Relationship reports: The effect of presence of others during the interview

Introduction

It is often assumed that only two people are present during a face-to-face interview: the interviewer and the respondent. However, in reality it is often the case that one or more other persons are also present. While the likelihood of third party presence depends on the particular characteristics of the survey and the interview setting, evidence suggests that a substantial proportion of interviews are conducted in the presence of others. Reuband (1992) estimates that for nationally representative surveys of the adult population in Germany, on average over a third can be expected to have a third person present, with similar estimates also found in other national surveys. The presence of others during the interview is not often taken into consideration by researchers using survey data despite the fact that such a presence can potentially influence respondent's answers (Auqilino 1993; Zipp & Toth 2002). The amount of influence a third person will have on the respondent's answers depends on a range of factors including the nature of the relationship between the respondent and the third person, how much interaction occurs between them, and the sensitivity of the questions being asked.

Using the Household, Income and Labour Dynamics in Australia (HILDA) survey, the purpose of this paper is to explore the incidence and correlates of recall error in reporting of past and current marriage and cohabitation histories, and in particular to explore the effect of presence of others on such factual relationship reports. This exercise is done with the broader aim of understanding more about the factors which affect the quality of retrospective and prospective relationship data gathered from surveys. Such data on marital and cohabitation histories have become an important source of information for social researchers and demographers interested in studying the societal changes in the area of family and relationship formation and dissolution including the decline and delay of marriage, the increasing popularity of cohabitation and increased rates of marital dissolution and non-marital childbearing (Casper & Hofferth, 2007). With the increasing use of these types of retrospective questions in surveys, social researchers are now showing an increasing interest in assessing the quality of retrospective and prospective relationship data (Teitler, Reichman, & Koball, 2006, Bumpass & Raley, 2007; Pollard & Harris, 2007; Hayford & Morgan, 2008; Mitchell, 2010). Such investigations are important because misreporting of dates may lead to

measurement error in timing measures, and can affect causal research by disturbing the correct sequencing or temporal order of events (Mitchell, 2010: 898).

This paper gives a background of the potential effect of the presence of others during an interview on reporting of relationship information. It then outlines some of the other characteristics, of the relationship event and of the respondent, which have been found to be associated with data quality and recall precision. Two different aspects of the data quality of reported relationship events are then examined. In the first part we investigate the degree of *precision* with which both current and on-going marriages and cohabitations are remembered. In the second part, we examine the extent to which two individuals in a married or cohabiting couple provide *consistent* dates when asked about the date that their relationship started. In all instances we use multivariate models to investigate any possible demographic and socio-economic correlates of error in dating of events, because it would be of particular concern if individuals with response error differ from those who are able to recall dates with accuracy (Mitchell, 2010).

Background

The presence of others

While interview guidelines generally suggest that face-to-face interviews are conducted privately between the interviewer and the respondent, in many cases this ideal is not achieved. Because they are guests in the respondent's home, interviewers may find it hard to control or influence the behaviour of other household members, and they may be reluctant to insist on conducting the interview in private for fear of antagonizing respondents and causing a refusal to participate further (Aquilino 1993; Aquilino 1997).

There are numerous reasons why third parties may be present during the interview. The respondent themselves may want to have a third party present in order to share the experience, or as a form of support (Reuband 1992). Third parties may themselves initiate involvement for a range of reasons, ranging from a simple interest or curiosity about the survey to a wish to control the situation and the answers given by the respondent. Previous analysis of the identity of the third party indicates that in the vast majority of cases the other adult is the spouse or partner of the respondent. After spouses, the next most common person present during the interview are adult children, and only very rarely is the third party some other household member or more distant relative (Reuband 1992; Smith 1997).

Empirical studies of the percentage of interviews conducted in the presence of a third person, point to the fact that it is a relatively common occurrence (Reuband 1992). For example, in an analysis of a range of surveys conducted using face-to-face interviews including the National Election Study, the National Health and Social Life Survey and the General Social Survey, Smith (1997) a third person was present between 37-57 per cent of the time. Similarly for the HILDA survey, for waves 1-8, between 37-40 per cent of interviews were conducted in the presence of another adult.

The presence of others has been raised as a potential concern among researchers, because of the possibility that respondents will provide different answers when the interviews are conducted in private and when others are present. The effect of third parties on respondent's answers has been investigated for qualitative interviews (Allan 1980; Beitin 2008) as well as quantitative surveys (Bradburn & Sudman 1979; Aquilino 1993; Smith 1997; Aquilino 1997; Zipp & Toth 2002; Zipp, et al. 2004), but the number of studies is relatively small.

Focusing only on quantitative surveys, empirical studies of the effect of presence of third parties on a range of survey topics have produced mixed results. Based on a large sample of married couples, Aquilino (1993) found that the presence of a spouse increased the probability of positive assessments of the utitility of marriage. In another study of self-reported drug use, among married respondents the presence of a spouse increased the reporting of illicit drug use, while the presence of adults other than spouses had the opposite effect (Aquilino 1997). In an analysis of a range of questions from the British Household Panel Survey (BHPS) where all household members were interviewed, the presence of others did appear to have some effect in terms of leading to greater agreement in responses given by partners, particularly when the wife was present during her husband's interview and was later interviewed herself (Zipp & Toth 2002; Zipp, et al. 2004). However, other studies have found no effect from third parties (Smith 1997). In the 1978 and 1980 National Election studies, Silver et al (1986) found that the tendency to give socially approved answers, in the form of over-reporting of voting behaviour, was not affected by the presence of others during the interview. Bradburn and Sudman (1979), also concluded that the presence of others did not have a strong affect on responses to a range of sensitive questions.

