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Subreplacement fertility in the West before the baby boom: Past and current perspectives

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Between 1920 and 1940, fertility dropped below replacement level in many Western countries. In today's scholarly literature, the drop is usually explained as a temporary reaction to the exceptional conditions of the inter-war period. This paper confronts that interpretation with the interpretations offered by scholars writing between the wars. According to leading demographers of the time, low fertility was due not to war or economic crisis, but rather to processes that now tend to be associated with the Second Demographic Transition, including secularization, individualization, rising consumerism, and women's emancipation. Since these were seen as structural features of modernization, most inter-war scholars argued that subreplacement fertility would remain an obstinate feature of modern society for an extended period of time.

Keywords: below-replacement fertility; demographic transition; family planning; historical demography; reproduction; Europe; North America

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Introduction

Since the 1970s, fertility in the Western world has dropped to levels that, if sustained and in the absence of migration, would eventually lead to population decline. The causes and consequences of the phenomenon have become an increasingly common subject of debate among demographers (overviews include Davis et al. 1987; Lesthaeghe and Willems 1999; Teitelbaum 1999; Kohler et al. 2002; Caldwell and Schindlmayr 2003; Morgan 2003; Sobotka 2004, 2008). Yet, in this debate, only cursory (if any) references are made to the fact that fertility stayed below replacement level for a number of years between the First and the Second World Wars in many parts of Europe. As pointed out by Sanderson (1987, p. 305), subreplacement fertility today is being studied 'as though it were a product of the second half of the twentieth century'. Typically, it is framed as one of the defining features of the Second Demographic Transition (SDT) (e.g., Lesthaeghe 1995; Lesthaeghe and Neidert 2006). The discussion of the subject in the inter-war period, when low fertility incited considerable scientific interest, receives scant attention and the literature of the period is largely neglected, if not forgotten.

The purpose of this paper is to confront current interpretations of low fertility with the scholarly views on the subject published during the inter-war period. The latter appear to exhibit striking similarities with current interpretations of subreplacement fertility within the framework of the SDT. As will be shown below, factors often cited in the inter-war literature to explain low fertility include rising living standards, consumerism, increased aspirations for social mobility and self-fulfilment, secularization, rationalization, and individualization.

Net reproduction and total fertility

Fertility started to decline steadily in most European countries during the last quarter of the nineteenth century (Coale and Treadway 1986). During the first quarter of the twentieth century, the descent was so steep that by the 1920s more than half of Europe's population was living in a country exhibiting subreplacement fertility (Frejka and Ross 2001, p. 214).

A conventional way to assess whether fertility is below the level of replacement or how far below is to use the Net Reproduction Ratio (NRR) (Preston et al. 2001). The NRR was popularized in

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demography by the work of Robert Kuczynski (1932, 1935), although he did not invent the measure (Lewes 1984; de Gans 1999, pp. 85–7; de Gans et al. 2003). A NRR equal to unity implies that women are having exactly enough surviving daughters to replace themselves. A NRR below unity implies fertility below replacement level.

Time series of NRR do not start before 1925 for most countries. Between 1925 and 1929, the NRR reached levels below 0.87 in at least the following countries: the Czech Republic (CSU 2009), France, Germany (Kuczynski 1928, 1932; Chesnais 1983, 1992), and Sweden (Myrdal 1941; Chesnais 1983, 1992). The fertility of none of these countries returned to replacement level at any time before the start of the Second World War. At the latest by 1936, but earlier in most cases, the following countries had joined the subreplacement group: Austria, Belgium, Denmark, England, Finland, Norway (League of Nations Yearbooks 1936–39; Kirk 1946), Estonia, Scotland, Latvia, Luxembourg, Switzerland, the USA (Kirk 1946), Canada (League of Nations Yearbooks 1936–39; Statistics Canada 2008), and Australia (Australian Bureau of Statistics 2004). Around 1935, the average NRR for these countries was around 0.8. In the following countries, the NRR did not sink below the replacement threshold in the inter-war period: Ireland, the Netherlands, Italy, Poland, Portugal, Romania, Spain, and the USSR (League of Nations Yearbooks 1936–39; Kirk 1946).

Since these net reproduction figures are period measures, could they reflect tempo rather than quantum lows? Festy (1979, p. 113) and Sardon (1991) have calculated NRRs for generations born around 1900, who had been entering their reproductive years during the inter-war period. These ratios reflect the quantum of fertility only, not its tempo, and they indicate that the fertility of the generations of women born around 1900 fell short of the level of replacement in Belgium, Denmark, France, Germany, Greece, Norway, Sweden, Switzerland, England & Wales. Even Italy and Spain joined the subreplacement club in this cohort—in fact, no Italian cohort born between 1900 and 1951 ever reached replacement fertility (Sardon 1991). Only in the Netherlands did fertility never drop below the replacement level among generations born before the Second World War. Overall, from a cohort perspective, a country with replacement fertility was the exception in the twentieth century (Sardon 1991, p. 27).

The reason that net reproduction dropped below replacement level during the inter-war period was not that the replacement threshold was going up owing to increasing infant and child mortality (Sardon 1991) but rather that fertility was continuing its secular decline. Figure 1 shows total fertility for a number of Western countries. At first sight, nothing unexpected was happening to the course of total fertility during the inter-war period. In some countries there was a temporary upward peak immediately after 1918, but by the early 1920s that peak had faded away and fertility had continued its downward trend. Most countries reached their low fertility trough in the mid-1930s. From the late 1930s onwards, total fertility was on the rise in most countries represented in Figure 1. An obvious special case is Spain, where the Civil War (1936–39) caused heavy fluctuations.

How did demographers who studied the phenomenon in the inter-war period interpret the pervasive below-replacement fertility they were witnessing, and how has it been interpreted in the more recent literature looking back at that period? A pervasive feature of the literature about fertility decline produced after the baby boom is that it looks at the basic demographic trends within the framework of 'demographic transition'. In the work of the inter-war demographers, this framework was absent.

