

DEMOGRAPHIC TRANSITIONS

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Contents

1. Introduction
2. The First Demographic Transition (FDT) and its precursors
 - 2.1. Early Reactions to European Fertility Decline
 - 2.2. The Concept of a ‘*révolution démographique*’
 - 2.3. The Concept of a ‘Demographic Transition’
 - 2.4. The First Demographic Transition (FDT)
3. The Second Demographic Transition (SDT) and its precursors
 - 3.1. The Idea of a Renewed Transition
 - 3.2. The Second Demographic Transition (SDT)
4. A schematic representation of the two transitions
5. Explaining the First Demographic Transition
 - 5.1. Biological and Associated Factors
 - 5.2. Economic and Social Factors
 - 5.3. Innovation and Institutional Factors
 - 5.4. Ready, willing, and able
6. Explaining the Second Demographic Transition
 - 6.1. Innovation and Institutional Factors
 - 6.2. Economic and Social Factors
 - 6.3. Biological and Associated Factors
7. Transitions in context
 - 7.1. Transitions, Revolutions, Regime Change, ‘Compromises’, and Homeostasis
 - 7.2. Transitions and the Developmental Paradigm
 - 7.3. The Third World and the European Experience
 - 7.4. Regional Flavors

8. Criticisms and support

8.1. Theories or Generalizations?

8.2. Criticisms and Support: Regarding the First Demographic Transition

8.3. Criticisms and Support: Regarding the Second Demographic Transition

Glossary

Bibliography

Biographical Sketch

Summary

In the history of humankind few innovations have been as important as that of the voluntary control of fertility. When in Western Europe in the late 18th and early 19th centuries its effects on the birth rate and population change first became apparent it was recognized as a truly revolutionary event. And indeed, in France it came to be called the ‘demographic revolution’. Internationally that term did not find favor and was replaced by ‘demographic transition’. This chapter discusses the classical, now First Demographic Transition (FDT) by tracing the history of the concept, by considering its determinants and its spread across the world. However, it also discusses the Second Demographic Transition (SDT), a further important change in demographic regime that appears to have started in the same part of the world just after the mid-1960s. That transition is also spreading to other regions and appears to affect populations that have reached high levels of socioeconomic development where contraception is perfect and where the close link between sexuality and procreation no longer exists.

As discussed in this chapter the determinants of both transitions are changes in the structure, culture, and technology of societies. But, there is a certain shift in emphasis. Socioeconomic development and a decline in mortality appear to have been prerequisites for the onset of the FDT although it has affected countries that differ widely in social structure, political system and economic system. Once started the FDT in a country usually continues. It may be aided by family planning programs or government policies and occasionally stalls when countries began the transition when they already had low fertility relative to their level of development.

While the proponents of the idea of a SDT stress that the changes in economic and technological conditions (pill) remain important determinants of that transition they tend to highlight the role of ideational change. As explained in the chapter ideational shifts appear to have changed people’s attitudes towards marriage, childbearing, the responsibility for one’s own health, and demographic change more generally. Since people highly value each individual’s freedom of choice and seek self-fulfillment in work and relationships the level of fertility typically declines to very low levels.

1. Introduction

In the study of population the term ‘demographic transition’ is widely used. Every single demographer in the world is familiar with it. Whether everyone using it attaches the same meaning to it is a different matter entirely. For some there is, and will ever be, only one ‘Demographic Transition’. Others see it as solely affecting fertility and equate it with ‘fertility transition’. For others, again, it denotes a generic term that has not been

particularly well chosen to boot, and that involves, at least in principle, all components of population change. A historical perspective is required to clarify the situation and to understand why knowledgeable scholars engaged in the study of population do not, as yet, see eye to eye on this vexing issue. The author does, of course, also have a personal point of view on the matter, but in this essay will make the attempt not to be one-sided.