 Most studies investigating the possible effect of response error, have focused on the potential bias introduced for attitudinal questions, questions regarding behaviour related to household division of tasks, or sensitive questions. However, third parties may also potentially affect

respondent's answers to factual questions. Few studies have examined the effect of third-person on respondent's answers to factual questions directly but there are some indications that the presence of others can in fact have a positive effect on data quality. With regards to couples, Weinberg (1983) has argued that for questions regarding recall of facts and figures, the presence of a partner can be have positive effect on data quality because "two heads are better than one" (cf. Smith 1997: 44). This conclusion is also supported by analysis conducted by Poulain, et al. (1992) and Auriat (1993) of a Belgian survey where couples where first interviewed separately but simultaneously and then interviewed together. When interviewed together about dates of past events including family events and residential moves; couples together come up with a much more consistent account.

While there is some evidence that for couples, answers to factual questions which both partners have experienced together such as the date of their marriage can be positively affected by the presence of third parties, it is unclear what the effect would be for factual questions regarding past relationships. The reporting of past relationships may seem like a topic that would not be sensitive to the presence of others, but it is possible respondents would feel uncomfortable discussing their relationship history in the presence of their current partner. A subtle effect may arise from the fact that that recall of events can provide powerful signals, because "if people can remember vividly that which is important to them, then a failure to remember details signals a lack of personal importance" (Ross and Holmberg 1992:602). From this perspective, respondents who are interviewed in the presence of their partner may be reluctant to acknowledge that they do not remember facts about their current relationship (for example the date it started), and conversely they may be unwilling to declare that they remember key dates and facts about their previous relationships.

Factors associated with recall accuracy

In addition to the possible effect of presence of others, there are many other factors that can affect responses to factual questions about current and past relationship events. The following section summarizes the main characteristics of the event which are thought to be associated with event recall accuracy and outlines how these factors can be specifically related to the dating of relationship start or end dates. Furthermore demographic and socio-economic variables, which may relate to recall accuracy are also explored.

Characteristics of the event

The ideal situation for life course researchers working with survey data would be to have complete and accurate dating of the particular events of interest, for example relationship histories, including both the month and year that every episode of interest started and ended. In reality however, it can be very difficult for survey respondents to fulfil these ideals and survey researchers have identified several types of recall errors made during the process of answering retrospective questions. These include temporally displacing events, forgetting particular date or duration details or even forgetting or omitting entire events (Gaskell, Wright & O'Muircheartaigh, 2000, p.77). Some of the key factors that may influence recall error of temporal memories are related to characteristics of the event itself, including the length of time since the event of interest, the number of similar events that have taken place, as well as the distinctiveness and emotional impact of the event (Tourangeau et al., 2009).

In general with the increasing passage of time, it becomes harder to remember past events or specific details about them. This effect of time would be relevant for the recall of all types of relationships including both the start and end dates of marriage and cohabitation. The interference hypothesis posits that it is not the passing of time *per se* that affects recall, but rather that as time passes so does the likelihood that similar types of events take place and that it then becomes more difficult to distinguish and recall specific events (Tourangeau et al., 2009:82). Individuals with more complex relationship histories who have experienced multiple cohabitations and or marriages may find that while they might remember the number and sequence of their relationships specific details about each one might become more difficult to recall, over and above the difficulty that would be normally experienced with the passage of time. In a study of recall accuracy in reporting of divorce dates, Mitchell (2010) found some support for the interference hypothesis in that respondents who had already had at least one previous divorce were more likely to misreport the date of their most recent divorce.

Also of relevance to the ease with which memories of events can be retrieved is the distinctiveness and emotional impact of an event. More important and atypical events are more likely to be easily retrieved because they are more likely to be noticed and encoded at the time they take place, and after the event they are also more frequently talked about or 'rehearsed' (Tourangeau et al., 2009). If an event date is not frequently rehearsed and automatically recounted survey respondents may instead need to reconstruct the date during

the actual interview using some retrieval strategy or estimation process such as trying to place the event with reference to another 'landmark' event (Wu, Martin & Long, 2001: 524).

There are several distinct features of marriages that predict that their dates should be remembered with great accuracy and little respondent burden during a survey. Marriages are associated with a single and celebrated date, the wedding, and furthermore many married couples frequently reference this date on an annual basis at the time of their anniversary (Peters, 1988). Unlike the start date of a marriage however, the end date may be not be remembered as easily. The date of separation may be particularly hard to remember because separation is often a process rather than a one off event, and multiple separations and reunions may occur before the final separation (Mitchell, 2010). Similarly while the granting of a divorce is technically associated with a particular date in time, it is also in many ways a process which can be of considerable duration. Also, the date a divorce was granted is usually not celebrated and remembered on an annual basis (Bumpass & Raley, 2007).

While survey questions collect data on cohabitation histories in much the same way as marital histories, treating both as having discrete starting times, Manning and Smock (2005) note that unlike marriage cohabitation usually lacks a defining point in time which marks the start of the union. Instead the movement into cohabitation is described as a 'gradual or unfolding process that occurs over a week or even months' with partners usually spending more and more time at each other's places of residence (Manning & Smock, 2005 :994–995). The difficulty of trying to recall or define a start time to their cohabitation is evidenced by the fact that, out of the 115 individuals in their study only 14 per cent could report the month and year that they had started living with their partners, and considerable time was spent by many reconstructing the date based on other memories. In many ways cohabitation is an 'incomplete institution' in that there are few socially agreed upon standards governing it (Nock 1995). This includes a lack of standard regarding the measurement of when a relationship formally started. The absence of such a standard or well defined starting point, means that depending on the situation people may have different views on when they started living together. For example one partner may feel that the cohabitation started when they first started spending at least one night a week at their partner's house, while another person may think of the start date as they day they moved all their belongings to their partner's house or the day they signed a joint lease/bought their first house together.

