FERTILITY DYNAMICS IN EUROPE: REFLECTIONS ON THE PRINCIPAL INTERPRETATIVE PARADIGMS IN LIGHT OF SOME EMPIRICAL EVIDENCE

Barbara Zagaglia, Eros Moretti

1. Introduction

Since the second half of the last century, European countries have undergone deep demographic changes, continuing along a path that they started more than a century previously. These transformations mainly concern reproductive behaviours, although major improvements have also been made in survivorship and important changes have affected migration flows.

The transformations have been so important that some scholars consider them to mark a new and autonomous path and interpretative scheme. We refer to the Second Demographic Transition (SDT) theory, which since it appeared in the second half of the 1980s, has been criticized on various grounds and to different extents (for a review, see, for instance, Lesthaeghe “Second Demographic Transition”, Basil Blackwell, and Lesthaeghe, 2010). At the same time, numerous explanations, not in opposition to SDT theory, have been put forward to account for a fertility decline below the replacement level and its further fall to lowest-low levels (for a review see, for instance, Zagaglia, 2006).

The SDT theory has developed in recent years, and it has been enriched with new investigations. Numerous doubts in its regard have been dispelled, and, today it is the prevalent explanatory paradigm in Europe.

In this paper, we consider the long-term evolution of the main dimensions of fertility in order to reflect on the theoretical bases of the dominant theory as it has recently developed. Owing to the limited amount of space available, we restrict the analysis and the consequent discussion to what we consider to be the main aspects of the theory, and we select countries according to the representativeness criterion.

---

1 Sections 1 and 4 are to be attributed to both authors, sections 2 and 3 to Barbara Zagaglia.
2. The present demographic regime according to the SDT paradigm

According to the SDT theory, the main characteristics of the present demographic regime are sustained sub-replacement fertility and a multitude of living arrangements other than marriage. Procreation is disconnected from marriage and relies on perfect contraception which is widely and socially accepted. (Lesthaeghe, “Second Demographic Transition”, Basil Blackwell).

To focusing on fertility - the most salient and least debated aspect of the SDT theory - the explanation for fertility decline below replacement level is the postponement of parenthood and the shifting of fertility to older ages (Lesthaeghe, 2010), while the ultimate and common cause of both of them are new life-style preferences, in particular value orientation towards individual autonomy and self-realization. Taken as a whole, the present demographic regime can be summarized as a low(er) and late(r) fertility regime (Lesthaeghe, 2006).

New values have been recognized as responsible for the shift to the new regime since the original formulation of the SDT theory by Lesthaeghe and van de Kaa (1986) and van de Kaa (1987). Recently, van de Kaa (2002) and Sobotka (2008) have demonstrated that those new values are good predictors of postponement.

We reproduce below the figure from Sobotka (Figure 1) which demonstrates the negative relationship between an index of typical SDT values and the date of onset of the postponement of the first birth.

The different timing of postponement reflects the European diffusion of the SDT from Northern and Western European countries to Southern and Central and Eastern Europe. In this regard, a first formulation of the theory (van de Kaa, 1987), which posited a sequence of four distinct phases with which the other European countries after Northern and Western countries could conform and through which they could pass, was later replaced by new evidence. In the 1990s, features of the SDT arose in the rest of Europe and, outside Europe, in Canada, Australia, New Zealand, the USA, Japan, South Korea, Taiwan, Hong Kong and Singapore, giving rise to multiple patterns or variants (Lesthaeghe and Neider, 2006 and Lesthaeghe, 2010).

According to Lesthaeghe (2010), in Europe, after the collapse of the Communist regime all the SDT features emerged simultaneously in Central and Eastern countries. Extra-marital fertility had already started to increase before the collapse (Lesthaeghe, 2010), but it greatly expanded after 1989, together with the postponement of childbearing and a rapid decline in fertility to very low rates (Sobotka, 2004).

---

2 Lower than the level of substitution and later than in the transitional regime.
3 This aspect was much disputed in the 1990s.
In Southern Europe, some SDT characteristics, such as the spread of alternative family forms and extra-marital births, were low for a long time, and residence in the parental home was prolonged. Recently, however, both cohabitation and births in informal unions have spread in many of these countries as well. Fertility and marriage postponement started late, but they were more noticeable and stronger than in Northern and Western Europe.

In these regions the recovery of delayed births at later ages has been weak, so that a pattern of lowest-low fertility has emerged in them.