A revolution turned into a transition

In the second half of the twentieth century, a highly stylized description of the big demographic changes that started in the latter part of the eighteenth century gained ground. According to this description of what became known as 'the demographic transition' (Hodgson 1983; Szreter 1993; Kirk 1996; van de Kaa 1996), the basic thread of the demographic changes was a shift from a population equilibrium with relatively high mortality and fertility to a new equilibrium with low mortality and fertility. After the transitional stage, fertility was expected to oscillate around the level of replacement and, consequently, birth rates were expected to converge towards death rates (Coale 1986; Kirk 1996; Reher 2004; Lesthaeghe 2008). Hence, after the Second World War, the secular downward trend of fertility came to be seen as a logical evolution towards a new equilibrium in the population systems of the West. After the baby boom that followed the Second World War, many demographers thought that this transition was about to reach its end (Coale 1986; Lesthaeghe and van de Kaa 1986; van de Kaa 1996). On this view, below-replacement fertility between the wars represented just an exceptional consequence of the postponement of births as a result of the Great Depression (Caldwell and Schindlmayr

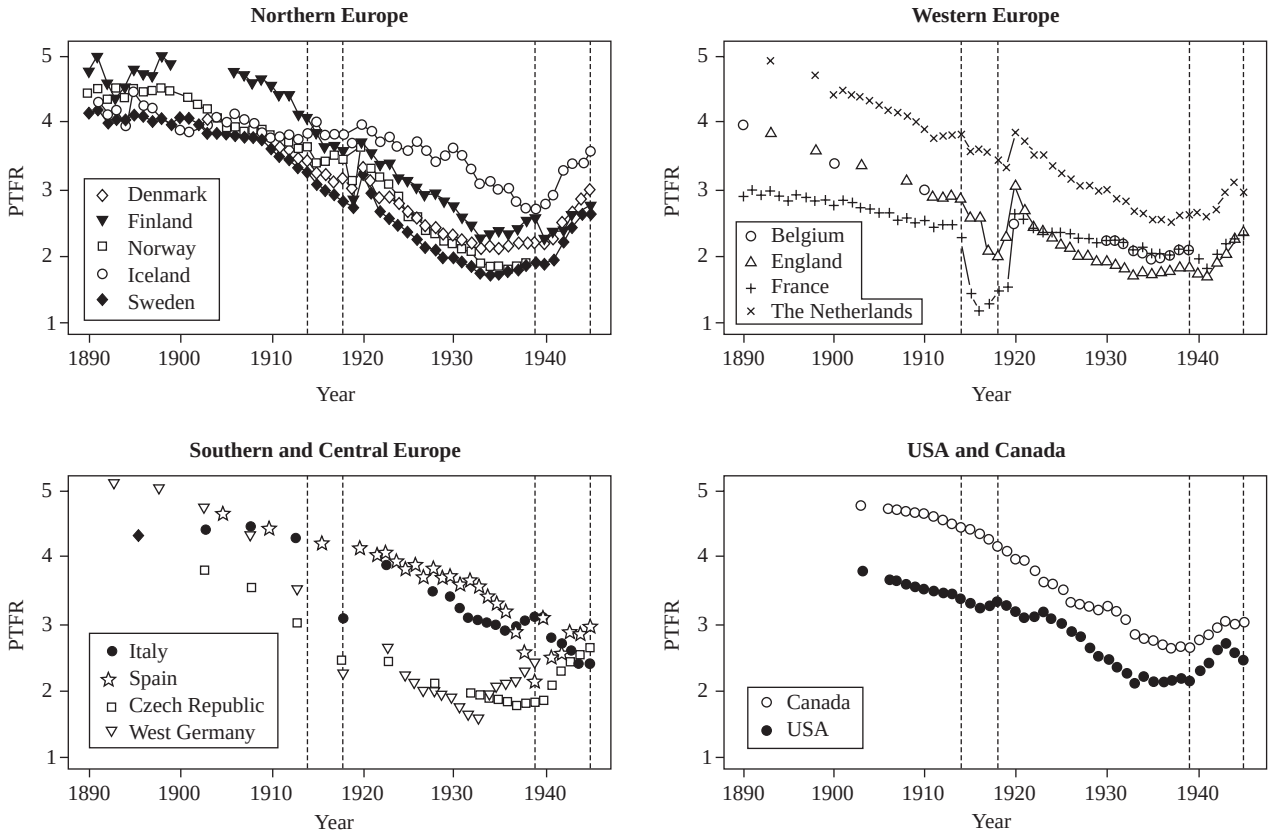

Figure 1 Total fertility for a range of European countries and the USA and Canada, 1890–1945
Sources: Chesnais (1983, 1992); Statistics Iceland; Statistics Denmark; (Belgium) Debuisson et al. (2000); (the Netherlands) van Poppel (2001); Statistics Canada; League of Nations Yearbooks 1936–39

2003, p. 241). It was *not* seen as the result of a structural trend.

Before and immediately after the Second World War, however, demographers were interpreting the ongoing demographic changes quite differently. Leading scholars in the inter-war period saw the evolution of mortality and fertility not as a transition from one equilibrium to the another, but rather as a *revolution* with an open ending (Beveridge 1925; Thompson 1929; Landry 1933, 1934). According to Adolphe Landry, the key characteristic of the new demographic regime was the absence of forces guaranteeing the maintenance of equilibrium (Landry 1934, p. 53). Other scholars, including William Beveridge (1925), Alexander Carr-Saunders (1936), and Enid Charles (1934) in the UK and Alva Myrdal (1941) in Sweden, agreed.

It was supposed that the reason for the absence of an equilibrium in the new regime was that people had increasingly started to decide for themselves how many children they would have rather than respond in a uniform way to social influences. As a consequence, fertility was becoming the plaything of personal, individually diverging, and unpredictable considerations. It was therefore impossible to say where and when the decline of fertility would stop (Landry 1933, 1934; Wieth-Knudsen 1938). Pontus E. Fahlbeck, a Swedish professor of political science at Lund University in Sweden, had already made this point in an influential book published in 1905 (de Gans 1999, pp. 66–7). 'We found reason to believe', Carr-Saunders concluded in England, 'that, once the voluntary small family habit has gained a foothold, the size of the family is likely, if not certain, in time to become so small that the reproduction rate will fall below replacement rate, and that, when this has happened, the restoration of a replacement rate proves to be an exceedingly difficult and obstinate problem' (Carr-Saunders 1936, p. 327; cf., Delevsky 1938, p. 83).

