

The second demographic transition: A concise overview of its development

Ron Lesthaeghe¹

Royal Flemish Academy of Arts and Sciences, 1000 Brussels, Belgium

This contribution is part of the special series of Inaugural Articles by members of the National Academy of Sciences elected in 2014.

Contributed by Ron Lesthaeghe, October 29, 2014 (sent for review September 29, 2014; reviewed by Douglas S. Massey and David Reher)

This article gives a concise overview of the theoretical development of the concept of the “second demographic transition” since it was coined in 1986, its components, and its applicability, first to European populations and subsequently also to non-European societies as well. Both the demographic and the societal contrasts between the first demographic transition (FDT) and the second demographic transition (SDT) are highlighted. Then, the major criticisms of the SDT theory are outlined, and these issues are discussed in the light of the most recent developments in Europe, the United States, the Far East, and Latin America. It turns out that three major SDT patterns have developed and that these evolutions are contingent on much older systems of kinship and family organization.

second demographic transition | subreplacement fertility | cohabitation | household structure | values

The first or “classic” demographic transition refers to the historical declines in mortality and fertility, as witnessed from the 18th century onward in several European populations and continuing at present in most developing countries. The end point of the first demographic transition (FDT) was supposed to be an older stationary population corresponding with replacement fertility (i.e., just over two children on average), zero population growth, and life expectancies higher than 70 y. Because there would be an ultimate balance between deaths and births, there would be no “demographic” need for sustained immigration. Moreover, households in all parts of the world would converge toward the nuclear and conjugal type, composed of married couples and their offspring. Such were the expectations in the early 1970s. Thereafter, as the baby boom of the 1960s was followed by the baby bust of the 1970s, these expectations were altered to accommodate the possibility of oscillating fertility as a function of labor-market conditions.

The second demographic transition (SDT) viewpoint, jointly formulated by Lesthaeghe and van de Kaa in 1986 (1, 2), in contrast, sees no such equilibrium as the end point. Rather, they argue that new developments from the 1970s onward can be expected to bring about sustained subreplacement fertility, a multitude of living arrangements other than marriage, a disconnection between marriage and procreation, and no stationary population (3, 4). Furthermore, populations will face declining sizes if not complemented by new migrants (i.e., “replacement migration”), and they will also be much older than envisaged by the FDT as a result of lower fertility and considerable additional gains in longevity. Migration streams will not be capable of stemming aging altogether, however, because migrants also age and lower their own fertility with time spent in receiving nations.

In the long run, mass immigration might stabilize population sizes; but this outcome would still involve the further growth of “multicultural societies.” On the whole, the SDT brings a variety of new social challenges, including those associated with further aging, the integration of immigrants, adaptation to other cultures, less stability in partnerships, more complex households, and high levels of poverty or exclusion among certain household types (e.g., single persons of all ages and lone mothers).

History of the Concept

The idea of a distinct phase stems directly from Philippe Ariès’s analysis of the history of childhood (5) and his subsequent 1980 paper on “Two successive motivations for the declining birth rate in the West” (6). In the view of this erudite French historian, during the FDT, the decline in fertility was “unleashed by an enormous sentimental and financial investment in the child.” Ariès refers to this period as the “Child-king era,” and the fertility transition was carried forward by an altruistic investment in child quality. This motivation has not disappeared, but it is no longer the dominant one. Within the SDT framework, the motivation for parenthood is adult self-realization, and the choice is for just one particular lifestyle in competition with several others. The altruistic element focusing on offspring has of course not disappeared, but the adult dyadic relationship has gained greater prominence.

The second element that sparked the SDT theory was the conviction that the cyclical fertility theory as formulated by Richard Easterlin (7) would no longer hold and that subreplacement fertility was to become a structural, long-term feature in Western populations. In Easterlin’s theory, small cohorts would have better employment opportunities and thus earlier marriage and higher fertility whereas large cohorts would have worse economic life chances and display the opposite demographic responses. The cyclical reinforcement then stems from large cohorts of parents giving birth to small cohorts of children and vice versa. The SDT, however, does not anticipate such major cyclical effects. Rather, it argues that other effects, both of an economic and a cultural nature, have an overriding capacity in conditioning fertility trends.

