Partnership Transition in Contemporary Japan:
Prevalence of Childless Non-Cohabiting Couples

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1. Introduction

Since the 1970s there has been a drastic drop in fertility, as well as a sharp decrease in the married population in Japan. The total fertility rate (TFR) reached its lowest point in 2002, at 1.32. The decline of married people has been one of the main causes of the below-replacement fertility in Japan, where the rates of extra-marital birth are extremely low (approximately one percent of live births). The purpose of this paper is to examine the changes in relationships amongst men and women that might be central to the decline in nuptiality in contemporary Japan. I will approach the very low fertility issue by focusing on intimate sexual relationships from which childbirth arises.

Figure 1 presents a year-to-year comparison of the proportion of those married by age for women between the ages of 18 and 49, based on the census data (the total is the sum of married females and never-married females). There has been a significant decrease in the proportion married since 1980 especially for those in their mid to late 20s. Various hypotheses on this postponing of marriage have been postulated through much research. For example, as the socio-economic status of women continues to rise, women are likely to reject the current institution of marriage, which forces an excessive burden on the female (Ohashi 1993). A pampered life at home with financially secure parents has further raised their children's expectations about their married life in the future (Miyamoto *et al*. 1997). As a dating culture to replace the traditional arranged marriage is still not fully developed, singles are passive about finding a partner (Atoh 1998). The increasing methods of meeting members of the opposite sex through travel, work and social interaction are working to delay decisions to get married (Yamada 1994).

Nevertheless, some ambiguity remains in terms of how these explanations contribute to understanding of the non-marrying society. This ambiguity seems to be related to the change in the meaning of marriage. It is on

this point that I focus in this paper. Decades ago, marriage used to represent several life events simultaneously, such as the beginning of a regular sexual relationship (preparation for childbearing), leaving the parental home, living with a partner, and for a woman, leaving their occupation (Manting 1994). Also in Japan, until the 1970s, we could see the strong linkage among romantic love, sexual relationships and marriage, that is, intimate relationships between men and women and reproductive behaviour were tightly bound to marriage. Up to and in that period, it was fairly easy to identify the meaning of marriage. However, in today's society, these links have become weaker, bringing about confusion in understanding of the current non-marrying society.

In order to be more realistic, we should examine the decline in marriage from a wider perspective. In this study marriage is reconsidered as one of the male/female partnerships. The term 'partnership' here is used as a general term for intimate relationship behaviour. And when I use an expression such as "those who have an intimate partner," they are considered to be currently involved in sexual relationships with their partner. In order to gain an understanding of the overall changes of partnerships, it is effective to use indicators for which the significance is comparatively stable. Therefore, I will focus on such indicators as sexual experience, the presence of an intimate partner, and living arrangements (living with or separate from the intimate partner). The question here is which among these behavioral changes has the closest correlation to the drop of marriage in Japan.

I will proceed in three stages. First, I will illustrate the descriptive trends concerning relational behaviour. Then, comparisons will be made with data from other developed countries in Europe or North America, to help us identify the distinctive features of Japan with regard to the recent partnership pattern. In the last part, I will mention some prospects concerning partnership patterns. A multinomial logistic model will be applied to the sample and the results of simulations by
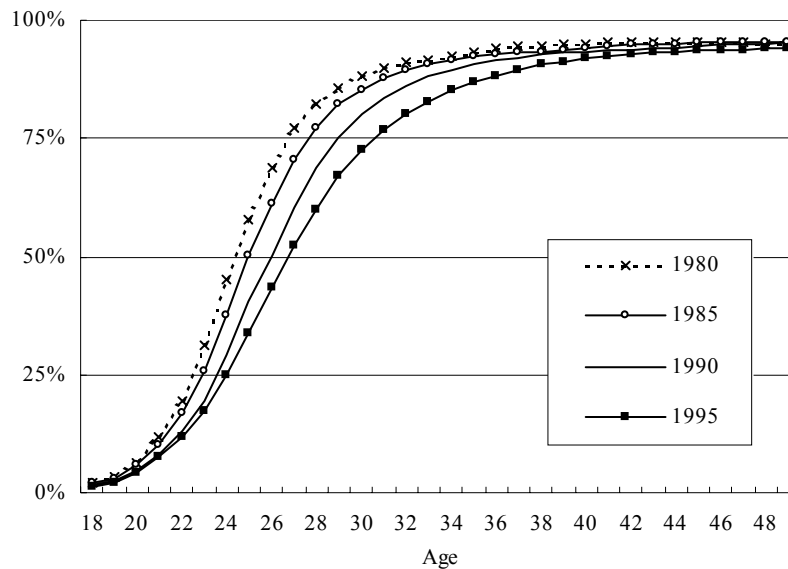
Source: Census of Japan (1980, 1985, 1990, 1995)

Figure 1. Percentage of Married Women by Age

that model will be shown, which would project future trends of partnership patterns.

2. Data

I use individual-level data from the three most recent Japanese National Fertility Surveys (JNFS) conducted in the 9th (1987), the 10th (1992) and the 11th (1997) by the National Institute of Population and Social Security Research (Takahashi *et al.* 1998; Takahashi *et al.* 1999). The JNFS is a nationally representative sample of unmarried men and women and married women aged 18 to 49 (only for unmarried men and women in the 9th survey, up to age 35). For each survey, the sample size was approximately 15,000.

In the following sections, sexual behaviour and dating relationships, which is often reported for never married people, and reproductive behaviour, which is often reported for married people, are studied based on women as a whole. A partner includes a male lover, fiancé, cohabitant, or husband.[1]

The sample of these analyses was limited to currently married and never married women. That is, those who have been separated from a spouse by divorce or death have been excluded. The percentage of women (age 18 - 49) who are either widowed or divorced was

4.3 percent. There was no differentiation made between the first marriage and the second or later marriage, and all those in intact marriages were handled as one group, i.e., 'married.' According to the data from the 11th JNFS (1997), 3.3 percent of wives among married couples (women age 18 - 49) are re-married, and the proportion of re-married is 2.0 percent of the entire female population. For the married sample, whether or not they had borne children was known, while for the never married, the existence of an intimate partner as well as the desire or intent to marry that partner were reported. The sample size was 11,788 for the 9th survey, 13,216 for the 10th survey, and 11,534 for the 11th survey.

When the proportions out of the combined samples of never married and married are displayed, estimates are made based on the population structure by marital status from the national census (the ratio of married females to never married females).[2] Based on this breakdown by marital status, the patterns in intimate relationship behaviour by age for the female population are reported. Since the ultimate goal of this study is to identify the relationship between intimacy and reproductive behaviour, only relationships between men and women are considered.

