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Explaining Attitudes Towards Demographic Behaviour

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Abstract: In recent decades, Europe has witnessed dramatic changes in demographic behaviour manifested by postponement of childbearing, cohabitation replacing marriage together with increased divorce rates. It is often argued, especially in the demography literature, that these new behaviours are driven by fundamental changes in attitudes and value orientations. This article uses data from the third round of the European Social Survey to assess the drivers behind attitudes to demographic behaviour. There are large differences across countries, and we find that economic development is indeed a strong predictor for modern attitudes. However, attitudes towards demographic behaviour correlate with many other country-specific characteristics, some challenging popular wisdom in the demography literature.

Introduction

Societies continuously change and evolve over time, and with them the attitudes, norms and value orientations individuals assume. Going through civil wars, foreign dominations, scientific progress, industrialization and religious revolutions, societies mature, and accumulate cultural heritage that is at the basis of social and demographic progress. The path towards modernity is a long and slow process that extends over time. However, looking at the extent to which European societies have adopted modern or, to put it in Inglehart's words, 'post-materialist' (Inglehart, 1997) value orientations and behaviours, we observe significant cross-country variation. While some countries, such as the Scandinavian ones, are well ahead in embracing post-material attitudes, others, such as the Mediterranean ones, appear to be having a hard time in leaving them behind.

Attitudes and value orientations play a key role in explaining demographic behaviour (Moors 1997, 2002; Thornton, Axinn and Xie, 2007). During the demographic transition, characterized by a decline in mortality and fertility rates—predominantly driven by scientific improvements emerging in the late 18th and of the 19th centuries, it is argued that couples adjusted to the new environmental setting, lowering their desired and effective fertility (Lesthaeghe and Van de Kaa, 1986). Under the new circumstances, it was no longer necessary to generate a large off-spring as a means to guarantee old age support. Moreover, due to new production technology the demand for cheap labour by children weakened. A key argument however, is that the demographic transition was not a consequence of a change in the attitudes towards the family; rather it was the result of an adaption of traditional values to a new environmental setting. This is in contrast to the opinion of those arguing that we are now seeing a Second Demographic Transition (SDT), which is characterized by new forms of living arrangements and postponement of family formation and fertility. In the demography literature, where the notion of a second demographic transition has gained huge popularity, the argument is that new demographic behaviour has come about because of fundamental changes in individuals' attitudes and value orientations (Lesthaeghe and Van de Kaa, 1986; Lesthaeghe and Meekers, 1986; Lesthaeghe and Moors, 2002; Surkyn and Lesthaeghe, 2004). Insights from sociology show indeed that modern attitudes have

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spread in accordance with the trend in new demographic behaviour. There is, however, considerable disagreement about whether new demographic behaviour represents a transition in the same spirit as the demographic transition witnessed during the industrial revolution. Those taking a cultural evolution approach argue that new value orientations are driven by economic development, and that modern attitudes follow a continuous diachronic path. In their view, differences in today's modern attitudes are a natural consequence and continuation of the societal transformation set in motion by the Industrial Revolution.

In light of the dramatic demographic changes that we have seen in recent decades, and the rather striking diversity across European societies, the aim of this article is to improve our understanding of the underlying mechanisms driving modern attitudes, especially towards demographic behaviour. Rather than measuring attitudes in a general way, we construct a measure from five items asking specifically about approval or disapproval of demographic behaviour, all included in the third round of the European Social Survey (ESS). We apply a standard multilevel regression model to decompose variation in attitudes to individual, regional and country levels, hence enabling us to assess the extent attitudes are associated with differences in characteristics measured at those separate levels. Our study is based on a cross-sectional survey, which means one cannot easily provide any formal tests of the various explanations on offer for why countries progress differently in the path of gaining modern attitudes. However, our analysis does bring about insight which challenges popular wisdom in the demography literature. For instance, liberal attitudes towards demographic behaviour are strongest in those countries that also have strong civic engagement and high frequency of voluntary activity. Not surprisingly, these countries are dominated by the Nordic ones, where public support and welfare provision is highly generous, casting doubt on the notion that new and modern forms of demographic behaviour follows a path of individualization—in so far this is seen as a progressive isolation of the individual from the members of a society and from its institutions.

Whereas we do not make any causality statements in this analysis, we show that structural factors matters hugely in explaining country differences in attitudes towards demographic behaviour. An important finding from the analysis is that economic development—not only measured in terms of GDP per capita, but also through levels of corruption, gender equality, voluntary activity, and trust, explains a large part of the country differences in attitudes to demographic behaviour. Moreover, provision of childcare services correlates positively with modern attitudes, so does more diachronic elements such as state antiquity and social capital. Our interpretation of the strong correlation between trust, voluntary activity, and social capital—on one hand—and modern attitudes on the other, is that those countries scoring highly on these measures also have weaker family ties. In practical terms, this means that in highly developed countries, individuals, and couples are more willing to outsource family activities that traditionally were assigned to the family. Since state institutions provide high-quality care for both children and the elderly, individuals tend to have less traditional attitudes towards the role of the family.

Background

Evolution of Attitude Towards Demographic Behaviour

Until the rise of the Industrial Revolution in the 18th century, European societies were characterized by a common set of 'traditional attitudes' (Inkeles and Smith, 1974) typical of pre-industrial societies, the most important being support for high-fertility rates and close family ties. In such traditional societies, the family occupied a central role, being a fundamental source of social and economic insurance for the individual. The Industrial Revolution represented a major turning point in the process towards modernity. The 18th and the 19th centuries witnessed a series of groundbreaking technical improvements and scientific inventions that created fundamental economic and social changes (Landes, 1998). The economic and scientific changes brought about by the Industrial Revolution did indeed leave a deep mark in the demographic outlook of European societies manifested by a shift from a high-mortality and high-fertility demographic equilibrium, to a low-mortality low-fertility one, commonly known as the demographic transition. As mortality rates started declining markedly, couples adjusted to the new environmental situation by lowering their desired and effective fertility rates (Lesthaeghe and Van de Kaa, 1986). While family values remained strong, optimal fertility rates declined substantially.

During the 1960s and the 1970s, fertility rates in Europe began to decline below replacement, reaching rather low and hitherto unprecedented values. At the same time, new forms of demographic behaviour emerged, including high rates of cohabitation—replacing marriage, high divorce rates, high out-of-wedlock childbearing, high women's empowerment and emancipation, and early departure of the young from the family of origin (Van de Kaa, 2002). The French historian Philippe Ariès

