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ECONOMIC MODELS AND HAVING CHILDREN: SOME EVIDENCE FROM KWAHU, GHANA

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This paper is concerned with aspects of reproduction and fertility among the Kwahu of southern Ghana, an Akan sub-group, and more particularly among the members of a lineage in one rural town characterised by profound socio-economic change and differentiation. Fragments of the field data presented are taken from a larger corpus of materials focusing on family life, sexuality and birth control collected during the early 1970s.1

The data discussed here pertain to people's decisions whether or not to practise contraception, to have abortions, to carry pregnancies to full term — in short, whether or not to regulate their fertility by traditional and modern chemical and mechanical methods. We note as we proceed why some individuals will terminate a pregnancy at all costs, even risking life and health to do so, and why others have a fatalistic or casual approach to the results of their activities and the outcome of their pregnancy. These materials are presented within the context of a brief account of some current problems encountered in micro-economic demographic modelling exercises based on rational decision-making premisses, and of recent attempts to build bridges between ethnographers and economists. The focal concept under review is the costs and opportunity costs of parenthood. The Kwahu data are used to indicate some of the considerations to be taken into account. In the course of the discussion a number of micro-demographic studies from Ghana spanning a period of almost half a century are referred to, studies which set fertility and decisions relating to it firmly in the context of marriage, parenthood, child-rearing and kinship (Fortes, 1978).

RESOURCES AND PROCREATION

Concern to document the functioning of mechanisms whereby individuals or groups maintain a balance of some kind between available finite material resources in land, food, etc., and population size, whether at the domestic, community or ethnic level, has been a recurrent theme of anthropological studies of fertility (e.g. Firth, 1936; Douglas, 1966). Indeed, anthropologists have been contrasted with scholars of other disciplines for supporting the contention that societies have 'always' controlled their own population growth, and some empirical work in this field does show the relevance of this hypothesis to the population dynamics of small groups (Reining, 1981: 40). As Reining (ibid: 89) emphasised, anthropologists expect to find controls, both on the basis of their theoretical approach to the functioning of society and on the basis of previous empirical evidence. The problem is to show how the controls work, or especially how they may change in specific cultural contexts, or how they are connected to the particular resource base considered critical, especially as it changes. With regard to the adoption of modern contraceptives, Epstein (1977: 226, 235) has argued that a new 'cultural inventory' is a necessary condition; that people need to have choices and possibilities for calculation, as well as the opportunity and power to shape their own lives, and those of their children: and that only when their economic hopes and aspirations are raised in a context of scarce means do they start worrying...
about the potential quality of their children's lives, not to mention the issue of maintaining or raising their own standard of living. Thus social scientists share an interest in relating resources of different kinds and expectations about them and calculations of potential costs and benefits to differential and changing fertility. Consequently power, control and the opportunity to choose, and thus the decision-making processes in the domestic domain, are realised to be critical.

However, the conceptual frameworks, analytical tools and underlying and manifest concerns of scholars from these disciplines often remain widely disparate, if not beyond the comprehension of parallel workers in other fields. Thus the importance of reconciling different disciplinary approaches, and of their mutual enrichment through the incorporation of one another's insights, concepts and data are frequent themes in current attempts to explain fertility behaviour in contrasting social and cultural contexts (e.g. Hawthorn (ed.), 1978; Burch (ed.), 1980; Farooq and Simmons (eds.), forthcoming). It is frequently emphasised that current economic models have not sufficiently taken into account the cross-cultural and specifically familial contexts of behaviour and expectations concerning fertility (Oppong, 1982a).

In this article we propose to outline briefly some of the main features of economic models of rational decision-making with respect to fertility which focus upon the perceived costs and benefits of parenthood, noting the findings of several Ghanaian studies which have attempted to link changing patterns of costs and benefits involved in kin and conjugal family ties with changes in fertility and parental role expectations. We then go on to describe procreation and its context in a rural Kwahu town of southern Ghana in the early 1970s and illustrate how a 'cost–benefit' analysis of pregnancy termination and child-bearing in this society illuminates why, although induced abortion rates appeared high, there was in fact little noticeable shift to much lower fertility values or achievements than those traditionally admired. Critical factors are seen to be the flexible, unclear and widespread allocation of child-care costs and the consequent prevalence of 'free riding', especially for men, leading to the lack of incentives to control and limit the number of offspring at least within marriage. The analysis underlines once more the fact that if economic models are to be adapted to the study of such situations many hitherto unconsidered variables will have to be measured, in particular patterns of allocation of parental costs and benefits between mothers, fathers, kin and others, or what have been called elsewhere the wealth or benefit flows between members of the family (Caldwell, 1982).

ECONOMIC MODELS OF RATIONAL FERTILITY DECISION-MAKING

Fertility behaviour is widely considered to be at least partly the result of rational decision-making, and accordingly economists have built rational or utilitarian models to explain it. A considerable array of empirical evidence has supported their contentions that parental perceptions of the economic consequences of childbirth are a major reason for the reduction or continuity of high fertility levels; that costs and opportunity costs and material rewards (as well as social and psychological rewards of parenting not considered here) play a large part in determining family size values and regulatory behaviour.
The heart of the specifically economic approach to the analysis of human behaviour has been described as the combined assumptions of maximising behaviour; market equilibrium and stable preferences used 'relentlessly and unflinchingly' (Becker, 1979: 10). An associated theorem derived from this approach is that a rise in the price of a commodity, in this case children, will reduce the quantity demanded (prices including cash costs and opportunity costs). Becker goes on to argue that the economic approach does not necessarily assume that decisions are consciously aimed at maximisation or that the individuals concerned can describe in an informative way the reasons for their behaviour. Indeed, he asserts that there is no contradiction between the economic approach to decision-making and the emphasis upon the subconscious in psychology. At the same time he admits that the origins and evolution of preference are obviously relevant to predicting and understanding human behaviour.