The third element conditioning the SDT theory is the major role given to ideational factors and to the dynamics of cultural shift. The SDT theory fully recognizes the effects of macrolevel structural changes and of microlevel economic calculus. As such, it is not at odds with the core arguments of neoclassical economic reasoning. However, the SDT view does not consider

Significance

At the end of the historical declines in both mortality and fertility (the “first demographic transition”), new demographic phenomena developed in the Western World. Therefore, new theoretical frameworks were needed to explain features such as the baby bust, the systematic postponement of marriage and parenthood, subreplacement fertility, the rise of alternative forms of partnerships, and parenthood outside marriage. The “second demographic transition” (SDT) theory is such an attempt. Although it accepts the major tenets of bounded rational economic choice, it also allows for autonomous preference drift by relying on Maslow’s theory of shifting needs. As such, an essentially cultural component is being added.

Author contributions: R.L. wrote the paper.

Reviewers: D.S.M., Princeton University; and D.R., Universidad Complutense de Madrid.

The author declares no conflict of interest.

¹Email: RLesthaeghe@yahoo.com.

these explanations as “sufficient” but merely as “nonredundant.” By the same token, the cultural factors involved are non-redundant elements and not sufficient ones. The SDT is therefore a more “overarching” theory that spans both economic and sociological reasoning. It does not do so by taking value orientations as endogenous or by considering culture as a form of addiction [cf. G. S. Becker (8)], but by treating ideational changes as exogenous influences that add stability to trends over and beyond economic fluctuations. The SDT furthermore links cultural shifts to dynamic processes of cohort succession, and to a recursive model of value-based selection and individual value reorientation as a function of paths followed during the life course.

Finally, a major stepping stone of the SDT theory has also been Abraham Maslow’s theory of changing needs of 1954 (9). As populations become wealthier and more educated, the attention shifts away from needs associated with survival, security, and solidarity. Instead greater weight is attached to individual self-realization, recognition, grassroots democracy, expressive work, and educational values. The SDT theory is therefore closely related to Ron Inglehart’s concept of “post-materialism” (10, 11) and its growing importance in political development. The direct consequence of this value shift is that the SDT predicts that its characteristic demographic outcomes (sustained subreplacement fertility, growth of alternative living arrangements) are likely to emerge in non-Western societies, provided that they equally develop a greater accentuation of Maslowian “higher order needs” in tandem with the growth of solid democratic institutions protecting respect for diversity.

First Demographic Transition/Second Demographic Transition Contrasts

Having pointed out the intellectual origins of the SDT, more attention can be given to the FDT–SDT contrasts. Of course, it is clear that the SDT has also been contingent on the major demographic and social shifts that shaped the initial fertility transition of the FDT. In its turn, the gradual control over reproduction

liberated time for further female education, more female tertiary sector employment, etc. And these features contributed to the shaping of the “cultural revolutions” of the sixties and the seventies as well. In other words, the FDT has been a necessary precondition for the SDT. However, a “single transition” view would obscure major differences of both a demographic and social nature. An overview of these contrasts between FDT and SDT is given in Table 1.

Reversed Nuptiality Trends. The FDT transition in the West was characterized by a gradual weakening of the old Malthusian “preventive check” located in late and nonuniversal marriage. Ages at first marriage were lowered and proportions marrying increased during the FDT. Furthermore, the areas in which cohabitation and out-of-wedlock fertility had survived until the 20th century joined the mainstream characterized by low illegitimacy and low incidence of unmarried partnerships. The earliest ages of marriage were reached in the 1960s. Thereafter, all trends are rapidly reversed: age at first marriage increases, more single persons start living alone or cohabiting before marriage, long-term cohabitation replaces marriage, and ultimately fertility outside marriage becomes much more frequent.

