

## **How helpful are Coale's preconditions for fertility decline in explaining the British experience?**

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In this paper we suggest that Coale's three preconditions for fertility decline (Coale, 1973) serve no useful purpose in aiding the understanding of the British fertility decline. These three preconditions are: (1) that fertility must be 'within the calculus of conscious choice' (Coale, 1973, p. 65), (2) that reduced fertility must seem to confer some advantage to couples, and (3) that couples must know some means of birth control, be determined to use it, and communicate sufficiently to be able to use it effectively. We suggest that rather than aiding explanations of fertility decline, they merely demarcate demographers into different groups depending upon which of the three preconditions they hold in primacy. Thus, the preconditions themselves serve only to explain the routes taken by demographers attempting to understand fertility decline, rather than explaining the experience of fertility decline.

A feature of the history of British fertility over at least the last 450 years has been a late age at marriage and high levels of non-marriage. Obviously the delay of marriage was not parity dependent, nor, it appears, was it to do with limiting the overall number of births, but rather it was associated with birth spacing, in the form of the postponement of the first birth. This effectively makes fertility a subject on which 'conscious choice' has been exercised for several centuries, thus implying that precondition (1) was always met.

This spacing of births after marriage was also practised, using abstinence and withdrawal. Santow (1995) has shown that withdrawal was mentioned in contemporary literature in 17th-century England, with many euphemisms being used, suggesting its common practice. Birth spacing may not typically have been done with the conscious intention of limiting overall numbers of births (it was often practised to benefit the health of mothers and infants). Nevertheless its existence implies knowledge of how to prevent births and the

implementation of this knowledge by some people (in other words, precondition (3) was met).

Indeed, it seems that the use of Coale's preconditions serves only to distract demographers from what should be their focus, and progress in understanding the experience of fertility decline has been somewhat disappointing given the academic investment in the topic. Demographers have been side-tracked by issues such as the divide between natural and controlled fertility, and with the wish to 'date' the onset of fertility decline. The concept of a neat divide between natural and controlled fertility is unrealistic. The desire to 'date' the onset of fertility decline suggests a single 'turning point' in fertility. Again, we suggest that this is unrealistic. The year 1876 is often suggested as marking the onset of the British fertility transition. On the other hand, Szreter and Garrett (2000) argue quite plausibly that, if we wish to find a 'turning point', 1816 is a better candidate. We wish to ask whether there is, indeed, a single 'turning point' of this kind, and, if it does exist, might it not have been earlier even than 1816?

### **The preconditions and their applicability**

To varying degrees the three preconditions for fertility decline had long been met in Britain, so serious questions about the usefulness of Coale's preconditions for understanding the British fertility transition must be raised

Taking each of these preconditions in turn we wish to suggest that all three of these conditions existed to some degree in the 'natural' fertility regime of Britain. Thus that the declines in fertility experienced at the end of the nineteenth century and the start of the twentieth century were not due to the sudden appearance of these preconditions, but to other processes, and that the use of Coale's preconditions in assessing the timing and the cause of British fertility decline is not helpful, rather they can be seen as being divisive, separating demographers according to which precondition they believe to be most powerful in achieving fertility decline. In short, Coale's preconditions serve

to explain the routes to understanding fertility decline rather than to explaining the experience of fertility decline itself.

### **Fertility must be within the calculus of conscious choice**

Crucial to Coale's statement that fertility must be within the 'calculus of conscious choice' is the interpretation of 'conscious choice' itself. Coale himself interprets it as follows:

Potential parents must consider it an acceptable mode of thought and form of behaviour to balance advantages and disadvantages before deciding to have another child – unlike, for example, most present day Hutterites or Amish, who would consider such calculations immoral, and consequently do not control marital fertility. (Coale, 1973, p.65)

There appears to be an implicit belief that a numerical family size preference co-exists within the 'calculus of conscious choice'. Van de Walle addresses this notion and concludes that 'a decline in fertility is not very far away when people start conceptualising their family size, and it cannot take place without such conceptualizing' (Van de Walle, 1992, p.501). The data from both the Royal Commission on Population and Mass Observation seem to suggest that there was no numerical preference, rather a relative size preference, e.g. 'smaller' than that into which they had been born, though for any individual this would have a numerical translation, i.e.  $<k$ , where  $k$  is the number of children that their parents had.

