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**OPTIONS AND SEQUENCES:
EUROPE'S DEMOGRAPHIC PATTERNS**

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It is argued in this lecture that Ryder's approach to the study of the role of the cohort in social change is too narrow. Cohorts do not only permit change; they actively create the options succeeding cohorts have to choose from. Through its own choice from amongst the options perceived, each cohort both limits and enriches the options of the next. It is through the choice people make with regard to life shaping demographic events that they group themselves into 'mental' cohorts. The course of demographic events in Western Europe in the postwar period is difficult to understand if one does not appreciate that these events form a sequence. A sequence generated by the quite specific option(s) each 'mental' cohort, through its own choice, created for the next. Current demographic patterns in Europe have to be interpreted in terms of differences in social and cultural heritage of the countries concerned, and in terms of the differences in options perceived and selected.

A Personal Introduction

My wife and I honeymooned on Texel, one of the Wadden Islands. It was late Spring. A strong wind blew foam on to the wide sandy beach. The beach was empty except for the sandpipers scurrying about. The edges of the clouds were beautifully coloured by the sun; it was quite nice to sit in the shelter of the dunes. We were rather pleased with ourselves and the sensible step we had taken. All was well until I found it necessary to observe that our very personal decision to marry had resulted in a situation where, almost to the month, she had reached the average age at first marriage of women and I the average age of men. Even for a demographer that was rather tactless. What saved me, was that my wife had also studied social sciences. Her intellectual curiosity quickly overcame the feeling of being affronted. She may also have realized that there was an obvious advantage in marrying someone so clearly attuned to the demands of society.

Average Man and His Cohorts

Psychologists explain the inclination of individuals to conform to a societal norm in terms of the operation of a general process of perceptive or semantic categorization: we construct prototypes and stereotypes. Two principles appear to underly this process. The first is that of cognitive economy. We try to obtain a maximum of information with the least cognitive effort. The smaller the amount of information our brain has to process, the better. The second asserts that the world comes to us as structured information. Objects of the world are perceived to possess a high correlational structure rather than to have arbitrary or unpredictable attributes. Hence cognitive economy is best achieved if categories map the perceived world structure as closely as possible (Rosch 1978:28).

The assumption underlying the construction of a prototype is that a meaningful average of a number of variables may coincide with an existing object: the prototype. A galah is more birdlike than an emu. But the most birdlike bird of all is the blackbird. It is the prototypical bird. 'The modern understanding of stereotypes is that they are probabilistic perceptions of group differences', so McCauley observes (1995:239). The hypothesis that they always exaggerate real group differences is not supported by the available evidence. Significant exaggeration occurs, but so does significant underestimation. As stereotypes contain information on 'the generalized other' as Allport calls it (Ottati and Lee 1995:51), they are bound to contain information on the generalized self. They make us aware of the norms and patterns of behaviour our group adheres to, of our own stereotypical behaviour.

The construction of prototypes and stereotypes is in many respects useful. They increase efficiency of communication even though they are not always easy to distinguish. Let me give an example of that. Charles Farrar Browne (1834-1867) once wrote of someone: 'He's the most married man I ever saw in my life'. This suggests a reference to the prototypical 'married man'. When I give you the full quotation: 'He is dreadfully married. He's the most married man I ever saw in my life', and tell you he said it of the Mormon leader Brigham Young, even those who have never heard of Brigham Young before are likely to smile understandingly at this reference to a stereotype.

In 1835, Adolphe Quetelet, the famous Belgian scientist born exactly 200 years ago, wrote 'A Treatise on Man' in which he introduced the concept of the 'average man'. A 'man' whose characteristics could be determined once the number of observations was large enough. He considered that determination of the greatest importance in the study of 'social physics'. To his mind, the average man '... is in a nation what the centre of gravity is in a body; it is by having that central point in view that we arrive at the apprehension of all the phenomena of equilibrium and motion; ...' (Quetelet 1968:96). Of special interest is his argument that '... the average man of any one period represents

the type of development of human nature for that period; I have ... said that the average man was always such as was conformable to and necessitated by time and place; ...' (Quetelet 1968:100). Thus, he sees adjustments occurring over time. His concept of the 'average man' clearly is dynamic. The 'average' changes, I would say, under the influence of changes in the composition of a population by groups displaying different types of behaviour.

It is not particularly revolutionary to observe that individuals may, without being consciously aware of it, behave so as to conform to the 'average man', the prototypical member of their group in a specific period. Since Norman Ryder's work we know further that cohorts, groups of people who have a certain vital event in common, frequently also behave similarly when other vital choices have to be made. Their behaviour is stereotypical. As Ryder puts it: 'Each new cohort makes fresh contact with the contemporary social heritage and carries the impress of the encounter through life'. Cohorts '... do not cause change; they permit it ...', so Ryder argues (1970:91, 92). But why does the average, why does typical behaviour change from cohort to cohort?

In this lecture I shall argue that Ryder's approach to the study of the role of the cohort in social change is dangerously narrow. Cohorts do not only permit change; they actively create the options succeeding cohorts have to choose from. Through its own choice from amongst the options perceived, each cohort both limits and enriches the options of the next. In fact, the course of demographic events in Western Europe in the postwar period is difficult to understand, if one does not appreciate that these events form a sequence. A sequence generated by the quite specific option(s) each cohort, through its own choice, created for the next. Members of succeeding cohorts appear to be well aware of the acceptability of different alternatives. They know which choice would defy standard thinking, which choice would be deviant but non-controversial, and what the choice is they should make as a member of a specific sub-group within a cohort. In fact, as de Rooy (1986) has argued with regard to the behaviour of the adolescents in the Netherlands between the fifties and seventies, sometimes it appears as if new generations behave exactly as the parental generation both 'feared and expected'. I should like to argue that it is precisely through the choice that people make with regard to such life shaping demographic events as marriage, having a child, and method of contraception, that people express their sense of belonging to a certain sub-group. Through choices in issues dealing with the meaning of life, people group themselves in what I would like to call 'mental cohorts'. Such mental cohorts may straddle a series of birth cohorts. By the same token, birth cohorts are likely to comprise varying proportions of members of a given mental cohort. The vital event mental cohorts have in common is that

they have acquired a similar approach to life. They share a common outlook and tend to make choices (stereo)typical for that mental cohort.

Mental Cohorts and the Nature of Recent Demographic Change in European Societies

Characteristic of Europe's Second Demographic Transition as described by Lesthaeghe and myself, are four important shifts in fertility and family formation. They all occurred after the mid-60s and relate to:

- the contraceptive behaviour practised;
- the level and pattern of fertility;
- the timing, frequency, stability and type of union;
- the resulting type of family pattern.

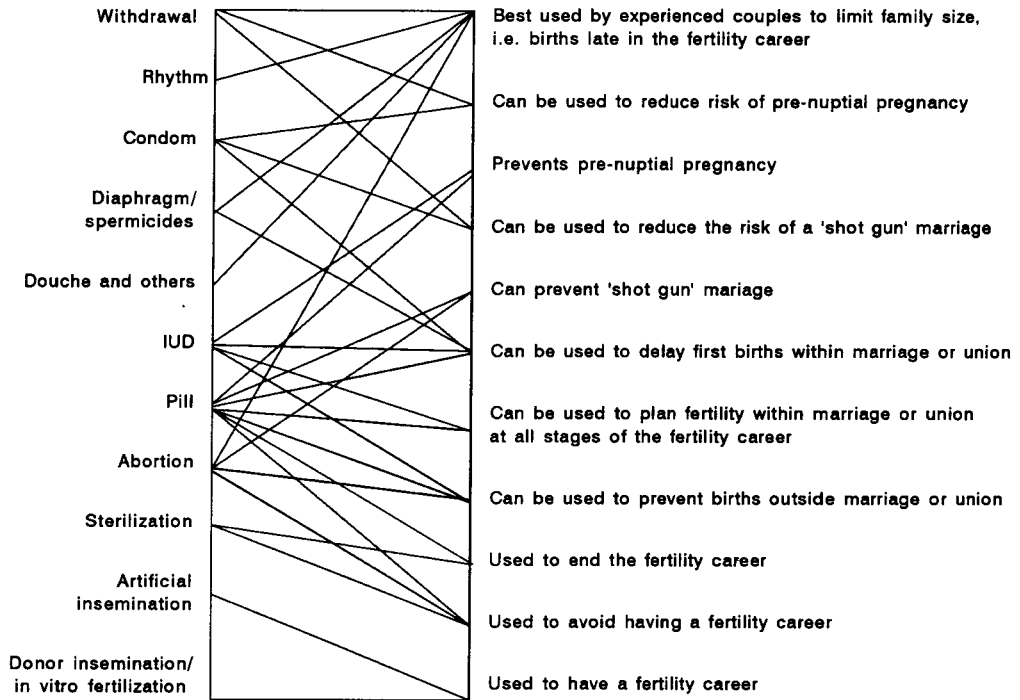
In each of those areas a sequence of events can be discerned which, in hindsight, appears plausible and logical. These sequences are interrelated in a complex manner (Santow 1989). From a demographic point of view, however, the linch-pin of it all is the advent of highly effective means of contraception. This in particular in those instances where their impact was accentuated by the tacit or legal acceptance of means to terminate unwanted pregnancies. I would like to submit that the technological innovation represented by the contraceptive pill and the intra uterine device (IUD) in the mid-60s, in many countries followed by some sort of legalization of abortion and/or sterilization in the years thereafter, is central to the chain of events which together constitute the Second Demographic Transition. Mental cohorts were formed intent on exploiting to the fullest possible extent the unprecedented freedom produced by the new means. These had specific views on the rights of the individual. They sought emancipation of couples, in particular of women. From the available options they systematically selected those that most increased the sphere of personal freedom and responsibility. The influence of secondary groups (churches, politics) over individual decisions was pushed back. The unusual rapidity of the changes in demographic behaviour cannot, of course, be explained without also considering the rapid social and economic developments of the period. However, I see these more as factors enabling the speed rather than the nature of the demographic changes.