The one thing that was considered quite predictable was that the Pandora's Box of the new Malthusianism would lead to population ageing and decline (Teitelbaum and Winter 1985). 'We have shown', Thompson (1929, p. 974) writes, for example, that the old continent of Europe 'is very rapidly approaching the stage of no increase and that this will soon be followed by its actual decline in numbers' (see also Gini 1930b, pp. 683–4). The groundbreaking analyses by Robert Kuczynski had

made it abundantly clear that fertility in a growing number of Western countries was below the level of replacement (de Gans 1999, pp. 85–7; de Gans et al. 2003). Therefore, positive population growth rates were to be seen as just a transitory consequence of population momentum and would become negative in time (Dublin and Lotka 1925; Kuczynski 1928, 1932, 1935; Gini 1930a,b; Baudhuin 1932; Dublin 1932; Charles 1934; Glass 1936, 1940; Burton and Downing 1938; Kirk 1945; Notestein 1950). Earlier theories 'that the growth of populations of the most diverse organisms follows a regular and characteristic course' (Pearl 1927, p. 23), namely, the course of the logistic curve, did not take into account the possibility of population decline. These theories were gradually discredited and abandoned (Romaniuc 2003). In the mid-1940s, leading Princeton demographers labelled the last stage of 'the demographic transition' as the stage of 'incipient decline' (e.g., Kirk 1944, 1946, 1996; Notestein 1945).

In Italy, Corrado Gini interpreted the subreplacement fertility of 'the white races' as a sign that they were entering the third stage of the cycle that all 'human races and nations probably perform [...] in their evolution: birth, maturity, and gradual decline' (1930a, p. 241). This final stage 'will have its natural conclusion in its extinction' (p. 243). In Austria, Wilhelm Winkler (1938) published alarmingly low NRRs for the city of Vienna (0.26) and concluded that far-reaching natalist policy measures were urgently needed. Frederich Burgdörfer (1934) argued that in order to prevent the extinction of the 'white' or 'Teutonic race', the state was licensed to encroach on the sex and family life of its inhabitants. Burgdörfer was the anti-Semite director of the demographic department of the *Statistische Reichsamt* in Nazi Germany (Steinweis 2006, pp. 124–8) and a major architect of its aggressively pro-natalist and eugenic family policy (see Burgdörfer 1929).

Those who did not subscribe to the extremist and racist theories and policies (Vienne 2006) still endorsed the idea that subreplacement fertility was there to stay for some time. Indeed it was the mainstream scholarly opinion, and most scholars expected further declines (for example, Grotjahn 1927; Dublin 1932; Delevsky 1938; Wieth-Knudsen 1938; Glass 2005 [1937]). Population projections made during the inter-war period for Western European countries and the USA 'routinely assumed that fertility decline would not stop at replacement level but fall short of it' (Demeny 2005, p. 2; also de Gans et al. 2003, pp. 4–5; cf., Myrdal 1941, pp. 83–5). When birth rates started to increase in the West from the late 1930s onwards, the frequently expressed opinion was still that this 'does not represent a true deviation from the downward secular trend but a temporary reaction to improved economic conditions' (Kirk 1942, p. 136). Even around 1950, when the birth rate had already been booming for several years, the common expectation was still of a return to the low birth rates of the pre-war period (Notestein 1950; Demeny 2005).

One reason for not expecting a recovery of fertility was the strength of the two-child norm. Already in 1905, president Theodore Roosevelt of the USA had warned that '[i]f the average family in which there are children contained but two children, the Nation as a whole would decrease in population' (cited in Demeny 2005, p. 4). In the same year, Pontus E. Fahlbeck argued that all great civilizations had come to an end because of the subreplacement fertility of the leading classes (de Gans 1999, pp. 66–7). A similar case was made just before the war by Alfred Grotjahn (1914, pp. 154–63), a prominent professor of social hygiene in Berlin, who argued that even a three-child system would not suffice to face the threat of the growing Slavic population east of Germany. In addition, the German demographer Paul Mombert (1929, p. 323) pointed out that many people mistakenly seemed to think that two children would be enough for population replacement (cf., Grotjahn 1926). According to Charles (1934, p. 195), the two-child norm had already become so strong among the prosperous middle classes that women with four or more children were subject to 'comment, condolence, if not opprobrium'. (Incidentally, Paul Mombert was a Jewish economist-demographer teaching at the University of Giessen. He was dismissed from his position by the Nazis in 1933, arrested in 1938, and died soon after (Mackensen 2001). Mombert seems to have been an important source of inspiration to Landry. For example, in a 1909 paper, Landry calls Mombert's *Studien zur Bevölkerungsbewegung in Deutschland* (1907) 'one of the most interesting' works that has appeared about the decline of the birth rate (Landry 1909, p. 184). Yet, his important and influential work (see Henßler and Schmid 2007, pp. 137–47) is often neglected in accounts today, in contrast to the work of Nazi collaborators like Friedrich Burgdörfer. For example, any reference to the work of Paul Mombert is conspicuously lacking in Vienne (2006).)

Contraceptive practice was another factor thought to favour fertility decline. Between the wars most couples were still using inefficient, traditional contraceptive techniques, but demographers like Charles (1934) and Carr-Saunders (1936) were expecting that new, more efficient (if not 'perfect')

contraceptives could be invented any day. Contraceptive innovation would, in their judgment, cause fertility to decline even further below replacement level.

During and after the baby boom that followed the Second World War the idea of a demographic revolution with an unpredictable ending increasingly lost ground, and the concept of the demographic transition eventually became the more dominant interpretative framework (Hodgson 1983; Szreter 1993; van de Kaa 1996, 2003, 2004). The story of the demographic transition seemed to be more coherent and therefore more appealing and convincing. It had a clearly identifiable and logical ending: the old equilibrium of moderately high fertility and mortality had to be replaced in the long run by a new balance of low mortality and fertility, because without such a population equilibrium, there were just two possibilities: either dying out or exponentially increasing, unsustainable growth rates (Coale 1986).