A similar turnaround also takes place with respect to remarriage. During the FDT, divorce (or widowhood) was often followed by remarriage, and even by continued childbearing. During the SDT, however, postmarital relationships are channeled into cohabitation or “living apart together” (LAT) relationships rather than remarriage. In parts of Central and Eastern Europe, where the historical Malthusian late marriage pattern did not exist, the SDT is equally characterized by a new trend toward later marriage and more cohabitation after 1990. In addition, out-of-wedlock fertility now follows the western trend. Such features are currently developing in the western part of Southern Europe (Italy, Malta, and, especially, Portugal and Spain).

Reversed Timing of Fertility. During the FDT, fertility became increasingly confined to marriage and contraception mostly affected

Table 1. Overview of demographic and societal characteristics, respectively, related to the first demographic transition (FDT) and second demographic transition (SDT) in Western countries

FDT	SDT
Marriage	
Rise in proportions marrying, declining ages at first marriage	Fall in proportions married, rising ages at first marriage
Low or declining incidence of cohabitation	Increasing cohabitation, both pre- and postmarital
Low divorce rates	Rise in divorce, earlier divorce
High remarriage rates after widowhood or divorce	Decline in remarriage rates, LAT relationships instead
Fertility	
Declining marital fertility via reductions at older ages, lowering mean ages at first childbearing	Fertility postponement, increasing mean ages at parenthood, structural subreplacement fertility
Deficient contraception, parity and timing failures	Efficient contraception
Declining illegitimate fertility	Rising nonmarital fertility, parenthood outside marriage (among cohabiting couples, single mothers)
Low final childlessness among married couples	Rising definitive childlessness among women ever in a union
Societal background	
Preoccupation with basic material needs: income, work conditions, housing, children and adult health, schooling, social security; solidarity a prime value	Rise of “higher order” needs: individual autonomy, expressive work and socialization values, self-actualization, grass-roots democracy, recognition; tolerance a prime value
Rising membership of political, civic, and community-oriented networks	Disengagement from civic and community-oriented networks
Strong normative regulation by churches and state, first secularization wave, political and social “pillarization”	Retreat of the state, second secularization wave, sexual revolution, refusal of authority, political “depillarization”
Segregated sex roles, familistic policies, “embourgeoisement” of the family with the breadwinner model at its core	Rising symmetry in sex roles, rising female education levels, greater female economic autonomy
Ordered life-course transitions and dominance of one single nuclear family model	Flexible life-course organization, multiple lifestyles, open future

fertility at the older ages (stopping) and at higher marriage durations. Mean ages at parenthood declined whereas childlessness among married couples remained low. There are examples of below-replacement fertility during the FDT, but they correspond to exceptional periods of deep economic crisis or war.

The SDT starts in the 1960s with a series of multifaceted revolutions. First, there was the contraceptive revolution, with the introduction of hormonal contraception and far more efficient IUDs; second, there was the sexual revolution, with declining ages at first sexual intercourse; and third, there was the sex revolution, questioning the sole breadwinner household model and the gendered division of labor that accompanied it.

These three “revolutions” fit within the framework of an overall rejection of authority, the assertion of individual freedom of choice (autonomy), and an overhaul of the normative structure. The overall outcome of these shifts with respect to fertility was the postponement of childbearing: mean ages at first parenthood rise again, opportunities for childbearing are lost due to higher divorce rates, the share of childless ever-partnered women increases, and higher parity births (four or more) become rare. The net result is structural and long term below replacement fertility.

Social Contrasts. With the exception of the very early fertility decline in France and a few other small European regions, much of the FDT was an integral part of a development phase during which economic growth fostered material aspirations and improvements in material living conditions. The preoccupations of the 1860–1960 era were mainly concerned with increasing household real incomes, improving working and housing conditions, raising standards of health, improving human capital through mass education, and providing a safety net for all via the gradual construction of a social security system.

