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Gender, demographic transition and the economics of family size: Population policy for a human-centred development

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Gender, Demographic Transition and the Economics of Family Size: Population Policy for a Human-Centred Development

Naila Kabeer

Occasional Paper 7, June 1996

United Nations Research Institute for Social Development
United Nations Development Programme

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Preface

In preparation for the Fourth World Conference on Women which was held in Beijing in September 1995, UNRISD initiated an Occasional Paper Series reflecting work carried out under the UNRISD/UNDP project, **Technical Co-operation and Women's Lives: Integrating Gender into Development Policy**. In view of the intensified efforts in the aftermath of the Conference to integrate gender concerns into policy analysis and formulation, and the progress of the UNRISD/UNDP project, the Institute intends to publish several additional papers in this series to facilitate the dissemination of the project's findings.

The activities of the project have included an assessment of efforts by a selected number of donor agencies and governments to integrate gender issues into their activities (Phase I); participating countries included Bangladesh, Chile, Jamaica, Mali, Morocco, Uganda and Viet Nam. The current action-oriented part of the project (Phases II and III) involves pilot studies in five of these countries (Bangladesh, Jamaica, Morocco, Uganda and Viet Nam), the goal of which is to initiate a process of consultation and dialogue between gender researchers, policy-makers and activists aimed at making economic and social policies more accountable to women.

This paper builds on one of the themes that has been extensively explored in the UNRISD/UNDP Occasional Paper Series and in the policy dialogues that have been carried out in the participating countries: the need to scrutinize economic/social policies from a gender perspective. It provides an in-depth analysis of population debates and policies, arguing for the need to place women's human rights and well-being at the centre of both policy-making processes and academic debates.

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June 1996

Dharam Ghai
Director

Executive Summary

Population policies are a central core in the totality of development efforts because of their focus on the production and reproduction of people. In theory, they should encompass the full gamut of concerns with births, deaths and the quality of life in between. In practice, however, for a variety of reasons, population policy has tended to become reduced to the manipulation of numbers: how to reduce, or far less frequently, how to increase the number of births within a given population. The major debates in academic discussions of population and development are currently being conducted between those who prioritize the acceptability of, and access to, family planning as the primary concern of population policy and those who emphasize changes in the economics of family size as the main route to demographic transition. Economists, by and large, believe that fertility behaviour falls within the calculus of conscious choice and as such, can be understood through the same choice-theoretic framework as any other form of constrained decision-making. Families will have large numbers of children as long as the benefit from each extra child outweighs the cost. The crucial issue for policy-makers interested in influencing fertility behaviour is therefore to alter the cost-benefit calculus underlying the reproductive decision. Demographers vary between those who explain fertility behaviour in terms of the structures and values of traditional societies and see demographic transition as a response to the broad processes of modernization and those who see it more narrowly as a consequence of the greater promotion and acceptability of family planning. The policy implications within the demographic field thus vary between those who would stress the relationship between levels of development and fertility behaviour and those who would stress the need for greater investments in family planning programmes.

A third group that has made considerable contributions in this field is composed of feminist advocates and activists whose work has focused largely on the gender politics of population policies. They have stressed in particular how the attempts of national and international agencies to pursue the objectives of population control have often led to the denial of reproductive choice to women to the extent of violating their basic human rights. While economists and demographers have to some extent addressed each other's arguments and policy recommendations, their debates have been curiously insulated from questions and issues raised by feminist research and advocacy in this area. Instead, feminist researchers and women's rights activists are much more visible at the level of policy and politics, and they played an important role in shaping the plan of action that emerged out of the International Conference on Population and Development, held in Cairo in 1994. Yet the perspective they bring is crucial not only for making sense of aspects of population and development that a conventional economic or demographic analysis is poorly equipped to deal with, but also to ensure that population policies contribute to the goals of promoting human well-being and agency.

This paper makes the case for a human-centred approach to the question of population and development. It sets out to demonstrate that, despite the

claims made in policy discourse regarding positive developmental consequences of lowering rates of population growth, there is little evidence that concern for human rights and well-being has played much of a role in past population policies or resulted from declines in fertility rates. In other words, the relationship between fertility decline and improvements in the needs, rights and well-being of a population is generally weak and often non-existent. The paper argues for retaining population questions at the centre of development policy but suggests that such policy needs to give fuller recognition to the intrinsic human dimension of the inter-relationship between population and development, and in particular, to the gender dimension of this inter-relationship.

A human-centred development must start from the recognition that human survival and well-being are the desired goals of all development endeavour, and since human agency and creativity helps to activate all forms of production, human beings are uniquely both the "means" and the "ends" of the development effort, of intrinsic as well as instrumental value. All development efforts have to be judged on the basis of their contribution to this overall goal. A more human-centred development will also lead to the recognition of women as key actors in the development process, not only because their survival and well-being as human beings are ends in themselves, but also because they are the actors most closely connected with the reproduction, maintenance and care of human resources. The paper draws attention to both dimensions — of well-being and agency — in the reproductive process. The former focuses on the extent to which families, and children in particular, benefit from different reproductive strategies, while the latter is concerned with potential inequalities and conflicts in the capacity of women and men within the family to promote specific reproductive outcomes on the basis of their self-defined priorities and interests. As the paper demonstrates, gender discrimination in well-being within the family and the denial of agency to women in production and reproduction often go hand in hand, suggesting that the needs and rights of girl children and the needs and rights of women are closely intertwined.

Section 3 presents some empirical insights into the gender dimensions of reproductive outcomes and processes in order to explore the comparative utility of the various approaches outlined and to demonstrate why a gender analysis, focusing on the social organization of production and reproduction, can help to provide the basis for integrating population, development and human rights perspectives in the policy arena. Using two parameters to locate different regional systems of gender relations on a continuum of "strong" to "weak" patriarchies — the degree of corporateness of the conjugal relationship and the extent of public mobility allowed to women — the paper draws on the literature from sub-Saharan Africa and Asia to explore the relevance of gender to patterns of reproductive behaviour. It suggests, first of all, that the social organization of production and reproduction in a particular context will help to determine the degree of convergence or divergence in the reproductive goals and strategies of women and men in general, and of the conjugal partners in particular. Secondly, gender relations help to determine the value given to women, and hence to the girl child, in a particular context. Where women are socially devalued, mothers as well as fathers are likely to display strong son

preference in their reproductive strategies to the extent of manipulating the likelihood of girls being born or, where such births cannot be prevented, of girls' chances of survival.

A gender analysis of fertility transition helps to challenge some of the claims conventionally made by economists and demographers. It challenges, for instance, the assertion that economic growth in the East Asian economies was characterized by equity by pointing to the severe forms of gender inequities in family reproductive strategies which underpinned it. It challenges the frequently advanced claim that women's education and economic autonomy will automatically lead to lower fertility rates. While acknowledging that women have very gender-specific interests in avoiding early, frequent and closely spaced births, because of their costs for their health and survival chances, the paper offers examples that suggest that women will be as pro-natalist as men, as long as their material interests are served by having large numbers of children. Finally, the paper challenges the claim that a single universal explanation can be found for the fertility declines currently underway in the Third World. While the availability of family planning methods does increase the ability of parents to implement their reproductive decisions more rapidly and effectively — and may, in some contexts, allow women to exercise a surreptitious control over their fertility — it does not explain the decision itself, as some demographers have claimed. Rather the explanation for fertility decline must be sought in the changes in the overall modes of production prevailing in different societies and the changing interactions this entails between people, their institutional environment and the choices they face. Population pressure on limited resources combined with the spread of market forces and the associated monetization of everyday life has profoundly affected the fertility calculus for parents as it erodes older forms of livelihoods and security and alters parental strategies with respect to desired numbers of children, their gender composition and investment in their "human capital". The precise forms that this has taken — and the extent to which it has entailed gender-equitable processes — continues to bear the imprint of older forms of social organization and cultural beliefs in the different contexts, reconstituted in the light of changing circumstances. Thus local realities intervene to shape the effect that different variables have in terms of their fertility implications as well as their implications for women's ability to participate in these socio-economic processes and the extent to which their daughters have benefited from them.

Section 4 spells out some of the basic components of a population policy that is cognisant of the inter-connections between human-centred development, women's reproductive rights and gender equity. Feminist claims that gender equality is a prerequisite for fertility decline are not borne out by the experience of many countries that have been notoriously indifferent to women's needs and interests. "Win-win" forms of advocacy can go some way towards making the case for gender equity in population and development policy, but ultimately the argument needs to be made on intrinsic as well as instrumental grounds. The gender dimension is integral to reproductive decision-making because women bear the emotional, bodily and social ramifications of having children differently and more intensely than men, and they may assess the costs and benefits differently. It is

indifference to this dimension that has resulted in the violation of women's basic human rights. However, even where there is a convergence in gender interests in relation to fertility goals within a society, gender concerns will remain if such goals incorporate and reproduce the wider devaluation of women by the society in which such goals are formed. This devaluation manifests itself in the discriminatory provision of critical expenditures in the human capital, productivity and life options of daughters as well as in more extreme forms of discrimination, including female foeticide, infanticide and life-threatening neglect of daughters.

Our discussion suggests that population and development interventions are inextricably intertwined and must be formulated in conjunction with, rather than in isolation from, each other. Consequently, the key policy elements for a human-centred population policy will include some of the recommendations put forward by economists and demographers. Family planning remains an important component of population policy — but as a means for expanding reproductive choice rather than for meeting the objectives of population control. A family planning programme, informed by a user perspective and based on delivering quality care, helps to make reproductive choice more effective and to increase women's ability to control their bodies, reproductive capacity and sexual lives. At the same time, development remains the "best" contraceptive because it allows reproductive choice to be based on higher standards of living, a reduction of gender disparities in education and health, and aspirations for a better life for the next generation, rather than a response to poverty, hunger and the erosion of basic livelihood options.

But our discussion also suggests that feminist activists are right to stress that respect for human rights must be the starting premise and central principle of both family planning and development interventions. This is the arena where some very basic questions about human well-being and agency are settled and the outcomes that we observe tell us a great deal about the extent to which a society values its people, and the extent to which it values certain categories of people more than others. Inequality in outcomes may be a part of the cultural baggage of a society but where it violates the human rights of individual actors, or groups of actors in that society — in other words, their rights to live active, healthy lives, exercise control over their own bodies and life options and to realize their full human potential according to their own priorities — policy makers who claim to represent the interests of their citizens have an obligation to address such violations. Respect for human well-being, agency and rights is not an optional extra in development; it is fundamental to the kind of development that a society wishes to pursue and it will determine how effectively that society mobilizes its full human potential.

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SECTION 1
Introduction

Population policies are central to the totality of development efforts because of their focus on the reproduction of people and therefore of the societies they belong to. In theory, population issues should cover the full gamut of concerns, from birth to death and the quality of life in between. In practice, however, for a variety of reasons population policy has tended to become reduced to a question of numbers: how to reduce or — less frequently — to increase the number of people that count within specific categories in order to meet the objectives set out by those with policy-making power. The relevant classificatory criteria take different forms in different political or economic contexts so that population concerns vary from seeking to prevent the birth of the second child in China; to promote the birth rates of Jewish population in Israel (Yuval-Davis, 1987) or educated women in Singapore (Leng and Khoon, 1984; Chan, 1985); or to sterilize women from poorer backgrounds in Puerto Rico (Mass, 1976). On a more global scale, the issue of numbers takes on a North-South dimension as fresh reasons emerge periodically for portraying population growth rates in the South as posing a threat to the global order. The panic around population growth has focused in turn on its purported deleterious effects in relation to economic growth rates in the South, to the geopolitical concerns of the North, to the fragility of the global ecosystem and, more recently, to the possibility of mass emigration from the South with adverse consequences for Northern standards of living (Connelly and Kennedy, 1994). Political and developmental considerations are inextricably intertwined in the population question.

The objective of this paper is not to consider the validity or otherwise of the links between population growth rates and the series of apocalyptic scenarios noted above, since the evidence is controversial and inconclusive. Instead, it takes as its starting point the view that while there are sound policy grounds for keeping population questions at the centre of development discourse, the conceptualization of the problem has been skewed by its indifference to the intrinsic human dimension of the inter-relationship between the two, and in particular to the gender dimension of this inter-relationship. A human-centred development starts from the recognition that, since human survival and well-being are the desired goals of all development endeavour and since human agency and creativity help to activate all forms of production, human beings are uniquely both the "means" and the "ends" of the development effort, of intrinsic as well as instrumental value. A human-centred development recognizes women as key actors in the development process not only because their survival and well-being as human beings are ends in themselves, but also because they are the actors most closely connected with the reproduction, maintenance and care of human resources (Kabeer, 1994a). In this paper, we will be concerned with both these dimensions in the reproductive process: well-being and agency. The former focuses on outcomes: the extent to which families, and children in particular, benefit from different reproductive strategies. The latter is concerned with the capacity of different categories of family members to exercise judgement in the field of reproductive decision-making and to promote change on the basis of their own priorities and interests (Sen,

1992) . Gender discrimination in well-being within the family and the denial of agency to women in production and reproduction often go hand-in-hand, suggesting that the needs and rights of girl children and the needs and rights of women are closely intertwined.

Debates in the field of population and development have taken a number of different forms. There are those who believe that rapid population growth is a serious problem for development — probably the view of the majority of academics and policy makers — and those who believe it to be irrelevant or even conducive to the achievement of economic growth. Cutting across this debate is another one between those who prioritize the acceptability of, and access to, family planning as the primary, and even sole, concern of population policy and those who discount the significance of family planning services for the achievement of human development goals. Such debates have generally been conducted with little regard to the gender issues at the core of the relationship between population and development, and can lead to the violation of the basic human right to self-determination in reproduction. This paper makes the case for a human-centred approach to the question of population and development as one which holds, regardless of position taken in these other debates.

In Section 2 of this paper, we will consider some of the theoretical insights offered by three different sets of actors on the population and development scene: economists, demographers and women's rights activists. Each has highlighted the connections in a specific way and each has sought to spell out the implications for policy from their analysis. While economists and demographers have to some extent addressed each other's arguments, their debates have been curiously insulated from questions and issues raised by feminist research and advocacy in this area (Greenhalgh, 1995). Feminist researchers and women's rights activists are much more visible at the level of policy and politics, and played an important role in shaping the plan of action which emerged out of the International Conference on Population and Development (ICPD) in Cairo in 1994. Yet the perspective they bring is crucial, not only for making sense of aspects of population and development that a conventional economic or demographic analysis is poorly equipped to deal with, but also for ensuring that population policies contribute to the goals of promoting human well-being and agency. Section 3 presents some empirical insights into the gender dimensions of reproductive outcomes and processes in order to explore the comparative utility of the various approaches outlined and to demonstrate why a gender analysis, focusing on the social organization of production and reproduction, can help to provide the basis for integrating population, development and human rights perspectives. Section 4 spells out some of the basic components of a population policy that is premised on these inter-connections.

SECTION 2
Alternative Perspectives on Population and Development: Theoretical Issues

2.1 Demographic transition and modernization theory

Demography is the branch of the social sciences most directly concerned with population-related issues. It has been defined as the statistical analysis of the size, composition and spatial distribution of human populations, and of changes over time in these aspects through the operation of five processes: fertility, mortality, marriage, migration and social mobility. Of these, the study of fertility is dominant — probably for the reasons outlined at the beginning of this paper — and the preoccupation with understanding the timing, causes and nature of fertility decline explains the central place given to theories of "demographic transition" within this field of studies. The kernel of demographic transition theory is the observation that in Western societies, fertility and mortality were extremely high in the pre-industrial era, and that in contemporary industrial societies they are extremely low: the demographic transition occurred in between (Demeny, 1974). The attempt to understand the reasons for these changes, the relationship between different phases and the implications of the Western experience for contemporary high-fertility societies make up the body of demographic transition theory (Notestein, 1945; Davis, 1945).

What Greenhalgh (1995) calls "classic transition theory" draws heavily on the basic assumptions and causal relationships of modernization theory. There are two strands to this. The first strand focuses on the level of socio-economic development and takes as its model the process of development in the West and concomitant increases in income, urbanization and industrialization. These are theorized as the key mechanisms through which a shift from high to lower fertility régimes via reductions in mortality rates is achieved. The second strand of both transition and modernization theory highlights the norms and values of traditional societies as the major impediment to change. Because theories of modernization as well as of demographic transition are modelled on the experience of Western countries, there is a frequent slippage in this literature between concepts of "modernization" and "Westernization" in descriptions of the shift from tradition to modernity and from high to low fertility. The precise mechanisms by which this is thought to occur are not clearly specified but some combination of the shift to urban patterns of life, higher levels of education of parents and of educational aspirations for children together with the spread of new ideas through education and media were presumed to be significant in changing the perceived economics of child bearing for parents (Simmons, 1985).

However, the two strands of transition theory were closely related in the classic version; both Davis and Notestein in their earlier works noted the cultural embeddedness of fertility behaviour and stressed the importance of addressing the conditions which shaped the "demand" for children — the intentions and motivations underpinning large family size. In policy terms therefore, classic transition theory was concerned with the promotion of all-round economic growth in order to generate the kinds of institutions which

would transform traditional patterns of behaviour and thought. However, classic transition theory was undermined by the European Fertility Project carried out at Princeton University, which did not find any consistent relationship between the timing of the onset of fertility decline and the different measures of social and economic development associated with transition (Knodel and van de Walle, 1979). Instead, what did appear significant were a series of variables which were classified under the rubric of "culture" in the study: language, ethnicity, religion, geographical region. "Thus were sown" as Greenhalgh puts it, "the seeds of the cultural or diffusion interpretation of fertility decline, arguably the trendiest approach in fertility research today" (1995: 7).

These ideas have been picked up by researchers of contemporary fertility transitions and a version of the cultural paradigm is forcefully argued in Cleland and Wilson (1987). Drawing both on data on European fertility transition as well as from 24 developing countries covered by the 1979 World Fertility Survey, they single out "ideational change" as the main explanation for the shift to smaller family sizes. Ideational change is depicted in terms familiar from modernization theory as a "psychological shift from, *inter alia*, fatalism to a sense of control of destiny, from passivity to the pursuit of achievement, from a religious, tradition-bound and parochial view of the world to a more secular, rational and cosmopolitan one" (p. 9). For these authors "the implications of such general shifts in outlook for attitudes towards and propensity to use birth control are obvious". They adapt the diffusionist tradition within early modernization theory with its focus on media, communications and influential "change agents" as critical to the transmission of modern values from external sources, including the idea of the "calculability" of the world, to explain the process of ideational change in the field of contraceptive technology. Thus stress is laid on the "perceived attributes and advantages of the new discovery, and its compatibility with moral values and social norms" in determining its initial acceptability and the roles of opinion leaders, social networks and inter-spousal communication in disseminating the new ideas (p. 9). Government policies and programmes are singled out as particularly important in this dissemination process and indeed a great deal of the work within this framework points to the success of strong family planning programmes in bringing about fertility decline in the absence of broader socio-economic improvements in standards of living.

What distinguishes the interpretation given to "ideational change" by Cleland and Wilson from earlier formulations in modernization theory is the central role ascribed to ideas concerning **the acceptability and feasibility of birth control** rather than ideas about **the economics of family size** as the motivating force for fertility decline (McNicoll, 1992: 99). There has thus been a shift away from the broader version of transition theory with its emphasis on structural change to a narrower version focusing largely on the diffusion of new knowledge, ideas and attitudes related to contraception. As one proponent of this latter view put it: "[A] detailed proposal for dealing with demographic explosion in developing countries would simply repeat what numerous studies by international agencies have pointed out: that the only practical way to ensure a decrease in fertility rates, and thus in population growth, is to introduce cheap and reliable forms of birth control"

(Kennedy, 1993). Similarly, Robey et al. suggest that while education and urbanization may assist in increasing rates of contraceptive use, they are not necessary prerequisites:

> It would be unfortunate if the family planning programs and the funding sources that supported them failed to respond to the stunning changes in reproductive attitudes that have been observed in many Third World countries. Developed nations must make a substantial philosophical and financial commitment to meeting such needs. Otherwise, the reproductive revolution might be stymied (1993: 67).

