Cohabitation Outcomes:
The Effect of Fertility Intentions, Relationship Satisfaction and Union Length on Cohabitation Transitions

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Abstract

Rates of cohabitation have increased significantly over the past few decades, and while a substantial amount of research has been conducted on cohabiting relationships, relatively little is known about the pathways that these relationships follow. In this research we use waves 1 – 7 of the Household, Income and Labour Dynamics in Australia (HILDA) Survey to investigate the influence of fertility intentions, relationship satisfaction and union length on the likelihood that a cohabiting person will transition to either married or single over the seven waves. In particular, we focus on whether the influence of these factors on relationship transitions is mediated by a cohabitor's marital history and intention to marry. We track transitions using lagged variables and predict a number of logistic regression models with and without controlling for covariates and other independent variables. We find that the influence of fertility intentions, relationship satisfaction and union length on relationship transitions varies by marital history and intention to marry.

Introduction

Rates of cohabitation have increased significantly over the past few decades, and while a substantial amount of research has been conducted on cohabiting relationships, relatively little is known about the pathways that these relationships follow. In a twenty-five year period, from 1982 to 2006, the proportion of all couples cohabiting in Australia rose from 4.7 percent to 14.9 percent, representing a substantial shift in both the demographics of the population and patterns of family formation (Australian Institute of Family Studies, 2008; Dempsey & De Vaus, 2004). In 1994 the average duration of a first cohabitation was roughly 2.6 years, while the likelihood of a cohabiting relationship breaking up within five years has increased from 22 percent in the early 1970s to 40 percent in early 1990s (de Vaus 2004). These figures however, are relatively dated; little recent Australian research has examined how long cohabiting relationships last or their outcomes. One notable exception is a study by Weston, Qu and de Vaus (2005) which uses three waves of the HILDA data to explore the characteristics that are associated with cohabitors following certain pathways. They find that a number of factors, such as income, education, relationship satisfaction and fertility intentions are associated with the likelihood that a cohabiting couple will move on to marriage, remain cohabiting or separate. We build on this earlier research by defining a typology of cohabitors that enables us to differentiate between different kinds of cohabiting couples. We expect that relationship outcomes will vary across different cohabiting groups. We also extend their earlier research by using 7 waves of HILDA ensuring a greater number of observed transitions and relationship outcomes.

In this research we use waves 1 – 7 of HILDA to investigate the influence of fertility intentions, relationship satisfaction and union length on the likelihood that a cohabiting person will transition to either married or single over the seven waves. In particular, we focus on whether the influence of these factors on relationship transitions is mediated by a cohabitor's marital history and intention to marry. We believe that these two characteristics are important factors when investigating the outcomes of cohabiting relationships. Intention to marry is likely to reflect different relationship expectations, whereas marital history indicates the different experiences cohabitors bring to their relationship. Using these two variables, we

define a typology of cohabiting people, and predict a number of logistic regression models to examine how fertility intentions, relationship satisfaction and union length influence the likelihood of a cohabitor either marrying or separating. We track transitions using lagged variables and model this relationship with and without controlling for covariates and other independent variables. This allows us to draw conclusions about the pathways that different types of cohabitors are likely to follow, and the influence of demographic and attitudinal factors on their pathways.

Background

There has been little research in Australia on the factors that influence the relationship pathways of cohabiting people. One exception is a study by Weston, Qu and de Vaus (2005) which investigated the factors associated with cohabiting couples either marrying, separating or remaining in the relationship. They examined the influence of financial circumstances, socio-demographic characteristics, relationship quality, duration of cohabitation, partners' ages, experience of previous relationships and family type on the likelihood that a certain transition would occur. Using Waves 1-3 of HILDA they found that marriage was more likely if the male partner had a degree and if there was a high level of relationship satisfaction for both partners (Weston et al., 2005:18). Furthermore, there was a greater likelihood of marriage if the female partner had a high level of relationship satisfaction and wanted a child. The relationship was more likely to end if there was some discomfort in the couple's financial situation, if only one partner wanted to have children or at least one partner was not satisfied with the quality of the relationship (Weston et al., 2005:19). They found that about one third of couples married despite neither partner expressing a high level of relationship satisfaction. Generally, these couples had lived together for quite come time before marrying. Overall, they suggest that the transition from cohabitation to marriage reflects traditional gender patters and a minimisation of risk. Our research builds on this study by looking specifically at the influence of fertility intentions, relationship satisfaction and union length on the likelihood that a cohabitor will either marry or separate. Previous research on these factors is discussed below.

