

## Discussion of paper ‘Explanations of the fertility crisis in modern societies: A search for commonalities’, *Population Studies* 57(3): 241–263, by John Caldwell and Thomas Schindlmayr

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*The contributors to this discussion were invited to submit comments, each from a different standpoint, on the paper by John Caldwell and Thomas Schindlmayr that appeared in the preceding issue of the journal. The invitation was issued with the approval of these authors, and the journal is grateful to them for allowing their paper to be used to generate debate on the issues they had raised. The discussion is followed by the authors’ response to it.*

### The true commonality: In reflexive modern societies fertility is a derivative

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Most of our fertility measures have no explanatory power. For the explanation of observed levels and trends one has to rely on the originality, ingenuity, and empathy of experienced and well-trained researchers. Thus, the extensive search for commonalities underlying the currently observed very low levels of fertility undertaken by John C. Caldwell and Thomas Schindlmayr is highly laudable and welcome. But what should I say about their most important finding? They write: ‘That explanation at its broadest must be the creation of a world economic system where children are of no immediate economic value to their parents.’ I find that conclusion quite baffling. Children have not been a sound economic proposition since the decline in fertility began. And while economic considerations may have played an important role in determining the onset of fertility decline (wealth flow theory) and probably also during the modern rise of population when parents did, in fact, invest heavily in their children, they have lost almost all of their explanatory power in the post-transitional phase. With all respect I should like to suggest that the authors are barking up the wrong tree.

The true commonality, as I see it, is that in present-day societies, usually no longer called modern, but *late modern*, *postmodern*, or, as I prefer here, *reflexive modern*, fertility has become a ‘derivative’. To a

certain extent that term is a hyperbole. I use it deliberately to convey the idea that in reflexive modern societies fertility is the outcome of a process of self-questioning and self-confrontation by prospective parents. The woman will, in a way that befits her character and circumstances, typically ask herself: ‘Will my life, and the relationship with my partner, be enriched if I interrupt contraception and use my basic right to have a child, or an additional child now?’ The man will, in his own way, ponder essentially the same issue. If their answers are positive, the pair will do everything humanly possible to have that (additional) child. If necessary they will seek medical assistance (e.g., *in vitro* fertilization (IVF)), use a surrogate mother, try adoption, or even try to buy a baby. The right to have a child can be exercised fairly easily by a woman who prefers to remain single, usually even if IVF is preferred. In a few countries the right has also been granted to (legally married) male homosexual couples. The number of children is not a specific goal people set out to achieve when a relationship begins. Thus, the discrepancy between the ‘desired’, ‘wanted’, or ‘ideal’ number and the ultimately achieved family size frequently is quite marked. Whether people have children, have them early or late in life, and in or outside marriage, is the outcome of a sequence of decisions made when a particular issue presents itself. Then the pair will weigh a great many issues, including direct costs and opportunity costs, but their guiding light will be the outcome of self-confrontation. Would a conception and having a child be self-fulfilling? And from that

perspective, would the parental satisfactions, as the couple perceive them, offer a reasonable degree of compensation for everything that having and caring for a child, or an additional child, would entail for them?

Under such circumstances analysing fertility *per se* is not particularly enlightening, as the conclusions of Caldwell and Schindlmayr show. Childbearing has to be considered and explained in the context of the individualization of the life course and the process of family formation and the right to live a self-fulfilling life. The authors' problem, as I see it, is that they have not identified, or developed, a coherent explanatory framework in which they could fit the enormously large number of observations and facts that their search through the international literature yielded. As Stewart and Cohen (1997) rightly stress '... without a theoretical framework, the meaning of observations may not be clear'. Had they taken as their starting point Philippe Ariès' (1980) admirable paper on the two successive motivations for the decline of the birth rate in the West (a paper to which they do in fact refer), their conclusion might have been very different. In that paper Ariès argues that the decline in fertility that began at the end of the eighteenth century 'was unleashed by an enormous sentimental and financial investment in the child' while the recent decrease was 'on the contrary, provoked by exactly the opposite attitude'. He concluded that the days of the 'king-child' were over and stressed that henceforth parents would have children precisely because it would aid them in their self-realization and would enable them to 'blossom' and play their roles as adults. Needless to say, Ron Lesthaeghe and I were greatly influenced by Ariès' way of thinking when we conceptualized the Second Demographic Transition as a framework for explaining the remarkable changes in family formation and the completely unexpected and sudden decline in total fertility that began simultaneously in the countries of Western Europe after the mid-1960s.

This is not the place to elaborate that concept in any detail. Suffice it to note that the framework can accommodate virtually all of the points discussed by Caldwell and Schindlmayr very neatly. At the macro-level it deals with the structural, technological, and cultural changes in post-industrial societies (van de Kaa 1988/1944), while at the inter-connected micro-level it refers to the four dimensions later on identified by Janet Giele and Glen Elder (1998) as being crucial in shaping individual lives (human agency, location in time and place, linked lives, and timing) and thus take centre stage in life course analysis (Billari 2003). The numerous social scientists whose

writings I have consulted—Anthony Giddens and Ulrich Beck for example—see economic and technological changes as giving rise to the development of the modern welfare state. Evolving to a standard pattern, the post-industrial service economy is characterized by flexible specializations, continuous restructuring, and concentration without centralization, based on the extensive use of communication and information technology. Of immediate demographic relevance in such a setting are innovations in contraception and fertility regulation (pill, IUD, IVF), which diffuse rapidly and tend to generate changes in attitudes towards abortion and sterilization as well as in the legislation governing their practice. Social and cultural changes allow couples and individuals to develop an individualized lifestyle. A loss of tradition is common. Social classes dissolve. Primary and secondary groups (family, churches, trade unions) lose some of their significance. Social control is demystified and people claim equality of status as moral agents. Housing, income, and existential security are assured. Risks are mainly self-manufactured. An enormous expansion occurs in the options and choices available to individuals. It is increased scientific knowledge and incredulity over meta-narratives—to use Lyotard's expression—that leads to an attitude of reflection. There is a noticeable shift in the appeal of different guiding ideas (Simons 1977). Simple modernization gives way to reflexive modernization. The context in which young men and women make their vital decisions is very different from the one experienced by their parents, and they also differ from their parents in their human capital and knowledge. Similarly, the people they link their lives with, and use as a reference group, hail from a different 'mental' cohort. They expect a great deal—maybe far too much—from their partners (Santow and Bracher 1997), and pursue several parallel careers at the same time.