Simmons (forthcoming) has recently outlined the components of the main micro-theories of fertility that can be labelled specifically economic, that is, those that treat fertility as determined at least in part by a process, conscious or unconscious, involving the allocation of scarce resources. The micro-economic theories of fertility behaviour are noted to include the following basic assumptions:

1. Fertility decisions are made in a manner analogous to more usual rational economic choices.
2. The use of resources is involved and has implications for other activities, including labour and leisure, savings and consumption choices.

Special characteristics are admitted to differentiate fertility choices from usual market choices but such models are still characterised by assumptions that individuals or couples possess a utility function, defined as an ordered and consistent set of preferences, and face environmental constraints, which can be defined in economic terms as 'prices' or 'costs' and maximise their utility, subject to these resource constraints.

Micro-economic models of fertility have been classified into three groups – including the New Home Economics school, the social determinants school, and others. Approaches in the first of these traditions concentrate on the definition of domestic prices and incomes and the ways in which fertility varies as these constraints change. A critical variable built into the model is the opportunity cost of the wife's time and the potential connections between women's labour force participation and their levels of fertility.

In more recent work, attempts have been made to link resource constraints and preferences. As Simmons observes, however, the final theoretical models are often difficult to estimate directly, since agreement on the empirical definition of many of the key variables, such as the opportunity costs of mothers' time, are lacking. Moreover a major stumbling block in even the most recent of such models remains their static nature – couples are assumed to have preferences which endure, and to know early on in a stable married life what opportunities and resources will be available to them, including their future incomes and occupations. Thus these models, as he readily admits, have to confront several critical issues, particularly if they are to be relevant across cultures and in contexts undergoing rapid social change. These include:
1. The definition of preferences (utility function).
2. The time perspective: the problem of taking into account learning and the changing of preferences as a result of new experiences, especially under conditions of rapid social transformation and social and spatial mobility.
3. Whose preferences are considered: fertility behaviour, and influence over related activities may involve several people or groups, including in-laws and kin as well as the potential parents. This consideration is particularly relevant in societies in which kin groups continue to be powerful and to influence the behaviour of members. But micro-economic theory usually assumes a single utility function or set of preferences.
4. The assessment of perceived costs, which will vary according to who is paying them and the sources and size of their resources in money and time, and alternative demands and hierarchies of preferences. Often only parents’ earnings and mothers’ time are considered in the calculations of economists (Oppong, 1982a).

While economic models built to explain fertility have usually assumed that parents maintain and care for their own biological offspring, contrary empirical evidence from a variety of cultures has led to hypotheses which envisage other types of transaction associated with parenthood. Thus the significance of child labour has begun to be examined in this regard and widespread empirical evidence marshalled to show that, as the economic value of children declines and costs rise, fertility also declines (e.g. Bulatao, 1980). Hence Caldwell’s (1982) argument that as children become the increasing object of work and money costs rather than a source of labour and security for their parents and elders, interest in high fertility is likely to decline.

Again with regard to the increasing costs of parenthood, some hypotheses link the diminution or expansion of opportunities for parental role delegation to changing fertility values and practices. As Leibenstein has remarked, ‘free riders’ are less likely to care about fertility regulation than those who are destined to pay the associated costs. Within the family sphere two types of sharing and delegation have been identified and examined which are intimately related to the allocation of child costs. The first involves the sharing of responsibilities and resources between mothers and fathers (the ‘jointness or segregation of the conjugal role relationship’), the second fostering or the sharing of child care by non-parental kin, either within the same household as the parents or in different households (Oppong, 1982a). The lessening of opportunities for the latter type of sharing and delegation has been related to kin dispersal through migration, education and employment, the schooling of potential young child-nurses and changing prescriptions about the propriety of such practices. Historical evidence has provided interesting links between economic and affective changes over time associated with a shift towards individualism in parent-child relations and with decreased child mortality and fertility (e.g. Stone, 1977). Meanwhile the jointness and relative equality of the conjugal role relationship and parental sharing have been related to the relative resources of spouses in terms of incomes, employment opportunities and alternative sources of security, and have thus been found in societies with very different levels of technology and modes of production. Turning now to the Ghanaian data, we will focus on parental role rewards and costs, and how these have been hypothesised or demonstrated to be related to fertility.
Ghana, which has a rapidly growing and youthful population characterised by highly pronatalist values, is remarkable both for its high fertility and the high rates of economic participation of both women and men, who combine high levels of child dependence (nearly half the population is under fifteen) with many hours of active work daily both inside and outside the home. The majority of women as well as men were classified as economically active in both the 1960 and 1970 censuses. In 1970 84 per cent of men and 64 per cent of women fifteen and over were classified as ‘economically active’, and of these the majority (57 per cent) were in some kind of agriculture or fishing, and of those in non-farming occupations most were in trading and manufacturing. Analysis of fertility rates and economic activity rates shows that women typically continue active in both spheres throughout their productive span of life. Indeed, the peak years of economic activity occur at forty and above. The peak time for child-bearing is the late twenties, but a considerable number of births occur before twenty and after forty. The female self-employed and family workers have total fertility rates of 6.4 and 6.6, while women employees have a total fertility rate of 3.6. Ethnographic studies of traders and farmers engaged in family-based income generation have illustrated the value of high fertility to parents involved. Children, both own and fostered, form an important, even critical source of labour. At quite young ages they give invaluable assistance in domestic work and market trading, and at older ages they provide what is often the only available source of labour for the maintenance and expansion of farm plots (e.g. Robertson, 1974; Schildkrout, 1973; Goody, 1974; Oppong, 1973; Okali, 1976).

