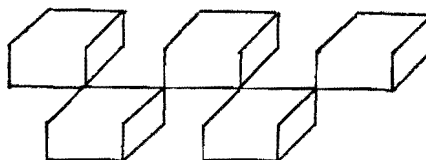


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R. Lesthaeghe & G. Moors

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Rationality, cohorts, and reproduction

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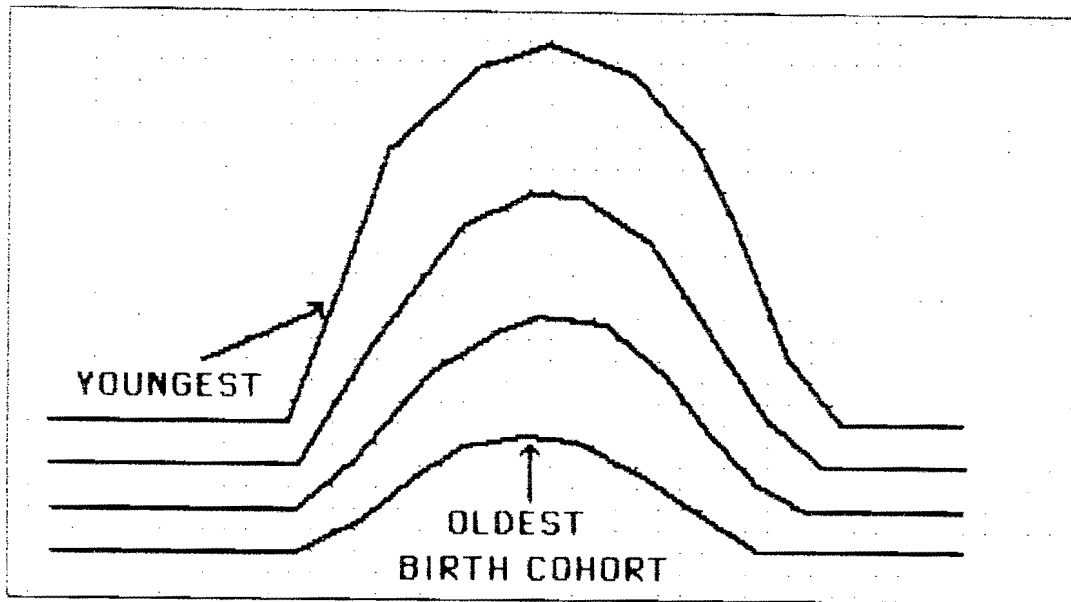
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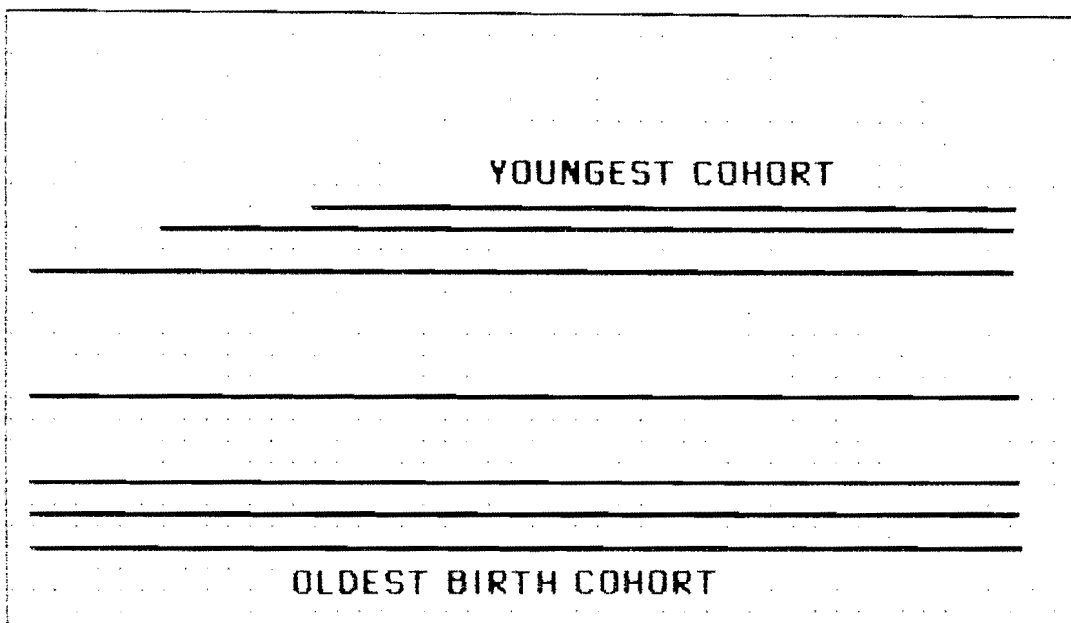
ATTITUDE

1 A : THE "ONION RING" MODEL



ATTITUDE

DATES OF MEASUREMENT



DATES OF MEASUREMENT

1 B : THE "PERIOD OF SOCIALIZATION" MODEL

FIGURE 1 : TWO MODELS WITH PERIOD-COHORT INTERACTION

1A : COHORTS REACT DIFFERENTIALLY TO PERIOD EFFECT

1B : COHORTS ARE SPACED DIFFERENTIALLY DEPENDING ON PERIOD OF SOCIALIZATION

RATIONALITY, COHORTS AND REPRODUCTION

1. Introduction

In this paper we wish to outline both the philosophy and the results of research on the ideational change (i.e. pertaining to the meaning-giving system) and its impact on family formation and reproduction. To start with, it seems necessary to go beyond the paradigm of neoclassical economics. To this end we introduce a typology of rationality as proposed by S. Hargreaves Heap (1989). In this typology a distinction is being made between instrumental, procedural and expressive rationality. Particularly the latter type of rationality is congenial to our purposes since it stresses the specification of goals in life more than the strategies behind the specification of means. During the course of the discussion, it will become clear that the transmission and the concomittant transformation of ideational goals, values and tastes constitutes a key issue. One of the strategies to capture the dynamics of such cultural change consists of following successive cohorts. Cohorts are not only seen as merely demographic aggregates of individuals who are subjected to similar conditions during the phases of the life cycle, but as sociological aggregates which go a step further and create a symbolic identity in response to their historical positioning.

Once the cohort approach is adopted, three central questions emerge. Firstly, can a cohort-model be identified with respect to all ideational aspects? Secondly, is cohort stability maintained through all phases of the life cycle, or should a distinction being made, as proposed by D. Sears (1983), between the "formative years" characterized by individual flux, a period of adult-life stability, followed again by greater old-age instability? Thirdly, are there particular types of period-cohort interactions? Two sorts of such interactions are considered: (i) the "onion ring" type in which all cohorts react in a similar direction but to various degrees, to a given period effect, and (ii) "the formative year effect" in which cohort profiles are stable during adult and old-age phases, but start off during the formative years at levels which show a time pattern of deceleration and acceleration. Both types of interaction are shown on figure 1 with hypothetical examples. These three questions can be addressed in empirical research, and consequently an overview of such research will be offered.

The third part of the paper considers the relationship between ideational variables and those pertaining to family formation and procreation. Here, research is in a much less advanced stage, mainly because surveys measuring values and those measuring nuptiality, fertility and contraception lacked a common core. However, there is some evidence, both from historical and contemporary research (often using measures of religiosity or secularization) that points at the existence of close links.

The fourth part of the paper, finally, considers whether the findings in value research give any clue with respect to the possible future evolution of demographic behaviour. It is often argued that the most recent cohorts leaving their "formative years" have a more cautious and traditionalist outlook than their predecessors of the 1960s and 1970s, which could conceivably lead to a fertility rise in the 1990s. At this point, it becomes particularly useful to confront this thesis based on the expressive type of rationality, with the economic insights and forecasts based on the instru-

mental type. Consequently, the paper will conclude with an attempt to synthesize economic and sociological models.

2. Rationality and multidimensional man

The concept of rationality matters a great deal in all social sciences, but it is a slippery one with more than just one meaning. It is therefore useful to distinguish between various types of rationality, not in the least because economic, sociological and psychological paradigms depend on them. In this paper, use is being made of the heuristic distinctions proposed by S. Hargreaves Heap (1989) who draws on older distinctions such as those advanced by Herbert Simon (1976, 1978).

The first type, i.e. instrumental rationality, is that of the ubiquitous maximizer, and it is utilized to provide intentional explanations within the means-end framework. It rests on the postulate that agents (whether individuals, institutions or possibly also generations) have well behaved and objective utility functions and that the maximization of these constitutes the essential driving force. Instrumental rationality is of course the hallmark of neoclassical economics, and it has been exported to other social sciences with particular vigour during the last decade or so, often in the wake of neoliberal ideology. Problems arise, however, when homo economicus lacks the necessary information to engage in a straightforward maximization exercise, when functions are not "well behaved" or have more than one stable equilibrium, or simply when unpredicted or perverse outcomes occur. The instrumentally rational man may be gradually pushed to adopt the notion of "bounded rationality" (cf. H. Simon, 1982; H. Leibenstein, 1980) or to revert to an existing script. At this point, the second type of rationality, i.e. procedural rationality, emerges, which locates the agent in a web of normative prescriptions and procedures. In this situation compensation for partial lack of knowledge or for trouble with individual calculation are sought via such procedural shortcuts. In Herbert Simon's models, these shortcuts are still characteristic of individual agents, but it is only a small step from here to consider reference group behaviour or the following of cultural models existing at the societal level as forms of codified procedural rationality. Furthermore, cultural scripts are not frozen but instead continuously retested and reshaped during a collective process of transmission and transformation. Procedural rationality restores therefore historical and social identity. Since socialization (particularly the transmission of codified procedures) of one cohort by another is a particularly important ingredient in this transmission/transformation process, a first reason is being offered here to look more closely at the cohort or generation models of social and cultural change. However, there is also a tradition in the social sciences which tends to lock actors entirely within procedural webs and considers institutions almost exclusively as routinized adaptations to their environments. The functionalist tradition has few problems with explaining why and how procedural rules are being legitimized, but it has more problems with actors developing and justifying anti-institutional outlooks on the basis of individual advantage. In short, the functionalist school in sociology and social anthropology suffers very much from the same ills as the neoclassical school in economics: it considers man too much as a unidimensional creature.