(1980) was one of the first to identify and describe the change in demographic attitudes and value orientation taking place during the 1960s and 1970s. He emphasized the importance of culture in determining such a shift, rather than being driven by structural factors. A widely held view is that in post-industrial societies, a weakening of traditional family conventions is bound to occur. With the emergence of economic freedom and choice, in part driven by free market forces and globalization, individuals are also faced with a greater range of acceptable alternatives in almost all spheres of social life—which would include the way they choose to organize their family (Giddens, 1991; Beck, 1992).[1] Changes in attitudes and values are largely consistent with the behavioural trends (Ingelhart, 1990), suggesting that attitudes towards demographic behaviour have developed in tandem with new demographic behaviour (Glenn and Weaver, 1979; Inglehart, 1990). In the demography literature, these new demographic behaviours are referred to as the *second* demographic transition. The idea is that in many European countries, spearheaded by the Scandinavian ones, the importance of the family declined and was replaced by widespread support for more liberal demographic behaviours, such as divorce, cohabitation, and out-of-wedlock childbearing (Van de Kaa, 1987). The new demographic behaviour is characterized by the progressive independence of the members of a society who give increasing importance to their own realization (rather than to their family's or to their children's); to their psychological (rather than to their material) well-being and to their personal freedom of expression (Van de Kaa 1987, 1994). It is further argued that new demographic behaviour is the result of a fundamental change in the cultural orientation of the people (Van de Kaa, 2002) who now embrace modern attitudes and values. That is, the low-fertility rates arising in modern societies are the expression of a new set of attitudes: children lose their centrality, in the sense that they are no longer perceived as essential for their parents' achievement of personal satisfaction and realization. At the same time, also the family, as an institution, loses the importance that characterized it before: marriage becomes less popular, and the number of divorces, cohabitations, working mothers, and lone parents rises. Today, we are faced with a substantial degree of heterogeneity in the extent to which societies across Europe have embraced modern demographic attitudes and values: in some countries, headed by the Scandinavian ones, modern practices such as divorce, cohabitation, and out-of-wedlock childbearing have gained widespread support; other countries instead, such as the Mediterranean ones, are still characterized by rather traditional attitudes.

The Drivers Behind Modern Demographic Attitudes

To say that there is no single 'recipe' for becoming modern is of course a truism. Indeed, it is certainly not possible to single out a precise set of factors that, if implemented, will eventually lead a country towards the acceptance of modern demographic attitudes. In other words, abandoning traditional values and moving towards more liberal attitudes is a complex phenomenon, which does not easily allow a simple theoretical explanation. Nevertheless, it is still possible to perform an empirical analysis of the factors that characterize and distinguish countries on the frontier of modernization from those that lag behind. By looking at the main structural and cultural differences between countries at different stages of the modernization process, it is indeed possible to grasp precious insights on why people's acceptance of modern demographic attitudes varies significantly across European countries, thus giving at least a partial explanation of what it takes to be modern.

There is strong evidence that *economic development* is positively correlated with higher acceptance of modern demographic attitudes and behavioural norms (Inglehart and Baker, 2000; Algan and Cahuc, 2007; Newson and Richerson, 2008). However, as depicted in Table 1, which shows correlations between key aggregate indicators, economic development is accompanied by changes in many other dimensions of our societies. Income per capita is for instance a powerful predictor of both the level and the quality of *educational attainment*. In other words, in wealthier countries people are, on average, more and better educated. The importance of education for the acceptance and the diffusion of modern attitudes are well documented in sociology and demography. Essentially, education favours the spread of nonconformism, lowers the importance of religion, increases the tolerance of unconventional sexual behaviour, and fosters the relevance of personal self-realization (e.g. Thornton, Axinn and Xie, 2007). In addition, education is found to be associated with more liberal attitudes with respect to the sphere of family ties (De Feijter, 1991). *Gender equality* and *women's empowerment* are other two important social consequences of the diffusion of education. Wealthier and more educated societies tend to show a higher level of equality between the genders and higher female labour force participation. Sobotka (2008) stresses the importance of women empowerment for the move of societies towards postmodernism. In particular, he argues that countries where the gender revolution spread sooner adopted a series of norms and institutional features that allowed a faster acceptance of postmodernism. Gender equality, women's

Table 1 Correlation between key aggregate measures

	Female Labour Force Particip. Rate (2006)	Gender Global Gap (2006)	GDP per capita (2006)	Corruption Perception Index (2006)	Gender Empowerment Ratio (2005), FR missing	Women in Parliament (2006)	State Antiquity Index	Enrolment Rate of children <2 CH missing	Place availability for children 0-2 CH, LV, RU, SI, UA missing	Spending on childcare services (2005), % GDP RU, UA missing	Trust in institutions, country mean	Social capital, country mean	Voluntary activity, country mean
Female Labor Force Participation Rate (2006)	1												
Gender Global Gap (2006)	0.5019	1											
GDP per capita (2006)	0.5313	0.6215	1										
Corruption Perception Index (2006)	0.5632	0.6706	0.9238	1									
Gender Empowerment Ratio (2005)	0.4943	0.7924	0.9111	0.9090	1								
Women in Parliament (2006)	0.3430	0.7894	0.6360	0.7282	0.8984	1							
State Antiquity Index	0.0923	0.1057	0.5154	0.5020	0.5580	0.4416	1						
Enrolment Rate of children <2	0.5955	0.3955	0.4790	0.5512	0.4965	0.4117	0.2323	1					
Place availability for children 0–2	0.4134	0.3523	0.3393	0.4863	0.5197	0.4466	0.0833	0.8403	1				
Spending on child-care services (2005), %GDP	0.2386	0.4316	0.2060	0.4039	0.4463	0.4210	0.2956	0.5652	0.7170	1			
Trust in Institutions, country mean	0.6524	0.5849	0.8352	0.8971	0.8617	0.7244	0.3503	0.6073	0.6078	0.4688	1		
Social Capital, country mean	0.4284	0.5247	0.6293	0.6741	0.7141	0.6422	0.6062	0.5070	0.3655	0.3036	0.4741	1	
Voluntary Activity, country mean	0.5189	0.4589	0.8108	0.7308	0.7297	0.4607	0.3817	0.4168	0.3083	0.1973	0.7025	0.3391	1

empowerment, and extended female labour force participation are all important drivers of the modernization process, because they enable women to break with the traditional social position they had occupied in the past. Empowered women can decide to have or not to have children, they can decide whether to keep on working while they have a young child, they can decide whether to marry or to cohabitate. In other words, they are, to a much larger extent, free from the social and institutional constraints that had limited their possibility of supporting and implementing modern demographic behaviours.

The *political* and *institutional framework* is of course important, the argument being that the system of social and economic policies implemented by the government will determine the easiness with which individuals can adopt modern values and attitudes. In particular, by providing generous and universal social support, individuals may feel less constrained by norms that in traditional societies were maintained through close family ties and intergenerational transmission. The second half of the 20th century has indeed witnessed a progressive increase in the level of state-provided social and economic support, thanks to the upsurge and the diffusion of the welfare state across the majority of European countries, and as argued by Sobotka (2008), it has enabled European citizens to embrace post-modern attitudes. The creation and diffusion of a broad and, historically speaking, generous safety net are key for individuals' opportunity set, especially for women, making it easier for couples to divorce, to cohabitate or to have children outside marriage. The importance of state intervention for the diffusion of modern attitudes and values is likely to be greatest in the area of *childcare*. Provision of extensive and high-quality public childcare makes it easier for women and couples to combine childbearing and work. Interestingly, these features of welfare provision tend to follow economic development. Table 1 shows a clear positive correlation between economic development and provision of public childcare. Moreover, the social and economic costs associated with divorce or having children outside marriage become lower as welfare is becoming more generous and universal.

