

---

## Interpreting the demographic changes

Peter Laslett

*Phil. Trans. R. Soc. Lond. B* 1997 **352**, 1805-1809  
doi: 10.1098/rstb.1997.0165

---

### References

Article cited in:

<http://rstb.royalsocietypublishing.org/content/352/1363/1805#related-urls>

### Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right-hand corner of the article or click [here](#)

---

To subscribe to *Phil. Trans. R. Soc. Lond. B* go to: <http://rstb.royalsocietypublishing.org/subscriptions>

---

# Interpreting the demographic changes

PETER LASLETT

*Trinity College, Cambridge CB2 1TQ, UK*

## SUMMARY

The paper sets out the novel shape of current Western populations as to age composition, and demonstrates that their drastic ageing has been virtually instantaneous. European populations are described as uniquely old, with no precedent whatever in human history. Moreover, all the world's populations are undergoing the same process, including those of the developing societies, at an even faster pace. The general failure of people at large to recognize the process, and their persistent, entirely anachronistic attitudes to the older members of their societies, is described as cultural lag. The development now beginning of the so-called bean-pole family, vertical kin links between contemporary relatives stretching over four generations or more, with progressively fewer lateral linkages, is sketched out. The necessity of all persons having to live in the presence of their future selves is insisted on, with its corollary about having to pay personally in lowered subsistence levels for the doubled life span. The emergence of what is termed a third age is run over, and it is suggested that its presence might create a new civilization, one of the features of which might be the absence of enforced idleness due to unemployment.

## 1. SHAPE OF POPULATION AS TO AGEING

Demography is not a popular pursuit and its calculations seem to be a closed book to most, especially those in the contemporary media. But one demographic image is universally familiar, the population pyramid, represented in figure 1*a*. In our population, in the populations of all developed societies, this image is now entirely anachronistic. The age structure of contemporary European society, represented in figure 1*b*, is more like an oblong than a pyramid, obloid in shape it might be said with a particular characteristic. The base is narrower than the waist, whereas it is an indispensable feature of a pyramid that the base should be broader than anything above it. Not until age group 35–39 for women on the right, and 40–44 for men on the left, is there an age band narrower than the base. The reason for this is the rarity of children in contemporary Europe. As a continent, Europe has the lowest fertility of any block of countries today and has been like this for some decades. We have aged from the base upwards.

Ageing then has not been due to the remarkable falls in mortality which science and medicine, and the rise in the standard of living have brought about, so much as to the fall in fertility and its continuance. It is true that the lowering of mortality to a level in the developed world never seen before is now beginning to dominate the ageing process in our country and in Europe, because ageing is due to the interplay between fertility and mortality, with a further influence in migration not of much importance to the present discussion. If the current signs of a slight recovery in European births

grow more pronounced, the peculiar feature of a base narrower than anything above it may disappear. But the obloid shape will remain, and as the life sciences and medicine grow ever more successful, the shape might end by looking like an oblong altogether.

The first item in any interpretation of the demographic changes afoot in the developed countries must be that it has given our populations an entirely unfamiliar, unprecedented shape. The second is much more straightforward, though it has been worked out only after years of research in demographic history in which our chairman, Sir Tony Wrigley, has played a principal part. These changes have made European populations the oldest that have ever existed, and that not by a margin but by a long chalk. Figure 2 traces the course of the two demographic variables responsible for ageing over a very long period of time as demographers and historians reckon time, that is for 2500 years. We have been able to bring at most one-third of that stretch of years into fairly reliable observation, but the effect of the secular shift is solidly based and unmistakable. Secular means conspicuous change coming after a long period of relative stability and where the new situation is to be permanent.