The third type of rationality, i.e. expressive rationality, is much less concerned with the appropriate means (instrumental or procedural) toward an end, but with the ends itself. It is the emanation of the goal-setting and self-reflective agent who tries to give a meaning to his existence. He is capable of ordering, and occasionally reordering, these meaning-giving or ideational goals - or to use Rokeach's terminology - his "preferable end-states of existence" (such as power, wealth, fame, creativity, comfort, security, order, harmony, inner peace, salvation...). The expressive type of rationality is of equal importance in economics as the instrumental one: it contributes to the specification of the content of what is commonly understood under the blanket term of "utility". Universes of meaning identify the object of economic optimization. Furthermore, expressive rationality reflects our concern with making sense of the world. In Hargreaves Heap's words (1989, p.5): "We want to make the world intelligible to us, so that we can act in it".

Rokeach's "preferable end-states of existence" are not chosen in a fortuitous fashion either. The process of socialization and the inter-generational transmission of values (or relative lack thereof) enter the picture once again. Moreover, as human agents are consciously self-reflective - in contrast to most other species - they are capable of a host of other things that calibrate the self-image (e.g. conspicuous consumption, band-wagoning, regret). They may eventually consider reordering the ideational goals altogether. At this point, major departures from the neo-classical model occur. In the latter framework there is ample room for material circumstance, changes in opportunity structures, well-behaved preference functions and repeated cost-benefit calculations, but not for autonomous preference drifts (see for instance J. Stigler and G. Becker, 1977). When facing a failure in prediction, the instrumentally rational man adjusts the means-part of the story. In the ideational world, also the ends-part can be subject to re-evaluation, and an extreme form of it is an identity crisis occurring when the abandoned self-image or world-view is not readily replaced by another. However, the purely expressively rational man is not highly flexible. As he needs a stable framework to order choices and filter information, he is apt to create a fairly fixed set of beliefs. Ideational chaos is unbearable to both individuals and society. Universes of meaning are not only "constructions of reality" (Berger and Luckmann, 1969), they also tend to become firm constructions. As a result, the common model that emerges is one of greater openness and receptivity during the "formative years", followed by greater stability during most of adult life (cf. D.O. Sears, 1983). The mechanism of cognitive dissonance, i.e. the selective filtering out of information that is incongruent with the adopted universe of meaning, then tends to play a non-negligible role.

By now, it is clear that any reductionist theory that adopts behavioural explanations in terms of solely one type of rationality is plainly inadequate. This implies a need for integrating insights from neoclassical economic analysis with those from sociological, historical and psychological research. This seems particularly apt in the instance of family formation and reproduction where multidimensional man, i.e. the one using all three types of rationality and facing conflicts between them, is operative. This furthermore implies a need for conceptual models that explore the nature of interrelations between economic change and ideational dynamics that go beyond the traditional Marxist and neoclassical visions that considers the latter to be a simple byproduct of the former.

3. Ideational change and the cohort perspective

If procedural and expressive rationality matter, agents are no longer separate individuals reacting to common temporal conditions, but they have a much firmer anchorage by virtue of shared socialization and ideational traits. This implies that cohorts are meaningful social aggregates with, what K. Mannheim (1928) called, a "conjunctive experience". This means that shared historical conditions and socialization are transformed into cognitively typified and culturally symbolized experience (Sackmann and Weymann, 1989). In other words, cohorts create an identity for themselves.

Cohorts are of course not homogeneous, and ideational systems vary according to other characteristics as well (e.g. social class, according to educational attainment or even region). Hence the need for controls for such other relevant variables. As a result, a distinction has been introduced in the social sciences between the notion of a cohort, which is a strictly demographic term referring to individuals having experienced a common demographic event (birth, marriage) during a particular time period, and that of a generation, which is generally a set of successive birth cohorts with either similar traits or characterized by a dominant common experience and symbolism (war, economic recess etc.). Ever since Mannheim looked for points of demarcation (Schicksale) between generations, numerous empirical studies have addressed the identification of such ruptures and their underlying symbols (for a summary, see H.A. Becker, 1988). In this paper, however, we shall utilize the conventional birth cohorts but remain alert for shifts in tempo of ideational change between the various cohorts. In the statistical terminology of "Age-Period-Cohort" models (or APC for short), such shifts constitute a particularly important form of period-cohort interaction (see figure 1, model 1B).

Ideational changes can be studied via a broad set of underlying dimensions. For instance, attention can be directed at the issues of religiosity or secularization, using indicators pertaining to traditional religious beliefs (i.e. belief in God, heaven, sin, salvation...), respect for religious institutions (e.g. service attendance, acceptance of dogma and religious prescriptions) or public morality (joy-riding, keeping found money etc.). In the political spectrum, measurement can be attempted through left-right self-rating, Inglehart's postmaterialism scale (1977, 1985), respect for various institutions (law, parliament, armed forces, civil service...), degree of nationalism or indicators of "civil religion" (cf. R. Bellah, 1967; J. Simons, 1986). A third dimension often used in this context is that of socialization values (obedience, order & neatness, imagination, independence... (cf. D.F. Alwin, 1984, 1988, 1989). A fourth one, which is of particular interest to demographers as well, is the dimension of family values pertaining to marriage, cohabitation, divorce, abortion or euthanasia.

All these dimensions share, however, a common core: they are centered on the acceptance and legitimacy of institutional and external authority versus the stressing of individual discretion or autonomy and the fostering of expressive individualism or self-fulfilment (cf. Maslow's "higher order needs", 1954). With respect to actual measurement, use has been made by Lesthaeghe and Surkyn (1988) of 65 indicators taken from the 1981 European Values Studies conducted in most EC-countries. The coherence of the various domains (religiosity, political values, public morality, socialization values and familial values) could be shown by extracting a single do-

minant factor and by inspecting the correlations between the factor and the 65 indicators. A summary is presented in Table 1 in which we have retained the best indicators, i.e. those with correlation coefficients of 0.30 or higher. The results contain no surprise: indicators of religiosity, traditional socialization and familial values, and those of nationalism or trust in institutions show a negative correlation with individuation. By contrast, secularization, departures from orthodox public morality, tolerance for alternative familial and sexual models, parental preference for children's autonomy, and political indicators of leftism and postmaterialism all exhibit positive factor loadings on the underlying dimension of individualistic orientation.

A number of indicators introduced so far have been subject to repeated measurement, thereby permitting a closer study of change by birth cohort and over time. One of the first indicators yielding information of this kind was Inglehart's postmaterialism scale in which the "materialist" choices (law and order, authority, security, inflation control) are juxtaposed to the "post-materialist" ones (ideas count more than money, grass-roots democracy, freedom of speech). Inglehart's results, measured for the 6 original EC-countries from 1970 through 1986, are well known, but it does not harm to reproduce them here once more. Figure 2 shows the difference in percentages "postmaterialists" minus "materialists". Table 2 gives the percentages "postmaterialists". In each of them, the data are arranged according to birth cohort. The data show some period- (or measurement-?) related irregularities, but if they are purged for the inflation rate in the 6 EC-countries (i.e. corrected for higher inflation to be associated with all cohorts undergoing a temporary shift towards more "materialist" attitudes), the data exhibit a rather striking relationship to the period-cohort interaction identified by Model 1B on Figure 1. More specifically, the various cohorts maintain their relative positions throughout the 16-year observation period (horizontal layering), but the shifts from one cohort to the next, all in the direction of more postmaterialism, tend to be unequal. This is brought out most clearly in Table 2 with the results for nine EC-countries. Setting the proportion of "postmaterialists" in the 1910-19 cohort equal to 100, the index rises only slowly for the cohorts born in the 1920s and 1930s with their "formative years" located during the depression and World War II. The cohorts born during the 1940s and 1950s, by contrast, produce large leaps forward on the postmaterialism scale, whereas the latest cohort, born in the 1960s, still progresses but at a much smaller pace. A very similar picture emerges from the Eurobarometer results for the 6 original EC-countries on weekly religious service attendance. Although the period of observation is restricted to 11 years (1975-86), the basic pattern is again that of horizontal cohort layering with declining percentages attending (Figure 3). Birth cohorts born prior to 1930 have similar proportions attending services, which is indicative of slow intercohort change, whereas especially the cohort born in the 1940s and socialized during the 1950s and 1960s shows a major decline. These findings obviously corroborate the usefulness of the model of cohort succession for the study of social change and underscore the importance of D. Sears' argument concerning the role played of the "formative years" in determining the speed of such cohort-related changes.

