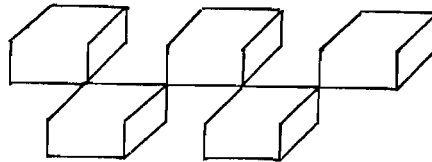


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The second demographic transition in Western countries:

An interpretation

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The second demographic transition in Western countries:

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1. Introduction

The direction of Western family changes since the 1960s is well known. During the initial phase, roughly between 1955 and 1970, there were three major components. Firstly, there was a considerable acceleration in the already upward divorce trend. Secondly, the baby boom came to an end. Fertility declined at all ages and marriage durations simultaneously. This coincided with the contraceptive revolution based on new hormonal contraceptives and the rediscovery of the IUD. Thirdly, the decline in ages at marriage, that had started between 1880 and 1920 in most Western countries, stopped. Instead, proportions marrying prior to age 25 dropped considerably. Near the end of the 1960s, several countries also experienced a temporary increase in shotgun marriages: premarital sex had been on the increase throughout the 1960s, and contraceptive protection in such relations was not yet efficient enough. In most countries this feature disappeared during the early 1970s. In others, a problem of teenage pregnancy persisted.

During a second phase, roughly between 1970 and 1985, premarital cohabitation spreads from Nordic countries to many others. In Europe, proportions cohabiting largely compensate for declining proportions marrying. This is not the case for the US, Canada or Australia where there is a net reduction of persons in unions prior to age 25. Thereafter, also procreation starts within consensual unions, and these unions drift away from being a period of courtship to becoming more a "paperless marriage". Procreation in consensual unions results of course in a larger share of extramarital births among all births. But, this does not entail a rise in fertility prior to age 25. The opposite still holds.

A third phase occurs from the mid-1980s onward. It is characterized by a plateau in divorce rates in countries that had reached high levels. However, it should be stressed that remarriage probabilities, both for divorcees and widowed persons, had declined throughout the period since the 1960s. Post-marital cohabitation and LAT-relations emerge as new features and they replace remarriage to some extent. Moreover, there is a recuperation effect of fertility after age 30. In some countries the decline in fertility at young ages has stopped, largely because it reached very low levels or because of the persistent teenage fertility problem. As a consequence, the recuperation after age 30 pushes the period fertility rates to slightly higher levels. Not all Western nations have, however, reached this third stage. In Europe, the leads and lags essentially follow a North-South axis, with the mediterranean countries still being in the second phase.

A consequence of these developments was a rise of one-parent families, mostly female headed. This contributed to the feminization

of poverty. Adverse effects were felt by children in such households too. However, these social consequences vary substantially between countries, and largely in function of social security provisions. Another consequence seems to be an increase in one-person households. Patterns of home leaving among young adults had changed as well.

In short, the life cycle transitions have become more frequent, less strictly patterned and more complex. None of these changes since the 1960s had been predicted. They were discovered as the statistics became available.

2. Two demographic transitions?

Several authors have noted a number of novelties and contrasted them with earlier patterns. From this sprung the notion that the changes since roughly 1960 were substantial enough to warrant the label of a second demographic transition. This is, however, still a contested matter among demographers (cf. Cliquet, 1991).

First, E. Shorter (1975) identifies two sexual revolutions. The first involved a shift in partner choice determinants: considerations of social homogamy and parental involvement in assuring such homogamy yielded to personal choice based on attraction and prospects of companionship. The second sexual revolution accentuated the sexual aspects and gives eroticism a much more prominent place in human relations. Ages at first sexual contact decline, and sexual gratification in unions, even at older ages, is widely recognized as valuable and indispensable.

Others have drawn attention to two contraceptive revolutions. The first is based on inefficient methods, and it produces the historical fertility transition in the West. The second corresponds to the introduction of efficient methods (Ryder and Westoff, 1977). It would lead to what Westoff has called "the perfectly contracepting society". Hence, Western societies were eager to apply the new endocrinological knowledge and to extend human control over nature in yet another way. Couples eliminated a source of uncertainty and possible tension. Women gained a much greater say in matters of reproduction.

The issue of motivation lies at the heart of Ariès' explanation (1980). From his detailed scrutiny of Western social and cultural history, he detects two distinct motivations for respectively the historical and the recent fertility declines. The former was inspired by parental investment in child quality. This diagnosis is frequently offered for the fertility transition of the 18th and 19th century. Arsène Dumont has based his theory of social capillarity on it, and Sauvy referred to it as the "altruistic transition". This phase also corresponds to a decisive penetration of the bourgeois family model into the life styles of the lower classes. It is hence a part of "embourgeoisement". The heart of it was that the domestic sphere became the central locus of quality considerations, with men providing the financial resources and companionship, and women being responsible for raising or maintaining the quality of life of all persons in that household. This quality oriented model is essentially based on institutionalized asymmetric gender roles. The second fertility decline of the 1960s and 1970s marks the end of

Ariès' era of the "child-king". It inaugurates a period of adult-centered preoccupations with more self-fulfilment and hence with more attention being paid to the quality of the dyadic relation between partners. Children are still very important, but their position at the top of the pyramid is not self-evident anymore. This is for instance illustrated by the fact that children should no longer be considered as impediments to parental divorce (see Table 1 for the trend in public opinions on this topic). Ariès' thesis was echoed by van de Kaa and Lesthaeghe (1986; van de Kaa, 1987), who labeled the entire set of recent Western family changes as a "second demographic transition". The phases recognized by Shorter, Ariès, and by the authors of the two contraceptive revolutions, largely correspond to the notion and the timing of two demographic transitions.

But also economists recognized the distinctiveness of the two periods before and after 1960. The neoclassic school, for instance, places the quality-quantity trade off with respect to children at the core of the first demographic transition. This is entirely consistent with the interpretations of Ariès, Sauvy and many other social historians. They have also stressed that rising male real wages, a feature that would emerge very clearly since the 1880s in most Western countries, leads to earlier marriage and earlier parenthood. This is again consistent with the nuptiality transition between roughly 1880 and 1960. The second phase, however, corresponds with rising female economic autonomy. Increased female employment and increased female wages lead to reductions in gains to marriage and to rising opportunity costs for women (G. Becker, 1981). As a result, marriages are postponed and fertility declines. This is essentially the second transition.

Easterlin's (1976) views on the baby boom and the baby bust place male intergenerational income ratios and consumption aspirations acquired during socialization at the centre of the picture. The recent fertility decline is the result of deteriorating intergenerational income ratios and harder labour market conditions. This forced the younger generations experiencing these events to alter their demographic behaviour by remaining single, by having fewer children, by doubling up with parents or others, by forming unmarried unions, and by coupling women's work with childbearing (Easterlin et al., 1990). Easterlin's dynamics, i.e. the competition between consumption aspirations and resources, are not directly in conformity with two distinct transitions. Implicitly, the theory allows for a demographic pattern reversal if male resources and opportunity structures would again improve, or if consumption aspirations were to level off. The latter condition seems more remote than ever, as Crimmins, Easterlin and Saito (1991) themselves detect from data gathered among high school graduates and college freshmen in the US (see Table 1). The conclusion then seems to be that consumerism is a basic ingredient of the second demographic transition as well.

A firm case can also be made in favour of two transitions from the political angle. At the heart of the argument is that the period between 1500 and 1950 characterized by increasing institutional control, mainly by state and church, has come to an end during the period after the Second World War. The long term trend of enhanced institutional control starts in a virulent way during the 16th century in both Catholic and Protestant areas. This period exhibits

the curtailment of all expressions of popular culture and "uncivil" public behaviour (Muchembled, 1978; Otis, 1985; Roper, 1989; Lis et al., 1985; Flandrin, 1984; Delumeau, 1983; Lesthaeghe, 1989), and by laying the foundation of a "new christian civility" (Ariès, 1973). The new model serves to establish asymmetric gender roles, curtail sexuality, police paupers, establish moral self-control and community surveillance (i.e. the politics of reputation), discipline wage earners, and to regulate the use of time. The penetration of the 18th century bourgeois ideals - which were firmly influenced by the new christian civility - to lower social strata only occurs after 1850. But this happens during conservative periods in Victorian England, Bismarck's Germany and during the Catholic restoration in France. The model stresses self-discipline, conformity, obedience, piety, and patriotism. Sexuality is not valued at all. But, as stated before, the model also carries companionship in marriage and quality enhancement in the domestic sphere. The authoritarian traits, however, were further accentuated after World War I in countries that experienced the fascist totalitarian regimes.

The first fertility transition fully exhibits the rising importance of individual autonomy (i.e. the individual freedom of choice and the non-acceptance of external authority or morality). The use of contraception is intimately related to secularization (Lesthaeghe, 1983). The French fertility transition, occurring much earlier than elsewhere, is no exception in this respect (Lesthaeghe, 1989). This shows that all social classes were accepting the quality-oriented aspects of the bourgeois model in the domestic domain, but were privately no longer accepting the religious impediments to contraception. Individual autonomy manifested itself in a major demographic variable, but the "act of dissent" occurs in total privacy. The first demographic transition is a very quiet one.

The second transition corresponds to a further, much more public manifestation of individual autonomy. It is also more pervasive as it is directed against all expressions of external institutional authority. It emerges in the fields of socialization (Kohn, 1969, 1976; Alwin, 1984, 1988, 1989), religious authority (Simmons, 1980; Glenn, 1987), political values (Inglehart, 1977, 1990), the domestic sphere, sexuality etc. The philosophical and psychological theories emerging in the 1960s are all strongly anti-authoritarian. The trend data on these topics, mainly from the US and the Netherlands, document that the libertarian values emerged very gradually before the Second World War and spread particularly between 1955 and 1975 (Alwin, 1984, 1988, 1989; Glenn, 1987; Thornton, 1988; van de Kaa, 1980) (see Table 1). Thereafter a stabilization occurs, with the possible exception of a trend toward less public responsibility and more individualism after 1985 (Marini, 1990; Crimmins et al., 1991; Van Rysselt, 1989). In other words, the demographic changes since the 1960s cannot be divorced from Inglehart's "Silent Revolution". But the revolution was not so silent during the 1960s: reactions to the authority structures in the Catholic church were highly visible, the student revolts drew headlines all over the world, the "green"-parties manifested themselves in parliaments, and the "second feminist wave" became a force to be reckoned with.

The weight of anti-authoritarianism and the public rise of individual autonomy is not restricted to Western values and

demographic trends. They equally provide the explanation for the recent political developments in Eastern Europe and the Soviet Union. This underscores the thesis that the era of institutional control and the imposition of conformity to religious and political doctrines has come to an end. That era had lasted for nearly five centuries. The 1960s and the late 1980s are therefore historical turning points in respectively the Western and Eastern worlds. The link with the demographic changes in the West is not a coincidence.

3. A closer look at the roots of the recent demographic trends

The social differentials found in new demographic features and those emerging from the values studies provide further insights into the more precise nature of the process involved.

3.1. The quality of dyadic relations

First, the fact that divorce starts its rise very early on during the second transition is indicative of the change occurring with respect to the evaluation of quality of interpersonal relationships. The arguments that the notions of altruism, individual autonomy and individualism better be dropped from the analysis, as suggested by Cliquet (1991) is not feasible: it would, as we shall show, delete the concept of quality as well. The thesis defended by Elchardus (1990) that the demographic changes are solely related to rising quality standards and have nothing whatsoever to do with individual aspirations and autonomy is lopsided and therefore equally unrealistic. A few definitions are now in order to avoid misunderstanding.

We shall adopt Becker's (1981) definition of altruism and individualism. These terms refer to the incorporation or non-incorporation of elements of Alter's well-being into Ego's utility function. The long history of companionship in the bourgeois family model, for instance, implies that husbands were incorporating some elements of their wives' well-being into their own utility function, in return for their wives' institutionally supplied altruism in a gender-asymmetric setting. Altruism can stem from very different sources: emotions (e.g. love), the expectation of reciprocated altruism and benefits, the reduction of transaction costs (e.g. Ben Porath's notion of "investment in identity", 1980), or from the plain internalization of institutional roles transmitted through socialization. The notion of individual autonomy, as already defined, has in se nothing to do with individualism and egocentric behaviour. It simply means that the individual no longer takes externally supplied norms and morality for granted, and stresses his/her own freedom of choice. It can therefore equally manifest itself in emotional domains as in that of economic rationality and utility maximization. The quality of personal relationships in a dyad is intimately linked to "giving and taking", i.e. to the mutual willingness of merging utility functions, and hence to the partners' respective positions and the presence or lack of reciprocated altruism (Reszohazy, 1991). In other words, these positions and the returns from the relationship to the individual define quality. How then could individualism and altruism be dropped from the analysis?

It should come as no surprise that "mutual understanding and respect" emerge as the prime prerequisite for a successful marriage in the value studies of the 1980s (Harding et al., 1966). The more marriages deviate from the earlier asymmetric and institutionally defined model, the stronger the accentuation of "mutual understanding and respect" should be. The next two items needed for a successful marriage mostly stressed in Western societies are "faithfulness" (marital fidelity) and "understanding and tolerance". This again indicates that the survival of a union depends strongly on the willingness to recognize one's partner's elements of well-being to be incorporated in one's own utility function. A lack of faithfulness corresponds to betrayal, humiliation and rejection of the partner. Obviously, if non-shared or non-recognized individual desires increase more rapidly than the tolerance level of one of the partners permits, the quality of the relationship declines. The bargaining process and the interactions of positions are hence basic traits of more egalitarian relationships (England and Farkas, 1986). According to van der Avort (1985) such processes are at the core of modern relations and the explicitation of positions is continuously needed to avoid accidents in communication. The dynamics of such processes and the "games" leading to different outcomes are amply described in both the sociological "social exchange" literature and the economic "transaction costs theory" (e.g. Pollak, 1985).