Fertility Intentions

Marriage has historically been an institution that regulated the reproduction and socialisation of children, however, this is changing and it is becoming increasingly acceptable to raise children outside of marriage (Kiernan, 2001). Indeed, in Australia, childbearing within cohabiting unions has increased from two percent in 1970 to about 16 percent in 2004 (de Vaus & Gray, 2004:12). While childbearing is certainly increasing within cohabiting unions, a study undertaken by Carmichael and Whittaker (2007) finds that a prominent reason to transition from cohabitation to marriage for Australian couples is the decision to have children. This reflects broader international trends, with significant amount of evidence from many countries around the world indicating that the odds of a cohabiting couple marrying increases during pregnancy (Steele, Joshi, Kallis, & Goldstein, 2006). This presents a somewhat contradictory picture: whereas childbearing is increasing and becoming more socially acceptable within cohabiting unions, intentions to have children, or pregnancy is still associated with an increased likelihood of marriage. This raises important questions about the relationship between cohabitation and fertility; understanding this is integral to our understanding of cohabitation.

Kiernan (2002) suggests that the emergence of cohabitation as an acceptable institution in western societies can be broken down into a number of theoretical ideal-type stages. While in the first and second stages cohabitation emerges as a deviant or avant-garde phenomenon or a trial marriage, in the third stage cohabitation becoming socially acceptable as an alternative to marriage, and an arena in which to raise children. She argues that by the fourth stage cohabitation is indistinguishable from marriage, with children being reared in both (Kiernan, 2002:5). This suggests that the acceptability of childrearing in cohabiting relationships is closely related to whether or not cohabitation is viewed as a legitimate partnership between two adults.

We argue, however, that cohabitors are not a homogeneous group, and suggest that there are likely to be a wide variety of views amongst cohabitors about the legitimacy of raising children within a cohabiting relationship. Sassler and Cunningham (2008:12) conducted a study in the US on how cohabitors view childbearing, finding that views about whether marriage should precede childrearing varied widely. A majority of the respondents viewed cohabitation as

an alternative to marriage, but only until children came along. Many couples indicated that they would only marry when they had decided to have children, suggesting that intention to marry is closely tied to the parenting role (Sassler & Cunningham, 2008:18). A smaller group indicated that marriage did not have to precede having children, with the majority of these respondents growing up in alternative family arrangements; these respondents tended to convey a greater ambivalence toward marriage. The authors suggest that cohabitation may serve as an alternative to marriage for middle-class Americans that reject parenting, as cohabitors who do not desire children often expressed rather negative views regarding marriage, while cohabitors who wanted children generally intended to marry first (Sassler & Cunningham, 2008:21). While cohabitation is becoming increasingly socially accepted in the US, the authors argue that there are still sharp educational disparities among those who become parents without marrying and those who do not. Overall, this suggests that in the US the majority of cohabitors intend to marry before having children, but that this is mediated by class, education and experience of different family arrangements.

Relationship Satisfaction

Relationship satisfaction is integral to a couple's decision to marry or to separate. Brown (2000:834) argues that much research focuses on socio-demographic factors such as race, economics and the gendered division of household labour when investigating the outcomes of cohabiting unions, while ignoring cohabitors' own assessments of their relationships. She argues that such assessments are a key to understanding the union transition process and need to be taken into account. In a study based on US respondents, she found that cohabitor's own assessments of their relationship had a significant effect on the likelihood of separating or marrying, despite controlling for a number of factors such as male and female economic characteristics, pregnancy, presence of children, prior union experience, race and union length. The study indicated that although positive assessments reduced the likelihood of separation, they generally did not increase the likelihood of marriage (Brown, 2000:844). Unhappiness with the relationship, infrequent partner interaction, disagreement and conflictual resolution strategies all increased the odds of separation. Partnerships in which either just the female partner or neither partner intended to marry were much less likely to marry than partnerships in which both reported marital intentions. Furthermore, women's

dissatisfaction with the relationship increased the likelihood of separation, whereas similar feelings among men decreased the chance of marriage (Brown, 2000:845). Overall, Brown found that a couple's expectations regarding the likelihood of marriage or separation were good predictors of union outcomes when both partners were in agreement, whereas the outcomes of discordant relationship assessments were strongly influenced by gender (Brown, 2004:845).

Union Length

Few studies have investigated the influence of union length on the outcomes of cohabiting relationships. Brown (2000:840) found that union duration was negatively associated with both the likelihood of marriage and separation. This indicated that many cohabitors' union transitions occur quickly, and the longer the cohabitation the less likely a transition to either marriage or separation will take place.

A Proposed Cohabitation Typology

This paper builds on earlier work in which we developed a typology of different kinds of cohabiting groups (Buchler, Baxter, Haynes, & Western, 2009). We believe that it is impossible to treat cohabiting couples as a homogenous group and that it is important to distinguish between different kinds of cohabitors. In the current paper we extend our earlier analyses by investigating the relationship outcomes of different kinds of cohabitors. The rationale underlying the typology is discussed below.