Characteristics of respondent

Gender differences

There is a popular cultural stereotype that women are better at remembering things compared to men (Ross & Holmberg, 1992). For example, Skowronski and Thomspon (1990: 372) note that in advertising males are often shown forgetting the date of critical events (birthdays, anniversaries etc) while similar behaviour is rarely shown for females. While earlier research on sex differences in recall did not reveal any systematic sex differences more recent studies provide evidence that the stereotypes may be true (Skowronski & Thompson, 1990; Ross & Holmberg, 1992; Pillemer, Wink, DiDonato & Sanborn, 2003). In terms of precision of dating relationships, which is the focus of this paper, most studies which include both male and female respondents find a consistent gender effect with women being more precise and reliable at dating the start or end of their relationships (Poulain, Riandey & Firdion, 1992; O'Connell, 2007; Mitchell, 2010).

If women do have a distinct memory advantage, the precise reasons or mechanisms behind this advantage are still not yet fully understood (Herlitz & Rehnman, 2008). Possible sex differences can be occurring at any of the multiple stages of information processing relating to memories, including initial encoding, organization, retrieval and response generation (Siedlitz & Diener, 1998, p.263). For example women may experience greater initial encoding of memories (Siedlitz & Diener, 1998) and they may place greater value on, and spend more time purposefully reminiscing about the past (Ross & Holmberg, 1992; Pillemer, et al., 2003). As with many other sex differences, differences in recall vividness or precision are likely to result from both cognitive biological mechanisms as well as psychosocial factors including early learning and gender role socialization (Ross & Holmberg, 1992; Siedlitz & Diener, 1998; Pillemer et al., 2003). There may be a cultural expectation that women should be 'interpersonal historians' and the common stereotype that women are able to remember events better can in turn also affect behaviour so that men make less effort in remembering events because they rely on the women to do the remembering (Ross & Holmberg, 1992).

Age

There is mixed evidence in the literature about the effect of ageing on the quality of autobiographical memory. While many memories are prone to lose specificity and detail with age, elderly people are thought to keep a selected sample of memories in their 'original vividness and detail' (Cohen, 1994, p.12). These specially selected memories are frequently

rehearsed and are used to maintain a person's identity and self-concept (Cohen, 1994; Alea & Vick, 2010). If weddings are part of the select sample of memories kept in great detail by the elderly, and possibly frequently rehearsed when reminiscing alone or with friends and family then we would expect little or no age differences in recall of these events. On the other hand, the end of marriages might be more likely to be forgotten with increasing age. Due to the recent emergence of cohabitation, there are not expected to be many cases of elderly individuals who experienced cohabitation in their youth. However they may be currently cohabiting.

Education

Finally, another variable which has been found to be related to the accuracy of recall is education as a proxy for socio-economic status (Herrmann & Guadagno, 1997). Studies have found that highly educated women are less likely to report inconsistent marital histories across waves of a survey (Peters, 1998) and that more educated respondents are less likely to misreport their divorce date Mitchell (2010). The reasons behind this relationship are unclear. The effect could be due to differences in the quality and level of education which may affect memory retention, or to less direct influences such as variations in physical health or emotional adjustment across socio-economic status which in turn may affect memory (Herrmann & Guadagno, 1997, pp. 117–118)

In this paper we assess the level of misreporting of relationships from an individual and a couple level perspective. Firstly we directly examine the percentage of respondents who are unable to recall the exact date when specific relationship events took place. Secondly, for current relationships we investigate the degree of partner consistency in the reporting of the start date of their relationship. Unlike other studies which focus on just one type of relationship, for example only marriages or only cohabitations, we look at both types of union simultaneously to explore whether the determinants of date misreporting are the same across both marriages and cohabitations or whether there are some unique features of recall for each type of relationship. Furthermore we add to the existing literature by examining the effect of the presence of others during the interview, both in terms of reporting previous relationship histories, as well as facts about the current relationship.

Data & Method

Data

To study the incidence and correlates of recall error in reporting of relationship histories, and to examine the influence of the presence of others, we use data from the first wave of the Household, Income and Labour Dynamics in Australia (HILDA) survey. HILDA is a large-scale longitudinal household survey, which is conducted on an annual basis, starting from the first wave in 2001. HILDA interviews all members of a household aged 15 and over, primarily using face-to-face interviews, and it collects information on a wide range of demographic, social and economic topics.

Of the total of 13,969 respondents who completed an interview in Wave 1 the analytical sample used in this study is restricted to 11,486 individuals who had had experienced at least one cohabitation or marriage (N=2,470 had never experienced a relationship), and who had complete information on the number of times they had been married or had cohabited (N=13 had incomplete information on the number of marriages or cohabitations) . The majority of those who were dropped from the analysis because they had never been in a live-in relationship were aged under 25 years old. The main demographic characteristics of the sample used in the study are set out in Table 1, according to their relationship status at the time of the survey.

 A great advantage of the HILDA data is that it interviews all eligible members of a household. In households containing a couple, the two partner's interviews can be matched and the factual information provided by each partner can be compared and checked for consistency. In some households for a range of reasons (e.g. too busy or refused) one partner may not have been interviewed so we do not have data from both partners for *all* marriages or cohabitations. As shown in Table 1, 7,527 respondents were currently married and 1,348 respondents who were currently cohabiting. After excluding cases where only one partner was interviewed and cases with missing data, we include in our analysis information regarding 3,525 marriages (7,050 respondents) and 613 cohabitations (1,226 respondents). In just over 40 percent of interviews among this subsample, another adult was present during the interview. Only 15 per cent of single people had someone present during the interview, a figure that was much lower than the equivalent percentage among cohabiting or married individuals at 45 and 48 per cent respectively.