Thirty years or so ago in his studies of the Ashanti Fortes (1954) had already emphasised the crucial relevance for changes in reproductive behaviour of the disintegration of corporate lineage organisation and the possible emergence of strong conjugal bonds. Indeed, he went so far as to hypothesise that they would not change greatly while the corporate organisation of the lineage remained as important as it then was. One of his important enquiries did in fact show that there were changes in the patterns of allocation of child costs between parents and matrikin in different communities subject to socio-economic change (Fortes, 1963).

In the ‘60s Caldwell’s (1968) study of a multi-ethnic sample of suburban dwellers supported this hypothesis. His study of the new urban educated elite of four of Ghana’s towns was meant to discover whether they felt any pressure to restrict the size of their families, and, if so, what the source of the pressure might be. His findings were that changes in families’ ways of life were making high fertility more burdensome, especially for the upper and middle classes of the towns, and there was evidence that a significant proportion were making some attempt to prevent or postpone pregnancy. Feelings of parental role strain were linked to perceptions of economic difficulties and the costs of education. Children were viewed as being increasingly expensive to raise at a time when the cost of living itself was rising. Meanwhile there were social pressures to maintain an appropriate style of life. Caldwell also noted signs of increasing boundedness or closure of the nuclear family in terms of emotion and expenditure of money. Admittedly, evidence of change in completed fertility was negligible but there was certainly evidence that for many reproduction had moved into the domain of matters discussed, decided and acted
upon. Significantly, he wrote of increasing child-consciousness in parents’ attitudes towards their own children.

Subsequently a number of small studies of homogenous samples of women and men in professional and semi-professional types of employment – nurses, clerical officers, teachers, as well as government servants and students – also illustrated the growing costs and burdens of parenthood to individuals separated from their kin by migration for employment and education, especially those whose work was carried out in formal settings far from home in institutions which did not have child-care facilities attached. These studies documented parental role stress resulting from conflicting demands and diminishing kin support, leading to increased attempts to regulate fertility and a lowering of family size values and achievements (see Oppong, forthcoming, for a summary of these findings).

These studies emphasise the critical importance of the type of employment, the availability and allocation of domestic resources, and the salience of role stress or perceptions of cost, as spurs to innovation and change. Perceptions of role stress were documented in terms of perceived lack of time to cope with all recognised demands, and role conflicts in terms of the competing demands of job requirements and domestic pressures, in situations in which the two were quite separate and demanded different schedules. Financial role strain was also evidenced by conflicts between demands for financial assistance from kin and the material needs of self, children and spouses in the light of actual salary levels and domestic commitments for rent, food, travel, etc.

Significantly in these case studies it was parents with lower than average fertility for their status group who were most likely to complain of resource constraints. At the same time, there was evidence that they felt a greater sense of personal responsibility for household expenses and chores. In these studies several indices of the spread and allocation of the costs of parenting were used: the extent to which kin cared for offspring, the extent to which kin were maintained by wage earners, as well as the degree to which one spouse or the other shouldered domestic, parental and kin burdens on behalf of or with the other.

Thus these data on the families of Ghanaian salary-earners indicated the usefulness of an economic approach, with attention paid to the allocation of scarce resources through the essentially rational choices of individual parents, continually trying to avoid or alleviate the effects of role strain and conflict. They also clearly illustrate the need for household economists’ models to take more sophisticated account of variables such as the openness or closure of the conjugal family in various areas of its operation and the need to treat the degrees of jointness of the conjugal role relationship in different areas as crucial variables (Oppong, 1982a).

KWAHU, SOUTHERN GHANA

We now turn to consider some ethnographic evidence from a sector of the Ghanaian population in a rural town subject to diversity and change and with a highly mobile population. These people are mainly engaged in those very occupations noted to encourage high fertility through the early incorporation of children into the domestic labour force, in trading and farming. But at the same time schooling has a long history in the area and many of the town’s inhabitants have migrated to improve their
economic opportunities in trade, business and the professions. The youth, already sexually active, have a range of potential futures available as farmers, traders, wage and salary-earners or may swell the growing ranks of the unemployed. Precocious pregnancies may constrain such choices, at least for the girls (Akuffo, 1978; Bleek, 1981a, b). Over the life course various means of earning a livelihood may be adopted, and members of one kin group may have very diverse life styles and income levels, and be scattered at home and away as a result of diverse vocational, occupational and domestic choices. But despite the potentially wide range of role models and life course options available to individuals, financial constraints are harsh and employment opportunities limited. The period when the data presented below were collected was one of staggering inflation and growing economic crisis.

It is assumed in the discussion that the people studied are not unique, but can be regarded as fairly representative of many other rural towns in southern Ghana during the early part of the '70s, particularly those of the Akan, who must now number in the region of five million and to whom the Kwahu belong. The Kwahu, like other Akan, are matrilineal and the majority of their men are peasant farmers and traders. Recent surveys of women in urban, semi-urban and rural areas of the Eastern region have indicated the types of employment available to them. In the rural communities women are mainly farmers and farm labourers with some opportunities for trading. Thus in a survey in Kwamoso only 3 per cent were seamstresses or business women, while in larger communities such as Aburi, where many women still farm, more trade—about one in three—and there are more opportunities for self-employment as seamstresses or bakers (8 per cent) and a few have semi-professional employment (6 per cent) as teachers and telephonists (Ewusi, 1978). In the regional capital, meanwhile, no less than one-third are teachers, clerks and nurses, more than one in five trade and 9 per cent are bakers, seamstresses or businesswomen.

The town where the research was conducted counted just over 4,000 inhabitants at the 1970 population census, slightly more women than men. Half of the inhabitants were under 15 years of age. According to the same census about half the working population was engaged in agriculture but the real figure was certainly much higher if we include part-time work. It can be safely assumed, for example, that the nearly 200 women who called themselves housewives were in fact practising some farming.