The acceleration witnessed for cohorts socialized during the 1950s and 1960s with respect to greater postmaterialism and secularization bears a striking relationship to the baby-boom and subsequent baby-bust in Western

Table 1: Correlation coefficients between a single factor measuring the degree of emphasis on individual autonomy or "higher order needs" and its best indicators (total unweighted EVS sample of European public, 1981).

<u>Religion and morality</u>		<u>Qualities to be stressed in raising children</u>	
- belief in God	-.45	- obedience	-.37
- belief in heaven	-.49	- religious faith	-.33
- belief in sin	-.46	- independence	+.51
- comfort and strength from faith	-.50	- imagination	+.39
- self-description as religious	-.39		
- moments of prayer	-.34	<u>Political values</u>	
- number of 10 commandments accepted	-.58	- Inglehart postmaterialism	+.32
- church attendance at least once a week	-.42	- Leftist self-rating	+.39
- sometimes justified:		- would participate in wildcat strike	+.34
- fighting with police	+.35	- would occupy factory/office building	+.35
- divorce	+.32	- very proud of own nationality	-.41
- abortion	+.38	- confidence in police	-.37
- euthanasia	+.36	- confidence in armed forces	-.44
- suicide	+.32	- wants greater respect for authority	-.40
<u>Marriage and family</u>			
- marriage is outdated institution	+.32		
- faithfulness important	-.34		
- right to enjoy sexual freedom	+.36		
- approval of unmarried motherhood	+.40		

Note: complete battery contained 65 indicators (see Lesthaeghe & Surkyn, 1988, p.16), N varies between 3,725 and 5,166 respondents in the European Community.

FIGURE 2 Cohort-specific scores on Inglehart's index of postmaterialism in six EEC countries, 1970-86

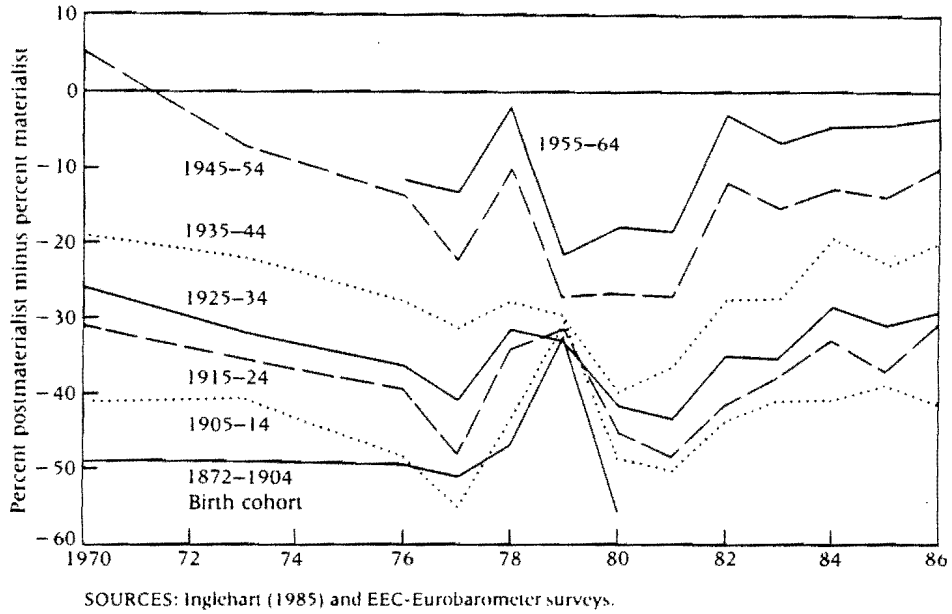


FIGURE 3 Percent of adult population (aged 18+) with weekly religious service attendance by birth cohort: Six EEC countries, 1975-85

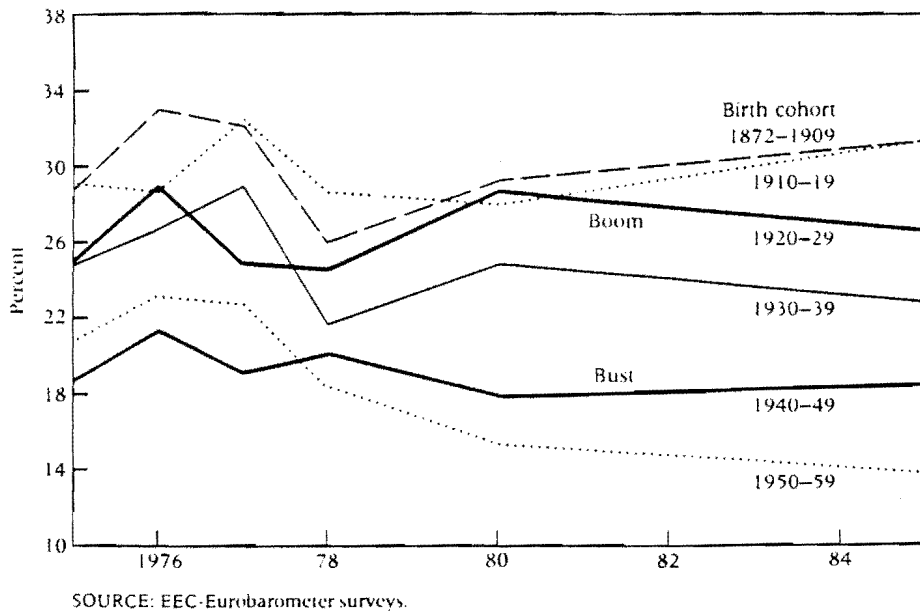


Table 2: Evolution of the percentage post-materialist and of inflation rate in
9 EC-countries, Eurobarometers 1976-86

<u>Cohort of</u>	<u>Surveys of:</u>	<u>1976-79</u>	<u>1980-83</u>	<u>1984-86</u>	<u>\bar{X}</u>	<u>Index</u> <u>1910-19=100</u>
Pre-1910		4.8	4.3	5.1	4.7	87
1910-19		5.3	4.7	6.6	5.4	100
1920-29		6.8	6.6	8.9	7.3	127
1930-39		7.5	7.7	10.3	8.3	137
1940-49		11.6	10.4	14.3	11.9	220
1950-59		16.4	15.7	19.0	16.8	311
1960-69		14.9	17.1	20.9	17.3	320
	<u>Period</u>	<u>1976-79</u>	<u>1980-83</u>	<u>1984-86</u>		
\bar{X} inflation rate		11.7	12.6	7.5		

Europe. In Table 3 we have calculated the shifts on Inglehart's scale (% postmaterialist minus % materialist) and in declining religious service attendance for:

- i) the cohorts producing the baby-boom, relative to their parents
- ii) the cohorts producing the baby-bust, relative to their parents

The outcome is that, irrespective of the date of observation, the baby-bust generators have made a much clearer break with the parental generation's attitudes than the baby-boom generating cohorts: the relative intergenerational rise in postmaterialism or decline in service attendance is two to three times larger among the "baby-bust" procreators than among the "baby-boom" ones.

The evolution sketched thus far is connected to two other features. Firstly, rapid shifts in postmaterialism and secularization were both linked to substantial rises in education. Secondly, the cohorts that made these clear ideational breaks were socialized in periods characterized by rapid growth in parental real income, and hence, their shift toward individual autonomy during their "formative years" concurs with rising aspirations in both material and non-material domains alike.

We shall consider the role of education first. It is hypothesized that the quest for individuation and autonomy has been carried by an educational elite and presumably by a secondary elite, i.e. those who score high on education but not necessarily so on income level. This is a classic finding in virtually all studies dealing with cultural mobility or with shifts in tastes and fashions (cf. P. Bourdieu, 1979). The statistical breakdown of the percentages postmaterialist in each cohort according to schooling level, shown in Table 4, testifies to this effect. Irrespective of period of measurement, the percentages postmaterialist increase unambiguously with duration of education. If furthermore, education in liberal arts, humanities or social sciences could be singled out, we would expect the differences to increase further. The average percentages postmaterialist calculated for the entire period 1976-86 are furthermore plotted on Figure 4. It clearly shows how the leading role of those with more than full secondary education (leaving school at ages older than 18) and the increase in the population benefitting from such education have pulled the cohort scores upward from less than 5 percent to more than 15 percent postmaterialists. But the figure also shows a new feature: the birth cohort of the 1960s shows little progress compared to its immediate predecessor born in the 1950s, and, moreover, the group with the highest educational level among the birth cohort of the 1960s exhibits for the first time a noticeable decline in its percentage postmaterialist. If this feature is real, it would constitute a significant trend reversal among those who had been the trend-setters for most of this century.

