Discussion Paper

Is Japan a Second Demographic Transition country?

Observations based on union, first birth status and values In The Netherlands and Japan

The Second Demographic Transition in Europe
Bad Herrenalb, Germany
23-28 June 2001

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The author thanks The Central Bureau of Statistics (The Netherlands) and the National Institute of Population and Social Security Research (Japan) for the use of individual data files of respective fertility surveys.

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1. Introduction

More women are giving fewer, later or no births at all. This paper is part of the PhD research "First Child: Transition to Motherhood: The Netherlands and Japan" and intends to explore the perspective of overall research. The main focus of the paper is to capture the trends and patterns of occurrence and timing of first birth as well as its underlying causes in both societies.

There exists demographic phenomena called "Second Demographic Transition" (van de Kaa and Lesthaeghe, 1986). It is a phenomenon, which is characterised as the changes of marriage and family formation behaviour firstly observed in Western European nations in mid-1960s. A good example of Second Demographic Transition county is The Netherlands (van de Kaa, 1987). In the context of first birth, several indicators show that The Netherlands experiences: (i) low Total Fertility; (ii) increase of mean ages of marriage and first birth, as the marriage rate and proportion of women in consensual unions increase; (iii) rise of divorce rate; and (iv) increasing proportion of population in one-person household. In addition, (vi) high proportion of Dutch women uses low-dose pills for contraceptive use (van de Kaa, 1987, de Graaf and Lodewijckx, 2000a).

However, is this concept transferable to non-western societies, such as in Japan? Japan also experiences: (i) low Total Fertility; (ii) increase of mean ages of marriage and first birth, as marriage rate decreases; (iii) increase of divorce rate; and (iv) increase of proportion on one-person household. The differences however are the patterns and trends of these demographic indicators over period of time, and relative low proportion of some indicators, which are only observed in The Netherlands. These indicators are the proportion of women in consensual unions and proportion of low-dose contraceptive pill users (Mainichi Newspapers, 2000, National Institute of Population and Social Security Research, 2000).

In this paper, we attempt to answer a question, "Is Japan a Second Demographic Transition country?" through a comparative case study of (a) union formation and (b) first birth and this in both Japan and The Netherlands. This case study is carried out in three steps.

1. What does the Second Demographic Transition theory say about (a) patterns of union formation and patterns of first birth and (b) the reasons (values) for that.
2. What is the empirical evidence on (a) patterns of union formation and patterns of first birth; (b) the reasons (values) for that, in both Japan and The Netherlands.
3. On the basis of the previous two steps an assessment of whether Japan can be called a Second Demographic Transition country, and the implications for Second Demographic Transition country.

The following theoretical framework illustrates two components: i. concepts and ii. operationalization. The component of concepts commences with the definitions of Second Demographic Transition, follows with the description of predictions and patterns of union formation and first birth. Subsequently, it attempts to study the underlying causes of Second Demographic Transition, with the focus on first birth. We focus on the aspects of "value" to understand the underlying causes of occurrence and timing of first birth. The component of operationalization is stipulated after the introduction of data source, which covers pathways to first birth, measurement and restricted operationalization of values.

2. Theoretical Framework

Second Demographic Transition is defined as changes of the characteristics of marriage and family formation behaviour from "parenthood" to "partnership". It is a concept developed by van de Kaa and Lesthaeghe (1986 and afterwards) referring to "important changes in fertility and family behaviour, such as increase in unmarried cohabitation, the postponement of marriage and parenthood and an increase in childlessness" (de Beer, Corijn and Deven, 2000, p.117).

Study on Second Demographic Transition makes predictions about patterns of union formation and patterns of first birth. In general, patterns of Second Demographic Transition are observed through selected demographic indicators (facts) as noted in the introduction. These observed demographic indicators can be studied in fifteen demographic sequences at the macro level (van de Kaa, 1997, p.8). However, these sequences may be subject to different country settings.

First births occur in diverse patterns of union statuses within the context of Second Demographic Transition. Marriage is no longer the only sufficient condition for family formation, as the shift occurs from "golden age of marriage to the dawn of cohabitation" (van de Kaa, 1987, p.8-11). Process of union formation shifts from standardisation to individualisation (Liefbroer and de Jong-Gierveld, 1994). Thus, union formation does not only happen within the first married status, but also in all possible union statuses (See Figure 1). As a consequence, if first birth occurs, the patterns of first birth also occur in different union statuses. These statuses are thus, different sequences of consensual unions and marriages. It can also occur within no union status (no partner). In the following section under empirical evidence, these patterns are studied through data observations.

Study on Second Demographic Transition argues that the reasons for these changes on demographic indicators are due to value change. In the first place, Second Demographic Transition defines ideational and value change as mostly important determinants on fertility change (van de Kaa, 1997). Value change is considered to be the most important distinguished characteristics between the first and second transition. This position is identical to what Inglehart calls "Silent Revolution" in mid-1960s where value orientations transform from modern to post-modernisation ones (Inglehart, 1977, 1997, van de Kaa, 1998). This is not to say that other determinants, such as, economic ones are not important. However, it suggests that people's behaviour be mainly determined by their individual value orientations. This point is characterised by one component, cultural change, of the explanatory framework of Second Demographic Transition (Van de Kaa, 1988). This cultural change is defined as "reduced normative control, individualisation and feminism"(van de Kaa, 1988, Lesthaeghe and Surkyn, 1988, Liefbroer, 1999). In this context, it is important to situate the socio-economic variables in the perspective of ideational change where social-economic variables become the means but not the ends itself.

One problem of the study on value change is the measurement. Since value itself is inherited in the institutional context where people live, the measurement of value through a same selection of variable studied in different country settings, can be misleading. The relative importance of that particular variable in different contexts may also be different. One therefore requires a selection of context specific variables and a sound interpretation of that particular variable in the context we study. For instance, in order to measure individualisation, education is considered to be an important proxy. However, educational status cannot be interpreted directly, but should be understood in the context of 'opportunities and constraint'. In different societies, specially in the case of The Netherlands and Japan, the access to higher education of women is expected to be different. Self-realisation may be observed through a pursuance of higher education in The Netherlands, while a pursuance of

individual life styles and activities, may be more appropriate in the case of Japan. Nevertheless, our attempt is to identify these kinds of variables, which is identical across nations and to understand the causal mechanism of it in different contexts.

The approach we take is as follows. Now to begin with, we use definition of value proposed by Rokeach (1973), theorised "enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse model of conduct or end-state of existence" (p.5). We use this concept by employing Micro and Macro levels in Social Theory (original from Coleman, 1990 cited from de Bruijn, 1999) that studies social change at the population level, by undertaking analysis at the individual level. The use of micro theory, Theory of Planned Behaviour (Fishbein and Ajzen, 1975, 1980, Ajzen, 1991) focuses our attention on selected demographic variables at the individual level. The choice on the use of Theory of Planned Behaviour is based on: (a) value-expectancy model (individualisation is ever important); (b) value orientation/value is the basis of belief system; and that, (c) belief system is the underlying determinant factor of the behavioural outcome. Later on, measurement and operationalization on value/value orientations are shown.

3. Data Source

Official statistics, such as, vital statistics, published survey reports, electronic means (web pages of official sites), as well as individual data of fertility surveys from both countries, are used. Each source of survey is indicated. The explanations of individual data of fertility surveys are indicated below.

Individual data

The Netherlands Family Formation Survey 1993/1998 (*Onderzoek Gezinsvorming (OG93/98))*

Number of respondents: ***OG93***: Sampled women in the survey are aged 18-42 years. Men are also included as part of the questionnaire. Approximately, 3700 men and 4500 women are interviewed between the period of February 1993 to June 1993. In this analysis, 4516 women are used. ***OG98:*** Sampled women in the survey are aged 18-52 years and follow the same structure of OG93. In this analysis, 5448 women are used. The interview period is February to May 1998.

Method of data collection: A random sample is taken for these surveys. The representation of birth cohort is 1950-74 and 1945-79 for OG93 and OG 98 respectively. A random method is taken for two steps: (i) municipalities are drawn from the Geographical Base Register based on the number of addresses in proportion to the number of addresses; (ii) actual addresses are drawn and at each address, aged 18-42 persons with a maximum of three are asked for interviews. This can be a partner of parents and children. Couples who are cohabiting (with/without children) or same sex couples are also included in the surveys. The questionnaire is written in BLAISE, a computer language developed by Statistics Netherlands, which has the advantage of automatic routing and built-in controls to prevent the inconsistent replies. The survey is implemented through face to face interviews where a telephone card is given after these interviews.

Focus of variables: The main questions covered in these surveys are childbearing, employment, childcare, partnership formation, and a series of background variables. Other variables, such as, social background of the parents, income and satisfaction level, attitudes with regards to family life, life course, work, childbearing, partnership formation are being asked. OG98 builds on to OG 93 where more variables are added.

Non-response rates: Non – response rates are high in The Netherlands. OG 93 reports that among the contacted households, 39.0 percent of the households have no eligible respondent. Among the 61 percent contacted addressees, there are at least 48.5 percent of response that say that at least one response is being made. 52 percent was non-response, where within that, 66 percent refuse. It is reported that in general, the willingness to participate in surveys is low (Latten and de Graaf, 1997; de Graaf and Steenhof, 1999, de Graaf and Lodewijckx, 2000b).

Tenth Japanese National Fertility Survey in 1992 (single and married samples)
(Daijyukkai shusseidoukou kihonchousa)

Number of respondents: Within the valid respondents collected for the survey, in order to keep the first married couples, 10.7 percent of sample is being omitted. Women are from ages 15 – 49 years. The reason to collect only firstly married couple is to study their fertility behaviour, which is based on the current marriage. The valid number of respondents for married sample is 8844 married couples. The valid number of respondents for single samples is 8841 cases, among which single women are 3647 cases. The survey tries to capture the age distribution of population as accurate as possible, comparing the age distribution with the labour survey. The sampling method and its capturing of age distribution are considered good (Institute of Population Problems, 1993, 1994).

Method of data collection: Based on the legally specified area, two steps of cluster sampling were made. Based on the sampling, all staffs through an extension of health district offices are asked to visit households and verify the composition of households with a copy of National Life Standard Survey (*Kokumin seikatsu kiso chousa*). Staffs are requested to verify the co-operation of households, leave the questionnaire, information sheet of the survey, envelope (to seal questionnaire) as well as a gift per household. In the paper, it is stipulated that the survey is collected by hand on July 16th, 1992 and is requested to record events as of 1 June 1992.

Focus of variables: The focus of variables is different between married and single respondents. For single respondents, the survey studies the intention and behaviour on marriage. For married respondents, the survey focuses on the fertility behaviour and its determinants.

Non –response rates: Non response rates are low in Japan. A response rate is recorded as 94.6 percent and its validity is 91.1 percent for married samples 87.7 percent and 77.7 percent for single samples respectively. The staffs at the health district office are encouraged to collect questionnaires from the selected respondents (Institute of Population Problems, 1993).