It should be stressed that the early rise of divorce occurred primarily among cohorts that were socialized in the conviction that marriage was a life-long commitment "for better and for worse". This accentuates the fact that rising minimal standards of dyadic quality and the lowering of tolerance toward unacceptable forms of behaviour were indeed at the heart of the matter. But the "no-fault"-divorce dominates the picture if allowance is made for the different provisions in the national legislations (Dumon, 1977). This implies that the grounds of incompatibility of character and irreconcilability of individual goals have become highly important. The items of "partner ceased to love", "personalities do not match" and "unsatisfactory sexual relations" as sufficient reasons for divorce are more frequently quoted in the values studies of the 1980s by the younger generations, by the more secularized and by voters for the left (Harding et al., 1986). These characteristics identify the demographic trend-setters in Europe in virtually every respect (de Feyter, 1991).

The rise of minimal standards of quality is equally invoked by Oppenheimer (1988) to account for marriage postponement. She reacts to Becker's position that female economic autonomy leads to an overall reduction of gains to marriage. Oppenheimer advances the thesis that marriage is only postponed as a result of a more cautious exploration on the basis of higher minimal standards with respect to an acceptable match, and that marriage as an institution is not questioned or threatened. The "minimal standards of quality"-argument is also an alternative to Easterlin's diagnosis that marriage postponement simply results from more difficult labour market conditions. But the quality argument is consistent with the thesis that self-actualization and self-fulfilment manifests itself in social relations by more careful picking of what is suitable for oneself. The degree of suitability of partners or friends depends on common tastes and interests, and the search for them is nothing else than the optimization of one own's utility. Oppenheimer's diagnosis

is that cohabitation in the US is mainly a courtship process, which is supported by Rindfuss and Vanden Heuvel (1990). This implicitly means that cohabitation as prolonged dating is essentially a trial run in matching two utility functions.

The separation rates of consensual unions are fairly substantial. It would be very interesting to compare them across countries and especially across social groups. Also, persons who started marriage subsequently to cohabitation experience higher divorce rates than persons who have moved directly into marriage (Bennett et al., 1988). It is also worth mentioning that the separation rates in Swedish consensual unions too are higher at similar union durations than for people who moved directly into marriage (Hoem and Rennermalm, 1985; Hoem and Hoem, 1988). This suggests that the selection process of individuals according to type of union entry in Sweden is also connected to different perceptions of minimal standards of quality of interpersonal relations, different tolerance levels or different degrees of "giving and taking". Hence, we find it difficult to accept Trost's picture of cohabitation in Sweden as being undifferentiated in nature from legal marriages (Trost, 1978). Clearly, there are large differences in the meaning of cohabitation in different societies - to witness the different incidence of parenthood -, but cohabitation seems to be an arrangement with a weaker "teneur institutionelle" (Roussel's expression, 1983) everywhere.

The higher separation rates of consensual unions are likely to stem from frustrations with the difficulty in trying to match two utility functions. In the 1990-round of the Belgian values study, we have found that young adults (20-29) in cohabitation feel significantly more restless, are more quickly upset, more lonely and more depressed than those who are married. They think more often about the meaning of life and death, and are more dissatisfied with life in general. Instead, they need more rewarding in the form of compliments and successful accomplishments (Lesthaeghe, forthcoming). This may mean that persons with particular personality characteristics are more likely to be selected in such unions, that the reaching of a modus vivendi is harder, that their quality aspirations are higher or that all reasons are combined. The latter possibility is the more likely one: cohabitants score higher on "mutual respect and appreciation", "common tastes and interests", "tolerance and understanding" and "happy sexual relations" than the married couples. The individuals in such unions seem clearly more demanding in the amount of returns they want to get out of their relationship than those in marriage. Part of the explanation is also that those who already converted their union into a marriage are more likely to be the persons with a more successful trial phase and/or a more realistic view concerning expected returns.

To sum up, Ariès was clearly right when he asserted that the adult dyadic relationship rose within the domestic sphere, and that the prime place given to children was weakening. The latter should not be dramatized, nor should the former be underestimated. The notion of quality in dyadic relation is intimately linked to "giving and taking", and the adjustment of positions does not seem to converge as fast to a final equilibrium as in the past when asymmetric, institutionalized gender roles were readily internalized. Marriage has to provide more for the individuals involved. When

minimal standards of quality - as evaluated by the individuals - are raised, fulfilment is more difficult to achieve and marriages are more likely to end. In many countries cohabitation can be considered as a trial phase in the iteration process of accomodating two individual utility functions. Consensual unions may also attract more risk aversive persons for understandable reasons. One of them is the experience of problems between parents or with parents. The disproportionate selection of persons into such unions according to familial backgrounds with problems, and a higher stress on individual autonomy in tandem with higher aspirations for fulfilment makes consensual unions more unstable.

From this discussion we also retain that the "quality argument" does not subtract anything from the notion that the second demographic transition is intimately linked to the rise of individual self-fulfilment. The opposite is true: any discussion of quality takes us straight back to the positions of individuals and their aspirations as to what a union should yield (cf. Schmid, 1984). People want more from their political system - hence their insistence on grass-roots democracy - and they want more from their private relations too.

3.2. Non-conformity as anti-authoritarianism

The emergence of consensual unions among young adults in several Western countries is also linked to another characteristic of Inglehart's "Silent Revolution". During the initial phase, cohabitation signaled plain protest against authority in general and against conformity and conventionalism of "petty bourgeois marriage" (Dumon, 1977). Cohabitation was a new rite of passage for the "protest generation". This connotation has obviously weakened as cohabitation spread. Also protest has become "déjà vue". But, initially it came as no surprise to find that cohabitation in the Low Countries in the 1970s was already widespread among voters for the non-conformist new left and was totally absent among voters for religious parties (Centraal Bureau voor de Statistiek, 1984; Lesthaeghe and van de Kaa, 1986).

Still today, cohabitation has remained more typical for the secularized segments of the Dutch, Belgian and French societies (Liefbroer, 1991; Lee et al., 1987; Villeneuve-Gokalp, 1990). The differences according to religious practice (as distinct from denomination) go exactly in the same direction in the US (Tanfer, 1987; Goldscheider and Goldscheider, 1988), in Canada (Rao, 1989) and in Australia (Khoo, 1987). The link is also recursive: cohabitation fosters secularization as well (Thornton and Camburn, 1987). In addition, cohabitants also stress the anti-authoritarian socialization traits (Lesthaeghe, forthcoming).

The systematic finding of cohabitation being linked to secularization cannot be accounted for by the structural economic theory of Becker, nor by the labour market conditions theory of Easterlin. Secularization is a century old manifestation of individual autonomy, and the finding that it emerges again during the second demographic transition indicates that the purely economic theories are incomplete (not that they are incorrect). The missing point is that the "Maslowian escalator", as Yankelovitch (1981) calls

it, accelerated during the late 1950s and especially the 1960s. It manifested itself in an anti-authoritarian wave.

3.3. The strengthening of market orientations

The values studies of the early 1980s and the earlier trends as reported in Table 1, show that community orientations were initially gaining in importance during the 1960s, not losing. What happened was a dual process of manifestation of individual autonomy (not necessarily individualism) and a sustained appreciation of community involvement. The relation between an individual and his direct social environment were less governed by conformity and internalization of externally provided scripts of conduct, but by an increased sense of personal responsibility. The origin of the social orientation is less a social etiquette, a religious duty or an act of patriotism. It has to come "straight from the heart" of the individual. Bellah's civil religion (1967) is being "individualized".

Recent survey materials for the young adults in the US (high school seniors and college freshmen) indicate that this community responsibility is becoming less valued and that careerism and consumerism are on the rise (Crimmins et al., 1991; Marini, 1990). The data are reported in section F of Table 1. Marini's diagnosis is straightforward: this trend signals a rise in individualism and market orientations. Indeed, such results are consistent with the new adoration of conspicuous consumption, and hence with the material manifestation of pure individualism. The very rich of the 19th century engaged in exactly the same manifestations even to the point of building pompous funeral monuments to themselves (Corbin, 1990). But the trend in the US is by no means restricted to the very rich: it affects entire generations and the shift has been going on since at least the 1970s.

The interpretation of Crimmins, Easterlin and Saito (1991) goes beyond this diagnosis: these authors consider the increase of individual market orientation as evidence that the Maslowian shift from preferences centered on "having" to preferences centered on "being" is not needed to account for the demographic changes since the 1960s. As already indicated in the introduction, Easterlin's thesis is simply that rising material aspirations, particularly in the absence of expanding opportunity structures, produces the postponement of marriage and parenthood.

The data presented by Crimmins et al. do not substantiate the contention that the Maslowian shift is inoperative. In fact, one of the items with growing popularity pertains to the seeking of self-actualization in professional life (see Table 1), which is totally consistent with the Maslowian view. We also know from appropriate measurement that "postmaterialist values" have continued to develop throughout the 60s, 70s and 80s in all Western countries (Inglehart, 1985, 1990), and that such changes follow essentially a cohort-dominated model. I presume that Inglehart's labels of "postmaterialist" and particularly "materialist" is again responsible for the confusion. Moreover, the time series used by Crimmins et al. are for a fixed age group, and hence for successive cohorts. We suspect that this leads to a misinterpretation too.

This can be clarified by making use of the Dutch materials as analysed by van Rysselst (1989). This author measures two dimensions simultaneously in several cohorts and across time (1970 to 1985). The first dimension is "libertarianism". It comes very close to our notion of individual autonomy and to Inglehart's "post-materialism" since it incorporates items pertaining to freedom of expression, anti-authoritarianism, symmetry of gender roles, tolerance for deviance etc. As can be seen from Figure 1, changes along this dimension in the Netherlands follow the typical cohort layering across the periods of observation. This is completely consistent with Inglehart's findings (1985). van Rysselst's second dimension pertains to economic policy and confronts the preference for free market forces to those for social class egalitarianism, Government interference with income and taxing policies, welfare state corrections etc. All cohorts, irrespective of age, shift to the economic "right wing" during the 15 years covered by the data: everyone wants more "free market policies" and "less socialism" (see Figure 2). I suspect that van Rysselst's second dimension is related to the market orientations displayed by the American youth in careerism and accentuation of high earnings.

The Dutch data are simplified in Figure 3. Cohort profiles with respect to dimension I (libertarianism, individual autonomy...) are fixed across the periods of observation (horizontal lines in the grid), but these cohort profiles shift upward and toward the more libertarian values with each younger generation. Along dimension 2 (free market economy) all cohorts shift along their horizontal profiles toward the conservative views (a shift to the left in the picture). These are period shifts as opposed to cohort shifts. Hence, the rise of libertarianism (or to individual autonomy, "postmaterialism"...) is occurring simultaneously with the rise of market orientations, careerism, consumerism. The data used by Crimmins et al. are located along the diagonal and are chronologically ordered from A to B. They read the measurements against the horizontal axis. Hence, they catch the period shifts with respect to market orientations and miss the cohort shift with respect to individual autonomy and its Maslowian correlates. They are right about the rise of consumerism and of the material aspirations, but they should have remained agnostic with respect to the other dimension.

The final outcome is that Elchardus' assertion that demographic changes have nothing to do with consumerism and with the "Realpolitik" of business sits very uncomfortably with the US and Dutch data just mentioned. With increased female employment and advancing female education professional life and domestic life have been merging. There is no wall between the two. Positions of partners now have to be equilibrated on the basis of both domestic and professional criteria in the respective utility functions. Women are less likely to accept male careers being given priority. The "Realpolitik" of dual careers does not foster union stability, not does it lead to earlier parenthood.

3.4. Is there a commitment crisis?

This brings us to two other issues: the strength of commitment and risk aversion. To Goode (1984), postponement of marriage and parenthood, i.e. two major characteristics of the second transition, signaled a weakening of commitment. To Elchardus (1990), it means that marriage and parenthood are taken more seriously than ever, and that commitments have been strengthened. The high separation rates among consensual unions and the rise of divorce suggests that this strengthened commitment, as proposed by Elchardus, is insufficient to stem the effects of increased demands with respect to the quality of interpersonal relationships. The item of admissibility of divorce in the presence of young children also shows a steady increase in successive surveys. In the US, the proportion agreeing with the item that divorce is justified if parents of young children do not get along anymore rose from 51 percent in the early 60s to 80 percent in the late 70s and 82 percent in the late 80s (Glenn, 1987; see also Table 1). In the Netherlands, the percentage agreeing with the reverse statement, i.e. that divorce is not justified if children are still at home, declined from 48 percent in the mid-60s to 13 percent in the early 70s and to a mere 6 percent in 1980 (de Feyter, 1987; see also Table 1). Of course, parenthood is irreversible and often suitable arrangements are worked out between divorced parents to accommodate the children's well-being. But, men are disproportionately withdrawing from such arrangements as the extensive literature on female-headed households indicates. Such withdrawal of commitment has led to serious social problems on a considerable scale in a number of countries. Moreover, children from lone-parent households or from reconstituted families (i.e. following parental remarriage or cohabitation) display more discontent: they move out earlier and in greater proportions than children from intact families. They also start their own unions more via cohabitation (Kiernan, 1991; Liefbroer, 1991; Villeneuve-Gokalp, 1990; Thornton, 1991). There seems to be a generational pattern perpetuation.

All of this does not suggest that male commitment is on the rise, even if the children's interest are still taken very seriously indeed by the majority of divorced parents. Commitment is not in crisis yet. But it is dented. However, one should recognize that societies with all persons exhibiting perfect commitment never existed. Hence, it is difficult to assess the significance of the presumed trend.

The feature of risk aversion and the fear for a renewal of legalized commitment has also been connected to the decline of remarriage rates, both for widowed and divorced persons. For widowed persons such risk aversion has generally become easier given the rise in replacement income levels and accumulated resources. For divorced women too, their options are directly linked to economic autonomy. Risk aversion in such situations should not be taken as a convincing indicator of overall weakened commitment. The financial autonomy of widows and divorced women till at least the 1960s was such that they did not have many other options than to remarry if possible. Hence, we consider the decline in remarriage rates much more as a response to higher economic autonomy of women than as a result of a commitment crisis.

On the whole, it seems difficult to reconcile rising divorce involving children and especially the withdrawal of male support after divorce with the notions that marriage and parenthood are now taken more seriously than in the past. But one should not generalize this to mean that there has been a widespread "crisis of commitment". Historical studies on abandonment (e.g. of pregnant girls and children) teach us that commitments in the past were not that firm either (cf. Flandrin, 1984).

