Evolution of Factors Influencing First Union Formation in Canada

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Abstract

Retrospective survey data (GSS-1995) are used to estimate changes in the effects of children and education on transitions to first union (distinguishing the competing risks of marriage and cohabitation) in Canada. We find that the circumstances affecting union entry during the young adulthood of those born prior to 1950 were quite different from those influencing younger cohorts. More highly educated women became more rather than less likely to marry, and less rather than more likely to cohabit, while education, which had increased men's likelihood of entering both types of union had become much less important. At the same time, children, both born and impending, became more important for entry into cohabitation, and less important for marriage. We interpret our results as indicating that not only is it important for the study of union formation to take into account the changing relationships of men and women, but also those of men and children.

Résumé

À partir des résultats de l'Enquête sociale générale de 1995, la présente étude analyse l'évolution de l'effet de la scolarité et de la présence d'un enfant sur la propension à former une première union au Canada (en tenant compte des risques concurrents de vivre une union libre ou un mariage). Les résultats indiquent que les facteurs influençant l'entrée en première union chez les personnes nées avant 1950 étaient fort différents de ceux influençant les plus jeunes cohortes. L'influence globale de la scolarité s'est amoindrie, même si les femmes plus scolarisées des cohortes récentes étaient plus susceptibles de se marier et moins susceptibles de vivre en union libre, et que les hommes ayant suivi des études post-secondaires étaient plus susceptibles de se mettre en union, légale ou non. En outre, la présence d'un enfant (sa naissance ou la grossesse de la mère) est devenue plus importante pour la formation d'une union libre que pour la formation d'un mariage. Les résultats montrent que l'analyse de la formation d'unions doit non seulement tenir compte de l'évolution des relations hommes-femmes, mais également de celles impliquant les hommes et les enfants.

Key Words: *changing union formation, event history analysis, Canadian family, gender*

Introduction

There is a revolution in the family underway in the industrialized countries, which has been called the "second demographic transition" (van de Kaa 1987). It encompasses a wide range of changes, including the growth in nonfamily living, the rapid rise in divorce, and the increased age at childbearing. Perhaps the most dramatic element in the constellation of changes in family patterns, however, is the growth in nonmarital cohabitation. Increasingly, men and women are delaying or even foregoing marriage to live in cohabiting unions. Since the early 1980s, the number of Canadians living in "common law" relationships has tripled; there were approximately 2,000,000 such persons reported in 1995, as compared to 700,000 in 1981. Such unions represented nearly 1 couple in 6 in 1995, as compared to less than 1 in 16 in 1981 (Turcotte and Bélanger, 1997). Together with the rise in divorce among the married, the growth in cohabitation appears to mean that marriage is fast becoming not only a less stable institution but also a less central one in the lives of men and women, and likely also of children.

Who are the leaders in this revolution in union formation? Do the changes underway relate to the rapid changes in gender and family roles that have emerged during the same period with the increase in female labour force participation? Are "independent" women leading the way into cohabiting

unions (and what does this imply for men)? As both cohabitation and female employment have become more routine, have the factors leading men and women to cohabit rather than marry changed? Further, an impending child has traditionally been a major determinant of marriage timing. Is this now the case for cohabitation, or with the growth in unmarried childbearing and childrearing, have the connections between children and marriage, or even union formation generally, weakened?

Many studies have documented the rapid shifts in union formation, both in Canada and in other industrialised countries (Dumas and Bélanger, 1997; Klijzing and Macura, 1997; Toulemon, 1996; Santow and Bracher, 1994; Hoem and Rennermalm, 1985). Some have also examined the determinants of entry into cohabitation and marriage, although the gender question is rarely raised in such studies since they have focused primarily on women (Turcotte and Bélanger, 1997; Bumpass and Sweet, 1995; Blom, 1994; Desrosiers and Le Bourdais, 1993; Liefbroer, 1992). To understand the dynamics of this new pattern of union formation, it is helpful to examine as well whether the determinants have been changing, now that the transformation has been underway for several decades. The purpose of this paper is to examine whether and if so how the factors influencing union formation for men and women in Canada have changed, focusing particularly on those factors related to the role of children in union formation, as well as to changing gender roles.

Background

Recent Canadian studies have demonstrated rapid change in union formation. The risks of cohabiting outside marriage increase from older cohorts to younger ones and the risks of marriage go in the opposite direction (Desrosiers and Le Bourdais, 1993; Burch and Madan, 1986). Canada is clearly not unique, as the studies of the US and of European countries indicate; however, it appears that the growth in cohabitation has been one of the most rapid (Klijzing and Macura, 1997; Le Bourdais and Marcil-Gratton, 1994), particularly in Quebec.

This raises the question: How should these changes be interpreted? What theories are available to account for them? The theory of union formation that is most generally cited is by Nobel-Prize winning economist of the family, Gary Becker (1991). His economic theories rest, like those of sociologist Talcott Parsons (1949) before him, on the centrality for marriage of a strong division of labor between men and women. Using the model of international trade, Becker views marriage as valuable only insofar as it is efficient, and theorizes that it is most efficient when the partners specialize either in home or non-home production, producing "gains to trade." Decreased specialization, such as occurs when women also work for pay and/or men also care for children, reduces these gains and, argues Becker, should lead to delayed and/or non-marriage.

Not all agree with Becker; some see highly specialized marriages as having difficulty dealing with risks, such as unemployment or illness (Oppenheimer, 1994) and as unlikely to provide as much companionship as unions with more shared experiences in the workplace and activities in the home (Goldscheider and Waite, 1991). Nevertheless, the conjunction of increased female employment and reduced marriage has made Becker's theory seem intuitively obvious to many.

A simpler version, which derives from an earlier analysis by Becker (1973, 1974), has been called the "independence hypothesis" (Ross and Sawhill 1975). This theory posits that the ability to support themselves frees women from entering undesirable marriages. Scholars making this argument usually fail to include the "undesirable" concept and assume either that marriage *per se* is necessarily undesirable to women or that there is nothing men are likely to do to make marriage more desirable. They also usually fail to include Ross and Sawhill's further derivation that increases in women's earnings also have an "income effect," making marriages both more feasible and more stable.