4. Operationalization

Pathways to first birth

A person's life consists of different patterns of the event processes. These event processes interact in various ways and cause the life course to evolve. Thus, each life event is the outcome of a process (Willekens, 1999). Our focus is the first birth. Schema on pathway types (van der Ploeg, 1997, p.4, Figure 1) are used to identify the event process to first birth. Pathways are the sequencing of life events that is captured through a life course career. Figure 1 shows that pathways of union formation begin with the shift of status from no event (0: no union) to cohabitation (1) or no event (0: no union) to marriage (2) and either stays in these unions or continues further with different transition statuses. First births therefore, can take place between any of these sequences of union formation events.

Different applications are used for The Netherlands and Japan to adapt to contextual situations and the structure of data (availability of variables). In The Netherlands, first birth

takes place in various sequences of union events, including both within marital union and outside of marital unions. Within marital union indicates event within 1st marriage. Outside of marital unions indicate, any other unions outside of marital union, which includes, before unions, 1st and 2nd consensual unions and after first marriages. In Japan, first birth mostly takes place within marital unions since cohabitation is not too common. Cohabitation experiences can be detected only among single women in the survey, but the proportion is small. It is reported that among single women, 3.1 percent in 1992 and 4.8 percent in 1997 had or have cohabitation experiences (Institute of Population Problems, 1993, National Institute of Population and Social Security Research, 2000). Thus, the general pathways to first birth for Japanese women are: i. meeting a partner, ii. engagement, iii. marriage; and then, iv. first birth.

Measurement and operationalization of values

The measurement of value is not easy. In the context of occurrence and timing of first birth in industrialised nations, the important determinant factors on occurrence and timing of first birth are identified through Theory of Planned Behaviour and theorised as follows: (i) attitudinal variables (individual value variables); (ii). social norms (societal value variables and surrounding); (iii). economic variables (income level, timing of that employment, including partners); (iv). educational variables (highest obtained level, current enrolment status and timing); and (iv). resources and opportunities, such as " social capital" (family or institutional support to have a condition of family formation) and availability of different contraceptive methods. Based on the review of literatures and empirical studies, we expect that these selected variables cover most determinants of occurrence and timing of first birth in all societies.

Only one portion of variable, attitudinal variables, is studied in this paper. Four dimensions of values related to family formation are selected. The first two items are based on marriage and family and are selected from "Table 4 Domains and underlying dimensions of values concerning institutional regulation and individuation (Lesthaeghe and Surkyn, 1988, p.14)". Among three domains, two are selected: i. traditionalism (marriage as institution; social endogamy); and ii. meaning of parenthood (children necessary; respect for parents). The third item derives from McDonald (2001) and Atoh (1998), which is not stipulated in the previous study, that is based on the role of gender and the expected role of women in the society. The last item is cited from de Jong and Steenhof (2000) and Wijsen (1994), and is based on the value of childrearing, that is motherhood. In sum, the focused variables are:

1. Traditionalism (marriage as institution);
2. Meaning of parenthood (children necessary);
3. Role of gender (male-bread winner type, division of household); and
4. Motherhood (attitudes and motivations on working mothers).

Four items of values related to marriage and family, gender and motherhood are defined, measured and operationalized in the following way. (N) illustrates the operationalization to Dutch fertility surveys and (J) illustrates the operationalization to Japanese fertility surveys. The number indicates the year of fertility surveys.

1. Traditionalism (marriage as institution)
   (N) Marriage is merely a formal contract (93/98).
   (J) When couples live together, it is better to marry (92/97).

2. Meaning of parenthood (children are necessary)
   (N) Having children is self-evident (93/98).
   (J) When married, it is better to have children (92/97).

3. Role of gender (male-bread winner type)
(N) Man should be wage earner and the women should be housekeeper and child carer (93/98).
(J) After marriage, husband should work outside and women should care for family (92/97).

5. Role of gender (division of household)
(N) When child comes, man should work part-time (93).
(J) Husband should take more part in household and childrearing work (92).

6. Motherhood (attitudes and motivations on working mother)
(N) Small children suffer when mother works (93).
(N) Meaning of working mother and small children (98).
(J) At least when child is small, it is ideal for the mother to stay at home (92).

5. Empirical evidence

Union formation

Study of Second Demographic Transition argues that marriage is no longer the only sufficient condition for family formation. Union formation shifts from marriage to cohabitation. Observing from the mean age of first marriage at the period level, patterns and trends of union formation between two countries appear to be the same. To begin with, for instance, the mean ages of first marriage in the 1990s continuously rise starting from almost the same level in 1990, 25.9 years, and reported as 28.1 years in The Netherlands and 26.7 years in Japan in 1998 (See Figure 2, Table 1). Then, the birth cohort measures show that older cohort had earlier first marriage experiences with more uniform distribution and small deviation from the median. For instance both Figure 4 and 6 shows that the 25-30 percent of all pre-1960 birth cohorts experiences their first marriage between 22-24 years. But, the distribution of younger cohort not only moves toward higher ages but also have less uniform distribution compared to the pre-1960 birth cohorts (See Figure 4 and 6). The point on postponement of first marriage is further supported by Figure 3,5,7 that less proportion of women are marrying. For instance, by age 28, while approximately between 80-85 percent of women firstly married among older cohort (1945-55 birth cohort for The Netherlands; and 1942-55 birth cohort for Japan), this proportion is approximately 60 percent among both 1965-69 birth cohorts (See Figure 3,5,7). Finally, both countries have growing proportion of younger cohort who remains single. For instance, by age 30, the proportion of Dutch women with no partner is 6 percent for 1950-54-birth cohort, and 8 percent for both 1955 - 1959 and 1960-64 birth cohorts. This proportion is 8 percent for Japanese 1950-54 birth cohort and 10 and 12 percent for 1955-59 and 1960-64 birth cohorts respectively (See Table 3 and 4).

However, the analysis shows that there exist some differences. First, the patterns and trends of mean ages prior to 1990s are different. The Japanese mean age continuously rise without any interruption since 1955. The Dutch one however declines and hits the bottom in 1975 and steadily increases since then (See Figure 2). Second, the cohort measure based on data observation does not show the postponement effect so clearly (See Table 2). The result of these mean ages is due to different measurements. The former observation method is based on the actual recorded age of first marriage, while the other one is calculated through a consideration of censoring cases. If we consider the latter one more reliable than the observation ones, then postponement effect on Japanese cohorts become less clear. For instance, the mean age of Dutch birth cohort 1945-49 is 24.98 years and 1965-69 one is 27.0 years. The same birth cohort of Japanese women is 25.45 years and 25.7 years respectively. Furthermore, the reasons of higher mean age of first marriage in both countries are different. As the study of Second Demographic Transition argues, the result of postponement of union formation is the changes of formation patterns from uniform to diverse patterns. This will

mean that union statuses change from merely direct marriage to number of cohabitation and marriages through separation and divorces. There exist even no partnerships. In The Netherlands, we find evidence of first marriage, in particular direct marriage, being replaced by sequences of cohabitation or first marriage through cohabitation. For instance, by age 30, while 68 percent of 1950-54 birth cohort directly marries, 43 percent of 1960-64 birth cohort marries through cohabitation and 16 percent of the same cohort cohabits (See Table 3). The differences with Japan are that marriage is postponed but not necessarily being replaced by other formats of unions. For instance, by age 30, 90 percent of women among 1942-44 and 1945-49 birth cohort marries, compared to 78 percent of women marrying among 1960-64-birth cohort (See Figure 7). Japanese women also appear to follow the uniform pathways from meeting partner through engagement, marriage and first birth. What also distinctively differs for Japanese women from Dutch women is that Japanese women meets partner early. For instance, by age 20, 21 percent meets their partner and 5 percent of 1950-54 birth cohort engages. This proportion of meeting partner increases over birth cohort and is 34 percent among 1970-74 birth cohort (See Table 4).

In sum, the study of Second Demographic Transition identifies higher mean ages of first marriage through changes of union formation from standardised to individualised patterns. The empirical analysis identifies similar and different patterns of union formation between The Netherlands and Japan. These similarities are: (i). similar patterns on mean ages of first marriage in the 1990s at the period level; (ii). similar patterns on age distribution of women from uniform to different ages at first marriage; (iii). similar patterns of postponing first marriage among younger birth cohorts; (iv). similar growing proportion of younger cohort who remains no partners. On the other hand, these differences are: (i). different patterns of mean ages prior to 1990; (ii). difficult conclusion to make on postponement effects on Japan based on two different measurements; (iii). more diverse patterns of union formation in The Netherlands, ex. marriage through cohabitation, or sequences of cohabitation, but low proportion of cohabitation in Japan; and (iv). earlier age at meeting partner among Japanese younger cohorts.

Family formation (first birth)

The study of Second Demographic Transition shows that family formation also occur in diverse patterns. This will mean that not only mean age of first birth increases but also those patterns of first birth changes. For instance, first births do not only occur within first marriage but also within other union statuses, where multiple union statuses are possible. To identify similarities, first, both countries have fewer births. The recent total fertility (TFR) in the period level from 1980s to 1990s displays approximately the same. For instance, TFRs in both countries from 1980s display the same. In the 1990s, Dutch TFR stabilises around 1.6, while Japanese TFR continuously declines, and is 1.34 in 1998 (See Figure 8 and Table 5). Then, both countries have births later. The period ASFRs show that Dutch and Japanese women tend to have their first births in their late 20s to early 30s. Both countries show that ASFRs of 30s increase over the recent period, while ASFRs of 20s decrease. Specifically, for Japan, Table 8 shows that over the period of 1970-1998, the main decline of ASFRs are firstly the age group of 25-29 years and secondly, 20-24 years. On the other hand, the sudden increase of ASFR is the age group of 30-34 years followed by 35-39 years (See Table 7 and 8). The figures on proportion of women having first birth among different birth cohorts also support the notion of postponement. For instance, by age 28, 72 percent of Dutch 1945-49 birth cohort and 71 percent of Japanese 1942-44-birth cohort have their first birth. These proportions, according to the observation are 46 percent and 22 percent of Dutch 1960-64 and 1970-74-birth cohorts, and 51 percent and 28 percent of Japanese same birth cohorts (See Figure 11, 13, 15). These figures display similar patterns (proportion) on the postponement of first births in same birth cohorts. In addition, this postponement effect is apparent on the patterns of mean ages of first birth. Both countries have steadily increase of mean ages from 1980, however, the level of increase for Dutch mean age is much higher. As a result, Dutch

women are considered to have the highest mean age of motherhood of the world (See Figure 10).