For such individuals and couples economic globalization is not irrelevant when making fertility decisions, but its influence is at best indirect. When one follows the analysis of that process as presented by Melinda Mills and Hans-Peter Blossfeld (in press), it comprises four interrelated structural shifts: (i) rapid internationalization of markets after the cold war; (ii) strong intensification of competition following deregulation, privatization, and liberalization within countries; (iii) accelerated diffusion of knowledge and spread of networks connecting markets around the globe; and (iv) an increasing impact of these markets at the national level and their dependence on events that may happen anywhere else on the globe. I readily concede that

these shifts may in certain countries have created greater uncertainty in the life of youngsters about to enter the labour market or with limited work experience. And where this has occurred it may have contributed to the emergence of cohabitation or the postponement of childbirth. However, as John Hobcraft and Kathleen Kiernan (1995) have clearly outlined 'becoming a parent' in reflexive modern societies involves making an important and long-lasting commitment. There is no economic or financial sanction if that commitment is not made. Thus, if for whatever reason the 'king-pair' feel that having a child, or an additional child, does not (now) serve their ultimate goal of self-realization they will continue to use contraception. Where permitted, abortion will be used as the ultimate means of preventing unplanned and unwanted births.

Of course, the influence of national and regional cultural endowments remains apparent. So far, for example, very low fertility has not become the norm in the USA. It is also evident that the degree of self-reflection and the level of 'sophistication' involved in making reproductive decisions will vary from region to region and among different sectors of a population. In some countries teenage pregnancies are common, elsewhere cohabitation is still frowned upon, and somewhere else again remaining childless still constitutes deviant behaviour. But such peculiarities can, in general, readily be explained. Take the case of Italy. Research data presented by Stefano Mazzucco at the Conference on the Second Demographic Transition held in Spa in 2003 indicate that a common reason for young people's hesitation to leave the parental home is reluctance to hurt the mother's feelings, while it is commonly expected of the parents that they should have saved sufficient money to help the newly-weds to buy a house or set up their household, or do both. No wonder cohabitation is still rare. However, that may soon change. At the European Population Conference in Warsaw a few months later Alessandro Rosina and Robina Fraboni reported that amongst Italian youngsters a majority expect to cohabit. It made Aat Liefbroer exclaim that there appeared to be a large 'unmet need for cohabitation' in the country. So much for what Caldwell and Schindlmayr describe as 'The Italian model'.

More difficult issues are posed by the experiences of Japan and several Central and Eastern European countries. These countries have in common the fact that very low levels of fertility were achieved well before modern contraception became generally available and also, I should like to note, well before economic globalization became in any way signifi-

cant. Another common feature of most, if not all, of these countries is that women were given easy access to abortion services decades before that issue was seriously discussed elsewhere in Europe or in the USA. In Japan abortion services were made available in 1948, a few years after that country's defeat in the Second World War, when bringing population growth under control rapidly was perceived as a national priority. In Central and Eastern European countries, the provision of abortion services followed the establishment of communist regimes in 1945 or soon afterwards, for well-known ideological reasons. In several of the latter countries 'fertility crises' were soon reported; in Hungary and Latvia total fertility dived below replacement level before 1965, just as in Japan. The usual policy response was to reduce access to contraception and abortion, to stress family values, and to introduce various measures making children a more attractive proposition (Sobotka 2001). Graphs displaying the course of total fertility for the countries of this region show clearly the, mostly temporary, effects of such measures. I have sketched elsewhere how in the mean time value change continued apace (van de Kaa 2003). After November 1989 the populations of all these countries succeeded, essentially through their own efforts, in freeing themselves from their oppressive regimes. No wonder that these 'economies in transition' rapidly became 'demographies in transition'. Now they frequently display, or begin to display, patterns of family formation and fertility very similar to those of the European countries where the Second Demographic Transition was first observed (Philipov 2001, 2003; Lesthaeghe and Surkyn 2002; Sobotka 2003). What the experience of Japan and the former communist countries suggests is that allowing women easy access to abortion may heighten their awareness of the reproductive choices (still) to be made, and on which one has every reason to reflect carefully. Do I, do we, perceive carrying the child to term now as being rewarding and the right thing to do? In that sense their experience can be interpreted as a precursor of the Second Demographic Transition (Fukuda 1997; Atoh 2001; Matsuo 2003). It also teaches the lesson of the 1930s again: if the circumstances are grim enough, or a couple's motivation is very strong, even imperfect means of contraception may drive fertility down below replacement level. That phenomenon has also been well documented for major (capital) cities during the first transition. The largely migrant population in such urban areas was strongly committed to upward mobility and hence to concentrating their investment on one or two children at most. Hiddo Jolles (1957) aptly described Vienna as

a city without offspring: 'Wien, Stadt ohne Nachwuchs'.

I enjoy reading broadly conceived papers such as that written by John Caldwell and Thomas Schindlmayr and I passionately believe that demography would benefit greatly from more such efforts to achieve syntheses. I am equally passionately convinced that, for reflexive modern societies, these syntheses can be successful only if one acknowledges and accepts that almost 40 years ago they experienced another change in demographic regime (Roussel and Chasteland 1997). The 'révolution démographique' based on what Adolphe Landry (1934) called the 'rationalisation de la vie' has been succeeded by one spurred on by what one might well call the 'individualisation de la vie'.

## Note

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### **Method, theory, and substance in understanding choices about becoming a parent: Progress or regress?**

#### **John Hobcraft<sup>1</sup>**

Caldwell and Schindlmayr provide a useful and fairly comprehensive review of recent work on the issues surrounding very low fertility. However, they then fall into the trap of trying to find an elusive single 'ultimate cause'. I shall argue that the conclusions in their final section are poorly argued, flawed, and much too dismissive of the literature they reviewed from the 1990s, so that their ultimate common explanation is a minor variant on the earlier theories they had previously dismissed.