Should one conclude that the present economic and institutional conditions of a country are enough to explain the differences in attitudes documented today across European countries? In other words, would a country like Italy move quickly to modern demographic attitudes if it were given the institutional and political framework of Denmark? Even though *structural* factors are important drivers of demographic attitudes, the answer to these questions is likely to be a sound 'No'. The reason is that culture and value systems change slowly over time—responding to economic and political shocks with significant temporal lags. Both the economic and sociology literature stress the importance of *persistency* of attitudes and of institutional outcomes over time (Inglehart and Baker, 2000; Tabellini, 2008), thus pointing out the fundamental relevance of past historical experiences in explaining today's worldviews and demographic attitudes. The *political* and *institutional history* of a society affects the prevalent present-day value system through a variety of channels and mechanisms that extend over time and act through lags. One factor would be how 'old' a country is and how politically independent it has been during the course of its 'life'. Why should this matter? The key is that countries that have been existing as independent entities for a longer time have had more opportunities to build up civic values and interpersonal trust. Older countries have had a longer history of political confrontation and debate. The mere fact of being united in one single independent country creates a strong incentive for people to worry about the *res publica* and to get together in the political arena. By discussing and interacting with one another, individuals get closer and share ideas, causing social capital and trust to increase. In addition, countries that have existed for a longer time have gone through a larger number of social and economic shocks: social conflicts, civil wars, invasions, economic booms, and depressions are events that contribute significantly to the formation and the accumulation of civic responsibility and trust within a unified society. Going through such hard shocks, a country matures, and social capital is formed. The sociological and economic literature has acknowledged the importance of political independence and self-determination over time for the formation of good culture and interpersonal trust within a society. During the 1950s, the American sociologist Edmund Banfield conducted a study in a small village of southern Italy. By examining closely the social interactions of the inhabitants of Chiaromonte (the name of the village), he finds that people seek to maximize the short-term interests of the family members, totally disregarding the communitarian interests of the village. In his book, *The Moral Basis of a Backward Society* (1958) this phenomenon is termed 'amoral familism'. According to Banfield, the lack of civic sense in Chiaromonte is due to the absence of self-determination and of political autonomy. Centuries of feudalism and servile relationship with the local landowners have created a total detachment of the inhabitants from any form of enlarged cooperation or association outside the family, and a pervasive sense of distrust for each other. The southern society has fallen into a low social capital equilibrium, which may be self-reinforcing, and bound to produce even more distrust

and loss of hope among future generations. Taking a close look at the Italian society over two decades, David Putnam (1993) makes the argument that differences between the good institutions of the northern cities and the poor institutions of the southern have origins that trace back to the Middle Ages. The key lies in the divergent political experiences that characterized Italian cities >500 years ago. The northern cities were (for the most part) independent city-states. This has created a sense of trust in the institutions and in the community as a whole, which has been transmitted from generation to generation, and which is partly responsible for the presence of civic sense and good institutions today. The southern regions instead were doomed by a series of foreign dominations and were never able to experience self-government. This has generated the feeling of detachment and loss of hope which was documented by Banfield and which is, according to Putnam, the main driver of today's institutional backwardness in the southern Italian regions. Recent economic and sociological research confirms these findings. Inglehart and Baker (2000) argue that the contrast between local control and domination by a remote hierarchy has important long-term consequences for interpersonal trust. In addition, drawing from the results of Banfield and Putnam, Tabellini (2008) shows that past negative political experiences create a latent and pervasive sense of distrust towards the community at large.

The above discussion stresses the role of historical experiences in the building up of civic sense, interpersonal trust, and social capital. Two main channels are likely to explain why they may cause individuals to show a higher acceptance for modern and liberal demographic behaviour. Even though different, these channels are related and mutually reinforcing. Starting from the assumption that people do need a source of safety and insurance to rely on, the first channel argues that individuals with a higher trust to other people feel confident in substituting the safety net provided by strong family ties with the web of support they find in the community. The trust they have in the state and the community allows them to go beyond the family as seen in a traditional sense. Since they feel that the social and economic support they need in their life is provided by the state and the community, the family loses its shell of social and economic support and insurance, while still maintaining its nucleus of sentiments and emotional bonds. In a certain sense, the community becomes part of the family of each individual. As a consequence, individuals in such societies are comfortable in accepting behaviours expressing lower reliance on the family, like never having children, cohabitating, having children outside the marriage or getting divorced if young children are involved. The second channel draws instead from recent research findings concerning demand for regulation (Aghion *et al.*, 2010). They show that individuals that have a lower trust in institutions and in the community exhibit a higher demand for regulation. At a community level, this translates into more bureaucracy, more state intervention and more governmental interference in the productive side of the economy. The reasoning of Aghion *et al.* can be applied at the individual level to explain variations in beliefs about demographic behaviour. That is, a society trapped in a low-trust equilibrium tends to show a higher support for regulated types of social behaviour, which would include marriage over deregulated demographic behaviour such as cohabitation. On the contrary, low demand for regulation typically seen in a highly trusting society may translate, at the individual level, in higher support for the less regulated patterns of demographic behaviour, such as cohabitation, out-of-wedlock childbearing and divorce.

Taken together, the above reasoning suggests a number of factors that may be important in explaining attitudes towards demographic behaviour: some of these, such as income per capita and government social expenditures, can be thought of as being of a *structural* nature; others, such as the level of interpersonal trust and civic engagement can be referred to as *historical* or *diachronic*, due to their persistency over time.

Empirical Approach

We use the ESS to compare differences in attitudes towards demographic behaviour among individuals residing in 24 different European countries. Thus, differences in family attitudes are comparable between individuals and across countries in so far the questions are interpreted the same way across countries. The use of a cross-sectional sample means, however, that one has to assume that current differences are resulting from a dynamic process, whereby some societies may have progressed further than others. From a statistical point of view, it also means that it is difficult to establish causality between attitudes and the emergence of structural constructs of societies, or at least, it is difficult to identify its magnitude.

Defining Family Attitudes

The process of modernization is inherently dynamic in nature. As we have argued, the drivers behind it evolve over time, some very slowly (diachronic elements) and other more rapidly (structural elements). Ideally, one would use information on how attitudes evolve over a relatively long time span for a wide range of societies,

and thereby assess their evolution alongside changes in both the diachronic and structural factors. Needless to say, such data are non-existent and even comparative information on attitudes at one point in time is rare. The ESS is an exception, as the rotating module in 2006 contains specific questions related to the approval (or disapproval) of various dimensions of demographic behaviour, including marriage, divorce, childbearing, and women's employment decisions were included. Related measures include the one used by Liefbroer and Fokkema (2008) who compares attitudes across Europe and by Sobotka (2008) using eight questions recorded for 29 countries drawn from European Values Study in 1999—2000 and tabulated in Halman (2001). However, the index is rather broad in that it covers not only values and attitudes linked to new demographic behaviour, but also measures of non-conformism and secularization (Sobotka, 2008). Our Family Attitude Index (FA for short) is more direct and derived from the following questions:

- Approve if person chooses never to have children?
- Approve if person lives with partner not married?
- Approve if person has child with partner not married to?
- Approve if person has full-time job while children aged <3 years?
- Approve if person gets divorced while children aged <12 years?