Economic crisis and the threat of war

Today, the inter-war trough in fertility is generally interpreted as a response to the exceptional circumstances of deep economic and political crisis and the threat of war (Lesthaeghe 1995, 2008; Hakim 2000; Caldwell and Schindlmayr 2003; Frejka and Sardon 2004; Sobotka 2008). For example, Lesthaeghe and Surkyn (2007, p. 83) write: 'There are examples of below-replacement fertility during the FDT [First Demographic Transition], but these correspond to exceptional periods of deep economic crises or war only. Sub-replacement fertility is not an intrinsic characteristic of the FDT.'

Yet, virtually no demographer writing between the wars attributed very small family sizes and low fertility to economic stagnation or crisis. Instead most demographers linked low fertility to economic growth, increasing standards of living, and rising consumption aspirations. Landry, for example, situates his discussion of the demographic revolution very clearly in a context of rising well-being, stimulated by innovation in technology and industry, agriculture and transport, all helped by great scientific progress. Numerous inventions of household consumer goods incited people to raise their consumption aspirations (Landry 1934, pp. 8–10, 37). This was clearly the dominant assessment of the situation throughout the inter-war period. For example, Mombert (1929, pp. 314–6) saw increasing prosperity, as well as the improved education of the population, very explicitly as a major cause of low fertility (next to secularization and the rationalization of life) (see also Dublin 1932, pp. 116–7). Charles (1934, p. 197) summarized: 'Where real incomes have risen fertility has declined. The more prosperous classes have the fewer children' (see also Bowley 1932; Delevsky 1938; von Ungern-Sternberg 1938, pp. 28–30).

While virtually no scholar was arguing in the inter-war period that the economic crisis was the major cause of low fertility, some scholars were making the reverse case (e.g., Keynes 1937). Whelpton (1932) argued that US captains of industry had been interpreting crude population growth rates all too optimistically: 'Expecting that the rapid growth of population will continue, they are planning additions to the stores, factories, and offices of their organizations' (pp. 82–3), he argued, while 'men whose judgement carries weight believe that an important cause of the present depression is that production facilities have been increased too rapidly in past years [...]. It is conceivable that a few executives may soon be found doing all in their power to combat the spread of birth control, because of an appreciation of its long-time effect on the market for the products of their companies' (p. 83).

The image of the economy in the inter-war period is now dominated by the Great Depression. Yet, this view ignores the fact that growth paths were very different during the 1920s from those of the 1930s (Lewis 1953; Solomou 1987; Pollard 1997). Taking the inter-war period as a whole, many of the positive pre-war economic trends were maintained: productivity as well as the standard of living continued to improve (Lewis 1953; Solomou 1987). As John Maynard Keynes put it in a 1930 paper: 'In spite of an enormous growth in the population of the world, which it has been necessary to equip with houses and machines, the average standard of life in Europe and the United States has been raised, I think, about fourfold. [...] And from now on we need not expect so great an increase of population' (p. 360). Indeed Keynes later expressed his fears that population stagnation and decline would structurally bring down the rate of economic growth, independently of the Great Depression which was associated with monetary problems (Keynes 1937).

Empirically, demographers and economists have clearly shown that there were strong correlations between fluctuations in economic well-being and employment on the one hand, and fluctuations in fertility on the other hand before the Second World War. When economic indicators improved, fertility and nuptiality tended to go up, and vice versa (Galbraith and Thomas 1941; Kirk 1942, 1960;

Simon 1969; Basavarajappa 1971). Yet, the correlations between short-term fluctuations cannot explain the low fertility of the inter-war period. It has been found that the association between economic indicators and fertility holds only for the short-term ups-and-downs in economic and fertility indicators, not for the structural trend. More precisely: the correlations found are between the annual deviations from the mid-term trends in fertility and economy (Galbraith and Thomas 1941; Kirk 1960). 'We know [...] that there is an association between fertility and economic conditions. But the association is found only in annual fluctuations from the secular trend; the trend itself appears unrelated to measurable economic or social phenomena' (Glass 1940, p. 350; cf., Kirk 1960, p. 254). In an earlier paper, Glass (1938) noticed that the positive connection between the business cycle and nuptiality seemed to be weakening in the early twentieth century, adding that the 'invention of a really efficient contraceptive' (p. 18) would probably further weaken the connection (cf., von Ungern-Sternberg 1938, p. 29). In the longer term, time series of economic performance and the secular trend in fertility actually appeared to be negatively rather than positively correlated. As economic growth and standards of living were improving, fertility was falling from the latter decades of the nineteenth into the first half of the twentieth century.

Further evidence of a negative rather than a positive association between wealth and fertility came from the many research papers about differential fertility, often as an essential ingredient of the dominant eugenic research programme of the era (Soloway 1990, 1995; Broberg and Roll-Hansen 2005). Census and survey results showed that there was a negative association between family size and economic well-being: higher-income couples were limiting their family sizes more and earlier than low-income couples (Carr-Saunders 1927; Edin 1927, 1932; Gini 1927; Grotjahn 1927; Methorst 1927; Bowley 1932; Fischer 1932; Notestein 1932; Pearl 1938; Thirring 1938; von Ungern-Sternberg 1938, pp. 28–9; Myrdal 1941, pp. 61–3, 67–70; Simon 1969; Basavarajappa 1971).

What about war and the threat of war? Again, virtually none of the demographers writing in the period saw this as a major cause of the low fertility they were witnessing. Two exceptions are papers published towards the end of the inter-war period: one a paper by Burton and Downing (1938, pp. 29–30) about Australia, the other by the Czech demographer Antonin Bohac (1938). Both papers speculate in their concluding section that the threat of war could be partly responsible for the very low fertility levels. However, at the time these papers were published and war was imminent, fertility was actually starting to recover in many countries. Since the recovery of total fertility started in many countries before or during the Second World War (Figure 1), it defies the evidence to claim that subreplacement fertility was due to the threat of the Second World War.