Nowadays two demographic transitions are commonly distinguished. The ‘theory’ of the classical demographic transition, here to be called First Demographic Transition (FDT), was formulated as a narrative describing the way in which, from the late 18th century onward, fertility and mortality in several European countries declined in response to changes in the economic structure, the technology and culture of these societies. It provided a very useful and persuasive generalization of the demographic experience in that region. It suggested that all populations and regions of the world would ultimately follow the same developmental path. That is to say that all would in the course of time trade in a near-stationary demographic situation characterized by high levels of fertility and mortality for one resulting from the combination of low fertility and low mortality. To describe that transition process more adequately four phases were usually recognized. During the first, fertility is assumed to have been sufficiently high to allow a population to grow slowly even in the face of a rather high level of mortality. However, periodic epidemics of plague, cholera, typhoid and other infectious diseases would in one or two years wipe out the gains made over decades. Over long periods of time there would, consequently, be almost no population growth at all. The second phase begins once epidemics are brought under control, their impact subsides, and once developments in society allow mortality to decline further: slowly but steadily. As fertility remains high at first, the excess of births over deaths increases and so does population growth. In time couples respond to the greater numbers of children surviving by voluntarily limiting their family size. Then the third phase begins. The excess of births over deaths diminishes and so does the rate of population growth. In the fourth phase mortality and fertility are in balance again, but now at low levels. Instead of averages of 6 or 7 children per family couples would, on average, have not much more than 2. And instead of a life expectancy of, say, 45 years people would typically have a life expectancy at birth of 70 or 72 years. Even though during the transition some surplus population would be siphoned off through emigration, the end result would be a much-enlarged population. But at the end of the transition process one could also expect a situation in which the population would no longer grow, where the population structure would remain almost constant, and where there would be neither the need for emigration nor for immigration.

Around the mid-1960s it turned out that this theoretical model had an important shortcoming in that fertility did not remain sufficiently high to ensure the replacement of generations. Under the catalytic influence of much improved and highly efficient contraception and further fuelled by the development of the welfare state and an important shift in preferences and tastes, fertility began to decline again. Even when it reached levels much below that needed for replacement it showed no signs of returning. This implied that in due course the populations would start to decline! But that was not all. Numerous other important changes in demographic behavior occurred. Women were having their children at much higher ages, cohabitation became common, the close link between marriage and sexuality was severed, an increasing proportion of children were

born out of wedlock, many different types of family arrangements were created, and leaving-home arrangements changed, while marriage became a much less permanent arrangement than in the decades before. Mortality at older ages declined more steeply than ever envisaged. And, instead of being a region that sent people to other parts of the world Europe became a region of immigration. This had a profound influence on the composition of the population of the countries concerned. They became culturally heterogeneous; a situation they found exceedingly difficult to deal with. It became more and more evident that this new constellation of demographic factors could not be explained as a temporary phenomenon. Hence the term: Second Demographic Transition (SDT) was coined to describe it.

In what follows the history, determinants, and background of both transitions will be described in some detail. The way in which the ideas they embody were received in the community of population scientist will also be reviewed.

2. The First Demographic Transition (FDT) and its precursors

2.1. Early Reactions to European Fertility Decline

The first ever-recorded sustained decline in fertility in the Western World occurred in France in the early 1830s. At first scholars and political figures were at a loss about its significance. According to Louis Chevalier (1911-2001), when writing about that phenomenon around 1856 such well-known French economists/public figures as Hyppolyte Passy (1793-1880), Léonce de Lavergne (1809-1880) and Alfred Legoyt (1815-1885) found it hard to believe and could only confess their ignorance (Chevalier, 1946/1965). It was suggested that it was bound to relate to the general social and economic evolution; to the changes in the standard of living, for example, or, as Frédéric Leplay (1806-1882) assumed, to the inheritance system in force. It is also in francophone Europe that, a little later, the first suggestions for a structured explanation of the decline in the birth rate appeared. Writing on depopulation and civilization in 1890, Arsène Dumont (1849-1902) introduced a principle of population, which he called '*capillarité sociale*' or '*l'attraction capillaire*'. In his view, the wish to improve one's position politically, economically, and in terms of access to education and culture, led to an excessive predominance of individual tendencies. And, while the principle of social mobility was a necessary condition for all progress, it had a detrimental effect upon the birth rate. As he formulated it '*Le progrès de la natalité est en raison inverse de la capillarité sociale*' [The development of the birth rate is inversely proportional to social mobility]. Other French scholars of the same period, who were concerned about the decline in the birth rate, again stressed the role of mental factors. Writing in 1896 Paul Leroy-Beaulieu (1843-1916) argued that the decline was foremost a reflection of the moral order.