Becker has been widely cited by those who postulate a causal link between two recent social trends of the past 30 or so years, the increase in female labor force participation and the rise in age at marriage. Many studies have found no evidence for such an effect at the individual level (Santow and Bracher, 1994; Blossfeld and Huinink, 1991; Hoem, 1985). However, a recent study of marriage in Italy found strong evidence for such an "independence" effect (Pinnelli and De Rose, 1995; Blossfeld and De Rose 1992). These inconsistencies might occur if the processes influencing union formation have been changing. Those following Becker (and Parsons) have assumed that the family formation process does not change – men exchange resources for women's home production – and that changes in behavior are the result of changes in women's value of time, freeing women from dependency on men's incomes, and hence, the "need" to marry. The transformation of the female life course to include extensive labor force participation, however, may also have changed the role of female employment in the union formation process. Women, like men, may wait to establish families until they have established steady employment, and highly-earning women, like highly-earning men, might be more rather than less desirable as marriage partners. If so, then we expect that while Becker (and Parsons) were "right" for the period of the 1950s (and perhaps for most of the recent cohorts of Italians), they have become increasingly "wrong" as the revolution in family patterns progressed over the second half of the 20th century and spread across Europe and the other industrialized countries.

Of possibly critical importance is the fact that most of these studies only examine entry to marriage, although during this period the non-married increasingly included cohabiting men and women. The increase in this choice may have changed the negotiations underlying the dynamics of union formation dramatically. To study this possibility properly in all its complexities, however, one needs to analyze data that span the range of cohorts that experienced the "second demographic transition" within a single country.

It is also the case that nearly all of the studies of union formation have focused on women, consistent with the theoretical link between the growth in women's labour force participation and the change in union patterns. There has been much less research on men, despite their centrality in Becker's formulation. Working has always been a key factor in increasing the risks of men of entering a first union (Goldscheider and Waite 1991; Mare and Winship 1991; Landale 1989; Hogan 1981). However, with the growth of women's employment, many couples may not find it so necessary to assure men's economic success to form a union.

Most research on how children affect the likelihood of entering a union (whether married or cohabiting), like most other studies of union formation, has not considered the possibility of change. Further, this question has primarily been examined only for those with own children, and has focused almost entirely on women, on marriage, and on the United States (e.g., Chiswick and Lehrer, 1990; Koo et al., 1986; Teachman and Heckert, 1985). These studies have typically found that the presence and sometimes the number of children reduce women's likelihood of marrying, with effects depending on the ages of the children and the mother. A recent study showed that having a child before a union decreases the risks of getting married but seems to increase the risks of choosing cohabitation (Bennett, Bloom and Miller, 1995), suggesting that children reduce the extent of men's commitment to the relationship.

In contrast, a study conducted using data from the 1984 Canadian Family History Survey showed that in the case of women who had never lived in a union, the birth of a child was a major brake on entering into a cohabitation (Desrosiers and Le Bourdais, 1993); the argument advanced was that such women formed unions but tended to opt for marriage. However, the processes influencing union formation might differ not only between Canada and the US, but also between the early and later stages of the transition in union formation. The cohorts studied in the Canadian data were born early in Canada's second demographic transition; those studied by Bennett may reflect dynamics later in the process. Clearly, it is important in studying the effect of children on women's union entry not only to distinguish marriage from cohabitation but also to examine the possibility that the effects might be changing over time.

The decision to form a union is normally complex, and might be influenced by many factors in addition to the economic resources of men and women, the presence of children, or the possibility of pregnancy. Hence, in addition to measures of cohort (to index historical change), the presence of children, and educational attainment and employment (to index resources), we are able to include seven such factors that have been shown to be of theoretical and substantive importance in past studies: school enrolment, religiosity, childhood family structure, number of siblings, mother tongue, region, and whether the respondent was born in Canada.

School enrolment has been shown to be a strong impediment to any kind of union, with effects that are generally stronger for women than for men (Blom,

1994; Goldscheider and Waite, 1991). We also expect that people who never go to church are more likely to form a cohabitation, and those that attend weekly are more likely to marry, based on the greater familism and conventionality of the more religiously involved (Goldscheider and Goldscheider, 1993; Thornton and Camburn, 1987).

Non-traditional family situations experienced during childhood or adolescence are likely to have an influence on one's subsequent conjugal behaviour. American studies have shown that young persons who experienced the dissolution of their parents' union are more likely to opt for cohabitation as their first form of union (Furstenberg and Teitler, 1994; Thornton, 1991; Bumpass, Sweet and Cherlin, 1989). In addition, young persons who have experienced the separation of their parents tend to leave the family home earlier, and they more often establish a non-traditional family (Le Bourdais, Lapierre-Adamcyk and Lehrhaupt, 1995; Goldscheider and Goldscheider, 1994). The effects of parental structure are normally found to be stronger than those of sibling structure, although some studies have shown that having more siblings increases the likelihood of marriage and parenthood (e.g., Michael and Tuma, 1985).

Like many countries, Canada is strongly heterogeneous, with cleavages that overlap geographic, linguistic, and cultural dimensions. It is also a country that has received a large proportion of immigrants during most of its history. Hence, we include indicators of region of residence and mother tongue, as well as whether the respondent was born in Canada.

Data, Measures and Methods

This study uses recent Canadian data, which include information on union formation over a broad period from the 1960s to the 1990s. In particular, the data available include information on children, educational attainment, and employment for both men and women, allowing one to examine changes in their effects over time. Further, the data include indicators of other factors likely to be related to union formation as noted above (such as family background and religious practice) which, if not controlled, might distort the observed relationships. We use a statistical method (proportional hazards regression) to model entry into first union via marriage or cohabitation as competing risks.

Data

Data are drawn from the 1995 Canadian General Social Survey (GSS), a nationally representative sample of 10,749. The GSS universe is the Canadian population 15 years of age and over living in private households in the ten provinces of Canada. (Quebec was over-sampled to improve estimates for that province.) The response rate was 81.1%. The 1995 GSS served to identify 2,476 first cohabiting relationships (including 983 in Quebec and 1,493 elsewhere in Canada) and 6,204 first marriages.