All these items are evaluated on a scale from 1 (strongly disapprove) to 5 (strongly approve) and the resulting index is derived using the factor scores from a standard factor analysis (see details below). It is important to reflect on what our FA index is measuring and how it relates to the existing literature. First, the way the questions are formulated in the ESS (in particular, individuals are asked about their approval or disapproval) alludes to individuals' subjective norms. Whereas disciplines differ in their meaning of what attitudes are, perhaps the most precise formulation is found in the Social Psychology literature. In particular, the Theory of Planned Behaviour (TPB) offers a precise and schematic suggestion of how norms, attitudes and value orientations differ (as well as perceived behavioural control), but also how they are linked together and drive intentions and consequently behaviour (Ajzen, 1991; Ajzen and Fishbein, 2005). With background in the TPB, Ajzen (1988) defines an attitude as a 'disposition to respond favourably or unfavourably to an object, person, institution or event'. A norm instead is defined over the extent in which key reference individuals approve or disapprove of certain behaviours. The *subjective* norm is a measure of normative beliefs an individual acquires from the approval or disapproval by key individuals of his peer group. Thus, a precise measure of a subjective norm would first require information about which individuals are considered most important, and then to ask about their approval or disapproval of certain behaviours. Instead, the question is directed to the respondents' own approval or disapproval. As such, the questions in ESS reflect subjective norms in a much broader way.

Attitudes and subjective norms are highly correlated, and given that the questions do not measure subjective norms in a precise way, we think of our dependent variable as a general attitude towards demographic behaviour, where a high value reflects a liberal predisposition, hence reflecting more modern attitudes. A low value in contrast reflects a conservative predisposition, and hence less modern attitudes. Table 2 shows the mean values of the index. There is large heterogeneity across European countries and not unexpectedly we find a high level of approval in Scandinavian countries, lower levels in Mediterranean countries, and the lowest levels of acceptance in the East European countries.

Table 3 shows the factor loadings, Table 4 simple descriptive statistics, whereas Table 5 reports the Cronbach α. A value of $\alpha = 0.784$ suggest strong internal consistency. Looking to Table 3, we see however, that the fourth item has a factor loading of 0.454, which is somewhat lower than the other items. There are two reasons for this. One is that compared to the other questions, it does not ask specifically about a demographic behaviour. Instead, it asks about the approval of working full time whilst children are <3 years of age. Our argument for including it is that it reflects acceptance of combining family life and full-time work, meaning that a high value would reflect modern attitudes. The second reason is that the question is gender neutral, which means that some respondents might have referred to men when answering the question.

An important consideration is whether the index is reliable for comparative purposes. The key is to understand if the selected items reflect the same concept across different contexts. That is, can it be taken as a valid measure of modern or conservative attitudes towards demographic behaviour in all countries? To assess this, we re-ran the factor analysis separately for all the country samples. Appendix 1 presents αs for each of the countries. As one can see the αs are all reasonably high, bar three countries, where the value is below 0.6. The outlier is Estonia where the alpha is as low as 0.45. As is clear from Appendix 1, which also shows the factor loadings, the fourth item of the scale causes the low α-value. As a robustness check, we also estimated the model using an index without the fourth item. Despite

Table 2 Attitudes towards family behaviour

Country	No. of Obs.	Approve if person... ..chooses never to have children Value (Std Dev.)	..lives with partner not married to Value (Std Dev.)	..has full-time job while children aged <3 years Value (Std Dev)	..has child with partner not married to Value (Std Dev.)	..gets divorced while children aged <12 years Value (Std Dev.)
Austria	1,127	3.00 (0.95)	3.52 (0.92)	3.41 (0.94)	2.95 (1.17)	2.85 (0.94)
Belgium	1,126	3.61 (1.10)	4.00 (0.96)	3.90 (1.02)	3.91 (1.02)	3.31 (1.09)
Bulgaria	550	1.63 (0.92)	3.32 (1.33)	3.31 (1.32)	3.41 (1.48)	2.54 (1.23)
Switzerland	1,001	3.24 (0.87)	3.50 (0.88)	3.31 (0.92)	3.00 (1.08)	2.90 (0.84)
Germany	1,677	2.94 (0.74)	3.32 (0.72)	3.23 (0.73)	3.13 (0.97)	2.81 (0.74)
Denmark	869	4.48 (0.70)	4.64 (0.63)	4.51 (0.80)	4.35 (0.87)	4.10 (0.94)
Estonia	663	2.15 (0.82)	3.00 (0.71)	3.02 (0.77)	3.13 (1.06)	2.48 (0.72)
Spain	1,100	3.29 (0.99)	3.79 (0.91)	3.74 (0.93)	3.63 (0.96)	3.21 (1.01)
Finland	1,139	3.73 (1.01)	4.14 (0.87)	4.01 (0.93)	4.02 (0.82)	3.45 (1.04)
France	1,294	2.99 (1.09)	3.66 (1.05)	3.65 (1.09)	3.64 (1.14)	3.05 (1.10)
UK	1,377	3.25 (0.73)	3.26 (0.79)	3.12 (0.82)	3.35 (0.93)	2.96 (0.74)
Hungary	690	2.46 (0.91)	3.38 (0.80)	3.35 (0.84)	3.34 (1.16)	2.87 (0.84)
Ireland	915	3.10 (0.70)	3.20 (0.76)	3.11 (0.78)	3.47 (0.87)	2.84 (0.79)
Latvia	742	2.33 (0.97)	3.15 (0.91)	3.08 (0.92)	3.27 (1.10)	2.73 (0.89)
The Netherlands	1,175	3.92 (1.00)	4.07 (1.02)	3.99 (1.04)	3.40 (1.17)	3.44 (0.98)
Norway	1,177	4.05 (0.92)	4.38 (0.87)	4.37 (0.86)	4.24 (0.87)	3.73 (1.10)
Poland	956	2.67 (1.03)	3.20 (1.03)	3.25 (1.00)	3.70 (0.93)	2.72 (1.02)
Portugal	1,035	3.19 (0.84)	3.55 (0.78)	3.53 (0.81)	3.48 (0.86)	3.16 (0.85)
Romania	1,024	2.24 (0.86)	2.78 (0.94)	2.71 (0.96)	3.26 (1.06)	2.45 (0.94)
Russia	893	1.90 (0.81)	2.91 (0.92)	2.88 (0.95)	3.24 (1.16)	2.53 (0.89)
Sweden	1,162	3.59 (0.86)	3.88 (0.91)	3.88 (0.93)	3.57 (0.93)	3.35 (0.90)
Slovenia	804	2.99 (1.04)	3.61 (0.86)	3.66 (0.86)	3.50 (0.88)	3.11 (1.00)
Slovakia	974	2.46 (0.86)	2.94 (0.91)	2.83 (0.89)	3.33 (1.08)	2.55 (0.89)
Ukraine	829	1.64 (0.83)	2.63 (1.14)	2.58 (1.14)	3.15 (1.39)	2.36 (1.06)

having a low factor loading in some countries, the estimates from the multilevel analysis were very similar.[2]