Coale-Trussell's methodology for calculating fertility is based on family limitation and thus a numerical family size preference is implicit within this methodology. 'Stopping' behavior implies that a desired family size has been reached and typically (in a population that is limiting its fertility) is reached while the mother still has a number of fecund years ahead of her (Coale and Trussell, 1974). There is a further complication in that the Coale-Trussell methodology encourages a distinction between fertility limitation within marriage and fertility limitation by marriage. Indeed, Wilson and Woods (1991) present data that

suggests that marital fertility in England varied little prior to 1870, but that nuptiality did vary, and it was variations in nuptiality that were the driving force behind fertility variations. Only those populations limiting fertility through the use of contraceptive practices within marriage are seen as being populations fulfilling Coale's preconditions. This implies that there is a neat dividing line that can be drawn between the period when marriage is the main controller of fertility and the period when contraceptive practices within marriage are the main controllers of marital fertility. In a society where late marriage is common and might well encourage low frequency of intercourse within marriage and where withdrawal is practised to varying degrees, there is no such clear boundary. Szreter notes this 'demarcation' of English fertility history into 'two distinct epochs', suggesting that 'this distinction may not be entirely helpful in aiding our understanding of the causation entailed in the key process which produced the shift from one to the other regime' (Szreter, 1996, p. 391).

Entwined with the issue of timing is the notion, implicit in Coale's preconditions, that only planned fertility is wanted fertility. Fisher highlights the lack of consideration that many studies have given to the 'multifaceted ways in which couples' intentions regarding pregnancy and family size were actually formulated' (Fisher, 2000, p.304). She considers that for the couples she interviewed 'the use of contraception did not reflect the adoption of a firm and constant strategy for family planning' (p. 305). Although we take a different interpretation of the data to that of Fisher, we believe that she hits the nail on the head with this more fluid approach to understanding fertility decline. Perception of the 'unformulated attitudes toward the timing of pregnancy, size of family, and use of contraceptive strategies' (p.305) is vital to the understanding of the process of fertility decline.

As stated earlier, in Coale's definition of 'conscious choice', 'Potential couples must consider it an acceptable mode of thought and form of behavior to balance advantages and disadvantages before deciding to have another child' (Coale, 1973, p. 65). In the case of Britain, the word 'another' is inappropriate. Historically, fertility has long been within the calculus of conscious choice for many couples through the delay of the first birth. A feature of the history of

British fertility over at least the last 450 years has been a late age at marriage and high levels of non-marriage. Such a delay of marriage was not parity dependent, or to do with limiting the overall number of births, but was associated with birth spacing, in the form of the postponement of the first birth. This effectively makes fertility a subject on which 'conscious choice' has been exercised for several centuries, thus implying that precondition (1) was met. Indeed, to what was Malthus's preventive check referring, if not to the conscious choice that individuals were exercising (Malthus, 1798).