Intention to Marry and Prior Marital History

We suggest that a useful way to investigate differences between cohabiting people is to develop a typology that divides cohabitors into four groups by intention to marry and previous marital status. These two characteristics have been chosen as they are often found to be important factors when comparing cohabiting and married people on measures of well-being. While much research suggests that married people have significantly higher levels of well-being compared to cohabiting people (Brown & Booth, 1996; Fleming & Marks, 1998; Nock, 1995), recent research finds that if cohabitors intend to marry, their union outcomes do not differ substantially from those of married couples (Brown, 2004). This suggests

that plans to marry are likely to be a reflection of the type of relationship that a cohabitor is in. Plans to marry suggest that cohabitation is a 'trial run' for marriage, while a lack of plans to marry may indicate poor relationship quality or a rejection of the institution of marriage. Another factor likely to have a significant affect on the dynamics of a cohabiting relationship is prior marital history. For never-married persons marriage may signal increased commitment, stability, security and joint investments, and so add value to a relationship and increase satisfaction. For previously married persons, however, marriage may no longer be important and cohabitation may provide a substitute for marriage without signalling a lack of commitment (Hansen, Moum, & Shapiro, 2007:927). This suggests that the expectations and characteristics of cohabiting couples may vary by prior marital history. All of these factors are likely to lead to different relationship outcomes for cohabiting people.

The typology we developed comprises four groups differentiated according to marital history and marital intentions. Intention to marry is measured by a variable that asks "How likely are you to marry your current partner?" with five response categories ranging from 'very likely' to 'very unlikely'. Those who responded with 'very likely' or 'likely' are considered to be intending to marry. The marital history variable asks "How many times have you been legally married?" This variable is used to create a dichotomous variable which measures 'not previously married' (0) and 'previously married' (1). These two variables are used to operationalise a typology of cohabiting people, which results in the categories - (1) premarital cohabitors (not previously married & intending to marry), (2) non-marital cohabitors (not previously married & not intending to marry), (3) post-marital cohabitors (previously married & not intending to marry) and (4) re-marriage cohabitors (previously married & intending to marry). This typology is used as a basis to investigate how fertility intentions, relationship satisfaction and union length influence the likelihood that cohabitors will separate or marry.

In this paper we examine the relationship outcomes for these four types of cohabiting couples. We ask: 1) Does the likelihood of transitioning into either a married or single state vary for different types of cohabitors? 2) What effect do fertility expectations, partner satisfaction and union length have on the likelihood of

transitioning from cohabiting to either married or single for the different types of cohabitors?

In light of the literature, we expect that the likelihood of separating or marrying will vary by cohabiting group. We expect that cohabiters who have been married will be less likely to marry, but also less likely to separate, compared to those who have not been married. Furthermore, we expect that cohabiters who plan to marry will be more likely to get married, and less likely to separate compared to those who do not intend to marry. We anticipate that cohabiters who intend to have a child or who have high levels of relationship satisfaction will be more likely to marry, and less likely to separate. We expect that a longer union length will decrease the odds of both marriage and separation. We expect, however, that these patterns will vary for the different typology groups. The next section describes the analytical strategy of our research.

Data, Variables and Analyses

Data

This research was undertaken using data collected in Waves 1-7 of the HILDA Survey. Wave 1 of the HILDA sample has been found to bear a close resemblance to the wider population of Australia and has coverage broadly in line with that shown by the ABS Census (HILDA Survey Annual Report, 2002: 10-12). The sample was randomly drawn from all Australian households and the first wave of the survey was administered in late 2001. The final number of households to complete Wave 1 was 7,682, providing data on 13,969 individuals. The attrition rates for Waves 2 – 7 range from 5.1 per cent to 13.2 percent (wave 2 – 13.2 per cent; wave 3 – 9.6 per cent; wave 4 – 8.4 per cent; wave 5 – 5.6 per cent; wave 6 – 5.1 per cent51; and wave 7 – 5.3 per cent). For further information on HILDA see http://melbourneinstitute.com/hilda or the Hilda User Manual (Goode & Watson, 2007).

Our sample has been constrained in a number of ways. People under the age of 18 have been excluded from the analysis as they need the consent of a guardian to be eligible to marry (Marriage Act 1961, Cwlth) (persons under 18 who reported

de facto as marital status N=117). People who did not report their marital status were also excluded from the analysis (N=12).   Our final analytical sample comprises 85,292 observations: single (N= 29,150), married (N= 45,851), premarital cohabitors (N= 4,655), non-marital cohabitors (N= 2,620), post-marital cohabitors (N= 1,821), re-marriage cohabitors (N= 1,195).

Variables

To investigate transitions from a cohabiting relationship to either marriage or separation and the effect of possible predictors on these transitions, a number of new variables and their corresponding lags[5] were constructed. This allows us to measure the effect of characteristics in the previous wave on the likelihood that a transition will occur.

The marital status variable has one category for married and one for single (which includes separated, divorce or widowed), and four categories for cohabiting, comprising each of the cohabiting groups identified in our typology. This results in a six category marital status variable. A lagged variable measures marital status in the previous wave. To enable these two variables to be used in the analysis, a number of dummy variables were created – one for each category in the marital status variable, and one for each category in the lagged marital status variable. This results in six dummy variables for current marital status, and six dummy variables for lagged marital status.