The characteristics of similar patterns on first births however leave some discussion on the differences between these countries. First, the patterns of Total Fertility prior to 1980s are different. The large decrease of Dutch TFR from 2.6 to 1.7 between 1970-75 is the effect of Second Demographic Transition. The large decrease of Japanese TFR from 3.7 to 2.4 between 1950-55 is the extension period of first transition (Ogawa and Retherford, 1993). These patterns at the different point in time can be characterised as falling popularity of large family and process of modernisation. In general, the female labour force participation and women's pursuance on higher education causes these (de Jong and Lodewijckx, 2000). The institutional programme, such as family planing programme in a case of Japan, contributed much to this decline (Okazaki, 1999). Subsequently, the characteristics of timing of first birth between countries are different. For instance, the highest proportion of first birth is 32 years for Dutch 1960-64 birth cohort and 27 - 28 years for 1945-49 and 1950-54 birth cohorts (See Figure 14). However, this highest peak is 27 years for Japanese 1960-64 birth cohort and 26 years for the 1942-44 and 1945-49 birth cohorts (See Figure 16). As a result, Dutch women display clear postponement on timing of first birth, but in a lesser extent, for Japanese women. Further, the union statuses at the timing of first birth are clearly different. In The Netherlands, by age 25, 94 percent of 1950-54 birth cohort has their first birth within the first marital unions. This proportion is only 77 percent among 1965-69 birth cohort and thus, 23 percent has their first births outside of marital unions. Among them, 11 percent is within their first cohabitation, 10 percent is within other unions, such as, second cohabitation or after their first marriage, and 2 percent is within no union (See Table 10). For Japanese women, only small proportion of women gives births outside of marital unions (1.4 percent) (Vital Statistics, 1999). Instead, more proportion of younger cohort has their first birth before or immediately after marriage. For instance, 70 percent of 1950-54 birth cohort women has their first birth after 10 months of their marriage. These proportions are 58 percent and 59 percent of 1960-64 and 1965-69 birth cohorts respectively. Besides, we see the increase of women who have their first birth immediately after marriage (between 1-9 months) from 25 percent of 1960-64 birth cohort to 35 percent of 1965-69 birth cohort (See Table 12).

In sum, the study of Second Demographic Transition identifies the postponement of the timing of first births and occurrence of first births within different patterns of union statuses. The similar patterns through our empirical study between The Netherlands and Japan are: (i). patterns of low TFR since 1990; (ii). higher age of first childbearing identified through age specific fertility rate (ASFR) at the period level and proportion of women having first child at the birth cohort level; (iii). patterns of mean ages of first birth since 1980s. On the other hand, the identified differences are: (i) different historical patterns of TFR prior to1980; (ii) different characteristics of timing on first birth; (iii). different patterns of union statuses at timing of first birth for Dutch women and the duration between marriage and first birth for Japanese women.

Different dimensions of values and birth cohorts

The study of Second Demographic Transition shows that value plays a key role in the causes of this demographic phenomenon. Value changes over historical and individual time. Through the use of Theory of Planned Behaviour, we conceptualise that value changes at the societal level and interacts with the value orientation of the individual. This implies that on one hand, societal values formulate individual value orientation, and these value orientations shape the overall societal values on the other. Taking a life course perspective, the individual value orientation is strongly influenced by their negation, readjustment of their own value orientation which reflects their own life course choices (Lesthaeghe and Moors, 2000).

By understanding the patterns to first birth in both countries, the analysis of values is done if these demographic outcomes (first birth) are comprehensible on the basis of values. Four different dimensions of values are studied as argued previously: 1. traditionalism (marriage as institution); 2. meaning of parenthood (children necessary); 3. role of gender (male-bread winner type, division of household); and 4. motherhood (attitudes and motivations on working mothers).

1. Traditionalism (marriage as institution)

In general, marriage as institution is still acknowledged well in both The Netherlands and Japan. First, approximately 80 percent of Dutch women in 1993 and 1998 disagree with "marriage is merely a contract". Also, approximately 80 percent of Japanese women in 1992 and 1997 agree to marry if couples live together. However, some changes are observed. Over these different points in time, Dutch women represent more agreement to this statement, while it is less so for Japanese women. In other words, in 1997, more Japanese women disagree with the institution of marriage. Then, when studying birth cohorts more differences between these countries are observed. For instance, birth cohort differences are small among Dutch women. In 1993, 80 percent of 1950-54 birth cohort and 78 percent of 1955-59 birth cohort disagrees, while, only 72 percent of 1960-64 and 73 percent of 1965-69 birth cohort disagree on this. These differences are much smaller in 1998. Birth cohort differences are much more observed among Japanese women. In 1992, 86 percent of 1950-54 birth cohort versus 73 percent of 1970-74 birth cohort agrees. In 1998, 82 percent of 40-44 years versus 57 percent of 18-20 and 59 percent of 20-24 years agree (See Table 13).

2. Meaning of parenthood (children are necessary)

In general, we find clear differences on values pertaining to the meaning of parenthood between countries. Most Dutch women disagree with "having children is natural" while most Japanese women agree on "better to have children when married". Approximately 80 percent of all birth cohorts of Dutch women agree in 1993 and 1998, while approximately, more than 80 percent and more than 70 percent of all Japanese birth cohorts agree in 1992 and 1997 respectively. It is noted though that less proportion of Japanese women in 1997 agree to this statement. Also, different trends of cohort differences are found. Small cohort differences are found among Dutch women, except for the highest proportion of 1965-69-birth cohort (both 85 percent) who disagrees. Cohort differences are not too distinct among Japanese women in both years. In 1998, 72 percent of 15-19 years versus 79 percent of 45-49 years agree to this (See Table 14).

3. Gender (male-bread winner type; actual division of household)

In general, clear differences on values pertaining to gender through role of women and actual activities within the household, are found between countries. At the birth cohort level, we find particular differences in Japan. First, on the male-bread winner type. Dutch women

mainly disagree on this, while the proportion tends to be divided among Japanese women. For instance, approximately 80 percent of all Dutch birth cohorts in 1993 and slight higher proportion in 1998 disagree. In Japan, this proportion is 60 percent in 1992 and slight more proportion in 1997. At the birth cohort level, the Dutch birth cohort differences between 1950-54 and 1970-74 in both years are approximately 5 percent in both years. The Japanese birth cohort differences are 14 percent in 1992 (1950-54 and 1970-74), but only 5 percent in 1997 (20-24 years and 40-44 years) (See Table 15).

Second, on the actual expectation on household divisions. Only one time cross sectional surveys are used. More Dutch women disagree "when child comes, man should work part-time (in order to participate more in household activities)". 72 percent of 1950-54-birth cohort and 76 percent of 1965-69 birth cohort disagree. Negligible proportion of women who answer "do not know" is also found. More Japanese women agree to husband's participation on household work. For instance, 88 percent of 1950-54 birth cohort and 91 percent of 1960-64 birth cohort agree with this. Subsequently, more cohort differences are found among Japanese women than Dutch women are. 72 percent of 1950-54 birth cohort and 76 percent of 1965-69 birth cohort disagree in The Netherlands. In Japan, 92 percent of 1955-59 birth cohort agrees, while only 82 percent of 1970-74 birth cohort agrees (See Table 16).

4. Motherhood (attitudes and motivations on working mothers)

This dimension of value changes over different points in time. Birth cohort differences between countries are additionally found. In general, slight more than half of Dutch women agrees with working mother, while most Japanese women disagree. First, 55-65 percent of all birth cohorts of Dutch women in 1993 and 58 – 72 percent disagrees with this in 1998. Also, more proportion of young Dutch birth cohort disagrees with this. Negligible proportion of women answers "do not know" in 1993 and "other meaning" in 1997. On the other hand, most Japanese women agree to this, however, it varies over birth cohort. 56 percent of 1950-54-birth cohort agrees versus 87 percent of 1970-74 birth cohort who agrees (See Table 17).

In sum, different trends of value over different historical time and birth cohorts are being observed: (i). traditionalism (Marriage as institution) is still strong in both societies, while recent Japanese young cohorts show the contrary; (ii). meaning of parenthood (having children is necessary) represents complete the opposite between both societies, while changes are observed among all Japanese women in recent time; (iii). role of gender (male-bread winner type specially) illustrates differences between societies. However, less differences between birth cohorts are found specially for the recent Japanese women in general; and (v). Motherhood (attitude on working mother) is agreed more among Dutch women than Japanese women.

Different values at the societal level affect the value orientation at the individual level between societies. Different levels of values at the birth cohort level also show the different value orientation at the individual level. The point to make here is while different value orientation exist across societies and between birth cohorts, the overall patterns and trends of occurrence and timing of first birth appears to be the same. In other words, we are able to conclude that beneath the union and family formation patterns, different domains of value seem to play a different causal mechanism to the behaviour of occurrence and timing of first birth. The further investigation on the role of value thus requires (i) a country comparison on what dimensions of value matters most on the behavioural outcome of first birth; (ii). how these values actually affect behavioural outcome across societies. In other words, further analysis is required as to what extent individual behaviour is constrained by societal values, and as to what extent it is based on the value/value orientation of the individual.

6. Conclusion and discussion

In this paper, we study three main specific research questions. First, we study that literatures on Second Demographic Transition show the changes of union and family formation from uniform to diverse patterns. The main causes of these changes are reasoned by value change. Second, in order to assess the study of Second Demographic Transition, the empirical evidence of union formation and first birth patterns in The Netherlands and Japan is shown. In short, the overall changes of standardised to individualised patterns are much clearly confirmed in the case of The Netherlands. In The Netherlands, events on union and family formation are not only postponed but happen in diverse patterns. In Japan, postponements of these events are observed but diverse patterns as the Dutch case are not being observed. This is due to the existence of small proportion of cohabitation, and as a result, almost no births occur outside of marital unions. Some characteristics of meeting partners early and first births immediately after marriage are being observed in Japan. Third, selected domains of values are studied between societies and different birth cohorts. The overall result shows that quite different value orientations and birth cohort differences exist between these countries. The further study then needs to take into account that most values can only be detected cross-sectional surveys at different points in time. However, it lacks the exact value orientations of the individual at the time of childbearing. The measurement of value in further study therefore includes tangible variables, including economic variables (income level, timing of that employment, including partners); educational variables (enrolment status and timing); resources and opportunities, such as " social capital" (family or institutional support to have a condition of family formation) and availability of contraceptive methods. This study needs to be acknowledged that within the issue of measurement of values, only a partial measurement and operationalization of values are being implemented.

Finally, the assessment of whether Japan can be called a Second Demographic Transition country, and the implications for Second Demographic Transition country. On the basis of behavioural outcome, as illustrated through the empirical evidence and preliminary findings, Japan seems to be a Second Demographic Transition country. This is supported by: (i). low level of Total Fertility (TFR); (ii). higher proportion of higher age on Age Specific Fertility Rate at the period level; (iii). proportion of women marrying and having their first birth at later age at the birth cohort level; (iv) increase of mean ages of first marriage and first birth resulting in postponements of union and family formation. However, on the basis of patterns and the context where first birth takes place, Japan can not be considered as a Second Demographic Transition country. Patterns of first marriage and first birth still exhibit uniform patterns than the Dutch one. Also, first birth still occurs within the marital union. Further, values between these countries are very different, where Japanese values are more traditional than the Dutch one. At last, in relation to first birth, Second Demographic Transition is associated with individuation of union and family formations patterns, and value change which emphasise on post-modernistic value orientations in general, and self-realisation and individual autonomy in particular. It is a question as to what extent Japanese women, or more specifically, what proportion of Japanese women are in a position to pursue for self-realisation and individual autonomy. As a result, these preliminary findings display differences behind the aforementioned figures and reasons for that. It therefore proposes a further investigation on the causal mechanism between nuptiality and fertility and the context, which takes place. We hope then to contribute a discussion on the definitions and measurement of Second Demographic Transition, which is applicable to developed but non-western nations, such as Japan.

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8. Appendix

Method

Analysis taken for fertility surveys from both countries slightly differs according to the available variables indicated in respective surveys.