Further information about possible demographic differences the percentage of married and cohabiting respondents who had another person present during the interview is shown in Table 2. The table indicates that percentage of respondents who had another adult present in the interview was higher among males, those in the older age groups, those with lower education, not in the labour force and born in a non-English speaking country.

Table 1. Sample characteristics by current relationship status (column percentages)

Current relationship status

	Married	Cohabiting	Single	Total	
	%	%	%	%	Freq.
Sex					
Male	49	48	37	**46**	**5,263**
Female	51	52	63	**54**	**6,223**
Age					
18-34	18	55	24	**24**	**2,738**
35-49	38	31	29	**35**	**4,058**
50-64	27	12	20	**24**	**2,727**
65+	16	1	27	**17**	**1,945**
Highest education					
University	20	20	14	**18**	**2,120**
Certificate	30	30	28	**30**	**3,421**
Year 12	11	17	12	**12**	**1,397**
<Year 12	39	33	46	**40**	**4,548**
Number of times married (inc. current)					
None	n/a	68	29	**14**	**1,664**
1 time	82	27	59	**73**	**8,397**
2 times	12	5	11	**11**	**1,292**
3 times	1	1	1	**1**	**119**
4 times	<1	--	<1	**<1**	**13**
5 times	<1	--	--	**<1**	**1**
Number of cohabitations (inc. current)[a]					
None	91	n/a	58	**73**	**8,396**
1 time	6	65	24	**17**	**1,948**
2 times	2	19	11	**6**	**693**
3 times	<1	10	4	**2**	**270**
4+ times	<1	6	3	**2**	**174**
Presence of third party during interview					
No other adult present	84	54	52	**59**	**6,816**
Other adults present with no influence on respondent answers	11	35	34	**29**	**3,353**
Other adults present with influence on respondent answers	4	10	14	**11**	**1,302**
Missing	0.2	0.2	0.1	**0.1**	**15**
Total Row %	66	12	23	**100**	**11,486**
Total Row N	7,527	1,348	2,611		

Table 2. Presence and influence of others during interview, for currently married or cohabiting individuals, by selected demographic characteristics (row percentages)

	No other adult present	Other adults present with no influence on respondent answers	Other adults present with influence on respondent answers	Total %	Total N
Sex*					
Male	47	38	14	100	4,303
Female	56	31	13	100	4,562
					100
Age group *					
18-34	54	35	12	100	2,107
35-49	59	29	11	100	3,301
50-64	49	36	14	100	2,207
65+	35	45	21	100	1,238
Highest education*					
University	62	29	9	100	1,743
Certificate	51	36	13	100	2,689
Year 12	55	32	13	100	1,090
<Year 12	46	37	16	100	3,343
Employment status*					
Employed	56	32	12	100	5,708
Unemployed	51	33	16	100	245
Not in the labour force	45	39	17	100	2,912
Country of birth*					
Australia	53	35	12	100	6,363
Main English speaking country	51	36	13	100	1,105
Other	46	33	21	100	1,397
Total %	52	35	14	100	
Total N	4,612	3,059	1,194		8,865

** Significant group differences, using a chi-square test (p>0.05)

Different surveys collect relationship histories in different ways. In some surveys information is collected about all relationships including cohabitations and marriages in sequential relationship order. In others marital and cohabitation histories are collected separately. In HILDA the latter method is used. In the first wave a full marital history was collected first followed afterwards by a partial cohabitation history.

The level of detail collected about each marriage varied according to both the order of the marriage and the marital event. For the start of the present or most recent marriage (if the

marriage had ended) both the month and year was collected. For all previous marriages only the year, and not month, that it had started was asked for. Similarly, for the *end* of all marriages only the year was collected. For cohabitations, respondents were asked to report the number of times they had had a cohabitation which had lasted for more than 3 months, and the month and year they began living in the *first* and in their current cohabitation. Dates of any possible second or higher order cohabitations, excluding the current cohabitation, were not gathered.

Method

In the first part of the analysis we start by examining the level of recall precision[1] in the reporting of four key dates:

1) start date of the present or most recent marriage (month & year).
2) end date of the most recent marriage (year).
3) start date of the first cohabitation (month & year)
4) start date of the current cohabitation (month & year)

Descriptive methods are used to outline the overall prevalence of recall precision, and then multivariate logistic models are used to model the correlates of imprecision in dating each event. For each event the dependent variable in the logistic regression is equal to 1 if the respondent was unable to provide the month and year the event occurred and equal to 0 if they gave the exact date. Independent variables related to both the event of interest, as well as individual level demographic characteristics are included. The independent variables can be split into four main sets.

The first set consists of demographic variables including sex, age (4 categories), highest education level, country of birth and current relationship status. The second set of variables relate to relationship history. Here we include the number of events the respondent has experienced of the event of interest. In examining the dating of the most recent marriage we include a variable describing whether this was the first marriage or a higher order marriage, and for cohabitation we look at the number of cohabitations the respondent has ever

---

[1] We acknowledge that some of the error in reporting may be due to errors in the data introduced during the interview process.

experienced. We would expect the number of multiple events of the same type that have occurred to influence recall (interference hypothesis).

In the third set of variables we control for characteristics of the events of interest themselves, including how the marriage ended (for the regression of marriage date), how long ago the event occurred and how long the relationship lasted. Information on the duration of the relationship was only available for the subset of respondents that provided both the month and year the relationship started. To avoid excluding those who had missing information on this variable, we analyse it by including it in an additional model for each relationship.

Finally we include information about the presence of others. In HILDA the presence of other adults during the interview was recorded by the interviewer at the end of the interview. The interviewer not only recorded whether another adult was present during the interview but also how much influence the third party had on the respondent's answers (not at all, a little, a fair amount, a great deal). We used this information to create a variable with three categories indicating whether the interview was conducted: with no other adult present, with another adult present but without influence from the other adult, or with another adult present who influenced responses[2]. In the case of HILDA we do not know whether the other adult present during the respondent's interview is their partner or not, but in many cases for currently cohabiting or married people it is likely that this is the case.