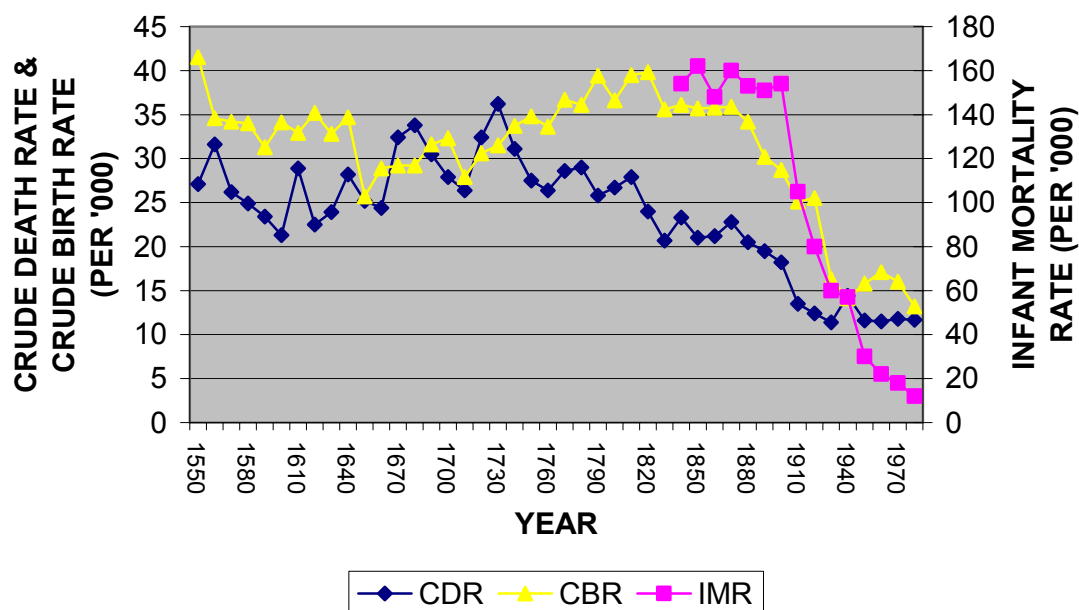
In a study that throws up a number of similarities to the British experience, Feng, Lee and Cambell attribute the low marital fertility achieved by the Qing nobility in China in the eighteenth and nineteenth centuries to deliberate fertility control via 'late starting, early stopping and wide spacing' (Feng, Lee & Cambell, 1995, p. 389). They too conclude that for some Chinese in the eighteenth and nineteenth centuries, 'deliberate fertility control was already within the "calculus of conscious choice"' (p. 400).

On the other side of the coin, Fisher claims that her oral histories of working class people in South Wales and Oxford who married between 1918 and 1953 present evidence of there not being a 'calculus of conscious choice'. She suggests that although many of her respondents were successfully using birth control methods, their fatalistic attitude towards their outcome fertility, 'it was just luck, wasn't it' demonstrates that reproduction was not within the calculus of conscious choice (Fisher, 2000, pp 298-301). For us, the question of how much 'conscious choice' is within the calculus of the individual and how much is determined by social norms is an area of uncertainty. Indeed, this uncertainty highlights the overall issue of 'black and white' versus 'shades of grey' that exist in this area. There is not a neat transition from natural fertility to controlled fertility, from outside conscious choice to within conscious choice.

### **Reduced fertility must seem to be advantageous**

We suggest that in Britain there has long been a relationship between mortality rates and fertility rates, Figures 1, and that this has been due to the enactment

**Figure 1 Crude birth rate, death rate and infant mortality rate, England and Wales, 1550 – 1980**



Source: Mitchell, 1988. Tables 10, 11 & 13.

(to varying degrees) of ‘conscious choice’. Once mortality declined, children and young adults were no longer ‘lost’ in such great numbers and thus not so many were desired to be born. As dramatic declines in infant mortality rates occurred from the early part of the twentieth century onwards, so the control of fertility through the timing of marriage became an untenable option. Marriage would need to be increasingly delayed to limit the number of surviving children to that which would have been achieved before such a decline in mortality. The foreseeable problem of delaying too much and risking childlessness, and also having to live more years in unmarried celibacy could quite feasibly have encouraged the transition of fertility control by marriage to fertility control within marriage. The existence of conscious choice has not changed, what had changed was that it became advantageous to limit fertility within marriage rather than by delayed marriage.

Whilst infant and child mortality rates remained relatively high, it was unlikely that birth control within marriage would be seen as advantageous since late marriage and

the effect of the mortality were keeping achieved family size at the levels desired by couples, though this in itself presupposes a 'desired family size'. However, this distinction of birth control within marriage as opposed to birth control by delayed marriage is not apparent in Coale's criteria. The economic consciousness long existent in Britain that led to delayed marriage and non-marriage in times of economic hardship is an example of couples not seeing childbearing to be a good idea at that point in time i.e. to not have children at that point in time was advantageous. Whether one equates non-childbearing to reduced fertility is a moot point.