A more detailed statistical analysis reveals an additional patterning of the relationship between Inglehart's postmaterialism scale and education. Firstly, it proved necessary to split the EC-countries into two groups. In group A, composed of France, Belgium, Italy and Ireland, the cohort layering remains almost perfectly horizontal during the 1980s, which is indicative of a lack of a period effect. By contrast, in group B, composed of the Netherlands, Denmark, West Germany and Great Britain, there is a positive slope of the cohort lines corresponding with a general shift towards more postmaterialism affecting all cohorts during the 1980s (see Fi-

Table 3: Birth-Cohort differences in rising postmaterialism and declining church attendance in 6 original EC-countries

	Year of measurement		
	<u>1970</u>	<u>1978</u>	<u>1986</u>
<u>Increasing postmaterialism (points on Inglehart scale)</u>			
Baby-boom generating cohort (born 1926-35) compared to parents (born 1890-1909)	+19	+12	+14
Baby-bust generating cohort (born 1946-55) compared to parents (born 1920-29)	+35	+28	+24
<u>Declining weekly church attendance (in percentage points)</u>		<u>1975</u>	<u>1985</u>
Baby-boom generating cohort (born 1926-35) compared to parents (born 1890-1909)		-3	-6
Baby-bust generating cohort (born 1946-55) compared to parents (born 1920-29)		-6	-11

Source: Lesthaeghe & Surkyn, 1988: 38.

Table 4: Evolution of percentages post-materialist in 9 EC-countries according to educational level; Eurobarometer surveys of 1976-86

Cohort of:	<u>Percentage post-materialist among school-leavers prior to age 15</u>					index 1910-19=100
	Surveys of:	1976-79	1980-83	1984-86	\bar{X}	
Pre-1910		3.6	3.1	4.9	3.7	97
1910-19		3.8	3.0	4.9	3.8	100
1920-29		4.6	4.4	6.3	5.0	135
1930-39		4.5	4.6	6.0	4.9	129
1940-49		6.6	4.8	6.2	5.8	153
1950-59		8.6	6.3	10.8	8.3	218
1960-69		4.9	8.4	9.6	7.4	195

Cohort of:	<u>Percentage post-materialist among school-leavers at ages 15 and 16</u>					
	Surveys of:	1976-79	1980-83	1984-86	\bar{X}	
Pre-1910		6.7	5.3	5.3	5.8	88
1910-19		5.8	5.4	9.4	6.6	100
1920-29		6.8	6.4	9.2	7.3	110
1930-39		6.6	6.8	12.5	8.3	126
1940-49		8.1	8.5	12.5	9.4	142
1950-59		8.8	9.4	14.1	10.4	158
1960-69		10.3	10.4	16.3	12.0	182

Table 4: (continued)

Percentage post-materialists among school leavers at ages 17 and 18

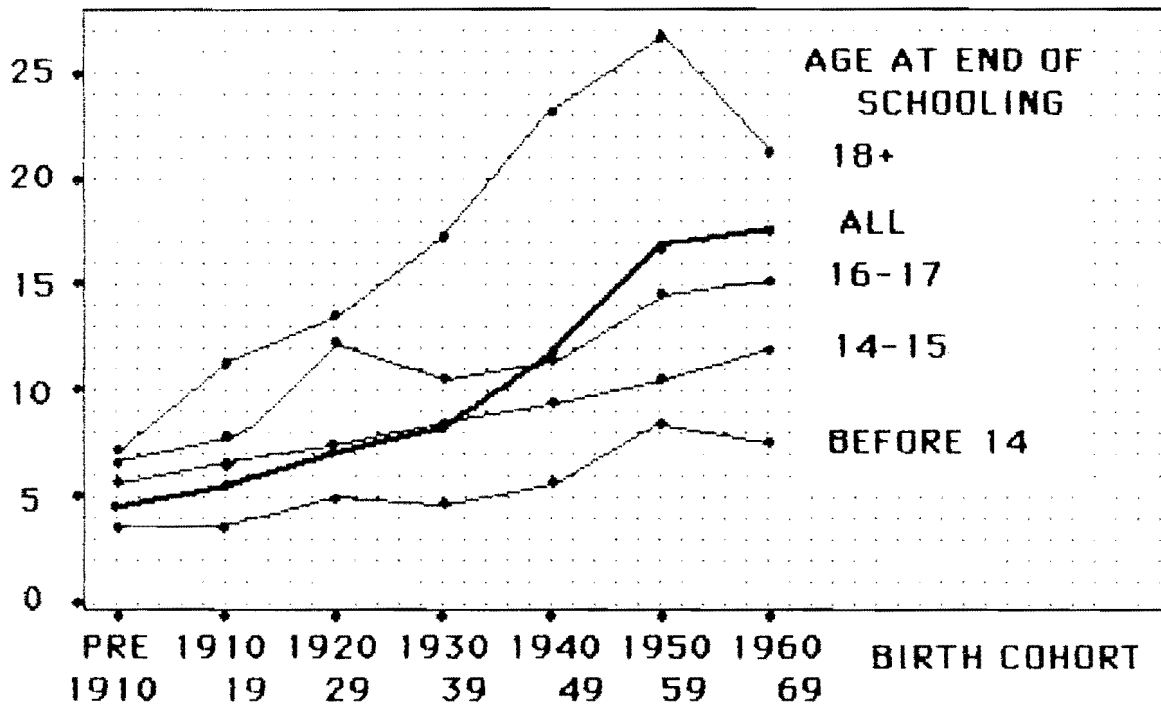
<u>Surveys of:</u>	<u>1976-79</u>	<u>1980-83</u>	<u>1984-86</u>	<u>\bar{x}</u>	<u>index</u> <u>1910-19=100</u>
<u>Cohort of:</u>					
Pre-1910	8.6	7.9	2.6	6.7	85
1910-19	6.2	9.2	8.4	7.9	100
1920-29	10.8	10.2	16.7	12.2	154
1930-39	9.0	10.9	11.5	10.4	132
1940-49	10.5	9.7	14.7	11.3	143
1950-59	14.9	13.3	15.6	14.5	184
1960-69	13.2	14.3	19.0	15.2	192

Percentage post-materialists among school-leavers at ages older than 18

<u>Cohort of:</u>					
Pre-1910	6.0	8.2	7.6	7.2	64
1910-19	12.2	9.4	12.4	11.3	100
1920-29	13.3	14.1	14.0	13.7	121
1930-39	16.2	16.3	19.5	17.2	152
1940-49	22.5	20.3	27.9	23.1	204
1950-59	25.7	25.9	29.6	26.8	237
1960-69	17.2	22.1	25.5	21.3	188

FIGURE 4

PERCENTAGE
POSTMATERIALIST



PERCENTAGE POSTMATERIALISTS IN EC-PUBLIC AGED 18+,
AVERAGE OF ANNUAL RESULTS IN 1976-86 EUROBAROMETERS
BY BIRTH COHORT AND EDUCATION

figure 5, A and B). Despite this difference in trend, there is similarity between the two groups of countries with respect to the effect of a statistical control for the length of schooling. This is brought out in Table 5, via the comparison of the scores of the youngest (born 1955-64) and oldest cohort (born before 1914). For instance, in group A, the youngest cohort has shifted 37 points toward postmaterialism on Inglehart's scale (% post-materialists minus % materialists), of which 24 points remain after controlling for the differences in length of schooling. Hence, two thirds (63 percent) of the shift is resistant to the control. In group B, this percentage is an analogous 67%. However, similar controls performed on each of Inglehart's items separately show a striking degree of heterogeneity. The relative resistance of the overall Inglehart scale to the control for length of schooling stems from two items only (order, grassroots democracy). The difference between the youngest and the oldest cohort remains for 74 to 89 percent intact for these two items (see Table 5). The two remaining items (price control, freedom of speech) are far less resistant to the control for length of schooling and only 24 to 49 percent of the original difference persists. This finding draws attention to item-specific differences in robustness to controls for variables such as education or real income that are believed to have fuelled ideational change. However, little exists by means of a systematic exploration of this issue.

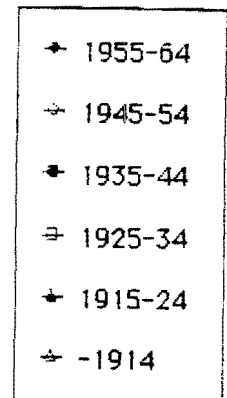
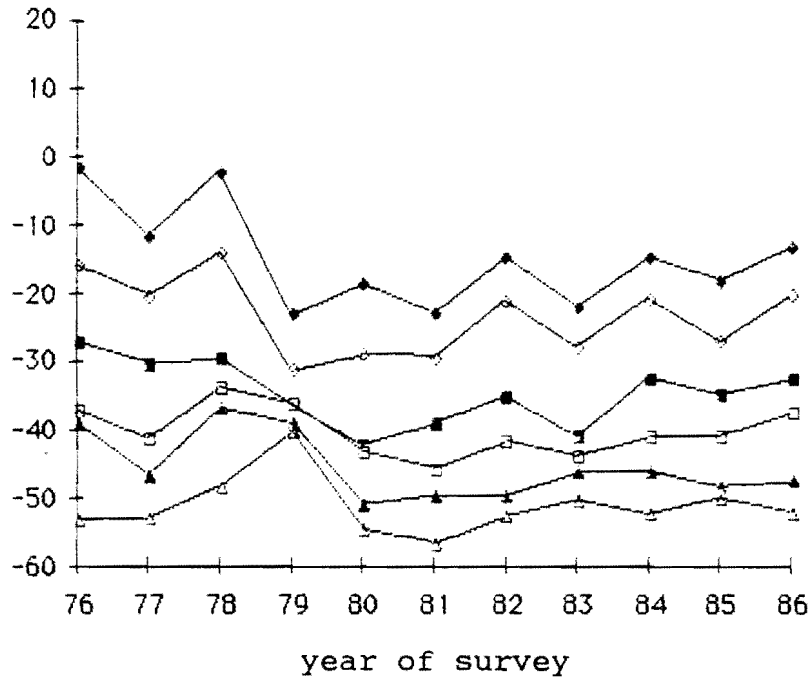
Finally, it should be noted that the control used so far merely deals with the length of schooling and not with the content of education. It is obvious that the style and values stressed in primary education, for instance, have been altered substantially and that this has occurred in tandem with the cohort succession of teachers and curriculum planners. It does not seem unlikely that the content of education and the values perpetuated by it have fuelled the shift to postmaterialism as much as the mere compositional shift of the population with respect to the duration of schooling. In other words, the key issue remains the role played by parental generations and schools in the process of value transmission and alteration.