In order to achieve a 'common explanation' we are advised to dismiss all the careful review of evidence on why and when very low fertility levels (here defined as a total fertility of less than 1.5) were achieved since 'the fertility differential between Northwestern Europe and the rest of Europe is too small to be taken seriously' and there 'is an extraordinary simultaneity in the contemporary world'! Do they really believe that sustained total fertility of 1.2 compared with 2.0 is of no consequence? The explanation of low fertility we are suddenly told, 'must be the creation of a world economic system where children are of no economic value to their parents'. Quite how this conclusion of economic determinism is reached remains unclear, but there seem to be echoes of an earlier Caldwell theory on 'intergenerational wealth flows'. We seem to have returned to the broad and vague explanations and theories about the (first) demographic transition. This presumption is perhaps confirmed in the opening sentence of their final paragraph: 'The broadest explanation would echo the 1937 view of Kingsley Davis that ultimately

reproduction of the species is not easily compatible with advanced industrial society.' Did the baby boom never happen? Can it be ignored or dismissed in the need for a 'grand theory of everything'?

Unlike Caldwell and Schindlmayr, I have no difficulty with accepting differing explanations for different regions and time periods, though these explanations need to be drawn from a common overarching framework. Hobcraft and Kiernan (1995) provided such a framework and used it to give a broad interpretation of long-term parenthood trends and of then-contemporary regional differentials in Western Europe. Even though this framework and subsequent developments (Hobcraft 1996, 2002) have been influential in the development of the UNECE Gender and Generation Programme (see Macura 2002), Caldwell and Schindlmayr seem unaware of it.

Nearly all demographers still wrongly focus their thinking and analysis on fertility rather than on becoming a parent, though concepts like replacement fertility, reproductive fitness, and quality children all partially recognize this at the macro-level (see also Hobcraft 2003; Worthman 2003). Yet any (possibly bounded or partial) rational-choice process has to involve some kind of judgement about fulfilling necessary conditions for becoming a parent and about the likely future stability of circumstances. Inevitably the partial information about public, private, familial, and individual contexts for and constraints on parenting also plays a significant part in such judgements. We also saw ideas (or perhaps cultures) as operating to facilitate or constrain parenthood and emphasized the need to consider pronatalist forces and biology (not just reproductive biology, but also evolutionary, genetic, brain, and endocrine pathways—see Hobcraft 2003 and, explicitly in the context of low fertility, Foster 2000). In some ways the review by Caldwell and Schindlmayr returns to this broad compass by bringing together many accounts with a narrower focus, though neglecting, among other elements, the serious treatment of partnership stability (also picked up by Lesthaeghe 2001) and of time constraints on individuals (see also Hobcraft 2000 for a model of time and income trade-offs with differing family and work combinations).

No real attempt is made to provide a justification for the authors' assertion that the 'overarching conditions common to all developed countries' that 'determine fertility decline ... must be the creation of a world economic system', characterized by 'the acceptance of liberal economic policies' being 'largely the outcome of the decision to award

economic growth a higher priority than demographic growth'. They also see rising educational attainment and increased participation of women in the labour force as being 'related integral factors', presumably meaning that these can occur only with the adoption of liberal economic policies. In contrast, 'differences at the national level in legislation, policies, and the response of the population to these institutional settings, as well as family structures, partner relations, childcare expenses, and attitudes towards children determine the shape of the (fertility) decline'. By implication national variations in economic policies and the (consequential) educational attainment of females and their participation in the labour force are deemed 'overarching conditions'. This distinction is patently nonsensical since economic regimes and policies and females' education and labour force participation clearly do differ among nations and are incontrovertibly an integral part of the factors shaping fertility differentials and change (not just decline). Moreover, there is no clear connection between high levels of education and labour force participation for women and the extent of economic liberalization (what of Scandinavia or of the former communist regimes of Central and Eastern Europe?), nor between liberal economies and lowest fertility.

The paper's valuable literature review correctly brings out the considerable emphasis that most recent commentators on fertility levels in the First World have placed on the constellation of gender structure and linked issues that are directly related to parenthood: time allocation between men and women and between paid work, domestic work (including direct childcare), and leisure; the ease of access to support from outside the family, through parental leave, childcare arrangements (familial, private, or public); compatibility of school hours with work; the structure of tax, benefit, and welfare systems; and acceptance of childbearing outside marriage and of mothers being in paid work. Yet ultimately Caldwell and Schindlmayr seem uncomfortable with these explanations, as is perhaps best shown by their curious and tautological dismissal of the issue of gender in the conclusion: 'It would be unwise to overemphasize sexual or generational conflict in the path to overcoming very low fertility'; followed by two unsubstantiated assertions. Quite why gender issues are restricted to sexual conflict and conflated with intergenerational issues here is unclear, as is the placing of 'gender inequity' in quotation marks earlier in the text.

I would argue that it is no accident that those societies in the First World that have moved further

towards achieving gender equity, in part reflecting greater acceptance of variation and more liberal attitudes, have both higher fertility and higher labour force participation among women. It is the very fact that their family and institutional structures have proved adaptable enough to enable women as well as men to choose to combine parenthood and paid work that has reduced the conflictual tensions that lead to low fertility. Thus Hobcraft and Kiernan (1995) argued that what matters is the reality of practical support to ease parenthood in North-western Europe, rather than the rhetoric of pronatalism in Southern Europe, and the reality of a somewhat more equitable domestic division of labour in North-western Europe rather than the rhetoric of an attitudinal commitment to egalitarian roles in Spain. Moreover, they argued that enabling the combination of motherhood and work, although leading to forgone leisure, was much more acceptable than the starker choice between work and motherhood in Southern Europe. McDonald (2000) provides a useful theoretical elaboration of the potential conflict between familial and individual institutions and Esping-Andersen (1999) responds to feminist comments on his earlier work relating familism and welfare regimes to reproductive behaviour. There are other important sub-themes including employment, housing markets, and normative pressures. We would add that many authors do include Germany and Austria in their broad accounts of European fertility (e.g., Hobcraft and Kiernan 1995; Esping-Andersen 1999) and that they are seen to be akin to the Southern European countries in most respects (as, to a lesser extent, are Belgium and the Netherlands).

The other key focus of the recent literature reviewed by Caldwell and Schindlmayr relates to the Second World and again quite correctly emphasizes the radical changes that have occurred in medium-term security and in institutional support for parenthood. Although we did not discuss becoming a parent in the Second World, the key role of medium-term security, including employment, housing, welfare smoothing, and partnership, was an important part of our framework (Hobcraft and Kiernan 1995). The point that Caldwell and Schindlmayr fail to take on board here is that, unlike First-World countries, the current mean age at childbirth in most of the Second World is in the mid-20s, rather than over 30 (see Sardon 2001) and thus there is plenty of time for cohort recuperation as argued by Kohler et al. (2002).