As Lockwood (I995) points out, proponents of this view appear to have developed a family planning version of Say's law — viz. that the supply of contraception creates its own demand. The appeal of this form of thinking to powerful donor agencies and to national governments has been such that population policy in much of the Third World has become identified almost solely with the design and delivery of family planning programmes. The danger here, as Demeny points out, is that whatever fertility declines occur in countries where an official family planning programme exists are attributed to such programmes, while where fertility declines fall short of expectations, the argument is that the programmes have not been properly designed: "Thus, success in reducing fertility, or lack of success, can be equally construed as reflecting the state of the supply system and, therefore, as proof of the need for more programme effort" (1993: 249).

2.2 Economic explanations of fertility behaviour

In the early decades of development studies, population variables generally entered economic theories as independent variables in macro-level debates about the relationship between population and economic growth rates rather than as the primary object of explanation (Boserup, 1965; Robinson and Horlacher, 1971). The relative indifference to the processes underlying differential rates of population growth meant that such theories threw little light on the micro-level behavioural foundations of fertility outcomes. This changed considerably with the advent of the New Household Economics (NHE), which focused on precisely those behavioural domains that had traditionally been considered to fall outside the economists' purview: fertility and family formation (Becker, 1960; 1991). Since this model of fertility behaviour has been extremely influential in generating both supportive empirical studies and trenchant critiques from gender analysts as well as demographers, it is worth summarizing it briefly here together with the attempts made to extend, modify and reformulate it in the light of Third World contexts.

The New Household Economics seeks to extend the basic choice-theoretic model of neo-classical economics to the analysis of fertility behaviour on the assumption that the decision to have children is analogous to other economic choices in essential ways: children contribute to utility and they involve the use of scarce resources. Consequently fertility behaviour is specified by the same set of variables which occur in any economic analysis of choice: prices and incomes. Households are depicted as choosing to consume a bundle of commodities (utility-bearing goods and services), subject to their budget constraints. This bundle may either be purchased in the marketplace or produced at home; within a model of fertility behaviour,

children or rather "child services" are included among the possible utility-bearing commodities that households can choose to acquire. As with any "normal"[1] good, an increase in income is, *ceteris paribus*, associated with an increase in the demand for children while an increase in the "price" of children is associated with a decrease.

The decision to have children is therefore made directly analogous to the decision to purchase any other consumer durable such as a car: costly to acquire and maintain initially, but with maintenance costs declining over the life of the child relative to the flow of utility derived from the child. However, a few modifications had to be made to take account of some special characteristics of the fertility decision. The individual could no longer be the primary unit of analysis since the reproduction and care of children entailed an inescapable biological as well as considerable social interdependence between specific categories of individuals, primarily the reproductive couple. Thus one innovative feature of the New Household Economics was the shift in analytical focus from individual behaviour, which had hitherto characterized conventional micro-economic theory, to a concern with household behaviour. A second was the introduction of unpaid as well as paid labour within the household as an aspect of its budget constraint. In place of the conventional focus on "earned income", the NHE substituted "full income" which was calculated by pricing the labour time of household members at the wage they earned in the market or at an imputed wage based on what they could earn in the market.

Other modifications to the theory occurred in the course of empirical testing. Initially, the theory had predicted a positive relationship between family size and income, once knowledge of birth control was held constant. However, data from the United States revealed both an inverse relationship over time between family size and income (suggesting that in conventional economic terms, children were an "inferior" good) as well as a very low income elasticity of children to household income in cross-sectional data (suggesting the possible irrelevance of economic analysis to family size formation). These apparently anomalous results were dealt with in two ways. First of all, the "price" of children was reformulated to include the value of the time spent in child care by parents, typically the mother, along with more conventional elements of child costs such as food, clothing and housing. Thus the cost of time in child care which is measured by the value foregone in other alternative activities is generally equated with the shadow price of women's time. Increases in the foregone value of women's time are considered to have a negative "substitution effect" on the demand for children compared to an increase in the value of men's time, which has a positive "substitution" effect. It is worth noting that this has remained one of the primary ways in which gender is factored into neo-classical understandings of fertility behaviour: by the recognition of a gender division of labour and hence the differing effects of the changing value of women's time compared to men's. The variables brought into the analysis to capture these income and substitution effects were male and female labour force

[1] In economic parlance this refers to goods with the conventional positive relationship between demand and income; an "inferior" good is one for which demand goes up as income goes down.

participation, male and female wage rates and women's education as a proxy for the value of their labour in non-marketed activity.

The second modification, also on the question of costs, introduced the idea of the "quantity-quality" trade-off. As Becker pointed out:

> the small elasticity found for children is not so inconsistent with what is found for goods as soon as quantity and quality income elasticities are distinguished. Increased expenditures on many goods largely take the form of increased quality expenditure per pound, per car, etc. — and the increase in quantity is modest. Similarly, increased expenditures on children largely take the form of increased expenditures per child, while the increase in number of children is very modest (Becker, 1965).

The "quality" of children refers broadly to resource investments per child. A simple but powerful insight into fertility choices is provided by what Becker and Lewis termed the quantity-quality trade-off based on the apparently unassailable logic that "an increase in the quality is more expensive if there are more children because the increase has to apply to more units; similarly, an increase in quantity is more expensive if the children are of higher quality, because higher quality children cost more (Becker and Lewis, 1973: 280). Parents thus face the choice, for a given set of resources, of either investing in many children with low resource investments per child, or investing in fewer children but with higher resource investments per child. One reason why there is likely to be a reduction in fertility rates with economic development is that both availability and returns to investment in children's human capital (education and training, in particular) are likely to increase with the increased division of labour, specialization and upgrading of skill requirements that occur in the course of development; within any population, greater investments in children's education are likely to be associated with smaller family size.

Other modifications of the basic model were undertaken to make it more responsive to the conditions that prevailed in low-income country contexts. Because of its origins in the United States, the model initially focused entirely on the question of child costs. With increasing attempts to test the model in low-income countries, its focus expanded to include possible benefits from children and hence the possibility that net costs are negligible or even negative. This is particularly likely to be the case in low-income agrarian contexts where children contribute to family livelihood strategies through farming or waged labour from an early age and are likely to support their parents in their old age. Another important modification refers to the uncertainty surrounding fertility outcomes — related to the likelihood of miscarriages, stillborns, infant and child mortality — particularly in developing country contexts, so that the utility function has to be reformulated to refer to surviving children rather than total number of births.

The questions addressed by economic approaches to fertility behaviour have led to a very different set of policy recommendations to those of "supply-side" demographers, one which is perhaps closer to the concerns of earlier, more structural versions of demographic transition theory. The concern of economists is with altering the underlying cost-benefit calculus for family size decisions, which in turn reflects such variables as the opportunity cost

of women's labour, as proxied by their employment status and education as well as the returns to, and opportunities for, investing in child quality. The cost of averting a birth is thus only one of the various causes underpinning high fertility rates, and the demand for family planning services occupies a secondary place in economic explanations of fertility differentials, being largely derived from the desire to terminate or space child bearing. Summers (1993) has argued that investment in women's education is a more cost-effective method of averting births than investment in family planning programmes and one with a beneficial social multiplier effect.[2] In fact, Pritchett (1994) dismisses contraceptive availability as a factor in determining fertility because the costs of contraception — which are equivalent to the costs of averting a birth — are thought to be extremely small compared to the costs of an unwanted child. In the same way as the decision to purchase an additional car is unlikely to be influenced by the availability of free motor oil — since the costs of motor oil are only a small fraction of the gross costs associated with such a vehicle — so too the demand for an additional child is likely to be inelastic with respect to contraceptive costs.

2.3 Demographic transition and economic approaches to fertility: The gender dimensions

While differing considerably on policy questions, there are important convergences between economics and demography worth noting, particularly in the treatment of gender issues. While a gender perspective might appear to be central to demography as the study of fertility behaviour, given that gender is not just a, but **the**, organizing principle in the reproduction and care of human beings universally, it was in fact peripheral until very recently and is even now only sporadically incorporated into most contributions in the demographic field. In an earlier analysis, Ware (1981) had pointed out a very marked gender dichotomy evident in its literature. Much of the study of fertility was based on statistics gathered on women while studies of migration, labour force participation and all other more recognizably economic aspects of demographic behaviour focused on men. Women were thus explicitly identified as bearing primary responsibility for prevailing rates of fertility and hence their behaviour came to be implicitly equated with a, or frequently the, major obstacle to economic growth. At the same time their positive contributions to household and national economies were totally overlooked.

Two decades after these observations were made by Ware, demography remains "curiously resistant" to feminist theorizing (Greenhalgh, 1995). In her critique of the treatment of gender issues in transition theory, Greenhalgh suggests that it has relied heavily on two concepts from modernization theory — the role and status of women — both of which have

[2] "[A]n educated mother faces a higher opportunity cost of time spent in caring for the children. She has greater value outside the house and thus has an entirely different set of choices than she would have without education. She is married at a later age and is better able to influence family decisions. She has fewer, healthier children and can insist on the development of all of them, ensuring that her daughters are given a fair chance. And the education of her daughters makes it much more likely that the next generation of girls, as well as boys, will be educated and healthy as well. The vicious circle is thus transformed into a virtuous circle" (Summers, 1993: vii).

been criticized by feminist scholars and largely abandoned in other social sciences. The concept of sex roles, an important feature of modernization theory, stemmed from a view of the "modern" family as based on a rationalized gender division of labour in which men performed instrumental tasks associated with the public world while women performed the expressive functions associated with nurturing and care within the family. With the increasing entry of women into the labour force with the advent of industrialization, and the associated role conflict which they experienced, the conditions were laid for the move to smaller family sizes. The concept of women's status derives from the view that the forces of modernization would sweep away primordial patriarchal relationships within the family and result in greater equality between women and men at home and in the workplace, again leading to reduced reliance by women on their reproductive roles to achieve status in the social world. Since men's status was the implicit norm, indicators used to measure women's status tended to focus on the extent to which women had achieved parity with men in the traditionally male arenas of public life: education, labour force participation and political participation. There is, however, little in the concept of women's status, as defined in this literature, to suggest that gender inequalities are underpinned by power relationships between women and men, that these inequalities might be reconstituted in "modernized" forms within the marketplace and that may give them different and sometimes conflicting interests in decision-making outcomes, particularly in an arena as critical as reproduction.

Finally, it is worth noting the essentially progressive role accorded to modernization, and the accompanying Westernization of values, as far as women's status is concerned, in both classic transition theory and its various offshoots. In the classic version, considerable significance is attached to the improvement of women's status and role in decision-making in the course of modernization; education, in particular, is held up as a vehicle of modern ideas and female education as an indicator of the improved status of women. In post-classic transition theory, educated women are seen as demographic innovators: they are considered more able to pursue their own interests which, as far as theories of ideational change are concerned, are primarily equated with the adoption of small family norms and modern contraception.

Turning to the treatment of gender in conventional neo-classical theories, we again find some attention to empirical differences in the characteristics of women and men (labour force participation rates, wages, education levels, employment patterns) but a complete absence of gender as a power relationship between women and men. While economic models acknowledged the vital role that women played in the reproduction and care of human resources, they ignored the implications of unequal decision-making power and conflicting gender interests within the family in explaining fertility outcomes. The depiction of gender roles within the household was in many ways not that different than that found in modernization theory (see discussion in Kabeer, 1994a Chapter 2). In an assumed gender division of labour within the household not dissimilar to that contained in modernization theory, men were seen as the primary breadwinners, women as the primary carers and secondary earners and households as resolutely altruistic unities. The head of household acted as a

benevolent dictator in allocating resources according to decision rules which would maximize the joint welfare of all members. Once again, conflicting interests within the household and inequalities in decision-making power were precluded from the analytical domain.

Along with this convergence in economic and demographic approaches to gender roles within the household, the two approaches also appear to share a dichotomous view of "culture" and "economics" (Hammel, 1990; Kertzer, 1995). In fact, in as much as gender relations are culturally specific, the weakness of their theorization of gender relations partly reflects the under-theorization of "culture" to be found in both. As Kertzer has pointed out, the tendency of post-classic proponents of "ideational change" has been to equate culture with those variables which are commonly included in large-scale demographic surveys, namely language, ethnicity and religion; very little theoretical attention is given to specifying how these empirical variables might represent the causal mechanisms whereby cultural differences are translated into fertility differentials. Economists, too, have tended to confine themselves to the use of various dummy variables as proxies for "culture" and appear equally uninterested in explaining its precise role in their models. Both groups share an understanding of "culture" as tradition, custom and constraint, operating in opposition to the forces of the market and modernization. And in both sets of theories, the significance of cultural constraints on the exercise of economic rationality is eroded in the course of economic growth and modernization. However, the two groups differ in the significance they attach to cultural constraints versus rational choice in explaining fertility behaviour. Economists have tended to concern themselves largely with the issue of choice, taking cultural constraints as given; demographers in both the classic and post-classic transition traditions have been more concerned with the forces which alter cultural determination of reproductive behaviour and bring the fertility decision into the calculus of conscious choice. The differences in their policy recommendations arise from these diverging preoccupations so that transition theorists have sought to promote the idea and practice of family planning methods as enabling conscious choice as an aspect of reproductive behaviour, while economists have prioritized the creation of economic incentives which promote lower fertility preferences and outcomes.

2.4. Feminist perspectives on population issues: Human rights and reproductive choice

As we noted, feminist interventions, and the attention to reproductive rights which they promote, have largely been absent in the academic journals devoted to population and development issues. The greatest impact of feminist research and advocacy is to be found in the international policy arena and in non-governmental grassroots efforts. A great deal of this advocacy has revolved around the question of reproductive choice as a basic human right, and its impact was evident both at the Vienna Conference on Human Rights in 1993 as well as the International Conference on Population and Development in 1994 where issues of human rights, and of reproductive rights in particular, were central to the conference agendas.

Reproductive rights were not initially a part of the first comprehensive statement of human rights, the Universal Declaration of Human Rights, adopted by the United Nations General Assembly in 1948. Human reproduction was first brought up as a subject of international legal concern at the international human rights conference held in Teheran in 1968, where the Final Act included a provision stating that "parents have a basic human right to decide freely and responsibly on the number and spacing of their children and a right to adequate education and information in this respect". The appearance of this clause on the human rights agenda at that time reflected the growing links being made between population growth and economic growth. However, as Freedman and Isaacs (1993) observe, this juxtaposition of "freely" and "responsibly" has reappeared in almost every international statement of this right to the present time, and it captures the essence of the problem that continues to plague attempts to formulate a practical response to the population question. In particular, they ask how admissible it is for a state to use the considerable resources and authority at its disposal to ensure that its citizens exercise their rights to reproductive decision-making "responsibly". If it is admissible, they ask, then under what circumstances, in what manner, using which criteria and means? And if it is not, then what does deciding responsibly mean in practice? The recommendations from the 1984 International Population Conference in Mexico reaffirmed the link between freedom and responsibility, added that governments could do more to assist people in making their reproductive decisions in a responsible way and offered a very imprecise definition of what responsible decision-making might mean: that individuals exercising their reproductive rights should take into account their own situation, as well the implications of their decision for the balanced development of their children and of the community and society in which they live.

However, the advent of the international women's movement on the development stage has been accompanied by a very different interpretation of reproductive rights, one linking it specifically to women's human rights. Women's rights activists have sought to clarify what a human right to reproductive choice might entail and how it can be protected from the efforts of state authorities to impose their own definitions of what is entailed in the concept of "responsible reproduction". As Sen and Grown put it, "Women know that child bearing is a social, and not purely personal phenomenon: nor do we deny that world population trends are likely to exercise considerable pressure on resources and institutions by the end of this century. But our bodies have become pawns in the struggles among states, religions, male heads of households and private corporations" (1985: 42).

For women's rights activists, the issue of reproductive rights chrystalizes in many ways the whole question of women's rights over their own bodies since it is in the arena of reproduction that women's bodies, health, survival chances and social experiences differ most significantly from those of men. Women's right to bear or not to bear children is considered central to their sense of selfhood and self-determination. Drawing on some of these attempts to clarify the question of reproductive rights, we can identify certain central dimensions to a feminist perspective on population policy. Its fundamental premise is that the proper concern of population policy is to

assist women, as the key agents in the reproductive process from child birth to the care of the family, to establish control over their own bodies; the concerns of the state to establish control over rates of population growth have to be viewed from this vantage point. What would this entail?

First of all, "free and responsible choice" has to be seen in conjunction with a recognition of the inviolability of the human body, respect for which is recognized as a fundamental element of human dignity and freedom. Reproductive rights therefore have to be premised on the right of women and men to control their own bodies. This includes the right not to be alienated from their sexual or reproductive capacity and bodily integrity through coerced sex or marriage, denial of access to birth control, sterilization without informed consent, freedom from unsafe contraceptive methods, from unwanted pregnancies or coerced child bearing, from unwanted medical attention. It is clear from this catalogue that in the arena of reproduction, at least, it is primarily women's bodies and rights which are violated not only by the state but, as Sen and Grown point out, by religious leaders, male household heads, and powerful corporations whose profits rely on the sale of contraceptive technology.

Secondly, reproductive rights need to be grounded in an understanding of the everyday lives of women and in particular their relationships with men. The stress here is on gender equity: and in as much as women are the key agents in the reproductive process — in terms of both bearing children and caring for the family — women's specific needs and interests must be placed in the foreground of the analysis. At the same time, cognisance will also have to be taken of the ways in which men view and influence women's reproductive choices as well as the ways in which men view their own reproductive rights and responsibilities.

Thirdly, from a human rights perspective, there must be equity in the distribution of rights and responsibilities for women and men in deciding on number and spacing of children and in having access to the information, means and education to enable them to exercise these rights. Given that women bear the main costs of child bearing, this requires **trusting** women — enabling them to take control over their reproductive lives by entrusting to them both the ability to make decisions about reproduction and the ability to make those decisions based on access to the necessary information and services (Freedman and Isaacs, 1993). Finally, and in recognition of this point, reproductive rights are only likely to be exercised **effectively and responsibly** by women when certain other economic and social rights and entitlements have been realized. It is the conditions under which choices are made that matter to reproductive rights activists much more than the actual content of women's choices: the right to choose is a meaningless abstraction if women are powerless to choose (Petchesky, 1984:11).
The ICPD Programme of Action represented the culmination of several years of feminist advocacy in the field of population and development and contained the most explicit recognition yet of their basic demands. It reaffirmed once again the principles of "free and responsible" decision-making about number and spacing of children but framed it within a clearly spelt out commitment to human rights. In the words of the UNFPA,

> The ICPD Programme of Action marks the evolution in perception of population issues over the past two decades. It places human rights and well-being explicitly at the centre of all population and sustainable development activities. The Programme of Action moves discussion beyond population numbers and demographic targets: its premise is that development objectives — including early stabilization of population growth — can be achieved only by basing policies and programmes on the human rights, the needs and aspirations of individual women and men. Human-centred development — in the sense of investing in people generally, and particularly in health, education and building equity and equality between the sexes — is seen as a firm basis for sustained economic growth and sustainable development (UNFPA, 1995:9).