Women are mostly involved in food production. A large majority of the male farmers claim to be growing cocoa, which is considered more prestigious, but they too are probably most of the time involved in growing foodstuffs such as yam, cocoyam, plantain, cassava, maize and vegetables. Cultivation is almost entirely carried out by hand, using cutlass, hoe, axe and stick. Large quantities of food are transported from the farming settlements to the home town to be stored in the house. Some may also be sold in the home town or in the food markets which are held in all Kwahu towns and which attract buyers from within and outside Kwahu.

The town of the research is a typical 'home town', which means that it constitutes the base from where people depart, either to an urban centre where they take up trading or look for other employment, or to a farming settlement where they may spend from a few months to several years clearing new land or harvesting crops. Both groups of migrants maintain close links with their home town and return there for festivals and funerals, to visit relatives, to seek medical help or simply to relax and finally 'retire'. The home town is in all respects the centre of their 'universe'. Family
ties, cultural manifestations, the socialisation of children, religion, political ambitions, social obligations, prestige and shame are all firmly rooted in the home community, which continuously draws migrants home. Bartle (1978), who has written an extensive ethnography of another Kwahu town, takes the three groups as one community and speaks of a ‘dispersed community’, which finds itself in a continuous process of ‘cyclical migration’. The largest cycle is the one from birth to death. Most members of the community are born, grow up and die—or, at least, are buried—in their home town. In between they are usually away for longer or shorter periods.

Kwahu people are famous—some would say notorious—for their dexterity in trading. Their success in trading is testified by the impressive houses which are found in a number of Kwahu towns. By Kwahu standards the town of the research is rather poor. Many of its houses have collapsed and repairs are often postponed because of lack of money. Heaps of deteriorated cement blocks reveal the inhabitants’ unfulfilled aspirations to build a new and better house.

At the time of the research there were two double-stream primary schools and three middle schools (these should not be confused with secondary schools) with a total of about a thousand pupils. Several Christian Churches have established themselves in the town. The most important among them are the Roman Catholic, the Presbyterian, the Pentecostal and a number of independent Churches. The town has a maternity clinic with a very high attendance. The clinic facilitates the people’s preference for bringing forth in their home town even if they live in urban centres with better medical facilities. During the research period the town did not yet have electricity, but a few years later it was connected to the national electricity supply. It had a defective system of pipeborne water.

MARRIAGE AND FAMILY LIFE IN KWahu

In a case study of a matrilineage (Bleek, 1975) one of us has described some of the major problems in everyday life in Kwahu. Three areas of life proved to be particularly stressful: marriage, death and inheritance, and witchcraft suspicions. In later research (Bleek, 1976) sexual relationships and birth control were studied in this lineage and two other samples from the same town.

Some years ago, in an article on the Kpelle of Liberia, Gibbs coined the term ‘epainogamous’, by which he meant ‘valuing marriage highly’ (Gibbs, 1963). A society is ‘epainogamous’ when the marriage ceremony is a socially significant event, when the marital bond is not easily broken, and when conjugal rights and duties are adhered to. The structural principles which in Gibbs’s model indicate the attachment of a high value to marriage can be summarised in two basic processes of social control: (a) the elimination of normative ambiguity through fixed conjugal rights and ceremonialisation of the marriage bond; and (b) the rewarding of conformity to and the punishment of deviance from marital norms.

As has been explained elsewhere, the Kwahu are not an ‘epainogamous’ society (Bleek, 1977). With respect to (a), conjugal rights and duties are ambiguous. There are no clear rules as to where the husband, the wife and the children should stay, how much husband and wife should contribute towards the upkeep of the family, where exactly the father’s authority over the children lies and where that of the mother and
the mother's brother, with whom the children are to stay after divorce or after the death of one of the parents, etc. This list of ambiguities could be extended further. The allocation of these rights and the recognition of these duties depend on a variety of situational factors such as personal character, educational status and the economic position of the partners involved. Clear-cut norms do not exist, although certain proverbs seem to suggest that they do (cf. Rattray, 1929, passim). It is, however, more likely that many of these proverbs should be taken as male rhetoric which diverts attention from female autonomy and male marginality in traditional family life.

The marriage ceremony, moreover, has very little social significance. There is no public celebration such as takes place on other occasions like birth, death and (formerly) puberty. The 'ceremony', which is divided into two stages, looks like the signing of a contract which is sealed by the acceptance of payments and the drinking of schnapps or palm wine. Usually very few people attend the function; as a rule, the bride is not present and often the groom is absent as well, having someone else to act on his behalf. This person may be his father or a close maternal relative, but may also be a remote relative or an acquaintance who happens to be around. The meeting hardly differs from the usual discussions and palavers that take place in compounds and are rounded off by drinking palm wine. At the time of the research the amount of money involved in the payments varied from eight to forty cedis, then about £3 and £15 respectively, which is low compared with payments in other African societies. The groom needs little, if any, assistance from relatives to pay this amount, and as a consequence the marriage entails little social investment and reciprocal obligations.

With respect to (b) it can be said that there are few positive or negative sanctions that enforce adherence to marriage norms. Sexual satisfaction can be obtained outside marriage virtually without public disapproval. There is no such thing as illegitimacy. Children belong by definition to their mother's lineage. People only object if children are born who are not claimed by any man, but this has nothing to do with marriage. Labour aid, in the house or on the farm, can be obtained from outside marriage, for example from maternal relatives. Moreover those who are legally married often do not enjoy all the advantages they may have expected from marriage. A man may receive little domestic help and emotional support from his wife, particularly when she stays in a different house or goes on long journeys to visit her mother or other relatives. He may be forced to do the household chores himself, but more likely he will get domestic help from his sister or his sister's children. In the same way a married woman may be frustrated by the fact that her husband gives the family little or no financial support. Many women contribute substantially to the upkeep of the families, and nearly all women are financially independent with respect to their own upkeep.