Partner consistency

In the second set of analyses the consistency in partner's accounts of when their relationship started is checked for the start of the marriage for currently married partners, and for the start of the cohabitation for currently cohabiting couples. Again both descriptive and multivariate models are employed. This time however all the variables in the multivariate model are defined at the couple level rather than at the level of the individual.

For the demographic characteristics we include the average combined age of partners (grouped into 4 categories), and the combined education level as described in 3 categories. For the education level, the first category consists of relationships where both partners have a university degree, or one has a university degree and the other has some other post-school qualification such as a certificate. The second category consists of those couples where both

---

[2] The third category (others present with influence) includes any case where there was influence ranging from a little, to a great deal.

partners have education up to Year 12 or only below Year 12, and the third category contains all other combinations. Couple's country of birth is summarized in a three category variable; both partners born in Australia, both born in non-English speaking countries, or some other combination.

We also look at relationship history, and whether this is the first marriage or cohabitation for both partners. The average duration of the marriage or cohabitation is controlled for, and in cases where differing years were reported by the partners we take the average year to calculate the duration.

Finally we also include a variable describing the interview situation. This was coded into three categories: both partners had another adult present during the interview, only one of the partners had another adult present during the interview or neither partner had another adult present during the interview.

Results

Precision in reporting

The precision with which relationship dates were given is shown in Table 3. For each event the percentage of respondents who gave the full month and year (or just year for the end of marriages), who only remembered the year but not the month, who remembered the month but not the year and the percentage who could not recall either the month or years is shown.

For the start of the current or most recent marriage, the percentage of respondents who were able to report both the month and year of the marriage was nearly universal (98 %). However, there was some difference according to whether or not that marriage had ended or was still on-going. For marriages that had already ended, just over 8 per cent of respondents could not give both the month and year of marriage. In most cases, they were able to give the year of the marriage, but not the month (N=175).

For the end of the most recent marriage, respondents were only asked for the year that this occurred. Divorced or separated individuals were asked about the date of final separation, and divorced individuals were also asked for the date of the divorce. The task of giving just the year of the event is less demanding than giving the more detailed month and year, so despite the predicted higher difficulty of remembering the date a marriage ended compared to

when it started, levels of non-response were very low. The one surprising exception was the 12 per cent of respondent (N=85) who had been widowed and reported that they did not know when this has occurred.

For cohabitations, as predicted, the task of remembering both the month and year the relationship had started proved very difficult for many people. Less than half of respondents were able to report both the month and year that they first started living together in their first cohabitation (excluding the current). Among those currently cohabiting the percentage who were able to give both the month and year was considerably higher, but a relatively high percentage (14 per cent) were still unable to report the month.

Table 3. Precision in reporting of selected relationship start and end dates

Start of current/most recent marriage

	Total		Current marriage		Most recent marriage	
Precision	Freq.	%	Freq.	%	Freq.	%
Month and year	9,594	**97.7**	7,501	**99.7**	2,093	**91.4**
Only year	198	**2.0**	23	**0.3**	175	**7.6**
Only month	5	**0.1**	1	**0.0**	4	**0.2**
Neither month or year	21	**0.2**	2	**0.0**	19	**0.8**
Total	9,818	**100.0**	7,527	**100.0**	2,291	**100.0**

End of most recent marriage

	Separation[a]		Divorce		Widowed[b]	
Precision	Freq.	%	Freq.	%	Freq.	%
Year	1,534	**97.6**	1,072	**98.8**	630	**88.0**
No year	38	**2.4**	13	**1.2**	85	**12.0**
Total	1,572	**100.0**	1,085	**100.0**	715	**100.0**

[a]:excluding 11 cases where date was 'refused/not stated'
[b]:excluding 3 cases where the date was 'refused/not stated'

First and current cohabitation start

	First cohabitation		Current cohabitation	
Precision	Freq.	%	Freq.	%
Month and year	1,058	**48.0**	1,157	**86.1**
Only year	1,096	**49.8**	187	**13.9**
Only month	1	**0.1**		
Neither month or year	48	**2.2**		
Total	2,204	**100.0**	1,344	**100.0**

Multivariate results

We now turn to the multivariate logistic regression to investigate possible factors which were related to the degree of recall specificity in the dating of relationships. We look at three relationship events, the start of the most recent marriage (for those not currently married), the start of the first cohabitation and the start of the current cohabitation. The other relationship events (start of marriage for those currently married, and end of marriage) are not analysed due to the small number of cases where respondents could not specify the dates.

In each case, the main outcome of interest is the inability to report both the month and the year that the relationship began. For each relationship event two models are run. The first does not include information about the relationship duration, while the second one does. The results of the logistic regressions are presented in Table 4.

For the previous marriage and the first cohabitation, there was a strong and consistent sex difference, with women having considerably lower odds of not giving a month and a year. No sex difference was apparent for the dating of the current cohabitation. Age appeared negatively related with dating precision. For every relationship event compared to the reference category aged 50-64, those aged under 35 were significantly less likely to be unable to give a month and year. However in the second model which introduced information about the recency of the event, and the duration of the relationship, the effect of age at the younger end was no longer significant. This suggests that the effect of age is at least partly attributed to the fact that the younger respondents would have experienced the event more recently.