It is clear from this statement that there is a considerable distance between the feminist advocacy which lay behind the adoption of the ICPD platform and the policy concerns highlighted in much of the academic work on population and development discussed in the preceding sections. There is little recognition of the needs and interests of women as reproductive actors within much of the academic discourse of economists and demographers, but equally, it could be said that the gender advocacy claims made at ICPD take no cognisance of considerable development achievements — including early stabilization of population growth — which have occurred with little or no attention to the question of gender equality. In the next section we will consider some of the empirical findings on reproductive goals and behaviour in different regions of the world in order to demonstrate that, while transition theorists and economists have provided some useful insights into the way such relationships work, these insights have been partial and incomplete and have tended to overlook the vital issues of human agency, well-being and interests, and the gender inequalities embedded in them, in the field of reproduction. However, it will also be clear from our discussion that the claims of some feminist advocates that there is a necessary synergy between gender equality and the achievement of many development objectives — including early stabilization of population growth, the "win-win" style of advocacy (Jackson, 1993) — is not always borne out in practice in all situations. Consequently, a human rights perspective — with a particular emphasis on reproductive rights — in population policy has to be argued for as an intrinsic component in a human-centred development, rather than in instrumental terms as a means of achieving conventional development goals. Unless this challenge is recognized and taken on, the ICPD Programme of Action will remain in the domain of symbolic politics, while actual policies continue to be defined as the control and management of numbers, frequently at the expense of the well-being, agency and interests of the human actors involved.

SECTION 3
Gender and the Social Organization of Reproduction

3.1 Family structures and the distribution of reproductive costs and benefits

Different theoretical perspectives frame the questions asked, the methods used and the evidence sought, consequently setting firm boundaries around the aspects of social reality which are investigated. This partly explains why researchers of all persuasions are apt to find the evidence which supports their preferred interpretation of empirical phenomena. And because much of both economic and demographic investigation of population questions tends to be conducted in highly aggregated and generalized terms, often taking the form of cross-country comparisons and relying on purely quantitative techniques, more nuanced insights into the empirical realities and local-level variations which might contradict or complicate this generalized picture tend to be precluded from the analysis (Johannson, 1994). Such research is premised on, and helps to reinforce, the view that a uniform set of explanatory variables must have the same effects everywhere, irrespective of context, although economists and demographers have utilized this premise differently with differing conclusions. Those supporting economic interpretations of fertility behaviour — including both economists and many transition theorists — have sought to demonstrate the significance of the costs and benefits of children in explaining variations in fertility behaviour in most contexts. Those subscribing to the ideational model of change suggest that the fact that different economic variables do not have the same impact in all contexts — and may have no impact at all in some contexts — is sufficient grounds for rejecting economic explanations for fertility behaviour; instead they advocate some combination of cultural variables and family planning programmes as a more viable alternative explanation.

However, the measurement and statistical comparison of the effects of a uniform set of economic or policy variables across a large number of sub-populations that do not share the same context is not a meaningful activity (Johannson, 1994). Methodological reservations about the search for universal explanations are likely to have a particular resonance when the area under investigation is one as loaded with cultural meanings, social significance, personal emotions and material ramifications as reproductive behaviour, and we can only echo Das Gupta's observation on his own attempts to delve into this literature:

> ....it is well to note that, to anyone who is not a demographer, economic demography is a most frustrating subject. It would seem that, for any theoretical prediction on, say, fertility matters, no matter how innocuous, there is some set of data from some part of the world over some period that is not consonant with it. The springs of human behaviour in an activity at once so personal and so social as procreation are so complex and interconnected that empirical confirmations of ideas are always shot through with difficulty (1993:349).

If there is one generalizable statement to make about the causes and processes of fertility transition, it would be that, regardless of the universalistic claims of both economic and transition theories, there is no single universal cause or process behind the onset of fertility decline in the Third World, probably because there is no single uniform universe. The very inconclusiveness of universalist explanations becomes apparent when an attempt is made to ascertain their success in predicting fertility behaviour. Government family planning programmes, prioritized in "supply-side" explanations of contemporary fertility declines, have clearly been important in enabling many societies to achieve lower fertility rates — societies as varied as Indonesia, Bangladesh and China; equally, however, fertility rates have declined in other contexts long before such programmes became widely available — e.g. Sri Lanka, Viet Nam and Kerala. High female labour force participation, identified by economists as a proxy for the opportunity cost of child care, has not been necessary for fertility decline in some Asian countries or sufficient in many African countries. In many parts of sub-Saharan Africa, average years of school per child appears to be positively related to family size, belying the prediction that quantity has to be traded off against quality of children.

The education of women has also been singled out as a fertility-reducing variable by economists for a variety of reasons: it increases the opportunity costs of caring for children; expands women's aspirations and choices; delays their age of marriage; and alters their preferences so that they have fewer and healthier children (Summers, 1993). Empirically, however, the effect of women's education varies considerably across the world. Of 24 countries covered by the World Fertility Survey, it appeared to be significant in explaining fertility differentials in 13 countries; on the other hand it had little or no effect in 11 (Thomas, 1991). In their forthcoming book on these questions in the South Asian context, Jeffery and Basu suggest that, even within a single region, the relevance of either women's education or strong family planning programmes for fertility transition is by no means clear cut.

Nor is it always evident that women's education is measuring the opportunity costs of women's time in child care, as Beckerian economists suggest. Rather the data suggest that the relationship between female education and fertility is constituted by a number of different elements, not all of which are relevant, or equally relevant, in all contexts. Female education can sometimes be taken as a proxy for the opportunity costs of child care, as suggested by economists; in other situations, it acts as a measure of attitudes, knowledge and ability to use family planning, as suggested by Cleland and Wilson. In addition, it may also be picking up some more intangible aspect of women's agency, as suggested by Drèze and Sen (1995); or it may operate by improving women's capacity to care for children, thereby lowering child mortality rates and, as a consequence, birth rates (Jeffery and Basu, forthcoming).

Attempts to extract meaningful generalizations from the empirical literature are further confounded by the differences in levels of analysis; findings that may hold when whole regions or countries are used as the unit of analysis are often very different from those that emerge when analysis is conducted

using lower-level units, such as districts, households or individuals. For example, on the basis of cross-country analysis, Cleland and Wilson rule out any independent effect for female labour force participation on fertility rates, once female schooling is controlled for; however, we will be citing a number of country-specific studies which suggest that, in certain circumstances, women's labour force participation does have a significant effect on fertility, independent of female education.

These and other examples of "perverse" empirical findings have led to a more substantive concern with the household, the key locus of reproductive decision-making in most societies, and helped to establish it as a culturally constructed set of arrangements with varying internal structures and external contexts and hence concomitant diversity in the distribution of costs, benefits and agency in reproductive decision-making. Economic attempts in this field dovetail with a growing body of empirically-grounded research into the broader cultural contexts in which reproductive behaviour is played out (Boserup, 1970; Cain 1984a and b; McNicoll and Cain, 1989; Sen, 1990b; Drèze and Sen, 1995; Caldwell, 1982; Kandiyoti, 1985). While different sections of this literature may subscribe to quite different views about the causal mechanisms by which social organization and reproductive behaviour are related, they have helped to point to the regionally distinct forms that householding arrangements have assumed, the broader institutional contexts in which they are located, and hence the very different incentive structures that are generated for reproductive behaviour. In addition, they have pointed to the relevance of policies other than those explicitly concerned with population and family planning, in modifying, reinforcing or countering these incentive structures (McNicoll and Cain, 1989; Johansson, 1994). The main concern of these writers is not so much to establish why fertility rates differ across individuals or households within a specific context but why fertility levels are high, low or changing within that context. Once the broader institutional and policy context has been established, together with the particular gravitational field of reproductive incentives which it generates (Demeny, 1988), the effect, or lack of effect, of specific policy or economic variables in different contexts becomes easier to comprehend since all such variables are mediated through these varying "meso-level" social relations. The significance of the social organization of production and reproduction lies in the fact that it is both a reflection of broader resource endowment patterns in a society as well as a critical intervening level of analysis, filtering the impact of changing market and state signals.

Two organizational parameters stand out from the literature as particularly significant in generating different patterns of gender relations:

a) the degree of "corporateness" or otherwise of the conjugal unit around which the boundaries of the household economy are organized;
b) the degree of public mobility and hence opportunities for direct economic participation permitted to women.

While not unrelated, each of these features has implications for the extent to which women are able to exercise agency on their own behalf and the extent to which they are valued as economic assets by their households; this, in

turn, has repercussions for the kinds of reproductive strategies favoured by different household members and the extent to which these strategies lead to gender-discriminatory outcomes. Cross-cultural empirical research suggests the existence of a range of householding patterns, embodying different degrees of corporateness in household organization and offering differing scope for independent female activities, and hence associated with varying distributions of the costs and benefits of family size among family members and giving rise to varying patterns of reproductive goals. For analytical purposes, we can distinguish between four categories of domestic organization: corporate households with little scope for independent forms of female activity; corporate households with an established tradition of female mobility and independent activity; segmented households combined with independent female activity; and segmented households where women's labour is subsumed as household labour under the control of a household head. In reality, of course, these categories leak into each other and are in any case constantly modified by historical events; nevertheless, even in contexts of change, older forms of social organization are relevant in setting the parameters within which change occurs and hence the forms that it is likely to take.

The first of our four categories characterizes what could be described as the belt of "strong" patriarchy[3] stretching from northern Africa to Bangladesh, across the Middle East and the northern plains of South Asia and also including East Asia. In other words, regions which have widely differing economies, histories, cultures and religions, but which nevertheless share certain formal features of social organization. Kinship is predominantly patrilineal and post-marital residence is patrilocal, requiring women to integrate into the affinal family. Households are organized along highly corporate lines, based on strong conjugal bonds and on cultural rules which focus on male responsibility for the protection and provisioning of women and children. Dowry is frequently the norm in many of these countries. There is a strong premium on female chastity (and consequent penalties for any transgression) which is considered essential for ensuring that the transmission of property is based on biological fatherhood. In the Arab countries of the Middle East and in the South Asian context, female chastity is ensured through norms of *purdah,* which confine women to the precincts of their household. In addition, historical evidence on pre-revolutionary China also testifies to the existence of a public-private dichotomy with women largely confined to household-based production and men predominant in production, trade and commerce (Jacka, 1992). Restrictions on female mobility, together with patrilineal inheritance and patrilocal residence, interlock to produce highly visible forms of female dependency in this belt (Kandiyoti, 1985; Dyson and Moore, 1983, Cain, 1984a and b). These older norms and practices have been considerably altered by the more recent histories of these regions but, as we will see, they still form some of the cultural material out of which new ideas and practices are fashioned.

A different and less rigid set of gender relations — what could be described as "weaker patriarchies" — characterize kinship systems in South India and South-East Asia (Cambodia, Indonesia, Laos, Malaysia, Myanmar, the

[3] The phrase comes from Cain, 1984a.

Philippines, Thailand and Viet Nam). Here too, households are organized on a corporate basis centred on the conjugal relationship but there is a much greater degree of public mobility allowed to women, resulting for instance in higher rates of female labour force participation in both agricultural production and in marketing and trade. For instance in her classic work on women and development, Boserup (1970) noted that women made up around half the labour force engaged in commerce and trading in the countries of South-East Asia compared to less than 10 per cent in the South Asian context and the Middle East. Women's greater involvement in trading is associated with greater responsibility for managing household finances and women in South-East Asia are usually in charge of the household budget. The region is also characterized by flexibility in post-marital residence practices, instead of neo-local marriages, and a greater incidence of brideprice. Kinship patterns are often bilateral, with women having some rights of inheritance, relative flexibility of marital residence and continuing interaction with their natal families after marriage (Hirschman and Guest, 1990; Pyne, 1994).

For the purposes of this paper we can therefore distinguish between three distinct regional blocs in Asia: South, East and South-East. These regions represent considerable diversity in terms of history, colonial experience, religion and current political and economic structures. Hence any changes in fertility behaviour are likely to be shaped by very different and distinct forces of change in each region. In addition, however, demographic changes are likely to be mediated by the two gender-patterning variables identified above, as will be explored in some detail later in the paper. Despite various intra-regional variations, what the "Asian" household systems do have in common is that they are generally organized around strong conjugal bonds and along corporate lines (Cain, 1984a and b).

Such systems contrast with the weaker cohesiveness of the conjugal unit in sub-Saharan Africa, the Caribbean — where consensual unions are an important feature — and parts of Latin America. Since this paper will be looking at fertility behaviour in sub-Saharan Africa, it is worth noting some key features of household structures and the gender division of labour in the region. The empirical literature suggests considerable segmentation of householding arrangements, often with non-coterminous units of production and reproduction and separate accounting systems within the conjugal unit. The emphasis tends to be on lineage rather than on conjugal ties. In these contexts, women and men are assigned responsibility for separate aspects of household provisioning as well as claims on resources to enable them to discharge these responsibilities. Women are generally responsible for food provisioning for the family and caring for their children. Female seclusion is by and large not a feature of gender relations in this part of the world, although it does occur among some communities such as the Muslim Hausa in Nigeria. However, such seclusion occurs within segmented household structures and Hausa women retain considerable economic autonomy, continue to manage their own enterprises and to engage in "internal market" transactions with their husbands (Palmer, 1991).

However, within the African context, there are important regional differences in the social organization of kinship and gender relations. The

most prevalent landholding pattern is one where a woman obtains usufructuary rights to land from her husband's lineage group. In much of Eastern and Southern Africa, women's labour contribution tends to be subsumed in the cultivation of "household fields" over which men have ultimate control. In West Africa, however, it is much more common for women and men to have separate own-account holdings over which they exercise independent rights of cultivation and disposal. Matriliny is also more common in the West African context and is associated with the ability of married women to retain links with their families of origin. In addition, the greater frequency of polygamous marriages in West and Central Africa, together with the fact that such marriages are generally associated with separate spousal budgets, also leads to greater female autonomy within the family structure. Over 40 per cent of currently married women in this region are in polygamous unions. The equivalent figures are around 20-30 per cent in East Africa and around 20 per cent or less in Southern Africa. It can thus be seen that within the more segmented householding systems of sub-Saharan Africa and with the greater significance of lineage as a organizing principle, there are likely to be variations in the scope for women to exercise some amount of economic agency.

Reproductive behaviour across the world is thus played out in very different domestic arrangements and cultural systems so that changes in the costs and benefits of children are likely to be distributed among relevant household actors in very different ways, often leading to outcomes which could not be predicted using the conventional economic demographic theoretical apparatus. In the empirical discussion which follows, we will be concerned with the relevance of a gender analysis to two different levels of reproductive behaviour. The first aspect focuses on demographic outcomes and, in particular, on the gender dimensions of the trade-off between investing in the "quality" and "quantity" of children, concepts which economists have pioneered in the field of population studies. The second, and closely related, aspect concerns the question of reproductive interests and agency: how do culture and economics interact to shape the distribution of costs and benefits of different reproductive strategies for key actors within the domestic domain, and what does this imply for the "quantity" and "quality" of family size which they perceive as best serving their interests. We begin this discussion in the rest of this section by focusing on the question of "quantity": what are the main factors influencing family size outcomes in different contexts and how do gender differences in interests and agency shape the observed outcomes. In the next section, we will turn to the question of gender interests and agency in shaping the quantity-quality trade-off.

3.2 Gender, agency and family size: Alternative hypotheses

As we saw, neither demographic transition theory nor economic approaches to fertility behaviour paid a great deal of attention to intra-household power relations and their implications for reproductive decision-making and outcomes. This has not been the case in more institutionally-sensitive analyses of reproductive behaviour. Within this latter tradition, most writers have agreed on the existence of significant gender inequalities in the distribution of resources, responsibilities and decision-making power within the household. They have, however, diverged in the extent to which they emphasize the potential for convergence in or the likelihood of conflict between gender interests concerning reproductive outcomes. These provide one set of hypotheses around which the subsequent discussion will be organized.

One set of writings has drawn attention to the high fertility consequences of major gender inequalities in reproductive costs, benefits and decision-making power within the household. Caldwell (1982), for instance, suggests that within patriarchal kinship organizations, whether in Africa or Asia, the patriarchal head who is the key decision-maker, enjoys a situational advantage from high fertility in that he reaps most of the benefits but is able to diffuse the costs through the family system. Women bear a disproportionate amount of these costs, since they undertake most of the labour involved in child care and, in sub-Saharan African contexts, also many of the food and health costs of children. Men, on the other hand, have both the material incentives, as well as the decision-making power, to act as "reproductive free-riders" (Das Gupta, 1993). In both Caldwell's, and Dyson and Moore's (1983) work, there is an implicit assumption that women are likely to have a greater interest in curtailing fertility rates and that high fertility rates tend to reflect male preferences and interests.

In addition to the economic costs of high fertility to the household, a number of researchers have also singled out one highly gender-specific category of costs entailed in child bearing with particular repercussions in poorer regions of the world where health facilities are poorly developed. The reproduction of the species is inescapably a bodily process and it is women's bodies that are centrally involved. The physical costs of giving birth, and of repeated deliveries, and the energy costs of breast-feeding children are rarely factored into economic models which tend to be premised on the concept of a disembodied economic agent. Yet maternal mortality is the single largest cause of death among women in the reproductive years in most poor countries while early, frequent and prolonged child bearing has serious implications for women's health and well-being. As Watkins points out (1993), whether or not the economic costs and benefits differ for women and men, the non-economic "bodily" costs are undeniably very different and, we could add, are likely to give women a distinctive and highly gender specific interest in the spacing and frequency of births.

While this body of work suggests that there is a divergence in reproductive gender interests within the household, with women generally favouring lower fertility rates than men, Cain (1984b), Frank and McNicoll (1987),

Frank (1988) and others have pointed to the existence of countervailing influences. Cain suggests that, where large numbers of children are essential to the smooth functioning of the family as a corporately organized joint venture engaged in ensuring the survival and security of family members, all members of the households stand to gain from a high fertility strategy even if the gains are of different magnitudes for women and men and are experienced through different mechanisms. In fact, where women are denied access to independent resources of their own and must rely on family-based entitlements for their survival and security, they are likely to want large families, regardless of their husband's preferences. If these material incentives are also backed by a general cultural preference for sons, there is likely to be a convergence regarding family size preferences, with women's interests better served by high fertility rates to ensure at least one son who survives into adulthood. Frank and McNicoll point to different and gender-specific rationales which might underpin the desire for large numbers of children by both women and men in sub-Saharan African contexts: men because they do not bear the costs but benefit from the labour pool of a large family and women because it gives them a claim on male resources and support.

These two sets of analysis appear to offer contradicting hypotheses concerning women's stake in high fertility in that one suggests that patriarchally-engendered insecurities give women an independent stake in high fertility strategies, regardless of men's interests, while the other suggests that women have a gender-specific interest in controlling fertility, regardless of men's interests. In fact, both may be true but take on differing relative significance in different contexts and at different stages of development. In societies where women's longer term security considerations continue to dictate conformity with high fertility norms, even if this entails a sacrifice of their physical health and well-being, they are likely to favour large family size, regardless of (but usually in line with) men's reproductive preferences. This may help to explain why family size preferences reported by men and women in so many large-scale surveys do not display a great deal of difference (Mason and Taj, 1987). It is only when the broader context shaping the returns from family size begins to alter — to the extent that such returns are less certain for women — that considerations of their own survival, well-being and preferences will become more pressing in women's reproductive strategies. Thus women may have a very gender-specific interest in having fewer children. It is worth noting in this connection that Mason and Taj (1987) found both that women were less likely to express strong son preference than men and were also more likely not to want additional children — but this interest only becomes effective when they either do not need to rely on patriarchal protection, or when they no longer can.