Summarising, one could say that the institution of marriage is fragile and viewed with lukewarm feelings. Primordial attachment and dependence lie in most cases with the matrilineage and not with the conjugal partner. A norm which is not ambiguous is that in conflicts people must side with their matrilineage, if need be against their partner in marriage.

Having children is of the highest importance for any adult, and marriage, which is a contract with a non-member of the matrilineage, is considered almost a necessary evil to reach that goal. It is, however, by no means the only possible means of having
and raising children. As we shall see, non-marital relationships are socially accepted and there is a clear matrifocal tendency in Kwaahu family life, either because of the de jure absence of husbands or because their existence is de facto negligible (Bleek, 1974 and n.d.).

In the course of our argument we shall highlight a few aspects of marriage and family life which impinge on decision-making about having children. These include the high frequency of divorce, the role of the lineage in marriage affairs, the fostering of children, the marginality of husbands, the vagueness of financial rights and duties and the incidence of non-marital sexual relationships.

**BIRTH-CONTROL PRACTICES**

Although modern family planning programmes have been in existence in the country for over two decades, only a minority of the population have been demonstrated to have a knowledge of family planning and to practise modern forms of contraception (cf. De Kadt and Segall, 1981: 429). The existing family planning services are mainly based in the urban centres. They seem to be geared to the educated elite and to misread the problems of the poorer section of the population in the rural areas, in particular the problems of rural women. The most serious misunderstanding is that family planning organisations direct their propaganda and services at married couples, who tend to be uninterested, whereas unmarried young people, who are keenly interested, are by-passed (cf. Bleek, 1974, 1976, 1981a).

Birth-control practices in the Kwaahu town under research therefore do not reflect the statistics of the Ghana Family Planning Programme, in which the contraceptive pill and the IUD top the list (at least at the time of the research). Birth control is rather a matter of self-help. Young people buy pills in local drug stores and market booths. These pills are usually not effective contraceptives but dubious pharmaceuticals such as Alopen, ‘Special Female Pills’, ‘Gardiner’ (not identified), ‘Black Power’ (not identified), ‘Nkapre Aduro’ (not identified), ‘Apiol and Steel’ and ‘Dr Bongean’s Pills’. This vague and unreliable method of birth-control proved to be the most common. The second most common method, which is causally related to the previous one, is induced abortion. By second most common we mean that the largest but one number of people in the lineage had actual experience with it. Elsewhere (Bleek, 1976, 1978) a list of fifty-three different methods of induced abortion has been given. They include modern and traditional instrumental interference and the use of drugs, herbs and other products. Most methods seem ineffective to bring about an abortion and some are extremely dangerous, for example the drinking of washing blue and the insertion into the uterus of a twig (Jathropa curcas and Thevetia peruviana). The medical complications of various self-help abortifacients have been spelled out by Ampofo (1971).

The only service by the Family Planning Programme which does reach the rural population is the commercial marketing of non-prescription contraceptives (Altman et al., 1980). Young people buy spermicide foams (‘Emko’) and condoms in local stores. The use of the IUD and the regular contraceptive pill is practically nil, simply because they are not sold in drug stores and are therefore not available to young people. Occasionally one could find a packet of Anovlar contraceptive pills in local
stores but these were very expensive. A last method which lends itself to self-help is *coitus interruptus*, which is probably more practised than people are willing to admit.

It is noteworthy that people know of a larger number of indigenous herbs which are used as abortifacients, but that hardly any herb or other traditional method is mentioned as preventing pregnancy. The conclusion seems obvious: traditionally contraception was hardly practised—perhaps with the exception of *coitus interruptus*. The most effective method of birth prevention was formerly prolonged lactation and post-partum abstinence.

We shall now proceed to identify some of the circumstances which affect the costs and benefits accruing to parents from having a child and thus presumably influence their decision to abstain from sexual intercourse, to use modern contraceptives, to cause an abortion or to go ahead with having a child. We shall argue that a number of factors within the system of conjugal, parental and kin roles and relationships limit the extent to which individuals, women or men, can make such decisions and follow them through, and thus also limit the extent to which the individual can make any kind of cost–benefit analysis regarding their own parental role and its potential future rewards, responsibilities and costs. These factors include the instability of marriage, the marginality of husbands, the lack of definition of conjugal responsibilities and the scope for conjugal bargaining, the possibility of spreading and sharing child costs and benefits among kin, and the authority and power at their command. In addition the period was one of economic change, of rising prices, decreasing availability of commodities and political upheaval, all of which alter personal economic environments and change the calculus of costs and benefits (Levy Garboua, 1979).

The examples given span cases in which great risks are taken to prevent pregnancies when opportunity costs in terms of occupation and marital careers are judged to be high, to cases where paternal responsibilities are held apparently very lightly and thus not consciously or carefully avoided.

**EXTRA-MARITAL PREGNANCY**

The context within which consciously calculated fertility regulation most clearly takes place is that of pre- and extra-marital sex. In such cases the strong motivation to prevent pregnancy occurring or to terminate it is associated with high opportunity costs. An extra-marital pregnancy threatens an existing marriage as well as the extra-marital affair and is therefore disadvantageous to both parties. Meanwhile for a young girl a pre-marital pregnancy, especially involving a man who is not considered marriageable, is likely to spoil both her social and her economic opportunities. Premature pregnancy often entails not only the interruption and possible termination of the young mother's education and training, and therefore occupational prospects, but may also involve settling down in the rural environment which she had hoped to escape. Here is an example of a situation in which the opportunity costs for young women are seen to be so great that they are prepared to take grave health risks to prevent the birth of a child.