## 2. INSTANTANEOUS AGEING IN DEVELOPED AND DEVELOPING SOCIETIES

The value of this attempt at ageing in the long term, possible only for England with such a deep penetration backwards into time, is to justify the following further emphatic statements. Our populations, Western populations with Japan, the populations of now-developed

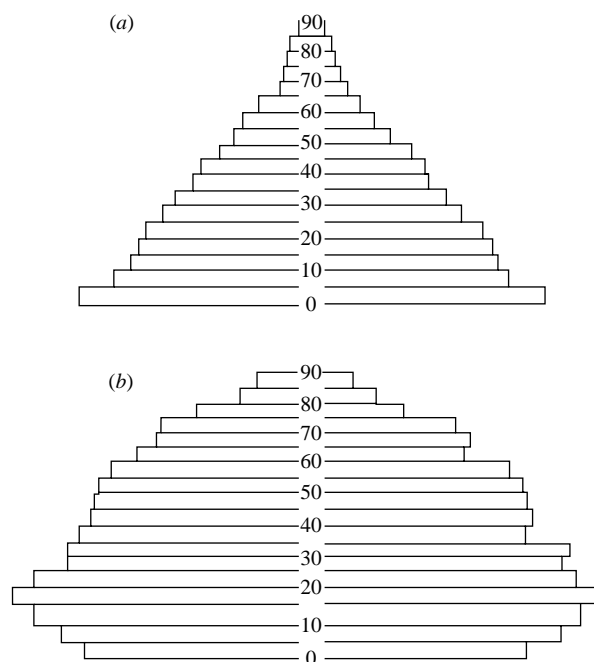


Figure 1. (a) An ageing pyramid and (b) an ageing obloid.

countries, are uniquely old. There have never been populations as old before anywhere else in the world. They have become old suddenly within a little more than a century, which is only a flash of light as the biologists reckon time. We have aged instantaneously and I shall use instantaneous in further references to the change.

The populations of the developing societies are also growing older (in some respects) even more rapidly than we have done, although most of them at a pronouncedly lower level. This is due, to a considerable extent, to Western practices and propaganda. The more successful we are in persuading developing countries to reduce their birth levels, to fend off that global population explosion, which is so widely feared—though not all demographers believe in it—the more their populations will age from the base. The longer individual lives become in these developing societies, by the employment of Western health measures, the larger the number of old and very old people will exist in wretched poverty, until full development arrives. It could be said that the Third World cannot afford to age, and if so it should be wary of reducing its fertility, especially if mortality is falling. A difficult dilemma.

‘We were the first that ever burst, into that silent sea’ in the West, and what is now done in the already developed countries regarding ageing must be expected to have a pronounced effect on all our successors destined to pass through their own secular shifts in ageing. This was what happened with industrialization, which first occurred in our own country and has given to the industrial world its culture and its predominant language. Figure 2 then, conveys what will happen to the rest of the world, but only in a highly suggestive fashion. It is not justifiable to perceive in developing societies exactly the demographic conditions which were obtained historically in our societies before the

secular shift. They are already older than we were then and what might be called the natural condition of a human population as to ageing, analogous to that of animals in the wild, is not open to contemporary observation or to historical recovery.

Narrowing our gaze again to English historical experience over the three and a quarter centuries before the secular shift portrayed in figure 2, mean expectation of life at birth was about 36.5 years for both sexes, but with relatively little variation. It could go down to 27.75 years or rise to 41.67 for short periods but there was a tendency to revert to the mean. These figures were probably as high, or even higher, than in other European societies in the past. Today’s expectation of life at birth has virtually doubled—over 80 years for women, who nearly always live longer than men, and 74 or 75 years for the weaker sex, weaker in this respect. I must not omit to say, however, that the health of women is somewhat worse than men at later ages.

A more revealing measure is the expectation of life at age 15, which ignores the events of babyhood and childhood where the greater number of deaths have taken place in history. Death as a near monopoly of people at my time of life, that is in the 80s, is also a historical novelty. Comparing average years to live beyond age 15 before and after the secular shift reveals an increase of two-thirds, the rise being completed in an even shorter period elsewhere in the world. In Japan, for example, this dizzying climb, never seen before of course in that society either, took only some 40 years and in China is expected to be even faster. Reflect for a little on the effects on any society of this overset of fixed, immemorial structural features of fundamental importance, occurring within a handful of decades.