Fisher states that the couples in her study 'used birth control without formulating an ideal family size and without carefully assessing either the benefits or the disadvantages of childbearing at any particular time' (Fisher, 2000, p.301). I would suggest that even if there were no concept of an ideal family size, that those couples practising birth control felt it advantageous to delay a birth (i.e. 'space' a birth). Although technically this is not couples viewing 'reduced fertility' as advantageous, in that it is the influence on the tempo rather than the quantum that is seen as advantageous or disadvantageous. However, one cannot separate quantum and tempo in that tempo has implications for quantum. Fisher's couples might well have not been communicating effectively with one another in regards their fertility behaviour, but those practising fertility control must have been able to share at some level the notion that to postpone or space births was a good idea.

Certainly a number of those women questioned by Mass Observation and of the couples referred to in the Royal commission on Population transcripts saw reduced fertility as 'advantageous', though clearly the perceived advantages vary:

You can give one or two what you can't say half a dozen.

(MO<sup>1</sup>, 26 year old skilled working class woman from Hammersmith.  
Married in 1940 and pregnant with first child)

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<sup>1</sup> MO refers to data originating in the questionnaire responses to the Mass Observation study Britain and her Birth Rate.

It's not like the old days. People are more particular now, aren't they; they don't want their kiddies just dragged up in the gutter.

(MO, 28 year old skilled working class woman from Chelsea. Married in 1940 with one 2 ½ year old child)

I am thinking back 30 years. There were so few pleasures available to the very, very poor. Sexual pleasures and drink were about the only things left to them. Now, what with the cinemas, omnibuses, radio and that kind of thing, the very poor family has a much stronger motive to avoid having a lot of children because they are a nuisance, an impediment to going to the cinema once a week.

(RCP<sup>2</sup>, Interview 7, p. 8)

When people are considering from the economic side, whether they will have no children or few children or many children, the way they are looking at it is not 'I am richer than someone else in an entirely different class' but 'how do I stand in relation to my own brother or my second cousin or someone on my own level'. – 'What difference will it make to me if I have 3 instead of 2 children, shall I have to reduce my standard of living?'

(RCP, Interview 7, p. 9)

**Couples must know some means of birth control, be determined to use it, and communicate sufficiently to be able to use it effectively**

Preconditions one and two were clearly met in varying degrees, the fact that birth control had long been effectively practiced by some groups in society fulfils precondition number three.

There is evidence of the spacing of births after marriage by the use of abstinence and withdrawal. Santow (1995) has shown that withdrawal was mentioned in contemporary literature in 17th-century England, with many

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<sup>2</sup> RCP refers to data originating in the interview transcripts of the Royal Commission on Population of 1944 -49.

euphemisms being used, suggesting its common practice. McLaren also presents a tome of evidence on the existence of knowledge and practice of birth control methods in England in the nineteenth century. In it he also suggests that knowledge of birth control practices were evident well before this period (McLaren, 1978).

As stated earlier, birth spacing may not typically have been done with the conscious intention of limiting overall numbers of births (it was often practised to benefit the health of mothers and infants). Nevertheless its existence implies knowledge of how to prevent births and the implementation of this knowledge by some people were met.

Whilst there is little debate over the knowledge of methods of birth control being available, there are questions over whether the knowledge and the determinants for its use were communicated effectively between spouses. Fisher interprets the vagaries of her couples' histories, in which much appeared to go unspoken, as 'tacit negotiation'. She describes how 'an easy consensus' was reached between spouses with regard to family size, which left 'little need for in-depth discussion'. Instead 'it was simply understood that too large a family was undesirable and that certain steps would have to be taken' (pp. 307-308). This 'easy consensus' seems to make intuitive sense to me. I do not believe that the majority of couples (either historically or currently) sit down on marriage and work out their life times' utility maximisations. Rather I believe that couples present vague proposals and concepts as regard family size and/or the tempo of fertility, but that they find they have no need for in depth discussions or models for such concepts or the ensuing contraceptive behaviour.

