panel I in Table 4, some limited evidence in support of the hypothesis that overall life satisfaction declines with duration of partnership among both married and cohabiting couples was found. Among married persons, however, the effect was only significant for men and even then the relationship was relatively weak. In contrast, duration effects were much more important for cohabiting relationships. Further, we found evidence of a curvilinear relationship (which we suspect reflects selection effects) with life satisfaction beginning to rise for long-term cohabiting couples (after about 10 to 11 years together). We admit, however, that cross-section data provides at best a crude test of duration effects, especially given the high correlation between the duration variables and age.

Finally, it also should be noted that once years of marital and cohabiting duration are controlled for, the relatively small difference in life satisfaction between persons in these two different types of relationships disappears. In other words, differences in life satisfaction between persons in marriages and in cohabitations do exist, but the difference is only significant when comparing partnerships that are relatively long lasting.

Time Elapsed Following Separation and Divorce

As already noted, the differences in life satisfaction between divorced persons and other otherwise comparable single persons are not large (and never statistically significant). It thus should not be surprising that we find little impact from including variables representing the time elapsed since separation. Again the results are reported as part of

panel I in Table 4. A weakly significant association was found for men but not for women. Overall, the results suggest that the short-term negative impact of separation is more marked for women, but most women have almost completely adjusted by the time divorce is finalized. In contrast, for men the negative impact of separation, while weaker, is more protracted.

Previous Marriages

We next tested whether life satisfaction varies with the number of times married. We also distinguished between previous marriages that ended as a result of marital separation and divorce or that those that ceased a result of the death of a partner. This distinction, however, did not appear to matter and hence the results are not reported here.

A summary of the key coefficients is provided in panel II of Table 4. The results are striking. Women in their second or subsequent marriage are no more (or less) satisfied with their lives than comparable women still in their first marriage. In contrast, for men there is a clear pattern of life satisfaction scores rising with each successive marriage, particularly where the previous marriage was terminated by separation and divorce. In other words, while marriage in general may not benefit men more than it does women, remarriage would seem to.

Again, however, we urge caution in the interpretation of these results. First, the differences between these coefficients for men are only significant at the 90 per cent confidence level. Second, despite the extensive array of controls included in our model, we cannot be sure that we are comparing like with like when we compare the coefficients on first marriages with those on subsequent marriages. To be sure of this we really need panel data. Nevertheless, the usual presumption is that any selection effects should cause the estimates on happiness in first marriages to be biased upwards (since less satisfied people will tend to be relatively more numerous among the divorced), which would only strengthen the results presented here.

As a complement to these results, we also looked at whether life satisfaction differs among cohabitants according to whether or not those cohabitants were previously married or not. In this case, however, whether the previous marriage ended as a result of divorce or because of the partner's death did appear to matter, especially for men. Specifically, the point estimates suggest that cohabitation does tend to help offset the adverse effects of both separation and widowhood on life satisfaction, though the coefficients are only large enough to achieve statistical significance (when compared with cohabitants who have never married) for male widowers.

Children

Consistent with most recent research, the results reported here suggest that the SWB of parents is adversely affected by the presence of dependent children in the household with these negative effects rising with the number of children. Somewhat surprisingly, however, there was little evidence that the size of the effect varied with the age of those dependent children.[5] What is clear is that there is a marked difference between dependent children, who impact negatively on life satisfaction, and independent children who live in the parental home, who have no impact. Such findings underscore the importance of economic considerations in influencing SWB. Life satisfaction is also clearly enhanced

by the presence of adult children who have left home. Moreover, the magnitudes of these positive coefficients are very similar in size to the negative coefficient on the dependent children variable. In other words, much of the gains to parenting (at least from the perspective of the parent) take many years to be realized. Thus in contrast to much of the earlier research which implied that parenting was not a rational decision, these findings suggest the reverse – from the perspective of the parent, children are an investment in their future well-being. That said, without panel data that extend over an individual's life cycle we cannot be certain that these results are not simply the result of cohort effects (since people with adult children will tend to come from an older cohort than those with younger children).

Also of interest, our results suggest that parents' well-being is inversely related to the number of young children who do not live with the parent (e.g., as a result of custodial arrangement following marital separation). The coefficient is particularly large for women, but the relatively small number of women in this situation in our sample renders the estimate very imprecise. Even for men, who are much more likely to be the non-custodial parent following separation, the coefficient is only significant at the 90 per cent confidence level.