Explanatory Variables

Individuals' attitudes are formed through their educational experience, their occupation, age, and cohort, as well as their family background (Thornton, Axinn and Xie, 2007). These features can of course be measured and controlled for directly by the information provided in the survey. Of key importance for the comparative analysis is that individual attitudes also depend on the characteristics of the regions and countries where they reside. As we have already argued, structural factors (e.g. economic development, quality of governance and institutions, and gender inequality) are relevant in shaping attitudes toward family, marriage, divorce, and childbearing, but the historical, cultural, and institutional context in which individuals build up their ethical code and their way of thinking will also matter. Individual constraints and possibilities within a country depend strongly on the economic development, on the policies adopted by the government and on the readiness to change. Most of these variables are easily accessible. Economic development of the country is proxied by GDP per capita in 2006, which is the year of the interview. The Corruption Perception Index (CPI), a measure of government effectiveness and hence a proxy for the quality of institutions, is derived from Transparency International. Different proxies for gender equality are considered. They are the Gender Empowerment Measure (GEM) of 2005, female labour force participation in 2006, the Global Gender Gap (GGG) again in 2006, and the percentage of women in the national parliament measured in 2006. Regarding government support and welfare provision, we consider three different proxies. The first is the kindergarten enrolment rate of children under 2 years of age in 2006. The second is the availability of childcare places, again for children under the age of 2 years, whereas the third is

Table 3 Factors loadings

Variable	Loading
Approve if person chooses never to have children?	0.7314
Approve if person lives with partner not married?	0.8756
Approve if person have child with partner not married to?	0.8655
Approve if person has full-time job while children aged <3 years?	0.4544
Approve if person gets divorced while children aged <12 years?	0.7270

Table 4 Descriptive statistics of the MFA index

Variable	Mean (Std. Dev.)	Min	Max
FA index	0.167 (0.996)	−2.588	2.255

Table 5 Cronbach α for dependent variable

Average inter-item covariance	0.499
Number of items in the scale	5
Scale reliability coefficient	0.784

the level of government spending on childcare services measured in 2005.

We then consider the more persistent factors underlying family attitudes. The first of these is the so-called State Antiquity index (Chanda and Putterman, 2007). This index gives a score for each country that reflects (i) existence of a government, and (ii) the proportion of the territory covered, and (iii) whether it was indigenous or externally imposed[3] (Bockstette, Chanda and Putterman, 2002). The score of the index depends directly on the antiquity of institutions and government. Consistent with existing literature we have argued that development of social capital and the level of trust in people and institutions are also important diachronic elements (Guiso, Sapienza and Zingales, 2008). However, to our knowledge, information on trust and social capital is not available from any readily available sources. Instead, we construct aggregate measures of social capital and trust from the ESS. Bearing in mind that the respondents for our analysis are taken from the third round of the ESS, we construct these aggregate measures from the *first* and *second* rounds. These indicators are also based on a battery of questions and the respective indices are constructed from factor analysis. We perform a factor analysis on the questions regarding trust, which yields a one-factor solution. The factor analysis of the first six questions listed in Table 6 yields, however, a two-factor solution. The two factors are interpreted as Social capital and Voluntary activity, respectively. As can be seen from Table 6, the items loading onto social capital refer specifically to relationships and contacts outside the broader family circle.

As we have seen, these macro variables are highly correlated (Table 1) and including all of them in our multilevel regression is not possible given that we have at most 24 countries.[4] We perform consequently another factor analysis for these macro measures—not only as a means of data reduction, but also to assess to what extent variables load onto to structural as opposed to more diachronic dimensions. The results of the factor analysis are presented in Tables 7 and 8. In Table 7, all macro variables are included, but with the results of excluding several countries for which we do not have information about childcare services. In Table 8, all countries are included, but at the cost of reducing the variables included in the factor analysis.[5]

The FA reported in Table 7 produces a three-factor solution and as we show in 'Statistical Model' section, the three new indices correlate strongly with modern attitudes towards demographic behaviour. The factor loadings of the first factor are very strong (bar percentage of women in parliament), and include GDP per capita, measures of gender equality, trust, and interestingly—the level of voluntary activity. As shown in the literature, trust—which is inversely related to family ties—plays an important role for the functioning of societies (Alesina and La Ferrara, 2002; Bjørnskov, 2007; Aghion *et al.*, 2010), being positively associated with the quality of institutions (Knack, 2002) and economic growth (Helliwell and Putnam, 1995; Knack and Kiefer, 1997; Zak and Knack, 2001), whereas it correlates negatively with corruption (Uslaner, 2002; Buonanno, Montolio and Vanin, 2009). Contrary to what we have hypothesized, however, it does not load with the state antiquity. This is somewhat at odds with the literature that suggests that the current day level of trust originates from characteristics of our societies centuries ago (Banfield, 1958; Putnam, 1993; Tabellini, 2005, 2008; Nunn and Watchekon, 2009; Durante, 2009). The second factor encapsulates child-care services and coverage, whereas the last factor, which we interpret as diachronic, we find the state antiquity index and social capital. The fact that social capital loads together with the state

antiquity index is interesting—not least because social capital refer here to relationships and contacts outside the broader family circle. Thus, countries which scores highly on the state antiquity index, also have higher levels of social capital in the sense that individuals tend to have stronger networks outside the family sphere.

As we have mentioned, attitudes are also driven by individual experiences. At the individual level, we control for education (in three groups), church attendance, which reflects the individuals' level of religiosity, number of children, whether they are in paid work and whether they are in a partnership or not. Attitudes vary of course over the cohorts. We divide the sample into eight cohorts, starting from the cohort born between 1945 and 1950 (the reference group in the regressions) up to the youngest which are born between 1961 and 1965.

Table 6 Items underling social capital, voluntary activity and trust

Social capital variable based on
How often socially meet with friends, relatives or colleagues
Anyone to discuss intimate and personal matters with
Take part in social activities compared to others of same age
Voluntary activity variable based on
Involved in work for voluntary or charitable organizations, how often past 12 months.
Help others not counting family/work/voluntary organizations, how often past 12 months.
Help or attend activities organized in local area, how often past 12 months
Trust variable based on
Most people can be trusted or you cannot be too careful
Trust in country's parliament
Trust in the legal system
Trust in the police
Trust in politicians
Trust in political parties

Statistical Model

Given the hierarchical structure of the data, where respondents are nested within regions, which again are nested within countries, we implement a multilevel regression model in order to accommodate the macro variables outlined in 'Explanatory Variables' section. The key rationale of the multilevel analysis is that respondents within regions and countries do not act independently of each other. In particular, citizens of the same country share country-specific attitudes, which in turn are driven, at least in part, by the characteristics of that country. The multilevel statistical model facilitates such hierarchical structure through a decomposition of the error term, one being individual-specific, the second region-specific, and third being country-specific (Hox,

Table 7 FA including childcare (missing countries: France, Switzerland, Russia, Latvia, Slovenia, and Ukraine), orthogonal rotation

Variable	Factor1	Factor2	Factor3	Uniqueness
Econ. Dev. and gender Inequality				
GDP per capita (2006)	**0.906**	0.280	0.118	0.087
Corruption Perception Index (2006)	**0.824**	0.327	0.330	0.106
Global Gender Gap (2006)	**0.776**	0.120	0.393	0.230
Female Labour Force Participation Rate (2006)	**0.720**	-0.096	0.395	0.317
Gender Empowerment Measure (2005)	**0.794**	0.457	0.325	0.056
Percentage of Women in Parliament (2006)	**0.550**	0.554	0.424	0.210
Trust People and Institutions, country mean	**0.804**	0.054	0.504	0.097
Voluntary Activity, country mean	**0.846**	0.097	0.045	0.273
State antiquity and social capital				
State Antiquity Index	0.083	**0.918**	0.001	0.151
Social Capital, country mean	0.447	**0.698**	0.274	0.238
Childcare				
Enrolment Rate of children <2 year (2006)	0.360	0.216	**0.811**	0.166
Place availability for children 0-2, per 100 children (2003)	0.221	0.027	**0.916**	0.112
Spending on childcare services, % of GDP (2005)	0.186	0.151	**0.823**	0.265

Coefficients represent factor loadings obtained with the factor analysis, and they are highlighted in bold in the column for Factor 1, for Factor 2 or for Factor 3 if the load is greater on Factor 1, on Factor 2, or on Factor 3, respectively.