A transition occurs when a person in a typology group moves to single or to married from one wave to the next (in any two consecutive waves).   This represents a decision to move away from the cohabiting relationship by either separating or marrying. We measure the transitions by using the dummy category for married or single as the outcome variable and the lagged dummy categories for the cohabitation typology as independent variables.   To enable us to include variables that are only available for partnered respondents in the analysis, all people who transition from single (those who have a value of 1 for the lagged dummy category for single) are excluded from the analysis.   Table 1 shows the number of transitions to married and the number of transitions to single that occur for married and for each cohabitation typology.

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[5] A lagged variable records the value of a variable in the previous wave.

(TABLE 1 ABOUT HERE)

A number of other independent variables are included in the analysis. The main independent variables of interest are fertility intentions, relationship satisfaction and union length (these will be referred to as the predictor variables). Fertility intentions is measured by a variable that asks: How likely are you to have a child/more children in the future? Responses are recorded on an 11-point scale with a higher number indicating a greater likelihood of having children in the future. Relationship satisfaction is measured by a variable that asks: How satisfied are you with your relationship with your partner? As for the previous scale, responses are recorded on an 11-point scale with a higher number indicating higher levels of relationship satisfaction. Union length is a continuous variable representing years since the commencement of the cohabiting or marital relationship[6]. Each of these variables are lagged enabling us to measure each predictor *before* a transition occurs.

(TABLE 2 ABOUT HERE)

Table 1 shows the mean fertility intentions, relationship satisfaction and union length by married or cohabiting group (this is the overall mean for the entire sample). Premarital cohabitors are the most likely to intend to have a child, while post-marital cohabitors are least likely to intend to have a child. The highest level of relationship satisfaction is displayed by premarital cohabitors, while non-marital cohabitors have the lowest. Married people have the longest union length, while premarital cohabitors have the shortest. This suggests that there is a significant amount of variation within the predictor variables for the differnt cohabiting groups.

Interaction terms are included to allow us to investigate the association between the cohabiting groups and fertility intention, relationship satisfaction and union length. These are created by multiplying each of the lagged predictor variables by the variables for fertility intention, relationship satisfaction and union length.

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[6] The analysis was run with a union squared variable to test whether there is a quadratic relationship between union length and the likelihood of transitioning to either married or single. This however did not change the interpretation of the results, so union length was not squared in the final analysis.

We include controls for gender, age and education. Gender is measured using a dummy category for female (female = 1) and age is a continuous variable measured in years. Education is measured by a dichotomous dummy variable, 'holds a degree', with 'does not hold a degree' as the reference category.

Analyses

We use logistic regression to predict the likelihood of a cohabitor transitioning to either single or married. This is done in two stages, with the outcome being single in the first stage, and married in the second stage. A transition to single represents a separation from a partnership, whereas a transition to married represents a change in the relationship from cohabiting to married. A logistic regression describes the relationship between the dichotomous (binary) outcome variable and the independent variables in the form of odds (or coefficients). As such, we are separately modelling the likelihood of being either single or married, given location in a specific cohabitation typology in the previous wave. The results are presented in the form of six models for each stage. The first model includes the lagged marital status variable (i.e. the lagged dummy categories for the cohabitation typology, where married is the reference category for both stages). This model allows us to see the likelihood of each cohabitation typology transitioning to single in Stage One and to married in Stage Two. Model Two adds all of the control and predictor variables, while Models Three to Five include the interaction terms. The final model, Model Six, contains all of the control and predictor variables and the interaction terms. By presenting the models in this manner we are able to see the influence of the independent variables on the likelihood of the typology groups transiting to either single or married. Linear combinations of estimators are used to test for significant differences between the coefficients of the lagged marital status variable and the interaction terms (the significant associations are shown in Tables 3-6 and Tables 8-11).

There was a large amount of missing data for relationship satisfaction as this question was in the Self Complete Questionnaire which had a lower response rate than the other survey instruments (see Table 1 for a break down of missing data for relationship satisfaction). To minimise the effect of missing data on this variable in the analyses we included a control coded 0 for missing on relationship

satisfaction in the regression models (not shown), and then set the missing values on the relationship satisfaction variable to zero. This strategy adjusts the relationship satisfaction coefficient for missing data on the relationship satisfaction variable. Furthermore, as observations within a household are not typically independent of one another a robust estimator of variance, which adjusts for household clustering, was employed in each regression analysis.

Findings

The likelihood of transitioning to single

Table 3 shows Models 1-6 predicting the likelihood of each cohabiting typology group transitioning to single. The reference category is married (people who have a value of 1 for the lagged variable of single are not included in the analysis). Model 1 reports baseline results for each of the typology groups; Model 2 includes the control variables and the main independent variables, while models 3 to 5 sequentially include the interaction terms. Model 6 contains all of the control variables, independent variables and interaction terms.