The focus of the 1995 GSS is the family, first covered in the 1990 GSS. Canadians reported full conjugal histories (all marital and non-marital unions), providing information on their children, family of origin, fertility intentions, and family values and attitudes, as well as information on a broad range of background characteristics.

Measures

The analysis reported here uses measures of both stable and time-varying respondent characteristics and activities. Given our focus on change, we highlight differences in the union formation process for respondents of different ages, who entered the ages of first union formation in different decades, considering most carefully the changing effects of the presence of a child conceived or born before the union and measures of social class (primarily educational attainment). ~~We also include as control variables time-varying indicators of main activities at the time union formation is being contemplated (work and school), current measures of religious practice, family structure prior to age 15, numbers of siblings, and mother tongue, region of residence, and whether the respondent was born in Canada.~~

We examine historical change via the lives of four 10-year birth cohorts. The oldest are those born in 1950 or earlier, most of whom entered their first unions at a time when cohabitation was nearly non-existent. Our central cohorts are those born in the 1950s (1951-60) and the 1960s (1961-70), most of whom had the opportunity to enter some form of union, since the very youngest members of the younger cohort had reached age 25 by the time of the survey. We include as well those born between 1971 and 1980 for information on current union formation dynamics among relatively young people (aged 16 to 24). This is an incomplete cohort, since the youngest members could only provide information about their teenage years. Since this could distort conclusions about recent patterns, we also examine our models excluding this cohort, and report any differences in results.

To test for change in the effects of children and social class on union formation, we used information on fertility history and educational attainment. The information is time-varying, i.e., the effect of the change of status (e.g., from childless to mother/father) on the risks of forming a first cohabitation is observed only once it changes the person's characteristics. The date of birth of children reported by the respondent was used to determine when the value for the presence of children had to be changed. The value changed from "childless" to "conception" eight months before the reported date of birth, and to "birth" at the birth date. Since the period at risk in our models always ends with a first union, age 35, or the date of the survey, whichever came first, only conceptions or births that come before the beginning of the union are considered here.

As is common practice, we use the level of the respondent's education as an approximate measure of socio-economic status. The GSS does not provide respondents' complete educational history, only completed education as of the

time of the survey. Based on empirical evidence drawn from both the 1990 and 1995 GSS surveys, we used the average age at certain milestones on the educational path (secondary school graduation, beginning of university). Taking provincial differences in educational programs into account, we established "standard histories" so as to estimate the age at which, on average, these major milestones are passed. (We calculated that the secondary school diploma is obtained on average at 17.1 years of age in Quebec and at 18.1 elsewhere in Canada. The average age at entering university appears to be the same throughout Canada, 19.4.) Three categories were distinguished: less than secondary diploma; secondary diploma with or without college; university (with or without degree).

These constructions allow us to estimate both whether the respondent has attained a given level of education at a given age (our measure of social class), and whether s/he is in school at that age, as one indicator of current activity.¹ Data from questions on the start of employment and work interruptions history were used to indicate the years the respondent was employed. In combination, this information allowed us to distinguish those who were in school but not employed, employed but not in school, both in school and employed, and neither in school nor employed.

Our other control variables include measures of current measures of religious practice, family structure prior to age 15, numbers of siblings, and mother tongue, region of residence, and whether the respondent was born in Canada. Religious practice (church attendance) is used rather than religious affiliation, since it seems to provide a better indication of individuals' beliefs that are likely to influence behaviour, although some of the effects we observe may be a result of that behaviour (Axinn and Thornton, 1992). Religious practice is measured by the number of times a person attends religious services other than weddings, baptisms or funerals.

Our two measures of family background are childhood family structure and the number of siblings. The union formation of both those who lived in a step-family at some time before the age of 15 and those who lived in a lone-parent family will be compared to those who only experienced a stable two-parent family in their childhood.² The number of siblings is measured in exact intervals, in order to see whether the effects of having no or few siblings differ from those of having several or many.

We distinguish respondents by language and province because a number of studies have shown that cohabitation is more prevalent in Quebec. Since it is reasonable to believe that this greater propensity has more to do with cultural traits than with the mere fact of living in that province, the use of the combined mother tongue-region of residence variable will isolate the behaviour of the French-mother-tongue group in Quebec.³ The place of birth variable will show whether native-born Canadians have a greater tendency to form a cohabitation than persons born outside Canada.

As may be seen, the characteristics analysed in the models reflect as much as possible the situation of the respondents at the point when they were exposed to the risks of entering into a first union. However, in the absence of further information, the region of residence is the one reported at the time of the survey, and church attendance is as reported for the year preceding the survey.

Methods

We use continuous time event history analysis techniques (Allison, 1995). General proportional hazard (Cox) models are used to assess the effect of factors influencing the hazard of entering a cohabiting or marital union.⁴ The model is generally described as:

$$h(t) = \lambda_0(t)e^{Bx}$$

where $\lambda_0(t)$ is a baseline hazard function that is left unspecified, and e^{Bx} is a vector of explanatory variables which is exponentiated.

The use of the Cox model allows us not to specify the hazard function, the relationship between the hazard rate and the duration of risk exposure, which is often difficult to specify at the outset. It implies that the duration of exposure has the same effect on each person (the proportionality assumption), meaning that the probability of experiencing the event studied varies over time in the same way for each person. Only the baseline hazard rate varies from one person to another, depending on each person's characteristics. In addition, it allows for the modelling of variables that have values that change over time. We present the results as risk ratios, which represent the relative likelihood of someone with the specific characteristic of entering a union compared to someone who would be in the appropriate reference group.

Separate models are built for entry into first cohabitation and entry into first marriage. Each of these events is experienced as a competing risk; that is, upon entering into one of these union forms, the respondent is censored and no longer observed. The underlying assumption is that distinct mechanisms affect the occurrence and timing of each event (Allison, 1995). In our models, people are at risk of entering a first union between the ages of 15 and 35; they are censored as soon as they experience a first union, at age 35, or the survey date, whichever occurred sooner. The risks of experiencing a first union were measured to each tenth of a year of the risk exposure period.