Children and Marital Status

The final extension of our life satisfaction reported here involved interacting both the number of dependent children living at home and the number of adult children living elsewhere with marital status. The results are reported in panel III of Table 4. Note that for this analysis we included dependent students between the ages of 15 and 24 in the definition of dependent child.

As can be clearly seen, the effects of children on parents' life satisfaction vary markedly with parents' marital status. As expected, the negative effect of dependent children is especially marked for single parents, and especially those who have never been married (though due to relatively small numbers, the effect is only statistically significant for mothers). At the other extreme, the number of dependent children has no effect at all on the overall life satisfaction of married mothers. Note also that while the life satisfaction of married and cohabiting couples was not found to be noticeably different, the two groups would appear to be different, especially if female. While children do not impact adversely on the satisfaction of married mothers they do on that of mothers in cohabiting unions.

The positive impact of adult children on satisfaction is also not constant across marital groups. It is generally most positive for married persons and for widows and widowers. They also enhance the satisfaction of divorcees, but only the men. Adult children generally do not enhance the satisfaction of persons cohabiting or persons who have never married. Indeed for men in the latter category the presence of such children has a marked negative impact on their life satisfaction score.

TABLE 3. ORDERED PROBIT RESULTS – BASIC SPECIFICATION

	Males		Females	
	b	SE	b	SE
Marital status				
Couple – married	.343**	.055	.291**	.053
Couple – cohabiting	.243**	.061	.218**	.058
Single – separated	-.105	.097	-.356**	.081
Single – divorced	-.092	.078	-.057	.069
Single – widowed	.044	.119	.129#	.076
Children				
No. of dependent children <15 yrs	-.047**	.017	-.036*	.016
No. of dependent students	-.027	.039	-.054	.036
No. of other own children in h'hld	.020	.035	-.004	.030
No. of children <15 elsewhere	-.058#	.035	-.138	.085
No. of adult children elsewhere	.046**	.014	.050**	.013
Control variables				
Age	-.042**	.006	-.030**	.005
Age squared	.047 ($x10^{-2}$)**	.006 ($x10^{-2}$)	.035 ($x10^{-2}$)**	.005 ($x10^{-2}$)
Aboriginal / Torres Strait Islander	.376**	.117	.220*	.093
Immigrant (main-English speaking country)	.048	.044	.091*	.044
Immigrant (other country)	-.045	.049	-.111*	.046
Poor English language ability	-.226**	.078	-.367**	.071
Disability / health condition				
Severe	-.661**	.134	-.780**	.146
Moderate	-.436**	.043	-.494**	.040
Minor	-.185**	.052	-.110#	.057
Education				
Degree	-.213**	.047	-.174**	.041
Diploma	-.173**	.055	-.125*	.052
Certificate level 3 or 4	-.044	.038	-.133**	.048
Certificate level 1 or 2	-.115#	.061	-.043	.046
Completed high school only	-.109*	.050	-.092*	.046
Education unknown	.081	.111	-.195*	.077
Labour force status				
Self-employed	.074	.075	.238**	.090
Owner manager	.237**	.087	.476**	.112
Full-time employee	.160*	.065	.265**	.074
Part-time employee	.121	.075	.347**	.074
Not in labour force due to:				
Incapacity / health	.029	.084	.148	.092
Retired	.307**	.086	.472**	.088
Studying	.328**	.094	.271**	.095
Other reason	.300**	.099	.485**	.075
No. of other children in h'hld	.100**	.036	-.063#	.035
No. of other adults in h'hld	.015	.022	.059**	.022
Log household income per person	.070**	.022	.070**	.021
Household income negative	.692*	.295	.584*	.266
Household income missing	.694**	.228	.695**	.218
Renting home	-.157**	.037	-.136**	.035
Live in home rent free	-.253**	.096	-.043	.092

TABLE 3 (cont'd)

	Males		Females	
	b	SE	b	SE
Importance of religion	.035**	.004	.031**	.004
Savings time horizon	.023*	.010	.050**	.009
Savings time horizon missing	-.065	.057	.043	.055
Lived with both parents at age 14	.095*	.039	.077*	.037
Other adult present during ivw	.105**	.030	.111**	.029
Suspicious of interview questions	-.160*	.063	-.078	.065
Log likelihood – constant only (L_r)	-11847.6		-12986.6	
Log likelihood (L_u)	-11007.8		-12007.9	
Pseudo R-squared	0.232		0.244	
Likelihood ratio test (chi-squared)	1531.4**		1813.8**	
No. of observations (n)	6583		7298	

Notes: 1. **, * and # denote statistical significance at the 1, 5 and 10 per cent levels, respectively, in a two-tailed test.