The Netherlands

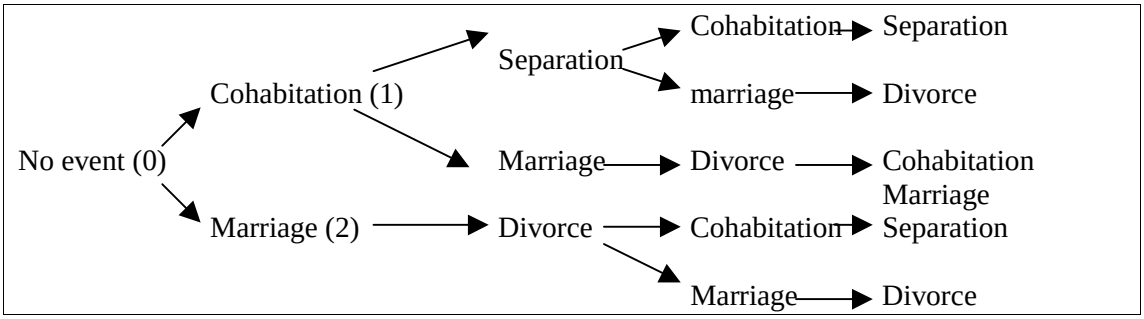
Century Month Code (CMCs) of events, such as, date of birth, cohabitation (both cohabitation only and cohabitation through marriage, marriage and first birth) based on the information of year and month, are calculated. Year of "99", is omitted from the analysis, where month of "99" is recoded as "6" since we consider that the event takes place at the middle of the year. Exact number of women by birth cohort who reach different exact ages by 20, 25, 30, and 35 is obtained. This is possible since we know the exact CMC by the date of birth and the interview date. All interviews are assumed to take place on April 1993. As for the first birth, proportions of women who have their first birth by different ages within the birth cohort are studied. The proportion of women by the total number of women by birth cohort and age groups are obtained (See Table 3, 10).

Japan

Proportion of women in different unions at different ages is studied. Proportion of women who experiences different unions at the different age is studied. CMCs of events, such as, union formation on meeting their partner, engagement, marriage and first birth, are obtained. In order to obtain CMC, we convert the Japanese calendar year into western calendar year. As we do for the Dutch data, analysis between union formation and first birth status are done. Years which records "99" are omitted and months which records "99" are recoded to "6" assuming that the event takes place at the middle of the year. As for the first birth, the proportions of women who have their first birth at different birth cohorts are obtained. Only the survived and healthy occurrences of first births are considered. All births, which result in miscarriage, abortion etc., are not considered as the occurrence of first birth in this paper (See Table 4, 11, 12).

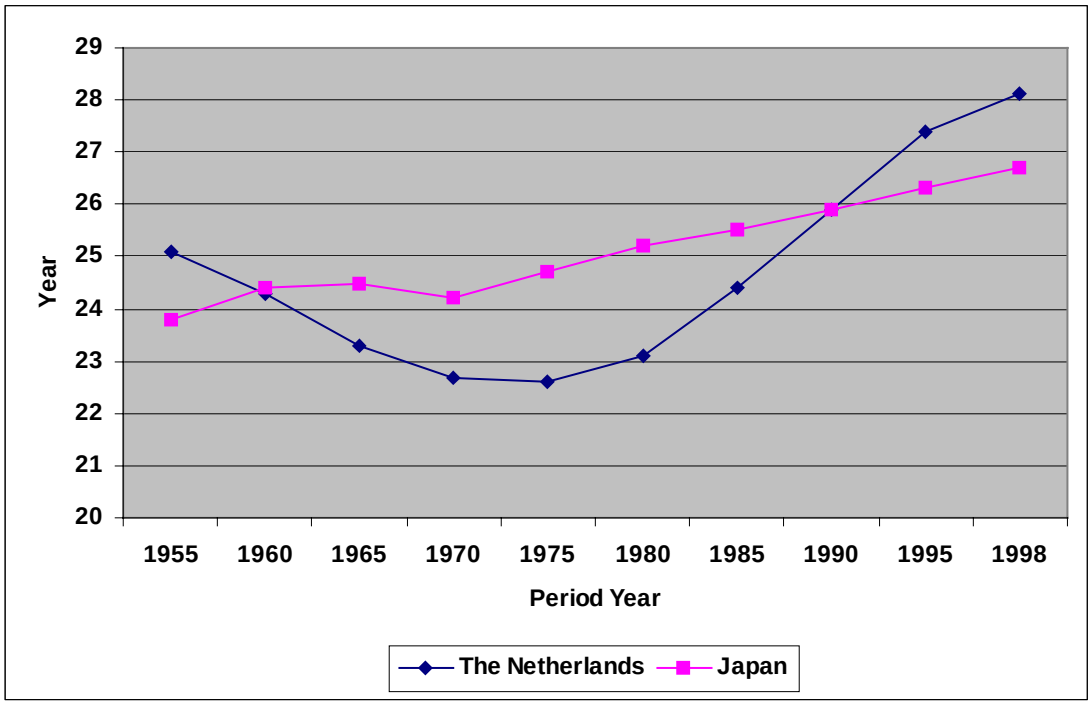
Both Japanese and Dutch surveys have five scales in attitudinal variables (mostly agree; slightly agree; slightly disagree, mostly disagree, do not know). We simply categorise them into three (agree; disagree; do not know) and omit the missing values from our analysis. For Japanese surveys, we combine marry and single samples together. We acknowledge that the ratios between the age groups of married and single ones are different, but no weighting methods are used. In order to capture the period differences of values, the published report on 11th Japanese National Fertility Survey 1997 is used. However the categorisation for 1997 is based on age at the time of interview instead of birth cohorts.

Figure 1: Example of pathways on union formation



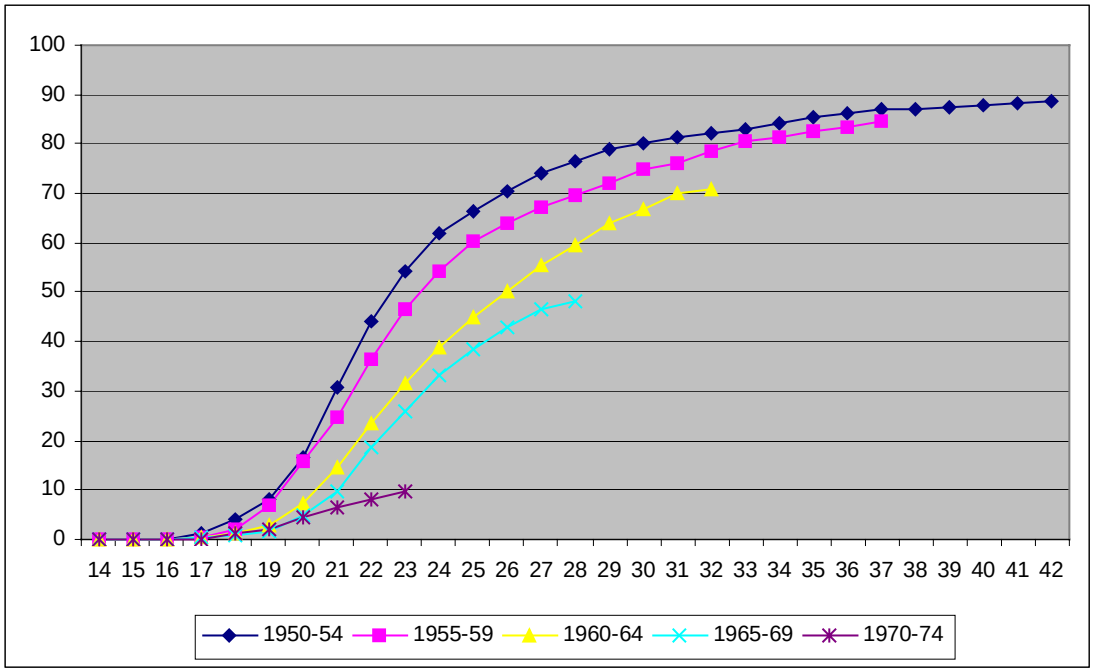
Partially cited from van der Ploeg, 1997, p.4

Figure 2: Mean ages of first marriage, The Netherlands and Japan 1955-1998



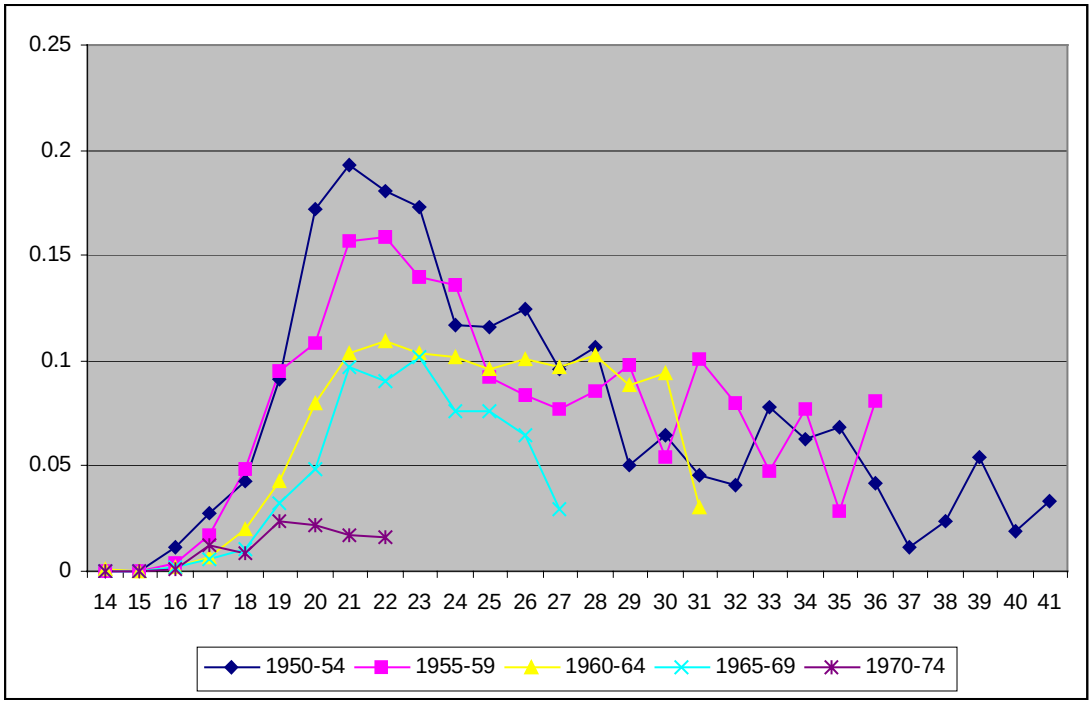
Source: **Statistical Yearbook of The Netherlands**
National Institute of Population Social Security Research

Figure 3: Proportion of Dutch women firstly marrying (x=age; y=proportion)