Empirical research on socialization values among generations of parents sheds further light on this issue. Particularly the Kohn scales are of relevance here. In these scales parents are asked to rank the qualities they wish to stress in rearing their children. These qualities refer to child autonomy (such as independent thinking, initiative, imagination...) versus conformity (obedience, neatness, good manners, religious faith, hard work...). D. Alwin's analyses (1984, 1988, 1989a, 1989b; Alwin and Krosnick, 1989) of national US-data (spanning the period 1964-84) and Detroit data (1958-83) are revealing in several respects.

Firstly, the data show cohort-layering and support the hypothesis that especially cohorts born between 1930 and 1950 were largely responsible for the trend toward greater preference for autonomy and away from preference for obedience and conformism in children. Figure 6 shows the results for the item "obedience" in the Detroit data set (originally set up by G. Lenski and replicated at the other two dates by O.D. Duncan and D. Alwin respectively). Alwin's reanalysis of the 5 item battery assigns a score of 5 to the item picked first and 1 to the one picked last. With this coding in mind, the results shown in Figure 6 confirm the decline in importance attached to "obedience" and the emergence of cohort-layering during this change. However, the national data set for the 1964-84 period also indicates that within-cohort change was somewhat more visible than between-co-

Figure 5.A : Cohort patterning of Inglehart index (% post materialists minus % materialists) in France, Belgium, Italy and Ireland.

Results prior to control for length of schooling.



Results after control for length of schooling.

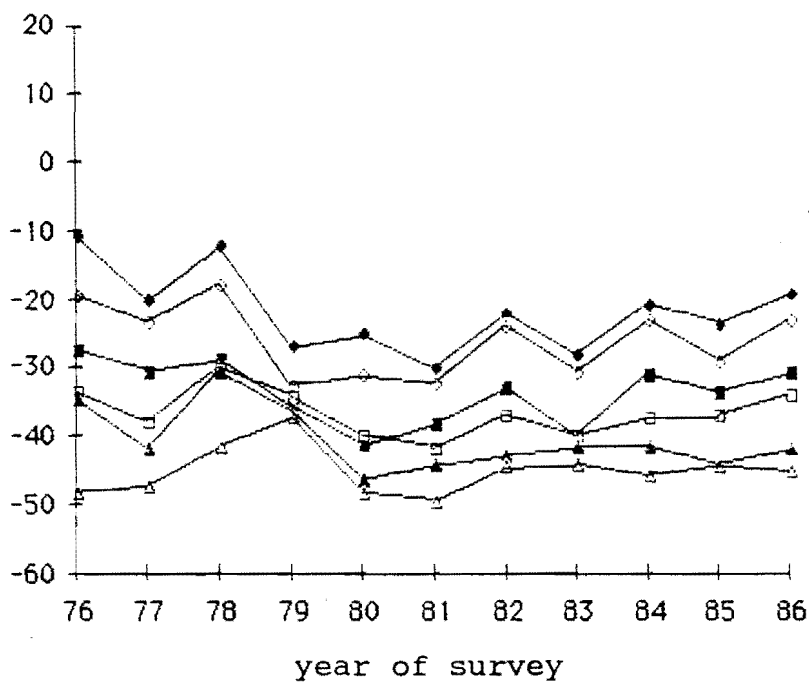
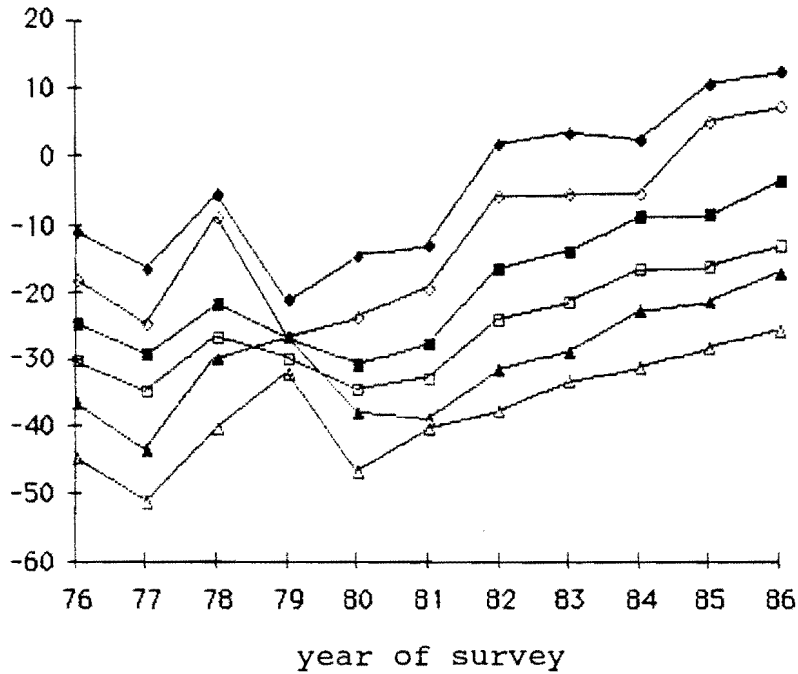


Figure 5.B : Cohort patterning of Inglehart index (% post materialists minus % materialists) in the Netherlands, Great Britain, Denmark and West Germany

Results prior to control for length of schooling.



- ◆ 1955-64
- ◇ 1945-54
- 1935-44
- 1925-34
- ▲ 1915-24
- △ -1914

Results after control for length of schooling.

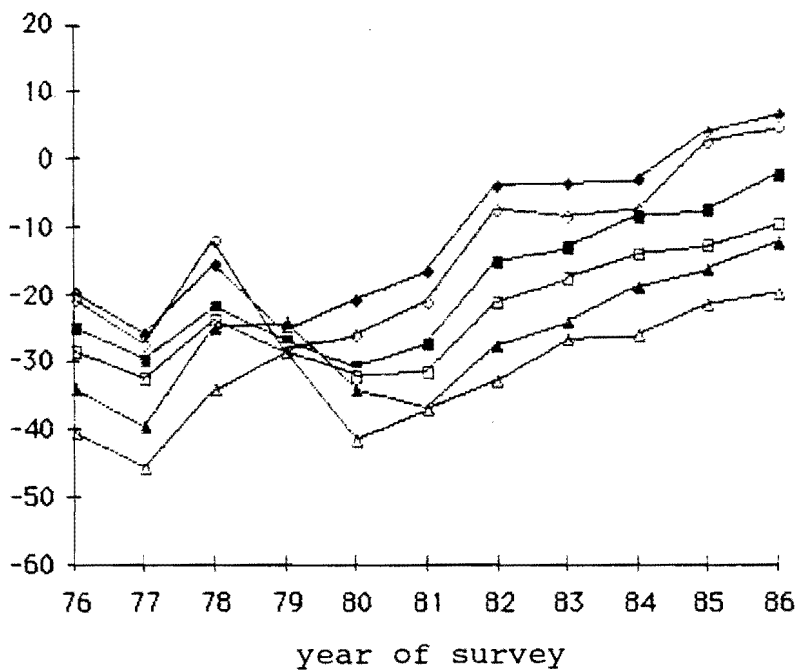


Table 5: Proportion of cohort differences in Inglehart-scale resistant to control for length of schooling, 8 EC-countries, 1976-86 surveys.*

Difference between youngest (born '55-64) and oldest (born before 1914) cohort, (1) before control and (2) after control for length of schooling (MCA-results)

	<u>(1)</u>	<u>(2)</u>	<u>ratio (2)/(1)</u>
A. <u>France, Belgium,</u> <u>Italy, Ireland</u>			
Inglehart scale (% pm - % m)	+37.2	+23.6	.63
item price control (m)	-15.7	-7.6	.49
item order (m)	-21.5	-15.9	.74
item freedom of speech (pm)	+11.2	+3.5	.32
item grassroots democracy (pm)	+26.0	+20.0	.77
B. <u>W. Germany, Netherlands,</u> <u>Denmark, G. Britain</u>			
Inglehart scale	+38.0	+25.7	.67
item price control	-17.5	-7.5	.43
item order	-20.5	-18.1	.88
item freedom of speech	+12.5	+3.0	.24
item grassroots democracy	+25.5	+22.7	.89

* Survey of 1979 omitted.

hort change (Alwin, 1989b). In other words, there was a more pronounced period affect in the socialization values than in the Inglehart postmaterialism dimension. Moreover, the cohort layering in the socialization values shows little robustness to the control for length of schooling. This is pictured in Figure 7 (data in D. Alwin, 1989a) in which the cohort lines are squeezed together as a result of this control. To sum up, compared to the dimensions of postmaterialism and secularization, socialization values exhibit less exclusive cohort dominance, and the latter is more easily obliterated by controls for length of schooling. This may be indicative of the fact that the socialization values spread more easily from more educated innovating groups to the other social categories. This shows once more that the ideational system of the cohorts is made up of elements that are more rigid than others.