Earlier, Kuczynski (1935, pp. 129–30) had noted that the First World War 'did not essentially change the trend of the birth rate'. Myrdal (1941) points out that the war, 'more than any other perhaps, is convenient for *ex post facto* explanations for other unrecognized or unadmitted motives' (p. 55). She found that the role played by the threat of war was easily exaggerated and that 'the period when war would have seemed more imminent, namely, after 1933, did not show a striking decline in childbearing' (p. 55) (cf., Charles 1934, p. 81; see also Figure 1). In addition, Myrdal argued, Scandinavian countries were thriving relatively well. Sweden, for example, had benefited from many years of peace. And, yet, it exhibited fertility well below the replacement level (Myrdal 1941, pp. 7–26).

Contemporaneous explanations of low fertility between the wars

Demographers writing in the inter-war period did not think that the low fertility they were witnessing was merely a temporary response to exceptionally bad economic conditions. Rather, the general feeling and dominant expectation was that fertility was structurally setting course for subreplacement levels and that further declines were on their way (Notestein 1950, p. 336). A large variety of reasons are cited in the inter-war literature for expecting structurally low fertility. Biological or physiological explanations were dismissed as 'antiquated' by most scholars (explicit examples include Beveridge 1925; Dublin 1932; Landry 1934; von Ungern-Sternberg 1938; exceptions include doubts by Hankins 1932, p. 187, or the racist-genetic argument by Gini 1930a,b). The belief that 'The revolutionary fall of human fertility in Europe since 1880 is due mainly, if not wholly, to deliberate prevention' (Beveridge 1925, p. 24) was by far the mainstream view. The spread of birth control was typically seen as connected to the sweeping process of modernization and the concomitant rise of urban lifestyles. More specifically, the factors cited most often as being behind low fertility were secularization and rationalization, individualization,

changing (more liberal) attitudes towards marriage and sexuality, conflicting pressures on time of work, family, and leisure, and rising consumerism. The following sections discuss these factors in more detail.

Secularization and rationalization

In Myrdal's judgment, people's attitude towards risk had changed in modern times. 'Passivity and complacency has decreased. The very fact that the individual is considered more directly responsible for success and failure in an individualistic, competitive, and nonreligious society than formerly makes him more inclined to seek the security he can guarantee himself' (Myrdal 1941, p. 55). She adds that the loss of 'the basic feeling of security has probably accompanied the process of religious secularization' (p. 56). For the leading Austrian demographer Wilhelm Winkler (1935), the decline of the birth rate and the decline of religiosity were two sides of the same coin (Pinwinkler 2003, p. 182). William Beveridge (1925) concluded from his statistical analysis that the spread of birth control was 'depending on the spread of knowledge, and being checked by ignorance, isolation, or religious prohibition' (p. 18). As family-size limitation was spreading throughout ever more geographic and social regions of Europe, the dike of religious opposition was also being breached (Dublin 1932, p. 118); 'The denunciation of birth control as contrary to morals and religion is weakened by the statistically established fact of its almost universal spread. Under the influence of democratic doctrine the individual is too cognizant of his own identity and interests to forfeit the right to serve his own welfare in what touches him so intimately as the size of the family' (Myrdal 1941, p. 3).

The couples least inclined to limit their fertility were usually those who adhered to religiously inspired mores and customs. Large families were typically found among those who respected the rules of their church (Landry 1934, pp. 34–7; von Ungern-Sternberg 1938, pp. 26–7). Indeed, in a Belgian social survey, parents with many children often justified their large family as a product of religious conviction (Dupréel 1932). A study of the declining birth rate in the Dutch city of Rotterdam showed that, even after controlling for professional group, couples who differed in religious affiliation or declared that they had no religion had much lower fertility than Calvinists and Catholics (Sanders 1931). Still in the Netherlands, De Vooys (1936) showed that there was a strong association between the level and decline of marital fertility on the one hand and the size of the vote for Christian political parties on the other: the more votes the Christian parties received, the higher the level of fertility and the smaller the decline. Mombert concludes from an analysis of German data that fertility reached particularly low levels in cities and in protestant regions (Mombert 1929, pp. 308–13; cf., Grotjahn 1927). Most of these and other authors associated the spread of secularized attitudes with urbanization and industrialization (for example, Winkler 1935; Pinwinkler 2003, pp. 176–89).

Accounts of the decline to low fertility typically implied a continuum of behaviour from, at one end, high fertility and submission to God's will, as found in traditional rural societies, and at the other end, secularized rational choice and low fertility in the conditions of modern, urbanized society. Myrdal and Mombert agreed with Landry that 'the rationalization of life' may be the most fundamental explanation of the secular decline of fertility (Landry 1934, pp. 39–40), that is, 'an increasing disposition to weigh rationally the motives and actions in one's life' (Myrdal 1941, p. 51), including the 'increase of man's rational control over his reproductive powers' (Charles 1934, p. 193; cf., Harmsen 1938, pp. 36–40). Methorst (1927, p. 176) mentioned a change in the religious and moral principles of people as the first cause of fertility decline. According to this Dutch demographer, this change was leading people 'to more independent and personal judgement'. Myrdal (1941) concludes: religious institutions may propagandize against the spread of birth control, but '[r]eversing the trend and turning away from rationalism will not meet with approval from the majority. Even if their verbal approval could be obtained, they would not support it in their behaviour' (p. 52).

So, clearly, between the wars secularization and 'the rationalization of life' were already key themes in mainstream scholarly thinking about the causes of low fertility across Europe. This was also the case in Nazi Germany and Fascist Italy. Following Grotjahn (1914, 1926) and many others, Burgdörfer (1932) attributed the declining birth rate to the 'rationalization of sexual life' (see also Weindling 1988). At the first World Population Conference in Geneva, Grotjahn (1927) had argued that the 'influence of the loss of faith of the fathers, on the number of children, is manifested especially amongst the emancipated Western Jews, whose birth rate has dropped in striking contrast with the fertility of the devout Eastern Jews' (p. 151). Burgdörfer then went on to

attribute the general rise of family planning to detrimental Jewish influence: he argued that a 'rootless, enlightened, urbanized, and all-subverting Jewry' supplied the pioneers of birth control, spreading the gospel to the masses of the German people, exploiting their disproportionally large influence over German culture (Steinweis 2006, pp. 127–8). In Fascist Italy, Gini (1930b) considered 'the cultivation and reinforcement of religious sentiment' (p. 687) a valuable part of Mussolini's pro-natalist family policy; 'The renewed religious fervor, which has been encouraged by the government, also helps greatly in the struggle against the decrease of births. It strengthens family ties; it makes parents consider their offspring as a gift of God and the wealth of their country' (Gini 1930b, p. 696).