3. Trends of Relational Behaviour

(1) Sexual Experience

There is not a great deal of reliable data on the historical trends on premarital intercourse. It is believed, however, to have been increasing throughout the 20th century in Europe and America, and since 1980, many countries are reporting that the age for sexual experience (age on first having sexual intercourse) is dropping (Cliquet 1991). With the recent decrease in the proportion of married people, this raises a question about what kind of changes regarding sexual experience can be found among the population as a whole, including both married and never married women. Single respondents have been asked about their sexual experience in the JNFS. Although there were no questions regarding the sexual experience of married subjects, all married respondents were included in the calculations in the category of 'sexually experienced.' Figure 2 shows a comparison for each survey of the patterns of sexual experience by age, including both married and never married respondents.

Between 1987 and 1992, the younger age groups, up through the early 20s, show an increasing proportion of sexually experienced members. Between 1992 and 1997 there was a further increase in the early twenties, as well as a simultaneous expansion of the increased range through the group aged 27. For example, in 1987, 29 percent of 20-year-old women had experienced sexual intercourse. This rose to 37 percent in 1992, and to 46 percent in 1997, showing a 17-point increase over the period of 10 years. However, in the early 30s, there was a slight decrease in the proportion of those with sexual experience. For the older age groups, there was no significant change observed over the same 10-year period.

Other surveys on sexual behaviour among those of school age also support the fact that sexual experience (premarital intercourse) has been increasing dramatically since the 1980s (JASE 1994; Wagatsuma 1998; Sato *et al*. 1999), and attitudes toward premarital sexual activity have changed. The proportion of those who agree that 'premarital intercourse is acceptable if "there is love" between the partners'[3] has reached 82 percent of never married men under the age of 35, 81 percent of never married women, and 87 percent of married women (the 11th JNFS in 1997). We should conclude that the total level of sexual experience among women has been almost stable during the decade and what should be attained is increasing detachment of sexual experience from marriage.

(2) Intimate Partner

The focus of this section is the presence of an intimate partner. I am interested in exploring what changes,
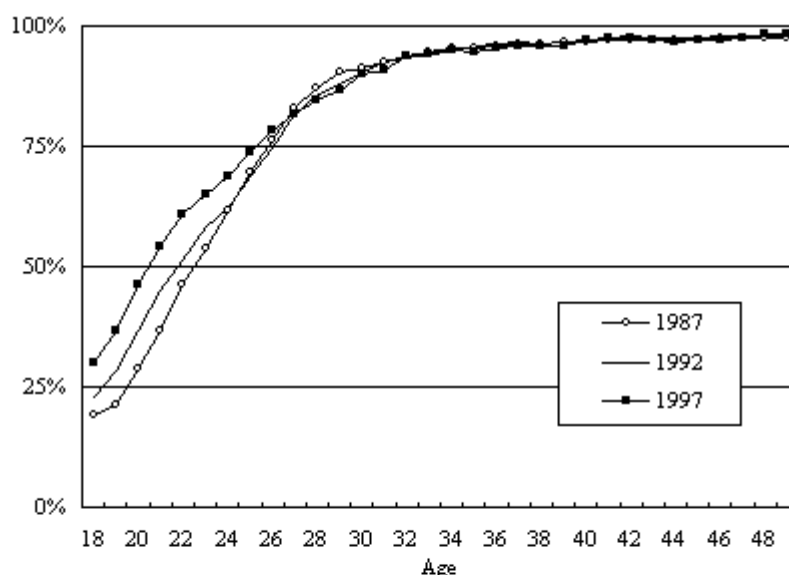
Source: Japanese National Fertility Surveys, the 9th (1987), the 10th (1992) and the 11th (1997)

Note: In order to generate a smooth curve, moving averages are calculated from the data for the three years on each side of each target age. The same in Figure 3 and Figure 4.

Figure 2. Percentage of Women Having Had Sexual Experience by Age

if any, have occurred since 1980 in the proportion of women who have a male partner. Figure 3 shows the proportion of women who have had sexual experience and have a partner, that is, who are considered to be currently in a sexually intimate relationship. In this case, 'sexual experience' does not necessarily mean that there is a sexual relationship with the current partner. At least, those who are dating without a sexual relationship can be excluded from the group of intimate partnerships. According to the result of the survey in 1997, 96.6 percent of those never married women who are dating agree that 'premarital intercourse is acceptable.' Therefore, we can assume that there is a high probability of the existence of a sexual relationship with the current partner.

Although those age groups around 30 show a slight decrease, 88 percent in 1987, 84 percent in 1992 and 81 percent in 1997 respectively, the early 20s age groups show an increase in the proportion of women with a partner.

One might ask whether this indicates increasing ease in finding a partner among the younger age groups and increasing difficulty in doing so among the older age groups on account of age effects. This distribution pattern by age group only shows the situation at a specific point in time, however, there is another possibility that

when the women currently in their early 20s reach their 30s, they will show a higher proportion of partnerships than the current group of those in their 30s. In any case, while there is a noticeable trend by age with regard to the presence of a partner, the change observed here is less compared to that of the proportions married, shown in Figure 1.

Besides the number of those who are dating, we can also know their intention of marriage from the surveys. In the 10th and the 11th JNFS, unmarried respondents with partners were asked about their intention to marry their current partner. Differentiating between respondents who intended to marry their current partners and those who did not intend to marry their current partners, the latter group was confirmed to be larger among those in their mid-20s or younger. Furthermore, the survey in 1997 showed a slight increase in this group even among those in their late 20s. Even if women are in an intimate relationship, some might be 'outside' the marriage process.

(3) Living with a Partner

Next, the proportion of women living with a male partner is considered. Figure 4 shows that in each subse-
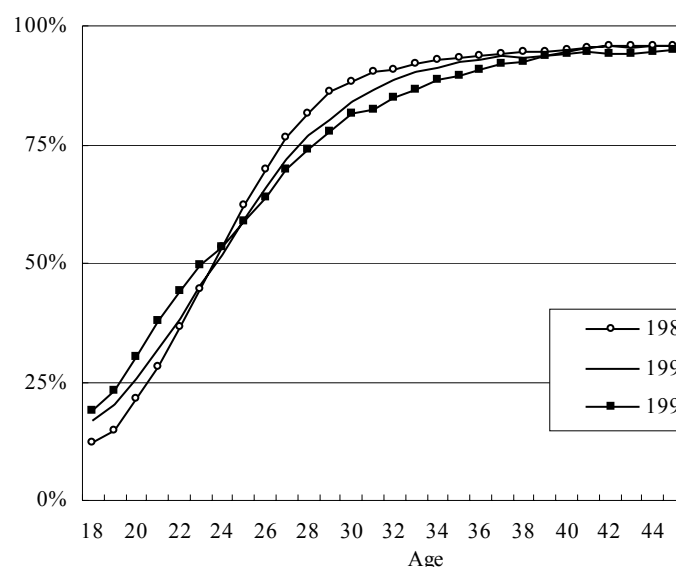
Source: JNFS, the 9th (1987), the 10th (1992) and the 11th (1997)

Note: "An intimate partner" includes a lover, a cohabitant and a husband.