We also model men and women separately. This allows us to focus directly on factors that affect men differently from those that affect women. Many studies justify limiting the analysis of first unions to women because men's data are of

Table 1
Percentage Distribution of People Who Have Entered a First Union
by Socioeconomic Characteristics, Showing Gender and Type of Union, Canada, 1995

Socioeconomic Characteristics		Males		Females	
		Cohabitation	Marriage	Cohabitation	Marriage
Birth Cohort	Before 1951	13.7	60.3	9.0	62.3
	1951-1960	37.2	26.2	32.0	22.2
	(1961-1970)	41.0	13.0	45.3	14.2
	1971-1980	8.1	0.6	13.7	1.2
	Total	100.0	100.0	100.0	100.0
Mother Tongue and Region	(French-Quebec)	37.3	20.6	37.6	24.0
	French-Other Provinces	4.8	5.6	5.5	5.6
	Other-Quebec	2.5	3.5	2.6	3.5
	Other-Other Provinces	55.3	70.3	54.3	66.9
	Total	100.0	100.0	100.0	100.0
Activity Status*	School Only	17.9	9.4	29.2	20.1
	Work and School	21.2	25.9	16.9	13.7
	(Work only)	54.4	61.3	42.1	41.2
	Neither	6.6	3.4	11.8	25.1
	Total	100.0	100.0	100.0	100.0
Religious Attendance	Not at all	59.6	39.4	55.9	30.1
	(Sometimes)	33.3	35.4	35.8	37.3
	At least once a week	7.2	25.1	8.4	32.6
	Total	100.0	100.0	100.0	100.0
Place of Birth	(Canada)	91.0	82.0	92.9	84.2
	Outside Canada	9.0	18.0	7.1	15.8
	Total	100.0	100.0	100.0	100.0
Family Origin	(Two-parent family)	83.2	87.7	78.7	89.3
	Ever in step-family	2.6	2.3	5.1	2.6
	Ever in lone-family	11.9	8.1	14.5	6.6
	Others	2.3	2.0	1.8	1.5
	Total	100.0	100.0	100.0	100.0
Educational Attainment*	Less than high school	28.7	35.6	26.0	35.6
	(High school diploma/college)	44.6	47.7	52.2	47.7
	University	26.7	16.7	21.7	16.7
	Total	100.0	100.0	100.0	100.0
Presence of Children before Union*	Birth	6.3	6.8	9.6	7.2
	Conception	3.0	9.7	3.6	10.9
	(No child)	90.6	83.5	86.8	81.9
	Total	100.0	100.0	100.0	100.0
Number of Siblings	0	4.4	4.8	3.9	4.5
	1	17.4	15.0	20.8	13.8
	(2)	23.4	18.4	23.0	16.1
	3	17.7	15.5	17.3	14.9
	4	10.8	11.1	11.2	11.4
	5+	26.3	35.1	23.9	39.4
	Total	100.0	100.0	100.0	100.0

* For time-dependent variables, the value represents the characteristic of the respondent during the last period before the event, that is one-tenth of a year prior to first union.

Note: reference group in parentheses.

Source: 1995 General Social Survey, Canada.

poorer quality than data for women, particularly for children they do not live with (Juby and Le Bourdais, 1997; Rendall, et al., 1997) . However, based on the intrinsic value of the data for the study of men's union formation (this is one of the largest recent surveys to provide men's fertility histories), we decided to proceed, but with caution. Most tests we have undertaken suggest that there are no marked differences in the quality of men's and women's information in the 1995 GSS.⁵

We first present the results for all the determinants of first union entry in Canada for the period as a whole. We then examine change, focusing on the evolution of the effect of a child (born or impending) before the first union, and the effects of men's and women's educational attainment. We ask the following questions: Does having a child before a union have the same effect through time, not only early in the union formation revolution but also later? Does educational attainment exert the same influence on entering a cohabitation relationship or a marriage for each cohort? To answer these questions, we include interaction terms between birth cohort and presence of children, and between birth cohort and educational attainment in our models.

In order to get at the "historical" perspective more clearly, models are also constructed separately for first unions of people born in 1960 or before and for those born after 1960. The breakdown allows the distinction between older cohorts and those that have formed their first unions in the union formation regime of the 1980s and 1990s. These results are presented in Appendix Tables 1 and 2, and show that many factors that affect first union formation have effects that changed over this period. We do not test for changes beyond those involving educational attainment and children, and hence do not discuss these results except in the context of interpreting our findings about changes in men's and women's union formation patterns.

The Determinants of Union Formation – All Cohorts

We present the basic results for the analysis of the determinants of union entry in Canada in Table 2 for men, and in Table 3, for women. They demonstrate a rich set of effects, reflecting differences by birth cohort, employment and education, religion and family background, and by mother tongue and region. These results closely parallel previous research on Canadian women in most respects; however, some do not. The results for men are new.

Consistent with other studies, our results show that the likelihood of entering cohabitation as a way to begin the first union has increased significantly among younger birth cohorts and the likelihood of entering a marriage has declined. Net of the effects of other determinants, the risks of cohabiting were respectively 8 times and 10 times higher for men and women born between 1961 and 1970 than they were for those born in 1950 or before (risk ratios of 0.13 and 0.10 for the latter cohorts in Tables 2 and 3),⁶ making it clear that the oldest cohort came of age before the increase in cohabitation. In contrast, men and women

