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Pioneers of the Modern Lifestyle?

Childless Couples in the Early-Twentieth-Century Netherlands

In many Western countries, including the Netherlands, couples marrying in the interwar period experienced unprecedentedly high levels of childlessness. Only recently do we witness a return to these levels, as part and parcel of the so-called second demographic transition. Looking back on the interwar period, many scholars have attributed the decline of fertility and the increase of childlessness to rampant economic and political instability. However, contemporary social scientists ascribed the phenomenon to individualization, secularization, and the priority newlywed couples gave to a career and a luxurious lifestyle. From this perspective, childless couples in the interwar period could be seen as “pioneers” of the second demographic transition. To disentangle “traditional” and “modern” backgrounds of childlessness, we have studied the fertility histories of nearly 3,000 Dutch couples married between 1919 and 1938. Our results, in particular the strong association of childlessness with religiously mixed marriage, confirm that an important part of childlessness in the interwar period can be associated with a modern, individualized lifestyle.

Between World Wars I and II an unprecedented surge in childlessness occurred. In fact, present-day Western countries still have not reached the levels experienced by the cohort born between 1890 and 1910. At the time they were about to marry, the members of this cohort experienced the demographic imbalance caused by World War I, the misery of the Great Depression, and for the youngest of them, World War II. For many couples, the

troubled times induced them to wait for (more) children, which in many cases led to permanent childlessness (Mattessich 1979: 300–301; Hakim 2000; Frejka and Sardon 2004: 58; Hagestad and Call 2007: 1340; Lesthaeghe and Surkyn 2007).

Interestingly, in the interwar period itself contemporary social scientists attributed the declining birthrates to very different causes. Instead of emphasizing economic and political anxieties, they pointed at the effects of individualization, secularization, and higher living standards. Increasingly, people defended their lifestyles of luxury and recreation by limiting the number of children they had. In her recent overview of the literature, Pearl A. Dykstra (2009: 678) quotes Dudley Kirk (1946), who ascribed the declining fertility to “the growing individualism and rising levels of popular aspiration in a society freed from the rigid structure and taboos of a peasant community.”

This description by contemporaries of the changes in the interwar period is reminiscent of the “second demographic transition,” the complex of radical behavioral changes observed in Western countries since the 1960s (Lesthaeghe and van de Kaa 1986; Lesthaeghe 1995). Since the 1960s we have witnessed everywhere a decline in marriage rates and increases in both cohabitation and divorce; an increase in extramarital fertility; and a strong decline in overall fertility (below replacement levels), which can be accounted for partly by a rising definitive childlessness in unions. According to Ron Lesthaeghe and Johan Surkyn (2007), these changes stem from a number of interrelated and sweeping cultural changes: the sexual revolution, the emancipation of women, and the rejection of authority and secularization. More than ever before, individuals resist social and religious norms prescribing the timing and sequence of sexuality, paid work, union formation and marriage, and childbearing. Instead of following the “cultural scripts” of the past, people have to find out for themselves whether they can combine work and children and whether they can gear their career to that of their partner. The advent of the so-called choice biography has brought a strong diversity in lifestyles, among them a deliberate choice to have no children (Dykstra and Hagestad 2007). In this article we ask to what extent childless couples in the interwar period chose to have no children. To what extent can they even be considered precursors or pioneers of the modern lifestyle associated with the second demographic transition? What is actually “modern” and “traditional” with respect to childlessness?

Posed in these terms, the major distinction might seem to be one between nonvolitional childlessness in the past and volitional childlessness in modern times. However, the recent literature on childlessness makes clear that this contrast is too stark and too simplistic. Clearly, nonvolitional childlessness caused by physiological impairments was a more important factor in the past than it is in the present, when medical solutions have become available, at least for some sterile couples. However, as S. Philip Morgan (1991) has made clear, biological factors cannot explain the strong regional variation in childlessness found in the past. Moreover, the wealthier groups often had the highest levels of childlessness, which obviously cannot be explained by subfecundity due to health problems (*ibid.*: 795). Increasingly, the literature on the subject emphasizes both the heterogeneous and the cumulative characters of childlessness. The first indicates that the group of childless persons is composed of widely varying subgroups, ranging from the permanently single to the deliberately childless. The latter indicates that childlessness has to be seen as the end stage of a lifelong process, an accumulation of decisions made or circumstances encountered earlier in life (Hagestad and Call 2007). In this view, what are the “traditional” and “modern” elements—backgrounds, motives, causes—in childlessness?

According to Morgan (1991), childlessness is the outcome of a basically traditional form of birth control: postponement. In response to adverse times, people in Western societies had often delayed the timing of their marriage, thus relieving the pressure exerted by new households on the means of existence (Kreager 2004). Late marriages often remained childless, as subfecundity is strongly associated with age. Timing of marriage was not the only form of adaptation available to preindustrial populations. According to several authors, couples deliberately spaced births to help them through difficult periods in the household economy (Anderton and Bean 1985; David and Mroz 1989a, 1989b; Van Bavel 2003; Van Bavel and Kok 2004). In the absence of modern techniques of birth control, spacing was largely achieved by (deliberately) prolonged breast-feeding, coitus interruptus, and abstinence (Szreter 1996).

Although waiting and spacing were “old” methods, their application had to be culturally and morally acceptable. In other words, not all social groups applied them, even when the “objective” conditions were the same (Morgan 1991: 802–3). Again, postponement (of the first child) may have led to childlessness when couples became accustomed to a life without chil-

dren or because they waited too long and became infertile (Rowland 2007: 1333). In this view, childlessness stemmed from rather traditional adjustment mechanisms to hard times, and indeed the surge during the Depression years hardly comes as a surprise. Scholars have demonstrated that the chain of decisions leading to childlessness began even earlier in life. In the past family circumstances often dictated whether and when a child could leave to follow an education or to enter the labor market. Many of those who never left home, often staying to support their parents, remained single. In this respect, Gunhild O. Hagestrand and Vaughn R. A. Call (2007: 1349) speak of the “never launched single childless.” Another life-course event that often led to childlessness was the early disruption of marriage (*ibid.*: 1354). High mortality and relatively low rates of remarriage (in particular for women) contributed to high childlessness rates.