Table 8 FA—no childcare (dropped: GEM, % women in parliament in 2006, childcare variables), orthogonal rotation

Variable	Factor1	Factor2	Uniqueness
Econ. dev. and gender inequality			
GDP per capita (2006)	**0.8013**	0.5044	0.1034
Corruption Perception Index (2006)	**0.8179**	0.4923	0.0888
Global Gender Gap (2006)	**0.8272**	0.0189	0.3154
Female Labour Force Participation Rate (2006)	**0.8112**	-0.0388	0.3405
Trust People and Institutions, country mean	**0.8915**	0.2791	0.1273
Voluntary Activity, country mean	**0.7372**	0.3095	0.3607
State antiquity and social capital			
State Antiquity Index	0.0831	**0.9527**	0.0855
Social Capital, country mean	0.4593	**0.6791**	0.3278

Coefficients represent factor loadings obtained with the factor analysis, and they are highlighted in bold in the column for Factor 1 or for Factor 2 if the load is greater on Factor 1 or on Factor 2, respectively.

2002; Goldstein, 2003). Our model can be written as follows:

$$\mathrm{FA}_{irc} = \alpha_0 + \beta X_{irc} + \mu S_c + \gamma D_c + u_{0c} + \eta_{0rc} + \varepsilon_{irc}$$

where FA_{irc} represents family attitudes of individual i in region r of country c, X_{irc} is a vector of individual characteristics, S_c and D_c are structural and diachronic factors, respectively, both measured at the country level. u_{0c} is the country-specific error terms, η_{0rc} is region-specific, and ε_{irc} is the individual-specific error term. The FA_{irc} is a continuous measure so the model is estimated using the method of ordinary least squares (OLS). There are several benefits of this modelling scheme. First, the decomposition of the error term ensures that the standard errors for the parameters associated with variables measured at the regional and country levels are correctly estimated, hence ensuring that hypothesis tests are reliable. However, a more substantive benefit is that we easily observe to what extent variation in the outcome can be decomposed into the three levels. In our application, this accounts to observing how much of the overall variation in attitudes is attributed to the individual level, the region level and the country level. Thus, the typical strategy with these kinds of models is to start with a *null* model, where no explanatory variables are included. As we add explanatory variables, we observe the extent they (the explanatory variables) explain the decomposed variation. Thus, the role of country characteristics in explaining the outcome is not only observed through its estimated coefficient, but also through its ability to reduce variation in the outcome when compared to the null model. The latter effect is commonly expressed through the intra-class correlation coefficient ρ which is defined as:

$$\rho = \frac{\mathrm{Var}(u_{0c})}{\mathrm{Var}(u_{0c}) + \mathrm{Var}(\eta_{0rc}) + \mathrm{Var}(\varepsilon_{irc})}$$

where $\mathrm{Var}(u_{0c})$ is the variance across countries, $\mathrm{Var}(\eta_{0rc})$ across regions in country c and $\mathrm{Var}(\varepsilon_{irc})$ among individuals in region r and country c.

Regression Results

We start by reporting the effect of the individual-level characteristics on our family attitude index. The multilevel regression results are presented in Table 9, which includes five specifications. Column (1) shows the null model where no explanatory variables are included. At the bottom of the table, we see the variances of the error term for the three levels. The variation at the individual level is 0.638, at the country level it is 0.349, whereas it is very small at the regional level—only 0.026. This is in itself interesting, in that variation in attitudes appears to be large across individuals within countries and between countries, but very small across regions within countries. The model specification in Column (2) adds to the null model by including cohorts as explanatory variables, whereas in Column (3) the specification also includes individual-level variables. Column (4) presents estimates when also the two macro variables as defined in Table 8 are included. Column (5) is similar to the specification in Column (4), but here we also include the aggregate child-care variable as defined in Table 7. As already, mentioned, given that we do not have access to childcare information for all countries, Column (5) is estimated on a subset of countries.

In Column (2), the cohort of individuals born between 1945 and 1950 serves as the reference group. The estimates show clear differences between cohorts, and as expected, the younger cohorts are more modern in terms of attitudes towards demographic behaviour. The cohort effects weaken, though they remain persistent and statistically significant when other individual characteristics

Table 9 Multilevel regression of attitudes to demographic behaviour

FA index	(1) Null	(2) Cohorts only		(3) Cohorts and Ind. char.		(4) Ind. Char and macro variables		(5) Ind. Char and macro variables°	
Individual characteristics									
Cohort 1951–1955		0.070***	(0.021)	0.036	(0.021)	0.036	(0.021)	0.067**	(0.023)
Cohort 1956–1960		0.157***	(0.021)	0.108***	(0.021)	0.108***	(0.021)	0.144***	(0.023)
Cohort 1961–1965		0.204***	(0.021)	0.143***	(0.020)	0.143***	(0.020)	0.158***	(0.023)
Cohort 1966–1970		0.229***	(0.021)	0.153***	(0.021)	0.153***	(0.021)	0.177***	(0.023)
Cohort 1971–1975		0.325***	(0.021)	0.213***	(0.021)	0.213***	(0.021)	0.233***	(0.024)
Cohort 1976–1980		0.333***	(0.022)	0.174***	(0.022)	0.174***	(0.022)	0.208***	(0.025)
Cohort 1981–1985		0.270***	(0.022)	0.076**	(0.023)	0.076**	(0.023)	0.094***	(0.026)
Secondary education				0.137***	(0.021)	0.137***	(0.021)	0.130***	(0.023)
Tertiary education				0.232***	(0.022)	0.232***	(0.022)	0.241***	(0.025)
Church attendance				−0.417***	(0.013)	−0.416***	(0.013)	−0.429***	(0.015)
Number of children				−0.032***	(0.004)	−0.032***	(0.004)	−0.029***	(0.005)
In paid work				0.052***	(0.012)	0.052***	(0.012)	0.057***	(0.014)
In a partnership				−0.092***	(0.012)	−0.092***	(0.012)	−0.081***	(0.013)
Trust in people and institutions				−0.012	(0.006)	−0.012*	(0.006)	−0.019**	(0.007)
Voluntary activity				−0.004	(0.005)	−0.004	(0.005)	−0.004	(0.006)
Social capital				0.050***	(0.006)	0.049***	(0.006)	0.057***	(0.007)
Macro characteristics									
Structural (GDP, Gender equality, trust, voluntary activity, corruption)[a]						0.385***	(0.075)	0.306***	(0.079)
Diachronic (state Antiquity Index and Social Capital)						0.244**	(0.075)	0.209**	(0.079)
Childcare								0.303***	(0.078)
N	24,299	24,299		24,299		24,299		18,736°	
Variance (countries)	0.349	0.350		0.323		0.127		0.101	
Variance (regions)	0.026	0.026		0.019		0.019		0.021	
Variance (individual)	0.638	0.627		0.591		0.591		0.578	
ICC Country	0.344	0.349		0.347		0.173		0.144	