Figure 3. Percentage of Women who Currently Have an Intimate Partner by

quent survey there is a large decrease in the proportion of women living with a partner. For example, in 1987, 86 percent of 30 year-old women reported living with a partner, then the figure dropped to 80 percent in 1992, and to 73 percent in 1997. Referring to Figure 1, we can see the decrease in the number of women cohabiting with a partner almost equals the decrease in that of women who are married.

To summarize, the figures I have been presenting show that the linkage between having a partner and living with that partner or the intention to marry the partner is weakening. On the other hand, there is still a strong linkage between living with a partner and marriage in Japan.

A review of the characteristics of never married women currently cohabiting with a partner revealed that nearly all of them (more than 90 percent) wanted to get married in the future. Among them, 70 percent expected to get married to their current partner, while 30 percent expected to get married to somebody else. It is a lower level compared to American cohabiters, with about three-quarters expecting to marry their current partner (Manning and Smock 2000). However, approximately one out of every five never-married women cohabiting with a partner engaged to be married to that partner (Iwasawa 1999). Based on the observation that cohabitation is relatively high among women in their early-20s, one can say that cohabitation in Japan is not as much a completely

new life style that replaces marriage as a step towards marriage. Indeed, 10 percent of women currently engaged to marry are cohabiting with their fiancé (the 11th survey in 1997).

4. Changes in the Partnership Pattern

In the previous sections, I have looked at the changes related to sexual experience, the presence of a partner and living arrangements. These results can be presented differently with a focus on the partnership pattern.

1) First, I can make inferences about the relationships from the behavioral data presented above. For example, if one is living with a partner, then this implies the presence of a partner; however, the presence of a partner does not necessary imply living together. In other words, it is possible to infer relations like the following: (a. being married) •¼ (b. living with a partner) •¼ (c. Have a partner). The cases in which partners (husbands) live separately after marriage are not considered here. In the following illustration, only women who seem to be having sexual relationship with a partner are defined as women who have an intimate partner. The criterion used here is (c. have an intimate partner).

2) From these criteria (a, b, c), four partnership typologies can be constructed, which are differentiated by varying degree of physical intimacy. First, the group
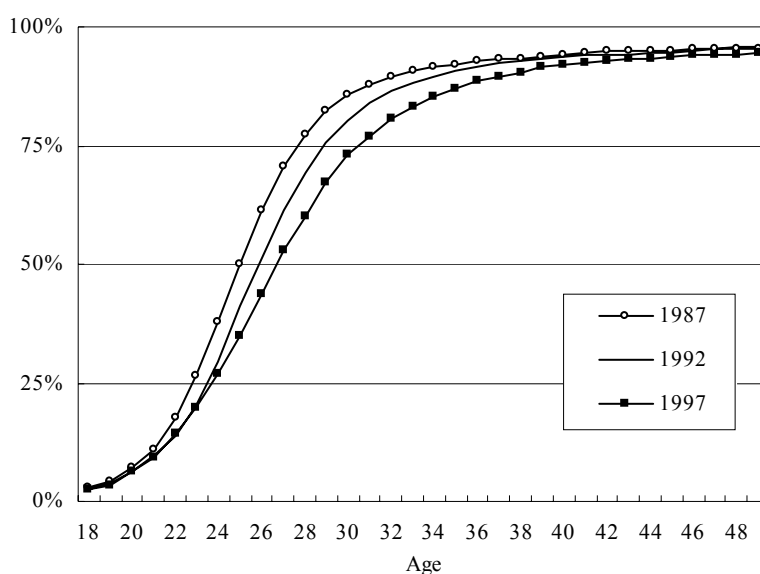
Source: JNFS, the 9th (1987), the 10th (1992), the 11th (1997)

Figure 4. Percentage of Women Living with Their Partner by Age

satisfying all criteria (a, b, c) can be called 'married couples,' typically considered to be the 'traditional' form of marriage. Another group, '(non-marital) cohabiting couples,' includes those who are living together but not married (only b and c). Then there are people who are in an intimate partnership, but are neither married nor living together (c only), which can be called 'non-cohabiting couples.' Common to these groups is the presence of an intimate partner. In other words, women in these groups are considered to have chances of pregnancy in the current intimate partnership. Respondents who do not fit into any of these three groups can be categorized as 'no intimate partner.'

Table 1 shows the changes in the relative proportion of these categories for each age group in five-year increments. The evidence in the above sections has indicated that while there has been comparatively little change in the proportion of women with sexual experience or with a partner, the proportion of those living with a partner has remarkably decreased. The same phenomenon can be observed in the increase of non-cohabiting couples in all age groups in Figure 5. On the other hand, there is a large decrease in married couples.

The above results can be presented more clearly by the decomposition method. Using this method, I can breakdown the change of proportions of those who are married relative to the total population into two distinct changes; the 'changes in the proportion of women who have a partner of any type out of the total female population' (hereafter abbreviated as the PP effect) and the 'changes in the proportion of those who are married as relative to the people who have a partner' (hereafter, the PM effect).[4]

This manipulation enables us to gain a better understanding of the factors contributing to the recent marriage decline, whether due to a stagnation in dating, or an increase in the number of couples who choose not to marry. Table 2 shows the results of the PP effect and the PM effect relative to the total changes in the proportion of married women, from 1987 to 1992 and from 1992 to 1997, respectively. The 18 to 19 year old group shows the least change in the overall proportion of married women with the PP effect being positive, and the PM effect, negative. For the 20 to 24 year old group, there is an overall decrease in the proportion of married women; although the PP effect is actually positive, it is cancelled by the negative PM effect. With regard to the 25 to 29 year old group, both the PP and the PM effects are nega-

tive, with the PM effect contributing more to the overall decrease in marriage (59.2 percent in the first term and 78.3 percent in the latter term). As for the 30 to 34 year olds, in the beginning of the 1990s, the PP effect, that is, the increase of those who did not have a partner, was considered to be the primary factor contributing to the decrease of married women. In recent years, however, the PM effect has been increasing (from 15.9 percent to 43.4 percent).

Based on this result, decreasing nuptiality cannot be explained entirely by the decline of dating activities or an increase in the number of people who do not have an intimate partner. Rather, in the younger age groups, we can see an increase in the proportion of women with an intimate partner. The changes contributing to the sharp drop in the proportion of those married are the increase of women who have an intimate partner but do not live together.