In Europe, these goals were shared and promoted by all major democratic political parties, their organizations, and by churches as well. In this endeavor, solidarity was a central concept. All such political or religious “pillars” had distinct views on the desirable evolution of the family. For religious organizations, these views were based on the holiness of matrimony in the first place, but their defense of the closely knit conjugal family also stemmed from fears that urbanization and industrialization would lead to immorality and atheism. The secular pillars, such as those promulgated by socialist or liberal parties, equally saw the family as the cornerstone of society. Both moral and material uplifting would be served best by a sharp sex-based division within the family: husbands assume their roles as devoted breadwinners and women as guardians of quality-related issues in the home (order and neatness, health, education, etc.). In other words, all religious and political factions—including the prewar Communist one—contributed to the “*embourgeoisement*” of the family.

The SDT, on the other hand, is founded on the rise of the higher order needs. Once the basic material preoccupations are satisfied, further income growth and educational expansion jointly lead to the articulation of more existential and expressive needs. These new needs are centered on a triad: self-actualization in formulating goals, individual autonomy in choosing means, and a claim of recognition for their realization. These issues emerge in a variety of domains, which explains why the SDT is related to such a broad array of indicators of ideational and cultural shift [e.g., Lesthaeghe and Surkyn (12)].

The SDT thus occurs in tandem with the growth of “post-materialism” and political or religious “depillarization,” the disengagement from civic, professional, or community-oriented associations, a critical stand vis-à-vis all forms of authority, the stress on expressive values in socialization [e.g., Alwin (13)] and in work, and, of course, a quest for far more egalitarian sex relations. At the individual level, the choice for new types of households (premarital single living, cohabitation, and parenthood within

cohabitation) are all linked to individualistic and nonconformist value orientations in a great variety of spheres. Furthermore, associations between household types and value orientations hold not only for Northern and Western Europe but, by now, equally for Southern, Central, and Eastern Europe [Lesthaeghe and Surkyn (14)].

Criticisms

Several criticisms have been launched against the Second Demographic Transition viewpoint. First and foremost, many suggested that the SDT would remain a phenomenon typical only of Northwestern Europe and the overseas mainly European populations of the United States, Canada, Australia, and New Zealand. In other words, the SDT would not spread to Southern or Eastern Europe, and definitely not to other cultures of Latin America or Asia. The typical reaction was “Not us, we’re different,” and therefore the SDT would describe only “Western idiosyncrasies.”

The other criticisms are directed at more specific trends that make up the overall phenomenon. For instance, the alternative view holds that the rise in premarital cohabitation and the decline in marriages would not be connected to ideational or cultural shifts, but to the rise of poverty. This alternative is the “*pattern-of-disadvantage*” hypothesis. Cohabitation then is and remains a lower class characteristic and is typically associated with lower education and weaker social positions or ethnic minorities. According to this view, the crisis of the early 1990s would account for the rise in cohabitation in Russia and much of Eastern Europe and not reflect cultural shifts as in Northern and Western Europe. The pattern of disadvantage would equally fit the US experience.

The other example of a more specific criticism pertains to the continuation of below-replacement fertility. In the alternative view, sex relationships are the crucial factor to be considered, and if these relations would improve and become more egalitarian, then fertility will be restored to higher levels, and presumably to replacement level or above [e.g., Arpino et al. (15)]. In other words, the SDT low-fertility regime would merely be a passing phenomenon. Within a similar perspective, it has also been suggested that improvements in “human development” as measured by the United Nations Human Development Index, would equally lead to rising fertility in the industrialized countries [Myrskylä et al. (16)].

The New Realities

Since the latest turn of the century, it has become abundantly clear that the combination of (i) rising proportions cohabiting rather than marrying and (ii) subreplacement fertility is stretching outward beyond the European cultural realm. For instance, young Japanese and Taiwanese couples are increasingly cohabiting before marriage and childbearing [e.g., Tsuya (17) and Raymo et al. (18)]. Moreover, in Japan, such behavior is equally correlated with cultural shifts toward more sex equality, refusal of authoritarian traits, and individualization of moral norms as in the West [Lesthaeghe (19)]. What is happening in other Far Eastern countries is still unclear, but all have experienced dramatic increases in ages at first marriage. Rising educational levels are undoubtedly part of the explanation, but whether later marriage is due to longer celibacy or in part also to rising cohabitation needs further investigation. At this point, we need to stress that we have no statistical information related to such shifts in partnership formation in the People’s Republic of China.