3.3 Gender, agency and the quantity-quality trade-off: Alternative hypotheses

Gender analysis is thus relevant to considering reproductive interests concerning family size within the family. It is also relevant in examining the considerations which shape the trade-off between quantity and quality in reproductive decision-making, and hence in the distribution of resources

invested in children. Again, this is not immediately evident from a reading of conventional economic analysis, which is premised on certain assumptions about the nature of intra-household allocative decisions that shape, in turn, the form in which the quantity-quality trade-off is conceptualized. As we noted earlier, "quality" investments in children are generally taken to refer to investments in their "human capital" such as education and training, economic forces which promote increased investments per child are seen as conducive to the declining demand for children. The trade-off itself is seen as purely between numbers of children and resources per child.

However, as Lloyd (1994) has pointed out, there are a number of assumptions that have to hold for this logic to work in practice. First of all, it assumes a bounded nuclear family model of the household in which children consume family resources but do not contribute to them and in which the costs of family size are borne primarily by the reproductive couple. Now, while it may be the case that in most industrialized countries, children remain net consumers until they have completed their education and reached adulthood, there is sufficient evidence from low income countries to suggest that children contribute in various ways to household resources from quite early on in their lives to the extent that they become self-financing by the time they have reached adolescence. Older children can then begin to contribute to the household economy and to the costs of younger children. Some of this evidence comes from the Philippines and Botswana, where children's domestic work time was found to be greater in households with more children, and from Brazil, where older children with more young siblings were more likely to be economically active; in all these cases, children, particularly older children, help to defray some of the costs of family size (Lloyd, 1994).

However, a second assumption in economic models, and one that is particularly relevant to the concerns of this paper, is that parents choose to divide available resources equitably among all children so that there is a gender-neutral trade-off between quantity and quality. In a later section of this paper, we will be exploring the circumstances under which this is the case as well as those under which the trade-off operates in a gender-discriminatory fashion. The hypothesis we will be arguing is that the neutrality or otherwise of the quantity-quality trade-off is closely related to the gender dynamics of the different householding systems that we have been discussing. What also becomes evident is that, while economists have tended to formulate their analysis of the quantity-quality trade-off entirely in terms of the "human capital" of children, there is disturbing evidence that in areas of the world characterized by strong son preference, the quantity-quality trade-off is mediated by gender in relation to investments in basic survival needs. Here the terms of the trade-off are manipulated through such practices as female infanticide, sex-selective abortions, the malign neglect of daughters leading to excess female mortality as well as the more commonly noted gender inequalities in education. The trade-off is not between numbers of children and education per child, but between numbers of sons and investment per son — with the survival and investment in daughters used instrumentally to ensure the achievement of the former goal. What also becomes evident is that the two gender dimensions of reproductive

behaviour that we are discussing in this paper are intimately related: gender discrimination in relation to the investments in quality and survival of children reflects gender inequalities in reproductive agency among parents. Where women are economically and socially devalued and deprived of independent productive resources, daughters are also devalued and deprived of basic consumption resources to the extent that their life chances are threatened.

At a very broad level this is evident in the international "geography of gender" and the spatial distribution of strong son preference. Son preference is most marked in what we have described as the belt of strong patriarchy, namely the Middle East, northern areas of South Asia and East Asia. Moderate or non-existent son preference is characteristic of South-East Asia, sub-Saharan Africa and most industrialized countries. Even more striking is the fact that the geographical distribution of strong son preference roughly approximates the geographical distribution of "masculine" sex ratios, believed to reflect gender differentials in mortality rates. The Middle East, northern areas of Africa, the Indian sub-continent and China were all characterized by ratios of over 105 males per 100 females in the 1980s (Townsend and Momsen, 1987). Using evidence from Demographic and Health Surveys from 40 developing countries (excluding India and China) Hill and Upchurch (1995) note that excess female mortality among children is most marked in the Middle East belt and close to the median value in Latin America and sub-Saharan Africa.

Marked masculinity of sex ratios in a population are the reverse of the pattern expected on the basis of biological **sex** differentials in chances of survival. Biological factors favour longer life expectancies for women than men: more males are conceived than females — the biological norm is estimated at around 105 male births to 100 female — but males tend to be more vulnerable both before and after birth. Male infants have greater immaturity of lungs at birth and higher mortality due to respiratory distress and illness (Svedberg, 1990). Male infants may also have inherently lower levels of certain components of immune resistance and hence greater vulnerability to some types of infectious diseases. Biological advantages at birth account for the fact that most regions of the world tend to have a predominance of females in their populations. Yet so significant is the weight of socially constituted **gender** disadvantage in outweighing and reversing biological patterns in some regions that, despite biologically "normal" patterns elsewhere, the world is missing a great many more than 100 million women (Sen, 1990a).

In the rest of the paper we will be exploring in greater empirical detail how reproductive gender interests — the stake that women and men within the family structure have in maintaining or seeking to change prevailing reproductive outcomes — are likely to be shaped by the social organization of households as well as the wider socio-economic contexts in which these households are located. We will be discussing these questions in relation to family size outcomes as well as to the various forms that the quantity-quality trade-off can take. Such an analysis will help to demonstrate the non-viability of single, universal explanations of fertility behaviour and demographic change, whether such explanations take the form of the

conventional economic variables shaping the costs and benefits of children or whether they focus on the availability or otherwise of family planning programmes. It will also highlight the significance of the social organization of production and reproduction in explaining reproductive outcomes, not as an alternative form of "cultural" determinism but as the mediating relations through which relevant individuals or groups of individuals experience any kind of policy or market-related change in the costs and benefits of children and through which their individual actions and decisions shape demographic patterns.

SECTION 4
Gender and Reproductive Outcomes in Segmented Householding Systems: Sub-Saharan Africa

4.1 The gender distribution of reproductive costs and benefits within segmented households

The countries which are generally held to constitute "the Third World" have become increasingly differentiated over the past decades of development planning. As McNicoll notes, while they had almost uniformly high fertility rates in the 1950s and 1960s — a population-weighted average total fertility rate of about 6 — by the late 1980s, total fertility rates had dropped to below 4, a transition that was accompanied by a "progressive differentiation in the demographic, economic and political experiences of the constituent countries, and hence of the coherence of the whole concept of a Third World" (1992:85). The least evidence of demographic change is to be found in sub-Saharan Africa, which continues to have high and relatively stable rates of fertility. Desired family sizes are also high, ranging from 6-8 children and the proportions of women seeking to limit family size are uniformly low (Cleland and Wilson, 1987). As Cochrane and Farid (1989) remark, both the urban and the rural, the educated and the uneducated in sub-Saharan Africa have more, and want more, children than their counterparts in other regions: younger women in sub-Saharan Africa wanted an average of 2.6 more children than women in the Middle East; 2.8 more than in North Africa; around 3.7 more than in Latin America and Asia. A number of exceptions to this overall picture of reproductive stability in the African context have emerged since the late 1980s and fertility decline has been reported for Kenya, Zimbabwe and Botswana. We will return to possible explanations for this in the next section.

Many of the conventional variables associated with high fertility do not appear to have the same relevance in this part of the world (Cleland and Wilson, 1987). Parts of Africa have higher rates of literacy and survivorship than much of the Indian sub-continent without the expected lower levels of fertility. Similarly, while low densities of population and abundant availability of land in Africa could, and are, used to suggest that there is little incentive to shift to smaller family sizes, such an argument could equally apply to parts of Latin America without the same apparent fertility effect. Not surprisingly, the African case is often used to promote the culturalist explanation of high fertility viz. "the indisputable strength of pro-

natalist sentiment" and the "relative isolation" of the African sub-continent from the onslaught of "new knowledge and values from the industrialized to the developing world" (Cleland and Wilson, 1987:27) so that fertility transition becomes a matter of breaking down these barriers and disseminating new ideas, attitudes and techniques of family planning.

In fact, a closer examination of the empirical literature on sub-Saharan Africa confirms the relevance of cultural explanations, but also highlights the difficulty of isolating culture from its institutional surrounds. In societies where land has traditionally been held communally by patrilineage groups, where landlessness and wage labour were largely absent and where access to land depended on the availability of family labour, it has been in the interests of families to expand the size of their membership. In addition, child mortality has a particular significance in a context where family labour is a key resource and where most women could expect to have lost about a third of their offspring by the end of their reproductive years. Pro-natalist cultural beliefs and social structures can therefore be seen as reflections of broader material considerations pertaining to the value of labour and access to land.

A gender analysis of these cultural beliefs and practices helps further to identify certain features of householding systems in the African context which are likely to uphold high fertility rates and to slow down the pace of reproductive response to changing economic circumstances. A distinctive feature of family structures in the African context is the internal segmentation of the child bearing and child rearing unit and an associated divergence between making a living (economic behaviour) and building a family (demographic behaviour). The reproductive couple consists, on the one hand, of a father/husband who is able to exercise a major decision-making role without being the main breadwinner and, on the other, of an economically autonomous wife and mother (Frank, 1988; Frank and McNicoll, 1987). Each member of the reproductive couple is more strongly affiliated by lineage rather than conjugal bond. The conjugal bond is further weakened by the practice of polygamy in parts of Africa and the associated non-coresidence of the reproductive couple. Polygamy allows husbands to acquire rights over the labour of more than one woman and over a larger number of children. It also allows the costs of children to men to be spread out over several decades so that they are diffused, rather than clustered, over the father's lifetime and earnings from older siblings can help to offset costs of younger children. The costs of brideprice do not necessarily penalize fathers for high fertility since they receive brideprice for their daughters and, increasingly, sons work to assemble their own brideprice. The diffusion of child costs beyond the reproductive couple across the broader lineage group and the practice of child fostering are further means by which the expenses associated with large families do not devolve on parents alone.

Male headship in much of the sub-Saharan African context is linked to their control over land and over the labour of their wife, or wives, and children. Marriage involves contractual remittance of a brideprice to the parents, and lineage of the women by the husband and his lineage in order to entitle them to all the children borne by the women, whether her husband's or not. The marriage contract entitles husband not only to children borne to wife but

also to her labour. Once brideprice has been paid off, child bearing becomes relatively cost-free for the father. Recurring costs may be less directly perceived, particularly if the husband is a non-coresident member of the household(s), a feature frequently observed in polygamous marriages. On the other hand, the benefits of increasing his own and his lineage's constituency are considerable. Husbands thus own assets, have ultimate rights over children and their labour, and grant access to their wife or wives to both on condition that they conform to his reproductive goals and meet the subsistence needs of the family. Women, on the other hand, are primarily responsible for producing or purchasing the necessary sustenance for their family — children and often husband. The majority of women in Africa discharge these obligations through subsistence-oriented farming but they rarely own land in their own right. Thus they have neither assets of their own nor rights over their own children, but they nevertheless have to absorb most of the economic costs of bearing and raising them without ever being sure of how many of these costs their husbands are going to share.

At the heart of the fertility calculus in much of the sub-Saharan African context, therefore, is a disjuncture between those who control economic resources and those who need to access them. As Frank and McNicoll point out, men control the key economic resources necessary for survival but women have to ensure the reproduction, care and survival of the family through their own efforts: "the structural and status dependency of women co-exists with the requirement for virtual self-sufficiency" (1987:11). The cleavage within the reproductive nucleus of the family and the separate reinforcement of the norms of bread winning and of child bearing have led to "an apparent impermeability to notions of mutual relevance of the two spheres of behaviour" (1987:5). The result has been a form of male free-riding in that they are able to reap the benefits of having large numbers of children but are not compelled to bear the costs.

However, this does not rule out women's interests also being served by having large numbers of children. As Frank and McNicoll note, high fertility is a critical instrument because it simultaneously serves several different imperatives. First of all, it is crucial to women's fulfilment of the marriage contract in order not to renege on their obligations to their own lineage by jeopardizing the transfer of brideprice to their families (and from which they may also derive benefit). A second related reason is that in order to secure access to the assets to support the family, women must bear children in numbers which serve their husband's interests. Repudiation by their husbands because of inability to bear children or low fertility may result in demands for reimbursement of brideprice and lead to loss of livelihood because of loss of usufruct rights. In the event of divorce, women lose their children. A third reason why women are likely to support high rates of fertility relates to the more direct benefits that they derive from their children. Children help in lessening women's workload in both domestic and farming tasks. They are also likely to be an important source of support in their old age, a factor that is often important given the wide gap between spousal ages, particularly in polygamous marriages.

One aspect of reproductive practice which testifies to the high value given to children in general in the sub-Saharan African context is the greater

acceptability of women bearing children outside marital relationships or established partners (Caldwell et al., 1992). Unlike the societies of the belt of "strong patriarchy", where powerful social controls are exercised over women's sexuality in order to ensure certainty of paternity for the patrilineal transmission of descent and property, the preoccupation here is with fertility rather than chastity, and social penalties fall on those who are barren or bear few children. Examining the implications of this in Swazi society, Russel (1993) notes the variety of customary practices which exist for dealing with the high rates of births before marriage, confirming it as a long-established phenomenon. These institutional rules and practices evolved at a time when children were highly valued to society both as labour and for the numerical strength of the lineage in a context where mortality was high. Though age of marriage is late among Swazi women, reproductive outcomes resemble those of a society with very early marriage since both marital and pre-marital fertility rates are high. Around a third of all Swazi women over the age of 20 are unmarried mothers although most eventually do marry, usually when they reach their thirties. In 1988, the ideal number of children for women was 4.2 and for men was 5.1, and there was still considerable resistance to contraception.

However, there is evidence of changing attitudes to children as the conditions in which they are valued as assets are eroded and new forms of expenses emerge — school fees, bus fares, new food commodities — all of which require cash that children cannot earn. An important point emerging from Russel's analysis is that these changes in the fertility calculus are becoming evident in an institutional context which does not conform to that depicted in conventional economic theory and hence take a form which does not conform to the responses predicted by such theory. In Swaziland, these changes are only partly expressed in lowered fertility rates — there was a slight decline in birth rates since the mid-1970s from just under 7 births to 6.6 in the late 1980s. Rather, they are evident more indirectly in changing practices around marriage. There is increasing emphasis on those aspects of marriage ceremonies which give a man sexual access to a woman over those which give him claims to her children. There has also been a decline in men's exercise of their prerogative to acquire rights over their extra-marital children. Both these are symptoms of an emerging indifference to the acquisition of children. While earlier studies had emphasized the eagerness with which men exercised the option to claim children, leaving women free to marry elsewhere if they wished, this is less the case in recent times. A national sample survey in 1989 showed that only 21 per cent of eligible children had been acquired by the father in this way; more frequently, the mother's parents had to approach the father's kin to request that they take responsibility for the child.[4]

The general argument being made here is that the fertility calculus of parents is mediated in the African context by a very different set of family structures to those found, for instance, in regions of Asia. Changes in the calculus are thus likely to have highly varied empirical manifestations. If

[4] From a different study, Launay (1995) also notes that the rise of "illegitimate" children among the Dyulu of Côte d'Ivoire in recent times reflects not so much changes in sexual behaviour, but rather the unwillingness of husbands to claim as their own any children their wives have had outside marriage because of the additional responsibilities involved.

this is the case, it suggests that the early onset of marked fertility decline in eastern and southern African countries — but not in West Africa — is likely to reflect both differences in the economic values of children, but also differences in how perceived changes in these values are mediated and shaped by differing family structures.

4.2 Gender interests and family size outcomes in segmented householding systems: East and West Africa

To explore this possibility in greater detail, we turn to an attempt by Gage and Njogu (1994) to ascertain the factors that might explain why Kenya, in East Africa, has recently reported a dramatic decline in its fertility rates while Ghana, in West Africa, continues to have high and stable rates. Fertility fell in Kenya from around 7.9 births per woman in the late 1970s to 6.7 (a decline of around 15 per cent) in the late 1980s, and then to 5.4 per cent in 1993. This has been described as "one of the most precipitous declines in fertility ever recorded" (National Council for Population and Development et al., 1993:8 cited in Gage and Njogu, 1994). Ghana, which had initially recorded lower fertility rates than Kenya (6.3 in the late 1970s) remained stable at around 6 births in the late 1980s, although there was some evidence of decline in rates to around 5.5 in 1993. The decline in fertility rates in Kenya was at least partly brought about by increasing use of modern contraception: in 1986-1990, around 25 per cent of women aged 15-49 were using modern contraception compared to 5.2 per cent in Ghana. Gage and Njogu explore the extent to which various explanations of fertility behaviour from the economic and demographic literature might help to account for these very different demographic trends.

As far as family planning efforts are concerned, the differences between the two countries do not appear large enough to explain the divergence in fertility behaviour: both countries have been rated highly in the African context, although the programme in Ghana began later than the one in Kenya. Differences in women's labour opportunities and education levels also do not appear dramatic enough to constitute the explanation. Comparing women's employment in the two countries, Gage and Njogu note that Ghanaian women have long been known for their extremely high levels of economic activity. A comparison of women's labour force participation rates in 38 developing countries found that the economic activity for ever-married women aged 25-49 was highest in Ghana; the proportion of Ghanaian women who were currently working was 92 per cent. As far as modern sector employment is concerned, women in both Kenya and Ghana have been gradually expanding their shares. A comparison of males to females in the labour forces in different employment sectors in 1985 showed that men were out-numberd by women among self-employed/unpaid family workers in Ghana, but not in Kenya, and that they outnumbered women by far less in both the private and public sectors in Ghana compared to Kenya. Thus differences in female labour force participation rates do not appear to underlie the fertility decline in Kenya; if anything, women's economic activity is lower in Kenya than Ghana.

Women's education also did not appear to account for the differences in fertility patterns in the two countries. Both governments have long been committed to universal primary education and overall levels of enrolment have increased considerably in both countries since the 1960s. Between 1960 and 1980, both countries experienced rapid increases to 80-100 per cent enrolment. Female education rates have also increased, from 10 per cent of girls in primary school age in 1960 to 67 per cent in Ghana in 1989 and from 31 to 92 per cent in Kenya. There was much more rapid increase in female enrolment at secondary level in Ghana than Kenya. Looking at cohort data collected in the Demographic and Health Survey (DHS), 95 per cent of Kenyan women aged 15-19 had some formal education compared to 35 per cent of women aged 45-49. Of Ghanaian women, 81 per cent aged 15-19 have some education compared to 26 per cent aged 45-49. While education levels for women are clearly higher in Kenya today, they also started out from higher levels. In terms of actual expansion of education between the two cohorts of women, it has also been extremely large in Ghana but has not apparently had the same fertility effect. In any case, the evidence suggests that female education had little effect on the desire to cease child bearing in Kenya in that such desire does not vary a great deal by education levels (Sinding, 1991). Where it did appear to have an effect was in the increased use of birth control techniques: mainly periodic abstinence (the most widely used method), the pill and female sterilization.

Turning to some of the explanations which specifically address Kenya's fertility decline, three factors appear to have worked in combination to bring it about. First of all, in Kenya — as in Zimbabwe and Botswana, the other African countries experiencing fertility decline — there has been a dramatic fall in child mortality rates and hence in the numbers of births necessary to achieve a desired family size. Mortality rates are very much lower in Kenya than in Ghana: 70 compared to 88 per 1000 live births. They have also fallen faster. In Kenya, the probability of dying before the age of 5 in 1965-1970 was 0.177 compared to 0.096 in 1980-1985; the equivalent figures for Ghana were 0.199 and 0.163 (cited in Lockwood, 1995). The fall in mortality rates in Kenya, combined with some of the highest fertility rates in Africa, has led to high rates of population growth, growing density of population on land and the emergence of land scarcity in many parts of the country (Mortimer and Tiffen, 1995; Tiffen, 1995). Arable land has been exhausted, marginal lands can only be opened up with great capital outlay and, particularly in areas with high agricultural potential, land holdings have become so small as to no longer be divisible among sons, and there has been growing landlessness (Hyden, 1989; Livingstone, 1989). Rural households have responded partly by intensifying cultivation, but also by migration in search of work and diversification into the non-farm sector (Livingstone, 1989). Many Kenyan families explain their decision to reduce family size as a direct consequence of their inability to pass on land of economically viable dimensions to their children and their increasing investment in children's education in order to facilitate their chances of finding non-farm sector employment (Tiffen, 1995). Children often remain in school until the age of 20, and at least one adult in the family seeks a non-farm occupation.