3.5. A conclusion

The conclusion from this section is that individuals want more out of life in general, and out of their interpersonal relations in particular. This is why the adult dyad rises in prominence, as correctly perceived by Ariès. This sits comfortable with the self-fulfilment theories and their accentuation of "existential" needs. It is equally consistent with the accentuation of quality and of gender related egalitarian values. Authoritarianism does not fit, and neither do the asymmetric gender roles of the older model propagated from the 16th century till the middle of the 20th.

Only, rising demands and aspirations are more difficult to satisfy in symmetrical dyads. Their vulnerability is enhanced as new minimal standards of quality are established. This accounts for the rise in divorce rates, the trial period in union formation, and the decline in remarriage rates as soon as financial autonomy permits.

This accelerated evolution since the 1960s has not led to a full scale penetration of egocentric individualism. The opposite was initially true since community oriented values were equally stressed. Furthermore, most partners work out strategies of "mutual understanding" and reasonable expectations with respect to the returns from marriage or consensual union. Although childlessness has become a legitimate option to protect the quality of relations in the adult dyad (Veevers, 1980; and especially Campbell, 1985), most unions see procreation as important. The recuperation effect in fertility after age 30 and the start of procreation in consensual unions witnessed during the late 1970s and 80s show that parenthood and commitment are still valued by a significant majority.

There are, however, significant cracks in the new model. The emergence of lone-parent families is one with important consequences in a number of Western nations. Also the recent trend among American youths indicate that pure individualism is on the rise. At this point, the "Realpolitik" of business is penetrating further into the private life of the family, but the majority seems capable of accommodating it.

4. The second demographic transition in Western nations

In this section statistical relationships at the macro level are being considered. The unit of observation is a country. Nations are meaningful contexts since they experienced specific historical developments and have their own language, and hence a high density of internal communication. Obviously, a great deal of internationalization has occurred in the West, particularly since the

Second World War. This accounts partially for the fact that the changes of the second demographic transition manifested themselves in the various countries during a much shorter time span than those of the first transition.

The choice of the unit of observation implies that all hypotheses and results must be specified at the macro-level as well. Hence, we are interested in how different historical developments since the Second World War account for the national demographic patterns, and the leads and lags they exhibit. We shall also go beyond the mere listing of demographic parameters by country. Instead, we propose two LISREL-models that document the influence of economic and cultural factors in shaping the demographic changes. The analysis is also restricted to 24 countries, all of which are stable states and have been integrated in the Western international sphere. This eliminates more ideosyncratic developments. It also implies that the statistical models can only contain a very limited number of variables. Finally, large heterogeneous countries, such as the US, and small homogeneous ones, such as Iceland, are given equal weight. Hence, such macro-level analyses are far from being flawless.

The hypotheses are all concerned with factors influencing the diffusion of demographic pattern variables. We are particularly interested in how structural changes concerning female economic autonomy, one of Becker's crucial variables, can account for the national positions. Or alternatively, we want to check to what extent national leads and lags are conditioned by cultural background variables (e.g. Protestantism), or cultural intermediate variables (e.g. Inglehart's "postmaterialism" and political autonomy). Also historical features are taken into account, such as the tolerance for consensual unions and illegitimate births in specific regions or social classes. Finally, we are interested in assessing the weight of the economic crisis of the period 1975-85, which affected these countries to highly varying degrees.

When these factors are accounted for, it seems interesting to inspect the pattern of residuals in order to detect the cases that are either systematically deviant or only ideosyncratic with respect to particular demographic variables.

We shall now consider these models in more detail, and make a distinction according to the timing of the various manifestations of the second demographic transition.

4.1. The initial demographic changes

Here, we analyse the demographic variables that changed primarily prior to the economic crisis of 1975-85. The indicators for this initial phase are:

- The date of a 10 percent decline in the total period fertility rate (TFR) relative to the 1966-level. In most countries, the baby boom reached its peak in the mid-60s. In a few countries, there was an earlier peak, but not directly a steep decline. In others, the baby boom merely emerges as a plateau within a much longer fertility decline.

- The increase in the share of all births that are extramarital during the period 1965-75. In several countries the rise of this share is already fully appearing prior to 1970. (Scandinavian countries, US, Australia, Canada, New Zealand - see Table 2). In the Scandinavian countries this corresponds to the earlier spreading of consensual unions. Another factor involved is whether premarital conceptions corresponding to lowered ages at sexual intercourse are leading to either more premarital births or to more shotgun marriages.
- The increase in the singulate mean ages at marriage (SMAM) for men and women in the period 1970-1980.
- The increase in divorce rates in the period 1950-75. The starting date of our measurement is 1950 because rising divorce was probably the earliest manifestation of the second transition. However, several countries did not have legal provisions for divorce in 1975 (Spain, Ireland, Malta, Cyprus).

The values of these variables are presented in Table 2. Together, they form the dependent latent variable (F2) in the first LISREL-model (see Figure 4). The best indicators of this dimension are the divorce and nuptiality variables, followed by the rise of the share of extramarital births. The date of a 10-percent decline in the TFR is the weakest correlate of the latent demographic dimension, probably because of the crudeness of the measure and because of the sudden impact of the contraceptive innovations.

The demographic dimension (F2) is related to four predictors. The first three (W1 through W3) relate to deeper historical differences between the countries. The fourth (F1) is an intermediate variable that captures the structural economic position of women between roughly 1965 and 1970.

The first background variable (W1) is the GNP per capita in 1950, expressed as a percentage of that of the US. We consider this to be a proxy of both purchasing power shortly after World War II and of the level of economic development. The hypothesis is that the national living standards - which were highly differentiated at that time - had a direct and positive impact on the demographic changes (direct effect of W1 on F2). A higher living standard raises consumption aspirations (cf. Easterlin), and the minimal standards of quality of both material and non-material needs (cf. Maslow). Greater wealth also corresponds to greater financial autonomy which widens the range of options.

The national level of economic development also operates on the nations' demographic change via the intermediate variable, i.e. the increased educational standards for women and their greater employment outside traditional or low-skill sectors. In Easterlin's view, this greater use of female labour also corresponds to the rising consumption aspirations of cohorts socialized shortly after the war who confront a stagnation in male opportunities when reaching adulthood. The intermediate variable (F1) is made up of two indicators, firstly the date of female secondary school enrolment reaching 50 percent of the eligible age group, and secondly, the female employment rates between the ages 25 and 35 in 1970.

As indicated before, the link between these structural aspects concerning the economic position of women and the demographic variables can be specified along the lines suggested by both Becker and Easterlin. Higher female employment and higher female wages relative to that of men (although the latter rise is not occurring everywhere) reduce the gains to marriage and lead to the "discovery" of opportunity costs. Such costs were largely hidden in the earlier domestic model, i.e. when many women were home makers, and when those in the labour force came from lower income groups and just pulled up household income to that of many one-earner families. With higher female employment among the better educated middle class, the disparities between one-earner and two-earner households widen much more. Only then is there a psychological perception of comparative disadvantage or a "discovery" of opportunity costs. Rising opportunity costs, i.e. Becker's central variable, are related to higher consumption aspirations, which constitute one of the two central variables in Easterlin's diagnosis. In short, these mechanisms contribute to the postponement of marriage and the decline in fertility.

These economic features also influence the other two components of F2, i.e. the rise of divorce and the rise of the share of extramarital births. Reduction of gains to marriage not only presupposes marriage postponement but also more divorce and less remarriage. Secondly, marriage postponement is compensated by alternative arrangements such as sharing or "doubling-up" and cohabitation. The disappearance of restrictions on sexuality, one of the salient characteristics of the second demographic transition, leads to more births in such unions and/or to more single mothers. It should also be pointed out that the social welfare policies in the Scandinavian countries may have had a positive influence on procreation within consensual unions as they alleviated opportunity costs for mothers. The pronatalist policy in the former German Democratic Republic operated through a similar mechanism and partially accounts for much higher illegitimacy levels than in West-Germany.

Two cultural variables are also introduced. They refer to the historical influence of Protestantism (W2) and the existence of a historical tolerance for cohabitation and "illegitimacy" of births (W3). With respect to the latter, the argument for Sweden (cf. Trost, 1978) has been that such a pattern existed which fostered the more recent spread of consensual unions. However, many other societies had a long-standing tradition of cohabitation, and far stronger ones than in Sweden. It suffices to take a closer look at the index of illegitimacy (Ih) as compiled for all the European nations in the Princeton Fertility Project and reported in Coale and Watkins (1986). Table 3 gives an idea of both the national level of this index in 1900 and of the number of administrative areas in each of the countries where the index was at least 0.075 (which identifies the upper 20 percent of the entire European distribution. From these data it is quite clear that Sweden was by no means a leader with respect to extramarital fertility. In Eastern Europe, Rumania and Hungary had very high levels of illegitimacy. They were followed by Austria, Iceland and Portugal. Also Germany had many regions with high Ih-values and it preceded Sweden in the overall ranking. Hence, we considered it worthwhile to incorporate such features in the analysis. This is done via the share of extramarital births among

all births as of 1960. This variable has a direct effect on the dependent demographic dimension F2. However, one will note from Table 3 that the position of several countries has altered between 1900 and 1960. By 1960, Sweden rose from 8th to 3rd place, after Iceland and Austria. Hungary, by contrast, has a considerable reduction in illegitimacy. Hence several countries experienced different trends prior to the Second World War. The majority, however, maintained low illegitimacy throughout this century. Our hypothesis is obviously that a higher share of extramarital births, as measured in 1960, would positively influence the subsequent spread of consensual unions and procreation in these unions.

The historical role of Protestantism is operationalized by a trichotomy: we distinguished between homogeneously or nearly homogeneously Protestant countries (score = 2), nations that have both Protestant and Catholic populations (score = 1), and countries with a predominantly Catholic or Orthodox tradition (score = 0). The hypothesis is that Protestantism has fostered the recent demographic changes in a number of ways, whereas Catholicism retarded it.

Firstly, the Reformation led to the breakdown of traditional cultural barriers to economic modernization. The fact that Protestant countries historically outpaced the Catholic ones in economic performance is still reflected in the correlation between Protestantism and GNP per capita in 1950 (see Figure 4). Secondly, Protestantism fostered literacy, and particularly female literacy. The contrast with Catholic countries in this respect has been persisting throughout several centuries. Higher female literacy encouraged faster female emancipation. Inglehart (1990) notes that women in Protestant countries engage much more frequently in political discussions than in Catholic countries. This is also true for men, and this general feature is likely to stem from a long tradition of involvement in decentralized religious communities. Hence, Protestantism is positively associated with a stronger civic political culture. Thirdly, Protestantism is associated with stable democracy, and homogeneous Protestant countries are pioneers of the "Welfare State". Their political systems are based on social class-oriented parties which defused social tensions that would obstruct social peace and economic development. This pattern is particularly clear in the Scandinavian countries, but less so in the UK. Also, these countries lack religion-oriented parties or an opposition between religious parties and fully secularized ones. These are much more typical for countries with a mixed Protestant-Catholic tradition and for Catholic countries. This resulted either in pillarization along ideological and religious lines, or in open conflicts leading to totalitarian periods. Those with the pillarization model developed mechanisms of political pacification (e.g. the Low Countries, Switzerland, Austria), but the demographic share of Catholics and their political weight continued to be a major force obstructing individual autonomy. These countries tend to experience a secularization wave during the 1960s as a reaction. Particularly in the Netherlands was there a strong and sustained de-pillarization during this period. Catholics also wanted their church to be reorganized according to democratic principles. In countries that did not work out a system of pacification during the prewar period a totalitarian phase retarded such emancipatory political developments. Some of them caught up very quickly after the war, but others

retained authoritarian regimes with strong Catholic influences until the 1960s.

In the first LISREL-model, the positive effect of Protestantism on demographic change during the 60s and 70s is channeled through a direct path and an indirect one via F1 or the economic and educational position of women. It should be noted that political autonomy is not introduced explicitly as an alternative intermediate variable. The measurement of this dimension was impossible due to a lack of internationally comparable indicators for the 1960s. We shall return to the effects of this omission.

The quantification of the first LISREL-model was done on the basis of the correlation matrix. The correlation coefficients are based on 19 to 22 observations. Cyprus and Malta were omitted from the analysis due to the frequency of missing data. The model has an excellent adjusted goodness of fit (0.97) and also the prediction of F2 is highly successful (adjusted $R^2 = 0.97$).

The historical pattern of illegitimacy exerts the weakest effect (+.14) on the demographic dimension. The sign of this effect is consistent with our hypothesis, but the weakness of the coefficient shows that Trost's argument for Sweden cannot be generalized to the rest of the Western world. Also the effect of the educational and economic position of women as of the late 1960s is rather small: +.28. This is unexpected and it weakens our use of the formal economic mechanisms borrowed from Becker and Easterlin in accounting for the position of countries with respect to their initial demographic change. The effect of the level of economic development and material standards of living as measured through the per capita GNP in 1950 emerges slightly more clearly (+.33). We are referring here to the direct effect of this variable and not to its indirect effect via the structural position of women, which is weaker still. The historical influence of Protestantism has both the strongest direct and indirect effects. If the model were further simplified, only the latter two effects would need to be retained. This shows that the onset of the second demographic transition is responding more to two historical background variables (W1 and W2) than to the rise in female secondary education and employment during the 1960s as such. This is of course not inconsistent with economic theory, but it underlines the incompleteness and neglect of strong historical forces by these theories.

This again raises the question whether the roles of Protestantism and of GNP per capita can be made explicit by the introduction of additional intermediate variables. This will be done in the next LISREL-model on the basis of the measurements stemming from the round of values studies of the early 1980s. But before discussing the model for more recent demographic changes, a word needs to be said about the prediction of each of the demographic indicators of F2 separately, and about the pattern of residuals.