As for proportions old, the rise has been just as abrupt, as seen from the graphs, and the final gain even greater. Before the secular shift there was a mean of 8.3% of persons of both sexes over 60, a maximum of about 10.1% and a minimum of 6.5%. In the early 1990s the proportion in the UK was 20.7% or 2.5 times as high, and this is set to rise further after the year 2000. Sweden already has 23% and more. You will notice a similar relative constancy in these proportions over time before the shift and this has been found in all the examinable populations. It is difficult to resist the demographer’s tendency to expect an eventual reversion to stability following sharp disturbance, and some experts forecast, after the first third or the first half of the next century, a new stable situation, turning the secular shift into an instantaneous rise from a lower to a higher plateau. By that time, to take a different measure, one-third of all adults in our country will be over 60 according to tentative official forecasts.

Nevertheless to expect an equable future as to ageing after that period may be unjustifiable, which is the reason for the shading between the possible alternative graphs in figure 2. Jim Vaupel (this volume) has already made the case for supposing that the future is entirely open as to increasing length of life especially at later ages and it is the mortality factor, as I have said, which is virtually certain to predominate in the ageing process in time to come. Long-term projections are very tricky—our own demographic history has been

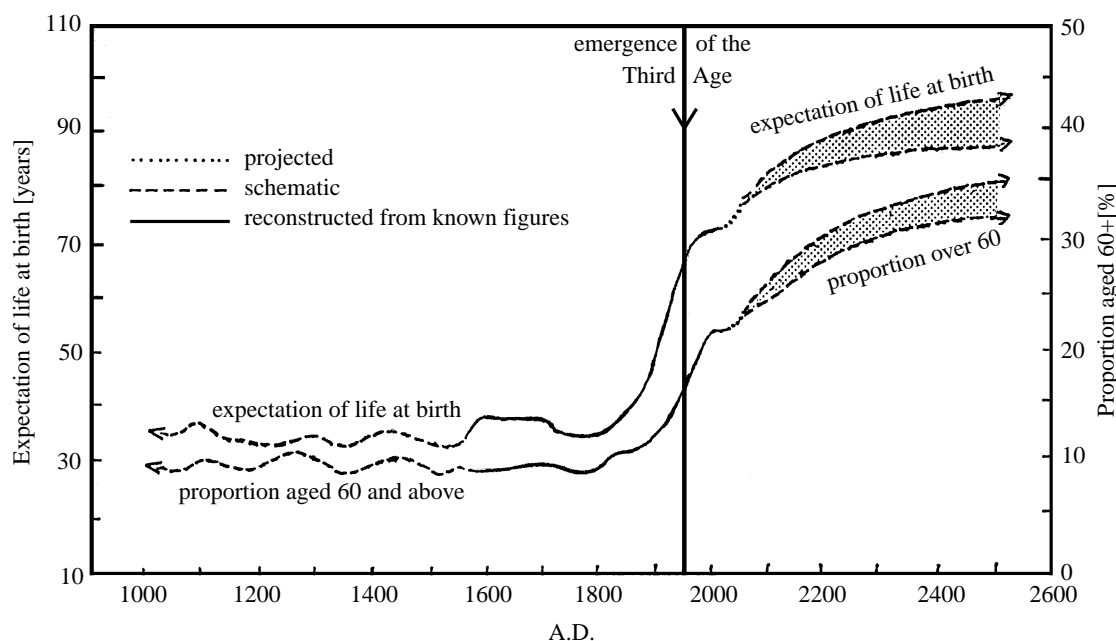


Figure 2. The secular shift in ageing in England, 1000–2500 AD.

marked by confident expert forecasts which have turned out to be absolutely wrong—so tricky that prospects for ageing in the near distant or distant future are best regarded as unknowns, especially on an international scale. We must not forget that in Russia and Eastern Europe life expectation has gone down in the present decade, not up.