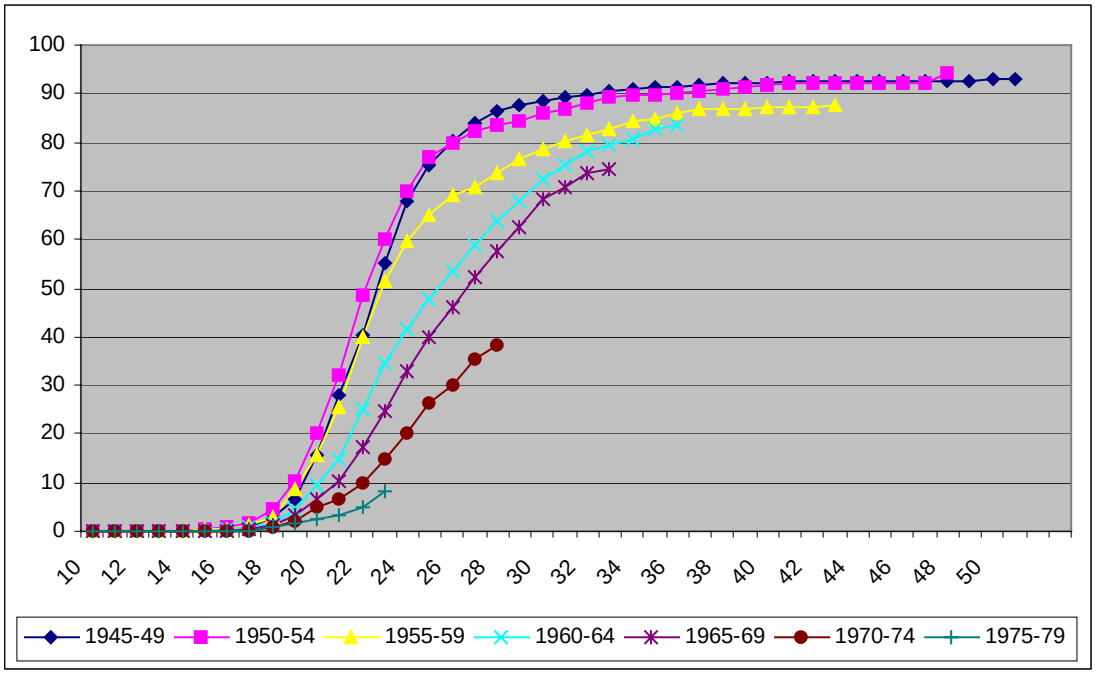
Source: **Onderzoek Gezinsvorming 1993**

Figure 4: **Probabilities of Dutch women marrying (x=age; y=probabilities)**



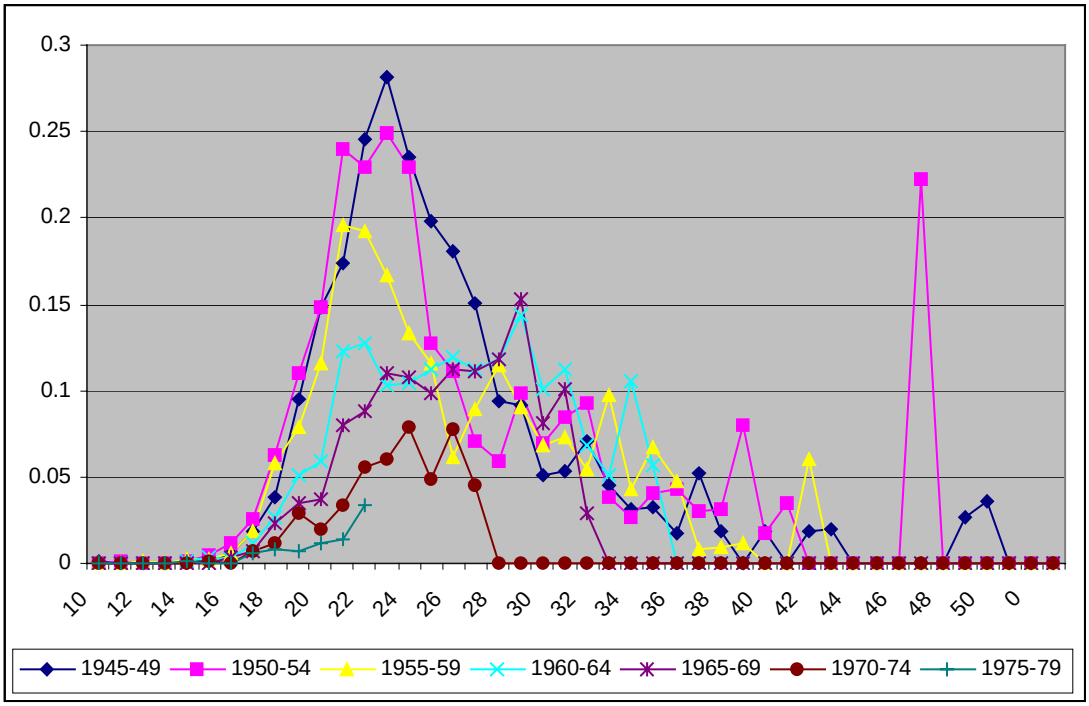
Source: **Onderzoek Gezinsvorming 1993**

Figure 5: Proportion of Dutch women firstly marrying (x=age; y=proportion)



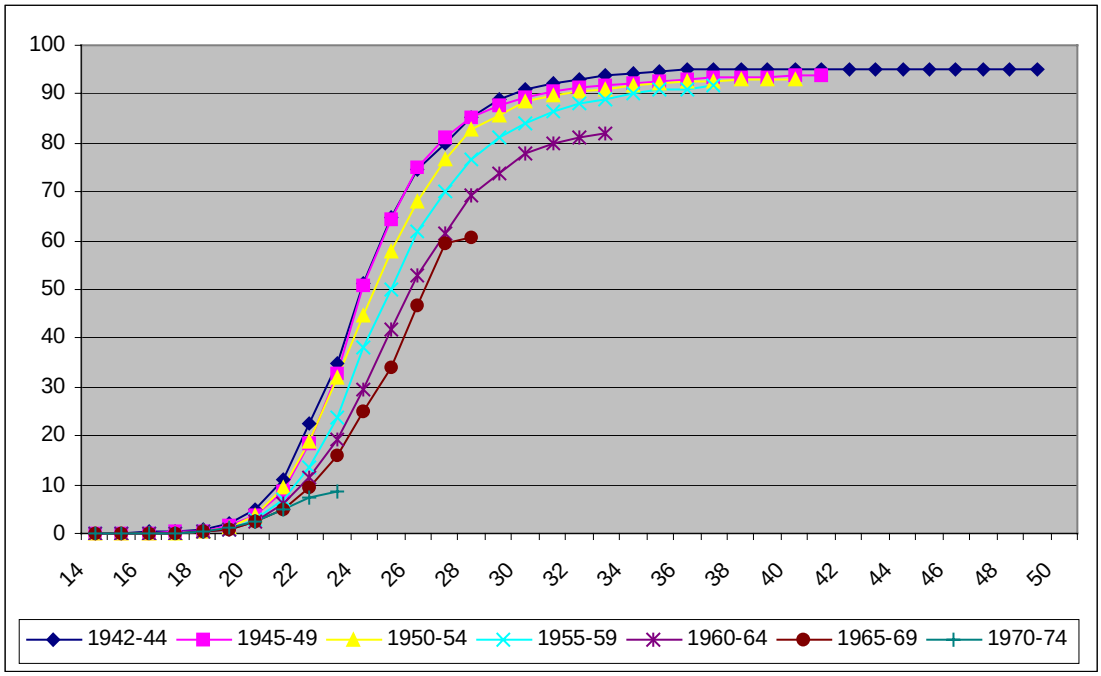
Source: Onderzoek Gezinsvorming 1998

Figure 6: Probabilities of Dutch women marrying (x=age; y=probabilities)



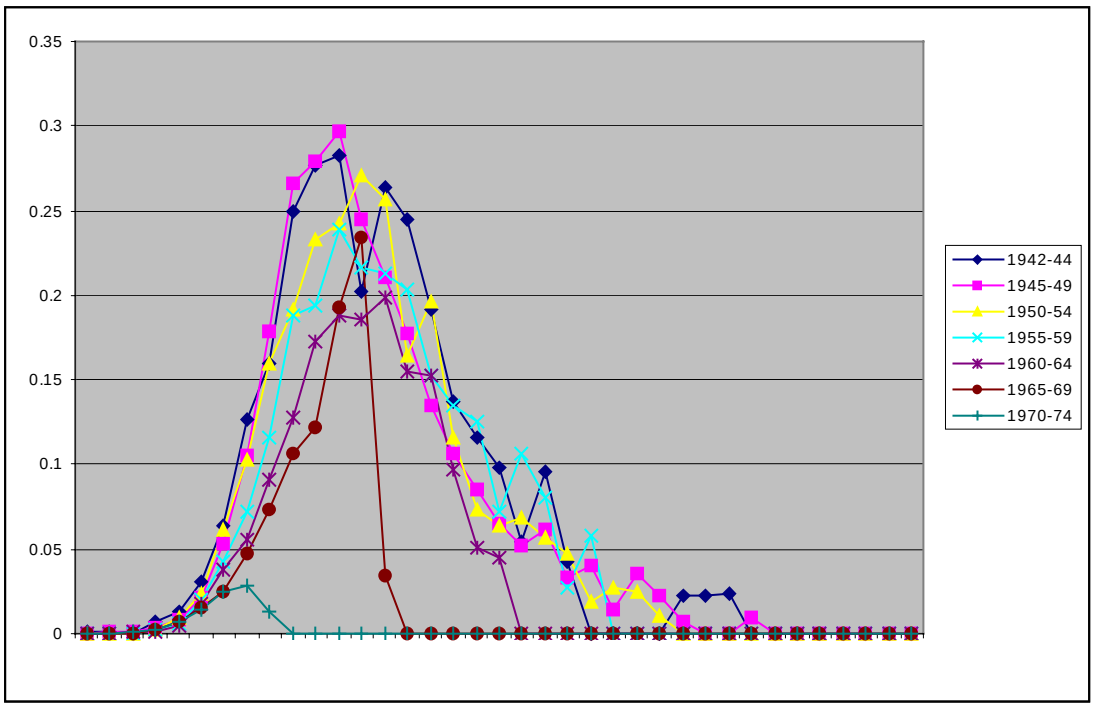
Source: Onderzoek Gezinsvorming 1998

Figure 7: Proportion of Japanese women firstly marrying (x=age; y=proportion)



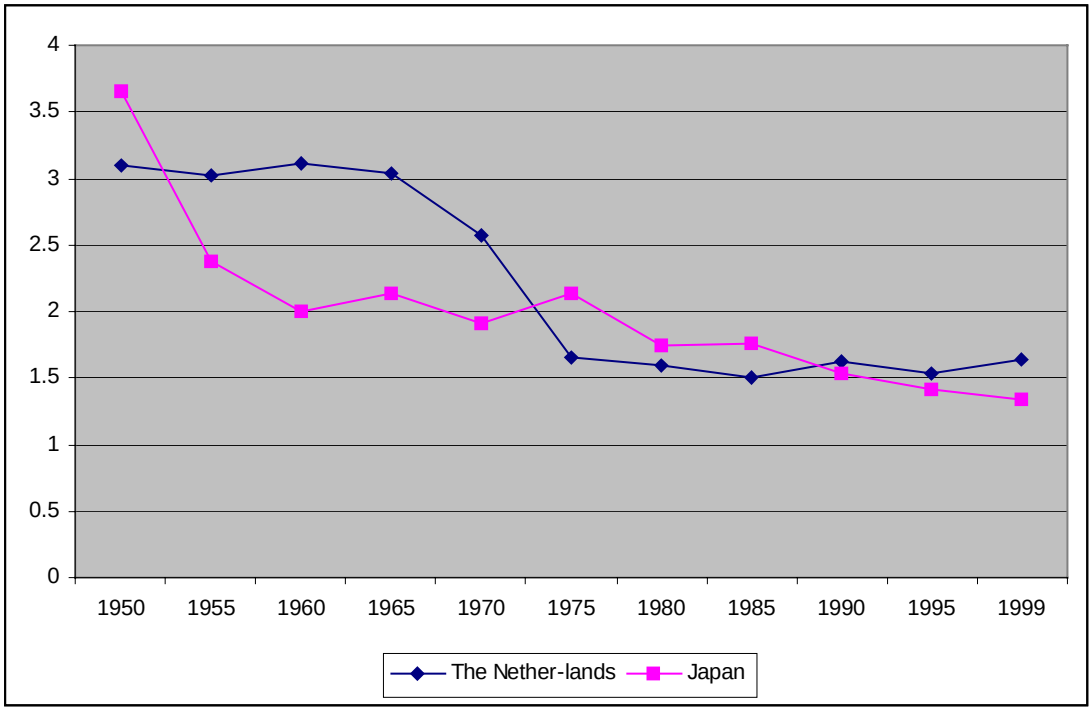
Source: Japanese National Fertility Survey 1992