(TABLE 3 ABOUT HERE)

The lags of the different cohabiting groups indicate how likely each group is to transition to single, compared to married group. Appendix 1, Table 1 shows which coefficients are significantly different from one another, by model. In Model 1, all of the coefficients are significantly different from one and other, except the coefficients for premarital and re-marriage cohabitors. This suggests that the group that is the least likely to transition to single is married, followed by re-marriage cohabitors and premarital cohabitors, whereas post-marital cohabitors and non-marital cohabitors are the most likely to transition to single. Adding the control and predictor variables to the model changes the significance of the associations. While all cohabiting groups are still more likely to transition to single compared to married people, the only significant associations that remain between the cohabiting groups are those between premarital and non-marital cohabitors, and between post-marital and re-marriage cohabitors. This suggests that when all

of the control and predictor variables are held constant, the cohabiting groups that are intending to marry are significantly less likely to separate compared to the cohabiting groups that do not have marriage plans.

The control variables are gender, age and education, and the main independent variables are fertility intentions, partner satisfaction and union length. These variables are included in the analysis from Model 2-6. The analyses suggest that people who hold a degree were less likely to transition to single, whereas there is no association between gender or age and the likelihood of separating. Fertility intentions and union length were not significant, while partner satisfaction was significant, indicating that the likelihood of separating is lower for people with a higher level of relationship satisfaction[7].

The interaction terms for fertility intentions are included in Model 3; Model 4 includes the interaction terms for partner satisfaction, while Model 5 includes the interaction terms for union length. All of the interaction terms are included in Model 6. Tables 2-4 in Appendix 1 show the coefficients of the interaction terms that are significantly different from one and other.

The analyses suggest that there are a number of significant associations between fertility intentions, cohabitation typology group and the likelihood of transitioning to single. A positive coefficient suggests that with higher fertility intentions, a particular cohabiting group is more likely to transition to single, compared to the reference category, married. The analysis suggests that non-marital cohabitors are the only cohabiting group that is significantly different from married, with this group more likely to transition to single (given higher fertility intentions). A linear combination of estimators indicated that non-marital cohabitors are significantly different from both premarital cohabitors and re-marriage cohabitors (see Appendix 1, Table 2) (the difference between premarital cohabitors and non-marital cohabitors became significant at p=0.061 in Model 6).

This suggests that non-marital cohabitors are more likely to separate than other groups, and the gap between non-marital cohabitors and others increases as

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[7] The coefficients for fertility intentions, relationship satisfaction and union length are only interpreted in Model 2, as in the other models the coefficients are affected by the interactions and no longer represent the 'main effects'.

fertility intentions strengthen. . This indicates that cohabitors who have not been married previously, but who intend to have a child, are more likely to separate if they do not plan to marry their current partner. Thus intentions to have a child are likely to have a destabilising effect on a cohabiting relationship if there are no plans to marry *and* the cohabitor has not been married. It is particularly interesting that this association does not hold for cohabitors who have been married.   This suggests that there in an association between previous marital experience, fertility intentions and the likelihood that a cohabitor will separate.   Furthermore, this signals that attitudes toward marriage and childbearing are influenced by experiencing a marriage.

The interaction terms for relationship satisfaction also show a number of significant associations.   Again, a positive coefficient indicates a greater likelihood of transitioning to single compared to married. While all groups are less likely to separate if there is a high level of relationship satisfaction, the coefficients suggest that given a high level of relationship satisfaction for all groups, some are more likely to separate than others. Premarital cohabitors and re-marriage cohabitors are both significantly different from married, with both groups more likely to transition to single, given a high level of relationship satisfaction.   A linear combination of estimators indicated that premarital cohabitors and re-marriage cohabitors are significantly different from both non-marital cohabitors and post-marital cohabitors (see Appendix 1, Table 3). This indicates that given a high level of relationship satisfaction, the two groups that are intending to get married are significantly different from the two groups that do not intend to get married. The coefficients indicate that the two cohabiting groups who do not intend to marry are less likely to separate than the cohabiting groups who intend to marry (given high levels of relationship satisfaction). This suggests that a lack of marriage plans for cohabitors who have a high level of relationship satisfaction is due to a rejection of the institution of marriage and not a lack of commitment.

There are no significant results of union length (see Table 4 and Appendix 1, Table 3).   This indicates that there is no association between the likelihood of transitioning to single and union length.

The likelihood of transitioning to married

Table 4 shows Models 1-6 predicting the likelihood of each cohabiting typology group transitioning to married. The reference category is married (as in the previous stage, people who have a value of 1 for the lagged variable of single are not included in the analysis).   As above, Model 1 does not contain any controls, predictors or interaction terms. Model 2 includes all the control variables and the predictors, while models 3 to 5 also sequentially include the interaction terms. Model 6 contains all of the control variables, main independent variables and interaction terms.

(TABLE 4 ABOUT HERE)

The lags of the different cohabiting groups indicate how likely each group is to transition to married.   Appendix 2, Table 1 shows which coefficients are significantly different from one another, by model. Model One shows that , overall, premarital cohabitors are the most likely to transition to married, followed by re-marriage cohabitors, post-marital cohabitors and non-marital cohabitors are the least likely to get married.   This shows that overall, the cohabiting groups that intend to marry are the most likely to marry.