### 3. ANACHRONISTIC AND WRONG HEADED ATTITUDES TO AGEING

No one I think would disagree that current attitudes and practices in our own developed society today reveal little trace of the radical redistribution by age which has created, for the first time, a situation in which older persons outweigh younger persons in the population. The imperial sway of youth, its images, its values and its practices, remains virtually undisturbed, or even more overweening than in the past. This is conceivably due to a heightened appreciation of a commodity which is growing rarer. But it is much more likely to be the persistence undisturbed into our own transformed social structure of the age-old outlook on the life course as a whole, and of the position of older people within it. There were very many fewer older people before the shift, of course, and they were much more likely to be decrepit, in a way deserving of all those unfavourable stereotypes which still attach to older persons, along with the tendency to patronize them even when sympathizing with them, to talk on their behalf rather than letting them speak for themselves. It is understandable then, but also quite extraordinarily common that this attitude should persist as strongly as it does. The contradiction in fact between the objective situation of contemporary Western and particularly Anglo-Saxon societies in respect of age on the one hand, and our practices and attitudes on the other hand, has given rise amongst the

social scientists to the doctrine that we are in a state of cultural lag or even false consciousness in this direction.

### 4. THE BEAN-POLE FAMILY OF THE FUTURE

With life being so much shorter in the past, the sharing of time with kin and with contemporaries was inevitably considerably briefer. From now on practically all parents and children will share the same time space until well after the stage when those children have children or even grandchildren of their own. Spouses or partners will stay together for a long, long time too, if in fact they belong to that narrowing majority who avoid divorce or partner-splitting in our country today. In Victorian times a boy had only a 25% chance of having a living grandfather at age five, and a 2% chance of having a great-grandfather. By age 25 he had only a 10% chance of having a grandfather alive, and no one at that age had a surviving relative of any generation earlier than that. Nowadays virtually all children have a grandfather at age five and no less than 48% have a great-grandfather, who survives throughout their early childhood, though great-grandfathers become residual by age 25. From these circumstances calculated by microsimulation from demography and historical demography, the characteristics of the emerging bean-pole family are being worked out, that is to say, a string of lineal descendant relatives, stretching for four generations but with very few siblings, cousins, aunts, uncles or lateral relatives of any kind. Most of the building blocks of the traditional co-resident family groups whose passing is so much deplored, particularly in relation to the welfare of older people, are departing from the stage for demographic reasons.

These changes, however, are being complicated by the sudden arrival because of changed partnerships and procreative practices of a universe of stepkin, discussed by Wachter (this volume). Other papers in this volume,

however, will dwell on the question which has already begun to bulk so large with politicians, administrators and the media. How are all these older people, with their radically lengthened lives, to be guaranteed a living? Given the system of transfers painfully worked out before the ageing transformation set in, how can we adapt to the awesome numbers of dependent older persons and their ability to go on persisting for so long?

##### 5. PAYING FOR OUR DOUBLED LIFESPAN

I must correct myself here because I have used a wrong term of reference. It is not 'their' longevity which should be cited, but 'ours', though from my stance as an 81-year-old I should perhaps have said 'yours'. To make this commonplace error is to lose sight of the fact that it is we, you, not some society of old persons set apart, who are in question. To make this commonplace error is to lose sight of the phrase which must be adopted in our age-transformed situation, 'Live in the presence of all your future selves!' Doing so requires us to recognize that our means of subsistence will have to be spread out over a drastically lengthened lifespan and resources available for customary expenditure will have to be reduced for everybody at every age, reduced that is in relation to the growth of productivity and total production. We cannot enjoy a doubled lifespan without being prepared to pay for it.

I shall have to leave this thorny question to the economists, though I shall glance at it once more. I now turn to that demographic and social phenomenon, which to my mind is the most important and indeed the most interesting development which the secular shift has brought, that is the arrival of the 'third age'. Its emergence is marked on figure 2 by a line drawn through the 1950s.

##### 6. THE EMERGENCE OF THE THIRD AGE

Before the shift, retirement was rare because older people were few and worked until they dropped. About a quarter of the men and about a third of the women were still alive at age 70, a notional retirement age for that era. The health and physical capacity of those who did withdraw from work were poor and what life they had left was one of rest and vacuity. There is a familiar story of the retired Victorian working man who declared when asked how he spent his time: 'Sometimes I sits and thinks and sometimes I just sits'. So much for the ideology of retirement inherited from the past and the supposedly inevitable condition of late life. In our day at the age of retirement, say 60 though it carries on going down and down, survivors are not few. No less than 86% of all males making up the original cohort are still alive and 91% of all women. They can expect to continue for an average of 18 years for males and 22 for females. Who could possibly expect such persons to behave in their prolonged retirement as their Victorian predecessors did?