Figure 8: Probabilities of Japanese women marrying (x=age; y=probabilities)



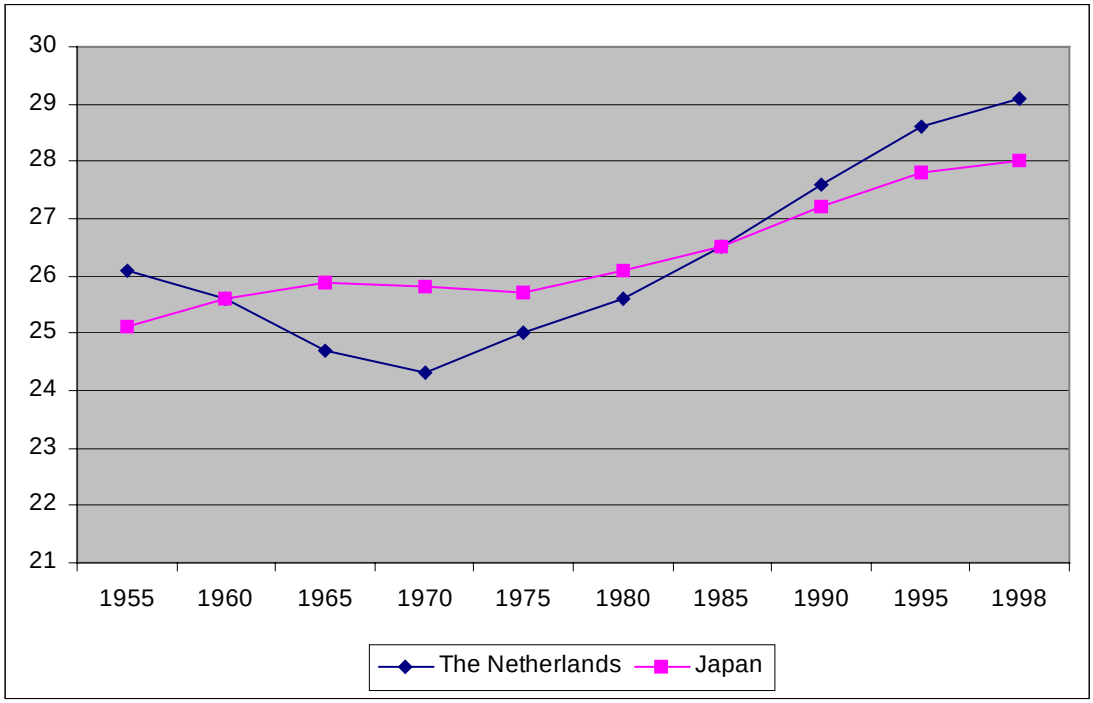
Source: Japanese National Fertility Survey 1992

Figure 9: Period Total Fertility, The Netherlands and Japan 1950-1999



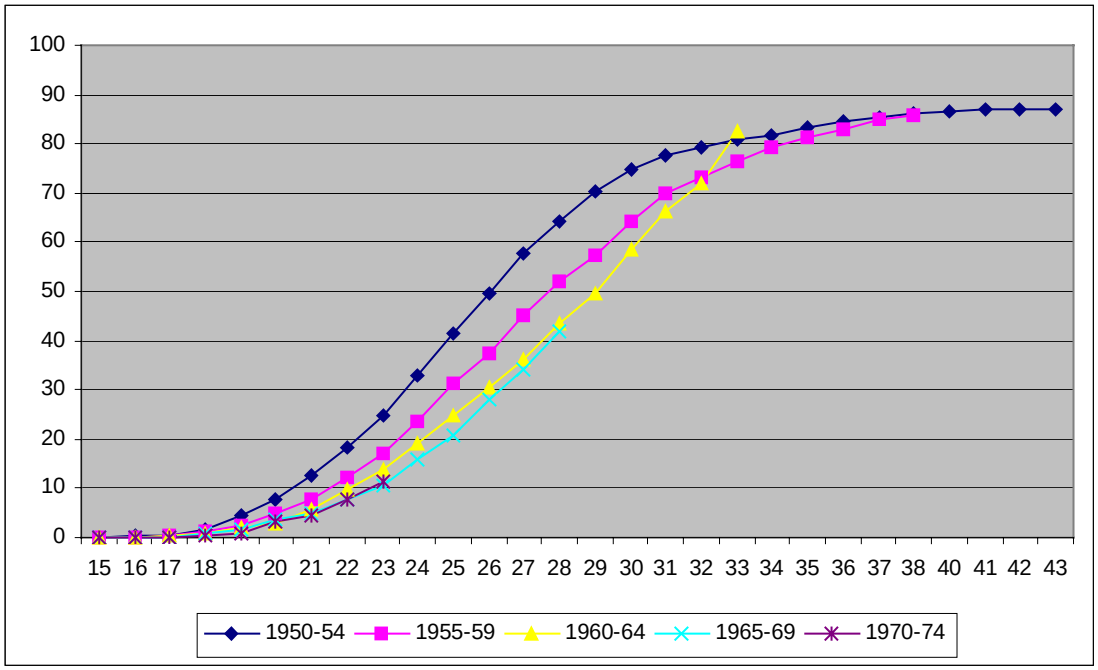
Source: Statistical Yearbook of The Netherlands
National Institute of Population and Social Research

Figure 10: Mean ages of first birth, The Netherlands and Japan 1955-1998



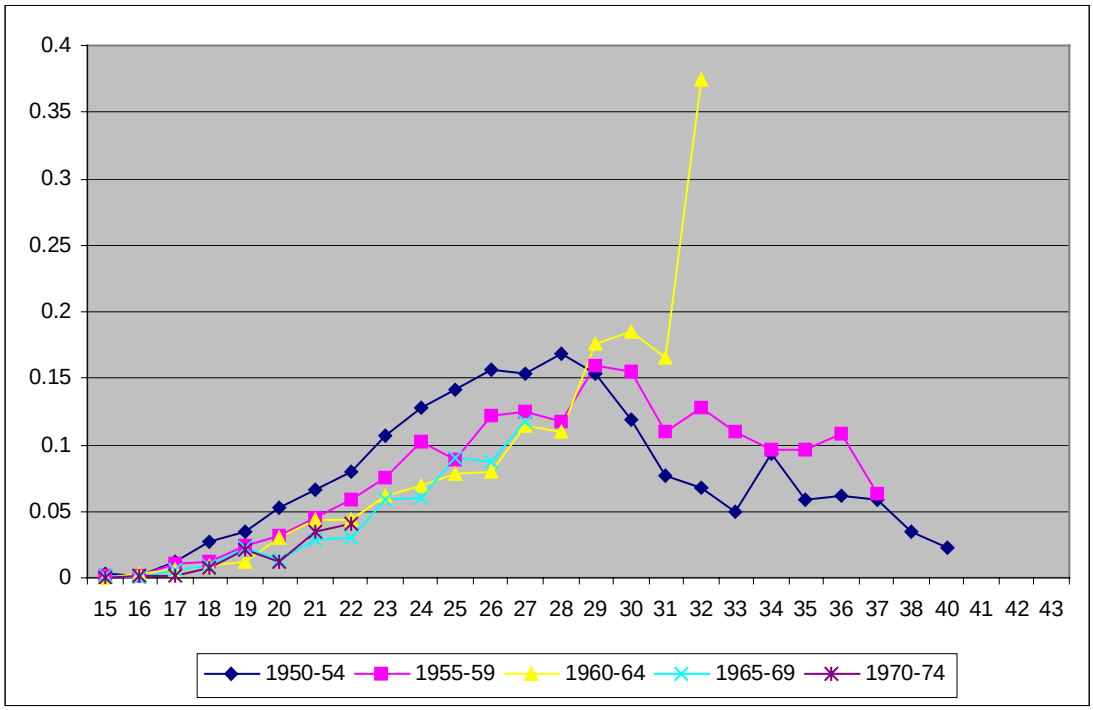
Sources: Statistical Yearbook of The Netherlands
National Institute of Population and Social Research (www.ipss.go.jp)

Figure 11: Proportion of Dutch women having first child (x=age; y=proportion)



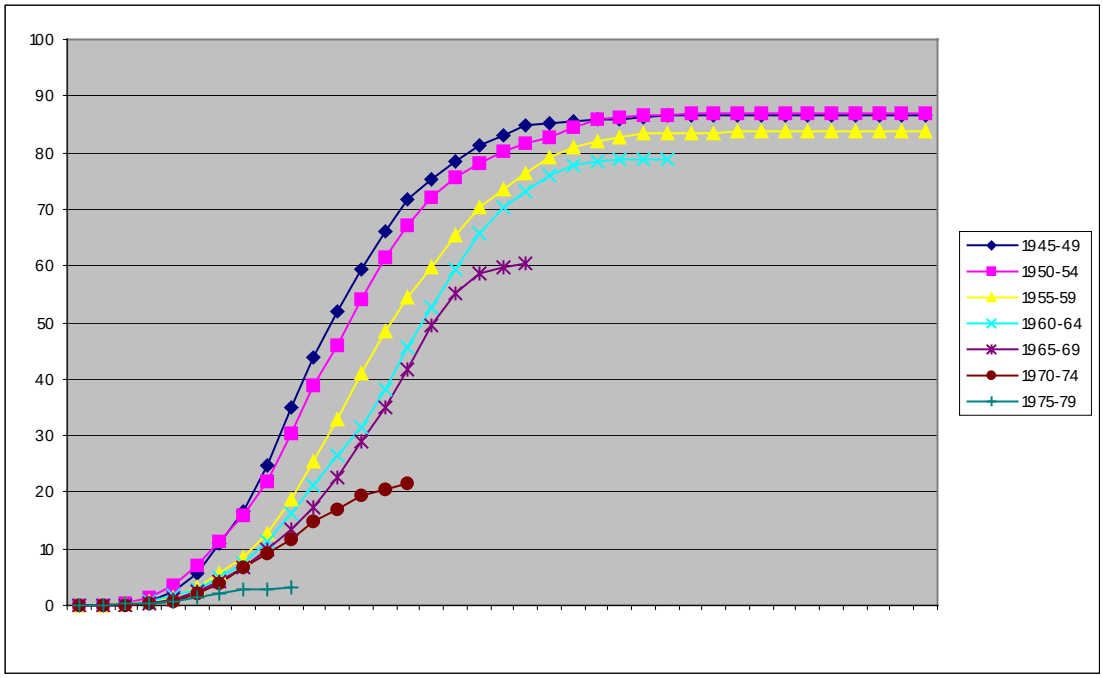
Source: Onderzoek Gezinsvorming 1993

Figure 12: Probabilities of Dutch women having first child (x=age; y=probabilities)