The analyses showed that gender and age were not significant, whereas education was significant. The positive coefficient indicates that the likelihood of transitioning to married is higher for people who hold a degree. Fertility intentions, relationship satisfaction and union length were significant, suggesting that the likelihood of transitioning to married increases with fertility intentions, partner satisfaction and union length[8].

The interaction terms for fertility intentions showed a number of significant associations between the likelihood of transitioning to married, fertility intentions and cohabiting group (see Appendix 2, Table 2). A positive coefficient suggests that given high fertility intentions, a particular cohabiting group is more likely to transition to married, compared to the reference category, married.   As moving

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[8] Again, the coefficients for fertility intentions, relationship satisfaction and union length are only interpreted in Model 2, as in the other models the coefficients are affected by the interactions and no longer represent the 'main effects'

from married to married is not a transition, the results will be reported by comparing the cohabiting groups to each other and not to the reference category married.

The results indicate that given high fertility intentions, premarital cohabitors were significantly more likely to marry compared to re-marriage cohabitors. This suggests that cohabitors who intend to have a child are more likely to get married if they have not been married before. Moreover, post-marital cohabitors are significantly more likely to get married compared to both non-marital cohabitors and re-marriage cohabitors, given high fertility intentions. This suggests that if a cohabitor has been married and does not intend to marry again, but intends to have a child, there is a very high likelihood that they will get married. This is interesting, as Table 2 shows post-marital cohabitors have, on average, the lowest level of fertility intention. This suggests that if a cohabiter who has been married previously aspires to have a child, they are likely to get married, despite not intending to marry in the previous wave. Overall, this indicates that given high fertility intentions, post-marital cohabitors and premarital cohabitors are the most likely to transition to married, followed by non-marital cohabitors and re-marriage cohabitors.

The interaction terms for relationship satisfaction showed a number of significant associations between the likelihood of getting married, cohabitation typology and relationship satisfaction (see Appendix 1, Table 3). A negative coefficient suggests that a particular cohabiting group is less likely to transition to married, compared to married, given a high level of relationship satisfaction. As with the previous interaction term, the results will be described by comparing the cohabiting groups to one another, and not to the reference category married. The results indicate that given a high level of relationship satisfaction, the cohabiting groups that have been previously married (post-marital and re-marriage cohabitors) are significantly less likely to get married compared to premarital cohabitors. Interestingly, if both groups have a high level of relationship satisfaction, premarital cohabitors are more likely than re-marriage cohabitors to get married. This finding suggests that cohabitors who have been married and who have a high level of relationship satisfaction are not as likely to get married as a cohabitor who has not been married, despite an intention to get married in both groups.

There are no significant differences between the cohabiting groups for union length (see Table 4 and Appendix 2, Table 4). This suggests that there is no association between the likelihood of getting married and union length.

Discussion

Our analyses examine the influence of fertility intentions, relationship satisfaction and union length on the relationship outcomes of cohabiting couples. We find that the influence of these factors varies in relation to wether a cohabiter has been previously married and intends to marry. Intentions to have a child are likely to have a destabilising effect on a cohabiting relationship if there are no plans to marry and the cohabitor has not been married previously. This reflects Weston, Qu and de Vaus' (2005) findings that a cohabiting relationship was more likely to end in separation if only one partner wanted to have children. While our findings are not based on couple-level data, much existing literature suggests that marriage plans are closely relation to fertility intentions (Sassler & Cunningham, 2008), suggesting that a lack of marriage plans for a cohabiter may reflect incongruity with their partner's fertility intentions. This, however, appears to only hold for cohabiters who have not been married, highlighting how the experience of a previous marriage may influence expectations and experiences within a cohabiting relationship.

Furthermore, our research shows that cohabitors who intend to both marry and have a child are more likely to get married if they have not been married before. While this does not directly support the assertion that marriage may no longer be as important for previously married persons (Hansen, Moum, & Shapiro, 2007), it does indicate that marriage is more important for never married persons. Moreover, it appears that cohabitors who have been married but do not intend to marry their current partner have a heightened likelihood of getting married if they intend to have children. This reflects studies in the US that indicate that cohabitation may serve as an alternative to marriage, but only until the couple decides to have children (Sassler & Cunningham, 2008). These findings also highlight that the experience of a failed marriage that did not fulfil fertility intentions greatly increases the likelihood of a cohabiter getting married again, regardless of

marriage intentions. This indicates that while cohabitation is seen as an acceptable status for adult partners, the strong link between fertility intentions and marriage suggests majority of cohabiters continue to believe that childbearing should take place within marriage.

The results for the influence of relationship satisfaction show equally significant associations. If cohabitors have a high level of relationship satisfaction, those who do not intend to marry are less likely to separate than those who intend to marry. This suggests that cohabitors with high levels of relationship satisfaction and no plans to marry reject the institution of marriage. While this indicates that cohabitation servers as an alternative form of marriage for this group, our findings and previous literature (Sassler & Cunningham, 2008) indicate that this may only be the case for couples that have either fulfilled their fertility intentions or who do not intend to have children. Furthermore, among cohabitors intending to marry and who have a high level of relationship satisfaction, those who have not been married are more likely to get married than those who have been married previously. This reflects the findings for fertility intentions, and provides further indication that marriage is more important for never married cohabitors.