Note: standard errors in parenthesis. P-values: +P ≤ 0.10:+P ≤ 0.05:**+P ≤ 0.01***.*

are included, as is apparent in Column (3). However, the cohort effects do no longer have the same monotonic pattern as reported in Column (2). Due to expansion in education, the younger cohorts are more likely to obtain higher education than the older cohorts. This means that the monotonic gradient of the cohorts reported in the first model, does not persist when education is included. Curiously, the very youngest cohort has less modern attitudes. There is a clear effect of education in that higher levels are associated with higher scores on the FA index. Church attendance, having children and being in a partnership are all negatively associated with the FA index—church attendance having a particularly strong effect. In contrast, being in paid work is associated with higher levels of the FA index. These estimates are of course all in the expected direction, and importantly they remain robust for the different multilevel specifications, including the case when we include country-level variables. We also include the individual-level measures of trust, voluntary activity and social capital as derived from the factor analysis reported in Table 6. We see very little effect of trust and voluntary activity, whereas higher levels of social capital are positively associated with modern attitudes to demographic behaviour. It is worthwhile noting that despite including individual-level characteristics, the variance of the individual-level error term is still similar to the level of the null model. The variance is only reduced to 0.591 from a level of 0.638. Thus, our explanatory variables do not explain much of the individual- level variation in attitudes—despite the

fact that all individual-level variables are statistically significant.

We now move on to consider the parameter estimates of the aggregate measures of the variables derived from the factor analysis as reported in Tables 7 and 8. The results are presented at the bottom of Columns (4) and (5) of Table 9, whereas their interpretation is elaborated upon in 'Discussion' section. Column (4) shows that both the structural elements (i.e. economic prosperity, gender equality, quality of institutions, and voluntary activity) and diachronic elements (State antiquity index and social capital) explain country difference attitudes in a powerful way. The coefficient for the index measuring economic structural elements is 0.385, as opposed to 0.244 for the index measuring the diachronic dimension, both being highly significant. More importantly, looking at the variance of the country-specific error, we see a reduction from 0.349 to 0.121, meaning that the macro variables explain almost 64% of the country differences. The effect of childcare services, which we also think of as a structural dimension, also shows a strong association with attitudes. Column (5) reports a coefficient of 0.303, whereas in this case, bearing in mind that fewer countries are included in the analysis, the economic structural dimension has a coefficient of 0.306 and the diachronic dimension has a coefficient of 0.209. Again looking at variance of the country-level error term we see that it is now down to 0.101, implying that economic development, childcare services, together with the state antiquity index and social capital, explain about 70% of the country difference in attitudes.

Discussion

The estimates provide several important insights. In general, we find that individuals' attitudes towards demographic behaviour vary significantly between individuals and between countries, but not a lot between regions within countries. That said, with our measures of individual characteristics we are not able to explain very much of the individual variation in attitudes. We have seen that education, religion, work, and certainly cohorts are highly significant in explaining individuals' attitudes. However, as we also saw from Table 9, the reduction in the individual-level variation is only modest from the inclusion of individual-level variables. The reason, and the implication, is that individuals' attitudes are formed at peer levels, through friends and work colleagues as well as family members, and past experiences (Thornton, Axinn and Xie, 2007), for which we do not have sufficiently detailed information. The country-level variation is a different story in the sense that country-level characteristics explain in a powerful way the observed differences in family attitudes across countries. As we have seen, the regional variation is rather small in comparison to both the individual and country-level variation. In sum, this means that there are important drivers behind family attitudes operating at the micro level, as well as important structural differences between the countries that drive these attitudes. This is of course not unexpected in the sense that laws and regulations relevant for individuals' attitudes are defined at country levels and much less so at the regional levels.

As for the specific country-level variables, our analysis brings out important findings that go somewhat contrary to those arguing that we are seeing a second demographic transition. For instance, it is argued that attitudes to demographic behaviour occur in tandem with the disengagement from civic, professional or community-oriented associations. Moreover, at the individual level, the choice for new types of households (pre-marital single living, cohabitation, and parenthood within cohabitation) are all linked to individualistic and non conformist value orientations in a great variety of spheres. Also Van de Kaa uses the notion of individualization as a fundamental component of explaining modern demographic behaviour when he argues that the two keywords which best characterized the norms and attitudes behind the first and second demographic transitions were 'altruistic' and 'individualistic', respectively (Van de Kaa, 2002). Thus, both Lesthaeghe and Van de Kaa stress that the new demographic attitudes and behaviour is about the progressive isolation of the individual from the members of a society and from its institutions. However, our analysis does not give much support for these views. Whereas it is very possible that recent changes in demographic and family attitudes are associated with a higher importance of self-realization and non-conformist attitudes, this does *not lead* to a disengagement of civic- and community-oriented engagement. In fact, our analysis suggest that those countries which have progressed furthest in terms of adopting post-modern attitudes towards demographic behaviour, are those where social capital is highest and where voluntary activity is frequent. This might seem at first paradoxically since collectivism and individualization are typically considered as opposite ideals. One likely explanation is that the term individualization, at least in the demography literature, is used in a loose and in an imprecise way. In particular, for the proponents of the second demographic transition thesis, the collapse of the family is considered as a tangible sign of the process of individualization that is characterizing modern societies and one has to assume that disengagement from civic- and community-oriented associations refers to family. One should point out that our measures are not

direct measures of individualization in the traditional sense. That is, voluntary and civic engagement does not pertain to the usual notions of individualism, which include high value placed on the individual, individual freedoms and autonomy, individual responsibility, achievements, and self-reliance (Kagitçibasi, 1997). It is well possible that many countries with strong civic engagement also score high on the traditional definition of individualism—the Nordic countries and the Netherlands being the most obvious candidates. Outside Europe, the United States is a prime example of a society that is clearly individualistic, but yet with strong engagement in voluntary and civic activities, especially those organized by the churches.

Our analysis would suggest that in modern societies, the family as a support unit and welfare provider is substituted by different institutions—in the Nordic countries this being state provided care facilities. It means that people feel confident in shifting away their attention from the family as a provider of welfare and support onto the community at large. Since they trust the other individuals and the surrounding institutional framework, they are able to find in the community the social and economic support they need. Our findings are consistent with Alesina and Giuliano (2009) who find an inverse relationship between family ties and political participation. In their analysis, based on within country variation derived from the World Value Survey, they find that those individuals who tend to rely on the family as a service provider have lower trust and one's civic engagement is also lower. Strong family ties is a substitute for trust in institutions and other individuals not related to one's own family, and with it comes more traditional attitudes towards demographic behaviour.