Table 2
Determinants of Men's First Union Formation, Canada, 1995

Socioeconomic Characteristics		Cohabitation	Marriage
Birth Cohort	Before 1951	0.13 *	2.28 *
	1951-1960	0.71 *	1.78 *
	(1961-1970)	1.00	1.00
	1971-1980	1.25	0.42 *
Mother Tongue and Region	(French-Quebec)	1.00	1.00
	French-Other Provinces	0.68 *	1.27 *
	Other-Quebec	0.54 *	1.37 *
	Other-Other Provinces	0.49 *	1.31 *
Activity Status*	School Only	0.43 *	0.35 *
	Work and School	1.03	0.93
	(Work only)	1.00	1.00
	Neither	0.81	0.53 *
Religious Attendance	Not at all	1.39 *	0.85 *
	(Sometimes)	1.00	1.00
	At least once a week	0.56 *	1.12
Place of Birth	(Canada)	1.00	1.00
	Outside Canada	0.69 *	0.91
Family Origin	(Two-parent family)	1.00	1.00
	Ever in step-family	1.11	1.22
	Ever in lone-family	1.24 *	0.89
	Others	0.94	0.92
Educational Attainment*	Less than high school	0.93	0.85 *
	(High school diploma/college)	1.00	1.00
	University	1.00	1.06
Presence of Children before Union*	Birth	2.97 *	3.24 *
	Conception	6.79 *	18.24 *
	(No child)	1.00	1.00
Number of Siblings	0	1.08	1.05
	1	0.87	0.98
	(2)	1.00	1.00
	3	1.21	0.97
	4	0.97	0.97
	5+	1.01	0.88

* Risk ratio significantly different from reference category at .05 level.

Note: reference group in parentheses.

Source: 1995 General Social Survey, Canada.

Table 3
Determinants of Women's First Union Formation, Canada, 1995

Socioeconomic Characteristics		Cohabitation	Marriage
Birth Cohort	Before 1951	0.10 *	2.14 *
	1951-1960	0.71 *	1.67 *
	(1961-1970)	1.00	1.00
	1971-1980	1.36 *	0.46 *
Mother Tongue and Region	(French-Quebec)	1.00	1.00
	French-Other Provinces	0.78	1.24 *
	Other-Quebec	0.67 *	1.33 *
	Other-Other Provinces	0.55 *	1.52 *
Activity Status*	School Only	0.39 *	0.53 *
	Work and School	0.83 *	0.74 *
	(Work only)	1.00	1.00
	Neither	0.79	1.54 *
Religious Attendance	Not at all	1.42 *	0.84 *
	(Sometimes)	1.00	1.00
	At least once a week	0.50 *	0.95
Place of Birth	(Canada)	1.00	1.00
	Outside Canada	0.54 *	1.00
Family Origin	(Two-parent family)	1.00	1.00
	Ever in step-family	2.06 *	1.16
	Ever in lone-family	1.58 *	0.84 *
	Others	1.50	0.97
Educational Attainment*	Less than high school	0.86	0.96
	(High school diploma/college)	1.00	1.00
	University	1.16	0.90
Presence of Children before Union*	Birth	1.38 *	1.60 *
	Conception	4.02 *	12.36 *
	(No child)	1.00	1.00
Number of Siblings	0	0.66 *	0.95
	1	0.96	0.97
	(2)	1.00	1.00
	3	0.94	1.03
	4	1.04	1.00
	5+	0.89	0.97

* Risk ratio significantly different from reference category at .05 level.

Note: reference group in parentheses.

Source: 1995 General Social Survey, Canada.

born before 1951 were more than twice as likely to marry as those born in the 1960s.

Among those born after 1960, however, the substitution pattern weakens, a result not shown in previous studies. The risks of cohabitation have stopped rising as dramatically: younger women (1971-1980) are still slightly more likely to choose cohabitation (36%) than the preceding cohorts (1961-1970), but the difference for men (25%) is not significant. The gap between cohorts in the likelihood of entering marriage as a first union, however, has persisted. Thus, the levelling off of the risks of starting conjugal life in a cohabitation relationship cannot be seen as renewed popularity for marriage; it seems instead that overall rates of union formation have slowed.

The Overall Effects of Children and Educational Attainment

The effects of our two key variables for the period as a whole are stronger for children than for educational attainment. A child, either impending or already born, always increases the likelihood of union entry. The effects are stronger for men than for women (fathers are 3 times more likely to enter cohabitation than childless men, compared to a difference of 1.38 for women), and generally stronger for entering a marriage than a cohabitation. The pressure to form a union is strongest when the female partner is pregnant.

Turning to educational attainment, overall effects are surprisingly weak. Consistent with Becker's theory, the least educated men are somewhat less likely to marry than more educated men; those with less than a high school education have 85% the risks of those who completed a high school education or more. However, among women, where this theory has traditionally been applied, there are no significant effects of education on marriage, once the competing risk of cohabiting is controlled. We found some weak evidence that the risks of cohabiting increase with increases in education (the risks are somewhat lower for both men and women with less than a high school diploma), but none of the ratios are statistically significant. After reviewing the other overall effects of the factors in this model, we will consider more directly whether these results characterise each cohort.

Effects of Current Activities, Birth and Family Characteristics , and Religiosity

Employed persons are the most likely to enter a first union, while going to school is an impediment to the start of conjugal life. The effects of school enrolment were about the same magnitude as those for employment, and quite consistent between men and women. For both sexes, students have only about 40% of a worker's risk of entering either a marriage or a cohabitation relationship, with little gender difference, while employment increased the risks of union formation. This was the case for both sexes re cohabitation; but women who were neither working nor going to school had higher risks of getting

married than those who were working (1.54).

The French mother-tongue population in Quebec is the most likely to enter a cohabitation (risks ratios for all other language groups being less than 1). Men and women from non-French groups in Quebec and elsewhere in Canada are the least likely to enter cohabitation, and French people outside Quebec have an intermediate level, suggesting that both place of residence and language, and the cultural expectations they are normally linked with, matter a great deal. Canadian residents born outside Canada also appear to have brought different cultural expectations and behaviours than those they found in Canada, since they are much less likely to cohabit than people born in Canada.