Our analyses showed no association between union length and the likelihood that a cohabitor will separate or marry. This indicates union length does not drive transitions out of cohabitation. Future research, however, could investigate if union length is associated with the likelihood of staying in a cohabiting relationship, opposed to moving out of it. It may be expected that the longer a person is in a cohabiting relationship, the less likely they are to either separate or marry.

Our research suggests that fertility intentions are one driving force behind cohabitors' decisions to separate or marry reflecting societal ideals that marriage is the best relationship in which to bring up children. This suggests that Australia is firmly within Kiernan's third stage of cohabitation, where cohabitation is becoming socially acceptable as an alternative to marriage, but is generally not seen as an ideal arena in which to raise children (Kiernan, 2002). Overall, our findings emphasise that cohabiters are not a homogeneous group, and that it is important to differentiate between different types of cohabiters when investigating the influence of fertility intentions and relationship satisfaction on cohabiting pathways.

While this study provides important information on the nature of cohabiting relationships, it has a number of shortcomings. Most notably, we do not use couple level data. Brown (2000:837) argues that couple-level measures are required to avoid potential biases associated with using individual-level measures to predict the results of a joint decision, and to examine the role of gender. Indeed, her study found that couple-level measures revealed that men's and women's assessments of their relationships have unique effects on union transitions (Brown, 2000:845). This suggests that in future work it is important to examine couple level data, and also to look at the influence of gender differences, which is also not investigated in this study. The next step would be to investigate how fertility intentions and relationship satisfaction drive differences between men and women and how disparities in intentions and satisfaction levels within couples affect how these factors influence the likelihood of marrying or separating.

Tables and Figures

Table 1: Number of transitions to married and to single that occur for married and each cohabitation typology

Transition from:		To:	Number of occurrences	Missing on relationship satisfaction
Married	→	single	692	79
Premarital cohabitor	→	single	210	30
Non-marital cohabitor	→	single	216	34
Post-marital cohabitor	→	single	117	16
Re-marriage cohabitor	→	single	46	3
Married	→	married	33,898	2130
Premarital cohabitor	→	married	525	45
Non-marital cohabitor	→	married	29	3
Post-marital cohabitor	→	married	34	3
Re-marriage cohabitor	→	married	175	17

Table 2: Average fertility intentions, relationship satisfaction and union length by marital status

	Fertility Intentions		Relationship Satisfaction		Union Length		N
	Mean	SD	Mean	SD	Mean	SD	
Married	1.28	2.99	8.50	3.11	24.61	15.28	45 851
Premarital cohabitor	6.86	3.61	8.62	1.86	3.74	2.04	4 655
Non-marital cohabitor	3.53	3.84	7.61	1.54	4.23	3.64	2 620
Post-marital cohabitor	0.62	2.02	7.94	2.16	4.30	3.54	1 821
Re-marriage cohabitor	2.30	3.68	8.73	2.13	3.79	2.28	1 195
Total	1.85	3.46	8.46	1.86	20.92	15.99	56 412

Table 3: Model predicting likelihood of a cohabiting group transitioning to Single

	Model					
	(1)	(2)	(3)	(4)	(5)	(6)
Previous Marital Status						
Lag premarital	1.29***	1.16***	1.02***	0.58**	1.40***	0.72*
Lag non-marital	1.92***	1.62***	1.35***	1.58***	1.67***	1.33***
Lag post-marital	1.56***	1.42***	1.31***	1.36***	1.51***	1.33***
Lag re-marriage	1.04***	1.09***	1.10***	0.079	1.13***	0.16
Control Variables						
Female (male=0)		0.071	0.068	0.065	0.070	0.061
Age (years)		-0.0062	-0.0049	-0.0063	-0.0068	-0.0056
Degree (no degree=0)		-0.46***	-0.45***	-0.46***	-0.46***	-0.46***
Lag expect child		0.016	-0.019	0.014	0.015	-0.018
Lag partner satisfaction		-0.28***	-0.28***	-0.29***	-0.28***	-0.29***
Lag union length		0.00082	-0.0027	0.00099	0.0018	-0.0015
Interaction Terms for Expect Child						
Lag premarital			0.043			0.034
Lag non-marital			0.090***			0.089**
Lag post-marital			0.045			0.040
Lag re-marriage			-0.013			-0.023
Interaction Terms for Partner Satisfaction						
Lag premarital				0.087***		0.085***
Lag non-marital				0.0073		0.0020
Lag post-marital				0.011		0.011
Lag re-marriage				0.14*		0.14*
Interaction Terms for Union Length						
Lag premarital					-0.073	-0.066
Lag non-marital					-0.0085	0.0023
Lag post-marital					-0.020	-0.015
Lag re-marriage					-0.0064	-0.019
Constant	-3.89***	-1.41***	-1.36***	-1.32***	-1.40***	-1.27***
Observations	41617	41617	41617	41617	41617	41617
Pseudo R^2	0.0607	0.1057	0.1074	0.1068	0.1061	0.1089

*** p<0.001, ** p<0.01, * p<0.05
Note: the reference category for previous marital status and the interaction terms is Married.