Highest education also emerged as an important predictor which had a relatively consistent effect across the relationships. Compared to those whose highest education was up to Year 12, those with a university degree were less likely to not give a month and year. Country of birth was also important for the previous marriage and first cohabitation. Compared to those born in Australia, those born in Non-English speaking countries were less likely to be able to give a precise date for these unions

Table 4 Logistic regression results (Odds ratios) for not remembering full start date of union

	Previous marriage		First cohabitation		Current cohabitation	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Demographic characteristics						
Sex						
Male (ref)	--	--	--	--	--	--
Female	0.35***	0.39***	0.79***	0.75***	1.03	1.05
Age group						
18-34	0.52*	0.49	0.53***	0.81	0.55**	0.83
35-49	0.71*	0.69	0.89	0.97	0.86	0.9
50-64 (ref)	--	--	--	--	--	--
65+	1.32	1.27	2.47**	2.10**	1.91	2.29
Highest education						
University	0.26***	0.21***	0.76*	0.71**	0.82	0.49**
Certificate	0.89	0.9	1.32**	1.23	1.13	0.73
Year 12 (ref)	--	--	--	--	--	--
Year 11 or below	1.08	1.00	1.38**	1.25	2.09***	1.25
Country of birth						
Australia (ref)	--	--	--	--	--	--
Other English-speaking	1.13	0.99	1.08	1.08	1.14	0.99
Non-English speaking	1.97***	1.89***	1.44**	1.41*	1.47	1.23
Current relationship status						
Married			(ref)	(ref)		
Cohabiting	(ref)	(ref)	0.74**	0.94		
Single	0.78	0.79	0.58***	0.77**		
Relationship history						
Number of marriages						
1 (ref)	--	--				
2+	2.52***	2.18***				
Number of cohabitations						
1 (ref)			--	--	--	--
2+			1.60***	1.27**	0.69**	0.86
Event characteristics						
Marriage end						
Separation (ref)	--	--				
Divorce	1.97***	1.87**				
Widowed	0.87	0.84				
Date of start of marriage						
<20 years ago (ref)		--				
20+ years ago		1.58*				
Duration of marriage						
0-7 years		1.79***				
8-19 years (ref)						
20+ years		0.73				

Table 4 continued. Logistic regression results (Odds ratios) for not remembering full start date of union

	Previous marriage		First cohabitation		Current cohabitation	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Duration of first cohabitation						
<1 year				0.85		
1-2 years (ref)				--		
2-3 years				0.97		
3-4 years				0.83		
Date of start of first cohabitation						
0-4 years ago				0.37***		
5-9 years ago				0.67***		
10-19 years ago (ref)				--		
20+ years ago				1.2		
Date of start of current cohabitation						
0-2 (ref)						--
2-5 years ago						0.08***
5+ years ago						0.83
Interview characteristics						
Presence of other adult						
No other adult present (ref)	--	--	--	--	--	--
Adult present, but no influence	1.49*	1.65**	1.03	1.07	0.76	0.72*
Adult present & influenced	2.59***	2.80***	1.08	1.04	0.87	0.88
Number of observations	2,284	2,163	2,192	2,139	1,329	1,172
Overall model evaluation						
Likelihood ratio test, X^2	146.8 (15df)	145.26 (18df)	169.59 (14df)	201.35 (20df)	45.74 (12df)	131.88 (14df)
Likelihood ratio test, P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Goodness-of-fit test						
Hosmer & Lemeshow, $X^{2\ (8df)}$	9.9	16.7	6.7	2.9	9.2	10.2
Hosmer & Lemeshow, P	0.27	0.03	0.57	0.94	0.32	0.25

Note: * $p<0.10$; ** $p<0.05$; *** $p<0.01$

.

Currently married individuals were significantly more likely to forget the month and year of their first cohabitation, compared to those who were currently cohabiting in another relationship, or who were single. Relationship history also proved to be important for explaining dating of the previous marriage and cohabitation. Individuals who had had more than one marriage were more likely to be unable to give a month and year that their most

recent marriage started, and the same was relationship existed for first cohabitations. However for current cohabitations the effect was the opposite: it was those with at least one other past cohabitation that were less likely to have difficulties dating their current cohabitation.

The characteristics of the events themselves were also important. If a marriage had ended in divorce, the start of the marriage was less likely to be remembered. Also the longer ago the event of interest happened the harder it was to date within a month or year (in the case of previous marriages) and the shorter the duration of the relationship the less memorable it was (for both marriages and first cohabitations).

Finally the presence of other adults also proved important. For previous relationships having another adult present *increased* the likelihood of not reporting a month and year, although the effect only reached significance for marriages. For individuals that were currently cohabiting however the effect, while weak, was in the opposite direction. In that case having an adult present had a positive effect on the likelihood of dating the current cohabitation within a month and year.

Partner consistency

For this next section s we focus on the relationship or couple level, rather than the individual respondent. The level and pattern of partner consistency in the dating of the current relationship is shown in Table 5.   For marriages the overall level of consistency between partners was high, but in 5 per cent of cases there was a mismatch in the month and or the year of the marriage, indicating that either one or both partners could not date their marriage accurately (191 marriages). For current cohabitations, 17 per cent were not dated with a month or year by either one or both partners, and in a further 16 per cent of cases partners also gave different dates for the start of the relationship[3].

---

[3] Given the absence of a socially recognised date of cohabitation start, we note that partner consistency will be less for cohabitation than marriage.

Table 5. Partner consistency in dating the start of the current relationship

Partner consistency	Marriage		Cohabitation	
	N	%	N	%
Month/Year unknown by either one or both partners	13	0.4	102	16.6
Different dates (for month and or year)	191	5.4	95	15.5
Matched on both month and year	3,320	94.2	415	67.7
Other	1	<0.1	1	0.2
Total relationships - with two partners	3,525	100.0	613	100.0

For the 5 per cent of marriages where there was a discrepancy in the *marriage* dates, in the majority of cases the dates were off by one year, but the months were the same. For example the husband may have dated the marriage as starting in April 1994, while the wife said it started in April 1995. A significant percentage also had dates that differed by only one month, e.g. April 1994 and March 1994. For *cohabitations* there was a slightly more even distribution of absolute month differences, but the majority of cases only differed by one or two months.