It is unfortunate that Caldwell and Schindlmayr marred an otherwise thorough and useful review by a misguided attempt to force an overarching explanation onto diverse situations. The proper focus

of interest in explaining low propensities to become parents is on patterns within diversity and on accounting for variations over time, and between and within regions and countries. Their literature review achieves this, but their conclusions are almost unrelated to the review and in many ways hark back to earlier theories and scares from the 1930s, being a form of economic determinism and explicitly acknowledging the similarity to Kingsley Davis.

It is a pity that they did not examine the experience of low and sometimes very low fertility in the 1930s. Their initial paragraph touches on these issues, and acknowledges that the dire predictions proved absurdly wrong. But they then discount this period as follows: 'It had required the dire economic conditions of the World Depression to produce even these modest changes.' As Kirk (1946) showed, net production rates of below 0.75 were widespread, with the national average for Germany, Austria, and Estonia being at this level around 1930, as was that for minor divisions in many other countries. Kohler et al. (2002, fn. 4) identify nine lowest-low (total fertility below 1.3) fertility districts around 1930: Vienna, which had a total fertility of 0.63, Sussex, Hampshire, Northamptonshire, Berlin, Oslo, Stockholm, Basel, and Geneva. Since these very low levels of fertility were achieved without modern contraception or legalized abortion they probably represent even stronger motivation to avoid childbirth than exists in any contemporary European society. The most thorough and frequently cited review of policies from this era was gloomy about the prospects for directly pronatalist policies (Glass 1940), a view directly echoed through direct quotes by Folbre (1994) and Hobcraft and Kiernan (1995) and reinforced by Gauthier (2001) and McDonald (2002). Surely a believable account of current low fertility has to acknowledge the mistakes of the 1930s and the subsequent baby boom of the 1960s, and not simply set these aside as minor inconveniences, along with all fertility differentials in Europe?

It is extraordinarily unlikely that we shall ever find a single, all-encompassing explanation for all fertility-related behaviour, whether the thinly veiled globalization case put forward by Caldwell and Schindlmayr in their final paragraphs (though they do not link it to the relevant literature on globalization or to its emphasis on ideational and political convergence) or other ultimate-cause explanations like evolution or God. Rather, different potential constraints will be of 'binding' importance at different times in different countries and contexts and even for different individuals within the same society and inevitably at different stages in the life course too. A framework

like that proposed by Hobcraft and Kiernan (1995) is essential for elucidating these various pathways. We shall get better and sharper insights into these (and other) processes when the UNECE Gender and Generation programme begins to provide detailed micro-level panel data buttressed by contextual information.

## Note

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## **Synthetic fertility measures and the search for commonalities**

### **Francesco C. Billari<sup>1</sup>**

In searching for a comprehensive theory that would explain the decline of fertility to very low and lowest-low levels, Caldwell and Schindlmayr confront an issue of great significance. A variety of analytical issues are embedded in the reasoning of their paper, and it is some of these that will be addressed here. For simplicity, we shall follow the authors in the definition of fertility as ‘very low’ when total fertility is below 1.5 births per woman—a threshold already adopted in the literature—and we shall follow Kohler et al. (2002) in the definition of ‘lowest-low fertility’ as total fertility below 1.3. This distinction between ‘low’ and ‘lowest-low’ is a key consideration for Caldwell and Schindlmayr: in their view, the choice

of a lower threshold is the reason why relatively little interest has been taken in explaining the very low fertility of large populations like those of Germany and Austria. We shall consider three issues: the relevance of small differences when fertility is particularly low; the role of period fertility measures; and the role of cohort fertility measures.

When fertility is below replacement level, a *difference* of 0.2 births does not have a negligible impact on population dynamics; in fact the lower the total fertility, the greater the impact of such a difference. Simple calculations based on standard stable population theory show that if total fertility stabilizes at 1.3, the long-run growth rate will be –1.57 per cent, at which rate the population will halve after 44.3 years. If total fertility stabilizes at 1.5, the rate becomes –1.07 per cent, with the population halving after 64.7 years. Moving 0.2 children downwards from 1.3, to a total fertility of 1.1, the rate becomes –2.14 per cent and the population will halve after 32.4 years. The importance of small differences in total fertility when fertility is below replacement level has been underestimated and will have to be reconsidered in future research. (The calculations assume that the mean age at childbearing is 29 years and the net reproduction rate is 0.4886 times total fertility.)

A central issue when theorizing about fertility decline is that of the measures of fertility chosen as ‘stylised facts’ for theorizing. To start with, let us consider the *period* dimension. In the presence of a widespread postponement of births, traditional period fertility measures have to be considered with great care, but they are essential when we want to study what is currently happening, and to capture changes in trends (Ní Bhrolchain 1992)—changes that produce substantial fluctuations in these measures. Period total fertility is the most widely used measure, and is the one used by Caldwell and Schindlmayr. This measure, which has also been used in defining the concept of lowest-low fertility (Kohler et al. 2002), is correctly criticized in the literature for being subject to various distortions. Over the years, various proposals have been made for ways of computing a distortion-free measure of period fertility that could be interpreted as being closer to behavioural choices (see the review in Ortega and Kohler 2002) but no such measure has yet been accepted. Total period fertility is in any case crucial because it is strictly linked to the number of births in a given period, and thus it tells us about the expected consequences of fertility change. Indeed Calot (2001) advocated its use as a measure only of the ratio of the size of the newborn generation to the generation of mothers. Its central role is ensured by its connection



with the number of births, with the age structure and in particular with the ageing of the population, and with cohort replacement. For instance, Easterlin-style homeostatic reactions, with a reversal of trend, could be triggered in future in populations with low and lowest-low fertility populations by the diminishing relative size of cohorts entering the labour market at reproductive ages. Thus relying only on the period total fertility rate as a starting point for a general theory of fertility dynamics can be hazardous, especially when fertility is sharply fluctuating.