Perhaps the most striking SDT changes with respect to partnership formation occurred in Latin America [Esteve et al. (20)]. From Mexico to Argentina, just about all regions experienced a considerable increase in proportions of couples cohabiting rather than being married. Admittedly, many regions in Latin America and the Caribbean already had a high incidence of consensual

unions to start with. This cohabitation was often due to a history of slavery, to a weaker Christianization of native populations, or to geographical isolation. However, even in such regions, there were further rises in proportions cohabiting after the 1970s or 1980s. In addition, in countries with large white populations of European origin, where cohabitation had been much rarer, a genuine “cohabitation boom” has taken place. Typical examples thereof are Southern Brazil, Uruguay, Chile, and Argentina. Finally, Mexico also followed suit after 2000 so that, by now, the whole of the region exhibits this particular SDT feature.

The connection between cohabitation and lower social class membership also holds historically in many parts of the world, but what is striking since the 1960s is that increases in premarital cohabitation are either initiated by the wealthier segments of society, such as European or American college students, or that it is found in all social strata and at all levels of education. There is a considerable degree of heterogeneity as to in which social stratum the rise is more prominent, but, once the upward trend has taken off, it seems to become universal. This universality means that all age groups are affected and that postmarital cohabitation replaces remarriage as well. Resistance is often solely confined to specific religious groups and to members of conservative political organizations. Not surprisingly, in the United States, the incidence of cohabitation is closely related to voting for the Democratic presidential candidate, and, together with indicators of fertility postponement and household structure, the composite SDT index has been the best predictor of the presidential voting outcomes at the county level for the last four campaigns [Lesthaeghe and Neidert (21, 22)].

The likelihood of fertility rising to the replacement level of two children on average in the industrialized world, along with rising sex equality and greater human development (education, longevity), is a matter that cannot be studied by using mere cross-sectional measurements. The study of the SDT requires a finer tuned historical approach and a much more intricate causal investigation going beyond the “summarizing” econometric models measuring “average effects” that cannot be applied to any national setting. Furthermore, the issues cannot be studied either by using the classic period total fertility rate (TFR) because this measure is merely an artificial indicator that lumps together the fertility of teenagers with that of women born 30 y earlier. Mixing

generations is mixing different historical periods and therefore also mixing different life-course histories.

Such studies also fail to disentangle the postponement effect (fertility shifting to older ages) from the recuperation effect (rising fertility after age 30) in determining overall fertility levels. Our findings so far suggest that the composite indicators of human development and sex (in)equality do poorly in predicting fertility because there are powerful idiosyncratic causes at work that operate for specific countries or regions (e.g., the persistence of late home leaving in Southern Europe in tandem with weaker fertility recuperation at older ages; the unadapted schooling hours and child-care facilities in Germany, Austria and Switzerland; the hitherto low level of sex equality in Southern and Eastern Europe; the impact of the societal restructuring of formerly communist countries; the weak recuperation effect despite considerable fertility postponement in Central and Eastern Europe; the varying contribution of minority fertility to the national levels; the contribution of high teenage fertility in the United Kingdom and in the United States, etc.).

All that can be said at the moment is that subreplacement fertility is by no means a thing of the past, despite improvements in sex equality and overall human development in most Organisation for Economic Co-operation and Development (OECD) and former communist countries during the last two or three decades. The bottom line with respect to the predictive capacity of the 1980s version of the SDT theory is that it correctly anticipated (i) the unfolding of very different patterns of partnership formation, (ii) the shift in value orientations in many spheres (ethics, politics, sex relations, education, etc.) that emerged as central driving forces in childbearing decisions, and (iii) the emergence of subreplacement fertility as a structural and lasting feature. The main correction by now is that the changes in partnership formation and the postponement of parenthood are not necessarily as closely connected as in the West. The Asian pattern is characterized by early postponement of fertility but a slow transition from marriage to cohabitation whereas the Latin American experience points to the reverse sequence. The presence of the strong patriarchal family structure in the former is undoubtedly related to this disparity. These different developments prove yet again that current trends are not independent of deeply rooted cultural features and age-long patterns of social organization.