The Sequence of Options and Choices

The Diffusion of Modern Contraception

The shift from traditional to modern contraception has in France been called 'The Second Contraceptive Revolution' (Leridon *et al.* 1987). And indeed, while the replacement of traditional contraceptive means and methods by modern ones will in itself reduce average use-ineffectiveness and thus

Figure 1 Methods of fertility regulation and their characteristics.



reduce fertility (Murphy 1993:223), the overall impact on fertility is much more profound and revolutionary than that which could possibly have resulted from a simple technical substitution mechanism. If one prepares an overview of the usage characteristics of the various traditional and modern contraceptive means and methods, it is immediately clear that the versatility of the modern methods far exceeds that of the traditional types (Figure 1).

Whereas traditional methods such as withdrawal, periodic abstinence and the diaphragm well suited experienced couples wanting to limit the size of their family, they were much less suited for other purposes. Modern contraceptives clearly can be widely used with great effectiveness to achieve a range of planning objectives. Moreover, the acceptance or legalization of abortion provided a solution when contraception failed or was not practised. Where sterilization is no longer considered to cause 'grievous bodily harm', it obviously provides a perfect means to end a fertility career or to remain childless.

I would like to sketch the sequence of options and choices in this field, as I see them, briefly. It is probable that physicians in various countries first prescribed the pill and IUD to experienced married couples desirous of replacing their traditional practise with more effective means. However, younger married couples soon followed suit and quickly became the major category of users. In countries where the medical profession favoured family planning, it was also fairly easy to adopt the pill prior to marriage. This as a matter of personal choice and to avoid the risk of an unintended pre-marital pregnancy and a 'shot gun' marriage. It is quite possible that parents have stimulated their courting children to use effective contraception early in, if not before, married life. This was done in the hope that they would not become burdened with the care of children too soon.

Abortion, the morning-after-pill, and contraceptive sterilization have in a large number of European countries become the stones to round off the structure of fertility control. It frequently took more than a decade of intensive discussion to achieve that. It is difficult to see how these rather fundamental changes in the rights of individuals could have been reached if modern contraceptives had not been on the market and had not become widely accepted. The legal changes usually necessary were quite actively sought by the mental cohorts intent on enlarging the sphere of personal decision making. It has resulted in a contraceptive structure that for all aims and purposes would now seem to be complete. Within three decades, procreation has become a question of choice and rights. The end result of the Second Contraceptive Revolution is that having children requires a conscious decision. By the same token it is the wish of the individual or couple which now guides official action.

It has frequently been asserted, especially by French speaking demographers, that the method of contraception used does not in itself exert any influence on the motivation to have children and on the number desired. The argument put forward in support of that position is quite reasonable. Isn't there ample evidence that people are capable of reducing the number of children born to almost any level as long as their motivation is strong enough? (Leridon 1985). Indeed there is. But that is not the issue. Deciding to prevent the risk of conception is not equivalent to interrupting contraception in order to conceive. In the latter case the clear understanding is that such a conception should enrich the couple's, or that person's, life. It should be a self-fulfilling conception. It is my considered opinion that currently most couples find it wellnigh impossible to create the circumstances under which such very high expectations can be met. And since there is a clear taboo on bringing children into the world if you cannot take proper care of them (Kaufmann 1988), they continue to contracept. Hence the continued decline of fertility in most of Europe and the extremely low levels now prevailing in

some regions. I see a parallel here with the 'appealingly paradoxical conclusion' reached by Bracher *et al.* for marriage dissolution in Australia: '... it reflects not the rejection of marriage, but its idealization' (Bracher *et al.* 1993:425).

Fertility and Union Formation

The 1950s were the heyday of the '*bourgeois*'-family. Almost everyone married, married young, and stayed with the partner for life. Women with children were not supposed to go out to work; the husband earned the family income. Signs of incipient change in this historically unprecedented situation can be found in Northern Europe before the mid-60s. However, it is only after modern contraceptives came on the market that a profound shift occurred. If the metaphor were not so inept, I would say that modern contraception laid the axe at the root of the traditional relation between sex and marriage and between partners and their children. The sequences in union formation which resulted, constitute, in my view, the most beautiful illustration one can imagine of the way each cohort determines the options for the next. Since they are intricately linked with the sequences in fertility I shall treat them together.

The first demographic effect of the Second Contraceptive Revolution is a sharp reduction in the number of higher order births. The pill and IUD made it much simpler to end a fertility career. This will have had a negligible effect on nuptiality. The second effect was of greater consequence. Having sexual relations before or outside marriage was still frowned upon. Modern contraception allowed people to marry even younger than preceding cohorts without having to fear the immediate birth of children. One no longer needed to be mentally ready to have children before getting married. Initially the age at first marriage declined further. But the use of modern contraception before marriage soon generated countervailing forces. The number of pre-marital pregnancies declined. The disappearance of 'shot gun' marriages reduced the number of first marriages. The age at first marriage began to increase. The presence of young married couples intent on postponing childbirth, and the decline in the numbers of brides pregnant at the time of marriage, reduced the numbers of first and second births. That brought the 'baby boom' to an end and accentuated the fertility decline at the higher ages.

It also created a new option for the mental cohorts intent on 'shaking off the yoke of the *bourgeois* marriage'. Why stay with the marriage partner when love had gone? Why marry if one did not want children? Why not live together in an informal union instead? At first a defiant few chose that option. No doubt they left their parents in a state of utter confusion. But faced with the unenviable choice of losing contact with a child or maintaining the traditional family decorum, these accepted the new behaviour with astounding

rapidity. From the early 1970s cohabitation became an easier choice to make. Marriage and childbirth were further postponed. Initially the proper thing to do was to marry when children were desired. Waiting until the bride was pregnant was an obvious alternative. The number of pregnant brides thus increased thanks to the availability of perfect contraception. A further option arose. Why marry or re-marry if one had lived together for a long time already, simply to have children? The somewhat paradoxical result of that unforeseen option is that, due to the availability of near perfect contraception, extra-marital fertility rose again.

Three additional points still need to be dealt with. The first is that of divorce. It is not so easy to place divorce correctly in the sequence just discussed. At first it obviously mainly affected couples which started out with very different expectations. But, as noted earlier, in parts of Europe judicial separation already had become more frequent in the 1960s, while obtaining a divorce almost always remained extremely difficult and time consuming. It is my contention that a backlog had built up. The mental cohorts intent on enlarging the sphere of personal autonomy also in this area could use that situation. They further benefited greatly from the fact that cohabitation had become accepted. In that category separation occurred frequently. In fact, in the Netherlands the yearly number of dissolutions of consensual unions now probably exceeds the number of divorces (Manting 1994). Moreover, the widowed and those separated from table and board could easily enter post-marital cohabitation. They increasingly preferred that to remarrying. Ultimately divorce was legalized with permanent breakdown of the marriage as the sole and sufficient grounds, in all but a few European countries.

The second point concerns abortion and contraceptive sterilization. It is difficult to over-estimate their impact on delimiting the childbearing period and their effect on completed family size. Taken together they virtually eliminated the phenomenon of the unwanted birth.

The third point partly illustrates the extent to which having children has become a question of rights and partly the choice faced in the end by women who postponed having children. Shall I remain childless or shall I try to conceive, if necessary after medical intervention? The demographic effect of the decisions reached is a marked ageing of the fertility curve. It also increases extra-marital fertility and the number of multiple births.

Family Patterns

The sequences in the process of reproductive individualization (Hall 1993) just sketched, obviously have a direct influence on family patterns in Europe. Coupled with increases in longevity, the differences in life expectancy between partners, and the change in the character of the relationship between children and parents, they have led to a consistent decline of household size

over time and a spectacular increase in the proportion of one-person households (Kuijsten 1996:124-126). I have no plans to review the changes in family patterns in any sort of detail. I see them essentially as the inevitable consequences of choices made. A few aspects deserve attention, however. The first is, that the ease with which adolescents leave the parental home has a great deal to do with the availability of reliable contraception. Parents no longer act as the guardians of the virginity of their offspring. They are satisfied with periodic visits of the children to the 'hotel family', as Lesthaeghe has called it. If necessary they take the child back into the home for a while when a union does not work out. As long as there are no small children involved, that can all be done with ease. If there are small children, the situation tends to result in a single parent family, a category which is rather new and is sometimes chosen by people of their own volition. Thus also in this sphere there are clear effects and signs of diminishing institutional control over the choices individuals make.