In addition, as Gage and Njogu point out, the social organization of conjugal relationships and householding arrangements create quite different

structures of patriarchal risk in the two countries, and hence give women very different reproductive interests. They also ensure that changing economics of family size are mediated for parents very differently in Kenya and Ghana and lead to a different pace of response. A large percentage of the Ghanaian population — around 50 per cent — is matrilineal, with custody of children, inheritance and children's legal status vested in mothers. In Kenya by contrast, and in East Africa in general, patrilineal kinship systems mean that women do not have independent rights to land. Polygamy was traditionally, and has remained, high in Ghana and is likely to be associated with separate spousal budgets. In Kenya it has traditionally been lower and has declined further by about 20 per cent. There are also striking differences in the likelihood of marital disruption between the two countries. The percentage of women between the ages of 40 and 49 whose first marriage had dissolved by the end of their reproductive years is more than twice as high in Ghana than Kenya, an instability which is also reported in earlier anthropological accounts. There is a higher degree of non-co-residence of the reproductive couple in Ghana than Kenya. This partly reflects the fact that polygamy is more likely to be associated with separate spousal budgets in the former context, but it also reflects higher rates of matriliny and of work-related out-migration of husbands. Female headship is also more prevalent in Ghana than in Kenya: 32 per cent compared to 27 per cent. The average Ghanaian woman spends 50 per cent of her reproductive life without a co-resident partner, compared with 43 per cent of her life for the average Kenyan woman. These proportions have risen sharply in Ghana as a result of higher incidence of non-co-resident unions, female headship, pre-marital child bearing and marriage disruption. To sum up, therefore, the conjugal relationship is weaker and more segmented in Ghana than in Kenya and is associated with both greater marital instability and a greater likelihood of economic autonomy for women.

As a consequence, while some changes in the economics of family size — increased investments in children's education for instance — have occurred in both Ghana and Kenya, there are differences in both the stake which women and men have in maintaining high rates of fertility and the way in which they experience this changing economics. The greater segmentation of family structures in Ghana means that Ghanaian men are less likely to share in the full costs of child-rearing and have less motivation to seek to limit child-bearing. Moreover, the forces underlying the segmentation of household structures in Ghana also give women an independent stake in maintaining high fertility rates. While women's claims to their husband's support for household maintenance tend to decrease with the number of wives and children in a union, children help to strengthen the competing claims of wives. Furthermore, the greater instability of marriages in Ghana increases women's insecurity in a number of ways, particularly in old age, and lead to their intensified dependence on children. One feature of African marriages is that the age gap between husbands and wives is generally large, partly because older men are more likely to be able to afford the brideprice to get married and partly because of disparity of age at first marriage for men and women in polygamous marriages. This means not only that men can marry younger women as they age, but also that women are more likely to find themselves without a marriage partner in their old age. Gage and Njogu suggest that the greater prospect of extended widowhood in Ghana,

with the attendant insecurities, gives women a strong stake in large family size, independent of men's interests. While at the individual level, women in polygamous marriages do not have significantly different fertility rates from women in monogamous marriages — longer post-partem abstinence in the former acts as a depressant on fertility rates — polygamy is likely to contribute to higher levels of fertility at the societal level since women marry at younger ages while divorced and widowed women are able to remarry quickly since all men are potential mates, regardless of whether they are already married or not (Pebley and Mbugua, 1989; Todaro and Fapahunda, 1987; Goody, 1989).

By contrast, women in Kenya are less likely to have access to independent land holdings, less likely to be found in polygamous unions, and less likely to engage in independent economic activities. Even when they do engage in independent economic activities, they are less likely to exercise separate budgets from their spouses. There is, in short, a much higher degree of "female encapsulation" (Lesthaeghe, 1989:40) within the husband's domestic grouping in East Africa in general. The higher incidence of patrilineal kinship in much of East Africa is also associated with child custody and genetrical rights being vested in fathers. In addition, Gage and Njogu point to the fundamental and wide-ranging changes introduced into the land holding system in Kenya which are likely to have had important implications for intra-household relations. In pre-colonial times, land was communally held by lineage groups and all members of the group, male and female, were guaranteed use rights to land to satisfy their needs. Under this system, a woman's access to land for herself and her children was recognized and protected. The British colonial authorities converted these communal land rights to individual freehold tenure and, following European conventions, registered land titles in the name of the male "head of household" regardless of his contribution to the cultivation of land; women's land rights were suppressed. Thus men's privileged access to land and women's economic dependence on men were further reinforced by the introduction of individual property rights. Mortimer and Tiffen (1995) note that the extended family in Kenya had evolved towards a nuclear unit characterized by closer conjugal relation between a man and (one) wife and children generally remaining in school until the age of 20. The changing economics of family size in Kenya bears upon very different householding arrangements to those in Ghana in that there is far less of a separation between the locus of reproductive decision-making and the locus of child-rearing.

Shepherd's survey in Kenya in 1984 covered early evidence of the changing attitudes towards family size, with women ahead of men (Shepherd, 1987). While fathers were still unaccustomed to thinking about planning for their sons to have adequate land — until recently land had always been available even if it meant going some distance — they were interested in knowing about contraception and had begun to accept the idea of family limitation. Women tended to be both more knowledgeable and more interested in family planning methods, not merely to space but also to limit number of births. By the 1990s, Tiffen (1995) notes in her study in rural Kenya that more parents had become aware of land scarcity and were cognisant of both the desirability as well as the costs of educating children. She also points out

that the desire for fewer children had gone furthest in the more densely populated areas, although where such areas were cut off from markets by poor communications across intervening low density areas parents appeared to lack sufficient incentive to invest in children's education.

Surveys of reproductive preferences in Ghana and Kenya reveal important differences which appear to lend some support to the arguments we have been making. Surveys conducted with over 1,000 couples in Ghana and Kenya in 1988-1989 (Ezeh, 1993 cited in Gage and Njogu, 1994) of roughly the same age groups (the average age of husbands interviewed in both surveys was about 41-42, while wives were around 31-32) found, first, that fertility rates were lower on average in Kenya than Ghana and, secondly, that in both countries, fertility rates were higher for husbands than wives. Mean parity was 5.2 for husbands compared to 3.6 for wives in Ghana and 6.2 compared to 4.8 in Kenya. Furthermore, in both contexts, preferred family size was larger for husbands than wives: 19 per cent of husbands in Ghana wanted no more children compared to 28 per cent of wives while 48 per cent of husbands in Kenya wanted no more children compared to 58 per cent of wives.

There are also some important differences in the relationship between education, gender and reproductive preferences between the two countries which may be relevant in explaining the differences in their fertility experiences. In Kenya, as we noted, much higher percentages of both men and women did not want additional children as compared to Ghana. In addition, Sinding (1991) notes a close agreement between husbands and wives regarding ideal numbers of children (an average of around 4.4) according to the 1989 DHS (Demographic and Health Survey) survey in Kenya. Where differences did exist, wives generally wanted fewer children than husbands, with the difference greatest among husbands and wives with no education. This increasing convergence in reproductive goals observed among husbands and wives with increasing levels of education reflected by and large the dramatic difference in reproductive goals between **husbands** who had no education and those who had some. If therefore some education among husbands leads to lower reproductive goals and hence a greater convergence in the reproductive goals of husband and wife, then the much higher percentages of husbands with no schooling in Ghana (40 per cent) compared to Kenya (18 per cent) may be more relevant than differences in women's education to explaining the differing fertility trends in the two countries. This is particularly persuasive in the light of Ezeh's findings (reported in Gage and Njogu) that Ghanaian husbands' characteristics were a significant determinant of wives' fertility preferences while wives' characteristics had little influence on husbands' preferences. By contrast, in Kenya, wives' characteristics were a more significant determinant of husbands' preferences. Female education may be important as a proxy for female influence within the household in which case it is likely to have most effect within unified, rather than segmented, household structures. More detailed research is obviously necessary to untangle the meanings of these various relationships, but what has been clearly highlighted is the pertinence of family structures and intra-household relations in explaining both overall reproductive goals in the two contexts as well as the degree of convergence or divergence in reproductive gender interests within the family structure.

4.3 The gender dimensions of the quantity-quality trade-off in segmented householding systems: A comparison of East and West Africa

By and large, sub-Saharan Africa is not a region characterized by marked son preference nor are there dramatic gender differentials in basic survival or physical well-being. However, the greater degree of female encapsulation within the husband's lineage group in the East African context, and the exercise of major decisions by her affines[5], means women can only increase their status and security through bearing sons. There is consequently some son preference in the East African context but by no means as marked as that to be found in the regions of strong patriarchy: "the principle of circulation of property — girls bring in bridewealth, boys spend it — acts as a major brake on son preference when considered from the point of view of the patriliny" (Lesthaeghe, 1989:40). Studies of nutritional indicators show little evidence of gender bias against girls and indeed in the West African context in particular, girls may often be favoured compared to boys as far as basic well-being is concerned (Svedberg, 1990).

While the increase in investments in children's education in Kenya suggests that the quantity-quality trade-off is likely to have been a factor hastening fertility decline, there is little to suggest that it has taken a particularly gender differentiated form. Tiffen, for instance, notes in her case study of familial change among the Akamba in Machakos district, Kenya, that since the 1950s, education has been sought for daughters as well as sons. Where there is a large spread between older and younger children, as there is in many large families in sub-Saharan Africa, the first born children often contribute to the education of younger siblings. In Kenya, for instance, oldest and youngest children in large families (6-8 siblings) have an educational advantage over middle siblings (Gomes, 1984). However, there was no evidence for any marked gender inequalities at least as far as educational aspirations were concerned; Tiffin cites evidence for the country as a whole suggesting that fathers wanted 14 years of education for boys and 13 for girls (1995). In addition, survey data cited in Gage and Njogu show that the increased investments in children's education in Kenya occurred for both boys and girls: primary enrolment ratios stood at 92 per cent for girls and 96 per cent for boys in 1988. There was a falling off for both boys and girls at secondary level so that the rate was 27 per cent for boys and 19 per cent for girls in 1988.

At the same time, increases in children's education alone are unlikely to account for the dramatic decline in fertility rates in Kenya, since Ghana also experienced a rapid expansion in children's education, although from lower rates in the 1960s. We suggested that one route through which increased investments in child quality might have different fertility implications in different contexts was through the distribution of costs across the family: the greater degree of corporate behaviour within Kenyan households means that increased costs of investing in child quality bears more directly and heavily on husbands than it does in Ghana. In addition, the greater incidence of child

[5] Relations through marriage.

fosterage in Ghana allows for the possibility of diffusing both the costs and benefits of family size beyond the reproductive couple. A woman with very young children benefits from the services rendered by a fostered-in teenage niece or nephew while poorer segments of the kinship group can foster out a child to wealthier relatives who take on the costs of education (Lesthaeghe, 1989). Studies suggest that children are more likely to be fostered out in larger families; in addition, the data suggest that the proportion of teenage girls living away from their mothers — and hence losing out on maternal attention — was much higher than the proportion of teenage boys. For rural girls in particular, the proportion dropping out of school and the proportion living away from home increased significantly with each additional younger sibling, a pattern not observed for teenage boys (Lloyd and Gage-Brandon, 1993). Similarly, one of the reasons for the high rates of drop-out among young girls from school, which are much higher than the drop-out rates for young boys, also appears to be linked to the number of siblings. Nevertheless, by and large, in the African context, we would suggest that the gender dimension is less critical in mediating the quantity-quality trade-off and more important in differentiating the distribution of the costs and benefits of children within the family. As we shall see, the picture is somewhat different in the South Asian context.

SECTION 5
Gender and Reproductive Outcomes in Corporate Householding Systems

5.1 Gender interests and family size outcomes in corporate householding systems: The "North-South" divide in South Asia

The Indian sub-continent, like the African, is marked by considerable regional diversity in culture, social organization and reproductive behaviour (Dyson and Moore, 1983). In demographic terms, the northern states of India have traditionally been characterized by very high fertility rates; in the early 1970s these ranged between 6.19 and 6.85. Infant and child mortality rates have also tended to be high in these states; rural infant mortality rates in the late 1950s ranged between 114 and 221 per 1,000 live births. In the four southern states, on the other hand, fertility rates were considerably lower, ranging between 4.88 and 5.68 in the early 1970s; rural infant mortality rates ranged between 89 and 135 per 1,000 live births. Furthermore, recent fertility declines have also reproduced this regional pattern. Overall the crude birth rate has fallen from around 34 per thousand in the mid-1980s to around 29 in the early 1990s. However, this decline has been most rapid in the south, particularly Kerala and Tamil Nadu, and slowest in the north (particularly Uttar Pradesh, Madhya Pradesh, Rajasthan) and in the east (Bihar). Total fertility rates for the late 1980s ranged between 3.4 and 4.7 in the northern states compared to 2.0 and 3.4 in the south (Drèze and Sen, 1995).

Differences in the kinship systems and gender relations in the north and south of India leading to differences in women's mobility and agency have been pointed out as possible explanations for these very different

demographic régimes by Dyson and Moore (1983). It has in fact been suggested that the Indian sub-continent is the meeting point for two larger socio-cultural formations: the north Indian kinship system which has greater affinity to West Asia and the rest of the belt of strong patriarchy, and the more egalitarian south Indian kinship system which is more akin to the weaker patriarchies of South-East Asia (Dyson and Moore, 1983). Two aspects of kinship systems have been emphasized as particularly relevant to differences in demographic régimes in the Indian context: differences in women's reproductive gender interests between the north and south and differences in their ability to undertake innovative action in relation to fertility control.

In the "northern" kinship systems, the transmission of the descent line and of property through sons has resulted in a culture of strong son preference and an associated devaluation of daughters. The practice of patrilocal marriage, frequently combined with a preference for village exogamy (marrying outside the village of one's birth) results in women being cut off from the support of their natal family so that they enter the marital home as stranger brides and effectively dispossessed individuals who can only establish their status by producing male children (Kandiyoti, 1985; Dyson and Moore, 1983; Agarwal, 1994). Furthermore, the need to ensure pre-marital virginity and post-marital fidelity leads to social preoccupation with women's sexuality, resulting in restrictive practices such as female seclusion, and early age of marriage.

There are thus strong pro-natalist pressures on women in north Indian states: "A married woman's prime task is to produce male heirs for the descent group and, other things being equal, this sex preference in itself will tend to engender higher fertility. Females are socialized to believe that their own wishes and interests are subordinate to those of the family group. They are therefore more likely to sacrifice their own health in repeated child-bearing than are females reared in cultures that give greater weight to personal interests" (Dyson and Moore, 1983:48). In addition to these factors, both Cain (1986) and Drèze (1990) have pointed to the tragic consequences of reproductive failure for widows without adult sons in such contexts. The divergence between women's personal well-being and longer term perceived interests is thus wide in this system of gender relations and dictates compliance with pro-natalist social pressures: as one study put it, "The men of the family wanted sons therefore so did the women" (cited in Dyson and Moore, 1983:51).

In the southern states of India, greater variety and flexibility are observed in the prevailing kinship systems. Although patrilineal inheritance is still the norm (see Agarwal, 1994), women are more likely to marry within their village of birth, thus retaining contact with their natal family. Marriage to close kin is also widely permitted. Dowry was traditionally far less frequent than in the north and brideprice more common. Women's sexuality and personal movements were also less rigidly controlled. Along with these features of the "south Indian" kinship system are observed much higher rates of female labour force participation in both agriculture and trading, as well as much higher rates of female literacy.

Thus one route by which gender relations, and the options which they offer to women, affect family size outcomes is in the formation of perceived reproductive interests within the family. The relatively greater economic autonomy enjoyed by women in the south, and their higher levels of market participation, have led to quite different reproductive preferences compared to the north. The evidence on actual reproductive preferences reported within households bears out some of this analysis. Empirical data on overall son preference confirm that it is much more marked in the northern states than in the south (Dyson and Moore, 1983) and exercises a strong upward pressure on desired family size. Desai (1994) estimates on the basis of national data that among couples with 3 surviving children, 66 per cent of those with 3 daughters wanted a fourth child as opposed to 28 per cent of couples with one son and 11 per cent of those with two sons. Data from Bangladesh, which falls within the "northern" model, also point to the upward pressure on fertility rates exercised by son preference so that for women with at least one daughter, the likelihood of a subsequent birth is negatively related to the number of sons they have. Son preference was considered to represent a significant barrier to fertility regulation in rural Bangladesh (Rahman et al. 1992; Rahman and Da Vanzo, 1993) as well as in Pakistan and some northern Indian states (Nag, 1991).

However, in terms of expressed reproductive preferences within the family, there appears to be a divergence between the results reported by large-scale surveys into attitudes and those which emerge out of small-scale, in-depth analysis. As we noted, large-scale surveys do not always report significant differences between the reproductive preferences of women and men (Lightbourne, 1985; Mason and Taj, 1987). Analysis from Maharashtra (Jejeebhoy and Kulkarni, 1989) suggests that it may be because while women and men have different reproductive interests, these dictate similar reproductive goals. In other words, while the rationales might differ, preferred family size outcomes may be the same. However, evidence from smaller scale and more qualitative studies point to the need to differentiate between women's expressions of compliance to prevailing family size norms and the actual preferences revealed by their behaviour. In Uttar Pradesh, one of the poorer states in the north, anthropological work by Jeffery et al. (1988) suggests that while women routinely affirmed compliance to husbands' wishes in terms of reproductive goals, in fact many resorted to clandestine use of contraception and abortion. Similar findings are reported for Bangladesh. While successive national surveys since the 1960s have noted a decline in women's expressed family size preferences, this was only translated into a decline in fertility rates towards the second half of the 1970s. Micro-level evidence suggests that women appeared to have acted as demographic innovators. Studies by Abdullah and Zeidenstein (1982) and by Kabeer (1986) carried out in the late 1970s suggest that women were already seeking to exercise reproductive choice, or to subvert male reproductive choices, by covertly resorting to contraception. Indeed, the popularity of injectibles among village women lay precisely in the secrecy they offered (Caldwell and Caldwell, 1992). Kabeer (1986) also found that landless women reported lower preferred family size than women from land owning households. Possible explanations were that the immediate-term costs of child bearing represented a larger drain on their household resources. In addition, increasing insecurities around marriage

and the rise of female-headed households, particularly among the landless, meant that the longer-term benefits of large families were becoming increasingly less certain. A decade later, a series of focus group interviews by Nag et al. (1988) suggested that, while women still engaged in covert forms of family planning, resistance from other members of the family had declined so that a greater convergence in reproductive interests could be observed within the family. The discrepancy between macro-level quantitative and micro-level qualitative findings suggests the need to bear in mind the distinction between what people say and what they do. While people's expressions of their preferences in large-scale quantitative surveys may provide useful information, such information is more likely to relate to normative rather than actual preferences.

Aside from their influence on reproductive preferences, a second route through which prevailing gender and kinship relations might influence fertility behaviour relates to women's ability to implement desired reproductive goals and to adopt innovative behaviour. Dyson and Moore (1983) note the much higher prevalence of family planning practice in the southern states and suggest that it is due to both lower desired family size and women's greater mobility and hence ability to access family planning services. In the northern system, on the other hand, women have strict limits placed on their personal movement and on their contact with strangers; these constraints hamper their ability to access family planning services and make them more reliant on others to make decisions for them. Lower literacy rates among women also mean a lower ability to be effective or innovative on their own behalf.