Apart from traditional motives and causes behind early-twentieth-century childlessness, we can expect modern ones as well. In the literature on the transition toward lower birthrates, which began in the late nineteenth century, most attention has been devoted to “stopping,” that is, applying modern means to make sure no next child is conceived once a targeted family size has been achieved. Some couples (“early articulators” [Dykstra 2009]) even deliberately stopped at “parity zero.” However, most childlessness in modern societies may be due to postponement as well, instead of to an early decision not to have children at all (Heaton et al. 1999; Rowland 2007: 1332). The motives for modern postponement are associated with the difficulties of combining various aspirations in life: work, housing, and family. This entails balancing the opportunity costs of children and making judgments about the right time to start having them. The freedom associated with the choice biography is relative; couples are constrained by the availability of care arrangements, the risks of interrupting a career when parental leave is not well organized, and so on. For well-educated women in the early twentieth century, to become a mother often meant forfeiting a career. The frequent childlessness found in this group has been seen as “indications that some of these women may have been forerunners of what we consider a ‘modern’ pattern: actively choosing childlessness and stable work engagement” (Hagestad and Call 2007: 1357).

The early-twentieth-century childless formed a heterogeneous group in terms of backgrounds and motives. On the one hand, traditional relationships, norms, and coping strategies kept people from (re)marrying and

induced couples to delay their marriage or to postpone their first child. On the other hand, couples began to postpone or to abstain from having children because children were not compatible with their careers and their standard of living. In this article we will analyze the characteristics of couples marrying in the interwar period to estimate the relative importance of “traditional” and “modern” reasons for childlessness. In the next section, however, we will first analyze the trend in general childlessness. We will try to answer three questions. First, do we witness in the Netherlands the same rise in the 1890–1910 birth cohort as that described for the United States (Morgan 1991) and Australia (Merlo and Rowland 2000)? Second, what was the relative contribution of marital childlessness and celibacy to the development in Dutch childlessness? Third, can we discover period effects in childlessness trends? In the subsequent section we will introduce our dataset of 2,896 couples who married in the interwar period, and we will discuss the hypotheses to be tested with the data. In the final sections we will report and discuss the results of a multivariate analysis.

Trends in Childlessness in the Netherlands

Dykstra (2009) has created the most extensive statistic of twentieth-century data on trends in childlessness (measured at age 45 for women) in many European and several non-European countries. For Australia and the United States, the figure can be extended to the mid-nineteenth century, using the data provided in Merlo and Rowland 2000 and Morgan 1991, respectively. For the Netherlands, we have produced a comparable statistic using the Historical Sample of the Netherlands (2007). Figure 1 shows the childlessness rates in the Netherlands, several other European countries, the United States, and Australia.

The Netherlands experienced an early peak in the birth cohort 1860–64, perhaps caused by the agrarian depression of the 1880s and early 1890s. The trend was upward, as it was in the United States and Australia. In the latter country, the cohorts 1890–1905 had very high ratios of childlessness, which were not matched in the Netherlands or the United States. The American rate kept rising until the birth cohort 1910–14. By then the trend had already reversed in the other countries. Overall, the Dutch figures fit well into the pattern visible in virtually all countries for which the data are available (Dykstra 2009).

Figure 1 Percentage childless of female birth cohorts at age 45, the Netherlands, Germany, France, Italy, the United States, and Australia

Sources: For the United States, Morgan 1991; for Australia, Merlo and Rowland 2000: table 1; for the Netherlands 1850–99, our own computation based on the Historical Sample of the Netherlands 2007; for the Netherlands 1900–1934, Italy, Germany, and France, Dykstra 2009: table 1. Women still single at age 45 are assumed to have had no children in 95 percent of the cases. Childlessness among ever-married women at age 45 is based on the lack of registration of live-born children.

The rate displayed in figure 1 is a composite figure, to which both permanently single and childless couples contribute. To understand the trend properly, we have to decompose the figure. In figure 2 childless women are separated into single and ever-married persons. The data for the period 1850–99 are based on a relatively small prospective sample, and the figures are somewhat more irregular than those for 1900–1934, which were based on retrospective censuses and panel studies. Nevertheless, the figures match very well. It is clear that the early peak in childlessness was caused solely by a rise in permanent celibacy, whereas the second peak in the cohorts after 1880 has to be attributed to an increase in childlessness within marriage. The decline in the cohorts born after 1910 was caused by increased marriage rates as well as decreasing childlessness within marriage.

Obviously, most of the cohorts born between 1910 and 1934 did not marry in the Depression years but in fact experienced the optimism and economic expansion of the postwar period. To focus more clearly on period effects in childlessness, we present the figures (based on the Historical Sample of the Netherlands [2007]) also by marriage cohort (figure 3). We can assume that in

Figure 2 Childlessness cumulated by marital status, the Netherlands, birth cohorts 1850–1934

Sources: For the Netherlands 1850–99, our own computation based on the Historical Sample of the Netherlands 2007. Women still single at age 45 are assumed to have had no children in 95 percent of the cases (stillbirths excluded). Childlessness among ever-married women at age 45 is based on the registration of live-born children. Data for the Netherlands 1900–1934 from personal communication with Pearl Dykstra.

the first years of marriage the decision to wait for children was most strongly related to the economic circumstances. In later years the partners may have become used to their lifestyle (and thus continued to prevent births), or they may have become less fertile. In figure 3 we also show the marital fertility rates.

The trend in marital childlessness suggests a strong impact of adverse times. An initial rise is visible in the period 1880–1900, which largely coincides with the worldwide agrarian depression that also struck the Dutch cereal-growing regions. Interestingly, the ratio stabilizes until the marriage cohort 1910–14. World War I did not affect the Netherlands directly, as the country remained neutral and to some extent even benefited economically from this position. Very high rates of childlessness were found in the marriage cohorts 1925–29 and 1930–34. Interestingly, this coincides with the only five-year periods when marital fertility rates dropped by more than 10 percent.

The figure suggests that economic downturns affected couples strongly and led them to postpone the arrival of their first child. We can expect that the most economically vulnerable couples and those living in regions most

Figure 3 Marital fertility (by period) and percentage childless couples (by marriage cohort), the Netherlands, 1880–1934
Source: Historical Sample of the Netherlands 2007. Marital fertility (number of births per 1,000 married women aged 15–45) from Hofstee 1981: 132, table 6.

affected by the Depression were most likely to remain childless. This is one of the hypotheses we will test using a micro dataset sample of fertility reconstructions. In the next section, we will introduce this dataset.