The idea of couples communicating their contraceptive behaviour also implies that contraceptive behaviour is separated from sexual behaviour. Fisher makes a very valid point in stating that 'deciding to use birth control was never an abstract family planning decision based solely on aspirations with regard to children. It was inevitably affected by the nature of sexual relations within marriage. Discussions about contraception were also negotiations about the

terms and conditions of sex' (p. 310). In effect, communication about birth control is communication about sexual relations. If couples, through the use of condoms, withdrawal, periodic abstinence, or non-coital sex were able to satisfy both their sexual and their family size desires, surely they were communicating, if not verbally then tacitly through their behaviour?

### **A 'turning point'?**

'Dating cultural change is inherently difficult' (Van de Walle, 1992, p.489) and where change does not occur at a uniform rate in a homogenous population I would question the relevance of so doing. Yet bound up with the ideas of preconditions for fertility decline is the desire among the demographic community to 'date' the turning point in fertility, i.e. to draw a line with 'natural' fertility on one side, and 'controlled' fertility on the other. The year 1876 is often suggested as marking the onset of the British fertility transition, the year at which the crude birth rate peaked, thus ensuring a marked decline in fertility from this point onwards.

On the other hand, Szreter and Garrett (2000) argue quite plausibly that, if we wish to find a 'turning point', 1816 is a better candidate, in that this was the year in which fertility reached its peak in England and Wales. I find it interesting that this conflicts with Szreter's earlier statement against such a 'demarcation' of English fertility history into 'two distinct epochs' (Szreter, 1996, p. 391). They suggest 1816, as this is the point at which the gross reproduction rate peaks and therefore subsequently declines. There is a further rise in the gross reproduction rate between 1846 and 1876, but they consider this rise a blip in what is otherwise a downward trend. Ironically, Wrigley and Schofield interpret the downward trend in the gross reproduction rate from 1816 until 1846 as a blip (Wrigley and Schofield, 1981)! This highlights the two crucial problems in identifying 'turning points':

1. When assessing a trend, how long is that trend? If data were available that a far longer trend might be assessed would an alternative 'turning point' be identified?
2. What one person interprets as a 'turning point' another interprets as a 'blip'.

Thus, what is the point in dating a 'turning point'? Fertility behaviour works on a continuum. There is no 'before' and 'after' sitting neatly either side of a dividing line. The social sciences love, and even need, generalisations. Thus the plethora of models and generalisations. Surely effort would be better spent in looking at the experience as it is, and if necessary creating a model from that experience, rather than using an over simplistic model which explains nothing of the actual experience.

### **If not Coale's preconditions, then what?**

This is the 'big question'. If we throw out Coale's preconditions because they are unhelpful in explaining fertility decline, with what should we replace them? For thirty years the study of fertility decline has been caged within a framework that does not allow for the complexities that exist. We suggest that demographers would be better employed looking inductively at the empirical evidence available, rather than attempting to frame and test hypotheses based on these preconditions.

This is where the importance of Kate Fisher's approach leads the way. The use of oral histories to attempt a more qualitative, data led, understanding of fertility limitation, is, we believe, the way forward.

It is unfortunate that her interviews specifically did not include childless couples as part of her sample. She cites Szreter's call for an 'urgent research priority' for the 'need for oral history research into birth control behaviour' (Fisher 2000, p. 296 citing Szreter, 1996, p. 579). We believe that research into childless couples in the interwar period would be very advantageous in furthering the

understanding of the decision processes and fertility behaviour that were taking place in this period, since this is the group of couples that are controlling their fertility to a greater degree than other (childbearing) couples. Indeed, we would be interested to see this group presented the same degree of passivity towards their fertility that Fisher believes her childbearing birth controllers to present.

Thus we conclude that some sort of comparative qualitative study into child bearers and non-child bearers is a way forward in furthering the understanding of fertility decline. To quote McLaren, 'Demographers and sociologists can record and calculate the rise and fall of fertility but such studies often leave unanswered the most interesting questions' (McLaren, 1978, p.12).

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