These broader social factors are also likely to be relevant to the higher rates of child mortality found in the north. Again women in the north may be less able to access information and services related to child health because of constrained mobility and low levels of literacy. Higher levels of child mortality are in general associated with higher levels of fertility because of uncertainties about completed family size. Finally, Dyson and Moore (1983) note that staff in family planning and health clinics in the north tend to be male, itself a reflection of constraints on female labour force participation, making such clinics even less accessible to women. The development of family planning services in the north is thus hampered by the lack of availability of female staff while those who do provide such services tend to be women who originate from southern states. In this context, it should be noted that the concerted attempt to recruit female family planning workers in Bangladesh, together with a strategy of doorstep delivery of family planning services, has helped to counteract these gender specific constraints on women's ability to access modern forms of contraception.

Recent analysis by Drèze and Sen (1995) provides strong support for some of the hypotheses contained in Dyson and Moore (1983). Using district level data from the 1981 census, Drèze and Sen show that female labour force participation and female literacy, both of which are higher in the south than the north, are both significant in explaining variations in fertility rates across India. Thus female labour force participation was associated with .02 fewer births while female literacy was associated with .03 fewer births. Male literacy was not significant. However, the most significant determinant of

fertility differentials proved to be a regional dummy variable, indicating whether a district was in a northern, southern, eastern or western state of India. Districts located in the south and west of India meant .55 and .38 fewer births than those in the north while districts in the east were not significantly different.

This analysis suggests that while economists are right to identify levels and trends in female labour force participation and education as important variables in explaining fertility differentials and trends, they have ignored differences in the broader structure of social relations ("regional patriarchies") which explain why overall rates of fertility are higher in some regions than others. Interestingly, in Drèze and Sen's study, many of the variables identified with "modernization" and economic growth, such as level of urbanization, availability of medical facilities and levels of rural poverty, have no significant effect on fertility differentials across districts. However, within these broad clusters of variables, household and individual characteristics may continue to play some part in explaining fertility differentials. In south India, Caldwell et al. (1982) point to the diversification of household livelihoods into the non-farm sector and the greater associated returns to investments in fewer but more educated children. The move out of sole reliance on farming has been necessitated by the reduction in farm size with population growth but also represents diversification of risk. Basu (1986) suggested that a significant proportion of the fertility decline in Kerala was poverty-induced: birth control among assetless labourers who were among the poorest sections of the population and who could no longer afford large family sizes. Kabeer (1986) suggested that fertility decline in Bangladesh was likely to take a bifurcated form: poverty-induced among the poorer sections of the population and the desire to invest in children's education as a route to off-farm employment. This seems to have been borne out by events (Freedman and Freedman, 1986; Kabeer, 1994b; Caldwell and Caldwell, 1992) and assisted by strong government commitment to family planning programmes. In Bangladesh, although educated women form too small a percentage of the population to explain the dramatic decline in fertility rates from around 7 in the 1970s to around 5 by the end of the 1980s, it is worth noting that educated women have lower actual and desired fertility than the rest of the population (Kabeer, 1986; Cleland et al., 1994).

The fact that female literacy exercises an effect on fertility rates independent of female labour force participation, combined with the weakness of male literacy as an explanatory variable, supports the interpretation espoused by Drèze and Sen: women's literacy and education are capturing a measure of women's agency rather than the opportunity costs of children (which should already have been captured by their labour force participation). However, what their data also suggest is that women's literacy and labour force participation will have a much larger effect on total fertility rates in regions where women already exercise a greater degree of agency. This is supported by multilevel analysis carried out by Cleland and Jejeebhoy (forthcoming) which used 1989 data from the Registrar-General's Office to show that in the southern state of Tamil Nadu, women with no schooling had four births while the equivalent category in Uttar Pradesh and Bihar had over six births; women with ten or more years of schooling in Tamil Nadu and Kerala had

replacement level fertility while in Bihar and Uttar Pradesh they had around 4-5 births.

The practical importance of female literacy in relation to child health and survival is noted in a number of lower-level studies. In a study from rural Bangladesh, Bhuiya et al. (1995) demonstrated that the likelihood of women getting their children immunized was related to a combination of their reported physical mobility (ability to visit a health clinic alone) **and** their levels of literacy and wealth; for illiterate or poor mothers, the ability to visit a health centre on her own was immaterial to the likelihood that their children would be immunized. Das Gupta (1990) also notes the importance of female education as a factor in determining child deaths. She noted strong evidence of child deaths "clustering" within families in her study of 11 villages in Punjab in 1984, with 67 per cent of women experiencing no child deaths while 18 per cent accounted for 62 per cent of child deaths. Mother's education was a strong factor explaining this pattern and appeared to work primarily through the effectiveness of child care practices.

To conclude therefore, a major determinant of fertility differentials across South Asia relates not to individual or household characteristics but to regional differences in the social organization of householding arrangements and the gender division of labour, with the associated differentials in women's agency. However, within these regional "cultural entities", some of the conventional variables identified in the economic and demographic literature do play a role. As noted above in the discussion concerning the greater impact on utilization of child health services when female mobility is combined with female literacy, these findings point to the positive synergies which exist between different aspects of women's agency: mobility, labour force participation and literacy.

5.2 Gender dimensions in the quantity-quality trade-off: The "North-South" divide in South Asia

As we noted earlier, South Asia is one of the regions of the world which is characterized by a "masculine" sex ratio and explorations of the underlying causal mechanisms have probably gone furthest here. Such explorations have established the relevance of the North-South divide to the distribution of sex ratios with far more "masculine" sex ratios in the northern states of India. They have also established that the problem is not merely one of under-counting females during the census but of fewer females within the population. Female infanticide was one method practised historically and whole villages in Rajasthan were recorded where "centuries had passed and no infant daughter had been known to smile within those walls" (Raikes, 1852 cited in Miller, 1981:53). Recent evidence points to the discriminatory provision of essential life-preserving resources as a more common mechanism by which desired sex composition of children is achieved. In general, while gender differences in nutritional status among children do appear to play some role in explaining excess female mortality, differential health care between boys and girls appears to be the key mechanism. In Punjab, there was little evidence of discrimination in calorie intake between male and female infants, but expenditure on health care was 2.4 times higher for males (Das Gupta, 1987). In Bangladesh, the calorie intake for boys aged 0-4 was 14 per cent higher than for girls while their rate of receiving treatment for diarrhea was 67 per cent higher. Thus the quantity-quality trade-off in the South Asian context is complicated by the trade-off between family size and the gender composition of the family, so control is maintained over numbers by gender discriminatory investment in the survival chances of children.

Das Gupta's research (1987) makes a link between gender discrimination and the "quantity-quality trade-off" in the northern state of Punjab in that it shows that the most acute discrimination is concentrated among higher birth order daughters to the extent that mortality rates among second and higher order girl children dramatically exceeds that of the first daughter. This is also confirmed by Pebley and Amin (1991) for the Punjab and by Muhuri and Preston and (1991) for Bangladesh, and fits in with evidence that most families in the South Asian context want several sons but only one daughter.

Attempts to align preferences relating to family size with preferences relating to sex composition results in excess female mortality at all levels, mortality in the early years resulting from discriminatory investments in the physical well-being of female children and, in later years, from the additional burden of frequent and closely spaced child bearing on undernourished women. Clearly, the devaluation of women in these contexts can only be reversed if the basis for it is understood. One attempt to do so, using the orthodox neo-classical framework, is found in Rosenzweig and Schultz (1982) . They suggest that excess female mortality in the Indian context reflects differential expected returns to male and female children, as measured by their employment prospects. Here quality, which is now extended to include investments in the basic physical well-being of children, and quantity can be seen as the primary choice variables in reproductive

decision-making, with child "genetic endowments" (viz. economic returns to biological sex) entering as an intermediate variable to modify the terms of the quantity-quality trade-off. Rather than parents aiming to have a certain number of children and then investing in affordable levels of quality, or else aiming for certain levels of quality investment and then determining the affordable numbers of children, the decision became one of ensuring a particular size and sex composition by investing differentially in the survival chances of sons and daughters.

However, while Rosenzweig and Schultz's study confirms the empirical relationship between gender differentials in child mortality rates and gender differentials in employment prospects, other research into these questions suggests that gender asymmetries in market returns are in turn manifestations of deeper asymmetries within society rather than constituting the primary cause of excess female mortality. In other words, both sets of gender differentials are themselves products of deeper underlying structures. As we saw, women's ability to engage in economic activities is itself dependent on the prevalence of female seclusion, and in northern Indian states, particularly among the propertied classes, there are severe constraints on women's ability to work outside the boundaries of the home. Furthermore, the economic liability of daughters in these areas is not only a matter of market returns but is socially constructed through other practices which further erode the value of daughters to their parents. The practice of kin and often village exogamy mean that the labour and progeny of women are lost to parents and come under the control of her husband and his kin. Sons, on the other hand, are perceived to take responsibility for parents in their old age; they also carry on the family line and inherit ancestral property. Furthermore, these are also areas where dowry has to paid by the bride's parents to the groom and his family so that daughters represent a major financial expense for their parents.

The study cited earlier by Drèze and Sen (1995) lends credence to the idea that there is more to excess female mortality than gender disadvantage in the marketplace. Exploring possible factors which might explain both overall under-five child mortality and excess female mortality in the under-five age group, they found that female labour force participation, female literacy and male literacy all had a significant negative effect on excess female mortality, with female literacy appearing to have the greatest significance. The fact that female literacy has an independent and even more significant effect in reducing excess female mortality than female labour force participation suggests that something other than economic productivity is at work here. Drèze and Sen suggest that this is the more intangible variable of women's agency: in other words, female literacy and, it could be argued, female labour force participation are both capturing the extent to which women are able to exercise voice and agency within intra-household decision-making processes.[6] The fact that female literacy also has a negative and statistically significant impact on overall under-five mortality — female labour force participation and male literacy have no significant impact — and that female

[6] Kabeer (1986) found, in the context of rural Bangladesh, that while women of all economic classes and education levels expressed son preference, education modified the intensity of son preference. Women with at least primary education wanted more balanced sex composition than those without.

literacy has a larger effect on female under-five mortality than on male under-five mortality also testifies to the importance of this variable in countering inter-generational transmission of gender discrimination.

However, what is even more significant in countering the narrow economic explanation of excess female mortality is that once again, districts located in the south Indian states had significantly lower levels of excess female mortality than any other part of India. The dummy variable for the south was associated with reduction of 0.82 in excess female mortality; the other regions of India had roughly similar levels. This finding supports a more structural explanation of the geographical distribution of sex ratios, suggesting that over and above variations in female labour force participation and female literacy, regional variations in a broad cluster of ideological and material practices have a powerful independent effect on the value placed on the girl child. Consequently, improvements in rates of women's economic activity and literacy , while going some way towards addressing this disadvantage, are by no means the only or most effective routes. Attention will have to be paid to the "quality" of jobs and education but also to other interventions in order to ensure that they promote women's agency by addressing the question of property rights, ideological constraints and material practices which underpin the devaluation of women in the region.

There is one more aspect of the quality-quantity trade-off, and its mediation by gender, in the South Asian context which needs to be flagged here because it confounds both economic and demographic conceptualizations of the relationship between economic growth, modernization and fertility transition. It suggests instead that economic growth need not lead to progressive improvements in women's status or to the adoption of "Western" values as suggested by demographic transition theories but may instead lead to reformulations of older cultural forms and values and a deterioration of women's status. Over the past decades, many Indian states have experienced considerable economic growth; there has also been a major increase in female agricultural labour force participation in India as well as a closing of the gender gap in wages. At the all-India level, women's earnings were only 52 per cent of their male counterparts in 1972, but had increased to 69 per cent in 1983. In most states, real wages have gone up for both women and men but the rate of increase has been sharper for women.

At the same time, however, the fairly consistent decline in sex ratios recorded in successive censuses continued, falling from 933 women per 1000 men in 1981 to 927 in 1991. More depressingly, as Drèze and Sen note, a process of "convergence" is apparently occurring throughout India, and masculine sex ratios are appearing for the first time in some southern states. The largest absolute decline between 1901 and 1991 occurred in Bihar (-143) followed by Tamil Nadu (-70), Orissa (-66) Madhya Pradesh (-59) and Uttar Pradesh (-58). Aside from excess female mortality, there has also been a decline in the ratio of females to males at birth in recent years, attributed to the increasing incidence of sex-selective abortion and disturbing reports of female infanticide in parts of Tamil Nadu. Drèze and Sen note that the "convergence" in sex ratios partly represents a convergence along caste lines. Focusing on Uttar Pradesh, they point out

that while the female-to-male ratio among scheduled castes has generally been higher than for the state population as a whole, it has been deteriorating in the course of the century. The scheduled castes were thus now more like the "higher" castes in their treatment of women, a result which they attribute to the process of "sanscritization", whereby as disadvantaged castes experience upward mobility, they start to emulate the norms and practices of the dominant castes. The seclusion of their women and increased resistance to widow remarriage have played an important symbolic role in this process of "sanscritization". This interpretation is also supported by Kapadia's work in Tamil Nadu (1993) which notes the move towards hypergamy[7] in marriage, increased kin and village exogamy along with the rise in the practice, and in the value, of dowry. Heyer (1992) suggests that the incidence and value of dowry began to increase in Tamil Nadu in the 1950s among the élite and gradually spread downwards.

Economic progress has thus not done a great deal for gender equality and the value of women in the Indian context. While there has been an increase in education levels — between 1971 and 1981 the proportion of literates in the population increased by one quarter overall and by one third for females — there has been an increase in excess female mortality. Evidence of gender discrimination is higher in Punjab and Haryana than any other state in India (with the exception of Uttar Pradesh) although both states have experienced some of the most rapid rates of economic growth in the country since independence. Furthermore, as the benefits of growth trickle down to poorer castes, upward mobility has been associated with "sanscritization" rather than "Westernization", and hence with the associated devaluation of women (Drèze and Sen, 1995). Traditionally, demographers and economists have seen son preference primarily in terms of exercising an upward pressure on birth rates since fertility strategies had to be premised on the joint probability of having a son and of that son surviving to adulthood. The recent findings from India highlight the point made earlier that reproductive strategies are played out within gendered economic and cultural contexts and attempts to control fertility rates will reflect these gendered environments. The finding that family size decisions in some parts of the world are inseparable from preferences about the gender composition of the family is clearly not just of academic interest; it has very direct implications for the way in which population policies concerned with fertility reduction are likely to be operationalized. Just as strong son preferences within the family have been realized through family formation processes which have not been gender-neutral (the continuation of child bearing until the desired number of sons has been produced, combined in many cases with excess female mortality among high parity — later born — daughters) so too the decline in fertility rates can be brought about by processes that are not gender neutral in their outcomes but entail higher mortality rates among girl children. In this context, population policies narrowly conceived in terms of family planning programmes and changing attitudes to the use of contraception are clearly short-sighted; population and development policies have to work in tandem with a concern for the human rights of children, particularly the girl child.

[7] The practice of marrying daughters to higher caste.

5.3 Gender interests and family size outcomes in corporate householding systems: South-East and East Asia

Economic and demographic trends from East and South-East Asia offer a marked contrast to sub-Saharan Africa but also to South Asia. In demographic terms, the halving of family size in South-East and East Asia in the second half of this century has been described as "among the major social changes of our time" (McNicoll, 1992:86). This is also a region which experienced some of the highest rates of economic growth reported for the second half of this century and contains the widely cited economic miracles of the East Asian NICs. In addition, both Taiwan Province of China and South Korea have been held up in the development literature as exemplars of "growth with equity", achieving rapid economic advances without the extremes of inequality sometimes assumed to be a necessary accompaniment. While these countries represented the early economic successes, other countries in the region have followed suit. China's dramatic fertility decline occurred in the 1970s, along with Korea and Thailand, and it has recently reported dramatic increases in rates of economic growth.

In terms of social organization and culture, however, East and South-East Asia differ considerably from each other. East Asia is closer to the belt of "strong patriarchy" described earlier and Greenhalgh suggests that "traditional Confucian China and its cultural offshoots, Japan and Korea, evolved some of the most patriarchal family systems that ever existed" (1985:265). East Asian kinship systems are predominantly patrilineal, post-marital residence is patrilocal, requiring women to integrate into the affinal family; and there is a strong public-private dichotomy, with women largely restricted to domestic and child care activities and home-based economic activity. In addition, sons are considered essential to the continuity of the patriline within Confucian culture and this is one of the regions which is characterized by strong son preference. While rapid changes have taken place in the social and economic structures of this region, the historical residue of these patriarchal rules, values and practices continues to shape the effects of these changes for contemporary gender relations.

South-East Asia, on the other hand, is characterized by more egalitarian gender relations, including bilateral kinship patterns, a weak public-private dichotomy and hence considerable public mobility for women, and traditionally high rates of female labour force participation. Throughout the region, newly married couples are as likely to set up independent households or live with the bride's parents as with the groom's (Morgan and Rindfuss, 1984; Chamratrithirong et al., 1988). Women have traditionally played a central role in planting and harvesting rice as well as in marketing and commerce (as they have in southern India). Marriage transactions also centre on brideprice rather than dowry in much of this area. High rates of divorce, often initiated by women and free of social stigma, characterize parts of both Indonesia and Malaysia. And as we noted earlier, women in this region tend to have greater access to higher education and professional careers, even after marriage, than women in other parts of Asia. This is also an area where son preference is either weak or absent (Stinner and Madden, 1975; Hirschmann and Guest, 1990).

Despite these strong differences in their underlying culture and social organization, both East and South-East Asia have experienced rapid economic growth and significant fertility declines. It would appear therefore that this region might validate economic explanations of fertility decline and, indeed, economic variables figure a great deal in the explanatory literature. These include rising levels of income and living standards but also rising costs of living, increased aspirations, greater urbanization, increased levels of female education and a rising share of female labour force participation in manufacturing and services rather than in the more traditional agricultural sector.

Non-economic variables have also been advanced and emphasize the cultural aspects — although as McNicoll (1992) points out, it is difficult to see how East Asia with its strongly neo-Confucian traditions can be placed in the same category as South-East Asia. A closer examination of what is described as a "favourable cultural setting" for rapid fertility decline in the context of South-East Asia suggests that this refers to many of the aspects of social organization that we have been discussing. In particular, it refers to the corporate organization of the household around the conjugal relationship so that changes in the broader cost-benefit calculus around family size tend to be concentrated on the reproductive unit and relatively equally experienced by its members. This point is made in the context of fertility transition in Thailand. As Knodel and Wongsith (1991) note, the family system in Thailand is such that reproductive decisions and child care costs and benefits are borne by the couple rather than being diffused throughout a larger family network. There is little scope for sharing out the cost of children with the wider extended family or the lineage group. Furthermore, the greater degree of egalitarianism characterizing conjugal relations means that there is likely to be a convergence in reproductive gender interests. Knodel and Prachuabmoh (1976) noted a moderate son preference in their study, but point out that it co-existed with the desire to have at least one child of each sex. They also note a greater degree of son preference expressed by men and, in the urban population, by Chinese respondents.

The factors which underpin the shift to lower fertility in Thailand are related to the major socio-economic transformations which have occurred in the country since the 1970s. Thailand's economy has experienced tremendous growth, averaging around 7 per cent per annum. Associated processes of industrialization and urbanization (which increased from 13 per cent in 1960 to 19 per cent in 1990) have touched all sections of society. In addition, agriculture dropped from representing around 33 per cent of GDP in the early 1970s to 16 per cent in 1989, with the importance of manufacturing and services rising correspondingly. Mortality rates also declined during this period, so that fewer births were necessary to attain a desired family size. These major social and economic changes were accompanied by increased consumer aspirations together with the desire to educate children. Consequently, the costs of living and of meeting aspirations rose together with per capita income. The education of children beyond free primary level was considered essential to prepare them for earning their living in the rapidly changing economic circumstances. Land holdings were not large enough to provide viable livelihoods, a further factor reducing fertility but

also increasing the need to equip children to find jobs in the non-farm sector. A marked rise in the education levels of successive cohorts of children has in fact occurred throughout the period of fertility decline.