Data and Methods

Our dataset is drawn from the Historical Sample of the Netherlands (2007), a large database scheduled to contain more than 70,000 life courses. The database is built from a random sample (0.5 percent) of the Dutch birth certificates of 1812–1922, linking and entering all information in both the civil registers (birth, marriage, and death certificates) and the continuous population registers (Mandemakers 2000). Thus complete life courses were reconstructed by following the sampled persons in all their successive places of residence. From 1850 on Dutch population registers recorded all life events (birth, death, marriage, and migration) of individuals in their households and noted additional information on occupation and religion.

For our study of childlessness, we have created a dataset with marriages contracted between 1919 and 1938. For our analyses in the previous section, we only used the women from the Historical Sample of the Nether-

lands (2007). For the remainder of our article, we also use information on the male sample persons as well as their wives. From the total sample, we selected first marriages with a known date of marriage.¹ Also, the women had to be younger than 40 years, to control as much as possible for age-related infertility. Finally, the marriages had to remain intact for at least 15 years to capture first childbirths late in marriage. We define childlessness as having had no births in 15 years of marriage. After 15 years, selective removal from observation (mainly due to the decease of one of the spouses) would make the sample less representative. These selections resulted in a final sample of 2,896 marriages. Due to missing variables, the sample is reduced in some of the regression models to 2,829 marriages. Table 1 presents basic descriptive statistics for the variables used in the models.²

The couples in the sample are scattered across the country. This allows us to include contextual data in our analysis and so assess the impact of local cultural and economic conditions. We have made use of the Historical Database of Dutch Municipalities (Beekink et al. 2003). This database has collected material from censuses and statistical yearbooks and ordered it by municipality. The municipalities themselves can be grouped in socioeconomic regions. In our analysis, we use the 42 regions classified in the 1930 census.

Hypotheses and Operationalization

In this section interpretations by interwar social scientists and demographers are used as a starting point to formulate a number of hypotheses about the reasons for childlessness. This does not mean that we take their claims at face value. It does mean that we take their ideas seriously and try to assess to what extent they are consistent with the empirical evidence we will present for the Netherlands.

The Moral Acceptability of Birth Control

In the interwar period techniques of birth control had become widespread. However, contemporaries noted that their application was still rejected by people adhering to religious prescriptions, in particular Roman Catholics, and in the countryside more so than in the cities (Mombert 1929: 308–13). Secularization and rationalization of family life was, according to many authors, the key factor to understanding fertility decline and increased childlessness

Table 1 Description of variables

Variables	Marriage cohort					Age of women
	1919–23	1924–28	1929–33	1934–38	Total	
<i>N</i>	883	792	724	497	2,896	
Percentage without births after 15 years of marriage	12.1	15.4	12.6	13.9	13.4	
Mean age at marriage women (Standard deviation)	24.9 (4.3)	25.0 (4.3)	24.8 (4.6)	25.5 (4.5)	25.0 (4.4)	
Mean age at marriage men (Standard deviation)	27.0 (4.9)	27.3 (5.4)	27.1 (5.1)	27.5 (4.6)	27.2 (5.0)	
Occupation husband (%)						
Unskilled laborers, including agricultural laborers	21.7	19.9	22.3	19.6	21.0	24.0
Professionals and economic elite	2.2	3.0	2.1	3.2	2.6	26.3
White-collar workers	21.1	21.8	19.6	22.9	21.2	25.6
Artisans and low- to high-skilled workers	38.4	36.0	39.1	40.9	38.3	24.8
Farmers, fishermen, skilled agricultural workers	14.0	16.0	12.9	9.7	13.5	26.0
No occupation	2.6	3.3	4.0	3.8	3.4	25.0
Occupation wife (%)						
Not mentioned	73.3	76.9	81.6	84.6	78.2	24.7
Skilled	3.3	3.4	2.4	1.3	2.8	29.7
Unskilled	23.4	19.7	16.0	14.1	19.0	25.4
Religious denomination (%)						
Both Roman Catholic	23.5	20.3	23.6	22.0	22.6	25.7
Both Liberal Protestant	31.7	30.1	25.4	20.9	27.8	24.7
Both Orthodox Protestant	7.1	9.1	8.0	6.4	7.7	24.7
He Catholic, she Protestant	3.6	4.2	3.2	1.4	3.3	25.4
He Protestant, she Catholic	4.8	5.2	3.2	3.6	4.3	24.4
Mixed Protestant	13.5	11.1	10.0	11.1	11.5	25.2
Mixed Catholic and none or unknown	3.7	3.5	5.0	9.7	5.0	25.2
Mixed Protestant and none or unknown	10.0	12.6	18.4	20.1	14.5	24.7
Jewish	1.4	1.0	0.8	0.4	1.0	25.2
Both none or unknown	0.7	2.9	2.4	4.4	2.3	24.0

Table 1 (continued)

Variables	Marriage cohort					Age of women
	1919–23	1924–28	1929–33	1934–38	Total	
Municipal characteristics						
Factor scores living standard or consumption (mean)						
Electricity, gas, telephone, radio sets (1934–35)					–0.04	
Supply of stores (1930)					0.01	
Ownership of motor vehicles (1935)					–0.01	
Regional characteristics						
Percentage of unemployed males (1933)					14.1	
Percentage of progressive voters (1937)					36.6	

Sources: Historical Sample of the Netherlands 2007 (life courses and civil records); Historical Database of Dutch Municipalities (CD-ROM included with Beekink et al. 2003).

(Mombert 1929; Charles 1934; Landry 1934; Myrdal 1941). From this general observation we derive two specific hypotheses, the first related to the religious affiliations of our couples themselves and the second to the cultural environments in which they lived.

In the Netherlands numerous religious denominations existed, and their memberships were duly recorded in the population registers. To classify these denominations according to their potential impact on demographic behavior, we have looked, on the one hand, at these churches' guidelines and implicit norms in matters of birth control and, on the other hand, at their willingness to and effectiveness in actively interfering with the private lives of their members. Thus we have also looked at the social control mechanisms at the disposal of the various churches (see McQuillan 2004).