From the above illustrations, marriage decline in the 1990s in Japan accompanies *partnership transition*. We are in the process of shifting from marital coresidential relationships to non-cohabiting relationships in which couples are sexually involved, but neither live together nor have legal ties. And about 70 percent out of those women are living with their parents. As these non-cohabiting couples are usually childless in Japan, this transition leads immediately to fertility decline.

To understand why those who are in an intimate relationship are reluctant to get married, we can refer the reason for remaining unmarried. In the JNFS, unmarried men and women were asked to identify which of the categories shown in Figure 6 represented their reasons for remaining unmarried. This figure presents the percentage of each reason among never married men and women aged 25-34 who have an intimate partner.

As for men, 'feel no need' and 'can't afford marriage' are high, while for women, 'feel no need' and 'can't meet an appropriate partner' are remarkable. Compared with the previous survey, however, reasons such as 'dedicated to work or study' or 'enjoy hobbies or leisure' or 'don't want to lose their freedom' have risen significantly. In addition to the lack of positive reasons for getting married, the rising priority of work or leisure over marriage seems to put restrictions on marriage. In other words, marital life in Japan is considered to be less compatible with their ambitions for self-satisfaction.

Should the partnership transition in Japan be accounted for in the same way as the second demographic

Table 1. Frequency Distribution of Each Partnership Type

Age group	Year of the survey	N	Total	(not a·b·c) No intimate partner	c. having an intimate partner Non-cohabiting couples	b. living with a partner Cohabiting couples	a. being married Married couples
	1982	634	100.0%	87.7%	9.5	.8	2.0
18-19	1992	828	100.0	83.3	14.2	.8	1.6
	1997	579	100.0	81.3	16.3	1.0	1.4
	1982	1,601	100.0	63.8	17.4	.7	18.1
20-24	1992	1,974	100.0	61.9	23.4	1.0	13.7
	1997	1,857	100.0	56.6	28.6	2.1	12.7
	1982	1,682	100.0	24.6	6.6		68.9
25-29	1992	1,910	100.0	29.2	11.3	.6	58.9
	1997	1,788	100.0	31.5	17.2	.5	50.8
	1982	1,971	100.0	8.7	2.0	.1	89.2
30-34	1992	1,975	100.0	11.8	2.3	.2	85.7
	1997	1,747	100.0	15.4	4.8	.3	79.5

Source: Japanese National Fertility Surveys, the 9th (1987), the 10th (1992) and the 11th (1997)


Source: Japanese National Fertility Surveys, the 9th (1987), the 10th (1992) and the 11th (1997)

Figure 5. Change in Partnership Pattern

Table 2. Decomposition of Marriage Decline, 1987-97

		Ages 18-19		20-24		25-29		30-34	
		1987-92	1992-97	1987-92	1992-97	1987-92	1992-97	1987-92	1992-97
	Change in the proportion married among female population	-0.0036	-0.0024	-0.0438	-0.0096	-0.1000	-0.0804	-0.0355	-0.0614
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Decomposition	Change in the proportion married among women with partners (the PM effect)	-0.0092	-0.0042	-0.0521	-0.0267	-0.0592	-0.0630	-0.0057	-0.0266
	%	256.7	173.8	119.0	277.5	59.2	78.3	15.9	43.4
	Change in the proportion of women with partners (the PP effect)	0.0056	0.0018	0.0083	0.0171	-0.0408	-0.0174	-0.0298	-0.0348
	%	-156.7	-73.8	-19.0	-177.5	40.8	21.7	84.1	56.6
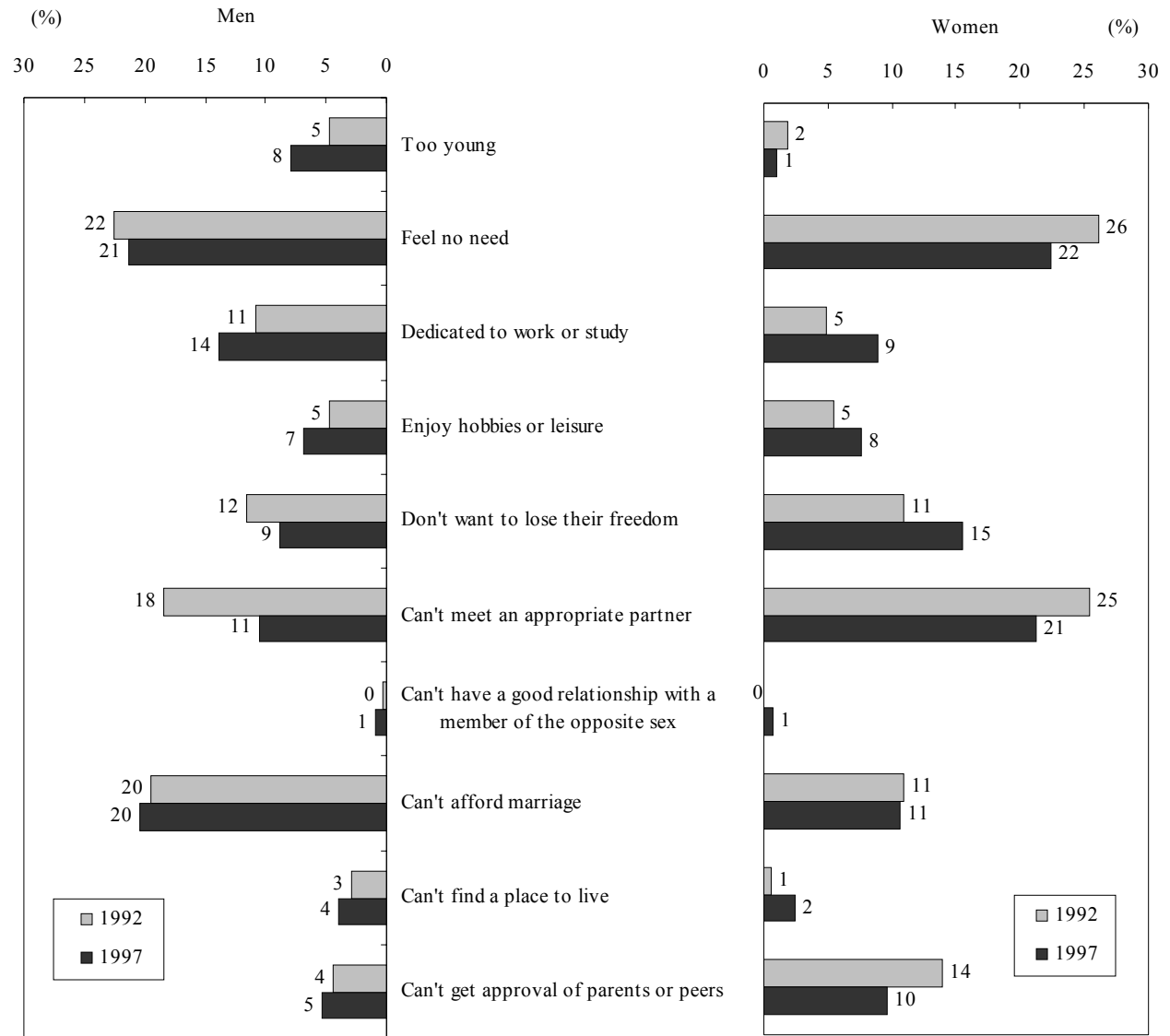
Note: Based on never-married men and women aged 25-34 who currently have an intimate partner, including a lover or a cohabitant.
For men, a sample of 276 in 1992 and 304 in 1997, and for women, a sample of 165 in 1992 and 291 in 1997.
Source: JNFS,1992,1997