Evidence and Current Demographic Patterns

Have I convinced you all that this is the way we should look at the profound demographic changes which have occurred in European societies since the mid-60s? That the sequence contained in Figure 2 gives a fair summary, although a bit too ideal perhaps, of what transpired demographically? Can you agree that birth cohorts can be subdivided into mental cohorts? That these cohorts pave the way for each other? That each cohort limits the options of the next and gives direction to its choice? That through perceptive or cognitive categorization the 'average man' of each period adjusts his behaviour? Or do you require evidence, figures to convince you? An overview of current patterns perhaps to check whether theory matches reality? Let me try to muster other authors and illustrative material in support of my words (Figure 2).

I do not want to begin in an apologetic mood. But I need to remind you that the French social-demographer Louis Roussel, once said of Europe that it most resembled the cape of a harlequin (Roussel 1992). And indeed, almost every general statement one cares to make about Europe, let alone about European societies more generally, can be flattened easily by pointing at an exception or a different turn of events. This need not be serious. The countries concerned have a different history, a different institutional endowment. Consequently, cohorts are confronted with a different 'social heritage'. Geoff McNicoll (1993) has argued convincingly to expect 'path dependency' under such conditions. Consequently, variations in the tempo and the way in which certain changes take place, need not worry us. Moreover, a somewhat motley pattern is precisely what one would expect when one deals with phenomena diffusing over and in different societies. Its presence does not exclude the possibility of convergence and need only bother us when we do

Figure 2 A summary overview of demographic consequences during the Second Demographic Transition based upon observations covering the period 1965-1995.

1. Decline in total period fertility rate due to reduction in fertility at higher ages of childbearing: decline in higher order birth rates
2. Avoidance of pre-marital pregnancies and 'forced' marriages
3. Notwithstanding that the mean age at first marriage continues to decline
4. Postponement of childbearing within marriage, fertility among young women declines, lower order birth rates decline, this accentuates decline in total period fertility
5. Increase in judicial separation and divorce (when allowed)
6. Postponement of marriage largely replaced by pre-marital cohabitation, increase in age at first marriage
7. Cohabitation becomes more popular, marriage postponed until bride is pregnant, increase pre-marital births, increase in mean age at first birth
8. Legislation of sterilization and abortion further reduce unwanted fertility; fertility at border ages of childbearing declines further
9. Cohabitation gains further support, is frequently also preferred by the widowed and divorced
10. Cohabitation increasingly seen as alternative to marriage, extra-marital fertility increases
11. Total fertility rates tend to stabilize at low levels
12. Total period fertility rates increase slightly where women who postponed births start a fertility career; increase of lower order birth rates at higher ages of childbearing
13. Not all postponed births can be born in the years of childbearing older women have left
14. Voluntary childlessness becomes increasingly significant
15. Cohort fertility appears to stabilize below replacement level

not understand it. Finally, whether an innovation is accepted a decade earlier or later, may greatly influence the speed and impact of its diffusion. This may affect the ordering of events and the duration between them.

The 'Mental Cohort' Perspective

That the demographic concept of a cohort is somewhat narrow, probably does not require a long discussion (for a historical overview see Becker 1991). A few years ago, Henk de Feijter, a colleague of mine at the University of Amsterdam, set out to discover whether innovators in demographic behaviour could be identified. He did a secondary analysis of ten sets of

survey data for the Netherlands covering the period 1965-1985. He looked at changes in attitude as well as actual behaviour. His findings support the idea that throughout the period groups of people sharing a common outlook on life constituted the 'mental cohort' which first accepted and then generated change. The early acceptors and early adopters usually were the young, more highly educated women, living in the large cities, who did not attend church, and whose political preference was well left of centre. Whether the new mode of conduct was unmarried cohabitation, cohabitation without intent to marry, voluntary childlessness, or the use of sterilization amongst those whose family was complete, women having the type of characteristics just indicated were much more likely to have adopted that code than those with opposite characteristics. It could further '... be established that the diffusion rate of innovations which were not subject to public ethical debate seemed to be much higher than the diffusion rate of innovations which were widely discussed' (de Feijter 1991:186).

Late in 1991 Flemish demographers Lesthaeghe and Verleye carried out a macro-level analysis for a large number of European societies, including Australia, in which they attempted to relate demographic changes to a number of background variables or predictors. Two LISREL-models were developed. One dealing with the initial demographic changes during the Second Demographic Transition, the other with recent changes. In both cases they sought to include measures which might indicate a willingness to tolerate new types of behaviour. In the model dealing with the initial stage of the transition, these were the historical role of protestantism and the pre-transition (1960) level of extra-marital fertility. In the second model the number of proxies thought to measure readiness to accept individual autonomy, was greater. Next to the historical role of protestantism, these were Inglehart's index of 'post-materialism', the degree of participation of women in political discussion, and the proportion of women in the lower houses of parliament. The results obtained suggest that both in the initial stage and the later phase of the transition, the richer countries with a homogeneous protestant tradition and a cultural development emphasizing emancipation and the role of the individual, formed the vanguard (Lesthaeghe and Verleye 1992:41). One may safely assume that in such societies the 'mental cohorts' intent on change were numerically much stronger than elsewhere.

The Second Contraceptive Revolution

That modern contraception, that is, the pill, was first used by more experienced couples wanting to end their fertility career has been well documented by Moors for the Netherlands. He found for the birth cohorts 1958 and 1963, that the proportion of women using the pill increased sharply with each birth interval. Moors has also documented the emergence of a family

planning pattern, which he calls Rational 2, where the couples aimed at an extended postponement of the first birth. While in the Netherlandish marriage cohorts of 1958 and 1963 it occurred in about five per cent of the cases, in the cohort which married in 1968 it reached 15 per cent. Even in that marriage cohort having your children quite deliberately soon after marriage, was more popular (Rational 1). That was still the practice in 30 per cent of the cases, a decline of ten percentage points when compared to the distributions for the marriage cohorts 1958 and 1963 (Moors 1974:154). I think it likely that this phenomenon became the prelude to pre-marital cohabitation.

Comparative data on the diffusion and current use of modern contraception, sterilization, and abortion in European societies are rather difficult to come by. That the pill was adopted at very different rates has been well documented. While in 1968 the proportion of all women aged 15-44 using the pill reached 20 in Denmark and Sweden, and was well above ten per cent in the Netherlands and Germany, in France, Spain and Italy these figures were four, two, and one per cent respectively. In 1977 more than 40 per cent of the women in the Netherlands were on oral contraceptives; figures in the high twenties were common elsewhere. Spain and Italy registered eight and six per cent respectively; the proportions in Eastern Europe no doubt were even lower (Leridon *et al.* 1987:135). Even now the pill and IUD are not widely used in Southern and Eastern Europe; as a result the populations concerned frequently have to take recourse to abortion.

For Eastern Europe this is not so surprising. There abortion usually was legalized in the mid-50s. Its use was not problematic, standard even. For Southern Europe the recourse to abortion is understandable in view of the risks the type of contraception practised entail and, as we shall see later, the rejection of extra-marital fertility. In Western Europe the use of abortion mostly became accepted in the early or mid-70s. Where its diffusion has been well documented, as in the case of France, one sees a gradual increase in the readiness to use it in the case of an unwanted pregnancy. It then is more frequently used by married than unmarried women. However, just as expected, within marriage the older women (35-44) and the very young (15-19) tend to need it more than women in the middle of their reproductive period (Leridon *et al.* 1987:256-259).

How contraceptive sterilization became part of normal practice is best illustrated with data relating to birth cohorts interviewed on successive occasions. For example, the 1942-46 birth cohort of women in Flanders was surveyed in 1966, 1976 and 1983. That is, while they were at the beginning, in the middle and at the end of their reproductive career. When they were 20-24, 78 per cent of current use was accounted for by withdrawal and the rhythm method. Ten years later 40 per cent used the pill, while 24 per cent still relied on withdrawal. Sterilization insignificant at these ages, was used

Table 1 Some measures of the matrimonial transition in selected European countries (selected years, 1960-1995)

Country	1960	1965	1970	1975	1980	1985	1990	1995
Mean age of women at first marriage (in years)								
France	23.5	22.6	22.4	22.5	23.0	24.3	25.7	26.7
Hungary	21.9	21.6	21.1	20.8	21.3	21.3	21.5	22.2
Italy	24.8	24.5	24.1	24.0	24.1	24.5	25.6	26.5
The Netherlands	24.5	23.5	22.8	22.6	23.1	24.4	25.9	27.4
Sweden	24.3	23.3	24.0	25.1	26.8	27.5	27.6	28.7
Teenage marriages (per 1000 women aged 15-19)								
France	34	46	37	38	25			
Italy	28	35	38	39	30			
The Netherlands	24	33	38	34	19			
Sweden	27	40	17	11	5			
Total divorce rate (divorces per 100 marriages)								
France		11	12	16	22	30	32	35*
Hungary		23	25	28	29	33	31	34
Italy		0	5	3	3	4	8	8
The Netherlands		8	10	20	26	34	28	32
Sweden		18	23	50	42	45	43	50

Note: * 1993.

Sources: Höpflinger (1987), van de Kaa (1987, 1994), Council of Europe (1996).

by 35 per cent in 1983, when they were 37-41. In the Netherlands it had, by that time, become even more popular as a means to end the fertility career (Cliquet and Moors 1986).