Orthodox religions had been rapidly gaining strength and societal impact since the second half of the nineteenth century. From the 1850s on the number of specific Catholic associations and institutions, such as schools, increased rapidly in the Netherlands. Orthodox Protestants were building their own organizations. In the decades to follow both groups intensified their efforts to improve national morality through education, poor relief, and lay organizations (Righart 1988). The competition among Catholic, Ortho-

dox, and more liberal groups was intense. From the 1880s on Dutch society gradually became “pillarized,” or compartmentalized on an ideological basis. Pillars strove toward autarky by providing their members with all possible services, from cradle to grave: unions, insurance, banking, mass media, schools, hospitals, old people’s homes, and youth and adult movements as well as a political party (Billiet 1997). The essential elements in the building of group identity among the Orthodox Protestants and Catholics were family values and sexual purity. We argue that in this context religious exogamy can be considered suggestive of a rather low adherence to the norms of the ideological pillar.

We divide the Protestants into two groups: Liberals and Orthodox. The Liberal Protestants comprise part of the Dutch Reformed, Lutherans, Huguenots, Mennonites, and Remonstrants (see Kok and Van Bavel 2006; Van Bavel et al. 2008). The Orthodox Protestants consist of various groups of Orthodox secessionists from the mainstream Reformed Church as well as Pietists and Evangelical groups. Furthermore, we have categories for Catholics, Jews, and persons with no religious affiliation. Because we know the religion of both husband and wife, we can also create several categories for religiously mixed couples. We capture the denomination at the beginning of the marriage and ignore eventual switches later on in the marriage. Table 1 gives the frequency distribution of all these categories. The table shows the numerical decline of Liberal Protestantism in the period under observation. This was causally related to the increase of marriages with or between nondenominationals also visible in table 1. Interestingly, marriages between Catholics and Protestants were declining, suggestive of the increased homogamy that has been observed in the period (Hondius 2001). Because of their pronatalist ideology, we expect the lowest levels of childlessness among Roman Catholic and Orthodox Protestant couples. Yet we expect relatively frequent childlessness among the mixed marriages, since such a marriage is already indicative of a certain disregard for religious norms and social control by church organizations. Likewise, we expect higher chances of childlessness among members of Liberal Protestant churches. However, the highest rates are expected among the nondenominationals.

We also hypothesize that for couples living in a region in which a large part of the population adhered to progressive and secularized ideas the likelihood of childlessness increases. To operationalize the ideological climate of regions, we use the percentage of voters for progressive parties in the parlia-

mentary elections of 1937 (see also Lesthaeghe 1977). We expect the hazard of childlessness to increase with the percentage of voters for communists, social democrats, and liberals.

Occupational Position and Unemployment

Deliberate childlessness is often associated with high female education (Heaton et al. 1999). This relation was also noted in the interwar period itself. Alva Myrdal (1941: 56–59) wrote that increasingly paid labor took place outside the household, which means that work and caring for children became harder to combine and choices had to be made. The opportunity costs involved weighed most heavily for well-educated women. In the same vein, Enid Charles (1934: 130–31) listed the obstacles that parenthood put in the way of ambitious male and female academics and concluded: “If all scientists were equally intelligent, it is highly probable that the least fertile ones would achieve the greatest distinction in their profession.”

We expect the hazard of childlessness to rise with skill and education both for men and for women. For men, we can classify occupational groups according to the Historical International Social Class Scheme, based on skill levels (Van Leeuwen et al. 2005) attributed to the commonly used Historical International Standard Classification of Occupations or HISCO codes for historical occupations (Van Leeuwen et al. 2002). Unfortunately, the registration of occupations of married women in the Dutch population registers is problematic and seems to depend partly on local administrative practices. Therefore we have to resort to a simple classification in three groups: women without an occupational title (the vast majority), women with an unskilled job, and women with a skilled job. We use the occupations as they are recorded on the marriage certificate and—as with denomination—ignore eventual changes.³ Table 1 (final column) shows that educated women had higher-than-average ages at first marriage. In itself this will increase their hazards of childlessness. Will they still have higher hazards once we control for the age at marriage?

We consider the majority of men without an occupation to be unemployed. We expect (involuntary) childlessness due to postponement in response to hard times to be visible in this group as well as in the group of unskilled laborers. Likewise, we expect more postponement and childlessness in regions with the highest levels of unemployment. To test this we add

the percentage unemployed in the male labor force in the 42 geographic-economic regions in 1933 to our model.

Lifestyle

To explain declining birthrates, many contemporary social scientists pointed to the incompatibility of the modern lifestyle—valuing “sex appeal,” recreation, and luxury—with raising children. According to Myrdal (1941: 53–54), many women feared losing their bodily attractiveness through pregnancy and motherhood. Likewise, Charles (1934: 200) pointed to women’s obsession with their appearance: “[The] intensive culture of personal appearance and bodily fastidiousness is not readily reconciled with the corporal realities of reproduction.” In her view, the increased importance of erotic aspects in modern marriage tends to push reproduction to the background. In fact, children are perceived as threatening to modern marriage: “The irruption of children into the modern erogamic marriage involves a displacement of the emotional pattern” (ibid.: 203). Alexander M. Carr-Saunders (1936: 256) rejected this development for vulgarizing marriage and degrading it to “a mode of self gratification.” To some extent the observations of these contemporaries on the increased importance of “sex appeal” have been vindicated in modern historical research (Coontz 2005: chap. 12).

Another factor mentioned by observers is the increased value attached to recreational activities. More than previously, these activities were age related (i.e., enjoyed by peers) and took place outside the home: dances, moviegoing, picnics, bicycling, and so on (Myrdal 1941: 56–58). According to Myrdal, enjoyment of nightlife, in particular, made young women hesitant about motherhood (ibid.: 58). Women with children faced many difficulties if they wished to maintain a rich social life (Charles 1934: 197).

Elevated standards of living played a part as well. During the interwar period the supply of industrially produced consumer goods increased enormously. Automobiles added to the dilemma between recreation and motherhood. In Charles’s (ibid.: 205) words, “Industrialism has increased the number of amenities and amusements, more particularly greater ease of travel, thus providing distractions alternative to parenthood.” She added jokingly: “Statistics clearly show that the choice between a Ford and a baby is usually made in favour of the Ford” (ibid.: 197).

Many modern household appliances were introduced in this period.