Figure 6. Reasons for Remaining 'Single' among Never-Married Men and Women in Intimate Relationships

transition in Europe, or is this the appearance of something completely different? The answer to this question is also important to verify the applicability of the second demographic transition hypothesis in Japan (van de Kaa 1987). Considering the other countries, the decrease in nuptiality in Western Europe and North America since the 1960s has been accompanied by an increase in cohabitation. This differs from the situation in Japan where there is a decrease in nuptiality without a popularization of cohabitation (Atoh 1997). The next section will present cross-national comparisons focusing on intimate relationships.

5. Comparison with Other Countries

Figure 7 shows the proportion of women aged from 25 to 29 in union of any type. Furthermore, union is subdivided into marriage and cohabitation. The data for Japan is taken from the JNFS, and that for other nations from the European Fertility and Family Survey (FFS) (Klijzing and Macura 1997).

I will first look at the characteristics of Europe, Canada, and New Zealand. The data show that there is not much of a difference among countries in the total proportion of women being married or in cohabitation. These countries can be roughly divided into three groups: (a) countries in which only the proportion of marriage is high, (b) countries in which the proportion of those married is low, and instead cohabitation is prevalent, and (c) countries in which both are low. This classification corresponds to the geographical distribution as well, where (a) includes Eastern Europe plus Belgium, and (b) includes Northern and Central Europe. Canada and New Zealand fall into the (b) pattern. Southern European countries like Italy and Spain can be grouped as (c).

The data for Japan show that over the reported 10-year period, both the proportion of cohabiting and marriage dropped. A considerable increase in the proportion of unmarried cohabiting couples cannot be seen. While in 1997, the proportion of married women in Japan was slightly higher than that of Northern European nations at the time of the surveys, the proportion of those living with a partner (cohabitation plus marriage) was the lowest among all 21 countries shown in the figure. In other words, while the pattern in Japan in 1987 was one of high proportions of marriage, resembling Eastern Europe, it has changed over a 10-year period, and now resembles the Southern European pattern of low propor-

tions of both marriage and cohabitation.

For the data of Japan and some Southern European countries, shaded portions are added to represent the proportion of women who have an intimate partner, but are neither living together nor married. These partnerships can be called non-cohabiting couples or more generally, dating couples. To calculate the proportions of those who are dating in Southern European countries, I substituted the figures reported by Kiernan who used the same data from the FFS (Kiernan 2000). These figures are the percentages of those who 'currently have an intimate relationship with someone who lives in a separate household' among those who 'had never been in a coresidential partnership until that time.' In Italy and Spain, almost all non-cohabiting singles had never cohabited, i.e., 98 percent in Italy and 84 percent in Spain. These figures are considered to represent the closest figures to the actual proportions of those dating out of the total number of non-cohabiting singles.

Considering dating couples in these regions, there is not much of a difference among countries with regard to the total proportion of women in an intimate relationship. That is, the limited amount of union in Southern Europe or Japan is offset by the prevalence of people who are dating. This is an additional tendency to the common features of these areas that have been observed so far (Dalla Zuanna *et al.* 1998). Initially, even though Japan is assumed to have the lowest level of dating activities, we should not come to a conclusion without further examination. It is because the definition of 'dating' could vary from country to country. Furthermore, even in Japan each subsequent survey shows an increase in the proportion of people in the younger age groups that have an intimate partner, so it is reasonably likely that the differences with other nations in dating activity will shrink in the future.

In both Europe and Japan, the 1960s and 1970s were a time of early marriage and an extremely high marriage rate. The proportion of those never married at age 50 in the 1930-40 birth cohorts in Europe was less than five percent (Festy 1980). In the 1980s and 1990s, there was a decrease in the proportion of married women in both Europe and Japan. However, the increase in non-marital cohabitation that accompanied the decline in marriage in Northern and Central Europe is not seen in Southern Europe or Japan. In Japan and perhaps Southern Europe, a unique pattern is found whereby non-married non-cohabiting couples are replacing marital cohabi-
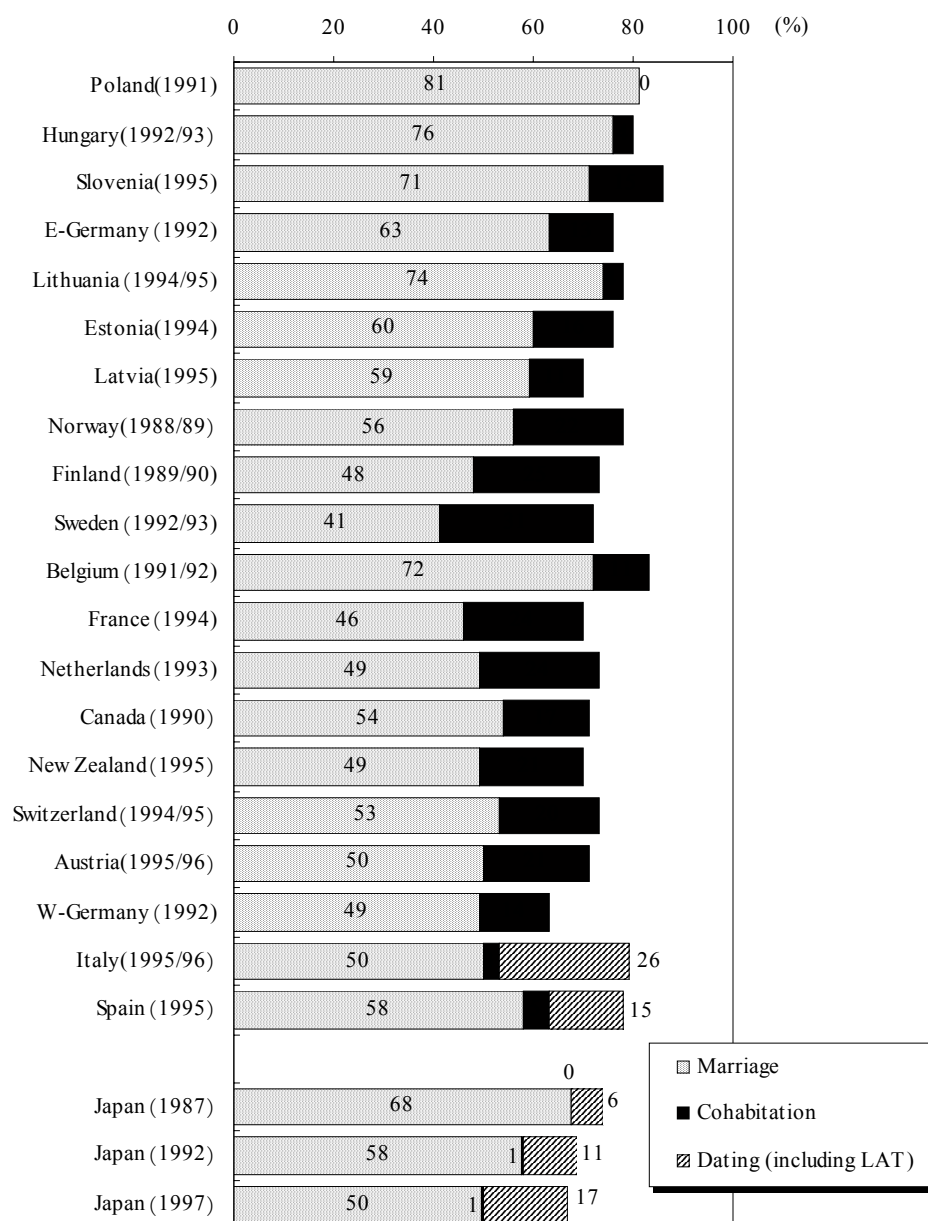
Sources: Excluding Japan, based on the results of European Fertility and Family Surveys (FFS) in Klijzing and Macura (1997) or Kiernan (2000). For Japan, JNFS.