Why would we not then focus only on *cohorts*? Total cohort fertility (a measure also used by Caldwell and Schindlmayr) is the only type of average measure that, in the absence of selection as a result of mortality or migration, actually reflects the behaviour of individuals. For this reason it deserves particular attention, and we should not be surprised by the recent heroic efforts to reconstruct the history of cohort fertility in a number of countries (Frejka and Sardon forthcoming). These reconstructions show, among other things, that completed cohort fertility has been declining in almost all low-fertility countries among women born in the late 1950s and early 1960s, with a few significant exceptions (USA, Denmark, and Lithuania). For the future, Frejka and Sardon expect a continuing decline of total cohort fertility in all low-fertility countries with the exception of the USA. Considering only cohorts that are very close to completed childbearing and for which data are available, Frejka and Sardon find recorded levels of very low fertility only in the two former parts of Germany: in the former Federal Republic of Germany an estimate for the 1965 cohort forecasts that it will achieve 1.48 children per woman, and a similar level (1.47) is forecast for the 1967 cohort in East Germany. Extrapolated data put Russia very close to very low cohort fertility (1.53 for the 1969 cohort). According to other extrapolations, published by the Council of Europe (2002), in Italy the 1965 cohort will have a total fertility of 1.48, and the same level is forecast for the 1970 birth cohort of the Eastern European country, Moldova. Given the persistence of low period fertility we can readily agree with Frejka and Sardon that countries like Italy and Spain will attain very low, if not lowest-low, fertility levels. However, when focusing on cohort fertility alone one of the main problems we confront is societal change. All European countries having lowest-low fertility levels at the end of the 1990s experienced dramatic changes some years earlier, with Italy as the sole exception. Greece and Spain became democracies in the mid-1970s, while the collapse of the Iron Curtain marked the great discon-

tinuity for Central and Eastern European countries around 1990. Thus, comparisons of current with earlier levels of cohort fertility may be misleading.

It is important to stress that while traditional demographic analysis may provide—with the necessary analytical cautions discussed above—stylized facts from which to start theorizing, putative explanations of the causes of the decline of fertility to very low and lowest-low levels, a decline caused by micro-level decisions, will have to be challenged with *individual-level* and *multi-level* international analyses. In fact, explaining very low and lowest-low fertility should be seen as the primary task for scholars designing and analysing the next generation of comparative demographic surveys.

### Note

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### The reasons for Eastern Europe's low fertility

#### Miroslav Macura<sup>1</sup>

In the second half of the twentieth century economic growth was a common and highly cherished goal of all the industrialized societies, no matter whether the

system of government was one of parliamentary democracy or of the kind that used to be called in Eastern Europe a 'people's democracy'. After the latter systems disintegrated in the period 1989–91, the goal of economic growth became ever more important to the new democratically elected governments, which to that end have been pursuing (some more vigorously than others) liberal economic policies as a mean of transforming command economies into market economies.

We believe that the search by Caldwell and Schindlmayr for an overarching explanation of very low fertility rightly focuses on the preoccupation with economic growth in present-day industrial and post-industrial societies. We find persuasive the authors' view that the 'creation of the world economic system' driven by liberal economic policies may prove in time to be the dominant force behind low, particularly very low, fertility, and that welfare regimes, family systems, and temporary economic crises will come to be seen as factors of second-order importance.

Our reasons for endorsing their view will become apparent if we consider the conditions that appear to have occasioned the onset and progression of fertility decline to low levels in the majority of Eastern European countries, particularly the conditions that may be helping to keep fertility grossly depressed at present. We shall seek to paint a picture more complex than the one offered by Caldwell and Schindlmayer. It is necessarily a broad-brush picture, and one which draws largely on works unavailable to these authors at the time they were writing and on some earlier analyses that were probably not readily accessible to them. To keep to the limits of a comment on their paper, we will confine ourselves to the countries with very low fertility within Europe proper, including Russia, often contrasting only the European post-Soviet countries with those immediately west of them.

After seeing period fertility moving around replacement level in the 1980s, the countries in question witnessed sharp fertility declines starting at some point in the period 1989–92 (Macura et al. 2000; Macura and MacDonald 2003). The fall was generally faster at the outset than subsequently, often decelerating markedly and coming to a halt at very low levels during the second half of the 1990s. In a few instances a moderate but unsustainable recovery occurred before the decade ended. The former European Soviet republics along with Bulgaria, the former German Democratic Republic (GDR), and Romania experienced the shift towards very low fertility during the period 1989–90, while for the Czech Republic, Hungary, Poland, and Slovakia the turning

point was in 1992. The postponement of childbearing played a role everywhere, however, and was a far more decisive factor, often right from the outset in the latter four countries, particularly the Czech Republic. In the European post-Soviet countries, postponement of childbearing started to occur relatively late, during the period 1993–95. Slovenia and Croatia were exceptions. There, the earlier fertility declines, mainly driven by postponement, continued into the 1990s, showing no signs of acceleration. In sum, there were variations across the region in the timing of the onset of fertility decline and its progression to very low fertility levels, and in the part played in the decline by postponement.

According to Macura and MacDonald (2003), the circumstances that prompted the onset of the decline varied between countries. In the former Soviet Union, the pre-eminent challenge of the new leadership installed in 1985 was to revive the stagnant economy. Their response was piecemeal reforms—*perestroika*, *glasnost*, and finally *demokratizatsiia*, over which they eventually lost control. The reform era was an unsettled and traumatic period for the Soviet citizen. Anomie and disorientation (Philipov 2003) along with uncertainty prevailed. These conditions underpinned the early stage of the rapid fertility fall, as young people adopted 'a wait and see' attitude towards marriage and childbearing. The economic crisis that first emerged in 1991 reinforced the trend, probably becoming the main driving force during the 1990s. It varied across the post-Soviet countries, with the Baltics being among the least affected. By 2002, none of the post-Soviet countries, save one, had seen their economies returning to 1989 levels.

In the former Czechoslovakia, soon to dissolve, and in Hungary and Poland the transition to a new system of government was peaceful and swift. Efforts at profound economic restructuring soon followed, and typically were driven by liberal economic policies. The relatively short-lived economic crises that ensued led to only modest output losses and recovery was not long delayed. However, as everywhere else, varying proportions of people left the labour force, unemployment grew, and real wages fell, partly as a result of inflation (Macura et al. 2000; Macura and MacDonald 2003). Some of these ills, unknown before 1989, have persisted to varying degrees until the present. The case of Poland is illustrative: a star economic reformer, the country had a dismal unemployment record in 2002—overall and below-age-25 unemployment rates were not much lower than 20 and 40 per cent, respectively. We believe that economic adversity was the key factor behind the onset of fertility decline in the Czech Republic,

Hungary, Poland, and Slovakia, and behind at least the early stages of its progression. Today, similarly adverse conditions probably still contribute to their very low fertility.