In Table 4 the regression results are reported for each of the five demographic indicators. They are regressed against all the variables in the first LISREL-model (model A), against the female employment and education variables (model B) and against the historical background variables (model C). As expected from the LISREL-results, model C is considerably better than model B as far as

the explained variance is concerned. This holds for all five demographic variables. However, the effects of GNP per capita and of Protestantism vary. Protestantism in models A and C has a stronger impact on the nuptiality and illegitimacy variables; GNP per capita has a stronger influence on the date of the fertility decline and the rise in divorce. One should, however, note the problem of collinearity between Protestantism and GNP per capita ($r = +.57$). Also the prediction of the date of the fertility decline is less successful than that of the other demographic indicators. The major conclusion from these separate regressions is that the two historical background variables remain indispensable in predicting the country positions with respect to every single component of the initial phase of the second demographic transition.

The pattern of residuals was inspected for the five regressions as defined by model A. The general picture is as follows:

- Among the Nordic countries, Sweden and Denmark are ahead compared to what was predicted for 4 of the 5 demographic indicators. Finland by contrast has negative residuals for all five.
- Among the continental Western countries, France is ahead in relative terms with 4 positive residuals. The middle group is composed of the Benelux countries, West-Germany and Austria. Switzerland evolved more slowly than predicted for all five indicators.
- Among the Anglosaxon countries, Canada and Australia are the relative leaders, whereas the UK, the US, and Ireland have negative residuals for 4 indicators. The exceptions are higher illegitimacy than predicted in the US and Ireland, and higher divorce in the UK.
- Among the Mediterranean countries, Italy has systematically positive residuals. For the others, the picture is mixed, with Greece tending towards the slowest relative change.

4.2. The more recent demographic developments

The changes that became more widespread during the 1970s and 1980s are cohabitation and procreation within consensual unions. Also the rise of lone-parent households was a particular characteristic of the last two decades. Divorce rates, however, reached a peak shortly after the economic crisis of 1975-85, and in many countries the divorce trend has remained flat or dropped slightly thereafter. The pattern of fertility too changed during the 1980s. The decline of fertility after age 30 came to an end and a recuperation effect showed up instead. With few exceptions, the decline of fertility prior to age 25 is still going on. But as very low levels of fertility at young ages are emerging in most Western countries (the US being a major exception), this drop may soon come to an end, and overall period measures of fertility will then essentially respond to the upward trend after age 30. In Sweden, Norway and Denmark, this is already clearly in evidence.

These features are operationalized through the following indicators:

- the percentage of women aged 20-24 living in consensual unions around 1985-90;
- the percentage of extramarital births among all births in 1988;
- the percentage of lone-parent households among all households with dependent children around 1985;
- the average annual increase in fertility prior to age 25 and after age 30. These rates are computed from the respective sums of the quinquennial age specific fertility rates. They reflect the evolution between 1982/83 and 1987/89.

The values of these variables are reported in Tables 5 and 6. The Scandinavian countries are still well ahead with respect to consensual unions. But there are clear differences between Sweden and Denmark, which are at the top of the ranking, and the other Scandinavian countries. Also in the Netherlands, the UK and France more than 20 percent of women aged 20-24 were in consensual unions. The other Western European nations form the middle group together with Canada and New Zealand. Australia and the US have apparently still less than 10 percent of young women in cohabitation. In Ireland and the Mediterranean countries, the incidence of consensual unions was still insignificant prior to 1990.

The rise of parenthood within consensual unions has been another significant characteristic. It changes the nature of cohabitation and converts it from a period of courtship into a union based on a firmer commitment. There are, however, several patterns:

- In Sweden, Denmark and Iceland, fertility was already high among consensual unions during the 1970s. At present, roughly 50 percent of all births occur outside formal legal marriage in these countries. The increase of procreation within consensual unions, although still at more moderate levels, seems to occur in Norway, the UK, France, and Canada. In 1988, more than 20 percent of births were extramarital in these countries.
- In a second group of countries, cohabitation rose considerably but it was accompanied by a slower rise of fertility within such unions. This typifies the situation in West Germany and the Low Countries. Switzerland has very low levels of extramarital fertility, and the approximate incidence of cohabitation is unknown.
- A third group of countries has high levels of extramarital fertility given their reported incidence of consensual unions. This pattern is encountered in Ireland, Portugal, Australia, New Zealand and particularly the US.
- As indicated, the Mediterranean countries are still at the start of such developments. A distinction can, however, be made between Greece, Cyprus and Malta where traditional controls over young women are still reflected in negligible extramarital fertility, and Portugal or Spain with more than 5 percent of all births being extramarital.

The recuperation of fertility at the older age groups is in evidence in all countries except Ireland and the Mediterranean countries (see Table 6 and Figure 5). The strongest rises of fertility after age 30 are observed in the Netherlands, Denmark, Sweden, the UK, France and New Zealand. But offsetting tendencies prior to age 25 occurred especially in Iceland, Finland, France, Austria, Belgium and Australia. In the balance, a net period fertility increase resulted in Sweden, Denmark, Norway, the Netherlands and the UK. This happened during the second half of the 1980s. This phenomenon is likely to spread to other countries as fertility prior to age 25 is likely to stabilize at low levels. Ireland and the Mediterranean countries are still in an earlier phase: fertility declined at all ages during the 1980s, leading to very low period rates in a number of countries (especially Italy, Spain and Portugal).

The position of the Western countries with respect to these developments is again being related to a set of background variables and intermediate variables (see Figure 6). In this second LISREL-model we have retained the historical role of Protestantism (W2). The other two background variables are the GNP per capita relative to that of the US, but measured in 1978 (W1), and the residuals from the previous LISREL-model (W3). We assume that the leads and lags emerging during the initial phase of the second transition would at least partially account for the relative positions observed during the second observation period. The intermediate variables are the further closure of the gender gap in employment at ages 25-34 (X2), the degree of articulation of individual autonomy in the political domain combined with indicators of female political emancipation (F1), and the severity of the economic crisis between 1975 and 1985 as measured by the rise of unemployment rates (X1).

The closure of the gender gap in employment is measured as the rise in female employment rates at ages 25-34 between 1970 and 1984 relative to the amount of increase that was still possible in 1970. The upper limit, i.e. the closure of the gap, was set at 90 percent. The striking feature is that countries with the highest levels of female employment at the start also tend to having closed the remaining portion of the gap to a greater extent than the countries with lower female employment rates in 1970. This variable is taken as an operationalization of the further growth of female economic autonomy.

The second intermediate variable (F1) is a latent dimension constructed on the basis of three indicators. The first is Inglehart's index of "postmaterialism" measured in the 1981-83 round of values studies (Inglehart, 1990). The same source also gives the gender gap in the discussion of politics, i.e. the proportion of men reporting to discuss politics frequently minus the corresponding proportion among women. The third component of F1 is the percentage of women in the lower houses of the national parliaments, measured for the most recent date (1987-91). To avoid any further misunderstanding, Inglehart's index of postmaterialism does not measure the manifestation of pure individualism through conspicuous consumption or the stressing of high income. It is much more a measure of political autonomy with the accentuation of freedom of speech and more grassroots democracy as against law and order and economic security. It is therefore not surprising that countries

with more "postmaterialist" orientations are also those that accentuate gender equality to a greater extent. Postmaterialism is equally related to a string of other attitudes (cf. Inglehart, 1990; Lesthaeghe and Surkyn, 1988) that are indicative of higher individual autonomy and reduced reliance on authority. Examples are less stress on obedience and more on independence (socialization traits), less acceptance of institutional authority, whether religious or secular, greater protest-proneness and political involvement particularly in the new left, human rights movements and green parties, reduced nationalism and greater tolerance for deviant behaviour. Morality is less governed by absolute distinction between right and wrong, but more circumstantiated. We shall therefore refer to the variable F1 as "individual autonomy and female emancipation". A similar variable had not be introduced in the previous LISREL-model, largely because of the lack of adequate and comparable indicators for the period prior to 1975.

The model and the numerical results are displayed in Figure 2. The goodness of fit of the retained LISREL-model is slightly lower than in the previous one, but still meets the criterion commonly set at .90. Also the prediction of the demographic dimension is adequate (adjusted $R^2 = .76$).

The dominant feature of the model is the straight line of positive influence that occurs from "Protestantism" via "individual autonomy and female emancipation" to the demographic dependent variables. This path is much stronger than any other indirect or direct connection. In other words, the political dimension F1 provides the explanatory factor that was missing in the previous LISREL-model. As a result, the direct influence of Protestantism on the demographic dimension could be deleted altogether. The second line of positive influence runs equally from Protestantism via the closure of the female employment gaps to the demographic variables. This is entirely consistent with what was found in the previous LISREL-model too. Protestant countries clearly fostered female secondary education and employment during the 60s, which contributed to the start of the second demographic transition. Now, Protestantism fosters the reduction of the remaining employment gap between the sexes. Any relation between the political and economic aspects of female autonomy (i.e. the relation between F1 and X2) is accounted for by the control for the historical role of Protestantism. It should be noted, however, that the impact of political autonomy for women on the recent changes in demographic variables is much larger than that of economic autonomy. This stresses once more that the economic theories are not incorrect, but largely incomplete; and, furthermore, that this incompleteness stems from insufficient attention being paid to powerful historical factors.

The impact of the GNP per capita as of 1979 does not operate directly or through these two intermediate variables. Its influence is channeled via the weight of the economic crisis of 1975-85. The negative relationship between the GNP per capita and the rise of unemployment indicates that the wealthiest nations largely escaped the unemployment problem, and many of them could also stem inflation as well. Indeed, Sweden, Norway, West Germany, Luxemburg and Switzerland all passed the US in 1978 in GNP per capita, and suffered little during the crisis. The latter was also true for Austria.

Many of the other countries had much higher unemployment or higher inflation rates, or both. Economic crises also shift the attention away from political emancipation of women. Inglehart's index is particularly vulnerable to rising inflation: all age groups tend to swing back to concerns with economic security and away from individual autonomy during periods of increased inflation (Inglehart, 1985). When unemployment is high, the same occurs with respect to female political and economic autonomy: men feel that they should have priority in filling the slots. Increased gender competition disfavours female applicants and reduces their promotion chances. Rising costs of social expenditure are contained by ensuring at least one employed person per household and this equally favours men. Hence, it comes as no surprise that the rise in unemployment has a negative effect on female emancipation, and that the countries which suffered most during the crisis retained more conservative attitudes.

A general feature of the model is also that the background variables (i.e. the W-variables in Figure 2) have small direct effects. A reduced model with only the three intermediate variables (X1, X2 and F2) explains a comparable proportion of the variance of the demographic indicators. Such reduced regressions were also performed to inspect whether the role of the political variable and female economic autonomy had similar influences across the various demographic indicators. As can be seen from Table 7, it turns out that this was not true. The closure of the female employment gap in the age group 25-34 during the period 1970-84 had a considerably stronger impact than the postmaterialist values on the nations' position with respect to the share of extramarital births and the percentage of lone parent families. Both variables had a similar impact on cohabitation for young women. Finally, the political dimension had a stronger impact on the halt of the fertility decline prior to age 25 and the recuperation after age 30. The countries with an earlier development of egalitarian gender roles now seem on the way to restore replacement fertility. Welfare state provisions may have helped as well.

An overview of the pattern of residuals by country is given in Table 8 for all demographic variables. A first group of countries (group A) exhibits a predominance of positive residuals, meaning that they had changes in most variables that were faster than predicted. This group contains the three Scandinavian countries Sweden, Denmark and Norway. The Western European countries in group A are Austria, France and the UK. Among the Mediterranean nations, Italy and Spain were ahead relative to what was predicted.

The second group B contains the countries that fit the regressions best. They have about an equal share of positive and negative residuals. Group C contains the countries that tend to lag behind compared to what is predicted. Among the Mediterranean countries, Greece and Portugal exhibit this tendency, and among the others, Switzerland and Finland have systematically negative residuals.

The last group contains countries for which the series is difficult to assess due to missing data. Australia would belong to group B if we accept the proportion of women in Parliament as a substitute for Inglehart's postmaterialism index.

The residuals in excess of one standard deviation of the variable concerned are indicated by a double sign (++) or (--). They identify the most ideosyncratic features in a country. With respect to the rise of extramarital fertility, Sweden had a very rapid rise between 1960 and 1975 and Austria, another country with a tradition of high illegitimacy, regains very high values after 1975. Switzerland by contrast has remarkably low levels of extramarital fertility. The outliers with respect to lone-parent households are the US with many more such households than expected, and France and Finland with fewer.

The remaining outliers pertain to the date of the fertility decline and the recent age specific fertility trends. Greece, Ireland and Finland are experiencing the fertility trends more slowly than expected throughout the entire period, whereas the opposite holds for Spain. Also the fact that the UK did not experience a fertility decline prior to age 25 between 1983 and 1988 emerges as an ideosyncrasy.

4.3. A conclusion

The first striking element of the second transition is that the changes in patterns of union formation and procreation occurred in a much shorter time span than those associated with the historical first transition. This not only points in the direction of internationalization via mass media, but also to the fact that the recent demographic changes are a response to common cultural and economic factors. The leads and lags at national levels with respect to these demographic changes are, as shown by the LISREL-models, largely accounted for by a small set of explanatory variables.

The second feature is that the political aspects associated with individual autonomy and female emancipation (i.e. Inglehart's "Silent Revolution") are indispensable ingredients at the macro-level. This confirms what has been found repeatedly in the micro-level data as well (e.g. Lesthaeghe and Meekers, 1986; Thornton, 1988). This means that explanations solely relying on either the ideational changes or on structural economic factors are non-redundant, yet insufficient. Exactly the same was true in the instance of the first demographic transition.

The third phenomenon worthy of consideration is that the historical role of Protestantism accounts for both a greater political stress on individual autonomy and for a faster development of female economic autonomy. The latter intermediate variables have a common historical root of major importance.

Despite this apparent cohesiveness of the driving forces, countries continue to exhibit ideosyncracies that are not accounted for by the factors used in the LISREL-models. This is understandable since no variables were introduced pertaining to the social policy contexts (e.g. social security benefits, family allowances, work arrangements, housing situation, day care provisions etc.). In addition, several ideosyncracies reflect the persistence of historical patterns. Extramarital births in Ireland for instance are undoubtedly related to that country's late marriage pattern and to its late adoption of efficient contraception. Finally, several

countries contain ethnic minorities with specific demographic patterns. Also such heterogeneity was not allowed for in our analysis. But again, ideosyncratic features equally emerged during the first demographic transition. This was particularly true with respect to illegitimacy. It would therefore be worthwhile to devote much more attention to these historical patterns of consensual unions and procreation within them than has been the case so far in studies of the first demographic transition.