Note: The values of 'Dating (including LAT)' for Italy and Spain are estimated by the use of the percentages of never-cohabited women who are currently having an intimate relationship with someone who lives in a separate household shown in Kiernan (2000). The figures in parentheses indicate the year of the survey.

Figure 7. Frequency Distribution of Women Having an Intimate Relationship, Ages 25-29

tation.

Finally, there is another trend in Europe that should be mentioned. It has been pointed out that besides the prevalence of cohabitation in Europe, there is an increase in the number of unmarried couples who maintain separate living arrangements. These arrangements have been called LAT relationships (living apart together) (Trost 1998, Kiernan 2000). The concept of the LAT relationships recognizes that the people in question are, in fact, in steady partnerships, where living together is not necessarily a requirement. This trend may suggest the possibility that the partnership pattern of Europe will more closely resemble that of Japan. It is necessary to acquire a more in-depth understanding of young adults who maintain a non-cohabiting intimate relationship to determine the future trend of intimate relationships in Japan: whether non-cohabiting intimate relationships will decrease or whether such relationships will remain a permanent pattern like the LAT relationships in the West.

6. Potential Future Trends

Finally, I would like to mention some prospects for future trends. In order to examine the trends more quantitatively, I propose a multinomial logistic model that predicts the probabilities for women of each partnership type under certain conditions. The dependent variable is a three-category partnership status: dating relationship; cohabitation; and marriage. I focus particularly on the birth cohort effect to have an understanding of the future trends.

The control variables are those that have been found in prior research to affect the relationship status. The respondent's age and duration of relationship are highly expected to have a strong effect on the likelihood of partnership types. People of older ages and in longer relationships are more likely to get married. It is also known that the risks of marriage vary with the methods of meeting the current partner (Kaneko 1995). Other than these variables, the respondent's educational background and employment status are included to assess the effects of socioeconomic status. I also expect partnership type to vary by whether the respondent has divorced previously. By controlling these variables, we can find the birth cohort effect on the probabilities of partnership types.

I applied this model to all of the data from the three most recent JNFS, confining the cases only to women aged 18 to 34 who have an intimate partner. In total, 11,751 cases are used in this analysis. The descriptive statistics of independent variables is shown in Table 3. Except for the birth cohort that had been confirmed to have linear relation with the partnership types and was included as a continuous variable, covariates were included in the model as categorical variables. Parameterization was based on a deviation from the mean model; the sum of the coefficients of each category comes to zero, and coefficients were estimated by the maximum likelihood method.

Table 4 presents the results from the multinomial logistic regression that examines the relationship between the partnership types and the variables. I present coefficients associated with the likelihood of being dating or cohabiting rather than being in a marriage, and also show the odds ratios compared to the omitted categories. As expected, the recent birth cohorts increase the odds of being dating or cohabiting.

The partnership transition is best illustrated with predicted probabilities of each partnership type. The probabilities can be computed using coefficients in the model proposed.[5] Figure 8 presents the predicted probabilities of women under certain conditions by year of birth. These simulations are completely based on this kind of women; 28-31 years old; university graduates; have a current relationship at the workplace; full-time worker; never divorced.

I show them by three different conditions concerning duration of relationship; the third year, the fifth year and the seventh year of relationship. The first graph shows the probability in the third year of a relationship. The probability of being married was over 0.8 in the 1950 birth cohort, while it dropped to 0.4 in the mid-1960s cohort. Instead, the probabilities of dating and cohabitation are increasing steadily every year. However, the increase of cohabitation is far slower than in dating. Dotted lines is for the women who had not yet reached the age of 30 at the time of the survey conducted in 1997. If the effect of birth cohort continues from now on, predicted probabilities are as shown.

Although women in longer partnerships are more likely to be married, declining trends can be seen in all of these three figures. Predicted probabilities indicate and support a visible change, from the formal ties to looser ones, based on intimacy amongst men and women.