You may think this an unrealistic comparison, and no one now conducts retirement in such a caricature of a fashion. But I would remind you of the enormous amount of enforced idleness which is in fact a feature of the way we live, and ask you to contemplate the

predicament of scientists suddenly cut off from laboratory space, medical experts and civil servants deprived of every professional thing which gave meaning to their working lives, women with children departed and with nothing further familial to do unless they get caught up in the bean-pole family which I have already described. The predicament is worst in the working class, where low educational levels and a worklife which had consisted in bodily exertion, make the situation not so very different from that of the Victorian labourer, except of course in respect of health and longevity. A crude expression of the dilemma which the demographer sets before us is that we shall have to find a way of filling up the extra time and providing diversion for the masses of older people which the age transformation has produced. This job will have to be done in spite of that gradual but insistent decline in later life which the life scientists dwell on at such length, but which, as they also insist, falls far short of entire disability except in a tiny minority, and this they are persistently engaged in trying to ameliorate.

If our/your attitude is in urgent need of fundamental revision, it can be said that revision there has been, not on the part of the public at large, who still seem to expect, at retirement, unending diversion and a prolonged period of rest in preparation for death, and not even to any great extent on the part of those who work on ageing, either biologists, psychologists or social scientists, but on the part of active, self-aware older persons themselves. They look upon retirement of the kind set out above as grotesque. Since the decade of the 1950s, they are beginning to insist that a new stage in the life course has begun to be manifest in developed countries. After a 'first age' of youth, dependency, education and maturation, a 'second age' of maturity, earning and responsibility, there now arrives a 'third age' of personal achievement and fulfilment—the crown of individual life, as enthusiasts tend to call it, a 'third age' brought to an end though, for some people only, by a 'fourth age' of dependency and decrepitude. The enormity, they insist, is to take a 'fourth age' as so described and call it by the accepted title 'old age', and to apply it to every person after leaving work.

There are those who accept the 'third age' as a reality but who do not admit to a 'fourth'. Even they, however, would agree that the inherited idea of old age is an entire misdescription of the overwhelming majority of older people in a society such as ours, and the greatest obstacle to their creation of a community for themselves, which will not necessarily depend on their familial and kin connections. In my view such connections tend to be exaggerated in their significance to older people except for the unfortunates who have fallen into the 'fourth age'. In any case, as we have seen, the familial situation in question has gone for ever, and people will just have to accept that fact. It is the emergence of the 'third age' which is the indicated social and cultural response to the ageing transformation, indeed the political response as well, though I will not venture on to that ground here.

I have given myself no space to set forth the demographic criteria defining the 'third age', or to justify

the date line I have cited, or to spell out the political, economic and cultural assumptions on which the nascent 'third age' rests. Much more important is my omission of the duties of those in the 'third age' to society as a whole and to those specific social needs which active older persons are well fitted to perform, in child-rearing for example, to assist the hard-pressed working mothers of our day. Nor have I dwelt on a fresh development which goes quite contrary to the down-pointing tendencies I have had to dwell upon. The new arrival has the title gerontechnology and associates experts in the life sciences, technologists and especially designers, with members of the 'third age', combining to develop every possible method of compensation for deterioration not only for the latest years but over the whole life course. This fresh international movement is well supported in this country where the University of the third age provides the subjects and the stimulation. This is all I shall have to say about ageing, as decline, senility and weakness are subjects which tend to dominate the conversation of geriatricians, gerontologists and even welfare experts.

'Paying for your own third age' is the title suggested for an appropriate pension policy already put forward as a principle in our own country, in Australia and by the World Bank. If the 'third age' is the crown of life of individuals, it is appropriate that they should save up through their earning years to pay for it, a signal example of living in the presence of their future selves. Controversy inevitably surrounds these proposals and ageing I have found is chock full of controversy. Let me simply lay it down that such a pension policy does not and cannot cover the whole of the redistribution over the life course of the sums which instantaneous ageing makes imperative, particularly in respect of the 'fourth age'. Collective responsibility for all the casualties of life is ground into the social and political fabric of the West, and must and will endure. No generation is at liberty to abolish the Welfare State, or even much to modify its provision for dependent older people. Nevertheless, as Thomson (1997) so rightly insists, every generation has the duty to ensure that justice prevails between cohorts and age groups over time.