The declining economies could not continue to support a multitude of 'cradle to grave' state benefits and services that were characteristic of the generous socialist welfare state. Family policies, particularly public transfers and services to families with children, had to be curtailed or eliminated. Stropnik (2003) describes a myriad of changes that these policies have undergone since the early 1990s, a number of which sought to cushion, in the event ineffectively, the adverse impact that economic reforms had on the family. In many instances cash transfers to families with children, as a proportion of (often falling) average real wages, declined throughout 1997, though not by a large amount (Macura et al. 2000). The supply of new public housing, once a key means of support to families with children, probably dried up quickly, though little is known on this subject.

To sum up, disposable incomes fell, the monetary cost of children to parents rose as cash benefits declined, subsidized or free childcare services were scaled down or eliminated, and (probably) new public housing became scarce. Additionally, anomie, disorientation, and uncertainty grew. The reaction, an eminently rational one, to these conditions was to postpone or forgo births, demonstrating a distrust of the future among parents and parents-to-be. Clearly our analysis of the effects of economic downturn on childbearing is very similar to that of Caldwell and Schindlmayr.

When East European economies started to recover, new conditions began to emerge and started to influence childbearing decisions (Macura and MacDonald 2003). Many of these conditions are those that Caldwell and Schindlmayr identify as being behind low fertility in Western societies. The return to economic growth made it possible for incomes to grow, making children more affordable, *ceteris paribus*, but at the same time helping to alter spending patterns. Consumer products of all sorts appeared, and the desire for children was eroded by the yearning to enjoy products previously in short supply everywhere except in a few countries (Sobotka 2002, 2003; Macura and MacDonald 2003). The temptation to spend on pleasure-giving goods and services 'here and now' inhibited people from making the long-term financial commitments that childbearing entails.

In addition, the resumption of growth in a setting of liberal economic policy signalled that professional and financial success depended on the hard work,

competitiveness, and skills demanded by employers, who were now free to hire and fire at will. Young people responded to the challenge of success, probably thinking it wiser, to use the words of McDonald (2001), to be 'competitive, individualist and risk averse' at work than 'self-sacrificing, altruistic and risk accepting' in the family domain. Part of the evidence for this is provided by a sharp rise in enrolment in tertiary education—a road to future success in the labour market—in a number of countries in the 1990s (Macura et al. 2000; Sobotka 2002). This trend by itself contributed to the postponement of births and may in time lead to a further increase in childlessness and a strengthening of the trend, recently analysed, towards a single-child family (Macura and MacDonald 2003; Dorbritz and Philipov forthcoming). These considerations offer a response, necessarily a partial one, to the question posed by Philipov (2003) as to why economically better off countries do not have higher fertility at present.

We end this necessarily short and incomplete account of the processes behind the recent fertility change in Eastern Europe by briefly considering an issue that Caldwell and Schindlmayr do not address: what contribution might have been made by changes in norms, values, and attitudes. The Eastern European revolutions of 1989–91 swept away old norms, values, and attitudes concerning marriage, children and, more generally, the family, replacing them with more modern alternatives. Even if one were to think only of young people, this shift from old to new has been a process rather than an event, and a process still under way, probably in all countries. Opinions differ as to how it developed and contributed to very low fertility, possibly because the various authors appear to focus on different groups of countries. Writing about a variety of changes subsumed by the term 'second demographic transition', van de Kaa (2003) refers to a major shift in 'official value orientations in so many countries' during the last years of the former Soviet Union that occurred without 'significant outside assistance'. Philipov (2003) disagrees: '... one may ask how modern value orientations could develop in a suppressive regime like the totalitarian one'. We would agree with van de Kaa if he were referring only to Slovenia and Croatia and possibly to Hungary and Poland, and not also to the tightly controlled former Czechoslovakia, German Democratic Republic, Bulgaria, and Romania. But what about the former Soviet Union itself, particularly the European Commonwealth of Independent States? In attempting to explain trends in some of these

countries, Philipov's hypothesis of the effects of anomie may have more to offer.

From their analysis of the 1999 European Value Survey on living arrangements and values, Lesthaeghe and Surkyn (2002) conclude that 'many features of the "second demographic transition" ... are clearly visible in central Europe', namely in Croatia, the Czech Republic, Hungary, Poland, Slovakia, and Slovenia and that a diffusion of these features to other parts of Eastern Europe should not come as a surprise. Referring to fertility trends, they conclude 'that this implies that the spread of new patterns of household formation will continue to be one of the causes of the postponement of parenthood'. They hold a view similar to that of Caldwell and Schindlmayr, that economic recovery may help fertility recovery—"recuperation" after the age of 30—but also assert that the 'second demographic transition' and value orientations associated with it will become a fact of life. This should be probably interpreted as yet another indication of the scepticism expressed by Macura and MacDonald (2003) about the possibility of a considerable and sustained fertility upturn in Eastern Europe.

## Note

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## The 'curiously high' fertility of the USA

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When attempting to put together a comprehensive theory of low fertility, Caldwell and Schindlmayr are puzzled by fertility in the USA. They say: 'Perhaps what needs explanation is the curiously high fertility of the United States, and even that may be largely ascribable to a highly fertile immigration stream from Latin America.'

US fertility is 'curiously high' from the standpoint of the low-fertility countries, given that the principal mechanisms driving fertility down throughout the developed countries were present also in the USA. Before reviewing a number of opinions, hypotheses, and analyses offered to explain why US fertility is relatively high, one proposition can be added to the framework outlined by Caldwell and Schindlmayr. New scientific and technological advancements in all areas of human endeavour and enterprise as well as in management practices have emerged continuously

over recent decades at an unprecedented pace. That is an important reason why people need and get more education and training than ever before, and is reflected in the growing proportions of men and especially women who have acquired any type of education. Rather than being simply a ‘temptation’ (the term used in the paper), many young people see education as a necessary condition of being successful in a profession and of being able to earn a decent living. This forceful inner drive is as important a motivation as individual insecurity, and the latter may have been overemphasized by Caldwell and Schindlmayr. For instance, in the discussion of Eastern Europe, the shock at the disappearance of the guaranteed employment and social protection of the socialist state is repeatedly cited, whereas there is not a single mention of the attitudes and behaviour of generations born in the 1970s and early 1980s, many of whom would seek a solid education and advancement in professional life before forming families (Rabušić 2001).