Opposition by the Roman Catholic Church to the 'plague of Onanism' was mounting during this period, culminating in the encyclical *Casti Connubii*, published in 1930 by Pope Pius XI (Stengers 1971). Yet, it should be noted that even this official Catholic pronouncement licensed married couples to use some form of birth control: it granted that 'natural means' of birth control are 'not dishonest'. From 1930, the Church sanctioned 'the practice of confining intercourse to a part of the menstrual cycle commonly called ''the safe period'' when it is believed that conception is unlikely to occur' (Charles 1934, p. 165; Harmsen 1938, p. 36). In 1929, Knaus in Austria and Ogino in Japan had independently identified the timing of the fertile period at about 2 weeks before the onset of the next ovulation (McLaren 1990).

'Altruistic' vs. 'individualist' motives?

The idea that individualization played an important role in the rise of small families and childlessness (Morgan 1991; Dykstra 2009) was omnipresent in scholarly literature between the wars. According to many authors both altruistic and individualist motives were important, and both often mattered at the same time in the same households and could sometimes hardly be distinguished from each other (see Methorst 1927, pp. 176–7). Thus, Tandler (1927, p. 211) chooses to write about 'awakened self-consciousness' discovering 'the power of rationalization' rather than about selfishness, because women limit their fertility to benefit the life chances of children, too. In a similar vein, Charles argues that modern industrial consumer goods and recreational activities proffer a number of alternative and often more attractive ways of spending money, but at the same time she adds that a higher standard of life is usually not demanded by parents for themselves alone: 'Their demands for their children have perhaps increased even more. Increased attention to child welfare has raised the standard of life for children' (Charles 1934, p. 197).

Among the altruistic motives, Landry (1933, 1934) cites the idea that, given a limited budget in terms of time and money, a smaller number of children can be given more care and attention, and a better education to make sure that the next generation would be better off and better able to climb the social ladder (cf., March 1927). But egocentric motives were just as important. In particular, it was argued that children tend to hinder the mobility, self-development, and self-fulfilment of the mother. Children were considered an impediment to travelling and participation in recreational activities outside the home (Charles 1934; Landry 1934; von Ungern-Sternberg 1938). Both Methorst (1927, pp. 176–7) and Mombert (1929, p. 331) concluded that married couples were strongly limiting their fertility in order both to make their own lives more comfortable and at the same time to give their children a better future.

Though Landry agreed that altruistic and egocentric motives often operate at the same time within the same household, he argued that the latter motives were gaining in importance (Landry 1934, p. 41). On the other side of the Channel, Carr-Saunders also underlined the rise of individualistic motives: 'The small family fits in, not only with the enduring wishes of the mother, but also with the new mode of life. The last sixty years have seen an immense increase in leisure time, and a still greater increase in facilities for employing that leisure; and children are impediments to those who want to avail themselves of these facilities' (Carr-Saunders 1936, p. 111). Conversely, in a social survey among large families in Belgium, Eugène Dupréel (1932) found that parents with many children tended to describe themselves as morally superior to people with few children, because choosing to have a large family bore witness to their self-sacrifice and hard work for the sake of public interest rather than self-interest.

In Italy, Gini (1930b) endorsed the fascist pro-natalist family policy as a 'struggle against the invading rationalistic egoism' (p. 687). In Germany as well, Grotjahn (1926, pp. 103–6) argued that the diffusion of individualism ('Selbstsucht') from the liberal, educated middle and upper classes to the general public was one of the key factors explaining fertility decline. And, finally, in Austria, too, Winkler

(1935) attributed low fertility to individualization, liberal attitudes, and the connected pursuit of an 'easy', carefree life.

Many years later, after the Second World War, two French authors were influential in getting the first stages of the decline of fertility to be seen as an 'altruistic' transition that was followed by a second, 'individualistic' or 'egocentric' stage (Sauvy 1960; Ariès 1980). Clearly, their speculations have heavily influenced thinking about the Second Demographic Transition (SDT). This can be appreciated from the references to both Ariès and Sauvy in the earliest work about the SDT (Lesthaeghe and van de Kaa 1986, pp. 11–9). Ariès's 'two successive motivations' (1980) still play an important role in recent expositions of the theory (Lesthaeghe 1995, pp. 18–9; Lesthaeghe and Neidert 2006, p. 669). Van de Kaa (2003, pp. 873–4) explicitly acknowledges that the concept of a *second* demographic transition, as one driven by individualistic rather than child-oriented motives, was 'clearly influenced by Philippe Ariès's 1980 conference paper'. Yet, the tradition of associating small families with individualistic motives clearly precedes the SDT period and argument. It dates back at least to the nineteenth century (e.g., Dumont 1890, Chapitre 17; Billings 1893).

'The modern erogamic marriage'

Men and women who are weighing the pros and cons of making the move to parenthood will encounter many disadvantages. Many of these costs have been there for many years, argues Myrdal (1941, pp. 51–4), but they are now being felt more strongly. One factor held responsible for this was the cult of female beauty: it was said that many women were afraid to lose their 'sex appeal' through pregnancy, giving birth, and the hardships of motherhood. One of the most remarkable features of today's culture, argues Charles (1934), is its obsession with female looks and appearances, adding: 'Intensive culture of personal appearance and bodily fastidiousness is not readily reconciled with the corporal realities of reproduction' (p. 200). The importance of eroticism in marriage is rising, and this makes reproduction a less self-evident feature of a couple's sexual life; 'The irruption of children into the modern erogamic marriage involves a displacement of the emotional pattern' (Charles 1934, p. 203). Carr-Saunders went as far as to state that '[n]o institution has been so degraded and vulgarized as marriage; it would almost seem as though all the artifices known to a sensational press and to a commercialized literature have been employed to emphasize every aspect of marriage except the duties which it imposes and the opportunities of self discipline which it offers. [...] For it is held up to be no more than a mode of self gratification' (1936, p. 256; see also von Ungern-Sternberg 1938 about 'sexual libertinage' in marriage).