The Matrimonial Transition

A simple visual inspection of data sets usually suffices to convince people that the reduced propensity to marry, the decline in remarriage, the increase in cohabitation, in divorce, in separation, and in the number of ex-nuptial births, are strongly interrelated. It is not necessary to argue here that a matrimonial transition has taken place. The question is whether a sequence can be demonstrated. In my attempt to do that I shall try to reduce the element of arbitrariness somewhat by using, where possible, material from six countries — Norway, Sweden, the Netherlands, France, Italy and Hungary — which reflect the experience in the different regions of Europe (Table 1).

I have argued that the impact of modern contraception on the age at first marriage would first be to lower it and then to allow it to rise. Table 1 shows that general pattern but the lags are far from uniform. In Sweden the rise is evident as early as 1970, in Italy in 1980, while in Hungary the phenomenon

is quite recent. If teenage marriages during the first years of the transition are considered, a similar pattern emerges. The reduction in Sweden is particularly striking. By 1980 marriages amongst women aged 15-19 have virtually disappeared. Elsewhere the numbers begin to decline by that year.

The role of abortion in that process can to some extent be gauged from Norwegian cohort data. If for each cohort of women born between 1945 and 1965 the cumulative proportions who experienced a first abortion before age 30 are calculated, these rise with the year of birth. Thus, over time young women more frequently sought recourse to abortion to end a pregnancy they considered to be 'too early' (Blom *et al.* 1993:86).

Data on the development of the total divorce rate are contained in Table 1. Taken together they indicate a rapid destabilization of marriage after 1965. Even more striking perhaps, is the virtual absence of that phenomenon in Italy. Clearly that is an issue I have to come back to. But let us first take a look at cohabitation.

Thinking in terms of sequences or stages is quite common in regard to cohabitation. It then is considered to progress from something very exceptional, via trial marriage to a situation in which marriage and cohabitation are equivalent to each other. In a recent study on living arrangements in Europe, Christopher Prinz (1995), has presented a typology of cohabitation which is very similar to the sequence I sketched earlier. However, he argues that existing typologies rely too much on fertility behaviour within the union as a basis for their classification. In his view, the age pattern of cohabitation tells all. To demonstrate that, he has devised so-called cohabitation sequence ratios. These simply indicate the fraction of cohabiting women in an age group divided by the fraction of cohabiting women in the preceding age group. It is easy to see that in a stable situation the ratios will be high and will not vary much over the age range. Prinz measures the degree of inequality by calculating Gini coefficients. By combining these with the level of the sequence ratios he arrives at four stages of cohabitation in the partnership transition. He calls these: cohabitation as a deviant phenomenon, as a prelude to marriage, as an alternative to marriage, and as a type of marriage (Prinz 1995:103). The advantage of the method clearly is that if one has the data one can calculate an objective measure to typify the situation a country is in. In that sense it is nice to have the suggestion of a logical and plausible sequence confirmed. However, the weakness of the procedure is precisely that by neglecting information on extra-marital births, the dissolution of marriages and so on, the stages are not integrated in the wider matrimonial transition. And it is precisely that integration that can be demonstrated with recent data. Festy, for example, has presented information on the distribution of women by civil status at the time of conception and the time of birth in France during the twenty year period from 1968 to 1987. His clear conclusion is that over time the fact that a child

Table 2 The timing of events in the life course of two Norwegian female birth cohorts, 1988

Event	Birth cohort	
	1945	1960
Median age at first intercourse	18.9 years	17.1 years
Use of pill/IUD at age 20-24 (1945) and age 22 (1960) respectively	11%	63%
Proportion with at least one abortion before age 24 (spontaneous or induced)	5%	18%
Median age at birth of first child	23.7 years	25.7 years
Unmarried cohabitation at birth first child	3%	26%
Single at birth first child	10%	13%
Average number of children at age 28	1.5	1.1
Median age at first marriage	22.6 years	25.2 years
Median age at first unmarried cohabitation	-	23.1 years
Median age at first cohabitation	22.3 years	21.1 years
Proportion of first marriages preceded by unmarried cohabitation	14%	60%

Source: Blom *et al.* (1993) and Keilman (personal communication 1997).

will be born has become much less of a reason to change conjugal status (Festy 1994:1254).

Survey data tell a similar story. Table 1 has been adapted from the Norwegian study referred to earlier. Two birth cohorts of women — 1945 and 1960 — are compared on the basis of a survey conducted in 1988 when the youngest cohort was 28. There is a clear shift in the direction of earlier and more frequent cohabitation. Sexual relations begin earlier, contraception is more effective and childbearing is delayed. What is surprising, certainly at first sight, is that improved contraception notwithstanding, before age 24 abortion was more frequently used by the younger than the older cohort. Moreover, the proportion which was neither married nor cohabiting at the time the first child was born increased. This can be interpreted to signify a greater degree of independence and self-fulfilling behaviour on the part of the women of the younger birth cohort. A more detailed examination of Norwegian female cohorts born from 1945 to 1968 yields evidence that cohabitation at very young ages (18-19 years) is increasing. It, more in general, confirms the idea of sequential changes in union formation (Statistisk Sentralbyrå 1991:46) (Table 2).

The Population Activities Unit of the Economic Commission for Europe currently co-ordinates fertility surveys in 20 industrialized countries of the region conducted in the early 1990s. The data base will soon be open to all

Table 3 Family formation in selected European countries in the early 1990s

Country	Year	Cumulative percentage who had never (N) entered a first partnership by age 25 and those who by that age had entered marriage (M) not preceded by cohabitation, or consensual union (C)			Proportions of respondents not (N) living in any partnership and those in a marital (M) or consensual (C) union at the time their first child was born*		
		Women aged 30-34 at interview			Women aged 30-34 at interview		
		N	M	C	N	M	C
Sweden	1992/93	16	6	79	8	27	48
Netherlands	1993	24	31	44	2	61	6
France	1994	18	33	49	7	56	15
Italy	1995/96	38	55	6	4	68	3
Hungary	1992/93	10	75	16	5	81	4

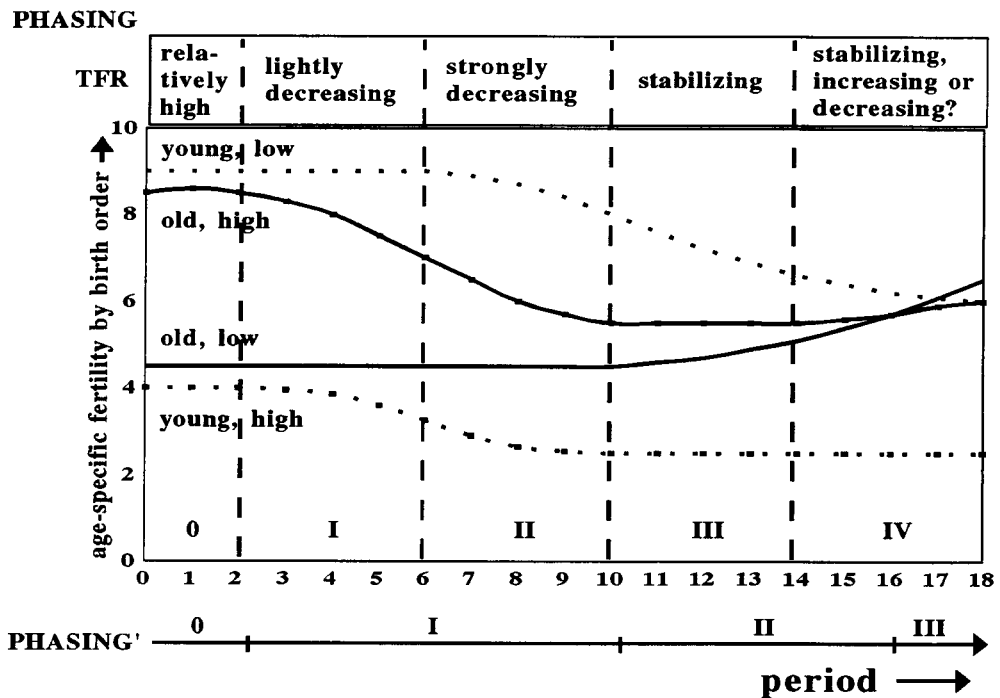
Note: * proportions childless not shown.

Source: Kliizing and Macura (1996).

bona fide researchers. That will, no doubt, yield much richer evidence on the sequences in union formation and fertility than a single data set can provide. First comparative results show, for example, in virtually all countries a rapid drop in the proportions of women entering marriage not preceded by cohabitation (Table 3). As against that the proportions entering a consensual union before age 25 tend to be systematically higher for the younger than for the older age groups (Klijzing and Macura 1996).

Primarily to illustrate the variability within the European region I have assembled a few figures for the group of women aged 30-34 at the time of interview in a table. Italian women appear to enter a partnership much later than elsewhere. And when they do, it usually is a marriage. It is, further, within marriage that the children are born. Marriage also is the first partnership preferred in Hungary. At the other side of the spectrum one finds Sweden, where only a very small minority enters marriage not preceded by cohabitation. Just as the sequence of options predicts, extra-marital births occur more frequently in areas where consensual unions are well accepted. However, when ex-nuptial births are distinguished between those born to women living alone and those cohabiting in a consensual union, traditional patterns emerge. Where births to unmarried women have long been accepted, single women living alone contribute substantially to extra-marital fertility.