The greater susceptibility of socialization values to period related influences affecting all cohorts also implies that they are more likely to pick up trend reversals. This seems to be born out by the results in Figure 7. Once length of education and the concomittant cohort patterning has been eliminated statistically, the decline of the "obedience" item occurs primarily between 1964 and 1974 in the national US-data set. The decline is furthermore more pronounced among denominational Catholics than Protestants. From 1974 onward a trend reversal has set in, which is more important among Protestants than Catholics (length of schooling still being controlled). Apparently, Protestants in the US are still leading with respect to trend direction: in the 1960s they were already more open to child autonomy than Catholics, and since the mid-1970s they more clearly exhibit the emerging return to more conformism.

Considered in tandem with the recent trend reversal with respect to postmaterialism among the most educated in Western Europe (see Figure 4), Alwin's findings suggest that the 1980s have indeed witnessed a slackening of tempo in ideational evolution with the arrival to adulthood of the 1960s birth cohorts and even an incipient trend reversal in those domains that show less cohort-specific rigidity.

A third data-set, coming from the Netherlands, contributes to the unfolding of the picture. The "Cultural Change Surveys" have been conducted 8 times between 1970 and 1985 with similar questionnaires, and the results have been analyzed by R. van Rijsselt (1989) for 1970, 75, 80 and 85 with respect to the location of birth cohorts. The interesting part of van Rijsselt's analysis is the distinction between those parts of ideology which are linked to economic aspects such as income inequality, tax and education policies, control over means of production, and the economic role of government on the one hand, and the cultural or ideational aspects pertaining to family morality, sexual libertarianism, socialization values, gender roles, nationalism and freedom of speech. The first dimension is identified through 33 items grouped in 10 variables or composite scales, whereas the second is being measured through 44 items grouped in 9 scales. A summary is presented in Table 6. The correlation between the two dimensions (the economic one representing the left-right polarity, and the cultural one capturing the gradation from conformist to libertarian) is a respectable 0.30, but to bring out the cohort location with respect to each, van Rijsselt treats the two dimensions as orthogonal. Before inspecting the results in more detail, it is worth noting that van Rijsselt's dimension of conformism-libertarianism is strongly resembling the dimension we had extracted in Table 1 (acceptance of institutional regulation and au-

MEAN RANKING "OBEDIENCE"

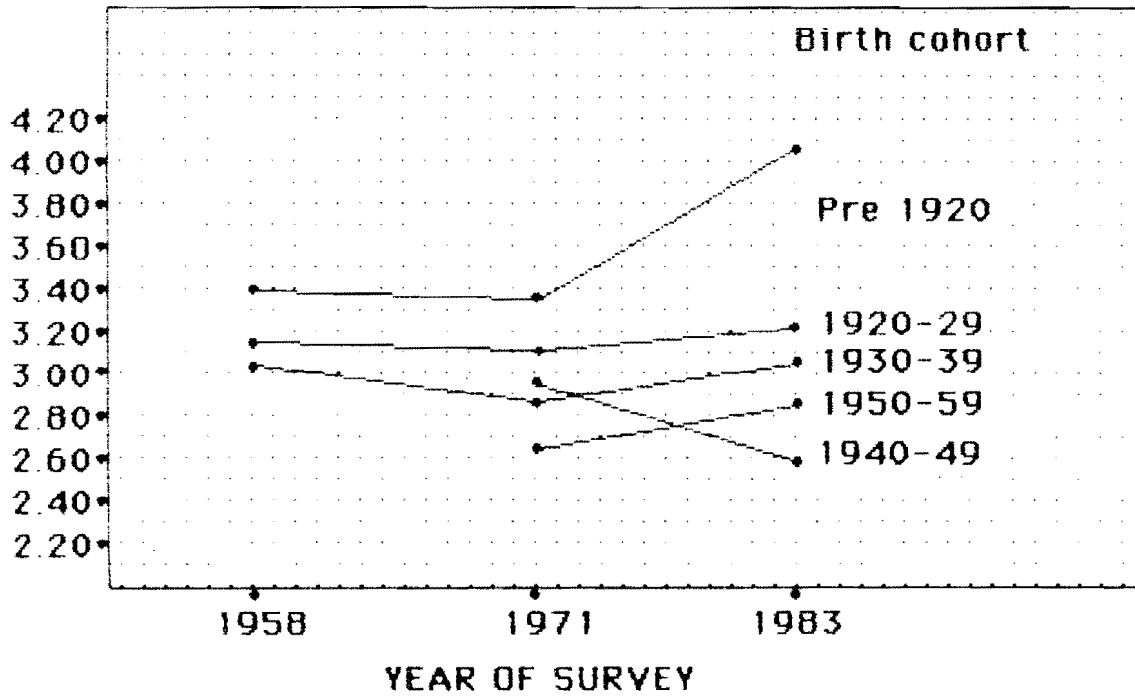


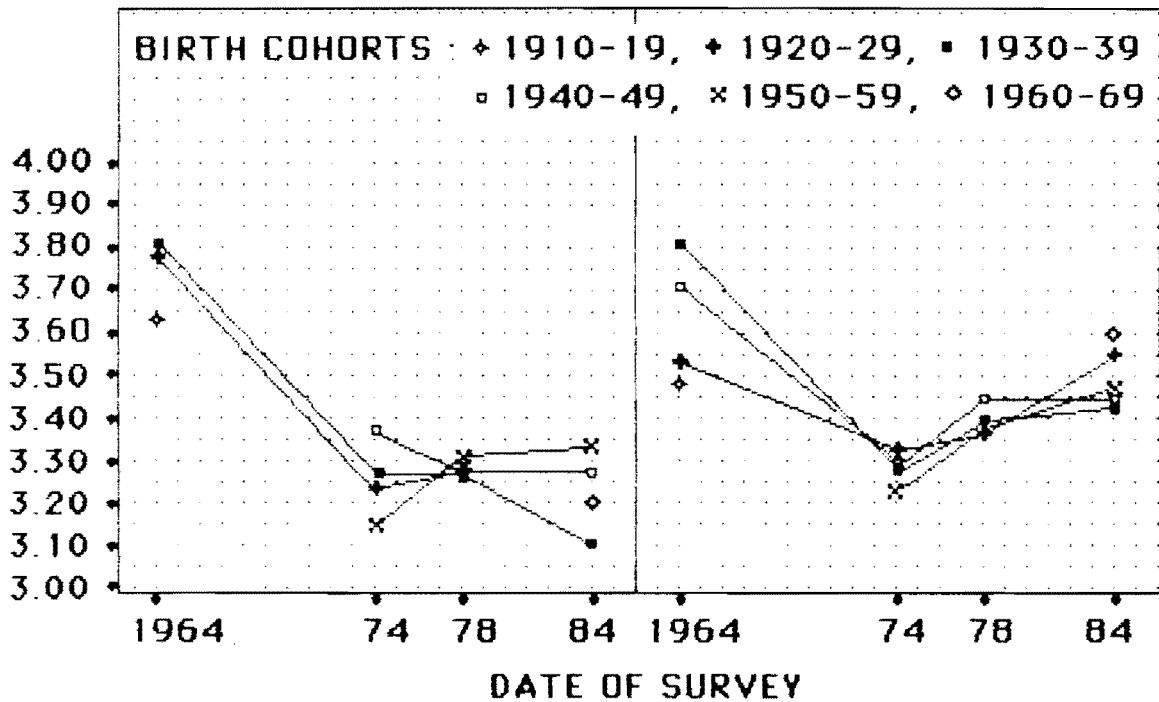
FIGURE 6 : MEAN RANKING OF PARENTAL PREFERENCE FOR OBEDIENCE IN 1958-83 DETROIT SURVEYS, BY BIRTH COHORT.

SOURCE : D. ALWIN, 1989 b.

FIGURE 7

US CATHOLIC PARENTS
OF CHILDREN 0-17

US WHITE PROTESTANT
PARENTS OF CHILDREN
0-17



MEAN RANKING OF ITEM "OBEDIENCE" ADJUSTED FOR
EDUCATIONAL SHIFTS IN SUCCESSIVE U.S. COHORTS

SOURCE : D. ALWIN, 1989

Table 6: Indicators of the "left-right and the "conformist-libertarian" dimensions in the Netherlands, 1970-85 Cultural Change Surveys.

<u>Indicator scales</u>	Factor 1 <u>(left-right)</u>	Factor 2 <u>(Conformist-Libertarian)</u>
Government income policy on high incomes (3)	.78	
Attitude towards equality of income, property, status (4)	.77	
Government interference for equal income property (2)	.74	
Government direct economic interference (3)	.71	
Militant trade union policy (2)	.63	
Government support for education (4)	.62	
Government tax policy on high incomes (3)	.54	
Attitude towards democratic participation (4)	.57	.37
Authoritarian parent-child relations (5)		-.78
Conventional gender roles (4)		-.68
Political freedom of expression (6)		.63
Internationalism (4)		.66
Tolerance homosexuality (3)		.61
Pro aid to developing countries (3)		.37

Note: number of items in parenthesis

Source: R. van Rijsselt (1989)

thority versus individual autonomy and discretion), but in which we had not forced an orthogonal design on the data (hence the correlations with some political items in table 1).