5. The formal characteristics of transitions

The notion of a transition implies that the process contains major innovations, that there is a cohesiveness of the patterns, that there is historical cumulativeness, and that the change is irreversible. We shall use these formal criteria in assessing the patterning of the recent demographic changes.

Firstly, the novelties in the process are i) the historical trend reversal with respect to the social acceptability of sexuality, ii) the rapid weakening of social control by institutions, or alternatively, the rise of moral individual autonomy, iii) the availability of highly efficient contraception and enhanced female control over reproduction, iv) the rise of the adult dyad and the accentuation of individual aspirations with respect to the benefits from unions, v) the development of more symmetrical patterns of exchange within unions, vi) the "discovery" of opportunity costs resulting from generalized female economic autonomy, and vii) the merger of domestic and career orientations of the partners within the household transactions. As indicated, all of these have led to demographic changes that were not predicted.

One will not fail to notice that the points just mentioned are intimately correlated, and that there has been a high degree of pattern cohesiveness among the driving forces. Furthermore, also the demographic outcome-variables are closely interrelated in their development through time. The geographic pattern of diffusion, as cross-sectionally captured by the LISREL-models, equally testifies to this effect. Hence, we feel that the second prerequisite, i.e. that of structural cohesiveness is met to no lesser extent than in the case of the first demographic transition.

Thirdly, the notion of historical cumulativeness implies that these changes have been prepared during earlier periods. The innovations constitute a step in a step-function. Each step rests on previous ones, hence the property of cumulativeness. Also the first transition had clearly been prepared by earlier groundswells. For example, coitus interruptus was well known long before it was used by entire populations as an effective means of fertility control at the aggregate level. Another example: the proletarianization of Western societies was well on its way before ages at marriage broke loose from the old Malthusian constraints. In a similar way, one certainly finds traits of individual autonomy being gradually accentuated before the 1960s. But the point is that these were slowly emerging trends that were only capable of producing a general demographic pattern change until later. Metaphorically, the apples have been developing on the tree for quite a while, but they ripened later and only then were they fit for distribution and consumption.

The fact that the speed of change has dropped during the late 1980s with respect to a number of demographic variables (e.g. recuperation-effect in fertility, the recent divorce plateau) is not inconsistent with the stepwise development either. This highlights once more the distinctiveness of essentially the 1960s and 1970s. Other nations are still climbing this step, and for them the 1990s will be equally significant.

Finally, the criterion of irreversibility of a transition is essential. This raises the question of whether individuals will again be willing to accept external institutional morality to dominate the organization of their private lives, whether they will forego efficient contraception and move to average family sizes of three children, return to highly asymmetrical gender relations, or revert to early marriage with a low incidence of divorce? The economic theories do not exclude such a possibility. In Easterlin's framework, a substantial rise in male wages for the youngest cohorts would be conducive to early marriage and early parenthood. Yet, if the central variable of individual autonomy is added to the picture, such reversibility seems highly improbable. We therefore speculate quite openly that the new demographic patterning of union formation and family building has come to stay and that the probability for a return to the situation *ex ante* is quasi nihil. What the West experienced was not just a wave. Instead we have had a genuine second demographic transition that is both substantively and formally fully comparable to the demographic transition of the 18th and 19th centuries.

6. Overall conclusion

The central topic of this paper is that the ideational variables closely associated to Inglehart's "Silent Revolution" cannot be eliminated from the historical picture of the development of the demographic changes. The heart of the matter is the articulation of individual autonomy and the individuals' right to choose. What is leading to the quest for democracy in Eastern Europe - and in other parts of the world as well - also paved the way for the second demographic transition. The era of growing control of religious or political doctrines over the life of individuals, that started so virulently in the West with the Reformation and Counter-Reformation, and that lasted until the second half of the 20th century has come to an end. This is an event of major historical importance.

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Table 1: Value changes in the US and the Netherlands, 1920s till 1980s

| | 1924 | 1945 | 1950 | 1950 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|--|------|------|------|------|------|------|------|------|------|------|
| | | | -54 | -59 | -64 | -69 | -74 | -79 | -84 | -89 |
| A. Sexuality | | | | | | | | | | |
| a) US (Gen. Soc. Surveys, Gallup) | | | | | | | | | | |
| - not at all wrong to have sex before marriage | - | - | - | - | - | 24 | 28 | 37 | 41 | 40 |
| - premarital sex always wrong, women LT 30 | - | - | - | - | - | 50 | 14 | 14 | 13 | 14 |
| - premarital sex always wrong, men LT 30 | - | - | - | - | - | 48 | 10 | 10 | 14 | 11 |
| b) Netherlands (Soc.-cult. Planbureau) | | | | | | | | | | |
| - sexual relations permitted if intention to marry | - | - | - | - | - | 21 | 60 | 59 | 72 | - |
| - husbands unfaithfulness acceptable | - | - | - | - | - | 20 | 46 | 49 | - | - |
| - virginity not to be preserved before marriage | - | - | - | - | - | 29 | 62 | - | - | - |
| - tolerance for homosexuality | - | - | - | - | - | 56 | 69 | 84 | - | - |
| B. Socialization | | | | | | | | | | |
| a) US (Alwin) | | | | | | | | | | |
| - obedience (select 3 out of 17) | | | | | | | | | | |
| Middletown | 45 | 44 | - | - | - | - | 17 | - | - | - |
| National (3 out of 13) | - | - | - | - | 42 | - | 30 | - | 33 | - |
| - independence | | | | | | | | | | |
| Middletown (3 out of 17) | 25 | 34 | - | - | - | - | 76 | - | - | - |
| - responsibility | | | | | | | | | | |
| National (3 out of 13) | - | - | - | - | 12 | - | 32 | - | - | 35 |
| - loyalty to church | | | | | | | | | | |
| Middletown (3 out of 17) | 50 | 35 | - | - | - | - | 22 | - | - | - |
| C. Divorce and children | | | | | | | | | | |
| a) US (Gen. Soc. Surveys) | | | | | | | | | | |
| - even if children are present, parent should not stay together if not getting along | - | - | - | - | 51 | - | - | 80 | 82 | 82 |
| b) Netherlands (Soc. Cult. Planbureau) | | | | | | | | | | |
| - divorce inadmissible if children still home | - | - | - | - | - | 48 | 13 | 9 | 6 | - |

Table 1 - continued

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|---|------|------|------|------|------|------|
| | -64 | -69 | -74 | -79 | -84 | -89 |
| D. Childlessness | | | | | | |
| a) US (Study of American Families) | | | | | | |
| - all married women who can ought to have children (female respondents) | 84 | - | - | - | 43 | 43 |
| b) Netherlands (Soc. Cult. Planbureau) | | | | | | |
| - voluntary childlessness is acceptable | - | 22 | 60 | 70 | 83 | 86 |
| E. Gender roles | | | | | | |
| a) US (Study of American families) | | | | | | |
| - disapprove of working women when husband can support her | - | - | 33 | 29 | 24 | 17 |
| - disagree with important decisions are to be taken by the man in the home (female respondents) | 32 | - | - | 68 | 71 | 78 |
| - perfectly OK for women to be active outside home before children grow up (female respondents) | 44 | - | - | 59 | 65 | 72 |
| - disagree with some work that is for men, some work for women, shouldn't be doing each others | 57 | - | - | 77 | 67 | 75 |
| F. Market & Community Orientation | | | | | | |
| a) US (CIRP - college freshmen respondents) | | | | | | |
| - Be very well off financially very important/essential | - | 43 | 39 | 53 | 65 | 74 |
| - Obtain recognition from colleagues for contribution in my field very important | - | 25 | 18 | 31 | 40 | 42 |
| - Help others who are in difficulty essential/very important | - | 70 | 64 | 63 | 63 | 56 |
| - Develop meaningful philosophy in life essential/very important | - | 83 | 68 | 60 | 48 | 46 |
| b) US (High school seniors) | | | | | | |
| - Job with high status and prestige very important | - | - | - | 19 | 28 | 31 |
| - Nothing wrong with advertising even for things that are not needed (disagree) | - | - | - | 44 | 43 | 27 |
| - Having lots of money is extremely important | - | - | - | 15 | 17 | 26 |
| - Working in a social service is desirable (female respondents) | - | - | - | 31 | 24 | 21 |

Sources: Glenn (1987), Thornton (1988), Alwin (1988, 1988, 1989), van de Kaa (1980), de Feyter (1987), Marini (1990), Crimmins et al. (1991)

Table 2: Indicators of Demographic Change, 1960-80

| | Date 10% TFR Decline relative to '66 | % Extramarital births 1960 | Rise in % Extramarital Births, '66-75 | Rise in Female SMAM '70-80 | Rise in Male SMAM '70-80 | Rise in Divorce Rat '50-75 |
|--------------|--|----------------------------------|---|----------------------------------|--------------------------------|----------------------------------|
| Iceland | 1968 | 25.3% | 7.6% | .. | .. | 1.00 |
| Sweden | 68 | 11.3 | 21.1 | 3.9 yrs | 3.8 yrs | 1.93 |
| Denmark | 67 | 7.8 | 13.9 | 3.6 | 3.3 | 1.09 |
| Norway | 70 | 3.7 | 6.6 | 2.1 | 1.4 | .81 |
| Finland | 68 | 4.0 | 6.1 | 2.1 | 1.1 | 1.14 |
| Netherlands | 71 | 1.4 | 0.7 | 0.1 | 1.0 | .96 |
| UK | 72 | 5.2 | 3.8 | 1.8 | 1.4 | 1.83 |
| France | 70 | 6.1 | 2.4 | 1.4 | 0.8 | .49 |
| West Germany | 69 | 6.3 | -0.2 | 2.2 | 1.9 | .88 |
| Austria | 70 | 13.0 | 0.5 | 1.6 | 1.0 | .14 |
| Switzerland | 69 | 3.8 | -0.1 | 2.4 | 1.9 | .50 |
| Luxemburg | 68 | 3.2 | 1.0 | 1.7 | 0.6 | .49 |
| Belgium | 69 | 2.1 | 1.0 | 0.9 | 0.6 | .62 |
| Ireland | 84 | 1.6 | 2.1 | -0.1 | -1.6 | .. |
| Portugal | 75 | 9.1 | -2.3 | -1.2 | -1.1 | .05 |
| Spain | 72 | 2.3 | -0.3 | -0.6 | -1.5 | .. |
| Italy | 73 | 2.4 | 0.2 | 0.6 | -0.1 | .19 |
| Greece | 82 | 1.2 | 0.1 | -1.4 | -0.8 | .11 |
| Malta | .. | 0.7 | 0.5 | .. | .. | .. |
| Cyprus | 75 | 0.2 | 0.5 | .. | .. | .. |
| USA | 69 | 5.3 | 8.9 | 1.8 | 1.7 | 2.52 |
| Canada | 68 | 4.3 | 9.7 | 1.1 | 0.8 | 1.83 |
| Australia | 73 | 4.8 | 5.4 | 2.0 | 1.3 | 1.03 |
| New Zealand | 73 | 5.3 | 12.0 | 1.5 | 1.0 | .86 |

Sources: UN Demographic Yearbooks; Council of Europe "Recent Demographic Developments in Member States", various issues; UN (1990)

Table 3: Historical Incidence of Illegitimacy in Europe, 1900 and 1960

| | Index of Illegitim. Fertility I _h ca 1900 | Number of Areas covered in Europ. Fert. Proj. | Number of Areas with I _h ≥ .075 ca 1900 | % Extramarital Births 1960 |
|-----------------|--|---|--|----------------------------------|
| Rumania | .216 | 4 | 3 | .. |
| Hungary* | .118 | 74 | 63 | 5.5 |
| Austria* | .106 | 18 | 11 | 13.0 |
| Iceland | .076 | 1 | 1 | 25.3 |
| Portugal | .073 | 22 | 8 | 9.1 |
| Germany* | .066 | 72 | 21 | 6.3 (West) 11.4 (East) |
| Denmark | .059 | 20 | 3 | 7.8 |
| Sweden | .058 | 25 | 5 | 11.3 |
| Poland | .050 | 10 | 0 | 4.5 |
| Belgium | .050 | 41 | 0 | 2.1 |
| Italy | .048 | 18 | 4 | 2.4 |
| Finland | .044 | 9 | 0 | 4.0 |
| France | .044 | 90 | 5 | 6.1 |
| Spain | .041 | 54 | 4 | 2.3 |
| Norway | .040 | 20 | 1 | 3.7 |
| Scotland | .033 | 33 | 0 | 4.4 |
| Serbia | .031 | 17 | 0 | .. |
| Switzerland | .023 | 25 | 0 | 3.8 |
| Luxemburg | .023 | 1 | 0 | 3.2 |
| England & Wales | .021 | 45 | 0 | 5.4 |
| Netherlands | .016 | 11 | 0 | 1.4 |
| Greece | .015 | 19 | 0 | 1.2 |
| Ireland | .009 | 32 | 0 | 1.6 |