When evaluating the demographic attributes of US fertility during the recent past, various features are noteworthy, apart from the fact that it was relatively high. Among the low-fertility countries, the USA has been the only country with fertility at replacement level. Furthermore, over the past 10–20 years, many aspects of US fertility have been stable,

especially in comparison with other low-fertility countries. Total period fertility has been within a narrow range of 1.8–2.1 births per woman for almost 30 years. Completed fertility has been at 2.0 births per woman since the cohort born in 1950, remaining at this level for the cohorts of the early 1960s, and is not likely to change for several more birth cohorts. Age patterns of fertility have remained the same since the cohorts born around 1960. The generations born in the 1960s and early 1970s, those that started or were in the midst of childbearing around the turn of the century, were not postponing births and their cumulative fertility rates have been stable. The parity distribution of cohorts in the late years of childbearing remained the same; in particular, the proportion of childless women among the birth cohorts of the 1950s and early 1960s remained almost constant (Frejka and Sardon forthcoming).

What then are the reasons why US fertility has differed from that of other low-fertility countries? Caldwell and Schindlmayr suggest that the difference ‘may be largely ascribable to a highly fertile immigration stream from Latin America’. That is part of the explanation but is probably not the major reason. The Hispanic population did have considerably higher fertility than the remainder of the population—about 70 per cent higher than the white non-Hispanics and 30 per cent higher than the blacks (Table 1). However

**Table 1** Estimated total fertility, intended and unintended, by poverty status and race/ethnic group, USA, 1994<sup>1</sup>

Race/ethnic group	Poverty status <sup>2</sup>			Total	Total fertility in column 1 and 2, respectively, as a multiple of >200% in column 3	
	<100%	100–199%	>200%		<100%	100–199%
<i>Total fertility</i>						
White non-Hispanic	1.97	2.36	1.57	1.78	1.3	1.5
Black non-Hispanic	2.87	2.40	1.75	2.35	1.7	1.4
Hispanic	3.97	3.00	2.16	3.04	1.8	1.4
<i>Total intended fertility</i>						
White non-Hispanic	1.09	1.47	1.24	1.28	0.9	1.2
Black non-Hispanic	1.17	1.24	1.09	1.16	1.1	1.1
Hispanic	2.62	2.03	1.57	2.08	1.7	1.3
<i>Total unintended/unplanned fertility</i>						
White non-Hispanic	0.88	0.89	0.33	0.50	2.7	2.7
Black non-Hispanic	1.70	1.16	0.66	1.19	2.6	1.8
Hispanic	1.35	0.97	0.59	0.96	2.3	1.6

<sup>1</sup> The table was compiled on the basis of detailed estimates provided by Stan Henshaw of the Alan Guttmacher Institute, New York. The estimates might contain a certain margin of error, but the orders of magnitude and the relationships between the categories are close to reality. For the methods used to provide the estimates see Henshaw (1998).

<sup>2</sup> Official definition for the poverty line was US\$17,020 for a family of four in 1994.

Sources: Henshaw (personal communications 2001), Frejka and Kingkade (2003).

because Hispanics accounted for only 12.5 per cent of the total population in 2000, their higher fertility raised overall total fertility by about 6–7 per cent at most compared with what it would have been if their fertility had been similar to that of the other groups.

A special report in *The Economist* (Anonymous 2002) suggested the following: ‘Perhaps the most plausible, if unprovable, explanation is that higher fertility was the product of the economic boom of the 1990s combined with what one might call “social confidence”: America was a good country to bring more children into.’ The ‘social confidence’ part of this hypothesis is indeed unprovable, and the prosperity part doubtful. In the years of economic recession before and following the economic boom of the 1990s, total fertility levels were identical to those of the years of the boom.

S. Philip Morgan (2003) considered another possibility in his presidential address—‘Is low fertility a 21st century demographic crisis?’—at the May 2003 meeting of the Population Association of America. When discussing reasons why US fertility was higher than that of Germany, he advanced the following idea: ‘Apparently, institutional responses other than government transfers, perhaps greater gender equality and labor market responses such as flex time, more than compensate for the paltry US government transfers.’ Morgan’s main message appeared to be: ‘Low fertility is . . . a problem that can be addressed through public policy and institutional adjustment . . . (it) is a problem that befalls developed countries that have the resources to respond’. Morgan implies that the overall institutional constellation in the USA is reasonably favourable for replacement-level fertility and furthermore believes that ‘(S)ocieties that can respond to the legitimate needs of their citizens and invest in the next generations will approximate replacement level fertility’.

Rindfuss et al. (1996) make a persuasive argument that a substantial weakening of the norm ‘mothers of preschool children should stay at home with their children’ played an important role in the stabilizing of US fertility. The majority of working women no longer believe that young children suffer from any adverse effects if women work. This study does not make any international comparisons. The fact that US fertility stabilized at a higher level than in other developed countries is the mainstay of the case that the attitudinal change contributed to higher US fertility.

Bélangier and Ouellet (2002) compared recent fertility trends in the USA and Canada and summarize the findings of their study as follows: ‘Unwanted pregnancies and births are more frequent

in the United States, as is the use of abortion, while Canadians use more effective contraceptive methods than Americans, partly because medical methods and sterilization are more accessible and less costly. Marriage takes place earlier and is more widespread in the US, and a higher level of religious practice is indicative of a more traditional and less secularized society than Canada. Lastly, access to the labour market is more difficult for young Canadians than for young Americans.’ While these conclusions are well substantiated and form part of the overall picture, additional insights can be gained through further analysis.