Table 3. Descriptive Statistics for Variables Used in Partnership Type Analysis

	Dating		Cohabitation		Marriage		Total	
Birth Cohort								
1952-54	0.00		0.00		0.11		0.08	
1955-59	0.03		0.03		0.27		0.21	
1960-64	0.16		0.15		0.33		0.28	
1965-69	0.33		0.26		0.22		0.25	
1970-74	0.35		0.37		0.06		0.14	
1975-79	0.13		0.20		0.01		0.04	
Means [in years] [a]	68.94	(4.90)	69.79	(5.05)	61.52	(5.24)	63.47	(6.11)
Age at the Time of the Survey								
18-19	0.14		0.13		0.00		0.04	
20-22	0.34		0.37		0.03		0.11	
23-25	0.29		0.25		0.11		0.16	
26-28	0.14		0.10		0.23		0.21	
29-31	0.05		0.09		0.29		0.23	
32-34	0.03		0.06		0.34		0.26	
Means [in years]	23.14	(3.49)	23.59	(4.14)	29.44	(3.42)	27.80	(4.42)
Duration of Partnership								
1 year or under	0.49		0.38		0.04		0.16	
2-3	0.29		0.36		0.12		0.17	
4-5	0.13		0.13		0.16		0.15	
6-7	0.05		0.06		0.17		0.14	
8-9	0.02		0.03		0.17		0.13	
10-11	0.01		0.01		0.13		0.10	
12 and over	0.01		0.03		0.20		0.15	
Means [in months]	31.66	(29.62)	38.89	(41.16)	98.59	(49.07)	81.15	(53.61)
Academic Background								
Junior high school	0.03		0.08		0.07		0.06	
High school	0.41		0.41		0.51		0.49	
Vocational college etc.	0.39		0.33		0.32		0.34	
University or higher	0.18		0.18		0.09		0.12	
Method of Meeting the Current Partner								
At school	0.18		0.20		0.08		0.11	
At workplace	0.32		0.26		0.35		0.34	
Neighbor/through club	0.09		0.09		0.07		0.07	
Arranged introduction [b]	0.24		0.21		0.39		0.35	
Through a part-time job	0.09		0.06		0.04		0.06	
While downtown/during a trip	0.07		0.19		0.07		0.07	
Employment Status								
Working full-time	0.70		0.48		0.20		0.33	
Working part-time/ Self-employed/Family business	0.10		0.24		0.25		0.21	
Not working	0.05		0.09		0.55		0.42	
Student	0.15		0.20		0.00		0.04	
Previously Divorced[0=No/1=Yes]	0.02		0.07		0.02		0.02	
N	2,958		117		8,676		11,751	

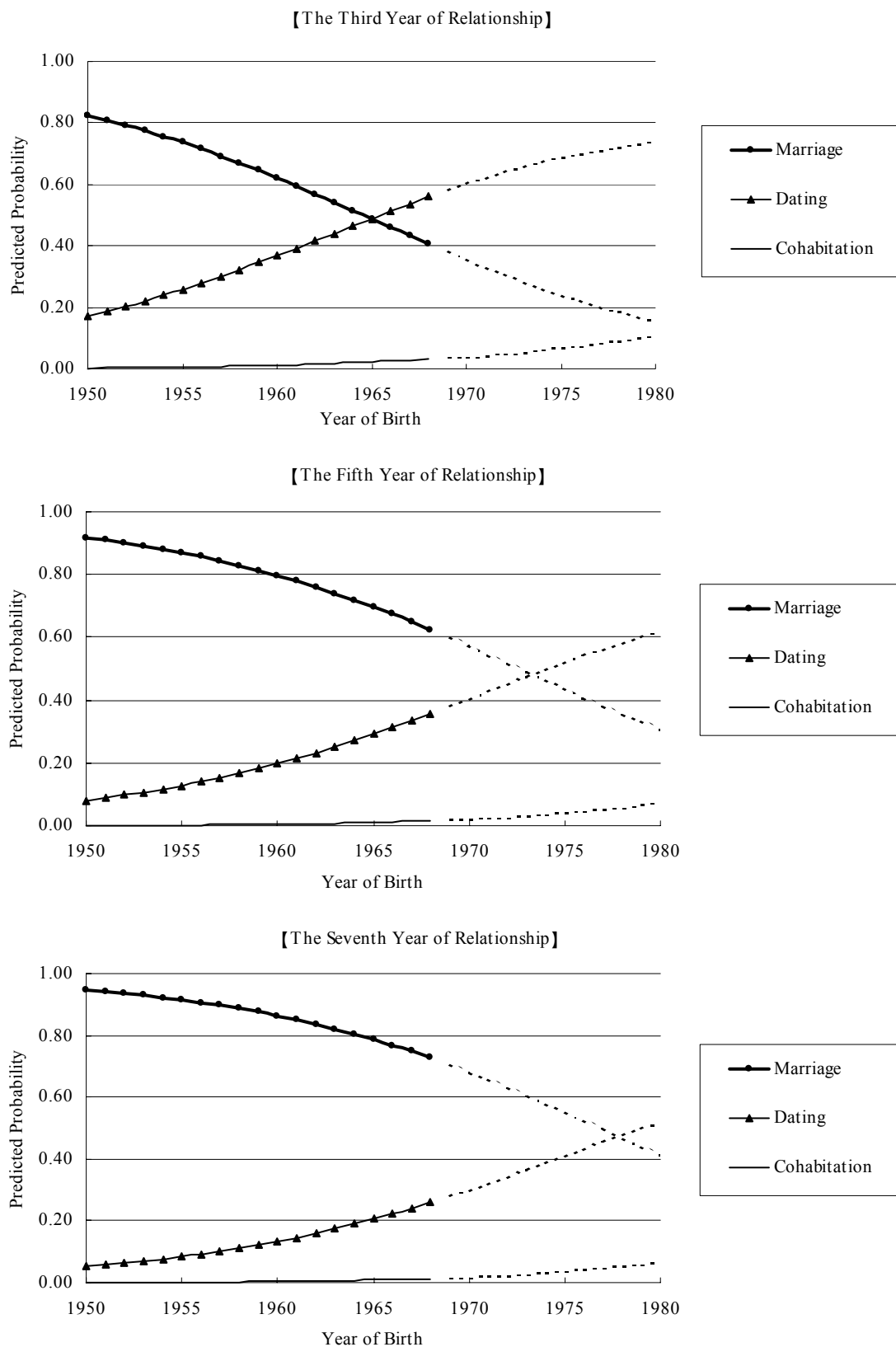a Birth cohort is implemented as the year of birth minus 1900.

b Arranged introduction includes 'through a matrimonial agency, friends or siblings.'

Note: Figures in parentheses indicate standard deviation.

Source: JNFS,1987,1992,1997

Table 4. Multinomial Logistic Regression Estimates of Partnership Type for Women in an Intimate Relationship