- Lesthaeghe R, van de Kaa D (1986) Twee demografische transitie? [Two demographic transitions?]. *Bevolking-Groei en Krimp, Mens en Maatschappij*, eds Lesthaeghe R, van de Kaa D (Van Loghum Slaterus, Deventer, The Netherlands), pp 9–24. Dutch.
- Van De Kaa DJ (1987) Europe's second demographic transition. *Popul Bull* 42(1): 1–59.
- Lesthaeghe R, Surkyn J (1988) Cultural dynamics and economic theories of fertility change. *Popul Dev Rev* 14(1):1–45.
- Lesthaeghe R (1995) The second demographic transition in Western countries. *Gender and Family Change in Industrialized Countries*, eds Oppenheim Mason K, Jensen A-M (Clarendon, Oxford), pp 17–62.
- Ariès Ph (1962) *Centuries of Childhood* (Vintage, New York).
- Ariès Ph (1980) Two successive motivations for the declining birth rate in the West. *Popul Dev Rev* 6(4):645–650.
- Easterlin R (1980) *Birth and Fortune: The Impact of Numbers on Personal Welfare* (Basic, New York).
- Becker GS (1998) *Accounting for Tastes* (Harvard Univ Press, Cambridge, MA).
- Maslow A (1954) *Motivation and Personality* (Harper and Row, New York).
- Inglehart R (1970) *The Silent Revolution* (Princeton Univ Press, Princeton).
- Inglehart R (1990) *Culture Shift in Advanced Industrial Society* (Princeton Univ Press, Princeton).
- Surkyn J, Lesthaeghe R (2004) Value orientations and the second demographic transition (SDT) in Northern, Western and Southern Europe: An update. *Demogr Research Special Collection* 3:45–86.
- Alwin D (1990) Historical changes in parental orientations to children. *Sociol Stud Child Dev* 3:65–86.
- Lesthaeghe R, Surkyn J (2002) New forms of household formation in Central and Eastern Europe: Are they related to newly emerging value orientations? *Economic Survey of Europe* (UN Economic Commission for Europe, Geneva), pp 197–216.
- Arpino B, Esping-Andersen G, Pessin L (2013) The diffusion of gender egalitarian values and fertility. *The Fertility Gap in Europe: Singularities of the Spanish Case*, ed Esping-Andersen G (La Caixa Foundation, Barcelona), Welfare Projects, Social Studies Collection no. 36.
- Myrskylä M, Kohler H-P, Billari FC (2009) Advances in development reverse fertility declines. *Nature* 460(7256):741–743.
- Tsuya N (2006) [Patterns and covariates of partnership formation in Japan]. *Jinko Mondai Kenkyu (J Popul Probl)* 62(1-2):1–19. Japanese.
- Raymo J, Iwasawa M, Bumpass L (2008) Cohabitation and family formation in Japan. *Demography* 48(4):785–803.
- Lesthaeghe R (2010) The unfolding story of the second demographic transition. *Popul Dev Rev* 36(2):211–251.
- Esteve A, Lesthaeghe R, López-Gay A (2012) The Latin American cohabitation boom, 1970–2007. *Popul Dev Rev* 38(1):55–81.
- Lesthaeghe R, Neidert L (2006) The second demographic transition in the United States: Exception or textbook example? *Popul Dev Rev* 32(4):669–698.
- Lesthaeghe R, Neidert L (2009) US Presidential elections and the spatial pattern of the American second demographic transition. *Popul Dev Rev* 35(2):391–400.