*Case 1.* Boakyewa was a pupil in form 4 of middle school when she became pregnant by the Form 3 teacher of the same school. The teacher became scared and attempted an abortion by giving her Primodos pills. She took two pills. The pregnancy was then about three
weeks. The pills failed and the girl began developing abdominal pains. Five days later the teacher gave her 'Black Power'. The girl started bleeding lightly but abortion was not realised. The teacher then sent her to a woman abortionist, who inserted a *nkrangyedua* twig (*Jathropa curcas*) into the uterus. After three days Boakyewa started bleeding and having pains. Her parents noticed her trouble and when the bleeding increased they rushed her in a taxi to hospital. At the hospital a doctor completed the abortion and saved her life. The parents found out that the teacher was responsible for the pregnancy and made him pay all hospital expenses. Boakyewa felt ashamed of the episode and did not return to school but went to learn seamstressing. [Bleek, 1981b]

Inexpertly induced abortions occur not infrequently and sometimes lead to loss of health or life or impaired fecundity (Bleek, 1976, 1978).

It is relevant to note that such decisions to postpone the beginning of the maternal role or to terminate an extra-marital pregnancy are taken not with regard to general calculations about child-bearing in general or the ultimate family size desired, but in terms of the opportunity costs of bearing a child at that particular point in the life course. The decision is related not to 'attitudes' to family size but to the desire to retain occupational or conjugal role opportunities. Parallel data are provided by Dinan (in press), whose informants include rural Kwawu migrants to Accra, who have not infrequently resorted to abortion early in their life, so as to keep open their options for better marital and employment prospects.

**MARITAL INSTABILITY**

Marriage is an inherently unstable and insecure enterprise. Compared with many other African societies the divorce rate in Kwahu is high. In terms of Barnes's (1967) ratios, the matrilineage we studied showed a frequency of 1·3 divorces per head of the population of those who had ever married.3 So anyone who marries expects sooner or later to divorce or to be divorced. Consequently women and men have great difficulty in predicting their future marital career or prospects over a period of several years, and can make no assumptions about their future marital status when deciding whether or not to avoid or terminate present pregnancies.

On the one hand, marital instability and anxieties about it may induce women to limit the number of their children to the number they feel they can maintain themselves, because after divorce they are usually left with the greater share of responsibility for the children. After divorce men often do not support their children at all, or stop doing so after some time has passed. Meanwhile a man who marries a divorcee will not expect to contribute to the maintenance and well-being of any of his wife's children by a previous marriage. Thus men, since they can more easily shed past parental responsibilities, may be less constrained to limit the number of births they beget to the number they can cope with in terms of rearing costs. On the other hand, instability of marriage may also lead women to have a large number of children. The primary aim of marriage is reproduction. Every new marriage must prove fertile. A woman who desires no more children must abandon this desire if, by any chance, she enters a new marriage.

**Case 2.** Yaa Oduraa, a woman of about thirty-five years, has divorced five times. She married first when she was seventeen years old. She had two children, who both died. She married for the second time and had one child. By her third marriage she had two children, and she then bore one child to each of her three last partners. She became tired of marriage and after the second one she decided never again to go through the formal marriage rites.
Her last four partners were not therefore officially 'husbands', although in practice they were recognised as such. It is, however, no coincidence that at least one child was born of each of the 'marriages'. A marriage without children makes no sense. A woman, however, who has no wish for a child from a given partner will try to prevent conception or, failing that, to induce an abortion. Oduraa twice underwent an induced abortion—once when she was pregnant from someone she did not want to become her partner, and once during her third 'marriage', of which two children were born.

THE MARGinality OF HUSBANDS

The marginality of husbands to their wives' matrilineages is another factor which restricts conscious conjugal decision-making about fertility regulation. For a man to decide to have children is somewhat unreal. Strictly speaking, the child which he may decide to have will not even be 'his' child but the child of his wife's lineage. If the marriage ends in divorce, the child will be even less 'his child', unless he takes it with him. This, however, is uncommon. Only men who are relatively well-off are likely to play an active and supportive paternal role, assume heavy financial responsibilities for the upkeep of the children and be inclined to continue taking care of them after a divorce (Oppong, 1982b). In spite of an increasing marginality of husbands among the relatively poor, there is thus a contrary trend among those who are slightly better-off. Here the paternal rights and responsibilities are emphasised at the cost of the matrilineal. One cannot, however, speak of 'nucleation' as a general phenomenon, as Caldwell (1976b) has argued. Two cases have been chosen to illustrate the common marginality of husbands.

Case 3. Yaw Manu has four children, but he has none of them with him. The first child was born of a woman whom he never married. The second was born of another woman a few months later. He married her legally but then divorced her after a short period of time. The first child now lives with its own mother and the second with its mother's mother. The two other children were born of Manu's second marriage. When the marriage broke down, the wife took the children with her. At the moment one child lives with a distant relative of Manu's former wife and the other with Manu's younger sister.

Case 4. Kofi Asante, twenty-five years of age, is a taxi driver. He has two wives, not because he is an advocate of polygyny but because he was somehow forced to marry the second, as she was pregnant by him. Altogether, Asante has five children. His first was born of a girl he never married ('I was still very young and had not found a job'), and he does not know where it is now. His second and third children are of two previous wives whom he divorced. He has also lost sight of one of these children. His fourth and fifth children are with his present wives. His last wife lives with him in the same house, the last but one lives elsewhere. Biologically speaking, Asante has five children, but it would be more correct to say that he has two (although only one lives with him). When I asked Asante how many children he would like to have, I realised, as I did in many other interviews, how ambiguous, perhaps meaningless, my question was. What could 'to have children' mean to him? And what will it mean to him in ten years' time? He replied that he wanted six children. Did he mean that he wanted only one child more? I asked him how many children he wanted in addition to the ones he had already. He answered four, one from his senior wife, because she already had four (three from previous partners) and three from his junior wife, who, as yet had only one child.