A case can be made that the following interrelated facts and circumstances have contributed substantially to high US fertility:

- (i) There have been significant fertility differentials by economic status, by educational attainment, and by race/ethnic group (Tables 1 and 2). The three race/ethnic groups included in the data constituted about 95 per cent of the total population.
- (ii) Fertility has been considerably higher among the poor and poorly educated of all race/ethnic groups than among the majority of the population (Tables 1 and 2).
- (iii) The prevalence of unplanned pregnancies and births in the USA has been the highest among the developed countries. (Unintended pregnancies and births consist of mistimed and unwanted ones. For a detailed analysis, including details of the termination of unintended pregnancies by induced abortions, see Frejka and Kingkade 2003.)
- (iv) There has been a positive relationship between poverty and fertility, especially between poverty and the prevalence of unplanned pregnancies and births, in all race/ethnic groups (Table 1).
- (v) The USA has had the most unequal income distribution among the developed countries and the relative size of the population living in poverty has been larger in the USA than anywhere else.
- (vi) The level of functional literacy has been lower in the USA than in other developed countries.
- (vii) Effective access to means of birth planning has been worse in the USA than elsewhere, especially for the poor and less educated.

Already in the 1980s the weight of unplanned births in total fertility was higher by significant orders of magnitude in the USA than in other low-fertility countries. For example, total unplanned fertility was seven times larger in the USA than in the

**Table 2** Children ever born, women 40–44 years old, by educational attainment and race/ethnic group, USA, 1998

Educational attainment	White non-Hispanic	Hispanic	Black
<i>Average number of children ever born</i>			
No high school	2.12	3.06	2.82
High school	1.90	2.21	2.13
Some college	1.74	1.98	1.90
Bachelor's degree	1.68	1.43	1.69
Graduate or professional degree	1.33	1.32	1.12
<i>Children ever born (graduate or professional degree = 100)</i>			
No high school	159	232	252
High school	143	167	190
Some college	131	150	170
Bachelor's degree	126	108	151
Graduate or professional degree	100	100	100

Sources: Bachu and O'Connell (2000), Frejka and Kingkade (2003).

Netherlands (Jones et al. 1989). This continued to be true in the 1990s when unintended births constituted a full one-third of total fertility. The 1994 estimates show that slightly less than a third of the total fertility of white non-Hispanics was unintended, and that this was the case for a third of the total fertility of Hispanics, and half of the total fertility of blacks (Table 1). Henshaw (1998) and Frejka and Kingkade (2003) contain detailed analyses dealing with pregnancies. In sum, these illustrate that '[D]uring the 1970s, 1980s and 1990s a considerable proportion of pregnancies in the United States were unintended, 49 percent in the early 1990s. . . . Since only about half of the unintended pregnancies were terminated by induced abortion, 54 percent in the early 1990s, a significant proportion of births were unintended, 31 percent of the total number of births in the early 1990s' (Frejka and Kingkade 2003).

Hispanic total fertility was 70 per cent higher than that of white non-Hispanics, as a result not only of high total unintended fertility but also because Hispanics wanted to have more children. Not so the black population: their total intended fertility was about the same as that of the white non-Hispanics, though their total unintended fertility was more than double that of the white non-Hispanics and somewhat higher than that of the Hispanics (Table 1).

Among all three main race/ethnic groups, total fertility was much higher among the poorer segments of the population. This was mainly owing to the differentials of unintended fertility. The income differentials of intended fertility among the whites and blacks were insignificant. Only among the Hispanics was total intended fertility perceptibly higher among the poorer segments. In contrast, the total unintended fertility of the population living in

poverty was considerably more than twice as high as that of the population whose income was at least double the official poverty level (Table 1).

Data on fertility by educational attainment and by race/ethnic group were available only for children ever born. These show similarly steep fertility differentials (Table 2).

In the year 2000 the proportion of the population living below the official poverty level (US\$17,020 in 1994 and US\$17,603 in 2000 for a family of four) was 22.1 per cent among blacks, 21.2 per cent among Hispanics, and 7.5 per cent among white non-Hispanics (US Census Bureau 2001). This corresponds to those in the category '<100 per cent' in Table 1. Our calculations indicate that in the '100–199 per cent' category there were about 27 per cent blacks, 29 per cent Hispanics, and 17 per cent non-Hispanic whites. In the '>200 per cent' category the proportions were 51, 50, and 75 per cent, respectively.

In the USA in the mid-1990s 16.9 per cent of the population were living in poverty compared with 11.9 per cent in Canada, 8.1 per cent in the Netherlands, 7.5 per cent in Germany, and 5.1 per cent in Finland. The Gini indices of income distribution for the respective countries were 0.372, 0.291, 0.253, 0.261, and 0.226 (Jesuit and Smeeding 2003). Both indicators can be used for international comparisons. In this paragraph the poverty line is defined as 50 per cent of the median disposable income (adjusted) in each country. This is larger than the official US government definition.

Conventional statistical data indicate that the population of the USA is among the best educated of the developed countries. In 1998 the USA had the lowest percentage of population with less than a lower secondary education, 14 per cent, and 35 per cent of

the population had a university or non-university tertiary education (US Census Bureau 2000). However, the quality of learning outcomes and the competence needed to cope adequately with the complexities of everyday life, particularly among the younger and lesser educated segments of the population, might be a factor more important than formal education in determining effective contraceptive behaviour. In a major cross-national study of adult functional literacy, these segments of the US population scored poorly relative to their counterparts in 14 Western countries (OECD 2000). This might be an important factor in explaining high rates of contraceptive failure and high rates of unintended, mistimed, and unwanted pregnancies and births in the USA.

Two multi-country comparative studies conducted by the Alan Guttmacher Institute (Jones et al. 1989; Darroch et al. 2001) revealed that high rates of unplanned pregnancies and births in the USA compared with other Western countries were in part caused by the deficiencies of the family planning delivery system, which was found to be characterized by disproportionate reliance on medical specialists, expensive services, inadequacies in providing effective choice of contraceptive, difficulties of access to reproductive health services, and limited sex education. The 2001 study also found a 'greater proportion of teenagers from disadvantaged families in the United States contributing to the country's high teenage pregnancy and birth rates'.

Undoubtedly the relatively high fertility of the USA is generated by a complex interplay of numerous factors, an interplay considerably more complex than that envisaged by Caldwell and Schindlmayer. A number of the more important ones among those reviewed above are reasonably well supported by evidence, including immigration, the institutional setting, attitudinal changes, religiosity, high rates of unplanned pregnancies and births related to poverty, functional illiteracy, and characteristics of the health-care and reproductive-healthcare delivery systems. As so often, many uncertainties linger and there might very well be factors that have been overlooked and that await investigation. The factors reviewed above are among those likely to figure in international comparative research that yields new knowledge of the critical mechanisms behind the fertility patterns and trends in contemporary societies.

## Note

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