Together with social capital, trust might be an important concept to understand why the degree of acceptance of post-modern values and attitudes varies so remarkably across European countries. Where the level of social capital is higher, people experience a greater number of social interactions outside the family sphere. That is, since they have a stronger civic sense and a stronger feeling of belonging to the society they live in, they are more prone to participating to social events and to take part in social gatherings. As a consequence, the higher number of non-family based social interactions in societies with a high level of social capital, the family is to a lesser extent the focal point of the social and recreational life of individuals. Rather, community gatherings and social events occupy a large portion of the individuals' time. This has the effect of increasing the extension and the importance of the inter-familiar social web that links individuals belonging to the same society, thus weakening the role of the family as a social institution. While increasing the support for community-centred activities and behaviours, this mechanism contributes to lowering the acceptance of traditional demographic behaviours. Indeed, there seems to be a trade-off between approval of traditional demographic behaviours and participation to extra-familiar events and gatherings. It does not come as a surprise, then, that the countries where the support for post-modern values and attitudes is largest are the ones showing higher involvement of individuals in voluntary and charitable activities. As the social institution of the family loses importance, individuals start shifting their social attention to the community at large: caring about the other members of society becomes at least as important as caring about the members of the family.

So far, our discussion has essentially concerned North–South differences in demographic attitudes. A special note is warranted for the former Soviet Union countries of East-Europe. These countries have in a very short period of time experienced large societal upheavals. Our data not only suggest that interpersonal and institutional distrust are high in these countries, but also that demand for institutional regulation and intervention is strong. Yet, they have relatively positive attitudes to non-traditional family behaviours. Such a pattern may arise as a response to the long-term erosion of traditional family, owing to the dysfunctionality of both welfare state support and family provision of care. As a result, the argument that the emergence of a modern welfare state being an instrument in eroding traditional family attitudes, does not necessarily apply in this context.

Our analysis also gives some support to the cultural evolution argument. Economic development is certainly an important driver behind modernity and post-modern attitudes. But as we have seen, with economic development, a range of other factors evolve. Wealthy societies have a higher level of gender equality, greater spending on child-care services and well functioning institutions with little corruption. Wealthy societies are those where there is less reliance on the family as a welfare provider. Whereas we find these societies to have more modern attitudes, it is probably the case that well functioning institutions is a precondition for modern attitudes to emerge. This is consistent with the idea that the structure of the society matters for family attitudes. Thus, individuals adopt modern attitudes towards demographic behaviour because well-functioning institutions allow them to do so. In contrast, in a society with heavy reliance on the family as welfare provider, the younger generations have a stronger incentive to keep in line with the attitudes and expectations of the older generation of their family. In line with Newson and Richerson (2008),

in a modern society where welfare is provided centrally by the state, young individuals are less exposed to the attitudes of their parents and close relatives, instead their attitudes and presumably behaviour is to a stronger degree influenced by sources outside the family sphere.

We also find that the State Antiquity Index has a significant impact on modern family attitudes. The original motivation for its construction was to test the proposition that present-day countries that had been the site of nation-states, kingdoms, or empires over longer spans of history have achieved more rapid economic development in recent decades, for which there is support (Putterman, 2000; Acemoglu, Johnson and Robinson, 2001; Bockstette, Chanda and Putterman, 2002). The fact that it correlates with social capital, and has a significant effect on modern family attitudes may not be so surprising. The finding is relevant to Reher (1998) who characterizes the centre and north of Europe by weak family links and the Mediterranean countries with strong family ties. Reher argues that in weak family areas, individualistic values tend to dominate, whereas collectivistic values predominate in strong family contexts. Our analysis suggests that this is not necessarily the case. The 'weak family' countries, may be more individualistic in the traditional sense of the word, but they are also stronger in social capital, trust, and voluntary activity. Consistent with Reher, however, the significance of the State Antiquity Index in our statistical analysis does lend support to the idea that current differences in attitudes to demographic behaviour, in part, stems from differences in characteristics observed before modern times. Whereas Reher traced the emphasis on the individual and self-reliance in northern Europe to the Reformation, and attributed the overriding importance of kin ties in southern Europe to Catholic and Islamic influences, our analysis would suggest that these differences more generally stems from differences in economic and institutional development.

Notes

1. The idea derives from the fact that the emergence of free markets, which encourages individual choice, also affects individuals' choices in other social spheres—which includes family life. Thus, market forces may undermine the persistence in traditional family organization and attitudes towards them.
2. Estimation results using the attitude index without the fourth item is not presented here, but available from the authors. We also performed a Mokken analysis which showed satisfactory performance of the index. Again results are available from the authors.
3. The index is derived by dividing the period from 1 to 1950 C.E. into 39 half centuries. For each period of 50 years, the scores for the following were assigned: (i) Is there a government above the tribal level? (1 point if yes, 0 points if no); (ii) Is this government foreign or locally based? (1 point if locally based, 0.5 points if foreign (i.e. a colony), 0.75 if in between (meaning a local government but with substantial foreign oversight); and (iii) How much of the territory of the modern country was ruled by this government? (1 point if over 50%, 0.75 points if between 25% and 50%, 0.5 points if between 10% and 25%, 0.3 points if <10%)
4. In previous specifications, we included these aggregate measures as explanatory variables in the regression for explaining attitudes, but where each variable was introduced one by one. In all of these regressions, these variables turned out significant.
5. The indices derived from the factor analysis are here based on orthogonal rotation. We also tried oblique rotation, which yielded very similar results. The key difference is that the percentage of women in parliament loaded onto the Factor 2 (diachronic) instead of Factor 1 (economic prosperity), though in both cases the loading is lower than the other items.

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Appendix 1 Cronbach α and factor Loadings for items entering the family attitude index, by country

Country Code	α	Factor Loadings, Approve if person...				
		chooses never to have children?	lives with partner not married?	have child with partner not married to?	has full−time job while children aged <3 years?	gets divorced while children aged <12 years?
Austria	0.75	0.72	0.84	0.85	0.46	0.70
Belgium	0.77	0.70	0.85	0.85	0.53	0.69
Bulgaria	0.69	0.37	0.88	0.88	0.42	0.70
Switzerland	0.70	0.70	0.84	0.84	0.37	0.63
Germany	0.65	0.64	0.85	0.84	0.34	0.58
Denmark	0.78	0.69	0.83	0.82	0.61	0.70
Estonia	0.45	0.41	0.86	0.81	−0.02	0.59
Spain	0.81	0.72	0.87	0.88	0.48	0.76
Finland	0.78	0.65	0.86	0.86	0.54	0.73
France	0.73	0.54	0.86	0.87	0.50	0.67
UK	0.69	0.60	0.88	0.86	0.36	0.64
Hungary	0.56	0.46	0.87	0.86	0.22	0.56
Ireland	0.72	0.63	0.88	0.86	0.33	0.70
Latvia	0.66	0.59	0.83	0.81	0.36	0.59
The Netherlands	0.77	0.75	0.89	0.89	0.42	0.66
Norway	0.81	0.65	0.87	0.86	0.69	0.72
Poland	0.74	0.67	0.87	0.86	0.33	0.71
Portugal	0.76	0.64	0.83	0.83	0.57	0.69
Romania	0.64	0.60	0.84	0.83	0.22	0.62
Russia	0.58	0.48	0.86	0.83	0.14	0.67
Sweden	0.84	0.76	0.87	0.88	0.64	0.74
Slovenia	0.73	0.61	0.85	0.83	0.44	0.72
Slovakia	0.69	0.61	0.87	0.86	0.27	0.70
Ukraine	0.61	0.56	0.85	0.83	0.19	0.65