Figure 3 The European fertility transition pattern after 1965.



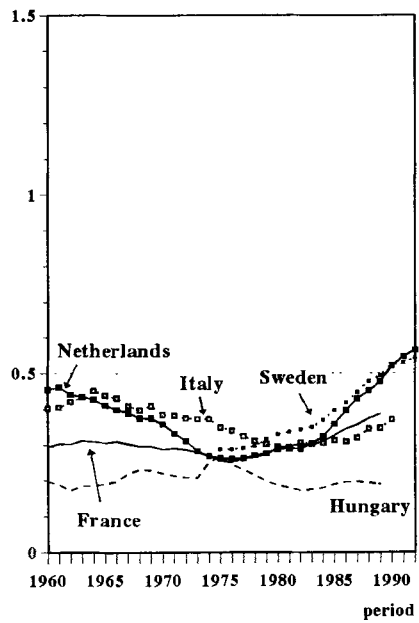
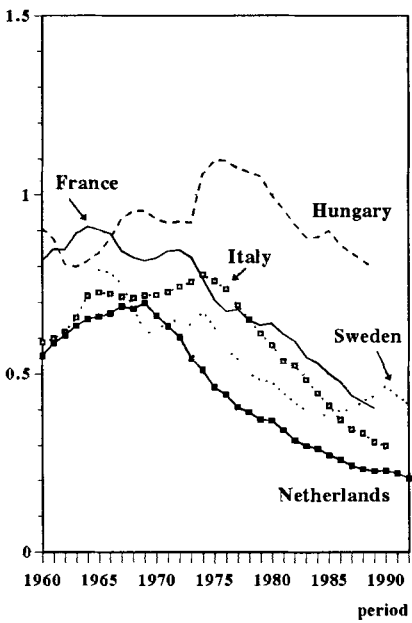
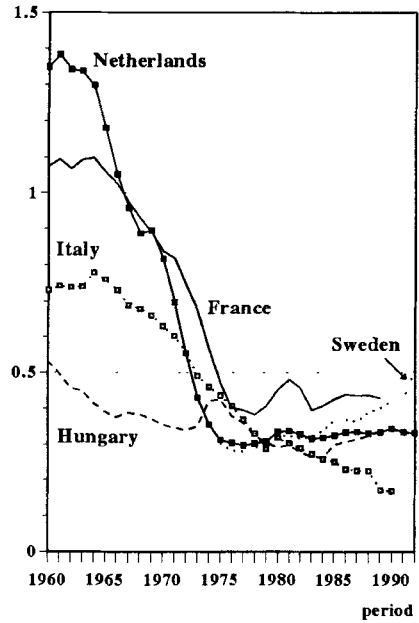
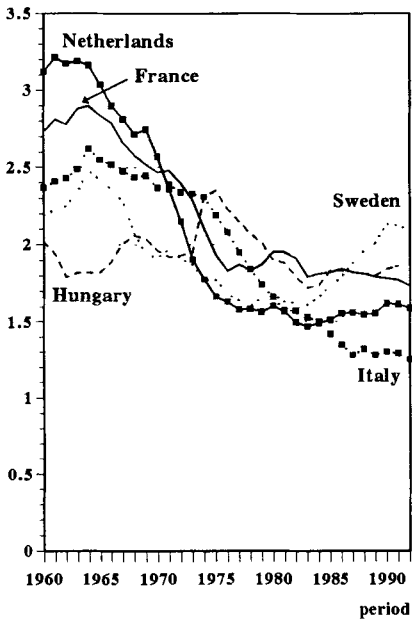
The Fertility Transition

On the basis of a careful analytical study of fertility change in ten European countries, my colleague at the University of Amsterdam, Willy Bosveld, has developed the model of the fertility transition during the Second Demographic Transition contained in Figure 3.

She distinguishes four phases. With the situation in 1965 as her point of departure, she sees changes in age specific fertility by birth order reflected in the level of the total fertility rate (TFR). She has not attempted to incorporate the status of the children born into her scheme. That is not unreasonable for the past. However, the future course of the TFR may well depend on whether extra-marital fertility becomes more standard. The range in the proportion of births born outside marriage is tremendous. Should procreation outside marriage become as acceptable everywhere as it is in Sweden or Denmark, the question whether the TFR is likely to increase, stabilize or decrease is much easier to answer (Figure 4).

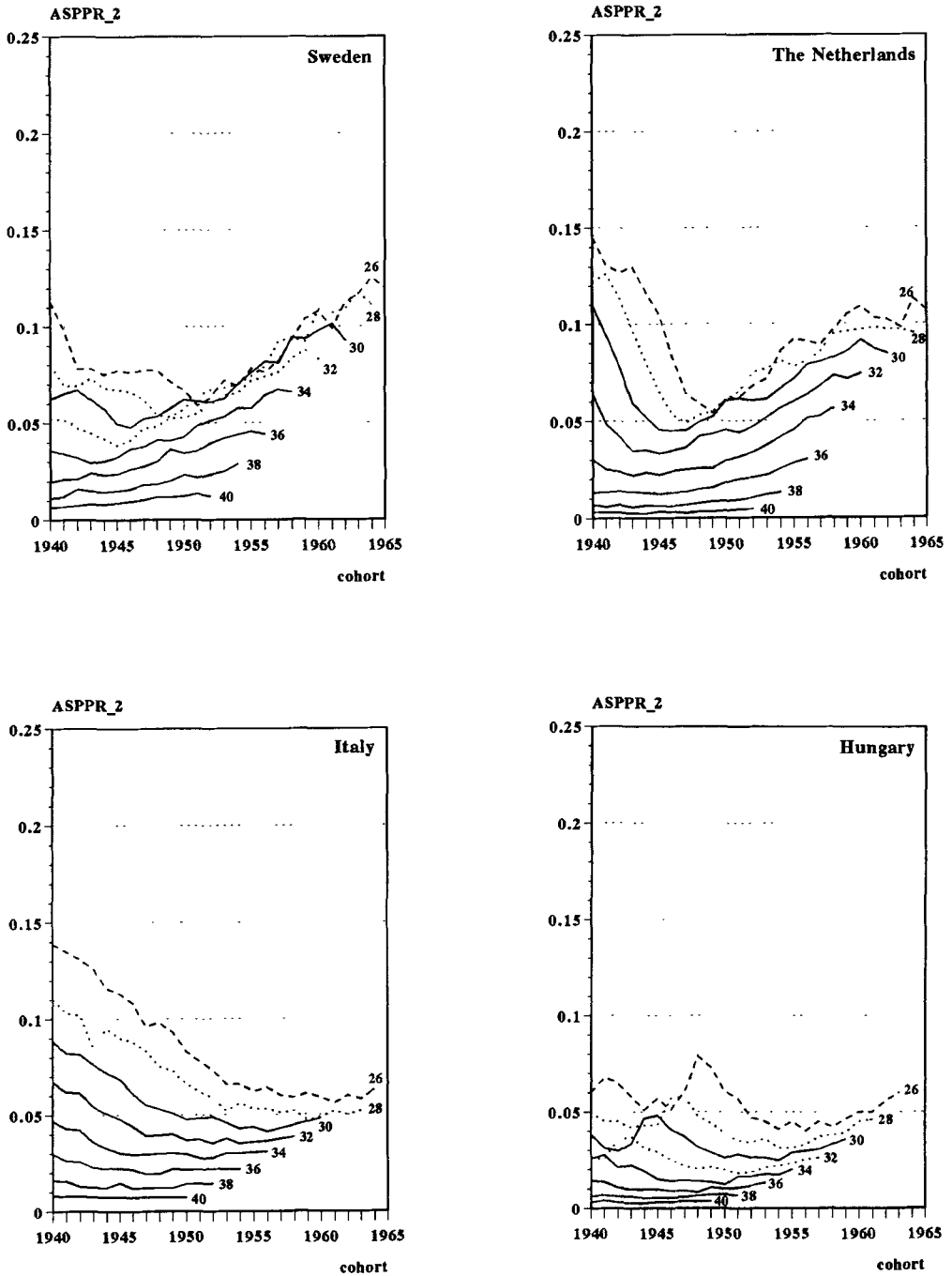
Bosveld's scheme nicely portrays and confirms the sequence of options and choices I sketched earlier. It is partly based on the analysis of the type of period fertility rates depicted in Figure 4. An important component of her

Figure 4 Period fertility measures in selected European countries: 1969-1992.



Source: Bosveld (personal communication 1996).

Figure 5 Age-specific progression ratios of parity-2 women, aged 26-40, cohorts 1940-1965, in selected European countries.



Source: Bosveld (personal communication 1996).