This is a complex—but by no means exceptional—situation. Kofi's response reflects the desire for each woman to achieve the minimal ideal of four children. Meanwhile his nonchalance at the prospect of fathering nine children obviously relates to his facility for casting off financial or other paternal responsibilities.
THE CONJUGAL DIVISION OF RESPONSIBILITIES

The division of financial responsibilities between husband and wife is uncertain, to say the least. The only thing which is certain is that spouses hardly ever pool their money (Oppong, 1982b). Husbands are supposed to contribute to the upkeep of their children (but not of their wife), but in practice the amounts contributed vary enormously. Some husbands contribute nothing at all, while others go much further than is required of them by custom. In general, however, the contribution of husbands—particularly ex-husbands—falls below the norm. This is another factor which makes reproduction an uncertain enterprise for women. Wives can never be certain how much of the parental costs husbands are going to share, and the process of bargaining can continue throughout the duration of marriage (Abu, in press).

Case 5. A woman called Rose is now thirty-six years of age. When she was twenty-four she became pregnant by a teacher. They married and had two children. The man always gave her eighteen cedis (about £7.20) a month for the household. After six years she left him because his relatives were troubling her. For three years she remained single. She had a friend during that time, but they did not marry. After the three years she became pregnant again by a Fante who was working in a town five miles away and already had one wife. She married him but each of them stayed separate in their own places. They had one child. After one year the marriage ended because, as she said, the man did not look after her well. She met another man who had come to work in the town. They married and had one child. Later on the man lost his job, and since then, about two years ago, the situation has been very difficult. Formerly he gave her eight cedis (£3.20) a month, but since he has been without work she has received nothing from him. She tries to earn a living for herself, her children and her husband by selling cloth and sewing.

LINEAGE INFLUENCE AND RESPONSIBILITIES

The influence of the matrilineage is another factor which makes individual or conjugal decision-making difficult and to some extent superfluous. The ties of marriage are less important than those of descent. Lineage membership overrides all other social ties and permeates every aspect of daily life. More than anything else, reproduction is a matter of concern for the lineage. According to the matrilineal rule, women bear children to their own lineage and not to their husbands'. As men cannot themselves continue the descent of the lineage, they have to wait and see what the female members of their lineage bring forth. A woman who does not become pregnant will be pressed by her lineage to leave her husband and try her luck with another man.

Case 6. When a marriage does not produce children for the matrilineage the husband is often forced by the wife's lineage to let the woman go so that she may try another husband. An old man, for instance, told us about his first wife: 'After the first child she never became pregnant again. I fought hard for it, but I was not successful. The wife's family therefore claimed her back.' And about his third wife: 'Because no children were coming we had to stop the marriage to enable one another to try our chances to get children somewhere else.'

A similar uncertainty exists with regard to the financial responsibilities of the lineage. In some instances the lineage provides substantial financial assistance in difficult times, but in others the opposite is the case. Help from the lineage can hardly be relied upon in an uncertain future. Much depends on the character of key individuals, particularly lineage heads. In the lineage where most of the data were
collected the head, who was considered mean, usually tried to avoid the lineage's responsibilities. The example below relates how in one instance the lineage head provided help, while in another he failed to do so.

Case 7. About fifteen years ago Ntim, who is now thirty-three years old, made a schoolgirl pregnant. He took the girl to a 'dispenser' for an induced abortion. Her condition became serious, and she mentioned Ntim's name. Ntim was apprehended and taken to the police station. The lineage head paid sixty cedis (then about £30) to have him released.

A few years later Ntim made another schoolgirl pregnant. She too attempted an abortion with Ntim's help. She fell seriously ill and was taken to a hospital. The doctor informed the police and Ntim was arrested and put in prison. The lineage head and Ntim's mother were called in. The inspector asked for 300 cedis (£150) to drop the case. Ntim's mother had to pay. According to Ntim's younger brother, it was all the money the mother had saved to build a new house.

FOSTERING

The rearing of children by non-parental kin and others is a widespread practice in West Africa in general and Ghana in particular. In some cases it is a well defined practice prescribed by customary norms and values and believed to be beneficial. In other cases it involves transfers of children between relatively rich and poor households in circumstances in which children become unpaid or lowly paid domestic labourers (Goody, E., 1982; Oppong, 1982b). It is a practice which has a pervasive impact upon the distribution of the costs and benefits of children, which are often spread between kin group members, with different individuals providing economic assistance, child-care or training at different points in the growing child's career, and with a variety of people benefiting from the child's help in domestic tasks, child care, agriculture and trade. A number of observers of Akan society have documented the varying patterns of distribution of child-rearing costs and services between fathers, on the one hand, and mothers and their matrikin on the other (Fortes, 1963; Church, 1978; Oppong, 1982b, etc.). The important help of children in farming and domestic tasks has also been described (Okali, 1976; Church, 1978).

It is thus difficult if not impossible to predict who will support and train a particular child from birth through to adulthood and who will benefit from services, labour or income. An example shows how many different kin may be involved during the period of socialisation to adulthood.

Case 8. Yaw Manu, a thirty-seven-year-old teacher, spent his youth with many different people. Between the ages of eight and seventeen he stayed with his 'grandfather' (mother's mother's brother), with his own mother, with his uncle (mother's brother), with another 'grandfather' (mother's mother's sister's son), again with the first-mentioned 'grandfather', and finally with a very distant relative in another town. His father died at an early age and his mother went to stay in a remote farming village with no school in the vicinity. These factors contributed to his early mobility.