Similar processes can be traced in Indonesia. A military coup by conservative Muslim generals brought the New Order into power in Indonesia in 1965, and it has maintained a strong presence in the society ever since. Widespread militarization of the national and local bureaucracies accompanied a growth strategy based on the promotion of foreign investment in selected economic sectors. The resulting structural transformation led to a decline in the proportion of the workforce in agriculture, accompanied initially by an expansion into a variety of non-agricultural activities within the rural areas. Research in the mid-1970s on family livelihood strategies in the densely populated area of Java noted the intensive use made of family labour — women, men and children — in a variety of marginal productive activities (White, 1976). While most of these offered much lower returns than the agricultural wage, they nevertheless represented a degree of economic security for poorer families in a context where economic growth had failed to generate employment outside of a limited set of "modern" sector activities. While large numbers of children allowed families to diversify their portfolio of activities, and hence risk, the poorest families were least able to pursue this strategy, leading to an inverse relationship between economic status and fertility (White, 1976; Hull, 1976).

Certain changes were in evidence in rural household strategies in Java by the mid-1980s. Hart (1986) noted that one of these appeared to be the efforts by wealthier families to educate their children for government jobs. Poorer families continued the strategy of making intensive use from an early age of family labour: men in wage labour, women largely in trading, girls largely in wage labour, while boys divided their time between wage labour, fishing and gathering. The high opportunity costs of school attendance for the poorest families, and particularly for girls, made the education route a less feasible option. This led, as Hart points out, to a widening of economic differentiation. Greater migration into the towns was also in evidence by the 1980s, with the expansion of employment opportunities in industry — for both young women and men — and in construction and transportation for men. A variety of factors therefore combined to create the conditions for fertility decline in Indonesia, with considerable similarity in the reproductive preferences reported by men and women (McNicoll and Singarimbum, 1983): increasing rates of male as well as female migration out of the countryside, the rise in non-farm female labour force participation, improvements in child mortality rates, increasing levels of education and of the educational qualifications necessary to obtain desired forms of employment, and the spread of consumer aspirations with improvements in transport and the dramatic shortening of the "psychic distance" (Dick, 1982) between village and city. All of this was backed by a highly efficient and authoritarian family planning programme that had successfully co-opted local village leadership into the administration and monitoring processes.

A study from rural north Viet Nam offers further support for economic explanations of fertility decline as well as the significance of state population policy in facilitating it (Kabeer et al., 1995). In Viet Nam fertility was declining long before any serious attempts at family planning programmes, partly because of the disruptions introduced by several decades of war and their aftermath. It was only in the late 1980s that the state made a strong political and resource commitment to implementing a family planning programme. The state policy of incentives and disincentives to ensure compliance with the two child norm has helped to sustain fertility decline, but evidence suggests that the family planning programme in Viet Nam has not been a particularly efficient one. Goodkind (1995) suggests that the downward trajectory in fertility rates does not differ significantly after the introduction of the two child policy compared to before.

Kabeer et al. found that while fertility had declined across all economic strata, it was lower in poorer households, particularly among younger women from poorer households. They also found that educated women reported lower fertility rates than those with less education in both poor and non-poor households (Kabeer et al., 1995).[8] The authors used both quantitative and qualitative techniques to explore the possible reasons for these relationships. The relationship between female education and lower fertility rates was suggested to work through a number of routes. It was associated with lower reproductive preferences — educated women wanted fewer children than less educated women. It was also associated with lower child mortality rates — educated women were able to achieve their desired family sizes through fewer births. Educated women were also more likely to be in government employment, which was both less compatible with child care compared to farm work (the occupation of the majority of rural women) as well as more amenable to the enforcement of the government's two child policy.

One other route via which education affected achieved fertility stemmed from the apparent inefficiency of the family planning services on offer in Viet Nam. The main and almost only family planning method made available to women is the IUD, which is often badly fitted. Unwanted pregnancies and miscarriages are consequently widespread in the country and reflect the inadequacy of family planning services rather than incompetence on the part of individual women. In this context, abortions and menstrual regulations are widely resorted to in Viet Nam as a way of terminating unwanted pregnancies. Kabeer et al. found that while female education is not particularly significant in determining use of family planning — family planning is widespread among educated and non-educated women — it appears to increase significantly their likelihood of being able to access abortion facilities and hence avert unwanted pregnancies (1995).

In terms of the relationship between household economic status and fertility, Kabeer et al. found that the presence of young children within the household

[8] Household economic status was determined using participatory wealth ranking techniques where groups of villagers ranked households as poor and non-poor. Correlations between the villagers' ranking and a list of wealth indictors were found to be extremely close and highly significant.

significantly reduces living standards among poorer households. The increased cost of large families was mentioned by women from all groups as a consideration in the shift to fewer children. In addition, qualitative interviews with groups of women revealed certain gender divergences in reproductive interests. Most of the women reported that their husbands were more strongly pro-natalist than themselves. This was partly because they needed sons to carry on the family line; as the women pointed out, they were not part of the family line and were therefore more indifferent to the gender of the child. The women interviewed were also explicit about the gender-specific bodily costs of high fertility, pointing out that men could afford to be strongly pro-natalist since they did not have to bear the pain of childbirth and the health costs of frequent child bearing. In addition, many of the women interviewed strongly endorsed the state's two child policy because they felt it increased their own ability to "say no" to the higher fertility goals of husbands and in-laws who wanted them to continue child bearing. They were able to cite the authority of the state to counter the pro-natalist preferences of senior decision-makers within the family. The state family planning programme in the Vietnamese context may not have addressed women's reproductive needs very effectively but it appears to have had the unanticipated effect of improving women's reproductive bargaining power within the family.

In China, family planning programmes are generally agreed to have crossed the boundary between being forceful to being outright coercive. Here, also, the ability of women to subvert the population goals of more powerful actors, this time outside the family, has been documented, although the greater rigidity of Chinese one child population policy and the draconian measure taken to enforce it have limited the scope of resistance considerably. Greenhalgh and Li (1995) note that there has been a fairly rapid decline in expressed family size ideals in China, partly shaped by official propaganda but also as a result of the dismantling of collective institutions and the economic reforms put in place by the early 1980s. While the advantages of having many children remained limited — the size of privatized plots were small and industry and commerce remained undeveloped — the direct and indirect costs of large families soared. During the 1970s — and well before the draconian measures of the one child policy had been brought to bear — fertility had already fallen from around six to just under three children, "an extraordinary decline by any standard" (Greenhalgh, 1994:6). By the late 1980s, most parents were expressing preferences for just two children; three was considered too costly and one was not enough because it might die. China has retained patrilineal descent and patrilocal marriage, features of family organization which made sons more essential to the family than daughters who would be lost to their husbands' families after marriage. Thus most parents wanted at least one son, something that the authorities have recognized. The one child policy was introduced in 1979 but couples were allowed to have a second child if the first was a daughter. Third and higher order children were resolutely forbidden.

Resistance to the one-child rule in the early years took many forms: economic, such as refusing to pay fines; social, such as adopting out second and third daughters; migrational, such as temporarily moving to another

locality to give birth and thus escape official monitoring; bodily techniques, such as refusing to adopt the stipulated contraception (IUD was mandated for all women with one child and only women who were physically unable to carry IUDs were permitted to take the pill); concealing unauthorized pregnancies until it was too late to have an abortion; and illicit removal of IUDs although, as Greenhalgh (1994) notes, IUDs in China had been deliberately designed to be tamperproof. Until the early 1990s, they were made of stainless steel and had no string, making it dangerous for the wearer to attempt non-clinical removal. Consequently, the introduction of the one child policy failed initially to achieve the planned levels of contraceptive use and many women went on to have a second child. However, by the late 1980s, in the face of this covert resistance, the political centre began to exercise more pressure on local cadres to meet demographic targets, docking wages and blocking promotions of those who failed to meet their targets. The gender consequences of this toughened stance have been tragic and will be discussed below.

5.4 Gender inequalities and reproductive trade-offs in corporate householding systems: South-East and East Asia

At first glance, therefore, socio-economic changes associated with rapid growth, urbanization, female education and industrialization appear to have rendered differences in culture and social organization between East and South-East Asia relatively insignificant in explaining the widespread transition to lower birth rates. However, a closer scrutiny reveals these differences do take on considerable significance in shaping demographic outcomes but appear to operate through the forms taken by quantity-quality trade-off in the two regions. In the South-East Asian context, the trade-off takes a form which does not diverge too much from that posited by the original economic formulation, a finding that can be related to the greater egalitarianism of the underlying family structure and gender relations. In most South-East Asian countries, there is little evidence of the kind of marked gender inequalities in basic survival rates that we noted in the northern areas of the Indian sub-continent. Data from Indonesia show little discrimination against girls in choice of health treatment. Studies from both Indonesia and the Philippines do note some intra-household inequalities in nutrition with adults generally favoured over children, although mild malnourishment is also evident among girl children and higher parity children. Data from Viet Nam also rule out significant gender inequalities in basic nutrition and health care.

Given that the costs of children, education costs, in particular, were identified as important variables in bringing about the shift to lower fertility, the quantity-quality trade-off has clearly had a role to play. As we pointed out in the previous section, rapid and substantial fertility decline since the late 1960s has indeed been accompanied by rising education levels among successive cohorts of children in Thailand, and a link to family size is evident in that children from smaller families were more likely to continue education beyond primary level than children from large families. A child from a family with one or two children was five times as likely to go on to secondary education as a child from a family with six or more children.

Among large families, level of education achieved by children was inversely associated with number of children. The inverse relationship between family size and education levels achieved also held within wealth groupings, suggesting that the trade-off applied across all social groups.

However, there is, as might be expected on the basis of our previous arguments, little evidence that investments in child quality have taken a gender discriminatory form. In Thailand, given its traditionally high rates of female labour force participation in agriculture, trading and more recently in manufacturing and given also the greater ties that daughters retain with their own families after marriage, parents can reasonably expect age old support from sons and daughters in about equal measure. There is thus no economic rationale for investing differentially in their human capital. Where girls were found to have less schooling than their brothers, it was partly an effect of family size — in larger families, it was more likely to be girls rather than boys who were withdrawn from school to look after young siblings — and partly an effect of having to take on domestic chores if their mothers were engaged in market-based activity.

Generally, however, the quantity-quality trade-off has not been characterized by marked gender discrimination and according to the recent 1990 census, the gender gap in education has now been closed at all levels. This absence of discrimination in the strategy of investing in child quality may also have hastened fertility decline by making for a costlier strategy. The corporate household organization combined with weak son preference found in Thai society means that, as Knodel and Wongsith point out, "the perceived financial burden of educating children is compounded in Thailand by the feeling that all children, whether sons or daughters, first or last born, should be given an opportunity for education" (1991:129). It also means that this costlier strategy is largely borne by parents rather than being diffused across a wider family or lineage network.

In the East Asian context, by contrast, there is strong evidence that the quantity-quality trade-off is mediated by gender so that investment in the educational resources of male children is achieved at the expense of, and often with the assistance of, female children. This pattern of discrimination in investment in daughters' "quality" in order to increase investments in the quality of sons seems to prevail in most East Asian societies and appears to reflect less the economic potential of daughters (these are all societies in which employment opportunities for skilled female labour has expanded rapidly) than a strong culture of son preference because of sons' importance in maintaining the family line, reinforced by the belief that they will provide for parents in their old age while daughters will be lost to their husbands' families.

Exploring survey data from Taiwan Province of China, Greenhalgh (1985) shows the sexual stratification which has underpinned "growth with equity" in terms of parental discrimination against daughters and in favour of sons in the provision of education in order to ensure their sons' loyalty and their own long term economic security. Daughters were given the minimum level of education necessary to allow them to take up "female" jobs in factories or white collar clerical work. Daughters' wages were then used to subsidize

greater investment in sons' education. The implications of gender discrimination in shaping the quantity-quality trade-off is graphically described in the findings reported in Greenhalgh that the larger the number of sisters, the higher the level of schooling acquired by brothers: among the bottom 80 per cent of families (as defined by income position in 1954), a survey conducted in 1978-1980 suggest that as number of sisters increased from 0 to 1, 2, 3 and 4+ the average number of years of schooling obtained by their brothers increased from 6.8 to 8.0 to 9.6 to 11.4.

However, the reproductive trade-off in the East Asian context does not simply take the form of more educated boys at the expense of less educated girls but also, as in India, through the manipulation of the sex composition of the desired family size. As in the Indian context, the evidence from East Asia belies both the faith that economic theories attach to the progressive role of economic development in improving women's status, as well as the faith that recent demographic theories attach to the benign effects of the diffusion of modern reproductive technology. There is now well-established evidence that sometime in the 1980s, sex ratio at birth (the secondary sex ratio) became markedly more masculine in the three major East Asian countries of China, South Korea and Taiwan Province of China (Park and Cho, 1995).

South Korea is another country that has been held up as a model of "growth with equity". A state family planning programme has been in place since 1961, but for a considerable period afterwards there was little evidence of fertility decline, an outcome attributed by many to the existence of strong son preference. However, since the 1970s there has been a rapid fertility decline: in 1966 the total fertility rate was around 5, and by 1988 it had dropped to 1.6. This 70 per cent decline surpassed even that of China with its stringent one-child policy. The desire for smaller families reflects many of the factors covered in our discussion of fertility transition in the region: high rates of urbanization, causing a chronic housing shortage and rapidly escalating costs of housing; rising costs of the standard of living in general as well as the spread of consumer aspirations.

Raising children is extremely costly in these circumstances, but while the desire for large families has declined, son preference remains intact. Women of all social classes and education levels undergo intense pressure to deliver sons (Han, 1994). Han notes that in South Korea one son is considered sufficient to satisfy son preferences; the reproductive strategy favoured by Korean couples is thus to reduce family size but to ensure at least one son. This rules out past practices of continuing to have children until a son is born. Instead, couples seek to ensure at least one son by using amniocentesis and ultrasound screening to identify the sex of the foetus, along with sex-selective abortion. Ultrasound screening is far less expensive than amniocentesis — though not as reliable in the first 16 weeks of a pregnancy — and is more widely used. By 1986, the Korean Medical Association publicly acknowledged and condemned the misuse of these technologies and a year later the medical services law was revised to allow revocation of the licence of any doctor colluding in this misuse and referral of the doctor to the ethics committee for disciplinary punishment. However, few doctors have been penalized under this ruling and sex-selective abortions continue.

South Korea, along with China, currently has the highest male/female birth ratios in the world — 113.6 males per 100 females in 1988. As we noted earlier, the biological norm is estimated to be around 105 male births to 100 female. Because such measures tend to be resorted to after the first birth, birth ratios become more male dominated for higher order births. Between 1985 and 1987, the sex ratio was more than 130 males to 100 females for third births and exceeded 150 for fourth births. In 1988, the estimate was 199 for fourth births.

However, it is probably in China that a rigidly enforced population policy in the context of an age-old preference for sons has had the most devastating consequences on the survival and well-being of girl children. As we noted in the previous section, the Chinese population went through a number of phases in terms of both its goals and the strictness with which these goals were enforced.

Although the one-child policy was introduced in 1979, there was considerable scope initially for resistance and then, later, for mutual negotiation and accommodation between villagers and local party cadres. A number of exceptions were allowed to the one child rule, in particular that of allowing a second child if the first had been a daughter. Thus an apparently gender-neutral policy norm was given a gender biased interpretation in practice (Greenhalgh and Li, 1995). However, this led to a spurt in fertility rates which the policy makers believed would jeopardize the achievement of economic goals and, by the late 1980s, tough new enforcement measures were introduced and pressures began to be imposed to meet strict demographic targets, docking wages and blocking promotions of those who failed to meet them. Regulations implemented in 1991 reaffirmed commitment to the one child policy, prohibited a third child and permitted a second only if the first had been a girl.

This tighter enforcement of the one child policy had devastating gender outcomes. Both large-scale surveys and smaller village studies indicated that the sex ratio of births had gone from around 105 boys per 100 girls, for all birth orders combined, in the 1970s, before the introduction of the one child policy, to around 114 in the 1980s and to even higher levels of 153 boys per 100 girls according to a three-village study between 1988 and 1993. Throughout this period, the sex ratio of higher parity births was even higher. For the period 1988-1993, Greenhalgh and Li estimate that sex ratios of reported births increased from 133 for the first birth, to 172 for the second, to 1100 for the third (1995). While Bannister had dismissed the sex ratio of births of 109 boys per 100 girls recorded for the 1982 census as “too high to be correct”, later attempts by demographers have identified a number of different mechanisms which might explain these findings. Female infanticide, which has a long history in China, is one possibility but considered unlikely to explain the magnitude of the imbalance. The spread of amniocentesis and chorionic biopsy may have increased the probability of sex-selective abortion. Parents also fail to report the birth of a girl child to the authorities or report it as a still birth in order to give it away for adoption. Only formally adopted children will be reported. The official figures show an increase in number of formal adoptions from less than 200,000 in the 1970s, to 400,000 in 1984-1986 to over 500,000 in 1987, viz.

from 1 per cent of live births to around 2.5 per cent. Needless to say, the overwhelming majority of them were girls. Greenhalgh and Li's study of three villages suggest that the proportion of daughters adopted out rose from 1.3 before 1970 to 2.9 in 1979-1983 and then to 3.8 per cent in 1984-1987.

Finally, demographers have identified high female infant mortality as another means by which parents get rid of unwanted daughters. Under normal circumstances, and in the absence of differential treatment, the "normal" sex ratio among infant deaths is around 130 boys to 100 girls. The substantially lower rates in China, particularly rural China, of around 114 during the 1980s suggest substantial neglect of infant girls. The Chinese estimates are comparable to Pakistan (118) and Tunisia (115) but much lower than Malaysia and the Philippines (128) (Johansson and Nygren, 1991).

The tragic irony of these recent events is that after centuries of female devaluation, China was on the way to becoming a society in which daughters were finally being given value by parents. Many of the women interviewed by Greenhalgh in her 1988 study expressed an active preference for at least one daughter. Parents were increasingly losing faith that their sons could be counted on to observe their filial duties while, at the same time, many parents expressed the belief that daughters might be more reliable in providing emotional support in their old age and perhaps even, given the greater economic opportunities for women in recent decades, providing economic support. Increasing incidence of village endogamy allowed parents to keep in touch with married daughters in a way that had not been possible in earlier times. The active preference for girls was also evident in the practice of adopting girls by couples who had only sons. However, this improvement in the cultural value of girls was not sufficiently strong or well-established to protect them from the discriminatory practices unleashed by the state's strict enforcement of the one child policy.

Some demographers suggest that increased scarcity of women will lead to their better treatment: "Brides, being scarce, will be valued more and that, in combination with rising female status in general (if it occurs), should attenuate son preference" (Ross and Smith, 1992, cited in Han, 1994:41). However, as Greenhalgh and Li (1995) conclude, the deficit in females in India has not been associated with an attenuation in son preference or improvements in the treatment of daughters. Reports of kidnapping of women for marriage and an increase in the traffic of women suggest that demand and supply does not work in simple economistic terms when gender relations are the context. Greenhalgh and Li (1995) suggest that an immediate liberalization of the one child policy coupled with vigorous condemnation of discrimination against baby girls would constitute only a first step towards the elimination of gender biases. Ultimately, however, the Chinese government will have to come to terms with the fact that it faces a straightforward trade-off between achieving the "quantity" objectives embodied in its current population policies and its professed commitment to egalitarian gender relations.