Note: * = larger territories of 1900

Sources: A.J. Coale & S.C. Watkins (1986); UN Demographic Yearbooks

Table 4 : Determinants of Five Indicators of Early Demographic Change in Western Countries; Alternative Regression Models

| | Dependent Variables/Beta Coefficients | | | | |
|---|---------------------------------------|----------------------------|-------|---|---------------------------------------|
| | Date 10% fertility decline | <u>Rise in SMAM '70-80</u> | | Increase extramar. births '60-75 | Increase divorce rate '50-75 |
| | | Men | Women | | |
| <u>A. Complete model</u> | | | | | |
| - Protestantism | -.25 | +.49 | +.42 | +.49 | +.26 |
| - GNP per capita '50 | -.41 | +.35 | +.37 | +.30 | +.58 |
| - % extramarital births '60 | +.06 | +.11 | +.21 | +.09 | -.09 |
| - Date female partic. second. educ. = 50% | -.15 | +.23 | +.31 | +.07 | -.32 |
| - % female employment rate 25-37, 1970 | -.33 | +.39 | +.46 | +.14 | -.09 |
| adjusted R ² | .26 | .70 | .75 | .43 | .72 |
| <u>B. Reduced model - Female educ. & econ. position</u> | | | | | |
| - Date female partic. second. educ. = 50% | +.19 | -.22 | -.11 | -.34 | -.71 |
| - Female employm. rate 25-35, '70 | -.37 | +.44 | +.51 | +.18 | -.11 |
| - % extramarital births '60 | -.09 | +.25 | +.33 | +.30 | +.13 |
| adjusted R ² | .16 | .45 | .52 | .26 | .39 |
| <u>C. Reduced model - Background variables</u> | | | | | |
| - GNP per capita '50 | -.45 | +.37 | +.38 | +.31 | +.66 |
| - Protestantism | -.29 | +.49 | +.40 | +.50 | +.41 |
| - % extramarital births '60 | .07 | +.20 | +.32 | +.08 | -.13 |
| adjusted R ² | .30 | .64 | .65 | .50 | .70 |

Table 5 : Indicators of Recent Changes in Family and Households Formation, 1975-90

| | % Women 20-24 in Cohabitation, ca 1985-90 | % Extramar. Births ca 1988 | Rise in % Extramar. Births, 1975-88 | % Households with children that are one-parent hhlds, ca 1985 |
|--------------|---|----------------------------------|--|--|
| Iceland | .. | 52 | 19 | .. |
| Sweden | 44 | 52 | 19 | 32 |
| Denmark | 43 | 45 | 23 | 26 |
| Norway | 28 | 34 | 23 | 23 |
| Finland | 26 | 19 | 9 | 15 |
| Netherlands | 23 | 11 | 8 | 19 |
| UK | 24 | 25 | 16 | 14 |
| France | 24 | 26 | 18 | 10 |
| West-Germany | 18 | 10 | 4 | 13 |
| Austria | .. | 23 | 8 | 15 |
| Switzerland | .. | 6 | 2 | 9 |
| Luxemburg | .. | 12 | 8 | 18 |
| Belgium | 18 | 10 | 7 | 15 |
| Ireland | 4 | 13 | 8 | 7 |
| Portugal | 7 | 14 | 7 | .. |
| Spain | 3 | 8 | 6 | 11 |
| Italy | 3 | 6 | 3 | 16 |
| Greece | 1 | 2 | 1 | .. |
| Malta | .. | 2 | 1 | .. |
| Cyprus | .. | 1 | 0 | .. |
| USA | 8 | 26 | 12 | 28 |
| Canada | 15 | 21 | 14 | 26 |
| Australia | 6 | 19 | 7 | 15 |
| New Zealand | 12 | 25 | 9 | .. |

Sources: - personal communication L. Bumpass (US), P. McDonald, L. Day (Australia), T. Burch (Canada), I. Pool (New Zealand)
 - UN Demographic Yearbooks & Council of Europe "Recent Demographic Developments...", various issues
 - European Values Studies, 1990-round
 - H. Moors & N. Van Nimwegen (1990)
 - UN (1990)

Table 6 : Average Annual Change in Age Specific Fertility, 1982/83 to 1987/89

| Countries | Below age 25 | Ages 30 and over |
|--------------|--------------|------------------|
| Netherlands | -2.8 | +6.6 |
| Denmark | -1.7 | +6.5 |
| Sweden | +1.7 | +5.8 |
| New Zealand | -2.3 | +5.3 |
| UK | 0.0 | +5.0 |
| France | -5.5 | +4.8 |
| Norway | -1.0 | +4.6 |
| Switzerland | -3.0 | +4.5 |
| West Germany | -2.4 | +4.4 |
| Iceland | -5.4 | +4.2 |
| Australia | -5.0 | +3.8 |
| Luxemburg | -1.2 | +3.0 |
| US | 0.0 | +2.8 |
| Belgium | -5.8 | +2.5 |
| Malta | -2.2 | +2.3 |
| Canada | -3.4 | +2.2 |
| Austria | -5.2 | +1.8 |
| Finland | -5.8 | +0.3 |
| Cyprus | -1.4 | 0.0 |
| Italy | -7.3 | -0.3 |
| Greece | -11.6 | -2.0 |
| Portugal | -8.4 | -4.2 |
| Spain | -8.0 | -4.7 |
| Ireland | -7.0 | -9.0 |

The rates above are computed from the sums of the quinquennial age specific fertility rates per 1000 women. The differences between the two observations are divided by the length of the time interval.

Sources: UN Demographic Yearbooks; Council of Europe "Recent Demographic Developments...", various issues; US Vital Statistics - Natality 1988 (1990); Personal communication P. McDonald (Australia), T. Burch (Canada), I. Pool (New Zealand).

Table 7 : Determinants of Five Indicators of Recent Demographic Change in Western Countries: A Simplified Regression Model

| | Dependent Variables/Beta Coefficients | | | | |
|---|--|--|--|--|--|
| | % women 20-24 in cohabitation, ca 1985-90 | % extra- marital births, 1988 | % lone- parent households ca 1985 | Increase fertility 19-24, 1983-89 | Increase fertility 30-49, 1983-89 |
| - Closure female employment gap age group 25-34; 1970-84 | .71 | .64 | .62 | .20 | .19 |
| - Inglehart postmaterialism index, 1981-83 | .52 | .14 | .15 | .62 | .64 |
| - Increase unemployment, 1970-85 | .09 | -.18 | -.25 | -.23 | -.22 |
| adjusted R ² | .70 | .46 | .53 | .51 | .51 |

Table 8: Residuals from Regressions reported in Tables 4 (complete model) and 7

| | Rise SMAM females 1970-80 | Rise SMAM males 1970-80 | Date TFR decline 10% (*) | Rise extramar. births 1960-75 | Rise divorce rate 1950-75 | Cohabit. women 20-24 ca 1985 | % Extramar. births ca 1988 | % lone parent hhlds ca 1985 | Increase fertility 15-24 ca '83-89 | Increase fertility 30-49 ca '83-89 |
|----------------|------------------------------------|----------------------------------|------------------------------------|--|------------------------------------|---------------------------------------|----------------------------------|--------------------------------------|---|---|
| A. Sweden | + | + | - | ++ | + | + | + | + | + | - |
| Austria | + | + | + | - | - | .. | ++ | + | + | + |
| Norway | + | + | + | - | - | + | + | + | + | + |
| Denmark | + | + | + | + | - | + | + | - | - | + |
| UK | - | - | - | - | + | + | + | + | ++ | + |
| France | + | + | + | + | - | + | + | -- | - | + |
| Spain | + | - | ++ | + | .. | - | + | + | + | - |
| Italy | + | + | + | + | + | - | - | + | - | + |
| B. Netherlands | + | + | + | - | - | - | - | + | - | + |
| West Germany | - | + | + | - | + | + | - | - | - | + |
| Belgium | + | + | + | - | - | + | - | - | - | + |
| USA | - | - | - | - | + | - | + | ++ | + | - |
| Canada | - | - | + | + | + | - | - | + | - | - |
| Luxemburg | + | + | + | - | - | .. | - | - | + | - |
| Ireland | - | - | -- | + | .. | + | + | - | + | -- |
| C. Greece | - | - | -- | + | + | - | - | .. | -- | - |
| Portugal | - | - | + | - | + | - | - | .. | - | - |
| Switzerland | - | - | - | -- | - | .. | - | - | - | + |
| Finland | - | - | - | - | - | - | - | -- | -- | -- |
| D. Australia | + | + | - | + | - | (-) | (+) | (+) | (-) | (+) |
| New Zealand | .. | .. | .. | .. | .. | (+) | (+) | .. | (+) | (+) |
| Iceland | .. | .. | + | - | - | .. | .. | .. | .. | .. |

Notes: (*) sign reversed to be consistent with the rest of the table

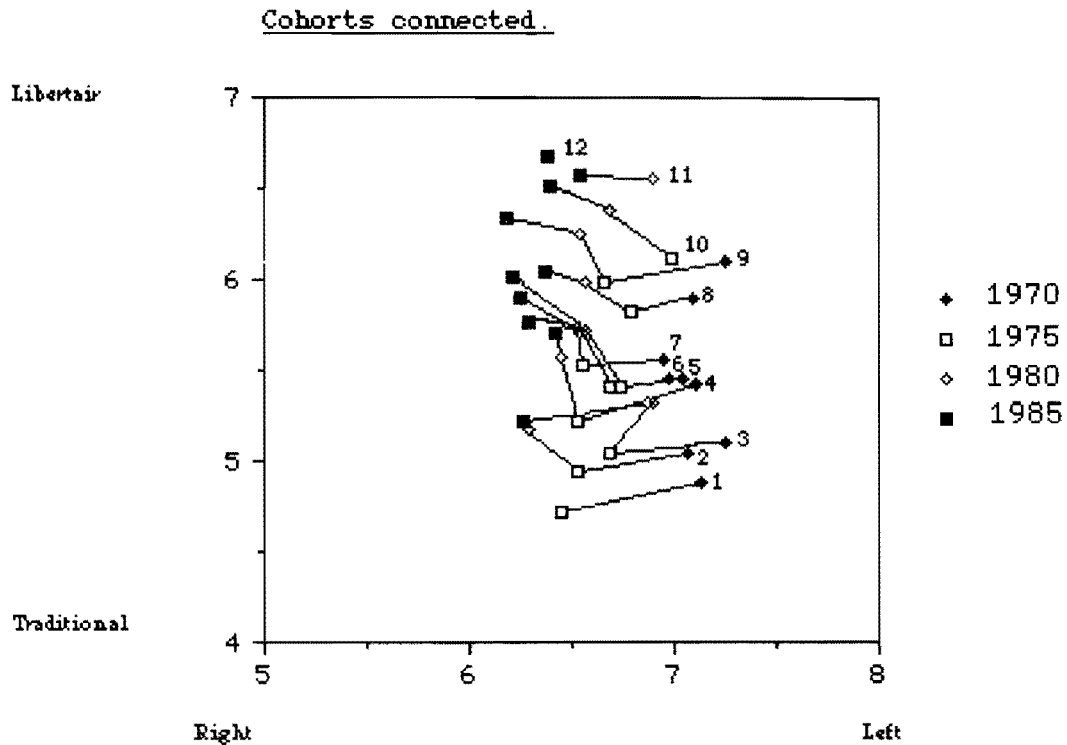
++ } residual exceeding 1 standard deviation + } residual not exceeding 1 standard deviation

-- } of the variable concerned - } of the variable concerned

(+)(-) residual from regression with % women in Parliament as predictor rather than Inglehart postmaterialism index

.. no residual due to missing values in regression

Figure 1: Cohort shift in Dutch sample with respect to the "traditional (conformist)-libertarian" dimension, 1970-1985



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 |

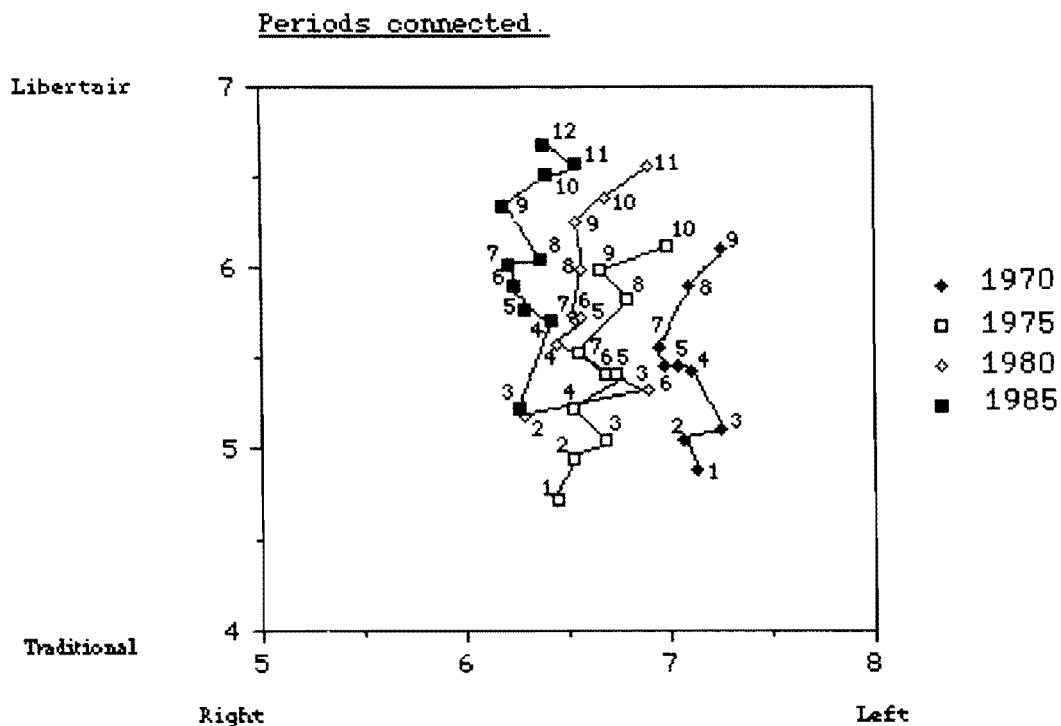


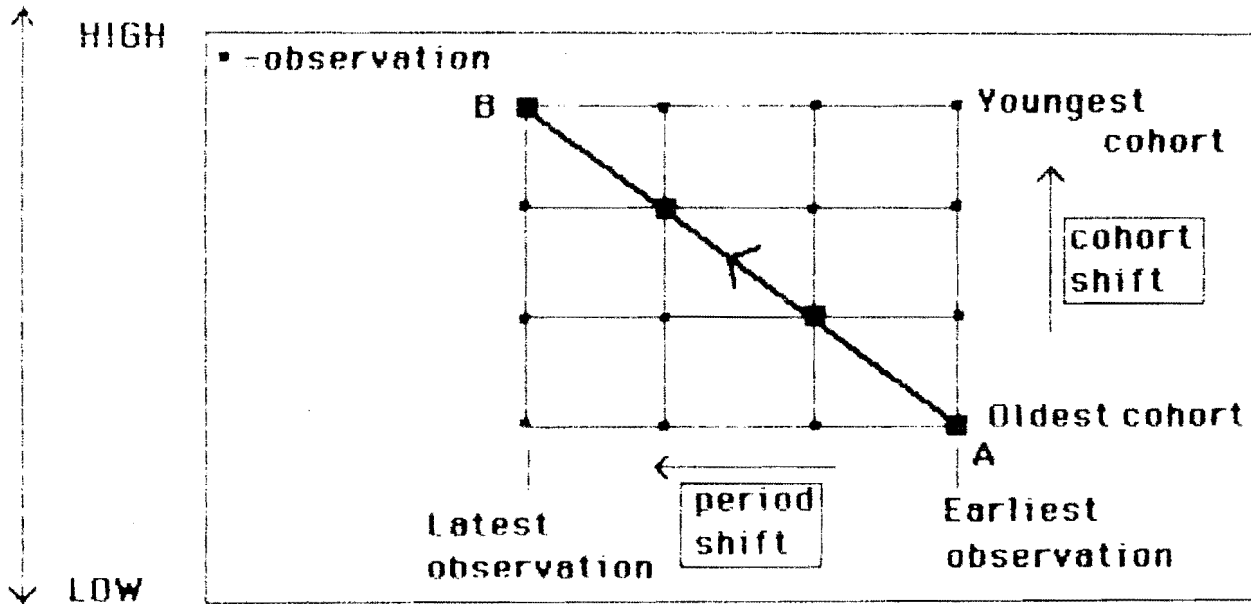
Figure 2: Period shift in Dutch sample with respect to the left-right economic dimension (gov't intervention versus free market forces), 1970-1985