2. All equations also include a set of 487 dummy terms to control for differences across locality. In both models, these terms were jointly significant.

3. The pseudo R-squared measure is based on the size of the estimated (or unrestricted) log-likelihood function (L_u) relative to the size of the (restricted) log-likelihood (L_r) when all parameters except the constant term are set to zero. The particular formula used here is:

$$[1-e^{2(L_r-L_u)/n}] / [1-e^{2L_r/n}]$$

TABLE 4. ORDERED PROBIT RESULTS, SELECTED PARAMETERS – MODEL EXTENSIONS

		Males		Females	
		b	SE	b	SE
I	Year married	-.0035#	.0019	-.0001	.0018
	Years cohabiting	-.057**	.021	-.036#	.020
	Years cohabiting squared	.0026**	.0009	.0019*	.0009
	Years separated	.013#	.007	.003	.005
	Years widowed	-.008	.011	.003	.005
	Couple – married	.395**	.062	.288**	.059
	Couple – cohabiting	.389**	.084	.293**	.081
	Single – separated	-.204*	.103	-.379**	.085
	Single – divorced	-.257*	.110	-.083	.093
	Single – widowed	.013	.170	.146	.108
II	Married				
	First marriage	.337**	.056	.289**	.054
	Second marriage	.460**	.076	.268**	.073
	Third + marriage	.694**	.173	.318**	.161
	Cohabiting				
	Never married	.205**	.066	.227**	.064
	One marriage; divorced	.264*	.103	.173#	.094
	One marriage; widowed	1.101**	.373	.805**	.309
	Two + marriages; all divorced	.400*	.195	.168	.193
	Two + marriages; widowed at least once	1.488*	.646	-1.508#	.772
III	No. of dependent children interacted with:				
	Couple – married	-.039*	.018	-.009	.018
	Couple – cohabiting	-.068#	.040	-.069#	.038
	Single – separated or divorced	-.101	.089	-.093*	.042
	Single – widowed	.427#	.244	-.191	.167
	Single – never married	-.220	.164	-.185**	.048
	No. of adult children living elsewhere interacted with:				
	Couple – married	.046**	.016	.062**	.016
	Couple – cohabiting	.035	.043	.023	.045
	Single – separated or divorced	.070*	.034	.019	.031
	Single – widowed	.041	.061	.061*	.029
	Single – never married	-.352**	.136	.019	.111

Note: **, * and # denote statistical significance at the 1, 5 and 10 per cent levels, respectively, in a two-tailed test.

SUMMARY

- Couples are, on average, much more satisfied with their lives than single persons.
- Any difference in life satisfaction between married couples and cohabiting couples is small and confined to long-standing relationships.
- Differences in life satisfaction between formerly married persons and other single persons are only marked for women, and even then the reported life satisfaction scores of most of these women have almost completely recovered to the level of other single women by the time divorce is finalized.
- Remarriage appears to benefit men more than women, with the life satisfaction of married men rising with each subsequent marriage. In contrast, women are no more (or less) happy in a second marriage.
- Life satisfaction declines with the number of dependent children living at home but rises with the number of adult children who have left home.
- Dependent children who live elsewhere have a depressing effect on life satisfaction (though large standard errors mean relatively little confidence can be attached to this result).
- The negative effects of young dependent children are very large for single parents but non-existent for married mothers.

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ENDNOTES

[1] The number of selections made varied with the expected response and occupancy rates within each area.

[2] The general consensus in the international literature is that reported differences in SWB between men and women, which typically favour women, disappear once other demographic variables are controlled for (Diener et al. 1999, p. 292). Recent studies employing large national samples, however, have generally found that significant gender differences remains after inclusion of demographic controls (e.g., Stack and Eshleman 1998, Marks and Fleming 1999, Frijters et al. 2002, Blanchflower and Oswald 2003, Di Tella et al. forthcoming).

[3] We use the modified OECD equivalence scale, which assigns a value of 1 to the first adult, 0.5 to all other adults, and 0.3 to children (defined here as persons under the age of 15 years). As is conventional, we also specify income as a log function.

[4] A likelihood ratio test for equality of parameters resulted in a chi-squared statistic of 3105.5, well in excess of the critical level needed to reject the hypothesis of parameter equality.

[5] We disaggregated the variable for dependent children to distinguish between children aged less than one year, between 1 and 4 years and between 5 and 14 years and could find no clear evidence that the age of dependent children mattered for life satisfaction. Further, this was also true when the variables were reconstructed as simple dummies signalling the presence of such children rather than the number.