Among others the vacuum cleaner, the flat iron, special baby food, and napkins entered up-to-date middle-class households. In the 1920s the industry launched large-scale modernization offensives to stimulate sales. Many households were connected to water, gas, and electricity networks (Schot 2001; Buyst 2006). Standards of child care and hygiene rose as well (Charles 1934; Myrdal 1941). Furthermore, the costs of all these appliances and utensils had to be considered in decisions about family formation. People eager to acquire the latest products may have opted for postponing children and thus run the risk of remaining childless (Carr-Saunders 1936: 252).

According to contemporaries, the modern materialist lifestyle added to increased childlessness in the interwar period. We cannot measure luxury expenses at the level of individual households. To estimate the impact of a culture of spending on modern (luxury) items, we add a number of local variables to our model. We hypothesize that couples in communities with a relatively high level of “modern” consumption had a higher chance of childlessness. As indicators we use (measured per municipality) the number of connections to the electricity grid (1934), the number of connections to the gas distribution net (1934), the number of telephone connections (1935), the number of registered radio sets (1935), the number of private motorcars (1935) and motor vehicles (1935), and the number of food stores, dress stores, and stores selling household articles (1930). These figures were expressed as a ratio per 100 inhabitants in 1934. We have used an explorative factor analysis (iterated principal axis factoring with varimax rotation [Kim and Mueller 1978]) to capture the relation between these indicators in one or several latent variables (see table 2). We created three factors with a standardized score for each Dutch community. The first factor summarizes the supply of utility facilities (gas, electricity, telephone, and radio sets). The second one captures the municipal supply of various stores. The last one summarizes ownership of cars and motor vehicles.

Results of the Multilevel Regression Analysis

We employ a mixed-effects multilevel logistic regression model to estimate the hazard of having no surviving children after 15 years of marriage. To estimate the parameters, we use the Laplace estimation technique, which is more accurate than most commonly used methods (Snijders and Bosker 1999; Agresti 2002). We estimate fixed effects for explanatory variables on

Table 2 Explorative factor analysis of municipal indicators for consumption levels: Factor loadings^a

Indicators	Factor 1, “Facilities”	Factor 2, “Supply of stores”	Factor 3, “Cars and motor vehicles”
Electricity connections	0.71	−0.10	0.28
Gas connections	0.79	0.14	0.22
Telephone connections	0.64	0.07	0.45
Radio sets	0.76	0.00	0.08
Private motorcars	0.20	0.12	0.81
Motor vehicles	0.26	0.06	0.67
Food stores	−0.19	0.66	−0.03
Dress stores	0.32	0.87	0.04
Stores selling household articles	0.04	0.79	0.25
Eigenvalue	2.37	1.87	1.50

Source: Historical Database of Dutch Municipalities (CD-ROM included with Beekink et al. 2003).

^aExtraction method: iterated principal axis factoring; rotation method: varimax.

three levels: individual couples, the municipality in which they lived, and the region in which that municipality was located. As place of residence we take the first dwelling place of the couples after their wedding and ignore subsequent removals. Furthermore, we estimate random intercepts at the regional level, which implies that the level of childlessness is explicitly allowed to vary by region due to unobserved regional characteristics. We cannot estimate reliable random effects at the municipal level, because many municipalities are represented by only one marriage in our dataset.

In table 3 we add explanatory factors stepwise: first we look at the effect of variables at the individual level, then we look at the regional and municipal levels, and finally we consider the net, direct effects of all variables in the model. Did men and women with higher levels of education tend more often to have no children at all? Did nondenominational couples or those professing a “liberal” religion have higher hazards of childlessness? And if so, do we still find these effects after controlling for age at marriage?

In model I we look at the impact of individual characteristics on childlessness, in particular age at marriage, occupation, and religion. We can see in the model that marriages in which the men had no occupational title had the highest odds of childlessness. Probably in many cases these are men who, for

economic or health reasons, were unemployed. This can be an indication that a difficult economic situation indeed led people to postpone or refrain from parenthood. Interestingly, the white-collar workers had the second highest odds of childlessness. With respect to the female occupations, we find no significant effects.⁴

The model shows interesting religious differentials: the odds ratio of having had no children within 15 years of marriage was 59 percent higher among Liberal Protestants than among Roman Catholics ($\exp(0.461) = 1.59$). Nondenominational couples were 123 percent more likely to have no children than the reference category of Catholics. We found remarkably high chances of childlessness also among couples with a mixed marriage, be they between Catholics and Protestants or between Catholics or Protestants and a partner without a denomination. As we expected, the Orthodox Protestant couples hardly differed from the Roman Catholic couples.

The effect of age at marriage points to subfecundity and was, as expected, stronger for women than for men. We found no effect of age differences between the spouses (not reported here). The fact that we could not always follow the couples in our sample on a day-to-day basis did not affect the hazard of having no reported children after 15 years. In table 3 we tested this by adding the number of missing person-months to the models.

Model II inspects the association of childlessness with the two regional characteristics, controlling for the year of the marriage and age at marriage. The variation in childlessness at the level of the 42 geographic-economic regions decreased by about one-third when we controlled for regional characteristics. The estimated standard deviation of the log of odds is 0.320 in model I without regional variables and only 0.197 in model II with regional variables. The estimates suggest that childlessness was hardly affected by the regional level of unemployment in 1933. However, the percentage of voters for progressive (mainly nondenominational) parties in 1937 did have an effect: the odds ratio of having no surviving children after 15 years increased by about 15 percent for each 10 percent rise in adherence to progressive parties ($\exp(10 \times 0.015) = 1.15$). This result indicates that the cultural climate of a region was more important for the fertility behavior of couples than the intensity of the economic crisis in the early 1930s, at least insofar as we can deduce the latter from male unemployment.