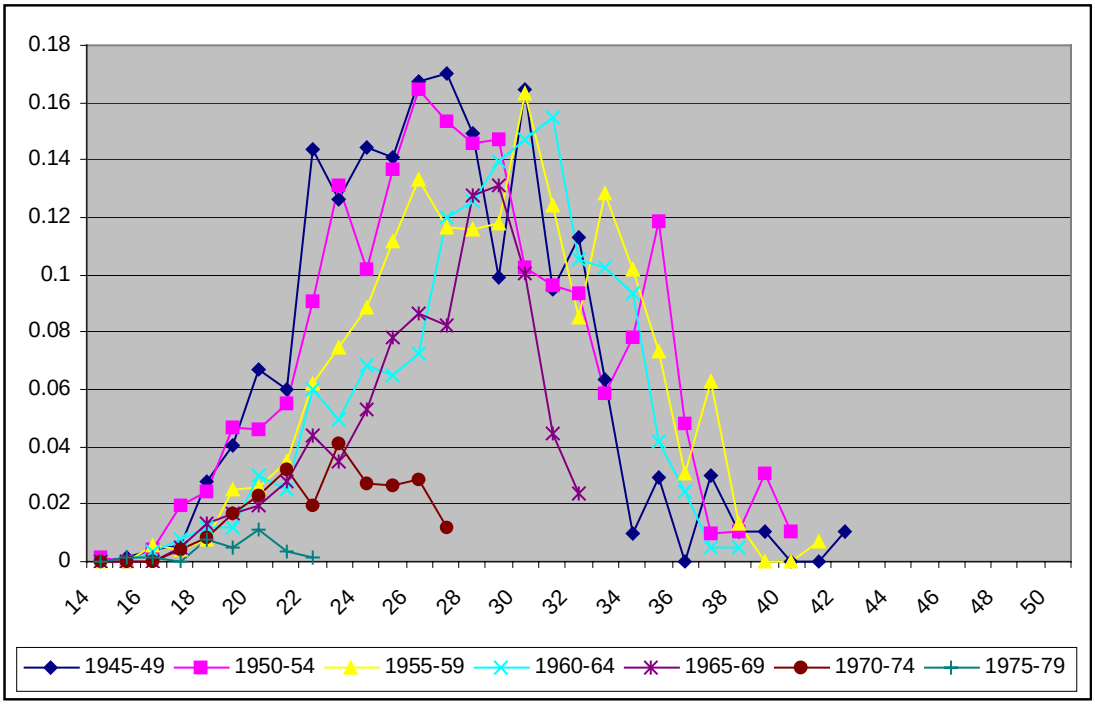
Source: Onderzoek Gezinsvorming 1993

Figure 13: Proportion of Dutch women having first child (x=age; y=proportion)



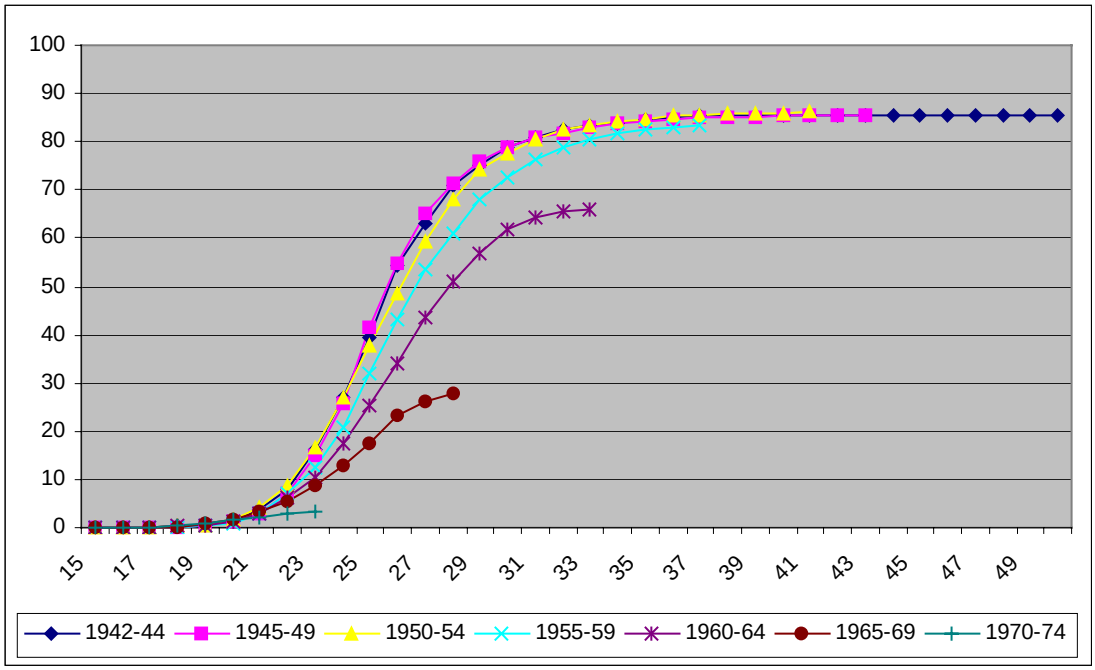
Source: Onderzoek Gezinsvorming 1998

Figure 14: Probabilities of Dutch women having first child (x=age; y=probabilities)



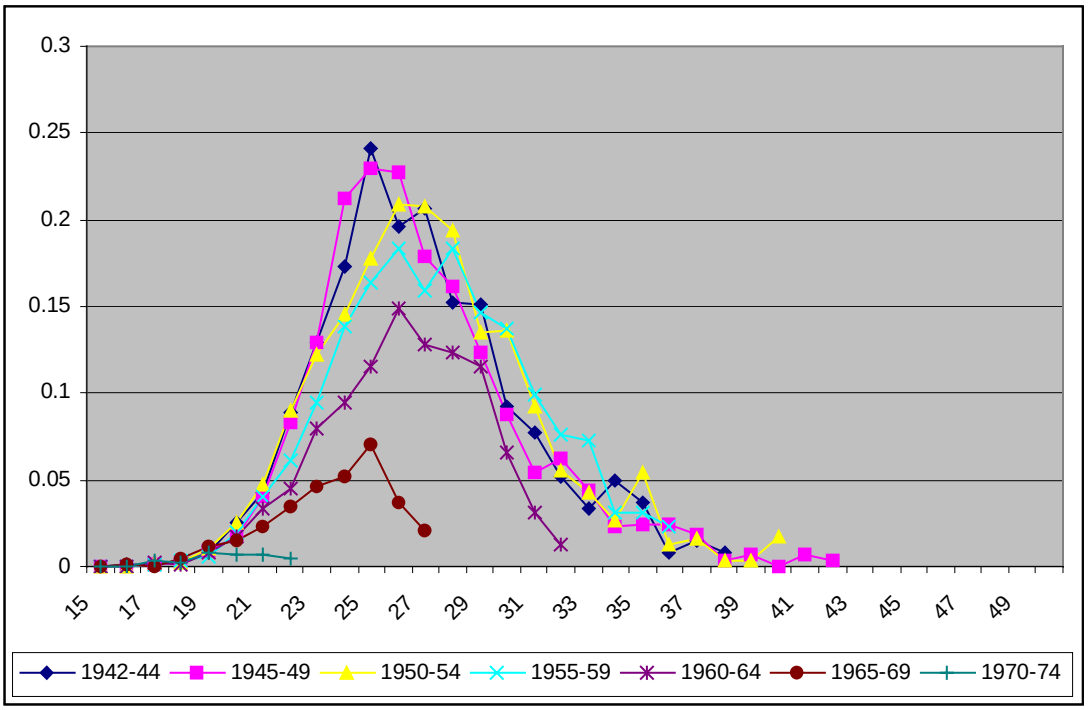
Source: Onderzoek Gezinsvorming 1998

Figure 15: Proportion of Japanese women having first child (x=age; y=proportion)



Source: Japanese National Fertility Survey 1992

Figure 16: Probabilities of Dutch women having first child (x=age; y=probabilities)



Source: Japanese National Fertility Survey 1992

Table 1: Mean ages of first marriage, The Netherlands and Japan 1955- 1998

Year	The Netherlands	Japan
1955	25.1	23.8
1960	24.3	24.4
1965	23.3	24.5
1970	22.7	24.2
1975	22.6	24.7
1980	23.1	25.2
1985	24.4	25.5
1990	25.9	25.9
1995	27.4	26.3
1998	28.1	26.7

Source: Central Bureau of Statistics
National Institute of Population and Social Research

Table 2: Mean ages of first marriage based on observed measurements

	SPSS programme (mean ages)			Calcula-tions based on observa-tion		
Source	OG93	OG98	JNFS 1992	OG93	OG98	JNFS 1992
1942-44			23.7			25.2
1945-49		24.8	23.8		25	25.5
1950-54	22.3	24.5	24.0	25.6	24.7	25.5
1955-59	22.8	25.8	24.5	26.3	26	26.1
1960-64	23.3	25.2	24.2	27.2	26.8	26.5
1965-69	22.0	23.9	22.6	26.6	27.1	25.7
1970-74	19.2	22.2	19.2	24.5	26.6	22.8
1975-79		19.0			23.3	

Table 3: Percentage distribution of Dutch women based on union formation experiences and age

Dutch women by age 20

	No event	Cohabita-tion	Direct marriage	Cohabitation/ Marriage		Number of cases
1950-54	77	4	18	1		938
1955-59	76	8	14	3		991
1960-64	78	15	6	2		983
1965-69	80	15	4	2		876
1970-74	81	14	4	2		513

Dutch women by age 25

	No event	Cohabita-tion	Direct marriage	Cohabitation/ Marriage		Number of cases
1950-54	16	10	64	10		938
1955-59	17	16	49	18		991
1960-64	24	27	27	22		983
1965-69	22	31	24	23		594

Dutch women by age 30

	No event	Cohabita-tion	Direct marriage	Cohabitation/ Marriage		Number of cases
1950-54	6	7	68	18		938
1955-59	8	12	52	28		991
1960-64	8	16	33	43		661

Dutch women by age 35

	No event	Cohabita-tion	Direct marriage	Cohabitation/ Marriage		Number of cases
1950-54	4	7	68	22		938
1955-59	4	8	57	31		622

Source: Onderzoek Gezinsvorming 1993

Table 4: Percentage distribution of Japanese women on union formation

Japanese women by age 20

	No event	Met partner	Engaged	Married	Number of cases
1950-54	64	21	5	10	2137
1955-59	66	22	5	7	1923
1960-64	66	24	3	6	1915
1965-69	72	20	3	5	1962
1970-74	62	34	0	4	1046