## 7. A NEW CIVILIZATION?

It will be obvious that I am talking of an ideal now coming into being, the future path of which it is exceedingly difficult to predict. But I will make one risky sally about leisure, time to fill, time to enjoy, time to make constructive use of. The creation and maintenance of civilization and culture have always been a duty for those with leisure and up to the present they have been an elite, a group defined by social position and class, usually an aristocracy. The leisure of the 'third age' is in no way aristocratic or elitist. It belongs to every individual, educated as she or he will have to be up to the point where leisure can be used in the cause of civilization, a new civilization, I should call it as an enthusiast, the new civilization of the 'third age'. To be free of compulsory labour, and the direction of other people; to live at ease while doing what you choose to do; to develop yourself; to realize yourself, as the

common phrase is; this is the form of reward for demographic, social, scientific and economic progress which I believe people will come to favour. For reasons such as these, raising the age of retirement to meet the economic problems is not the easy option which it may be thought to be. To use a tired phrase, it may be throwing the baby away with the bath water.

The perennial problem of unemployment, which afflicts industrialized societies so gravely, is, as is often insisted, a problem of leisure. It arises to a considerable extent because of heightened productivity, so pronounced amongst us that an important minority cannot be given a place and is rejected from the workforce. A time will come, I will make so bold as to suggest, when the pitiful compulsory leisure of the unemployed, young, middle-aged, or older, will become part of that highly prized compulsory leisure, compulsory but welcome as the essential condition for life of those in the 'third age'.

A colossal effort of social and political modification and reform would have to be forthcoming for such rearrangements to be brought about, a great instalment of piecemeal social engineering, as Popper (1945) has insisted for 50 years that we should call it. But a demographic transition on a scale which we have had to consider must be expected to call forth to the utmost every resource of social change and adaptation present in our individual and social life. A challenge to our country, our society and its government, a challenge of the genuinely historic kind, for we are being requested here and now to work at models for all future people at all future times.

## REFERENCES

- Popper, K. 1945 *The open society and its enemies*. London: Gollancz, 1945, and later editions.  
Thomson, D. W. 1997 *Selfish generations?* Cambridge: The White Horse Press.

## FURTHER READING

- Coleman, R. (ed.) 1993 *Designing for our future selves*. London: The Royal College of Art.  
Laslett, P. 1987 The emergence of the third age. *Ageing and Society* 7, 133–160.  
Laslett, P. 1996a Necessary knowledge, (introduction). In *Ageing in the past* (ed. D. Kertzer and P. Laslett). University of California Press.  
Laslett, P. 1996b *A fresh map of life: the emergence of the third age*, 2nd edn. London: Macmillan.  
Laslett, P. 1996c Design slippage over the life course. Paper for the second international conference on gerontechnology, October, Helsinki.  
Laslett, P. & Fishkin, J. S. 1992 *Justice between age-groups and generations*. New Haven and London: Yale.  
Pressat, R. 1972 *Demographic analysis*, translated by J. Matras. London: Arnold.  
Riley, M. W., Kahn, R. L. & Foner, A. (eds) 1994 *Ageing and structural lag*. New York: Wiley.  
Smith, J. E. Kinship microsimulation outputs from Camsin. Cambridge Group for the History of Population and Social Structure.  
Wrigley, E. A. & Schofield, R. S. 1989 *The population history of England 1541–1871: a reconstruction*. Cambridge University Press.  
Wrigley, E. A., Davies, R. S., Oeppen, J. E. & Schofield, R. S. 1997 *English population history from family reconstitution*. Cambridge University Press.

BIOLOGICAL  
SCIENCES

**B**

THE ROYAL  
SOCIETY

PHILOSOPHICAL  
TRANSACTIONS  
OF

BIOLOGICAL  
SCIENCES

**B**

THE ROYAL  
SOCIETY

PHILOSOPHICAL  
TRANSACTIONS  
OF