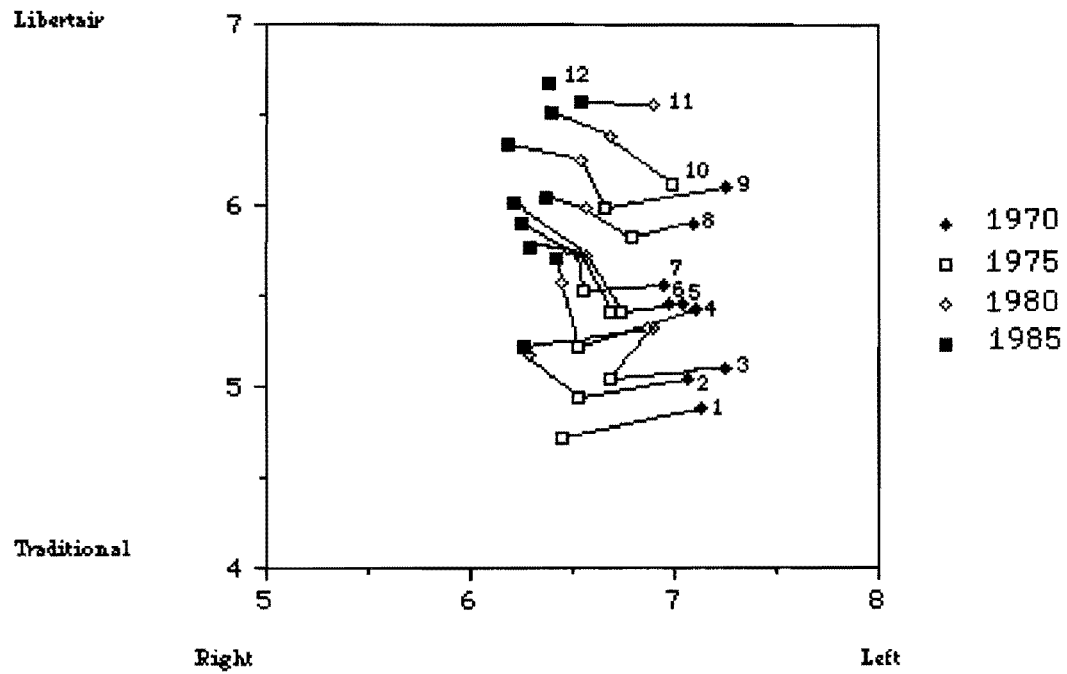
Accepting van Rijsselt's heuristic decision to impose orthogonality between the economic/political dimension and the cultural/ideational one, we shall now turn to the shifts in cohort location as presented by the author in two elucidating graphs. In Figure 8 the cohort locations (1 = oldest and 12 = youngest birth cohort) are joined according to the time of observation. The emerging pattern shows how all cohorts have shifted during the 15 years between 1970 and 1985 from a more extreme "leftist" position to a more "rightist" one, thereby becoming more critical of egalitarian political and social ideology and more supportive of neo-liberal stands. This also corresponds with the analysis of the item reflecting extreme leftism in the Eurobarometer surveys held in the EC-countries (i.e. "social change can only be brought by revolutionary action"). This item still showed cohort layering between 1976 and 1986 (see Lesthaeghe and Surkyn, 1988) but at the same time negative slopes emerged in the cohort lines, indicative of the fact that all cohorts and particularly the younger ones were gradually abandoning support for it. Hence, the 1970s and 1980s have been characterized by a greater defense of individual economic positions and a lowered allegiance to income and resource redistribution. If the period connection of the cohort points in Figure 8 produces essentially a layering with respect to the "left-right" scale, the cohort connection produces a layering with respect to the "conformism (traditional) - libertarian" dimension. In other words, while the entire Dutch public, irrespective of age and cohort membership became less "leftist" in the 70s and 80s, the progression to libertarianism and greater individual autonomy in moral and familial, gender and sexual matters continued to progress according to the familiar historical scheme with cohort dominance. Moreover, as in the Inglehart scale results, the progression between cohorts 4 and 7 in Figure 8 (born between 1916 and 1935) is slight, whereas that for cohorts 8 and 9 (born after 1935) is much more pronounced. Also typical for the Netherlands, and presumably for the other countries in group B (see Figure 5B with respect to postmaterialism), is the further general progression to libertarianism during the 1980s affecting all cohorts to a similar degree.

A general overview is now in order. First of all, the multidimensionality of ideology needs to be stressed again. Attached to the notion of instrumental rationality is the legitimacy of the conscious economic calculus of advantages and of the defense of achieved economic position. According to this dimension, change in the 1970s and 80s has been resolutely in the direction in favour of free competition and a positive reevaluation of individual economic status. Conversely, opinions in favour of resource redistribution, social egalitarianism, and state intervention to this effect weakened. This is consistent with the generally accepted notion that the slow economic growth during these decades has led to a defensive individual reaction and not to a more generous display of solidarity. Typical for this change is that all cohorts react alike and that there is little or no difference between birth cohorts. Very much the opposite holds for the "cultural" dimension capturing changes in morality, religiosity, family and socialization values, gender relations and national pride. According to this "conformism-libertarian" dimension (or the search for self-fulfilment in non-material domains), further progress to the libertarian end of the scale was made during the last two decades. This progress occurred almost

Figure 8 : Location of Dutch Cohorts on the 'left-right' scale and the 'traditional-libertarian' scale in 4 surveys, 1970-1985.

(Bron : Cultural Change Survey 1970-1980 & van Rijssekt, 1989)

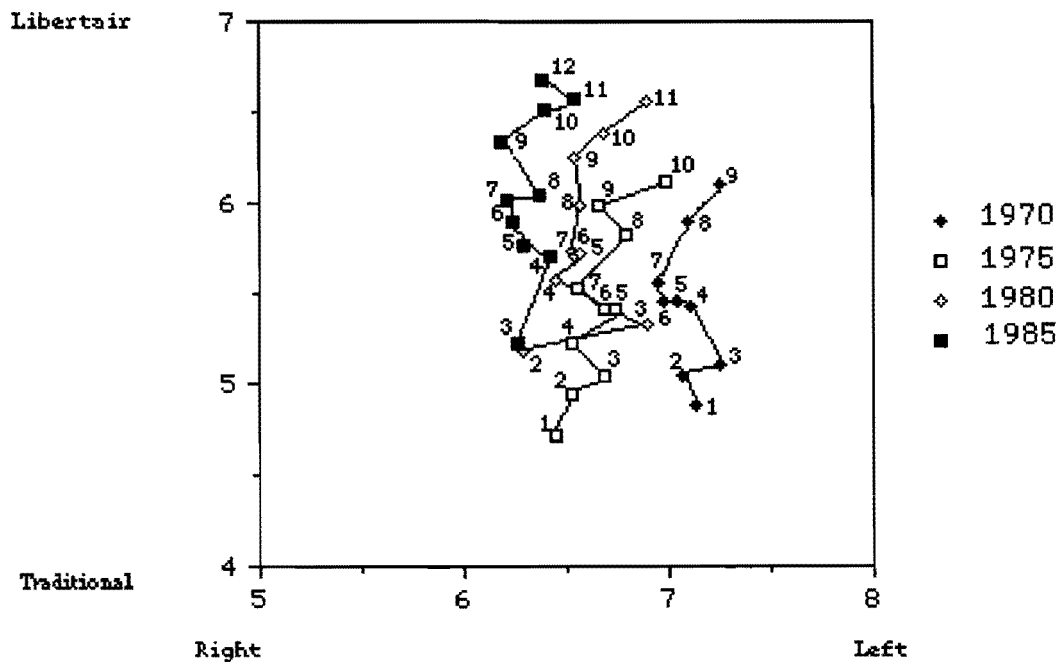
Cohorts connected.



Birth Cohorts :

1=1901-1905	4=1916-1920	7=1931-1935	10=1946-1950
2=1906-1910	5=1921-1925	8=1936-1940	11=1951-1955
3=1911-1915	6=1926-1930	9=1941-1945	12=1956-1960

Periods connected.



fully according to the historical pattern of strong cohort dominance. In other words, initial differences between cohorts were maintained and the youngest cohorts progressed further, be it at a slower pace. A part of this evolution is undoubtedly carried by compositional changes with respect to longer schooling, and another part is likely to be connected with the interactions between cohorts taking place in the context of socialization.

The dynamics of the cohort model, operating for almost a century by now, is that more libertarian generations have socialized their offspring according to the new convictions, thereby fuelling further cohort progression on this dimension. However, as there have been differences in the pace of this progression, such a self-propelling cohort model of cultural change should be qualified.

We suspect that the following mechanism is operative. Suppose that adults develop a slight "double standard" in the sense that they defend their own cohort values developed during their formative years in interactions with age-mates, but prepare something different for their children. In this fashion, Peter Blau's (1967) dialectics of idealization and subsequent disenchantment apply. In an earlier article (Lesthaeghe and Surkyn, 1988) we had advanced this proposition to account for the large leap made by the post 1940-birth cohorts compared to their parents. More specifically, we pointed out that the pre-1940 cohorts defended the more traditional values for themselves and their age-mates, while they had rising doubts about the more authoritarian props underlying them. The outcome was that parents of the 1960s did not transfer these conventional values in the same way they had received them, and tolerated or instilled more libertarian values among their children. A similar mechanism now seems to operate in the reverse direction. The data on the trend reversal in socialization values, occurring in the US from the mid-1970s onward, seem to point in this direction. The trend in socialization values is then taken as an early warning indicator for subsequent ideational change in other domains.