Model III adds the municipal indicators for levels of luxury consumption and supply of stores. Indeed, the odds of childlessness increased when

Table 3 Logistic regression coefficients and standard errors of four multilevel models of having no children in 15 years of marriage

Variables	Model I		Model II		Model III		Model IV	
	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.	<i>b</i>	s.e.
Intercept	-6.065	20.724	-10.920	19.946	-12.311*	20.069	-7.615	20.908
Year of marriage	0.001	0.011	0.002	0.010	0.003	0.010	0.001	0.011
Age at marriage woman	0.135***	0.016	0.129***	0.016	0.127***	0.016	0.132***	0.016
Age at marriage man	0.033*	0.014	0.033*	0.013	0.035**	0.013	0.035*	0.014
Unobserved months	0.000	0.001	0.000	0.001	-0.001	0.001	-0.000	0.001
Occupation man								
Unskilled laborers (reference)	0.000						0.000	
Professionals and managers	-0.037	0.396					-0.286	0.412
White-collar workers	0.418*	0.191					0.293	0.191
Skilled workers	0.280	0.177					0.162	0.181
Farmers and fishermen	0.144	0.226					0.214	0.297
No occupation (mentioned)	1.316***	0.291					1.195***	0.274
Occupation woman								
No job title (reference)	0.000						0.000	
Skilled	-0.067	0.320					-0.149	0.331
Unskilled	-0.220	0.158					-0.213	0.159
Religious denomination								
Both Catholic (reference)	0.000							
Both Liberal Protestant	0.461*	0.183					0.443*	0.194
Both Orthodox Protestant	0.068	0.284					0.157	0.289
He Catholic, she Protestant	0.890**	0.313					0.776*	0.318

He Protestant, she Catholic	0.711*	0.297			0.552+	0.307
Liberal with Orthodox Protestant	0.580**	0.218			0.545*	0.226
Mixed Catholic and none or unknown	0.531+	0.284			0.506+	0.288
Mixed Protestant and none or unknown	0.581**	0.210			0.550*	0.218
Jewish	0.379	0.544			0.256	0.546
Both without religion	0.802*	0.380			0.763*	0.388
Regional characteristics						
Percentage of unemployed men (1933)			0.009	0.014	-0.003	0.017
Percentage of progressive voters (1937)			0.015*	0.006	0.007	0.006
Municipal characteristics						
Factor facilities (electricity, gas, telephone, radio sets)					0.279**	0.095
Factor supply of stores					0.163**	0.063
Factor ownership of cars and motor vehicles					-0.021	0.081
Population size in 1924						-0.026
						0.001+
Random effects						
Unexplained variance at regional level	0.320		0.197		0.199	0.199
(standard deviation)						
N marriages	2.896		2.896		2.829	2.829
N region	42		42		42	42
Deviance	2.045		2.087		2.035	1.997

Sources: Historical Sample of the Netherlands 2007 (life courses and civil records); Historical Database of Dutch Municipalities (CD-ROM included with Beekink et al. 2003).

+ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .005$.

inhabitants of municipalities relatively frequently possessed radio sets and were connected to gas, electricity, and telephone. The same was true for municipalities with a large supply of stores (food, clothing, household appliances). But the municipal-level measured property of motor vehicles was not related to childlessness. The fact that the association with voting behavior now disappears suggests a correlation between the municipal-level factors and the regional characteristics. Indeed, the factor “facilities” correlates strongly with the percentage of unemployed (Pearson’s $r = 0.56$) and also with the percentage of voters for progressive parties ($r = 0.53$). We suspected that another factor, population size, lay behind these associations. Therefore we added this factor to our final model.

Model IV incorporates all discussed explanatory variables at the individual, local, and regional levels. Indeed, the impact of the factor “facilities” dwindles when we control for population size (from 0.279 to 0.149, no longer statistically significant). However, the factor “supply of stores” becomes even more important: couples living in municipalities with a large supply of “luxury” stores tend to have high odds of childlessness, even when we control for the size of the municipality. The direct effect of population size is small. The individual factors are somewhat weakened when we add local and regional characteristics. However, couples in which the male had no occupation, who were Liberal Protestant, who had no religion, or who were a religiously mixed marriage still had statistically significant higher odds of childlessness. The difference between white-collar workers and unskilled laborers becomes smaller and is statistically no longer significant after including the regional and the municipal effects.

Discussion

In the interwar years the incidence of childlessness increased in the Netherlands. In contrast with an earlier surge experienced by the birth cohort 1860–69, this was due to an increase not in spinsterhood but in marital childlessness. This development took place in many other countries as well. To explain this phenomenon, two views have been put forward. The first connects the increase in childlessness to the traditional flexibility inherent in Western systems of family formation: when it became difficult to ensure the material basis for a new household, poor people delayed their marriage or postponed the arrival of a (next) child. Thus the strong decline in marital fertility as well

as the rise in childlessness is often explained by the hardship of the Depression years. The second view suggests, however, that women were increasingly concerned about their “sex appeal,” that well-educated women chose a career before children, and that couples wanted to hold on to their lives of recreation and luxury. These motives imply that at least some of the childless couples can be seen as pioneers of the modern, individualized lifestyle associated with the second demographic transition. But who were these childless couples, and can we separate the pioneers from the poor?

In our research we have sought to decompose interwar childlessness into “traditional” and “modern” components. To assess whether it was a “traditional” reaction to adverse times or a “modern” choice to defend one’s lifestyle, we have reconstructed the fertility of 2,896 couples who married in the interwar period. In our multilevel model we have combined characteristics of the couples themselves with socioeconomic and cultural information on their localities and regions. Delayed marriage causing subfecundity can be seen as a “traditional” cause of childlessness, and its importance is confirmed in our models. We have also shown that married men without a registered occupation (or with the explicit term *without*) had high odds of having no children in their marriages. For this group, the long-term postponement of having children may well have been caused by their highly insecure position. However, we have not found this reaction among other vulnerable groups, such as the unskilled laborers. Moreover, we have not found an effect of unemployment in the region where the couples lived. High levels of regional unemployment must have contributed to a general feeling of low prospects, even when one was not unemployed himself.

Yet we have found several indications that more or less deliberate childlessness was involved with the intention to defend a career or a modern lifestyle. Controlling for age at marriage, white-collar workers had relatively high hazards of childlessness, although the difference from other groups of workers becomes small and statistically insignificant after controlling for regional and municipal characteristics. As to the municipal effects, people in localities with many stores tended to have no children. The same applied to people in urban environments.