Table 4: Model predicting likelihood of a cohabiting group transitioning to Married

	Model					
	(1)	(2)	(3)	(4)	(5)	(6)
Previous Marital Status						
Lag premarital	-5.39***	-5.77***	-6.20***	-5.35***	-5.71***	-5.74***
Lag non-marital^	-7.92***	-7.99***	-7.92***	-7.01***	-7.75***	-6.73***
Lag post-marital	-7.46***	-7.39***	-7.61***	-5.81***	-7.16***	-5.93***
Lag re-marriage	-5.16***	-5.26***	-5.25***	-4.08***	-5.29***	-4.11***
Control Variables						
Female (male=0)		-0.066	-0.072	-0.062	-0.067	-0.069
Age (years)		-0.0031	-0.0034	-0.0027	-0.0034	-0.0031
Degree (no degree=0)		0.52***	0.53***	0.53***	0.53***	0.53***
Lag expect child		0.044***	0.0039	0.045***	0.043***	0.0042
Lag partner satisfaction		0.29***	0.29***	0.31***	0.29***	0.31***
Lag union length		0.013**	0.010*	0.012**	0.013**	0.010*
Interaction Terms for Expect Child						
Lag premarital			0.085***			0.087***
Lag non-marital			-0.0019			-0.0039
Lag post-marital			0.16**			0.14**
Lag re-marriage			0.00032			0.0051
Interaction Terms for Partner Satisfaction						
Lag premarital				-0.057**		-0.061**
Lag non-marital				-0.13*		-0.13*
Lag post-marital				-0.21***		-0.20***
Lag re-marriage				-0.15***		-0.15***
Interaction Terms for Union Length						
Lag premarital					-0.016	-0.0046
Lag non-marital					-0.063	-0.060
Lag post-marital					-0.057	-0.036
Lag re-marriage					0.011	0.0042
Constant	3.82***	1.36***	1.45***	1.23***	1.36***	1.33***
Observations	41617	41617	41617	41617	41617	41617
Pseudo R^2	0.5925	0.7587	0.7621	0.7599	0.7993	0.8003

*** p<0.001, ** p<0.01, * p<0.05
^ N smaller than 30.
Note: the reference category for previous marital status and the interaction terms is Married.

Significant associations between the cohabiting types for the likelihood of transitioning to Single.

Table 1: Significant differences between categories of Independent variables,

Model 1:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X	X	
Re-marriage	X		X	X

Model 2:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X			
Re-marriage	X			X

Model 3:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X			
Post-marital	X			
Re-marriage	X			

Model 4:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X		
Re-marriage			X	X

Model 5:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X			
Post-marital	X			
Re-marriage	X			

Model 6:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X			
Post-marital	X			
Re-marriage			X	X

Table 2: Significant differences between the coefficients of the interaction terms for Fertility Intention, Model 3 and 6:

Model 1:

	Married	Premarital	Non-marital	Post-marital
Premarital				
Non-marital	X	X[1]		
Post-marital				
Re-marriage			X	

[1] This becomes borderline significant (p=.061) in Model 6

Table 3: Significant differences between the coefficients of the interaction terms for Relationship Satisfaction, Model 4 and 6:

Model 2:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital		X		
Post-marital		X		
Re-marriage	X		X	X

Table 4: Significant differences between the coefficients of the interaction terms for Union Length, Model 5 and 6:

Model 3:

	Married	Premarital	Non-marital	Post-marital
Premarital				
Non-marital				
Post-marital				
Re-marriage				

Significant associations between the cohabiting types for the likelihood of transitioning to Married.

Table 1: Significant differences between categories of Independent variables:

Model 1:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X		
Re-marriage	X	X	X	X

Model 2:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X	X	
Re-marriage	X	X	X	X

Model 3:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X		
Re-marriage	X	X	X	X

Model 4:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X		X	
Re-marriage	X	X	X	X

Model 5:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X	X		
Post-marital	X	X		
Re-marriage	X	X	X	X

Model 6:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X			
Post-marital	X			
Re-marriage	X	X	X	X

Table 2: Significant differences between the coefficients of the interaction terms for Fertility Intention, Model 3 and 6:

Model 1:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital				
Post-marital	X		X	
Re-marriage		X		X

Table 3: Significant differences between the coefficients of the interaction terms for Relationship Satisfaction, Model 4 and 6:

Model 2:

	Married	Premarital	Non-marital	Post-marital
Premarital	X			
Non-marital	X			
Post-marital	X	X		
Re-marriage	X	X		

Table 4: Significant differences between the coefficients of the interaction terms for Union Length, Model 5 and 6:

Model 3:

	Married	Premarital	Non-marital	Post-marital
Premarital				
Non-marital				
Post-marital				
Re-marriage				

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