The marital behaviour of parents exerts an important influence on the type of first union that their daughters will later experience, but does not have a systematic or significant influence on their sons. Female respondents who had ever lived in a step- or a lone-parent family while growing up were more likely to choose cohabitation as a first union than those who lived in the same two-parent family until at least 15 years of age (risks ratios of 2.06 and 1.58, respectively). On the other hand, they are neither more nor less likely to start their conjugal life in a marriage than women raised in a stable two-parent family. The number of siblings does not seem to have an impact on the risks of entering a first union, legal or otherwise, with one potential exception. Women who grew up with no brothers or sisters were less likely (0.66) to enter a cohabiting union than were those who had siblings.

Finally, people not attending church are more likely to cohabit (1.4 times the risks of those attending church on an irregular basis), and people attending church every week are least likely to enter such a union. This is the case for both men and women. The effects of religious service attendance on marriage are weaker. Those who attend least frequently, however, are the least likely to have entered the more stable union form.

Cohort Change in the Determinants of First Union Entry

In this section, we examine changes in the process of first union formation, focusing primarily on the changing effects of children and of educational attainment. Tables 4 and 5 present the pattern of change in the effects of children (both already born and impending) and educational attainment on the probability that men and women enter cohabiting or marital unions, tested by looking at interaction effects between each variable and the four birth cohorts. As before, these are presented as relative risk ratios. In each of these analyses, the effects of the other explanatory variables have been controlled.

The Changing Effects of Children

Table 4 presents the changing effects of children and conceptions on the propensity that men and women enter a first cohabiting or marital union. The effects of children can be observed for each of the four cohorts. The history of the rapid change in marriage and cohabitation described in the previous section can be seen most easily by looking at the numbers in parentheses in the first column, which shows the evolution of the relative risks of entering cohabitation and marriage among those who have not yet become parents (the reference category).

As was the case for the total, these results show that a child always increases the likelihood of union entry. The effects are stronger for men than for women, stronger for entering a marriage than a cohabitation, and attenuate with age of child. For example, among men, an impending child (conception) increased the likelihood of entering a cohabiting union nearly eightfold among the cohort of 1961-70, and nearly 18-fold for marrying.

However, these effects have been changing over time. These results show that the effect of a conception or a birth on a man's likelihood of entering a cohabiting union have increased substantially (much more so than the increase among men with no children born or impending) as has the effect of children on marriage. The patterns are not wholly unidirectional (the two intermediate cohorts show some slight reversals). What is clear, overall, is that children have become more important in men's decision-making when considering union entry; among the older cohorts, men were much more likely to enter a union with women with no children.

There has also been a considerable change in the effects of children on women's union entry, except that the result is in the opposite direction: children have much less effect on a woman's likelihood of entering either a marital or cohabiting union. Among the youngest cohorts of women, children, both born and impending, have much less of an effect in triggering marriage than they did among the oldest cohort, and a child has no significant effect on increasing union entry among the youngest cohorts, either for marriage or cohabitation.

The overall picture, then, appears to be an increase in what we still think of as "unconventional" behavior: a pregnancy leading to cohabitation rather than marriage for more people, waiting until after children are born to marry in a higher proportion of cases, and for women, finding themselves increasingly as parents without partners. The consistency in direction between the patterns for women and those for men suggest to us that although men may be undercounting their children, particularly those that do not lead to union entry, not all of the differences we observe among cohorts can be the result of selective memory.

Table 4
Changing Effect of Children on First Union Formation,
by Union Type, Sex and Birth Cohort, Canada, 1995

Union Type and Birth Cohort	No Child	Birth	Conception
Men			
Cohabitation			
Before 1951	1.00 (0.13)^	2.73 *	7.75 *
1951-1960	1.00 (0.72)	3.51 *	3.65 *
1961-1970	1.00	2.28 *	8.54 *
1971-1980	1.00	7.04 *	14.29 *
Marriage			
Before 1951	1.00 (2.36)^	2.55 *	18.33 *
1951-1960	1.00 (1.76)^	5.37 *	18.08 *
1961-1970	1.00	4.02 *	17.86 *
1971-1980	1.00 (0.43)^	7.87 *	12.88 *
Women			
Cohabitation			
Before 1951	1.00 (0.09)^	3.77 *	5.58 *
1951-1960	1.00 (0.72)^	1.31	2.75 *
1961-1970	1.00	1.30	4.62 *
1971-1980	1.00 (1.39)^	0.99	3.62 *
Marriage			
Before 1951	1.00 (1.91)^	1.97 *	14.36 *
1951-1960	1.00 (1.62)^	1.17	10.56 *
1961-1970	1.00	1.31	7.79 *
1971-1980	1.00 (0.47)^	1.11	7.05 *

* Presence of children category significantly different from a reference category (no child) at .05 level, controlling for birth cohort.

^ Birth cohort significantly different from the reference category (1961-1970) at .05 level, for those with no child.

Source: 1995 General Social Survey, Canada.

The Changing Effect of Educational Attainment

Table 5 shows the combined effect of birth cohort and educational attainment on men's and women's propensity to a first union via cohabitation or marriage. It presents the risks ratios for the three educational levels within each birth cohort (with High school diploma/College education as the reference category). As with the analysis of the effects of children, this allows us to follow the trends over time in the effects of educational attainment on union formation.

In general, results show sharp reversals in the effects of educational attainment, with changes in structure that differ both by union type and by sex. For marriage, among those born before 1951, education had a positive impact for men and a negative impact for women. Among men, the likelihood of entering a first union via marriage for those with less than a high school education was only 83% that of men with a high school diploma or some college education, while the likelihood for men with a University education was higher still (although not significantly different from those in the reference category).

Among women, the likelihood of entering a first marriage for those with university education was 88% that of those with only a high school diploma or some college education. These results are consistent with Becker's expectation that more educated men would be more able to marry and more educated women would have less reason to marry.

However, with the cohort of 1961-70, the pattern had reversed. Higher educational attainment increased women's likelihood of marriage and decreased men's in this cohort, although most of the specific tests are not significant. This dramatic reversal is likely responsible for the weak effect of education on marriage for men and women for the combined cohort analysis, shown earlier.