Our most important findings have to do with religious differentials. Couples who had a mixed marriage or who were both without a religion had relatively high odds of childlessness. As we expected, Orthodox Protestant and Roman Catholic couples were the least likely to have a childless

marriage. This outcome fits in well with our earlier research on religious differentials in fertility behavior using smaller datasets from the Historical Sample of the Netherlands (2007; see also Van Bavel and Kok 2004, 2005; Kok and Van Bavel 2006). In the period before the fertility transition, Dutch couples did practice some spacing in relation to the number of children, in particular during the first 10 years of marriage. During the fertility transition, all forms of fertility control were intensified. Early stopping was practiced among the religiously mixed marriages and the relatively lenient and “rationalist” churches we have labeled as Liberal Protestant. Among the Catholics and Orthodox Protestants, stopping was much less accepted. However, those who lived in cities—where the churches had less efficient means of social control—adopted stopping as well (Kok and Van Bavel 2006). Likewise, the interbirth intervals and even the intervals between marriage and first birth were differentiated along religious lines. The latter were particularly differentiated in the cities: whereas Liberal Protestant and religiously mixed couples had first birth intervals of 19 and 21 months, respectively, Catholic and Orthodox Protestant couples had first birth intervals of 14 and 13 months, respectively (Kok and Van Bavel 2006: 97, table 1).

We can interpret these outcomes in two ways. First, they show that delaying births within marriage, for whatever reason, had to be morally acceptable. For Orthodox Protestants and Roman Catholics, children were a “gift from God,” and postponement of having children was simply not an option. But members of groups that allowed more leeway for own decisions or that could not enforce compliance could adopt postponement as a family limitation strategy. Second, the striking results for the nondenominationals and the growing group of religiously mixed couples in our sample can also be interpreted from the perspective of the “modern” lifestyle. Indeed, by disregarding the norms of religious endogamy, religiously mixed couples had already rejected control by kin, community, or church on their lives. Their inclination to make their own choices was visible in their high rates of childlessness.

An important limitation of our study is that we do not have good data about the levels of education of men and women. Women’s level of education, in particular, has been shown to be strongly related to reproductive behavior. For example, it has been shown that Belgian women born during the interwar period and reproducing in the 1950s postponed their first child more as their level of education increased. Yet the better-educated caught up later in

their life course, eventually producing less childlessness (Neels 2006). Since this article has focused on eventual childlessness (or, more precisely, childlessness after 15 years of marriage), we are confident that our results are not biased by a similar process of postponement and recuperation in the earlier Dutch cohorts studied here. Our inability to control for level of education, however, still represents an important limitation, given its demonstrated relevance in cohorts following the ones reproducing during the interwar period. In principle, highly educated couples may be overrepresented in the religiously mixed marriages, which were so often childless. If so, the statistical link reported here between religiously mixed marriages and childlessness may be partly or fully due to an unobserved causal link between education (or educationally mixed marriages) and childlessness. However, the literature on mixed marriages in the Netherlands in the first half of the twentieth century suggests that religious homogamy actually increased (from 1935 until about 1955) because of the spread of confessional educational facilities (including universities), which reduced the opportunities for people of different religions to meet (Hondius 2001: 60–62). Thus it seems unlikely that mixed marriages can be equated with a higher level of education.

Notes

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- 1 Prior marriages are not recorded in the population registers. To select first marriages only, we had to link the information in the register to the digitized collection of marriage certificates of the Historical Sample of the Netherlands (2007). Not all certificates pertaining to the sampled persons have been retrieved and digitized yet. A further reduction was caused by our choice to follow couples over a 15-year period, which often meant following them after 1940. In that year a new and personalized administrative system was introduced. Children were recorded only on the administrative cards of male heads of households. Cases for which these cards were not yet available had to be removed from the dataset.
- 2 For several reasons, the calculation of the childlessness of married couples is not entirely comparable with figure 1. Here we also use the marriages of the male sample persons, whereas figure 1 was only based on female research persons. In figure 3 we calculate childlessness at age 45 versus within 15 years of marriage in table 2. Finally, source-related selection criteria make figure 3 not directly comparable to the childlessness percentages by marriage cohort reported in table 1.
- 3 To maximize the number of women with an occupational title, we used the most

recent occupation before marriage for women lacking an occupational title after marriage.

- 4 When we do not control for age at marriage, the white-collar workers, skilled workers, men without occupation, and skilled women stand out with significantly high levels of childlessness. Thus marriage delay certainly plays a role.

References

- Agresti, Alan (2002) *Categorical Data Analysis*. Hoboken, NJ: Wiley.
- Anderton, Douglas L., and Lee L. Bean (1985) "Birth spacing and fertility limitation: A behavioral analysis of a nineteenth-century frontier population." *Demography* 22: 169–83.
- Beekink, Erik, Onno Boonstra, Theo Engelen, and Hans Knippenberg, eds. (2003) *Nederland in verandering. Maatschappelijke ontwikkelingen in kaart gebracht, 1800–2000*. Amsterdam: Aksant.
- Billiet, Jaak (1997) "Pillarization," in J. M. Shafritz (ed.) *International Encyclopedia of Public Policy and Administration*, vol. 3. Boulder, CO: Westview: 64–81.
- Buyst, Erik (2006) "Van industriële grootmacht tot de 'zieke man' van West-Europa," in M. Van den Wijngaert (ed.) *België, een land in crisis, 1913–1950*. Antwerp: Stan-daard: 121–73.
- Carr-Saunders, Alexander M. (1936). *World Population: Past Growth and Present Trends*. Oxford: Clarendon.
- Charles, Enid (1934) *The Twilight of Parenthood*. London: Watts.
- Coontz, Stephanie (2005) *Marriage, a History: From Obedience to Intimacy; or, How Love Conquered Marriage*. New York: Viking.
- David, Paul A., and Thomas A. Mroz (1989a) "Evidence of fertility regulation among rural French villagers, 1749–1789: A sequential econometric model of birth-spacing behavior (part 1)." *European Journal of Population* 5: 1–26.
- (1989b) "Evidence of fertility regulation among rural French villagers, 1749–1789: A sequential econometric model of birth-spacing behavior (part 2)." *European Journal of Population* 5: 173–206.
- Dykstra, Pearl A. (2009). "Childless old age," in P. Uhlenberg (ed.) *International Handbook of Population Aging*. Berlin: Springer: 671–90.
- Dykstra, Pearl A., and Gunhild O. Hagestad (2007) "Roads less taken: Developing a nuanced view of older adults without children." *Journal of Family Issues* 28: 1275–1310.
- Frejka, Tomas, and Jean-Paul Sardon (2004) *Childbearing Trends and Prospects in Low-Fertility Countries: A Cohort Analysis*. Dordrecht: Kluwer.
- Hagestad, Gunhild O., and Vaughn R. A. Call (2007) "Pathways to childlessness: A life course perspective." *Journal of Family Issues* 28: 1338–61.
- Hakim, Catherine (2000) *Work-Lifestyle Choices in the 21st Century: Preference Theory*. Oxford: Oxford University Press.