The odds of having mismatching dates between partners for the same relationship are analysed in the logistic regression results presented in Table 6. Unlike in the earlier model of individual level recall problems, for couples demographic variables including age, education and country of birth had either no or very weak effects in determining partner inconsistency in dating.

More significant factors were the union history, and also the interview situation. For current marriages, couples were significantly less likely to report differing dates if the marriage was the first marriage for both partners. The effect was the same for cohabitation, although in this case it the result was not significant. By far the strongest and most consistent effect is provided by the interview situation describing the presence of other adults during the interview. Compared to situations where both partners had other adults present during the interview, if only one partner had another adult present the odds of the couple reporting differing dates was significantly higher, and the odds were higher still if neither partner had another adult present.

Table 6. Logistic regression of mismatch in dates between partners (Odds ratios)

	Marriage	Cohabitation[a]
Average combined age of partners		
18-34	1.20	1.43
35-49 (ref)	--	--
50-64	1.02	*na*
65+	1.57	*na*
Combined education level		
Both partners university degree, or one partner uni. & one partner post.school (ref)	--	--
Other combination	1.39	0.53*
Both partners Year 12 or below	1.06	0.53
Couple's country of birth		
Both born in Australia (ref)	--	--
Both born in non-english speaking country	1.54*	1.59
Other	1.14	1.24
First marriage/cohabitation for both partners?		
No (ref)	--	--
Yes	0.61**	0.78
Average duration of marriage		
0-4 years	0.80	
5-9 years (ref)	--	
10-19 years	1.27	
20+ years	0.67	
Average duration of cohabitation		
0-1 years		0.78
2-5 years (ref)		--
6+ years		1.34
Presence of adults during interview		
Both partners had other adult present	--	--
One partner had other adult present	2.27***	3.10***
Neither partner had other adult present	3.43***	7.38***
Number of observations	3,247	416
Overall model evaluation		
Likelihood ratio test, X^2	69.56 (13 df)	41.50 (10 df)
Likelihood ratio test, *P*	<0.001	<0.001
Goodness-of-fit test		
Hosmer & Lemeshow, $X^{2\,(8df)}$	8.1	3.4
Hosmer & Lemeshow, *P*	0.43	0.91

Note: * p<0.10; ** p<0.05; *** p<0.01

[a]Excluding 52 couples aged 50 or over

Discussion

This paper has highlighted several important considerations when collecting and using timing data on marriages and cohabiting relationships. The discussion will focus on social desirability or un-desirability of questions and responses, the interview setting, and the complexity of modern relationships as possible explanations.

Widowhood was associated with failure to recall dates. At the outset it was assumed that the death of a spouse would be such an important life event that provisions of dates would cause no problems. The finding of a surprising number of missing cases who did not know the year their spouse died could be due to the face-to-face nature of the interview. That is, it could be that interviewers did not want to push the question given that it signals remembrance of a time of grieving. This finding highlights the importance of the interview setting.

The complexity of an individual's lifecourse was also a factor in increasing recall error. In accordance with previous research (Mitchell, 2010) we generally find evidence that respondents who experienced multiple events of the same type were more likely to have difficult dating previous relationships. This may have some implication for research depending on how response errors are handled.

The presence of another adult affected both how past and current relationships dates were reported. In discussing the possible effects of third parties in HILDA any interpretation must be tentative because we do not know the identity of the other adult(s) present during the interview; they may or may not have been the respondent's partner. Given the evidence of the pattern of presence of partners from other surveys which do record the identity of third parties, we can however assume that for at least a large percentage of individuals living with their partner that the other adult present would have been their partner. Another limitation is that we do not know how long the third party was present for; whether they remained present for the duration of the interview or whether they were only present for a short period of time.

In the case of past relationships, having another adult present increased the probability of not reporting a month and year for previous marriages (significantly) and for first cohabitations (not significant). There are a number of different interpretations for these results, One explanation for the effect of other adults on past relationships is therefore that among repartnered respondents, when asked to date their previous relationships they may be

deliberately trying to de-emphasize the importance of that relationship in front of their new partner by showing that they are unable to remember the exact details of those memories. Another possibility is that the presence of another adult could be a signal that the person has repartnered and the lack of ability to recall exact details would be a reflection of the interference hypothesis.

For the current relationship, having another adult present proved to be an advantage in reporting of dates, particularly at the couple level. This was evident for both marriages and cohabitations. Simple bivariate analysis revealed that if both partners had another adult present during the interview only 3 per cent of marriages dates were inconsistently reported between partners, but this rose to 9 per cent when neither partner had another adult present. The equivalent figures for cohabitation were an increase from 6 per cent inconsistently dated when both partners were present, to 32 per cent inconsistently dated when no partner had adult company during the interview. Again there are different explanations. The most obvious explanation is that during the interview respondents may have consulted with their partner about the date being asked for.

Another possibility is that there is some selection effect at work. While we controlled for characteristics such as age and education were related to the probability of having someone present during the interview there may be other more subtle characteristics of couples where both partners were present in each other's interview which make them different from other couples. Aquilino (1993) found that as well as various demographic characteristics that marital compatibility predicted the presence of partners at each other's interviews. Partner presence can therefore represent an opportunity to check dates of relationships or may be associated with a better ability to remember dates due to the quality of their relationship.

This paper has highlighted that the presence of a third party during the interview is a very common occurrence in couple households, and that the third party can have a substantial effect on the reporting of past and current relationship dates. Further research is needed to examine whether the presence of others also has an effect on responses to other types of questions.

References

Allan, G. (1980). A note on interviewing spouses together. *Journal of Marriage and the Family*, 42(1), 205-210.