A reversal in pattern over time is also evident in the cohabitation results. For both men and women, education had a strong positive effect on the likelihood of cohabiting for those born before 1951. The effect was especially strong for women, with those that attended university having more than twice the risks of cohabiting of those with high school diploma. But the trend had reversed with the cohorts 1961-70, so that the effect of education had attenuated completely. Similarly, among men born before 1951, education had an even stronger positive effect on cohabitation than it did on marriage. With the cohorts 1961-70, both effects had attenuated.

Looking at these results another way, among women in the earliest cohort, the effect of increased education on cohabitation was the opposite of its effect on marriage, strongly and significantly increasing women's likelihood of entering the former. Hence, for both men and women in the earliest cohort, education had a similar effect on cohabitation, with the more highly educated more likely to enter such a union. However, for each sex the effect of education on cohabitation attenuated totally with the 1961-70 birth cohort, and shows some signs of being negative in the most recent cohort (1971-80).

Table 5
Changing Effect of Educational Attainment on First Union Formation,
by Union Type, Sex and Birth Cohort, Canada, 1995

Union Type and Birth Cohort	Less than High School	High School Diploma/College Education	University
Men			
Cohabitation			
Before 1951	0.47 *	1.00 (0.14)^	1.56
1951-1960	1.15	1.00	1.02
1961-1970	0.97	(0.66)^	0.89
1971-1980	1.07	1.00 (1.26)	0.56
Marriage			
Before 1951	0.83 *	1.00 (2.38)^	1.09
1951-1960	0.84	1.00 (1.88)^	1.03
1961-1970	1.18	1.00	0.89
1971-1980	a	1.00 (0.62)	0.51
Women			
Cohabitation			
Before 1951	0.40 *	1.00 (0.10)^	2.32 *
1951-1960	0.85	1.00 (0.67)^	1.40 *
1961-1970	0.99	1.00	0.97
1971-1980	1.21	1.00 (1.30)^	0.62
Marriage			
Before 1951	1.01	1.00 (1.96)^	0.88
1951-1960	0.97	1.00 (1.55)^	0.93
1961-1970	0.60 *	1.00	0.92
1971-1980	0.60	1.00 (0.47)^	0.98

^a Not available

* Presence of children category significantly different from a reference category (no child) at .05 level, controlling for birth cohort.

^ Birth cohort significantly different from the reference category (1961-1970) at .05 level, for the education reference category (less than high school).

Source: 1995 General Social Survey, Canada.

Discussion: A Broader Pattern of Change?

This study has shown that the ways Canadians enter their conjugal life have changed drastically in the last 30 years, and that the effects of children and of socio-economic factors leading men and women to enter a first union, whichever type, are also changing. The simple patterns linking marriage and children, and shaping separate and symmetrical roles for men and women, have each weakened and taken new shapes with the growth in cohabitation and possible changes in the meanings and commitments underlying family life.

The changes in the effects of children and educational attainment that have occurred as younger cohorts have joined the revolution in union formation in Canada are not isolated patterns. They are consistent with changes in the effects of other factors in our models (as presented in Appendix Tables I and II), and also mirror changes in many other countries. All seem to suggest that gender roles vis à vis marriage are changing for women, but not yet for men.

The increased importance of education for women's entry into marriage, coupled with the result that working has become increasingly important for entering any kind of union, both for men and women (Appendix I and II), suggest that union formation increasingly requires the earning power of both partners; women's increased work does not seem to be reducing men's requirement to be good providers. These results are consistent with others in those tables that indicate that school enrollment is even a bigger impediment to first union formation for younger cohorts than for older ones.

If so, immigrants to Canada have been slow to adapt to cohabitation. Differences between native- and foreign-born Canadians have reversed: people born outside Canada after 1960 were more likely than Canadian-born to choose marriage as their first conjugal union whereas Canadians born in the country before 1961 were significantly more likely to marry than their foreign-born counterparts). Part of the growing discrepancies between the Canadian and foreign born can be attributed to the changing origin of Canada's immigrants. Our results, however, also can be interpreted as indicating that it is the behaviour of the native-born Canadians that is changing more rapidly than that of those in the immigrants' countries of origin, which have not yet entered the "second demographic transition."

When we consider other industrialised countries, however, we find similar results. In France, studies have shown how cohabitation has evolved first from a phenomenon restricted to blue-collar classes, then to a form of living arrangement for more educated people, and most recently to a widely used form of union formation and childbearing family structure (Toulemon, 1995; Villeneuve-Gokalp, 1990). Similar patterns are reported for Norway (Blom, 1994) and some Latin American countries (Castro Martin, 1997).

Nevertheless, in many ways Canada remains unique. The results presented above confirmed that important linguistic and regional differences remain in

the dynamics of family formation in Canada. Our analysis has singled out the behaviours of the French-speaking group in Quebec, and is one step further in the quest to understand why cohabitation is growing more rapidly in that province. The origin of this singular behaviour could be the profound changes that Quebec society went through in the 1960s (the years of "la révolution tranquille") that brought, among other things, major changes to the education system, a decline in religiosity, and also saw the development of a modern society.

Both in Canada and very likely in other industrialised countries, it is clear that it is important to examine the relationships between men and children. The effect of children on men's entry into first unions shows not only a strong but a *changing* impact, with children becoming particularly more important as an impetus to entering a first union, and particularly a first cohabiting union. A study conducted using data from the 1984 Canadian Family History Survey showed that in the case of women who were either single or not living with their spouse, the birth of a child was a major brake on entering into a cohabitation (Desrosiers and Le Bourdais, 1993); the argument advanced was that such women formed unions but tended to opt for marriage. Our results suggest that in Canada, as is the case for many in Scandinavia, a cohabiting union is increasingly becoming a place to start raising children.

Hence, when trying to understand the changing dynamics involved in the second demographic transition, it is important to consider the connections between men and children, both in terms of how they are changing and of how they affect the commitments between men and women. Opening up the demographic study of men and parenthood reveals great complexity. It clearly challenges our theories to go beyond arguments about whether the "second demographic transition" is about the growth in female independence (Becker, 1991) or about the decline in men's earning power (Oppenheimer, 1994). We need to fill in the blanks by studying more carefully the relationships between men and women, and particularly between men and children.