Conflicting work, family, and leisure time

Between the wars scholars argued that there were a number of modern developments that made it all too clear that parenthood involved making a number of important sacrifices. For a woman in particular, 'it causes drawbacks and breaks in her work and ways of life' (Myrdal 1941, p. 54). In modern times, it had become more difficult to combine work with child-care owing to the separation of home and workplace (driving female labourers in Stockholm to very low fertility according to Edin 1932, p. 97).

One of the motives for family limitation, according to Charles (1934, pp. 198–9), was the increased desire of many women to compete on equal terms with men in similar occupations outside the home. For many women, motherhood no longer offered a satisfying career from the cradle to the grave (cf., Tandler 1927, p. 210). And children entail important opportunity costs: 'The most luxurious of all consumption in our economic system is that of children and mothers, namely, the luxury of unproductivity' (Myrdal 1941, p. 59). Having children represents 'a handicap to vocational advancement in adult life': the childless can devote their lives to work with fewer pre-occupations, have fewer financial embarrassments, can enjoy the opportunities of travel and enlarge their social networks (Charles 1934, p. 130). And, referring to her own academic career as statistician while having four children, '[i]f all scientists were equally intelligent, it is highly probable that the least fertile ones would achieve the greatest distinction in their profession' (pp. 130–1). Early after the First World War, Leonard Darwin (1919) (son of Charles Darwin), showed very clearly how opportunity costs could be an important factor in explaining the negative association between woman's education and family size: 'Education [...] opens out possibilities of future advancement, necessitating long periods of training and employment, before the maximum salary attainable can be gained; and this causes the well-to-do often either to

postpone marriage [...] or ''economize'' at first by limiting the size of the family. Higher education in the case of women, by opening out increased possibilities of an independent life, is especially likely to act as a rival to parenthood' (Darwin 1919, p. 6). More generally, the enhanced emphasis on 'women's rights' (Tandler 1927, p. 210) and the emancipation of 'die ''moderne'' Frau' (von Ungern-Sternberg 1938, pp. 25–6) are held at least partly responsible for low fertility levels (Wieth-Knudsen 1938).

Owing to the high opportunity costs of children for educated and working women, such measures as family allowances could hardly be successful in raising fertility (Charles 1934, pp. 206–9): they 'do not supply the need for crèches and holiday camps to enable the parent to enjoy the same amenities of travel as the bachelor or childless woman' (p. 211). Mombert (1929, pp. 333–5) and Carr-Saunders (1936, p. 257) also expressed serious doubts about the effect of child allowances on family size.

Myrdal (1941, p. 57) adds: 'The burden of children tends to be felt increasingly as not only working time but also leisure time is spent more and more outside the home.' Leisure activities that came into vogue (like dancing parties, social evenings, cinema, bicycle riding, holidays, and the like) were not considered child-friendly. Methorst (1927, p. 176) cited the modern 'craving for amusement' as a major cause of fertility decline. Myrdal (1941) explains: 'in general, recreation has become specialized and thus separates the different generations. It decidedly debars small children' (p. 57); 'the pursuit of any of them is made difficult so long as there are children who require care at home. [...] The parental instinct may be strong enough to bring one or two children into the world; but [...] the desire for freedom to engage in these activities overbears the parental instinct when that number has been reached' (Carr-Saunders 1936, p. 253). Women in particular are paying the shadow prices: 'when young children must stay at home at night the mothers must usually remain at home with them. This deprivation of recreation has social consequences' (Myrdal 1941, p. 58). From a survey in Belgium, Dupréel (1932) concluded that recent family policy measures did not at all change the fact that women continue to bear by far the largest burden of raising a large family. Therefore, Myrdal goes on to argue, many women were questioning whether they too were willing to pay the price of motherhood and give up their social activities. For a couple who had enjoyed a childfree lifestyle for a number of years, the big step into parenthood often represented a giant leap that was all too easily postponed (Landry 1934, p. 42; Myrdal 1941, p. 54).

Consumerism

During the inter-war period, the commercial supply of relatively cheap, industrially produced consumer goods was soaring. Things like the vacuum cleaner, the electric iron, the washing machine, the refrigerator, baby food, and new types of baby napkin were sweeping the households of the modern, up-to-date middle-class families. An ever-increasing number of people in the West were connected to networks supplying water, gas, and electricity at home (Olney 1987; Frost 1993; Furlough 1993; Crossick and Jaumain 1999; Schot 2001).

Several authors noted that, as a result of all this, extra financial burdens were being imposed on families not only by new insights into child hygiene but also by modern household goods and appliances; 'every step forward in hygiene—all the demands for improved care of babies, better nourishment, more sunshine, better housing—means that costs can accumulate. [...] Expenses for food, housing, fuel, clothing, medicines, and education have increased with these rising demands' (Myrdal 1941, p. 61; cf., Methorst 1927, pp. 176–8; Charles 1934, p. 197). Wilhelm Winkler made detailed calculations of exactly how much the cost of children had gone up in recent years in Austria and, hence, of how much extra money could be saved by limiting the number of children or by choosing a childfree lifestyle (Pinwinkler 2003, pp. 185–6).