Finally, as regards the countries which first entered the SDT and experienced all its features to the greatest extent, the SDT has developed further. In these countries, the proportions of births out of wedlock have further increased, and in Iceland, Sweden, Germany, Norway, and France, they are now extremely high. Northern and Western women postponed motherhood first and their fertility declined early, but a considerable recovery at older ages has now enabled them to reach high levels of sub-replacement fertility (Lesthaeghe, 2010).

Figure 1 – Relationship between a composite index of SDT values in 1999-2000 and the date of the onset of the postponement of the first birth

3. Long-term analysis of the timing-intensity relationship in some countries representative of the different variants of SDT

In this section we investigate the relationship between the shift of motherhood to older ages and fertility decline in a long-term perspective.

Indeed, whereas the relationship between SDT values and fertility postponement and the relationship between SDT values and fertility levels have been tested (Sobotka, 2008), a real test of the relationship between fertility postponement and fertility level is, to the best of our knowledge, still lacking in the literature. Moreover, analysis has usually concerned limited periods of time.

First, in line with the literature (Sutton and Mathews, 2004), we consider, as an index of postponement as well as a measure of cadence, the ratio between live births to women aged over thirty and those to younger women (less than thirty years old). The correlation between this index and the Total Fertility Rate (TFR) is shown in Figure 2 for selected countries and years.

In 1970, the correlation between the intensity and the cadence of fertility was positive ($\rho=0.7203$) and produced by two distinct scatters (split correlation). In the case of over-replacement fertility, higher intensities were associated with higher levels of the postponement index, while in the case of sub-replacement fertility, lower intensities were associated with higher values of the index of postponement. A negative correlation between the fertility decline and motherhood postponement was clearly apparent in the mid-1980s ($\rho=-0.6213$), when all the countries selected had fertility levels below replacement. According to our analysis, the negative and strong correlation has weakened since the mid-1990s ($\rho$ equals to -0.0682, 0.1091, and -0.3120 in 1995, 2005 and 2010, respectively), as the SDT has spread to Central, Eastern, and Southern Europe, and it has happened earlier than stated by Lesthaeghe (2010). Here, due to the limited space available, we focus only on some countries selected in order better to represent the different variants of the SDT. However, similar results hold when the full set of European countries is considered.
Moreover, because at high intensities of fertility the postponement index may not show a change in the timing of childbearing owing to the high proportion of high-order births to women aged over 30, we consider a different and more robust indicator of fertility postponement: the mean age at first birth (MAFB).
Figure 3 – Relationship between TFR and Mean age at first birth, 1960-2010.

Figure 3 shows the joint path of MAFB and TFR for individual countries. Two different patterns are apparent. One pattern, for the first SDT movers (Northern and Western countries), is characterized by a dissociation between the fertility decline and the delay of motherhood which contrasts with what the SDT theory states. In Belgium, France, Finland, the Netherlands, the United Kingdom, fertility fell below replacement level without postponement, which, instead, to a larger extent appeared later, when fertility was below replacement. A second pattern, by contrast, is characterized by changes (decreases) in the fertility intensity associated with changes (increases) in the timing of fertility, in accordance with the SDT theory. This pattern is exhibited by Czech Republic, Hungary, Greece, Italy and Spain, Central, Eastern, and Southern European countries and late comers in the SDT.

5. Final remarks

We have focused on the demographic aspect of the prevalent paradigm explaining the persistent low fertility in Europe, and we have analyzed the long-term relationship between the level and the timing of fertility. The results challenge the causal relationship between the postponement of childbearing and fertility decline that is a central feature of the SDT theory. In this regard, the Northern and Western pattern proves not to be representative for the SDT. According to our findings, the salient SDT characteristics on fertility fit better with the late comers than the first movers. Moreover, the recent and long-lasting dichotomy between lowest-low and highest-low fertility (where the distinction is a TFR lower or higher than 1.5), which is unrelated to changes in the cadence of fertility, weakens the explanatory power of the SDT paradigm in favor of other theories. In particular, institutional perspectives seem better to explain the most recent dynamics of fertility. Indeed, the role played by the social and economic structures, together with the policies implemented, may be crucial in orienting the fertility choices of individuals.

References


Except Norway, not included due to few observations.
In this paper, we discuss the principal interpretative paradigms of recent reproductive dynamics in Europe. We focus on the Second Demographic Transition theory and analyze the long-term relationships between childbearing postponement and change in fertility intensities. We find results at odds with the theory.

Barbara ZAGAGLIA, Università Politecnica delle Marche, b.zagaglia@univpm.it
Eros MORETTI, Università Politecnica delle Marche, e.moretti@univpm.it