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Appendix 1
Determinants of Men's First Union Formation by Birth Cohort, Canada, 1995

Socioeconomic Characteristics		Cohabitation		Marriage	
		Model 1 Born <=1960	Model 2 Born >1960	Model 3 Born <=1960	Model 4 Born >1960
Birth Cohort	1951-1960	5.32 *		0.76 *	
	(<=1950)	1.00		1.00	
	1971-1980		1.23		0.59
	(1961-1970)		1.00		1.00
Mother Tongue and Region	(French-Quebec)	1.00	1.00	1.00	1.00
	French-Other Provinces	0.64	0.70	1.20	2.30 *
	Other-Quebec	0.44 *	0.67	1.35 *	2.08 *
	Other-Other Provinces	0.53 *	0.45 *	1.25 *	2.20 *
Activity Status	School Only	0.47 *	0.42 *	0.38 *	0.24 *
	Work and School	0.92	1.14	0.95	0.85
	(Work only)	1.00	1.00	1.00	1.00
	Neither	0.84	0.80	0.59 *	0.28 *
Religious Attendance	Not at all	1.52 *	1.30 *	0.87 *	0.79
	(Sometimes)	1.00	1.00	1.00	1.00
	At least once a week	0.61 *	0.53 *	1.06	1.70 *
Place of Birth	(Canada)	1.00	1.00	1.00	1.00
	Outside Canada	0.79	0.56 *	0.84 *	1.19
Family Origin	(Two-parent family)	1.00	1.00	1.00	1.00
	Ever in step-family	1.51	0.98	1.19	1.00
	Ever in lone-family	1.27	1.18	0.93	0.62
	Others	1.05	0.82	0.88	1.76
Educational Attainment	Less than high school	0.86	1.03	0.82 *	1.24
	(High school diploma/college)	1.00	1.00	1.00	1.00
	University	1.10	0.88	1.07	1.01
Presence of Children before Union*	Birth	3.28 *	2.66 *	3.07 *	3.95 *
	Conception	5.12 *	9.13 *	18.54 *	15.98 *
	(No child)	1.00	1.00	1.00	1.00
Number of Siblings	0	0.99	1.13	1.11	0.66
	1	0.73	0.96	1.01	0.86
	(2)	1.00	1.00	1.00	1.00
	3	1.12	1.30	0.92	1.14
	4	0.89	1.04	0.90	1.34
	5+	0.93	1.19	0.88	0.88

* Risk ratio significantly different from reference category at .05 level.

Note: reference group in parentheses.

Source: 1995 General Social Survey, Canada.

Appendix 2
Determinants of Women's First Union Formation by Birth Cohort, Canada, 1995

Socioeconomic Characteristics		Cohabitation		Marriage	
		Model 1 Born <=1960	Model 2 Born >1960	Model 3 Born <=1960	Model 4 Born >1960
Birth Cohort	1951-1960	6.56 *		0.78 *	
	(<=1950)	1.00		1.00	
	1971-1980		1.33 *		0.60 *
	(1961-1970)		1.00		1.00
Mother Tongue and Region	(French-Quebec)	1.00	1.00	1.00	1.00
	French-Other Provinces	0.78	0.80	1.18	1.57
	Other-Quebec	0.75	0.62	1.29 *	1.62
	Other-Other Provinces	0.56 *	0.53 *	1.48	1.76 *
Activity Status	School Only	0.42 *	0.39 *	0.63 *	0.23 *
	Work and School	0.85	0.77 *	0.79 *	0.58 *
	(Work only)	1.00	1.00	1.00	1.00
	Neither	0.66 *	0.88	1.66 *	1.07
Religious Attendance	Not at all	1.45 *	1.39 *	0.88 *	0.67 *
	(Sometimes)	1.00	1.00	1.00	1.00
	At least once a week	0.50 *	0.50 *	0.91	1.35 *
Place of Birth	(Canada)	1.00	1.00	1.00	1.00
	Outside Canada	0.56 *	0.48 *	0.92	1.40 *
Family Origin	(Two-parent family)	1.00	1.00	1.00	1.00
	Ever in step-family	1.52	2.16 *	1.16	1.14
	Ever in lone-family	1.95 *	1.45 *	0.95	0.65 *
	Others	2.07 *	1.32	1.25	0.28 *
Educational Attainment	Less than high school	0.66	1.06	0.98	0.73
	(High school diploma/college)	1.00	1.00	1.00	1.00
	University	1.50 *	0.93	0.88 *	0.99
Presence of Children before Union*	Birth	1.87 *	1.08	1.66 *	1.52 *
	Conception	3.77 *	3.90 *	13.17 *	8.44 *
	(No child)	1.00	1.00	1.00	1.00
Number of Siblings	0	0.72	0.68	0.98	0.92
	1	0.78	1.08	0.98	1.04
	(2)	1.00	1.00	1.00	1.00
	3	0.71 *	1.08	1.05	1.03
	4	0.82	1.17	1.00	0.87
	5+	0.79	1.00	0.96	1.07

* Risk ratio significantly different from reference category at .05 level.

Note: reference group in parentheses.

Source: 1995 General Social Survey, Canada.

Endnotes:

1. We also used the information provided by GSS on when the respondent last attended school.
2. Since our categories are mutually exclusive, those that lived in both a step-parent and a lone-parent family were classified in the former category since it can be seen as the absorbing state.
3. Other studies have shown that except for Quebec, which is becoming increasingly different in this regard, regional differences as to the scope of the phenomenon of common-law unions are decreasing over time (Nault and Bélanger, 1996; Dumas and Bélanger, 1997). For the purposes of this analysis, we therefore grouped together the Canadian provinces other than Quebec.)
4. Tests were conducted using binomial and multinomial logit models and yielded results substantially similar to the general proportional hazard models.
5. Our imputation method for the date of first union (see Turcotte and Bélanger, 1997) does not appear to have created a bias either in the data on men or in those on women. The robustness of the method was tested by running models with and without imputation; they yield similar results.
6. Based on the Wald Chi-Square statistic, birth cohort is the most influential variable in these models.

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