4. Reproduction, economic calculus, and ideational change:

The study of human reproduction has frequently drawn attention to the joint role played by respectively the calculus of advantage and ideational change. The studies of the historical fertility transition in Europe, for instance, indicate that fertility control and the adoption of contraception were inspired by the growing advantage associated with the quality rather than quantity of children, and that in most cases (the initial third of the fertility decline in France being a noteworthy exception) such a shift was supported by real income growth and a decline in the familial forms of production. At the same time, however, most studies equally show that the fertility decline was closely associated with secularization (France not being an exception). At first, such a link could only be established for geographical aggregates and regions since individual measurement of secularization is difficult in historical studies. Subsequently, i.e. when survey research emerged, it was realized that the connection with secularization continued to hold at the individual level as well. Until today, not only fertility in general remained differentiated according to the "conservative-libertarian" dimension or according to the accentuation of Maslow's "higher order needs", but also its various components such as pre-marital cohabitation, unmarried motherhood, divorce, voluntary childlessness etc.

At this point, we shall not devote any further attention to these findings, but rather direct attention to the possibility of a trend reversal in fertility during the 1990s. Judging from the ideational changes treated at length in the previous section, one could argue that such a trend reversal is imminent. We have noticed that the most educated group of the European public displayed a decline in its postmaterialist preferences, and that this feature is largely responsible for the smaller overall shift toward postmaterialism as exhibited by the youngest cohort (born between 1955-65). Furthermore, there are also indications that the children being socialized during the 1980s receive less libertarian messages, but it should also be stressed that we are thus far not at all dealing with a resolute return to the socialization values of the 1950s. Also, these children will only start their own family formation after the turn of the century. To sum up, the signals emanating from the ideational domains are clear in the sense that the rapid evolution of the 1960s and early 1970s has definitely come to an end around 1980, but they equally show that there is no marked return to the *ex ante* situation either. Moreover, if the cohort progression model continues to hold, the demographic effects of a slow reversal in ideational trends will take time to emerge. In short, the negative ideational effects on fertility generated among the postwar cohorts are still largely in operation, a small reversal in ideational trend notwithstanding.

The signals from the economic domain are mixed, depending on the theory used in forecasting. According to R. Easterlin's arguments, a fertility rise should be imminent given the arrival of small birth-cohorts in the reproductive age-span during the 1990s and considering the improvement in employment opportunities for incoming male cohorts after 1985. However, it is also clear that European households have only maintained their living standards during the 1975-85 period as a result of considerable growth in female labour force participation and in dual-income families. This implies increased opportunity costs of child-bearing, especially for women and households in the age groups between 20 and 30. Hence, the development of a pattern of delayed fertility.

Judging from the demographic record for the 1980s, period fertility levels in Western Europe have not yet recovered, and the delay pattern is very much in evidence. Most Northwestern European populations have only prevented a further decline in period fertility thanks to the recuperation effect in the age groups above 30, as shown in Table 7 and Figure 9. The data presented here are simply ratios between the age-specific fertility rates of 1987 and those of 1980.

With the exception of Sweden, where fertility only dropped in the age groups 15-19 and 20-24 but rose in all others thereby causing a 10 percent rise in total period fertility, all other Western European nations failed to redirect the trend. Countries such as Norway, Switzerland, Denmark, the Netherlands and the United Kingdom limited the post-1980 decline in total fertility to less than 5 percent, but three of these countries have total fertility levels of less than 1.60 (see Table 7). In France, West-Germany, and Belgium, the decline has been in excess of 5 percent since the decline among couples in their 20s has not been offset by the recuperation after age 30. In Austria, fertility declined even more during the 1980s (by 14 percent), and there was no increase in older-age fertility worthy of mention. Finally, the Mediterranean countries continued their rapid fall during the decade with percentages in excess of 20 points. In Portugal,

Table 7: Ratios of total and age specific fertility rates of 1986-87 relative to those of 1980 in selected European countries.

	Level of TFR <u>1986 or 87</u>	Ratio TFR 86/87 relative to TFR 80	Ratio (x100) of age specific fertility rates 86/87 <u>relative to 1980</u>					
			<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>
Sweden	1.84	109.5	69.0	88.2	111.7	135.2	131.3	132.6
Norway	1.71	99.4	70.4	86.7	106.1	117.3	107.1	95.0
Switzerland	1.51	97.4	59.7	76.3	98.5	112.4	114.4	87.2
Denmark	1.50	96.8	57.7	70.5	103.0	131.3	139.5	133.3
Netherlands	1.55	96.8	73.9	72.4	94.0	129.8	121.1	97.1
United Kingdom	1.81	95.8	101.3	83.2	93.8	113.6	114.7	104.4
France	1.84	94.4	61.2	76.2	100.7	112.2	114.2	116.7
F.R. Germany	1.35	93.1	58.6	70.7	100.2	107.6	127.9	92.7
Belgium	1.54	91.7	34.8	61.6	95.9	132.0	122.3	102.9
Austria	1.43	86.7	65.3	79.5	95.2	101.3	97.7	71.4
Italy	1.33	78.7						
Portugal	1.63	74.4	74.1	71.4	77.9	79.1	70.9	57.3
Spain	1.52	68.5						

Source: Conseil de l'Europe (1989): Evolution démographique récente dans les Etats-membres du Conseil de l'Europe - Rapports par pays. Strasbourg CDPO (88).

$\frac{\text{ASFR 86 or 87}}{\text{ASFR 80}} \times 100$

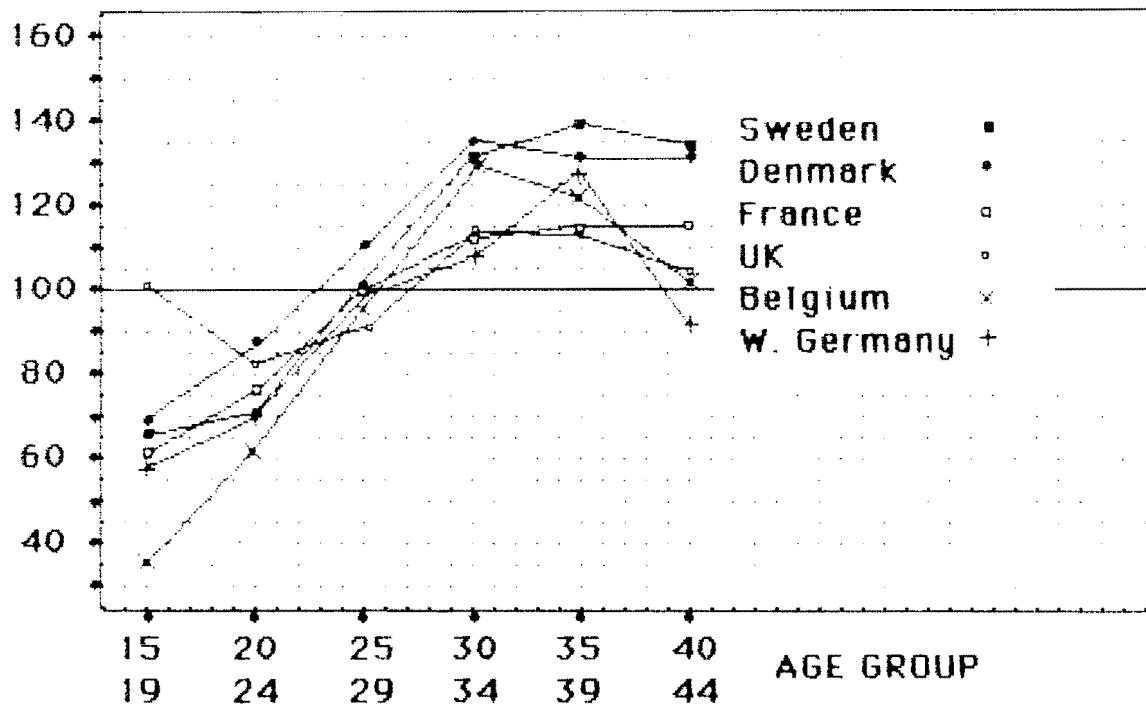


FIGURE 9 : CHANGE IN AGE SPECIFIC FERTILITY RATES
IN SELECTED WESTERN EUROPEAN COUNTRIES
DURING THE 1980s

for instance, all age groups are affected by about the same proportional decline.

On the whole, we would speculate that a slow ideational return, if it persists during the 1990s, and an expected improvement in male opportunity structures may contribute to the end of falling fertility, but that huge opportunity costs of procreation for growing numbers of female labour force participants will persist and result in a continuation of the late age pattern of reproduction. In the balance, rises in period fertility, as currently witnessed in Sweden, are quite possible, but a swift return to replacement-level fertility does not yet seem to be in the making. For that to occur, we would argue that very major policy measures need to be taken aiming at a substantial reduction in child- and opportunity costs. State, industry and households should take advantage of the current economic growth period and the two coming decades that are relatively free of ageing to insure this demographic continuity and simultaneously invest in the quality of the new generation.

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