Source: van Rysseelt, 1989

Figure 3: Simplified version of van Rysselt's cohort shift toward libertarian values and period shift towards free market economy

DIMENSION I :

Individual autonomy (Lesthaeghe)
 libertarian (van Rysselt)
 postmaterialist (Inglehart)



Conformist (Lesthaeghe)
 traditional (van Rysselt)
 materialist (Inglehart)

DIMENSION II

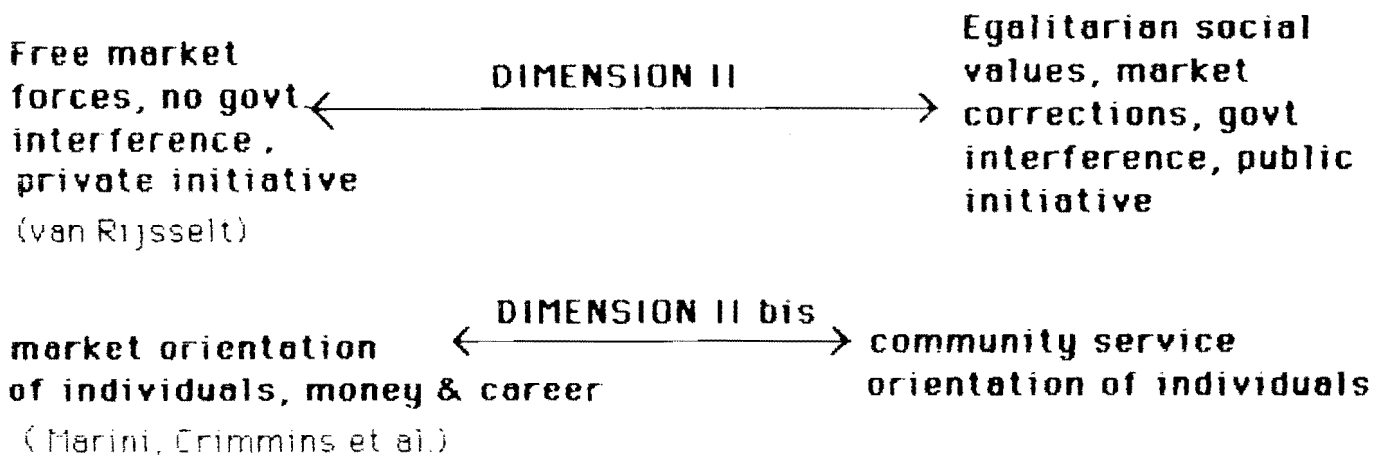
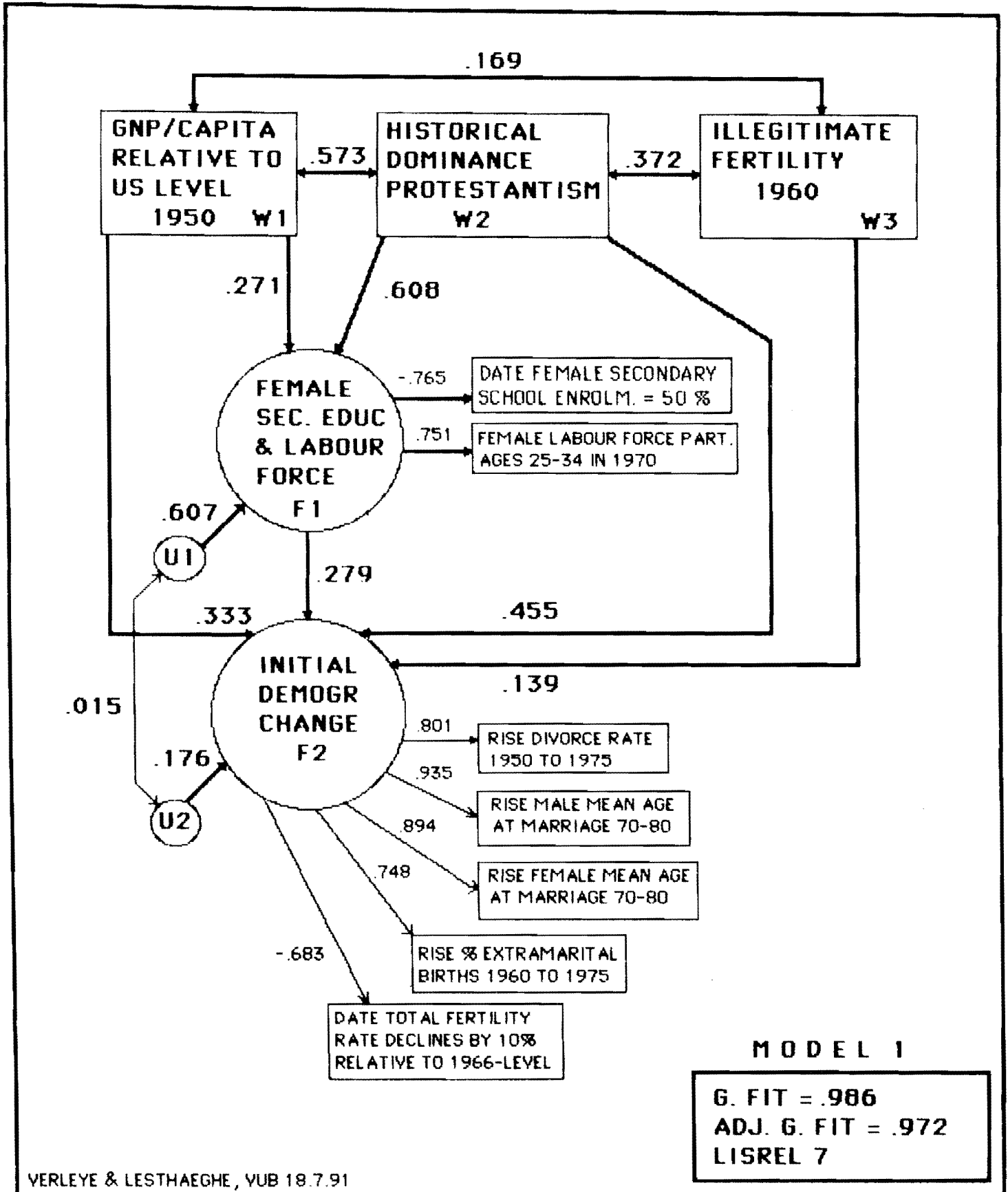


Figure 4: LISREL-model accounting for the earlier demographic changes in Western countries



AVERAGE ANNUAL CHANGE IN AGE SPECIFIC FERTILITY

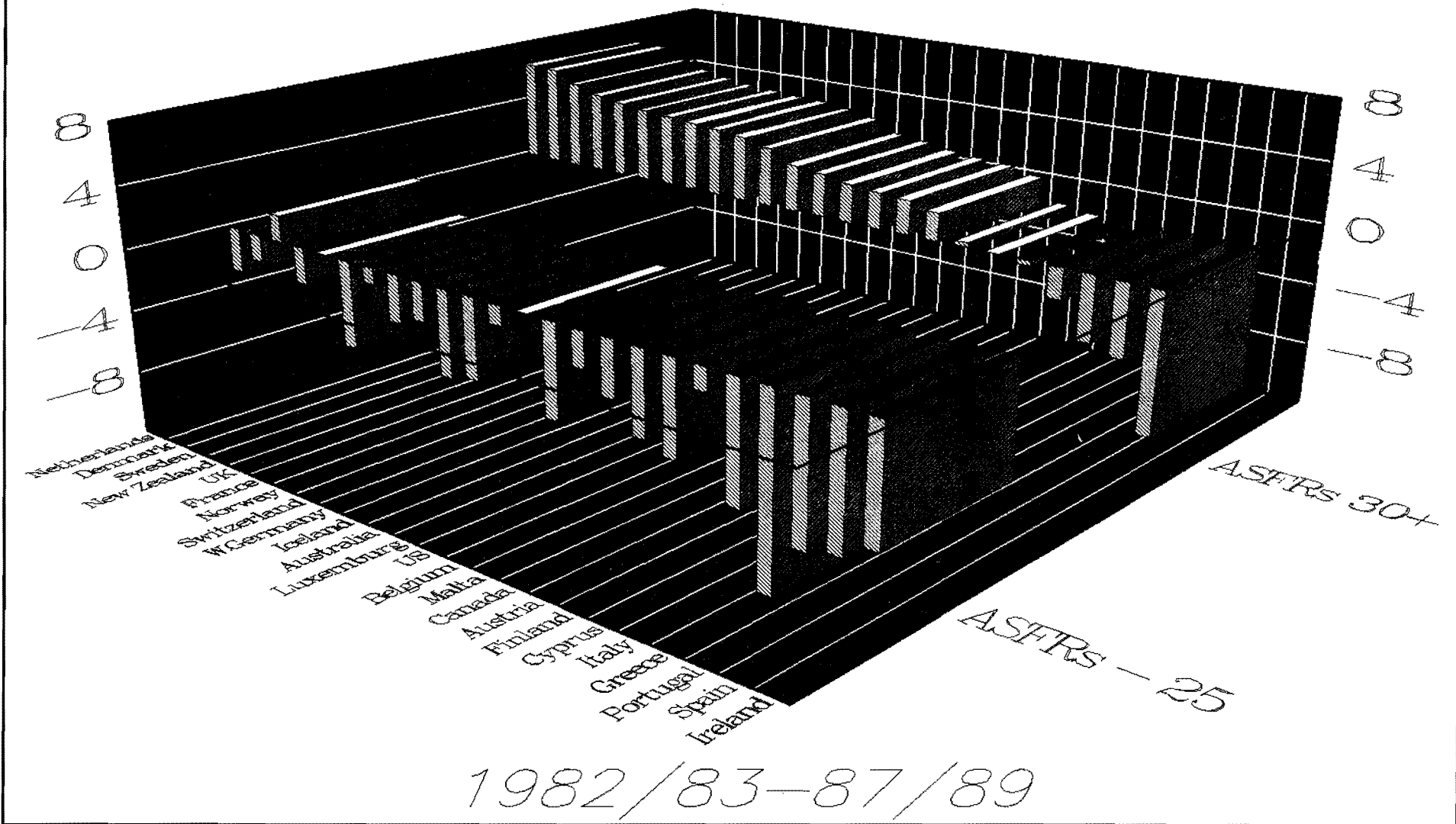


Figure 5: Average annual change in fertility rates below age 25 and at ages 30+ in Western countries, 1982/83 - 1987/89 (latest available date)

Figure 6: LISREL-model accounting for the more recent demographic changes in Western countries