Table 4 Selected demographic indicators in Central and Eastern European countries after 1985

	Total fertility rate			% Extra-marital births		Total first marriage rates women < 50	
	1985	1990	1995	1985	1995	1985	1995
Bulgaria	1.95	1.73	1.24	11.7	25.8	0.93	0.56
Czech Rp.	1.95	1.89	1.28	7.3	15.6	0.92	0.55
Estonia	2.13	2.05	1.32	20.7	44.1	0.89	0.46*
For. GDR	1.73	1.52	0.77*	33.8	41.4*	0.74	0.39
Hungary	1.83	1.84	1.57	9.2	20.7	0.86	0.56
Latvia	2.09	2.02	1.25	14.4	29.9	0.94	0.47
Lithuania	2.10	2.00	1.49	7.0	12.6	0.98	0.67
Moldovia	2.66	2.39	1.95*	8.8	13.3	1.06	0.95
Poland	2.33	2.04	1.61	5.0	9.5	0.89	0.68*
Romania	2.26	1.83	1.34	...	19.8	0.85	0.73
Russian F.	2.11	1.89	1.40*	12.0	21.1	1.05	0.85*
Slovak Rp	2.25	2.09	1.52	5.7	11.7*	...	0.54
Slovenia	1.72	1.48	1.29	19.9	28.8*	0.58	0.52
Ukraine	2.02	1.89	1.40	8.3	12.8*

Note: * 1994.

Source: Council of Europe (1996).

analysis, however, was to study the changes in age specific parity progression ratios. The results for women of parity 2 in Sweden, the Netherlands, Italy, and Hungary are given in Figure 5. Taken together with the data from Figure 4, this type of evidence very strongly suggests that the precipitous and continued decline of the TFR in Italy should be attributed largely to the continued postponement of childbirth among young women and the failure of older women to catch up. This appears to be a more general phenomenon in Southern European countries.

I have no doubt that postponement of procreation as a result of a major political and socio-economic crisis is at the heart of the equally spectacular decline in total fertility in the (new) countries formerly behind the Iron Curtain. Reductions in the order of 30 to 40 per cent over the ten year period from 1985 to 1995 are no exception. The former German Democratic Republic had a TFR of .77 per woman in 1994, which must be the lowest figure on record for a region of that size. But it is not just the level of fertility which has changed (Conrad *et al.* 1996). As Table 4 shows the total first marriage rates declined equally spectacularly, while the increase in the proportion of extra-marital births among all births is quite general and substantial. It is likely, in my view, that Central and Eastern Europe are rapidly emulating the Western European experience.

The result so far has been that regarding their total fertility rate level European countries are bunched together rather tightly in the narrow range of between 1.25 to 1.7 children per woman. Very low levels occur in countries where the matrimonial transition has not taken hold and the diffusion of modern contraception was slow (Figure 6). Changes in cohort fertility (life time births per woman) are, of course, much less dramatic. Nevertheless, the universal tendency is one of decline to around or well below replacement level (Figure 7).

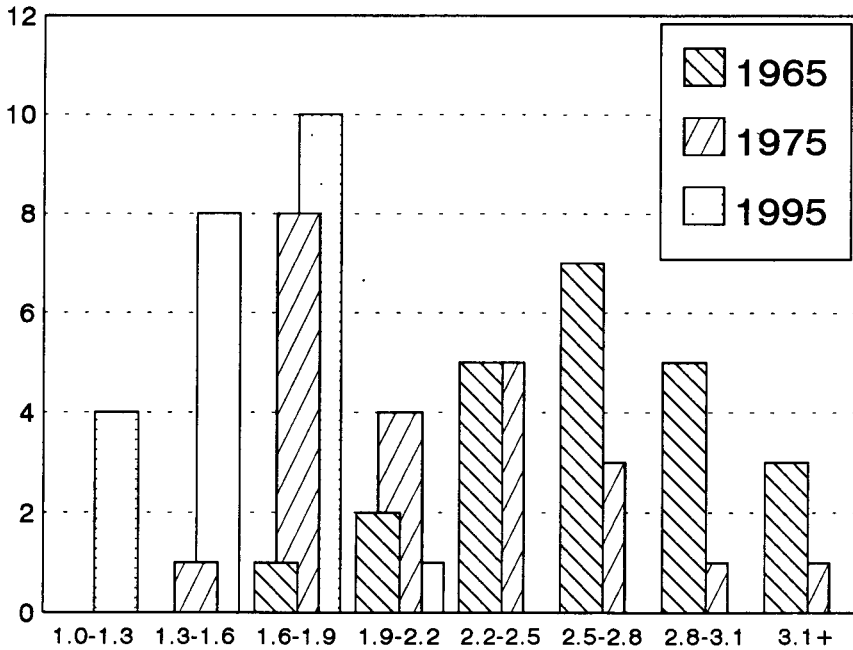
Voluntary childlessness is an option apparently chosen by an increasing number of women. At least, among recent birth cohorts the proportions remaining childless increase steadily. For the cohort born in 1958, usually the last one for which figures are available, levels over or close to 20 per cent are recorded for Germany, Great Britain, Austria, Finland, the Netherlands and Switzerland (Prioux 1993:234) (Figure 8).

Extra-marital fertility is on the rise everywhere. However, the levels vary widely and the differences appear to be firmly rooted in the past. They tend to be high, wherever having pre-nuptial sexual relations was tolerated traditionally (Figure 9). Taken together, the Second Contraceptive Revolution, the matrimonial transition, the fertility transition, and their reflection in the pattern of households and families, constitute an amazing turn about in the demographic history of European societies.

Options, Sequences and Phases: An Interpretation

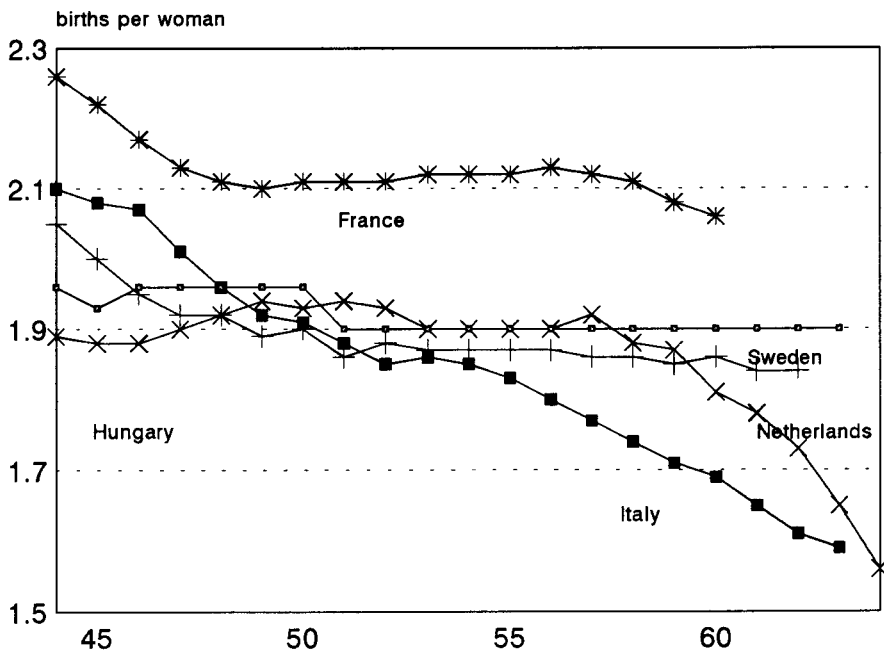
The material presented and discussed here is only part of a much larger body of evidence that could be marshalled in support of the thesis that one mental cohort paves the way for the next and that, consequently, a logical ordering of options and events is an essential characteristic of Europe's Second Demographic Transition. It is high time to organize a new 'European' population project to undertake that task systematically and to test the 'bold explanatory sketches' (Hobcraft and Kiernan 1995) offered so far. But, let me not divert our attention. It will not have escaped you that I have dealt rather lightly with a few of the problems encountered. The most striking of these is, no doubt, the existence of an enormous variability within Europe. It would, more particularly, seem as if in Southern Europe, typified in my graphs of Italy, the matrimonial transition has failed to materialize while the fertility transition is unusually intense. But the variation in the frequency of extra-marital births in countries where cohabitation is common, is also remarkable. Moreover, the numbers and figures sometimes hide different realities. While in Sweden cohabitation began as the practice of the working class, in the Netherlands it was typically the better educated who first defied the standard mores.

Figure 6 Distribution of 23 European countries by level of period total fertility rate: 1965, 1975, 1995.



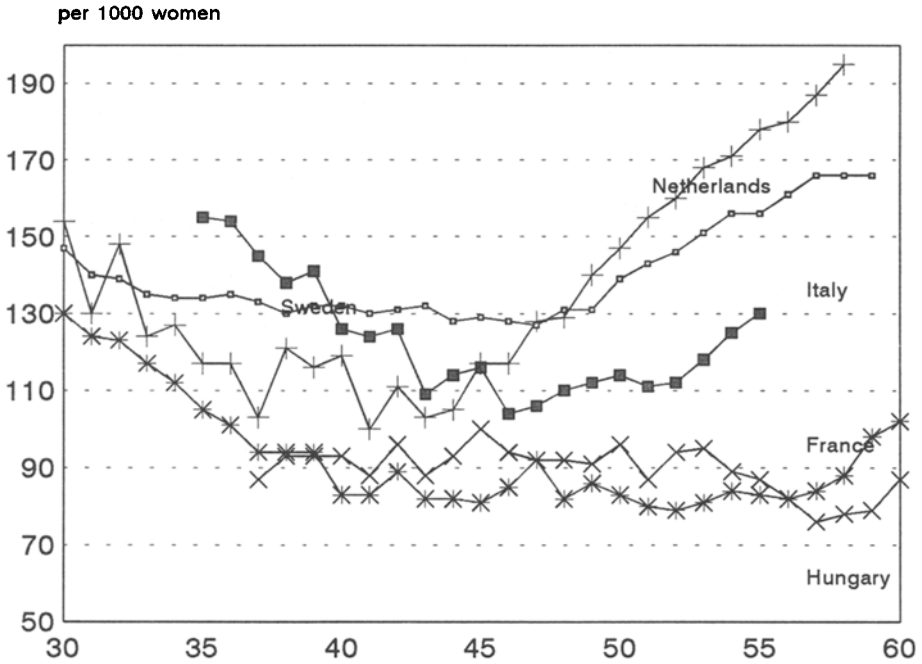
Sources: van de Kaa (1987), Council of Europe (1996).