CONCLUSION

In this article we have looked briefly at elements of economic models of rational decision-making with regard to fertility and its regulation. We have singled out issues relating to the rewards and costs of parenthood and have reviewed some previous Ghanaian micro-studies which support the rational economic decision-making model, but which call attention to the need to take account of
cross-cultural variation and complexity in systems of allocation of parental benefits and costs. In particular we need to take account of the division of activities and responsibilities between co-parents (married or not) and of the relative autonomy of the individual or couple within the context of the wider kin group or network.

Fragments of ethnographic data from Kwahu have been used to illustrate the potential limits of the individual's power to make decisions and take actions which would be in his or her own interest. We have emphasised the difficulties involved in calculating the costs and benefits attached to parenthood in the continually changing pattern of allocation of resources and responsibilities between spouses and matrikin, and the relative ease with which parents, especially fathers, can avoid costs felt to be too onerous.

The discussion has been confined to marital and familial factors but there is no doubt that insecurity due to political instability, economic recession and inflation, the vicissitudes of occupational opportunities and the high degree of mobility between town and country add to individuals' difficulties in planning their family lives and in assuming appropriate familial responsibilities. The fact that the knowledge and availability of contraceptives are restricted adds to these fundamental problems, but even in a situation of full technical control of fertility the problem would continue to exist.

The people we have glimpsed here are struggling to improve their lot in an uncertain and changing context in which lineage support is not guaranteed, marriage is not stable and children often leave their parents at an early age, and in which educational qualifications and the ability to be mobile are critical in the search for incomes and better jobs. Early child-bearing is a hindrance and avoided where possible though it is not an impassable barrier to townward migration and upward mobility, as Dinan (in press), Akuffo (1978) and others have shown. Meanwhile the costs of later child-bearing are often shelved and passed on to others, especially to the child's mother or matrikin (Bleek, 1974 and n.d.). Thus a great deal of inertia, associated with poverty and insecurity, remains with respect to decisions to regulate fertility. Begetters may remain 'free riders' unburdened by the costs of their procreative activities.

Ultimately our discussion underlines the need not only for increased sophistication of economic models of domestic decision-making related to fertility but for more attention to be paid to the links between familial role systems of allocation of parental costs and benefits and the modes of production and access to income and economic security of potential parents, both women and men.

NOTES

1 This article grew out of a paper presented by Wolf Bleek under the title 'The impossible decision: having children in Kwahu, Ghana' at the 1978 conference of the International Union for the Scientific Study of Population held in Helsinki at the session organised and chaired by Christine Oppong on the theme of household economic demographic decision-making (see Conference proceedings, Vol. 3, pp. 15–66). The ethnographic research carried out by Wolf Bleek was financed by a grant of the Institute of African Studies, University of Ghana. The writing up of data was made possible through a subsidy from the Netherlands Foundation for the Advancement of Tropical Research (WOTRO). The most complete presentation of research data is Bleek (1976) but see also Bleek (1974, 1978, 1981b, and n.d.).

2 See, for instance, the discussion and papers presented at the IUSSP meeting in Helsinki mentioned above, the papers presented at the IUSSP Seminar on Determinants of Fertility Trends: Major Theories and New Directions for Research, held in Bad Homberg, April 1980; the contributions of the workshop...
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on the anthropology of human fertility held in February 1981 at the National Academy of Sciences, Washington, D.C., and the forthcoming volumes from the Panel on Fertility Determinants. The selection of studies for mention here is of necessity small and eclectic.

Compared with a number of East African societies (Mitchell, 1967, p. 23) the Kwahu have a very high divorce frequency. Only the Ndembu can be compared to them. A society with a comparable divorce rate is the Barma of Chad (Reyna, 1977); the divorce frequency among the Kapsigi and Higi in the border of Cameroon and Nigeria (Van Beek, 1978) is still higher.

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**Résumé**

Modèles économiques et décisions relatives à la fertilité: évidence en provenance de Kwahu, Ghana

Cet article traite des aspects de la reproduction et de la fertilité parmi les Kwahu du Ghana-Sud, un sous-groupe Akan, et plus particulièrement des membres d’une famille dans une ville rurale caractérisée par de profonds changements et différenciation socio-économiques. Des extraits du data de recherche présentés sont tirés d’un plus grand ensemble de matériaux se concentrent sur la vie de famille, la sexualité et le contrôle des naissances, amassés au cours des premières années soixante-dix.

Le data discuté ici considère les décisions des gens en ce qui concerne l’utilisation de la contraception ou non, l’avortement, la décision de mener à terme les grossesses, en bref de contrôler ou non leur fertilité selon des méthodes traditionnelles et des méthodes modernes chimiques et mécaniques, notant au fur et à mesure pourquoi certains individus termineront à tout prix une grossesse, risquant par là même la vie et la santé de l’intéressée, et pourquoi d’autres adoptent une attitude fataliste et apathique voir désinvolte à l’égard des résultats de leurs activités hétérosexuelles et des grossesses qui s’en suivent. Ces matériaux sont présentés dans le contexte d’un bref exposé des problèmes courants rencontrés dans des exercices de modèles démographiques en micro-économie basés sur des hypothèses de prises de décisions rationnelles et dans le contexte de récentes tentatives d’établir des liens de communications entre les ethnographes, les économistes et autres. Le concept central en cours de révision est le coût et les coûts relatifs au fait d’être parents. Le data de Kwahu est utilisé pour indiquer quelques uns des facteurs à considérer. Au cours de la discussion on se rapporte à un certain nombre d’études micro-démographiques en provenance du Ghana, embrassant une période de presqu’une moitié de siècle, études qui placent fermement la fertilité et les décisions qui s’y rattachent dans le concept de mariage, paternité, du fait d’élever les enfants et de parenté.