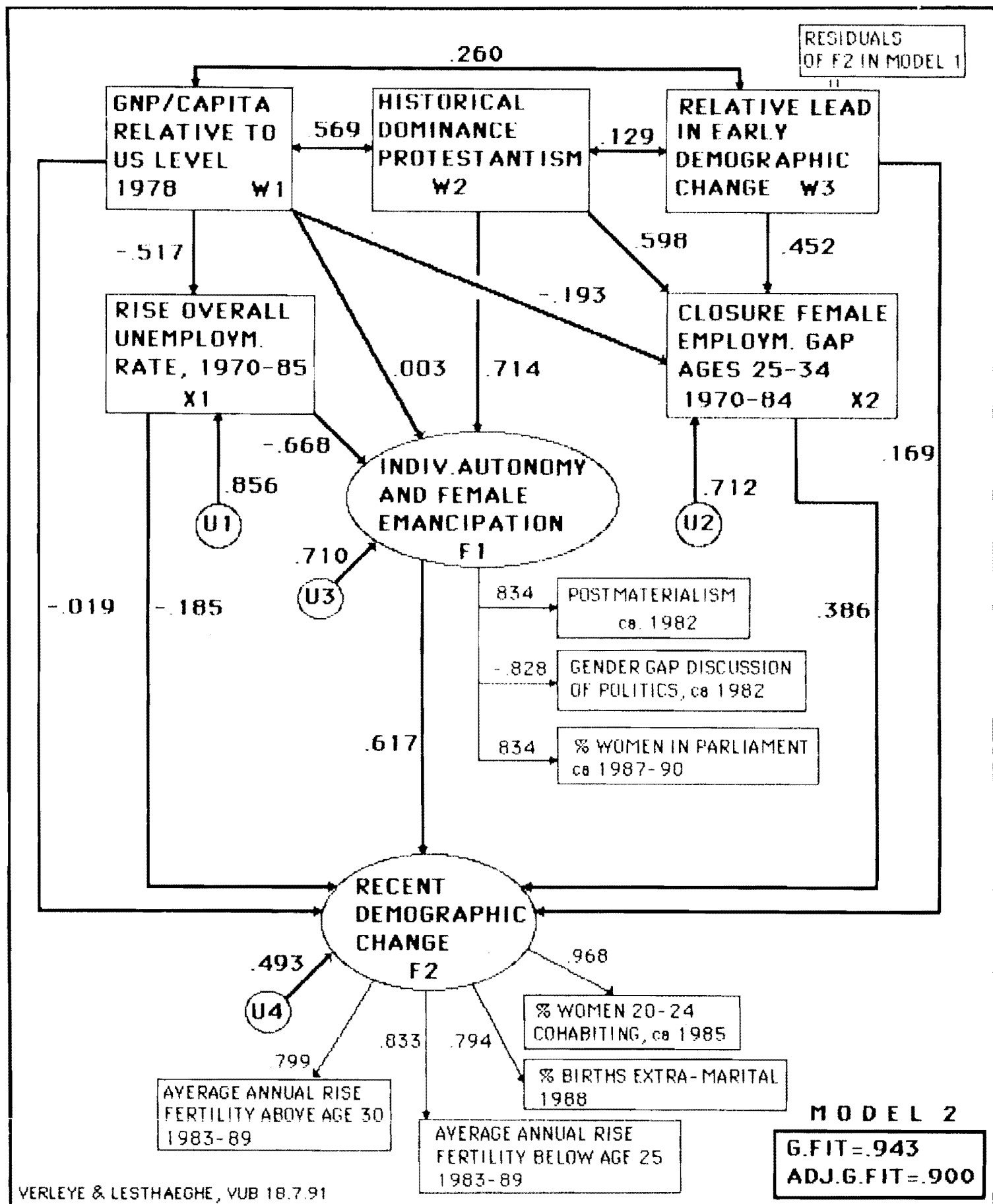
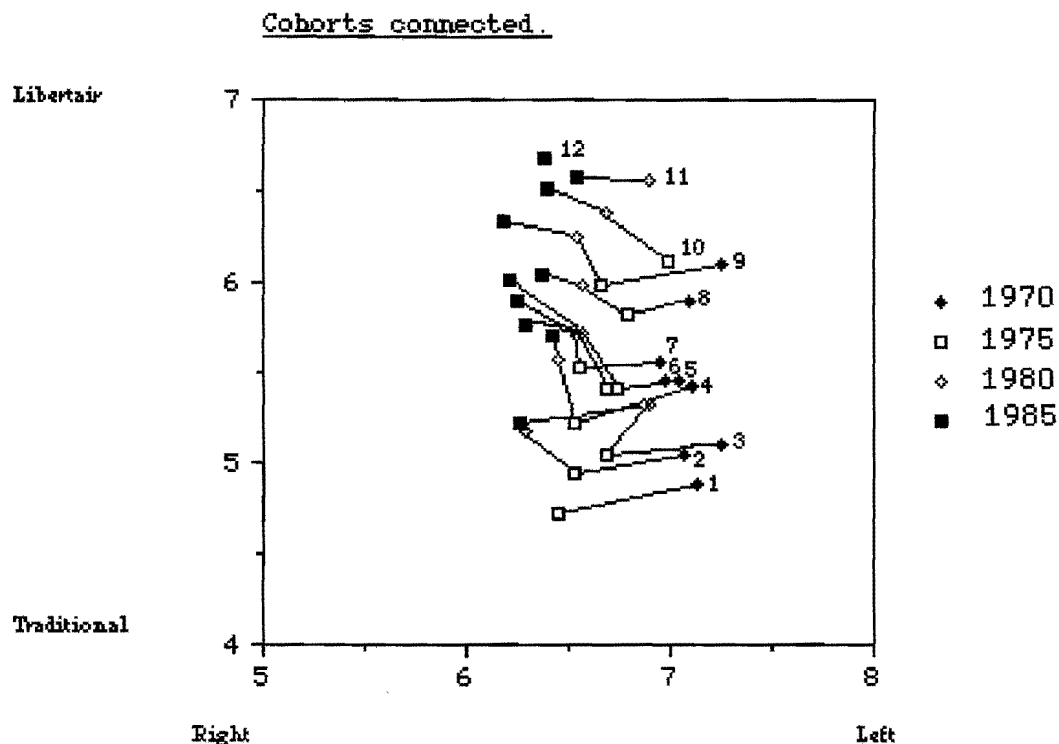


Figure 1: Cohort shift in Dutch sample with respect to the "traditional (conformist)-libertarian" dimension, 1970-1985



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 |

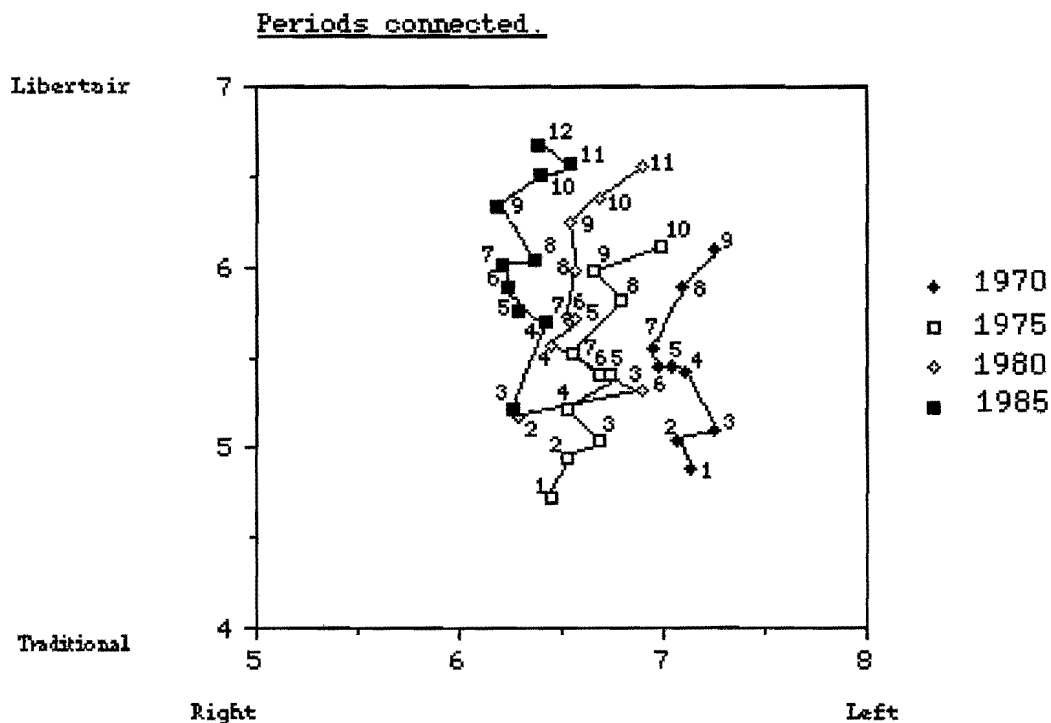


Figure 2: Period shift in Dutch sample with respect to the left-right economic dimension (gov't intervention versus free market forces), 1970-1985
 Source: van Rysselt, 1989

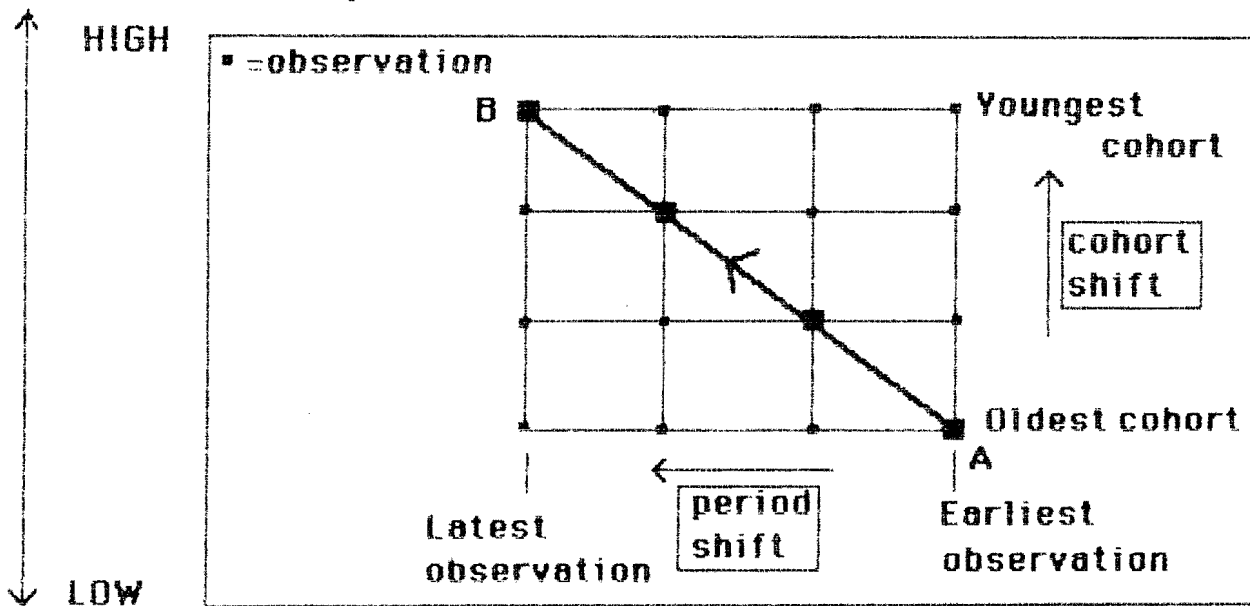
Figure 3: Simplified version of van Ryssel't's cohort shift toward libertarian values and period shift towards free market economy

DIMENSION I :

Individual autonomy (Lesthaeghe)

libertarian (van Rijsselt)

postmaterialist (Inglehart)



Conformist (Lesthaeghe)

traditional (van Rijsselt)

materialist (Inglehart)

DIMENSION II

Free market forces, no govt interference, private initiative (van Rijsselt)

DIMENSION II

Egalitarian social values, market corrections, govt interference, public initiative

market orientation of individuals, money & career (Marini, Crimmins et al.)

DIMENSION II bis

community service orientation of individuals

Figure 4: LISREL-model accounting for the earlier demographic changes in Western countries

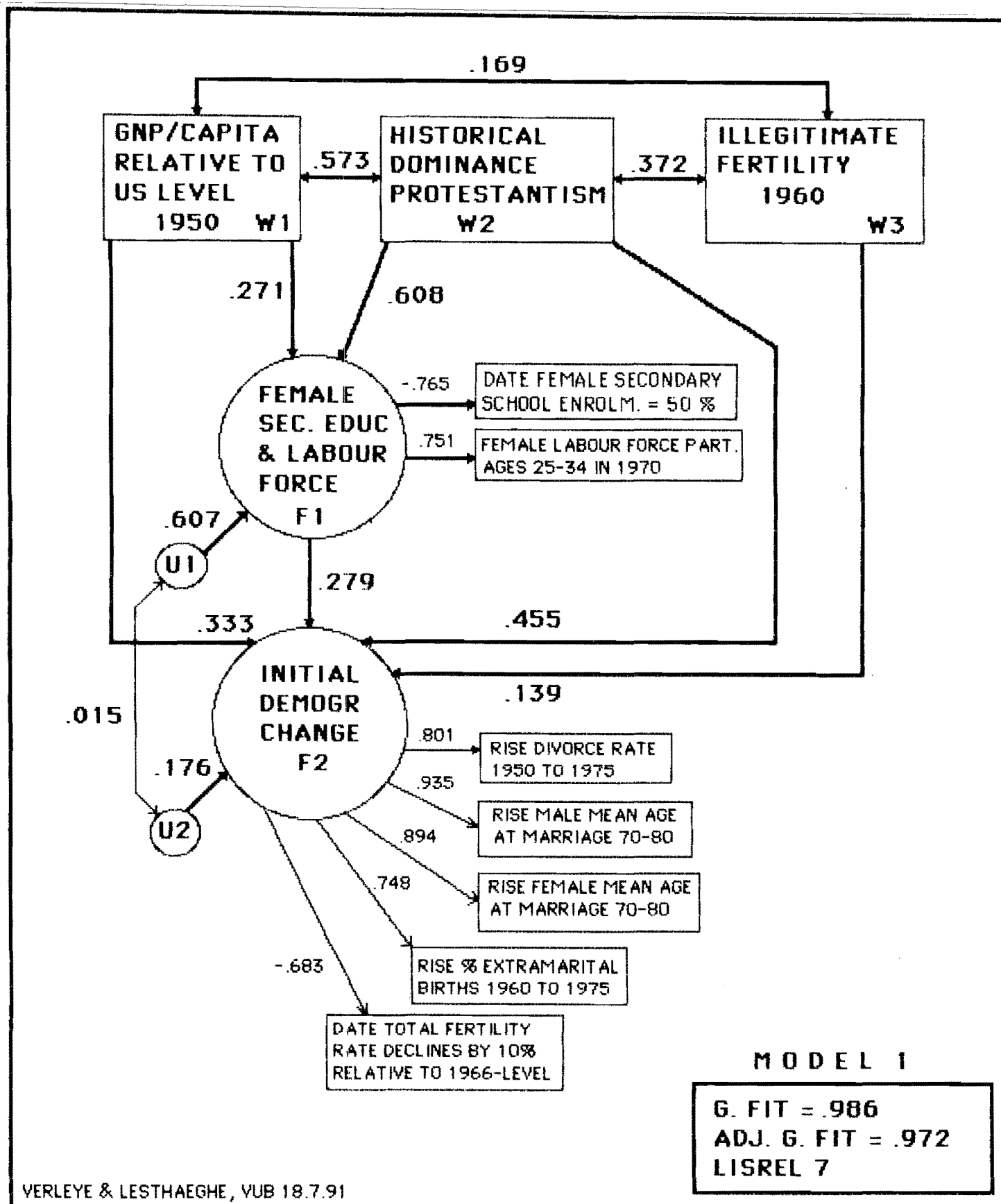


Figure 6: LISREL-model accounting for the more recent demographic changes in Western countries