2.2. The Concept of a 'rèvolution démographique'

Adolphe Landry (1874-1956) another French economist and political figure with an overriding interest in population issues, made an even more crucial contribution to the discussion. In 1909, when a young man in his mid-30s, he published a paper in a relatively obscure statistical journal *Scientia* in which he distinguished three different

demographic regimes. Under the first regime, based on the ideas expressed by the Reverend Joseph Townsend (1739-1816), originally a physician and geologist, the population is assumed to ascend to the limits imposed by the means of subsistence. Under the second, derived from the writings of the economist Richard Cantillon (1680?-1734), the possibilities to subsist are also seen to be important but some elasticity between food and the number of people is assumed as the latter desire to maintain a certain standard of living and use late marriage and celibacy as regulating mechanisms. The third and ‘contemporary’ regime is, in Landry’s view, entirely different as economic forces only indirectly affect population. Much more significant is that people seek to ameliorate their situation and use neo-Malthusian practices to limit family size within marriage in the expectation that this will give their offspring a better chance in life. He speaks of a theory ‘*en train de se constituer*’; [on the way of being developed] a theory in which the increasing rationalization of behavior obviously is given center stage in explaining fertility decline. He was convinced that people ‘*devenant plus raisonnables, ils tendent par la meme à devenir plus moraux*’ [when becoming wiser also tend to become more moral]

In his paper Landry sees the last two demographic regimes succeeding each other. In all likelihood, he was the first scholar to do so. But his 1909 paper was published in an Italian journal; it may not have reached a wide audience. It is fortuitous, therefore, that he returned to the same population issues in a book of studies and essays published in 1934 under the telling title ‘*La révolution démographique*’. In Landry’s view that ‘contemporary’ demographic revolution would seem to be ‘*proprement formidable*’ [really formidable]. The fundamental underlying principle as he sees it, is best summarized as ‘*...la rationalisation de la vie*’ [the rationalization of life], with altruistic sentiments to let children achieve a higher status than their parents as the driving force.

Landry had strong political interests. He was a Member of Parliament and between 1920 and 1932 served as cabinet minister in a number of governments. As a result he may not have been able to take note of the paper on world population issues that Warren S. Thompson (1887-1973) contributed to the American Journal of Sociology in 1929. Had he seen it, he might have welcomed Thompson’s references to French demographic literature (Alfred Sauvy and Henry Bunle) and might have recognized a kindred spirit. On the basis of cross-sectional data Thompson grouped the countries of the world in three categories and placed great emphasis on the tremendous impact that fertility decline in category A, the countries of Western Europe and those ‘countries largely settled by peoples emigrating from this area in the last three hundred years’, would have. He does not speak of a transition or a revolution but the groupings suggest the probability of transfer from the categories with high fertility to those of low fertility. He notes explicitly that in this last ‘... part of the world a new era in population movements has begun...’ The main focus of Thompson’s paper was on the question how the land needed for the expansion and sustenance of the peoples in categories B and C would have to be provided and not on building a theory of fertility decline or demographic transition. Even so, to some extent his paper foreshadows Landry’s much more elaborate and ‘revolutionary’ work.

One of the interesting aspects of Thompson’s paper is that he attaches special importance to the effects of World War I on demographic behavior. ‘Of course, one

cannot say that the war was the causal factor in increasing the absolute decline in the birth-rate which has taken place in the last fifteen years, but certainly it may be regarded as a turning point of very great significance'. In a way the same may be said of World War II. This is not simply a question of direct impacts, as those generated by war losses, refugee movements, and baby booms, but undoubtedly it also influenced the thinking about population issues and contraceptive practices in the population at large. Even more important for the present discussion is that it influenced thinking about population processes in the demographic communities on both sides of the Atlantic.

In the year World War II came to an end, Landry, then announced as *Président de l'Union Internationales pour l'Étude Scientifique des Problèmes de la Population*, succeeded in having a sort of demographic textbook published entitled *Traité de Démographie*, in which he collaborated with four other authors, Alfred Sauvy (1898-1990) and Henri Bunle (1884-1986) amongst them! Chapter V, executed so it would seem, '*principalement*' [mainly] by Sauvy contains a section (99) called '*La révolution démographique*' that must, surely, very much reflect the thinking and view of the main author of the book: Landry. The section shows that the term revolution was not chosen accidentally. It notes that the French political revolution of 1789 was marked by a number of spectacular events and then observes that another revolution was hardly noticed when it started and was not accentuated by anything sensational. It began slowly and progressed almost unnoticeable. Even so, it was a revolution, for one should speak of a revolution when a change in regime takes place and this as well in demography as in other fields. There is no need for the regime change to occur suddenly. Thus there is every reason, so Landry argues, to stick to the definition and the term 'demographic revolution' when one considers the substitution of '*procréation limitée à la procréation illimitée*' [unlimited procreation by limited procreation]. In trying to clarify the role of contraceptive practices in the fertility decline the author resorts to a rhetorical device. The question posed is whether marital fertility would also have declined as strongly and generally if abstinence (*la continence*) had been the only means of contraception available? The obvious answer clearly is that the decline of marital fertility would have been very different from that observed and would no doubt only have been small (... *cette fécondité n'eût sans doute baissé que peu*').