Figure 7 Completed fertility for female generations in selected European countries: cohorts 1944-1964.



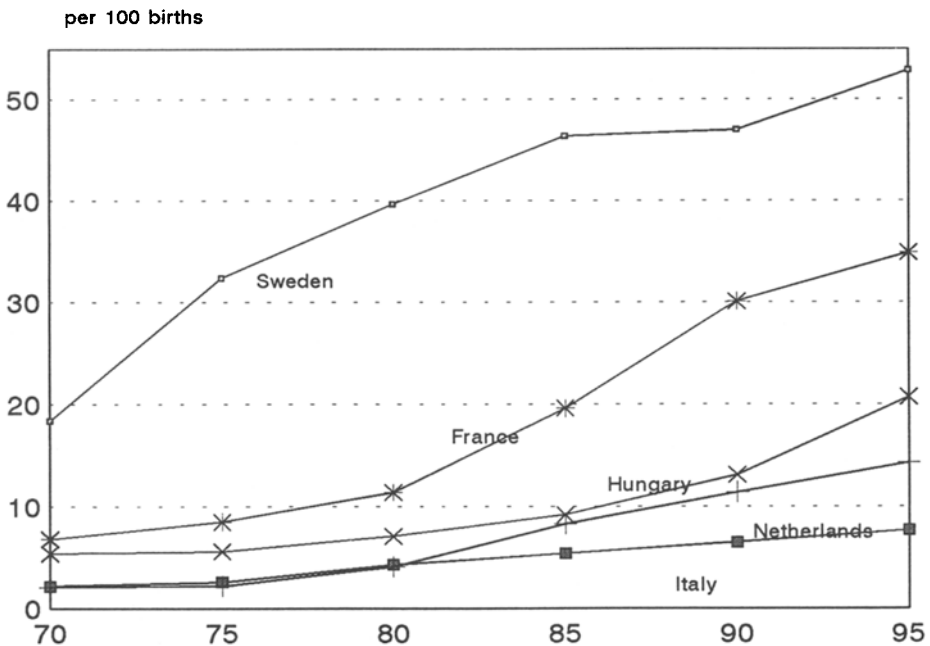
Source: Council of Europe (1996) (lifetime births per woman; latest available year).

Figure 8 Estimated proportion of childless women, selected European countries: cohorts 1930-1960.



Source: Prioux (1993).

Figure 9 Extra-marital births as proportion of all births, selected European countries: 1970-1995.



Source: Council of Europe (1996).

The existence of an almost bewildering variability, of a harlequin's mantle of experience, has stimulated various authors, including myself, to take a further step and to move from option and sequence to stage or phase (Roussel and Festy 1978; van de Kaa 1987; Kiernan 1993; Roussel 1994; Bosveld 1996). The basic idea is that all countries go through the same sequence, but are a little out of step. The variability we see is the result of differences in timing. The most catchy metaphor is that of a cyclone moving in from the North and engulfing the South before moving East. I have gradually become less convinced that this is an appropriate metaphor. It is too mechanistic, and its outcome too predictive. If timing only caused the variation, convergence would be inevitable, just as Gavin Jones discussed before this audience a few years ago (Jones 1993).

In order to discuss this point it is necessary to go back to the beginning of this paper, to what I said about mental cohorts, prototypes, stereotypes and the average man. There are three observations I want to make in this regard.

First. The continuous succession of cohorts will necessarily find its reflection in the demographic heritage of a country at each point in time. So, when around 1965 modern contraceptives came on the market their impact was similar but not the same. In some countries, the demographic endowment favoured the creation and a rapid choice for the series of new options I have described. This is particularly so in the Nordic countries. There the idea that individuals should be free to regulate their fertility in the most effective way could count on widespread support. There the institution of marriage was already changing somewhat as is evident from the reduced propensity to marry and the increased dissolution of marriages. Successive cohorts sensed that there was room for new forms of behaviour, that one need not adhere to the stereotypical sequences of the past. In other regions, and most notably Southern Europe, the initial demographic setting was quite different. The medical profession was reluctant to prescribe the pill, and refused to deal with the issues of abortion or voluntary sterilization. The sanctity of marriage had made divorce illegal. Living openly in a consensual union was something only the very poor, or those deeply ideologically motivated, could afford (Kiernan 1995). The average man faces such formidable barriers that compliance is the only feasible option. Certainly if not adhering to stereotypical practice involves the overt manifestation of another choice (marriage, divorce, remaining voluntarily childless) the setting will be very resistant to change. This may explain why in Southern European countries limiting family size to a minimum is so general, while the marriage pattern remains largely intact.

Second. Whether options which potentially exist can really be selected does not solely depend on the level of tolerance of a new type of behaviour in a society. If there are no rooms for rent at a reasonable rate, it is difficult for children to start living alone. If you have to be married in order to qualify for

council housing, need to have small children in order to be given priority when housing is allocated, or can only hope to gain independence through marriage, options one may have in theory do not count for much. In other words, the socio-economic context in which the choices have to be made has direct relevance for the sequence of events. That marriage is still early and quasi-universal in most of Eastern Europe, reflects that simple truth.

This further implies that societal developments in the three decades the Second Demographic Transition has now lasted, will have influenced the way in which the selection from the new options has been made. The intimate connection between sex, marriage, and parenthood has been broken by the advent of modern contraception. The way the new circumstances find expression in a society is context dependent. Where social security systems are highly individualized and do not discriminate on the basis of marital status, the 'legal' status of children, the 'guilt' of the parties involved in a divorce, and so on, it is relatively easy to make a choice which suits the individual best. A rapid increase in disposable income will, similarly, give individuals degrees of freedom unknown before or elsewhere. The de-formalization so characteristic of the Western European industrialized societies in the last decades, demonstrates what people can afford to do when their material dependence on significant others is substantially diminished. There is no doubt that mental cohorts intent on changing existing patterns of behaviour and intent on breaking the hold of society over individuals, met with very favourable conditions in most of postwar Europe. The demographic differences between the various parts of Europe now observed cannot be understood fully if the structural changes in the societies concerned are not taken into account. Hobcraft and Kiernan (1995:59) see great differences in this regard between the generous Northwestern countries and the countries of Southeastern Europe. In the latter region the opportunity costs of motherhood tend to be greater than in the Northwest, while establishing economic security is more difficult. In their view this makes committing oneself to marriage — let alone a consensual union — and childbearing, a much more hazardous undertaking in the Southeast than in the Northwest.

Third. Extremely rapid changes in attitudes and opinions about sexuality, marriage, parenthood, participation in the labour force, and the rights of the individual have been documented in many national and cross-national surveys in Europe. The postwar demographic transition(s) clearly has(ve) a strong ideational dimension. In my view, that makes it mandatory to reflect on the significance of deeply rooted cultural differences for the demographic patterns currently observed within European societies and the likelihood of future convergence. The cultural diversity is evident in the languages spoken, the religions (nominally) adhered to and, most importantly, in the manner things are done. Societies and communities are founded on the self image they create

and the criteria they apply in deciding whether someone truly belongs to that community or nation (Frijhoff 1996:4). Belonging to a certain cultural group implies doing things and looking at issues in a fashion others consider stereotypical. One recognizes a fellow countryman from afar and may expect to share '*rituels de mémoire*' with him or her. There is a common memory, a common understanding of what constitutes appropriate behaviour, of what is acceptable between parents and children, and what in intimate relations with others. This introduces an element of inertia in the European setting which is easy to forget, but remains very real (Micheli 1996). The famous line running from Triëst to St Petersburg was visible in Hajnal's analysis of European marriage patterns half a century ago, it is still present today (Kuijsten 1996: 121). I would like to argue that such longstanding and internalized cultural differences within Europe will continue to exert their influence on contemporary demographic behaviour.

These three considerations, one largely technological, one essentially structural, and the last one cultural in nature, bring me to the following conclusion.

Trends in a variety of demographic measures for European countries over the past three decades, support the concept of a sequence of options and choices with the introduction of modern contraception as a powerful catalyst. The choices made by specific 'mental' cohorts not only shaped their own behaviour but also highlighted the choices their successors could make. The developments thus gained a strong ideational dimension. The choices made betray the influence of the socio-economic context and the cultural heritage of the countries and regions concerned.