However, modern adult consumers do not just spend money on their children, if they have any children at all. Rising individualistic consumerism features in many texts (e.g., Mombert 1929, pp. 314–6; Charles 1934, p. 197; Landry 1934, pp. 8–10; Winkler 1935; von Ungern-Sternberg 1938). Aspirations to buy the latest novelties and participate in modern consumer culture may interfere with 'the parental instinct'; 'for it is those without young children who have the money to spend' (Carr-Saunders 1936, p. 252). 'In competition with children, as an alternative, the automobile, the radio, and the innumerable accessories to modern life are at an immense advantage, if advertising is at all effective. Who ever saw, among the vari-coloured displays in our street-cars or elsewhere, any glowing advertisement praising in similar terms the virtues of a large family?' (Dublin 1932, p. 117). Charles summarizes with a witticism: 'Statistics clearly show that

the choice between a Ford and a baby is usually made in favour of the Ford' (1934, p. 197).

Conclusion and discussion

After the First World War, fertility was below replacement level in many Western countries for about 10–20 years. In most cases, a fertility trough was reached around 1935. In today's scholarly literature, this is routinely attributed to economic crisis and the threat of war.

This paper has reviewed the interpretations by scholars writing between the wars of the developments they were witnessing. According to these contemporaneous interpretations, low fertility was due not to the threat of war or economic crisis but rather to cultural trends, especially individualization, secularization, rationalization, and rising consumerism. These were trends that, according to leading sociologists, economists, and demographers of the first half of the twentieth century, had already been in existence since at least the nineteenth century and were summarized under the broad heading of 'modernization'.

Since these trends were seen as secular rather than dependent on other phenomena, scholars were convinced that subreplacement fertility would prevail for an extended period of time. Even when demographers became aware after the Second World War that a baby boom was occurring, they tended to see this as a temporary deviation from the more fundamental underlying tide, pushing fertility structurally down below replacement level in the longer run.

Eventually, the baby boom appeared to be a temporary interruption of the secular decline of fertility after all, even if it had long-lasting and very important consequences. Today about half of the world population is estimated to live in a country where fertility is below replacement level (Wilson 2004). No one knows for how long it will stay at that level.

Lesthaeghe and van de Kaa (1986) coined the concept of the Second Demographic Transition (SDT) to interpret the package of socio-demographic developments that marked the end of the baby boom. The adjunct 'second' serves, among other things, to indicate that the social forces behind the decline of fertility after the baby boom were very different from those operating before it, during the First Demographic Transition (FDT). Subreplacement fertility is seen as one of the characteristic features of the SDT. In contrast, it is not considered to be an intrinsic characteristic of the FDT. According to the SDT literature, the end-point of the FDT was supposed to be an older stationary population with replacement fertility (van de Kaa 2003; Lesthaeghe 2008).

Yet, the equilibrium view of the demographic transition emerged only after the Second World War. Leading demographers writing before the baby boom did not at all read the demographic developments they were witnessing as a transition from an old to a new equilibrium that would imply fertility at replacement level in the long run. Between the wars demographers did not see a transition but rather a revolution with an unpredictable ending, and with subreplacement fertility being a structural part of the new demographic regime. The 'perfect contraceptive' could be invented any day, and this would facilitate the new regime, but it was not considered to be a necessary condition for long-run subreplacement fertility.

Again, according to the demographers of the 1920s and 1930s, the major reasons why modern times were pushing fertility below the replacement level included rationalization, secularization, individualization, consumerism, eroticism, and the rising aspirations of women for self-realization outside the home. These reasons are also often encountered in the literature about the SDT (Lesthaeghe and van de Kaa 1986, pp. 13–9; van de Kaa 1987, pp. 3–8; Lesthaeghe 1995, pp. 19–34). During the inter-war period, and actually long before that, there was a very strong tendency to argue that the 'individualistic' motivations, for instance, aspirations for a high standard of living for the parents themselves, were gaining ground at the cost of 'altruistic' aspirations for children. Many years later, Sauvy (1960) and Ariès (1980) again speculated that individualistic motivations were becoming more important in the second half of the twentieth century than the altruistic motivations that were supposedly dominant in the late nineteenth and early twentieth centuries. Even though Sauvy and Ariès supplied scant evidence for their claims, they strongly contributed to the idea of a *second* demographic transition, one driven by motives very different from those that generated the *first* wave of fertility decline.

To conclude, the explanations of subreplacement fertility given by demographers writing in the inter-war period have remarkable resemblances to explanations given within the SDT framework for current low fertility levels. The societal discussions incited by low fertility and the prospect of natural population decline in the two periods also have resemblances. Issues on the agenda during the inter-war period, as well as today, include the consequences of an ageing

population for the labour market and the issue of replacement migration. Thus, the inter-war literature about low fertility is a case in point of 'the presence of the past in the present' (de Gans et al. 2003, p. 3). It illustrates that the 'inter-war period is among the most interesting periods in the history of demographic thinking, modelling and forecasting' (de Gans et al. 2003, p. 3) and that 'much of what is going on today in our field of interest can be traced back to the inter-war period' (Romaniuc 2003, p. 16).

The inter-war period was an era of strong societal tensions, not just in politics and in the economy, but also in marriage and the family (Cook 2004, pp. 187–224; Coontz 2005). The tide of modernization had been producing ever more social changes at a pace that was bewildering to many ordinary people. Some enthusiastically embraced the opportunities and freedom promised by modernity. Others were alarmed by the new patterns of behaviour and saw modernity as threatening the proper, established order, bringing degeneration, decline, and decay instead. Over time, the latter group may have formed a powerful, reactionary counter-force against the 'evils' of modernity (for a review of the political discussion in France, for example, see Tomlinson 1985), albeit using very modern channels (Bauman 1989, pp. 45–6). One could speculate that this reactionary force may have been one of the factors responsible for the rise of 'the golden age of the nuclear family' in the 1950s and early 1960s (Cheal 1991). That 'golden cage' was devastated by the trends summarized under the concept of the Second Demographic Transition, including rising divorce rates, the spread of unmarried cohabitation, as well as the further rise of small families, facilitated by today's 'perfect contraceptives'. The recent trends may be seen as a revival and intensification of modernity in family life, or at least as a second stage in the modern decline of fertility, the course and logic of which were already under way in the nineteenth century. The low fertility levels of the inter-war period should not be attributed to economic crisis and the threat of war, but should partly be seen as a dress rehearsal for the current demographic turmoil—an idea kindly communicated to me by Stephanie Coontz. Also, see Coontz (2005).

Notes

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