Japanese women by age 25

	No event	Met partner	Engaged	Married	Number of cases
1950-54	21	6	5	68	2137
1955-59	24	10	4	62	1923
1960-64	30	11	6	53	1915
1965-69	33	18	3	46	947

Japanese women by age 30

	No event	Met partner	Engaged	Married	Number of cases
1950-54	8	1	1	90	2137
1955-59	10	2	2	86	1923
1960-64	12	6	1	82	961

Japanese women by age 35

	No event	Met partner	Engaged	Married	Number of cases
1950-54	6	1	1	93	2137
1955-59	6	2	1	91	987

Source: Japanese National Fertility Survey 1992

Table 5: Period Total Fertility The Netherlands and Japan 1950-1999

Year	The Nether-lands	Japan
1950	3.1	3.65
1955	3.03	2.37
1960	3.12	2
1965	3.04	2.14
1970	2.57	1.91
1975	1.66	2.13
1980	1.6	1.75
1985	1.5	1.76
1990	1.62	1.54
1995	1.53	1.42
1999	1.64	1.34

Source: Central Bureau of Statistics
National Institute of Population and Social Research

Table 6: Mean ages of first birth The Netherlands and Japan 1955-1998

Year	The Netherlands	Japan
1955	26.1	25.1
1960	25.6	25.6
1965	24.7	25.9
1970	24.3	25.8
1975	25.0	25.7
1980	25.6	26.1
1985	26.5	26.5
1990	27.6	27.2
1995	28.6	27.8
1998	29.1	28.0

Sources: Statistical Yearbook of The Netherlands
National Institute of Population Social Security Research

Table 7: Age specific fertility rate on first births in The Netherlands by age of the mother per 1000 females

	1950	1960	1970	1980	1990	1999
<15 years	0.0003	0.0006	0.0008	0.0004	0.0004	0.0004
20 years	0.0306	0.0399	0.0515	0.0237	0.0176	0.0161
30 years	0.039	0.0391	0.0262	0.0306	0.058	0.0734
40 years	0.0043	0.0029	0.0021	0.001	0.0021	0.0047
49 years	0	0	0	0.0001	0.0001	0

Source: Central Bureau of Statistics

Table 8: Age Specific Fertility Rate on first births in Japan – trends in live birth rates by age of mother and first birth

	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1970	0.0193	0.3985	0.4292	0.0734	0.0188	0.0031	0.0002
1975	0.0189	0.3841	0.3763	0.0651	0.0151	0.0026	0.0001
1980	0.0175	0.2929	0.3883	0.0701	0.0144	0.002	0.0001
1985	0.021	0.2326	0.4006	0.0878	0.0169	0.0022	0.0001
1990	0.0166	0.171	0.343	0.1086	0.0212	0.0027	0.0001
1995	0.0169	0.1471	0.3196	0.1433	0.0302	0.0035	0.0001
1998	0.0207	0.1415	0.296	0.1567	0.0371	0.0045	0.0001

Source: Vital Statistics of Japan, volume 1, Statistics and information Department Minister's Secretariat, Ministry of Health and Welfare (1998)

Table 9: Period Total Fertility The Netherlands and Japan 1950-1999

Year	The Nether-lands	Japan
1950	3.1	3.65
1955	3.03	2.37
1960	3.12	2
1965	3.04	2.14
1970	2.57	1.91
1975	1.66	2.13
1980	1.6	1.75
1985	1.5	1.76
1990	1.62	1.54
1995	1.53	1.42
1999	1.64	1.34

Source: Netherlands Central Bureau of Statistics
National Institute of Population and Social Research

Table 10: Percentage distribution of Dutch women on union statues at the timing of first birth and birth cohorts

Age 20	Before fu	W/in fu	W/in fm	Others	Number of cases
1950-54	0	0	84	16	75
1955-59	0	4	86	10	50
1960-64	7	13	60	20	30
1965-69	9	18	53	21	34
1970-74	0	12	71	18	17
Age 25					
1950-54	0	1	94	5	397
1955-59	0	3	91	6	312
1960-64	1	7	84	7	243
1965-69	2	11	77	10	135
Age 30					
1950-54	0	1	94	5	703
1955-59	0	3	91	5	639
1960-64	1	6	88	5	398
Age 35					
1950-54	0	2	93	5	784
1955-59	0	4	89	6	519

Before fu = Before first union (cohabitation)
W/in fu=within first union (cohabitation)
W/in fm=within first marriage
Others=first birth in other unions.

Source: Onderzoek Gezinsvorming 1993

Table 11: Percentage distribution of Japanese women on union formation

Japanese women by age 20

	No event	Met partner	Engaged	Married	Number of cases
1950-54	64	21	5	10	2137
1955-59	66	22	5	7	1923
1960-64	66	24	3	6	1915
1965-69	72	20	3	5	1962
1970-74	62	34	0	4	1046

Japanese women by age 25

	No event	Met partner	Engaged	Married	Number of cases
1950-54	21	6	5	68	2137
1955-59	24	10	4	62	1923
1960-64	30	11	6	53	1915
1965-69	33	18	3	46	947

Japanese women by age 30

	No event	Met partner	Engaged	Married	Number of cases
1950-54	8	1	1	90	2137
1955-59	10	2	2	86	1923
1960-64	12	6	1	82	961

Japanese women by age 35

	No event	Met partner	Engaged	Married	Number of cases
1950-54	6	1	1	93	2137
1955-59	6	2	1	91	987

Source: Japanese National Fertility Survey 1992

Table 12: Percent distribution of Japanese women (married only) on first birth

Age 20	<0 months	1-9 months	10< months	Number of cases
1950-54	4	57	39	28
1955-59	25	42	33	12
1960-64	15	54	31	13
1965-69	11	57	29	28
1970-75	6	94	0	16
Age 25				
1950-54	4	25	70	722
1955-59	3	31	66	562
1960-64	3	39	58	433
1965-69	5	35	59	172
Age 30				
1950-54	3	22	74	1510
1955-59	2	26	71	1265
1960-64	1	26	73	568
Age 35				
1950-54	3	22	75	1637
1955-59	2	24	73	743

<0=duration of months between the event of first birth and marriage is reverse.
1-9=duration of months between first birth and marriage is between 1- 9 months
10< = duration of months between first birth and marriage is more than 10 months.

Source: Japanese National Fertility Survey 1992

Table 13: Percent distribution on traditionalism and birth cohorts The Netherlands and Japan

	The Netherlands			
	"Marriage is a contract"			
Birth cohorts	**Agree**	**Disagree**	**Do not know**	**Number of cases**
1950-54	18	80	2	935
1955-59	20	78	2	990
1960-64	26	72	2	979
1965-69	25	73	2	874
1970-74	23	74	3	728
				(OG93)
1945-49	14	84	2	697
1950-54	13	86	2	717
1955-59	13	84	3	892
1960-64	18	79	2	934
1965-69	14	83	3	842
1970-74	19	78	2	725
1975-79	14	82	4	641
				(OG97)
	Japan			
	"When couples live together, it is better to marry".			
1950-54	86	12	2	2137
1955-59	81	17	2	1923
1960-64	74	24	2	1915
1965-69	75	22	3	1962
1970-74	73	23	4	1896
Ages				(JNFS92)
15-19	57	39	4	617
20-24	59	36	4	1969
25-29	66	31	4	1822
30-34	69	28	3	1671
35-39	72	26	3	1577
40-44	77	20	4	1686
45-49	82	13	5	1966
				(JNFS97)

Table 14: Percent distribution on meaning of parenthood and births cohorts The Netherlands and Japan

	The Netherlands			
	Having children is self-evident.			
Birth cohorts	**Agree**	**Disagree**	**Do not know**	**Number of cases**
1950-54	20	77	2	937
1955-59	18	80	2	991
1960-64	16	83	1	982
1965-69	14	85	1	876
1970-74	22	75	3	728
				(OG93)
1945-49	23	76	2	697
1950-54	19	80	1	717
1955-59	17	82	1	892
1960-64	15	84	1	934
1965-69	15	85	0	842
1970-74	17	82	1	725
1975-79	21	77	2	641
				(OG98)
	Japan			
	When, married, it is better to have children.			
1950-54	85	11	3	2137
1955-59	87	11	3	1923
1960-64	84	14	2	1915
1965-69	88	9	3	1962
1970-74	86	10	4	1896
Ages				(JNFS92)
15-19	72	24	4	617
20-24	73	22	5	1969
25-29	74	22	4	1822
30-34	74	22	4	1671
35-39	76	21	3	1577
40-44	77	18	5	1686
45-49	79	15	7	1966
				(JNFS97)

Table 15: Percent distribution on role of gender1 and birth cohorts The Netherlands and Japan

	The Netherlands			
	"Man should be wage-earner and women should be housekeeper and child-carrier".			
Birth cohorts	**Agree**	**Disagree**	**Do not know**	**Number of cases**
1950-54	19	78	2	938
1955-59	16	82	2	991
1960-64	16	82	2	983
1965-69	14	84	2	876
1970-74	16	83	1	728
				(OG93)
1945-49	21	78	1	697
1950-54	19	80	1	717
1955-59	16	83	2	892
1960-64	14	85	1	934
1965-69	13	86	2	842
1970-74	13	86	1	725
1975-79	10	88	2	641
				(OG98)
	Japan			
	"After marriage, husband should work outside and women should care for family".			
1950-54	39	59	3	2137
1955-59	38	60	2	1923
1960-64	40	58	2	1915
1965-69	48	49	3	1962
1970-74	50	45	4	1896
				(JNFS92)
Ages				
15-19	26	69	5	617
20-24	32	64	4	1969
25-29	33	63	4	1822
30-34	33	64	3	1671
35-39	31	66	3	1577
40-44	31	65	4	1686
45-49	35	59	5	1966
				(JNFS 97)

Table 16: Percent distribution on role of gender2 and birth cohorts The Netherlands and Japan

	The Netherlands			
	"When child comes, man should work part-time".			
Birth cohorts	Agree	Disagree	Do not know	Number of cases
1950-54	22	72	6	937
1955-59	25	70	5	991
1960-64	24	71	5	982
1965-69	17	76	7	874
1970-74	17	73	9	727
	Japan			
	"Husband should take part in household and childrearing activities".			
	Agree	Disagree	Do not know	Number of cases
1950-54	88	10	2	2137
1955-59	92	6	2	1923
1960-64	91	7	2	1915
1965-69	88	9	3	1962
1970-74	82	14	4	1896

Table 17: Percent distribution on motherhood and birth cohorts The Netherlands and Japan

	The Netherlands				
	"Small children suffer when mother works".				
	Agree	Disagree	Other meaning	Do not know	Number of cases
1950-54	40	54		6	935
1955-59	34	63		3	990
1960-64	30	66		4	979
1965-69	32	64		4	874
1970-74	39	54		6	728
					(OG93)
1945-49	35	58	7	0	697
1950-54	33	58	8	0	717
1955-59	29	64	7	0	892
1960-64	25	67	8	0	934
1965-69	21	71	9	0	842
1970-74	19	72	9	0	725
1975-79	24	67	9	0	641
	"At least when child is small, better for mother to stay at home".				(OG 98)
1950-54	56	41	3	2137	
1955-59	60	38	3	1923	
1960-64	67	31	2	1915	
1965-69	81	16	3	1962	
1970-74	87	8	4	1896	(JNFS92)