Aquilino, W.S. (1993). Effects of spouse presence during the interview on survey responses concerning marriage. *Public Opinion Quarterly*, 57:358-376

Aquilino, W.S. (1997) Privacy effect on self-reported drug use: Interactions with survey mode and respondent characteristics. National Institute on Drug Abuse (NIDA) Research Monograph, Number 167, pages 383-415 <http://archives.drugabuse.gov/pdf/monographs/monograph167/download167.html>, Accessed 15 March 2011

Auriat, N. (1993). "My wife knows best": A comparison of event dating accuracy between the wife, the husband, the couple, and the Belgium Population Register. *The Public Opinion Quarterly*, 57(2), 165–190.

Alea, N. & Vick, S.C. (2010). The first sight of love: Relationship-defining memories and marital satisfaction across adulthood. *Memory*, 18(7), 730–742.

Beitin, B. (2008). Qualitative research in marriage and family therapy: Who is in the interview? *Contemporary Family Therapy,* 30(1):48–58

Bradburn, N.M & S. Sudman (1979). *Improving interview method and questionnaire design: Response effects to threatening questions in survey research.* San Francisco: Jossey-Bass.

Bumpass, L. & Raley, K. (2007). Measuring Separation and Divorce. In S.L. Hofferth & Casper, L. M. (Eds.), *Handbook of Measurement Issues in Family Research (*pp. 125–144). Mahwah, NJ: Lawrence Erlbaum.

Casper, L.M & Hofferth, S.L. (2007). Playing Catch-Up: Improving Data and Measures for Family Research. In S.L. Hofferth & Casper, L. M. (Eds.), *Handbook of Measurement Issues in Family Research* (pp. 3–18). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Cohen, G. (1998). The effects of aging on autobiographical memory. In Thomspon, C.P, Herrmann, D.J., Bruce, D., Read, D.J., Payne, D.G. & Toglia, M.P (Eds.) *Autobiographical memory: Theoretical and applied perspectives* (pp. 105–123). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Gaskell, G.D., Wright, D.B & O'Muircheartaigh, C.A. (2000). Telescoping of landmark events: implications for survey research. *Public Opinion Quarterly*, 64(1),77–89.

Hayford, S.R & Morgan, S.P (2008). The quality of retrospective data on cohabitation. *Demography*, 45(1), 129–141.

Herlitz, A. & Rehnman, J. (2008). Sex differences in episodic memory. *Current Directions in Psychological Science*, 17, 52–55.

Herrmann, D. & Guadagno, M.A. (1997). Memory performance and socio-economic status. *Applied Cognitive Psychology*, 11(2), 113–120.

Manning, W.D & Smock, P.J (2005). Measuring and modeling cohabitation: New perspectives from qualitative data. *Journal of Marriage and Family*, 67(4), 989–1002.

Mitchell, C. (2010). Are divorce studies trustworthy? The effects of survey nonresponse and response errors. *Journal of Marriage and Family*, 72(4), 893–905.

O'Connell, M. (2007).The visible hand: Editing marital-history data from Census Bureau surveys. In S.L. Hofferth & Casper, L. M. (Eds.), *Handbook of Measurement Issues in Family Research* (pp. 145–158). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Peters, E. (1988). Retrospective versus panel data in analyzing lifecycle events. *The Journal of Human Resources*, 23(4), 488–513.

Pillemer, D., Wink, P., DiDonato, T & Sanborn, R. (2003). Gender differences in autobiographical memory styles of older adults. *Memory*, 11(6), 525–532.

Pollard, M.S & Harris, K.M. (2007). Measuring cohabitation in Add Health. In S.L. Hofferth & Casper, L. M. (Eds.), *Handbook of Measurement Issues in Family Research* (pp. 35–51). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Poulain, M., Riandey, B & Firdion, J-M. (1992). Data from a life history survey and from Belgian Population register: A comparison. *Population: An English Selection*, 4, 77–96.

Reuband, K.H (1992). On third persons in the interview situation and their impact on responses. *International Journal of Public Opinion*, 4(3),269-274

Ross, M. & Holmberg, D. (1992). Are wives' memories for events in relationships more vivid than their husband's memories? *Journal of Social and Personal Relationships*, 9, 585–604.

Siedlitz, L. & Diener, E. (1998). Sex differences in recall of affective experiences. *Journal of Personality and Social Psychology*, 74(1), 262–271.

Silver, B.D, P.R Abramson & B.A Anderson (1986). The presence of others and overreporting of voting in American Election Studies. *Public Opinion Quarterly*, 50:228–239.

Skowronski, J.J. & Thompson, C.P. (1990). Reconstructing the dates of personal events: Gender differences in accuracy. *Applied Cognitive Psychology*, 4, 371–381.

Smith,T.W (1997) The impact of the presence of others on a respondent's answers to question. *International Journal of Public Opinion Research*, 9(1): 33–47.

Teitler, J.O., Reichman, N.E., & Koball, H. (2006). Contemporaneous versus retrospective reports of cohabitation in the Fragile Families Survey. *Journal of Marriage and Family*, 68(2), 469–477.

Tourangeau, R., Rips, L.J & Rasinski, K. (2009*). The Psychology of Survey Response*. New York: Cambridge University Press

Wu, L.L, Martin, S.P, & D.A, Long (2001). Comparing data quality of fertility and first sexual intercourse histories. *The Journal of Human Resources*, 36 (3), 520–555.

Zipp, J.F & J. Toth (2002). She said, He said, They said: The impact of spousal presence in survey research. *Public Opinion Quarterly*, 66(2):177–208.

Zipp, J.F, A., Prohaska and M. Bellimer (2004). Wives, Husbands, and Hidden Power in Marriage. Journal of Family Issues, 25(7):923–948.