- Heaton, Tim B., Cardell K. Jacobson, and Kimberlee Holland (1999) "Persistence and change in decisions to remain childless." *Journal of Marriage and the Family* 61: 531–39.
- Historical Sample of the Netherlands (2007) Release 2007.01. Database of life courses.
- Hofstee, Evert W. (1981) *Korte demografische geschiedenis van Nederland van 1800 tot heden*. Haarlem: Fibula-Van Dishoeck.
- Hondius, Dienke (2001) *Gemengde huwelijken, gemengde gevoelens: Hoe Nederland omgaat met etnisch en religieus verschil*. The Hague: Sdu Uitgevers.
- Kim, Jae-On, and Charles W. Mueller (1978) *Factor Analysis: Statistical Methods and Practical Issues*. London: Sage.
- Kirk, Dudley (1946) *Europe's Population in the Interwar Years*. Geneva: League of Nations.
- Kok, Jan, and Jan Van Bavel (2006) "Stemming the tide: Denomination and religiousness in the Dutch fertility transition, 1845–1945," in Renzo Derosas and Frans van Poppel (eds.) *Religion and the Decline of Fertility in the Western World*. New York: Springer: 83–105.
- Kreager, Philip (2004) "Where are the children?" in P. Kreager and E. Schröder-Butterfill (eds.) *Ageing without Children: European and Asian Perspectives*. Oxford: Berg-hahn: 1–45.
- Landry, Adolphe (1934) *La révolution démographique: Etudes et essais sur les problèmes de la population*. Paris: Sirey.
- Lesthaeghe, Ron (1977) *The Decline of Belgian Fertility, 1800–1970*. Princeton, NJ: Princeton University Press.
- (1995) "The second demographic transition in Western countries: An interpretation," in K. O. Mason and A.-M. Jensen (eds.) *Gender and Family Change in Industrialized Countries*. Oxford: Clarendon: 17–62.
- Lesthaeghe, Ron, and Johan Surkyn (2007) "When history moves on: The foundations and diffusion of the second demographic transition," in R. Jayakody, A. Thornton, and W. Axinn (eds.) *International Family Change: Ideational Perspectives*. Mahwah, NJ: Erlbaum: 81–118.
- Lesthaeghe, Ron, and Dick J. van de Kaa (1986) "Twee demografische transitie?" in R. Lesthaeghe and D. J. van de Kaa (eds.) *Bevolking: Groei en krimp*. Deventer: Van Loghum Slaterus: 9–24.
- Mandemakers, Kees (2000) "The Netherlands: Historical Sample of the Netherlands," in P. K. Hall, R. McCaa, and G. Thorvaldsen (eds.) *Handbook of International Historical Microdata for Population Research*. Minneapolis: Minnesota Population Center: 149–77.
- Mattessich, Paul W. (1979) "Childlessness and its correlates in historical perspective: A research note." *Journal of Family History* 4: 299–307.
- McQuillan, Kevin (2004) "When does religion influence fertility?" *Population and Development Review* 30: 25–56.
- Merlo, Rosangela, and Donald T. Rowland (2000) "The prevalence of childlessness in Australia." *People and Place* 8: 21–32.

- Mombert, Paul (1929) *Bevölkerungslehre*. Jena: Fischer.
- Morgan, S. Philip (1991) "Late nineteenth- and early twentieth-century childlessness." *American Journal of Sociology* 97: 779–807.
- Myrdal, Alva (1941) *Nation and Family: The Swedish Experiment in Democratic Family and Population Policy*. New York: Harper.
- Neels, Karel (2006) *Reproductive Strategies in Belgian Fertility, 1930–1990*. NIDI-CBGS Publications no. 38. Brussels: NIDI-CBGS.
- Righart, Hans (1988) "Moraliseringsoffensief in Nederland in de periode 1850–1880," in H. Peeters, L. Dresen-Coenders, and T. Brandenburg (eds.) *Vijf eeuwen gezinsleven: Liefde, huwelijk en opvoeding in Nederland*. Nijmegen: Socialistische Uitgeverij Nijmegen: 194–208.
- Rowland, Donald T. (2007) "Historical trends in childlessness." *Journal of Family Issues* 28: 1311–37.
- Schot, Johan W. (2001) *Techniek in Nederland in de twintigste eeuw*. Vol. 4, *Huishouden, Medische Techniek*. Zutphen: Walburg Pers.
- Snijders, Tom A. B., and Roel J. Bosker (1999) *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage.
- Szreter, Simon (1996) *Fertility, Class, and Gender in Britain, 1860–1940*. Cambridge: Cambridge University Press.
- Van Bavel, Jan (2003) "Birth spacing as a family strategy: Evidence from 19th-century Leuven, Belgium." *History of the Family* 8: 585–604.
- Van Bavel, Jan, and Jan Kok (2004) "Birth spacing in the Netherlands: The effects of family composition, occupation, and religion on birth intervals, 1820–1885." *European Journal of Population* 20: 119–40.
- (2005) "The role of religion in the Dutch fertility transition: Starting, spacing, and stopping in the heart of the Netherlands, 1845–1945." *Continuity and Change* 20: 247–63.
- Van Bavel, Jan, Jan Kok, and Theo Engelen (2008) "Hoge kinderloosheid tijdens het interbellum in Nederland: De rol van godsdienst, levensstandaard en economische crisis," in I. Maas, M. H. D. van Leeuwen, and K. Mandemakers (eds.) *Honderdvijftig jaar Levenslopen: De Historische Steekproef Nederlandse Bevolking*. Amsterdam: Amsterdam University Press: 51–80.
- Van Leeuwen, Marco H. D., Ineke Maas, and Andrew Miles (2002) *HISCO: Historical International Standard Classification of Occupations*. Leuven: Leuven University Press.
- (2005) *Marriage Choices and Class Boundaries: Social Endogamy in History*. Cambridge: Cambridge University Press.