Strong pressures towards uniformity and convergence inherent to the sequences notwithstanding, this has resulted in a situation in which the demographic differences between nations, and between regions within them, are not now much smaller than before. But timing effects play a role here and the succession of cohorts is a permanent process. I believe that most of the energy generated by the technological innovation which effective contraception represented has now been spent. The tempo of ideational change will slacken; the social welfare state is under siege. My prediction is that the palette of options future cohorts can choose from, will not be so rich and appetizingly new as that presented to the cohorts which shaped Europe's Second Demographic Transition.

A Personal Epilogue

It is exactly thirty years ago since the woman with whom I honeymooned on Texel, my wife Jacomien, and I first landed in Australia. In the year before that, yes, you are right in the famous year 1965, I first met Alice and Mick Borrie. They had come to Amsterdam for a conference. And since it had

already been agreed that I would join the Australian National University staff to work on Papua-New Guinea, we decided to have dinner together. 'The Five Flies', was the name of the restaurant we selected. I remember feeling rather embarrassed when I led the way and, unthinkingly, took Mick and Alice through an alley with red lights on both sides and members of the mining industry ('gold-diggers') tapping the windows. We marched on unperturbed, and had a very pleasant dinner and discussion. Europe was not high on the agenda: we simply had no inkling that a major new demographic transition was about to unfold.

It struck me then, as it has struck me repeatedly since, how well coupled a couple Alice and Mick were. To paraphrase Farrar-Browne: 'They are wonderfully coupled. They are the most coupled couple I ever saw in my life'. May they long remain so!

Acknowledgement

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References

- Becker, H.A. (ed.). 1991. *Life Histories and Generations*. Two Volumes. Utrecht: ISOR.
- Blom, S., T. Noack and L. Østby. 1993. *Giftermål og barn — bedre sent enn aldri?* Oslo-Kongsvinger: Statistics Norway.
- Bosveld, W. 1996. *The Ageing of Fertility in Europe: A Comparative Demographic-Analytic Study*. Amsterdam: PDOD Publications, Thesis Publishers.
- Bracher, M., G. Santow, S.P. Morgan and J. Trussell. 1993. Marriage dissolution in Australia: models and explanations. *Population Studies* 47(3):403-427.
- Cliquet, R.L. and H.G. Moors. 1986. De anticonceptionele revolutie in Vlaanderen en Nederland. Pp.59-70 in D.J. van de Kaa and R. Lesthaeghe (eds), *Bevolking: Groei en Krimp*. Deventer: Van Loghum Slaterus.
- Conrad, C., M. Lechner and W. Werner. 1996. East German fertility after unification: crisis or adaptation? *Population and Development Review* 22:331-359.
- Council of Europe. 1996. *Recent Demographic Developments in Europe*. Strasbourg: Council of Europe Publishing.
- de Feijter, H. 1991. *Voorlopers bij Demografische Veranderingen*. Den Haag: Netherlands Interuniversity Demographic Institute.
- de Rooy, P. 1986. Vetkuifje waarheen? Jongeren in Nederland in de jaren vijftig en zestig. In H.W. von der Dunk *et al.* (eds), *Wederopbouw, Welvaart en Onrust*. Houten: Uitgeverij den Haan.
- Festy, P. 1994. L'enfant dans la famille. Vingt ans de changement dans l'environnement familial des enfants. *Population* 49(6):1245-1297.
- Frijhoff, W. 1996. *Eigenzinnig Nederland: Het Verleden in de Toekomst van een Cultuurnatie*. Amsterdam: NWO-OKW Voorjaarslezing, 8 mei 1996.
- Hall, D.R. 1993. *Reproductive Individualism: Exploring the Relationship between Religion, Cohabitation and Divorce*. Discussion Paper 93-9. London: Population Studies Centre.
- Hobcraft, J. and K. Kiernan. 1995. Becoming a parent in Europe. Pp.27-61 in *Evolution or Revolution in European Population*, European Population Conference, Milano 1995. Milano: FrancoAngeli.

- Höpflinger, F. 1987. *Wandel der Familienbildung in Westeuropa*. Frankfurt/Main: Campus.
- Jones, G.W. 1993. Is demographic uniformity inevitable? *Journal of the Australian Population Association* 10(1):1-16.
- Kaufmann, F.X. 1988. Familie und Modernität. Pp.391-415 in K. Lüscher, F. Schultheis and M. Wehrspau (eds), *Die Postmoderne Familie*. Konstanzer Beiträge zur Sozialwissenschaftliche Forschung, Band 3.
- Kiernan, K. 1993. The future of partnership and fertility. *Population Studies* No. 26. Strasbourg: Council of Europe.
- Kiernan, K. 1995. Foreword. In C. Prinz, *Cohabiting, Married, or Single*. Aldershot, Avebury: International Institute for Applied Systems Analysis.
- Klijzing, E. and M. Macura. 1996. Cohabitation and extra-marital childbearing: early FFS evidence. Manuscript.
- Kuijsten, A.C. 1996. Changing family patterns in Europe: A case of divergence? *European Journal of Population* 12:115-143.
- Leridon, H. 1985. La baisse de la fécondité depuis 1965: moins d'enfants désirés et moins de grossesses non désirées. *Population* 40(3):507-528.
- Leridon, H., Y. Charbit, P. Collomb, J.P. Sardon and L. Toulemon. 1987. *La Seconde Révolution Contraceptive*. Institut National d'Etudes Démographiques Travaux et Documents Cahiers No. 117. Paris: Presses Universitaires de France.
- Lesthaeghe, R. and G. Verleye. 1992. De tweede demografische transitie; conceptuele basis en recente evolutie. In N. van Nimwegen and J. de Jong-Gierveld (eds), *De Demografische Uitdaging: Nederland en Europa op Weg naar de 21ste Eeuw*. Houten: Bohn Stafleu Van Loghum.
- McCauley, C.R. 1995. Are stereotypes exaggerated? A sampling of racial, gender, academic, occupational, and political stereotypes. Pp.215-245 in Y-T. Lee, L.J. Jussim and C.R. McCauley (eds), *Stereotype Accuracy: Toward Appreciating Group Differences*. Washington, DC: American Psychological Association.
- Manting, D. 1994. *Dynamics in Marriage and Cohabitation. An Inter-temporal, Life Course Analysis of First Union Formation and Dissolution*. Amsterdam: PDOD Publications, Thesis Publishers.
- McNicoll, G. 1993. *Institutional Analysis of Fertility*. Stockholm: Lecture Beyer Institute.
- Micheli, G.A. 1996. New patterns of family formation in Italy. Which tools for which interpretations? *Genus* LII:15-52.
- Moors, H.G. 1974. *Child Spacing and Family Size in the Netherlands*. A publication of the Netherlands Interuniversity Demographic Institute. Leiden: Stenfert Kroese.
- Murphy, M. 1993. The contraceptive pill and women's employment as factors in fertility change in Britain 1963-1980: A challenge to the conventional view. *Population Studies* 47:221-243.
- Ottati, V. and Yueh-Ting Lee. 1995. Accuracy: a neglected component of stereotype research. Pp.29-63 in Y-T. Lee, L.J. Jussim and C.R. McCauley (eds), *Stereotype Accuracy: Toward Appreciating Group Differences*. Washington, DC: American Psychological Association.
- Prioux, F. 1993. L'infécondité en Europe. Pp.231-255 in A. Blum and J-L. Rallu (eds), *European Population. II Demographic Dynamics*. Montrouge: John Libbey Eurotext.
- Prinz, C. 1995. *Cohabiting, Married or Single*. Aldershot, Avebury: International Institute for Applied Systems Analysis.
- Quetelet, A. 1842. *A Treatise on Man and the Development of his Faculties*. New York; Edinburgh: Burt Franklin. (Reprinted 1968).
- Rosch, E. 1978. Principles of categorization. Pp.28-50 in E. Rosch and B.B. Lloyd (eds), *Cognition and Categorization*. Hillsdale, NJ: Erlbaum.
- Roussel, L. and P. Festy. 1978. *L'Évolution Récente des Attitudes et Comportements à l'Égard de la Famille dans les États Membres du Conseil de l'Europe*. Paris: Institut National d'Etudes Démographiques.
- Roussel, L. 1992. La famille en Europe Occidentale: divergences et convergences. *Population* 1:133-152.
- Roussel, L. 1994. Fertility and family. Pp.35-110 in *Proceedings European Population Conference, Geneva, 1993*, Volume 1. Strasbourg: Council of Europe.
- Ryder, N.B. 1970. The cohort as a concept in the study of social change. Pp.90-97 in T.R. Ford et al. (eds), *Social Demography*. Englewood Cliffs: Prentice-Hall.

- Santow, G. 1989. A sequence of events in fertility and family formation? Pp.217-227 in *International Population Conference New Delhi, 20-27 September 1989, Volume 3.* International Union for the Scientific Study of Population (IUSSP).
- Statistisk Sentralbyrå. 1991. *Family and Occupation Survey 1988.* Oslo-Kongsvinger.
- van de Kaa, D.J. 1987. Europe's second demographic transition. *Population Bulletin* 42(1). Washington, DC: Population Reference Bureau.
- van de Kaa, D.J. 1994. The second demographic transition revisited: theories and expectations. Pp.81-126 in G.C.N. Beets *et al.* (eds), *Population and Family in the Low Countries 1993: Late Fertility and Other Current Issues.* Lisse; Berwyn, PA: Swets & Zeitlinger.