Another very interesting aspect of this section in Landry's book is that it notes that at the time marital fertility in France started to decline the level of mortality also commenced to decline. This latter decline is, again, characterized as '*... un très grand fait de l'histoire démographique*' [a very great event in demographic history], but it is considered to be of a somewhat different nature as the struggle to lengthen life appears to have been with us perpetually and is not the result of change in orientation as a consequence of a decision taken by the population.

2.3. The Concept of a 'Demographic Transition'

After the establishment of the League of Nations, which held its first general Assembly in Geneva on 15 November 1920, the interest of American scholars and in particular those attached to Princeton University, in European population issues and history increased. They were interested in the demographic effects of the Russian Revolution, for example, and in Europe's population prospects. This work continued during World

War II and resulted in a number of important publications towards the end and immediately after World War II. These were published either by Princeton University Press or the League of Nations. Dudley Kirk (1913-2000) who was personally involved in that type of work has rightly pointed out this research culminated in the formulation of what is now ‘demographic transition theory’. Several members of the group contributed, for instance, to a book published by the League in Geneva in 1944 entitled *The Future Population of Europe and the Soviet Union: Population Projections, 1940-1970*. In addition to Kirk, Ansley J. Coale (1917-2002), Louise K. Kiser (1895-1954), Frank W. Notestein (1902-1983) and Irene B. Taeuber (1906-1974) are listed as contributors. Together they virtually shifted the center of gravity of the discussion on ‘demographic transition theory’ to the United States. As a consequence its historical depth and ideational dimension diminished, while the process of modernization and its economic aspects was emphasized more strongly. Population trends were seen mainly as a function of progress. To quote Kirk (1944): ‘Rapid population growth and the subsequent slowing of growth arising from the control of family size are intrinsic elements of the nexus of cultural traits that are valued as “progress”. Their development has not been haphazard. Within Europe, for instance, there has been a clear pattern of diffusion’. And further: ‘modern education, improved health conditions, and economic advance are parts of the same cultural complex, indigenous to the West’. He points to the role of industrial development, urban influences, and the advent of ‘technological civilization’. One of his central conclusions is that ‘in regard to demographic matters the different countries of the world may be considered as on a single continuum of development’. Another member of the group, Kingsley Davis (1908-1997), used the term ‘demographic transition’ in the title of an interesting essay published in 1945. It is not evident that they consciously rejected the term ‘revolution’ or that the term ‘transition’ prevailed because it had more international appeal and more scholars could easier consult American rather than French demographic literature.

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Biographical Sketch

Dirk J. van de Kaa is Honorary Fellow at the Netherlands Interdisciplinary Demographic Institute (NIDI), The Hague, The Netherlands. He studied Social Sciences at the University of Utrecht and obtained a Ph. D. in Demography from the Australian National University in Canberra. During the early part of his career he worked first in *Nederlands Nieuw Guinea* and then in Papua-New Guinea. He published extensively about the demographic situation in both these territories.

He returned to The Netherlands in 1971 to become founding director of NIDI, a task he fulfilled until his appointment as director of the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS) at Wassenaar. During the years he directed NIDI and NIAS he had to devote time to a great many other tasks. During 1972-1977 he served as Scientific Secretary to the Royal Commission on Population and drafted its final report. He was, *inter alia*, Professor of Demography at the University of Amsterdam (1978-1998), acted as Project Director of the World Fertility Survey (WFS) in London, as President of the Arts Division of the Royal Netherlands Academy of Arts and Sciences in The

Netherlands, and as Vice-Chairman of that country's National Science Foundation. He was also active internationally and helped found the European Association for Population Studies (EAPS).

After his return to Europe in 1971 he published mainly on the population issues of that continent. A number of his most influential articles are listed in the references added to this contribution on Demographic Transitions.

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SAMPLE CHAPTERS