	Dating vs. Marriage		Cohabitation vs. Marriage	
	b1	Odds Ratio	b2	Odds Ratio
Intercept	-7.13 ***		-14.83 ***	
Birth Cohort [in years] [a]	0.10 ***	1.23	0.19 ***	1.45
Age at the Time of the Survey (32-34 omitted)				
18-19	1.28 ***	9.36	0.37	1.63
20-22	1.05 ***	7.41	0.76 **	2.40
23-25	0.22 **	3.25	-0.04	1.08
26-28	-0.57 ***	1.47	-0.75 **	0.53
29-31	-1.02 ***	0.94	-0.23	0.90
Duration of Partnership (12 years and over omitted)				
1 year or under	2.53 ***	67.14	2.07 ***	15.50
2-3	1.11 ***	16.19	1.23 ***	6.73
4-5	0.24 **	6.78	0.15	2.28
6-7	-0.23 *	4.22	-0.23	1.55
8-9	-0.78 ***	2.45	-0.88 #	0.81
10-11	-1.20 ***	1.61	-1.67 #	0.37
Academic Background (High school omitted)				
Junior high school	-0.62 ***	0.53	0.03	1.04
Vocational college etc.	0.28 ***	1.30	0.02	1.02
University or higher	0.33 ***	1.37	-0.05	0.95
Method (Arranged introduction omitted)				
At school	0.80 ***	4.84	0.72 **	4.53
At workplace	-0.16 *	1.84	-0.34 #	1.57
Neighbor/through club	0.15	2.51	0.07	2.36
Through a part-time job	0.20	2.65	-0.42	1.45
While downtown/during a trip	-0.22 #	1.73	0.76 **	4.74
Employment Status (Working full-time omitted)				
Working part-time/ Self-employed/Family business	-0.84 ***	0.19	-0.50 *	0.52
Not working	-2.64 ***	0.03	-2.70 ***	0.06
Student	2.67 ***	6.46	3.05 ***	18.12
Previously Divorced [0=No/1=Yes]	0.72 ***	4.21	1.08 ***	8.59

-2 Log Likelihood	5665.86
Model Chi-square	8837.65 ***
df	48
Pseudo R-square	0.6093
Number of Cases	11,751

【The Third Year of Relationship】

【The Fifth Year of Relationship】

【The Seventh Year of Relationship】

Note: Characteristics other than age, duration of relationship are: university graduates, have a current relationship at workplace, full-time worker, never divorced. Dotted lines mean women of that birth cohort had not yet become 30 years of age at the time of the latest survey in 1997.

Figure 8. Predicted Probabilities of Each Partnership Type among Women of around 30 years of Age, by Year of Birth and Duration of Relationship

7. Conclusion

It is not just that the number of married people is decreasing; the linkage between intimate relationships and marriage are also changing. For those people who got married before the 1980s, the married/unmarried differentiation was one of the most important codes (a set of conventions governing behaviour or activity) in their lives. That is, for almost all people, it was extremely hard to obtain financial stability, social trust, emotional satisfaction, and so on without being married. Recently, however, for younger people, especially those living in urban areas, being married or not, has not been so essential to their usual lives. Instead, another code has been of more concern to them; being in an intimate relationship or not.

I recognize that the proportion of those intending to marry sometime remains high even today. However, 'marriage' in this case is the one which they expect to be founded on affection or one that will make them feel content. The number of people among those who consider the merit of marriage to be 'gaining social recognition' or 'being able to live a more convenient life' has fallen remarkably (Takahashi *et al.* 1999).

Nowadays the question 'Do you intend to marry?' can be almost interchangeable with the question 'Do you desire to form an intimate relationship with someone?' It would lead one to think that marriage is not necessarily essential to maintain an intimate relationship. One could also say that marriages not based on intimacy should be avoided.

In order to gain an overall understanding of the current decrease in nuptiality, I have stepped away from the binary married/not married classification and has considered the trends in the pattern of women's relationships. The findings during the 10-year period from 1987 can be summarized as below.

Although there is some increase among the younger age groups in the proportion of women who have had sexual experience, the overall percentage remains unchanged.

There is not much of a change in the proportion of women with a partner at around age 30, and rather there is an increase in the proportion of women in the younger age groups who have had sexual experience and currently have a partner.

There is a large decrease in the proportion of women living with a partner, as well as in the proportion of those who are married.

We can say that intimate relationships still continue to be of primary interest to the younger generation. However, the establishment of legal ties or living together is viewed as unnecessary by them. The current decrease in nuptiality does not mean that there are fewer people finding partners due to stagnation in dating and social interaction; instead, it can be claimed that partnership patterns are in the process of shifting from a traditional marriage to *a non-cohabiting style*.

Comparing these results with those from various countries in Western Europe and North America where there is also a drop in the proportion of married people, we can confirm the prevalence of non-cohabitating relationships in Japan and some southern European countries. It is distinct from Northern or Central Europe, where non-marital cohabitation is replacing marriage (Bumpass *et al.* 1991). According to the results of the model analysis, this shift from legal ties to looser ones is expected to continue for a while in Japan. In the future, if the strong norm of avoiding extramarital birth is still effective, childbearing will be postponed or avoided in significant numbers.

Notes

[1] It is assumed that the women and their partners are involved in an exclusive relationship. The questionnaire for single respondents included questions about the existence of friends of the opposite sex, but these were not included in the definition of partner because it is often the case that friendships with members of the opposite sex are not exclusive.

[2] The 9th survey (1987) referred to population composition by marital status of the census in 1985. In the same way, the 10th (1992) referred to the 1990 census, and the 11th (1997) referred to the 1995 census. In the 9th survey, the target group for single subjects was only those between the ages of 18 and 34. Therefore, in order to make the calculations for the 35 to 49 year-old age group for the 9th survey data, it is assumed that there is no change in the breakdown within the never-married group over age 34.

[3] The original wording is 'It doesn't matter if a man and a woman have sexual intercourse even prior to marriage, as long as they love each other.' The percentages are the total of those who responded either 'completely agree' or 'agree more than disagree.'

[4] The proportion of married females (*PMF*) in each age

group is given by

$$PMF = \frac{MF}{N^F} = \left(\frac{Pt}{N^F}\right)\left(\frac{MF}{Pt}\right) = PP \cdot PM \; ,$$

where N^F represents the total number of females in that age group, and MF is the number of married females, and Pt stands for the number of females with an intimate partner.

According to the decomposition method (Retherford *and* Cho 1973), the difference between PMF and PMF' at two different time points is shown to be

$$\Delta PMF = PMF - PMF'$$
$$= (PP - PP')\left(\frac{PM + PM'}{2}\right) + (PM - PM')\left(\frac{PP + PP'}{2}\right),$$

where the first term means the effect of change in the proportion of females with partners, and the second term means the effect of change in the proportion of married females in the group of those with partners.

[5] Model-predicted probabilities of each partnership type are calculated by:

$$Pr_{marriage} = \frac{1}{1 + exp(\mathbf{x}'\mathbf{b_1}) + exp(\mathbf{x}'\mathbf{b_2})} \; ,$$

$$Pr_{dating} = \frac{exp(\mathbf{x}'\mathbf{b_1})}{1 + exp(\mathbf{x}'\mathbf{b_1}) + exp(\mathbf{x}'\mathbf{b_2})} \; ,$$

$$Pr_{cohab.} = \frac{exp(\mathbf{x}'\mathbf{b_2})}{1 + exp(\mathbf{x}'\mathbf{b_1}) + exp(\mathbf{x}'\mathbf{b_2})} \; ,$$

where $\mathbf{b}_1$ and $\mathbf{b}_2$ are the vectors of coefficients associated with the independent variables included in the model, and $\mathbf{x}$ is the vector of the independent variables.

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