5.5 Concluding comments on economics, demography and fertility transition

This discussion of the different institutional and cultural environments in which reproductive behaviour is played out in different parts of the world reinforces the observation by Das Gupta that we cited at the start of this section: the complexity of human behaviour in an activity so deeply personal and yet so profoundly social as reproduction defies all attempts to reduce it to a universal set of explanatory variables. Our discussion also makes it difficult to understand why culture and economics should be posed as dichotomous forces in peoples' lives in the analyses of demographic transitions when the two are so intertwined in reality. Conventional economic phenomena, such as rising income, are often associated with expenditures — on prestigious consumer goods, for example — whose main function is to signal upward mobility. The goals which people seek to strategize around do not relate merely to the maximization of income but also to social status and prestige. Thus the "sanscritization" process in India cannot be understood in purely economic terms, particularly as it often involves the withdrawal of women from labour market activities and imposition of female seclusion by households that would benefit economically from their contributions.

The reverse side of the narrow and static conceptualization of economic influences in the population literature is the narrow and static conceptualization of culture. Culture is seen as a property of traditional societies, the antithesis of modernity, and the emergence of a rational fertility calculus is considered possible only with the erosion of cultural constraints. As McNicoll (1992) points out, "The model seems to envision a jungle clearing in which reasoned behaviour can take place (in this case the parental benefit-cost analysis of child bearing), surrounded by untamed wilderness, where tradition, instinct and suchlike 'cultural' forces hold sway" (p. 406). What our review of the literature has helped to highlight is that culture is always and inextricably bound up with people's goals and with how these goals are realized. The demographic transitions we have described have not simply entailed the replacement of "traditional" cultural norms with "modern" economic reasoning; rather, they have incorporated the transformation and reconstitution of cultural values, norms and practices in the light of changing material circumstances. The boundary between culture and economics is hard to distinguish, particularly as it is clear that the social organization of kinship and families — traditionally identified as the domain of "culture" — is itself a response to material constraints and is likely to have significant material implications.

This more integrated understanding of culture and economics results in greater ambiguity in the interpretation of many of the variables which have proven significant in explaining the demographic transitions discussed in this paper. The most important forces for change in bringing about fertility decline in the different societies in which it is occurring are related to the general mode of production and the changing interactions this entails between people, their institutional environment and the choices they face. The effect of population pressure on limited resources, combined with the

spread of market forces and the associated monetization of everyday life have profoundly affected the fertility calculus for parents as they erode older forms of livelihoods and security and give rise to the desire for more "human-capital" intensive strategies. But the precise forms that this has taken — and the extent to which it has entailed gender-equitable processes — continues to bear the imprint of older forms of social organization and cultural beliefs in the different contexts, reconstituted in the light of changing circumstances. Thus local realities intervene to shape the effects that different variables have in terms of their fertility implications, as well as their implications for women's ability to participate in these socio-economic processes and the extent to which their daughters have benefited from them.

For instance, women's education and labour force participation have emerged in a number of contexts as important correlates of fertility decline, particularly in the early phases. But the interpretation of these relationships remains ambiguous. As the cases of Korea and Taiwan Province of China tell us, female education is not necessarily associated with female autonomy, while the case of Ghana suggests that female economic autonomy need not necessarily lead to the adoption of small family norms and modern contraception; Ghanaian women have long exercised considerable economic autonomy and as yet show little inclination to do either. In the context of the Indian sub-continent, however, basic female literacy was found to have a powerful effect, reducing fertility rates as well as excess female mortality. Given that female labour force participation, and hence the opportunity-costs effect, was controlled for in the discussion, this suggests that female literacy may be associated in the Indian context with a more intangible set of influences, such as women's ability to assert their own preferences and to value their daughters. In contexts where the subordinate position of women is based on denial of basic resources to them, improvements in their access to valued resources may have a far more transformatory effect than in contexts where such access is not at issue. We have also seen the significance of institutional context in shaping the effects of other variables. Thus while female labour force participation might be expected to conflict with child care responsibilities and to increase the opportunity cost of large family size, its actual impact was mediated by local practices. Where there were established institutional mechanisms for sharing out the costs of child care — through child fostering or extended families — large family size could be reconciled with market participation. Finally, of course, we noted the persistence of old values in shaping reproductive goals and practices in countries where economic growth might have been expected to have swept them away. The resilience of son preference in East and South Asian societies — and its emergence in south Indian states — has led to the deployment of modern reproductive technologies in the pursuit of goals which reflect older cultural belief systems, even as economic growth and the monetization of everyday life have led to the emergence of new aspirations and lifestyles. There are clearly no easy solutions to the question of achieving fertility declines with gender equity in contexts where gender inequities are deeply rooted.

SECTION 6
Population, Development and Human Rights: Rethinking Policy

We have sought through the analysis in this paper to restore the human dimension to its central place in population policies, a dimension which has been neglected in the academic discourse for a variety of reasons. The tendency of neo-Malthusian sections of the population establishment, backed up by doomsday scenarios of the effects of rapid population growth, has been to conceptualize the question of population purely in terms of the efficient management and control of numbers, a tendency which may explain the frequent use of militaristic metaphors in the formulation of demographic policies: contraceptive saturation; targeting of clients; vasectomy camps; and population bombs.[9] Equally, however, the tendency of economic approaches to equate the decision to have children with the decision to acquire any other economic asset has led to the suppression of the human dimension of the decision, in terms of what is being decided, who is doing the deciding and what it implies for the women and men involved in implementing the decision. As Folbre has pointed out, children tumble out of every category in which economists seek to put them. They are neither consumer durables, like cars, nor producer durables, like livestock, nor security assets, like pensions, although they may serve many of the same functions. They are a category of persons, not things, with the concomitant needs, wants, rights and interests (Folbre, 1994).

This simple and obvious truth means that the decision to have children has powerful emotional, bodily and social ramifications in a way that the decision to acquire other assets does not. The gender dimension is integral to reproductive decision-making because women bear the emotional, bodily and social ramifications of having children differently, and more intensely, than men, and they may perceive the costs and benefits differently. Indifference to this dimension has led to frequent violations of human rights — and women's reproductive rights in particular (Hartmann, 1987). However, even where there is a convergence in gender interests within the reproductive couple in relation to fertility goals, gender concerns will remain if such goals incorporate and reproduce the wider devaluation of women by the society in which such goals are formed. As we have seen, such goals can manifest themselves in the discriminatory provision of discretionary, but critical, expenditures in the human capital, productivity and life options of daughters. Alternatively, it may manifest itself in more extreme forms of discrimination, including female foeticide, infanticide and life-threatening neglect of daughters.

The kinds of population policies which would emerge out of this type of analysis support the claims of women's rights activists that respect for

[9] This militaristic sub-text was given a more literal meaning in a suggestion put forward in the 1994 Draft National Policy in India that "battalions of the Indian army .... be deployed wherever feasible to serve the cause of health and population stabilization" (cited in Ghosh, 1994:2189).

human rights must be the starting premise and central principle of such policies. This is the arena where some very basic questions about human well-being and agency are settled, and the outcomes that we observe tell us a great deal about the extent to which a society values its people, and the extent to which it values certain categories of people more than others. Inequalities in outcomes may be a part of the cultural baggage of a society. But where they violate the human rights of individual actors, or groups of actors in that society — in other words, their right to live active, healthy lives, exercise control over their own bodies and life options, and realize their full human potential according to their own priorities — policy makers who claim to represent the interests of their citizens have an obligation to address such violations. Respect for human well-being, agency and rights is not an optional extra in development; it is fundamental to the kind of development that a society wishes to pursue and it will determine how effectively that society mobilizes its full human potential.

Our discussion also suggests that population and development interventions are inextricably intertwined and hence should be formulated in conjunction with, rather than in isolation from, each other. Many of the abuses associated with population programmes have arisen precisely because such programmes have been formulated by those who see numbers as the problem and hence the technological control of reproduction as the solution. This is not to suggest that family planning is irrelevant. Development is not the only contraceptive, but it remains the "best" one because it allows demographic transitions to occur on the basis of some form of choice rather than in response to poverty and the erosion of choice. Nevertheless, a well-designed family planning programme helps to make reproductive choice more effective and to increase women's control over their bodies, reproductive capacity and sexual lives.

A population policy centred on human development includes many of the elements discussed by economists and demographers, but reassessed from a human rights perspective. Family planning remains an important component of such policy, but as a means for expanding reproductive choice rather than for meeting the objectives of population control. Family planning programmes have often been offered, and continue to be offered, on terms which violate the basic principles of reproductive rights. The enforcement of China's one child policy and the denial of the right to use family planning in Romania are some of the more extreme examples of the violation of people's basic reproductive rights. However, more covert curtailments of reproductive choice are also to be found in family planning programmes which are target-driven, leading to pressure being exercised by family planning staff to ensure targets are met (Hartmann and Standing, 1989) to programmes which offer contraceptive choice to the wealthy but only sterilization to the poor (Caldwell et al., 1982). In addition to the violation of the principle of reproductive choice, family planning programmes have frequently neglected the risks of contraceptive technology to women's health. Female hormonal methods have received a disproportionate share of the research funds devoted to the development of new technologies. The unsuitability of these methods to the needs of poorer Third World women has led to persistent reports of unpleasant side effects and high rates of discontinuation.

In recent years, there has been an attempt to promote the "user perspective" in family planning, which points out that family planning programmes are unlikely to be effective or responsive to the human dimension of service delivery unless they take account of individual needs and well-being rather than being organized to meet bureaucratically-set targets. The sole delivery of forms of contraception which remove reproductive control from women do little to reassure potential users that their interests have shaped the provision of services. A user perspective requires offering the widest choice of contraceptive methods available so that a variety of reproductive needs can be met (planning numbers and spacing of births; delaying first birth; terminating reproduction; replacement of child loss) and different sub-groups of women can tailor their contraceptive practice to their specific individual needs and social circumstances. In addition, safe menstrual regulation and abortion to allow for both contraceptive failure or non-use as well as to mitigate the more traumatic conditions caused by rape, incest or risk to mother's life. The wider provision of contraceptives can diminish the incidence but cannot entirely eliminate unwanted pregnancies and from the point of view of both mother and child, it is imperative that every mother is a willing mother and every child a wanted child.

The other important practical concept which needs to inform the design of family planning services is what has been called "the sociology of supply". This draws attention not only to the existence of a possible demand for contraceptive services, but also to the conditions in which it is generated and hence the features which need to characterize the supply of services. The term emerged in relation to what is regarded as a highly successful family planning programme in a particular area in Bangladesh which was then used as the basis for redesigning the national family planning effort. The key feature here is the use of educated female family planning workers to distribute a doorstep service in an effort to overcome the constraints of female seclusion. Attention to the sociology of supply in different contexts helps to overcome the various bureaucratic norms, social preconceptions and ideological biases embedded in the design of contraceptive distribution, making it more responsive to actual need. Raikes (1989), for instance, noted how the missionary influence on the provision of mother and child health services in East Africa, with its implicit definition of women as potential producers of "Christian babies" led to its strongly pro-natalist formulation and its neglect of women's health needs, except in relation to reproduction. It was only when population control became adopted as state policy — as in Kenya — that attention was paid to the provision of contraceptive methods. Bleek (1987) used data from Ghana to show how a model of conjugal family relations derived from the West, rather than being based on local sexual norms and reproductive needs, led to the delivery of family planning services to married women only, denying the possibility of a demand for contraception existing outside of marriage. Among the adverse effects of this was a high incidence of pregnancies and abortions outside marriage among teenage girls and high rates of drop-out from school.

There is, however, a tension between attention to the sociology of supply considerations in the design of family planning programmes and the broader politics of reproductive choice. As Greenhalgh has pointed out, power

relations imbue all levels of social organizations bearing on demographic behaviour so that negotiations and struggles over reproductive choice and control are played out within multiple arenas: family planning programmes as well as the communities in which they are located. Designing programmes to address the various constraints that women face within the household and community may help to meet women's reproductive goals but does little to address the constraints themselves and the possible inequity of reproductive goals that they generate. While the success of the Bangladesh family planning programme may lie, as claimed, in its compatibility with female seclusion through a dense network of female family planning workers delivering services to each home, such a programme is not only a very expensive drain on available scarce resources but its potential for transforming women's lives is confined to increasing their access to modern contraception. And, as we have seen, improved access to modern reproductive technology can co-exist with enormous gender disparities in other arenas of reproductive decision-making.

Merely focusing on the sociology of supply in the design of family planning services does not, therefore, constitute a population policy premised on a human rights perspective. Instead, the underlying power relations which permeate the whole process of reproductive decision-making have to be addressed. This means that men, who have been the invisible gender in family planning efforts, must be factored into practical interventions. As we pointed out earlier, reproductive rights have to take cognisance of the ways in which men view and influence women's reproductive choices as well as the ways in which men view their own reproductive rights and responsibilities. The evidence cited here suggests that men generally want more children than women, have stronger son preferences than women and, particularly where simultaneous or serial polygamy exists, generally have more children than women. Population policies need not only to incorporate more attempts to distribute male methods of contraception and to motivate men to use them, but also to promote greater awareness among men about their own reproductive rights and responsibilities.

New forms of awareness can arise out of changing material circumstances, and they can also be more purposively promoted. In contexts where women have little scope for exercising economic autonomy, access to new resources can have an enormous social impact. In Bangladesh, for instance, the Grameen Bank experiment, which provides landless women with access to credit for the first time in their lives, has been found to lead to a number of positive impacts, including better standards of living for all household members, lower rates of fertility and higher adoption of contraception, even among non-members in villages where the Bank operates (Schuler and Hashemi, 1994). At the same time, overall improvement in girls' education rates and the closing of the gender gap at least at lower levels of education suggests that fertility decline in Bangladesh has not been at the expense of investment in girls. Education remains an important route to expanded awareness of the world and of the different opportunities and alternatives it contains, and hence holds out the promise of building human capabilities and agency in all arenas of life. Clearly, the content and quality of the educational experience matter a great deal for this potential to be realized, since education can have a "systems-conforming" as well as a "systems-

transforming" effect. Nevertheless, even basic literacy for women in a context where they are generally deprived of access to all forms of material and human resources can have a major impact in terms of lower fertility and reduced discrimination against daughters. Indeed, evidence on women's education from a variety of different contexts suggests that it may be associated with greater gender equality in the distribution of resources among children. And while male education has not been found to have as strong an effect on fertility behaviour — and consequently tends to be neglected in a great deal of demographic literature — the discussion on Kenya and Ghana suggests that it may be associated with greater convergence in reproductive goals between the conjugal couple. In any case, rethinking the content and quality of male education may prove to be an important route of increasing the awareness of the next generation of fathers about the whole question of reproductive rights and responsibilities.

Finally, however, the evidence from the Indian subcontinent and from East Asia provides a stark reminder that economic development and demographic transition do not necessarily lead to improvements in women's status. Unless deeply entrenched practices resulting in the devaluation of girl children are tackled, the discriminatory outcomes in the distribution of welfare and human capital resources that characterize some parts of the world will continue to be reproduced in the course of socio-economic transformation. As we have seen, issues of agency and well-being are closely linked in determining these outcomes. The interventions noted have a synergistic potential for improving women's agency, and hence the well-being of daughters, and should be placed at the centre of development practice. But there remains an important political role to be played by governments, international agencies and women's organizations to address more directly the question of human rights in each society so that the quality of development is given as much attention as its more quantitative aspects.

Bibliography

Abdullah, T.A. and S.A. Zeidenstein
Village Women of Bangladesh: Prospects for Change, Oxford University Press, Oxford, 1982.

Agarwal, B.
A Field of One's Own: Gender and Land Rights in South Asia, Oxford University Press, Dehli, 1994.

Banister, J.
"Surprises and confirmations in the results of China's 1982 census" in **International Population Conference, Florence 1985**, Volume 4, Liege, IUSSP, 1985.

Basu A.M.
"Birth control by assetless workers in Kerala: The possibility of a poverty-induced fertility transition", **Development and Change**, 17, 1986.

Becker, G.S.
An Economic Analysis of Fertility, in Demographic and Economic Change in Developed Countries Conference of the Universities-National Bureau Committee for Economic Research, a report of the National Bureau of Economic Research, Princeton University Press, Princeton, N.J. 1960.

_____
Fertility and the Economy, paper presented at the Nobel Jubilee Symposium, Lund, Sweden, December, 1991.

Becker, G.S. and H.G. Lewis
"On the interaction between quantity and quality of children", **Journal of Political Economy**, 81(2, Part II), 1973.

Bhuiya, A., I. Bhuiya and M. Chowdhury
Factors Affecting Acceptance of Immunization Among Children in Rural Bangladesh: Evidence from the 1989 Bangladesh Fertility Survey, Health Policy and Planning, 1995.

Bleek, W.
"Family and family planning in Southern Ghana", in C. Oppong (ed.), **Sex Roles, Population and Development in West Africa**, James Currey, London, 1987.

Boserup, E.
The Conditions of Agriculture Progress, Allen and Unwin, London, 1965.

_____
Women's Role in Economic Development, St.Martin's Press, New York, 1970.

Bruce, J.
"Implementing the user perspective", **Studies in Family Planning**, Vol. 11(1), 1980.

Cain, M.
"On women's status, family structure and fertility in developing countries", background paper for the **World Development Report 1984**, The World Bank, 1984a.

_____
"Women's status and fertility in developing countries: Son preference and economic security", Working Paper No. 110, The Population Council, 1984b.

_____
"The consequences of reproductive failure: Dependence, mobility and mortality among the elderly in rural South Asia", **Population Studies**, Vol. 40, 1986.

Caldwell, J.
Theory of Fertility Decline, Academic Press, New York, 1982.

Caldwell, J.C., P.H. Reddy and P. Caldwell
"Demographic change in rural South India", **Population and Development Review**, Vol. 8(4), 1982.

Caldwell, J., P. Caldwell and I.O. Orubuloye
"The family and sexual networking in sub-Saharan Africa: Historical regional differences and present-day implications", **Population Studies**, Vol. 46, 1992.

Caldwell, J.C. and P. Caldwell
"What does the Matlab Fertility Experience really show?", **Studies in Family Planning**, Vol. 23 (5), 1992.

Chamratrithirong, A., S. Philip Morgan and R. Rindfuss
"Living arrangements and family formation", **Social Forces**, 66, 1988.

Chan, C.K.
"Eugenics on the rise: A report from Singapore", **International Journal of Health Services**, Vol. 15(4), 1985.

Cleland, J. and C. Wilson
"Demand theories of the fertility transition: An iconoclastic view", **Population Studies**, 41(1), 1987.

Cleland, J., J.F. Phillips, S. Amin and G.M. Kamal
The Determinants of Reproductive Change in Bangladesh: Success in a Challenging Environment, World Bank Regional and Sectoral Studies, The World Bank, Washington, D.C., 1994.

Cleland, J. and S. Jejeebhoy
"Maternal schooling and fertility: Evidence from censuses and surveys", in Jeffery, R. and A.M. Basu (ed.), **Girls' Schooling, Women's Autonomy and Fertility Change in South Asia**, Sage Publications, Dehli, forthcoming.

Cochrane S.H. and S.M. Farid
Fertility in Sub-Saharan Africa: Analysis and Explanation, World Bank Discussion Paper No. 43, Washington, D.C., 1989.

Connelly M. and P. Kennedy
"Must it be the rest against the West?", **The Atlantic Monthly**, December, 1994.

Das Gupta, M.
"Selective discrimination against female children in India", **Population and Development Review**, 13, 1987.

_____
"Death clustering, mother's education and the determinants of child mortality in rural Punjab, India", **Population Studies**, Vol. 44(3). 1990.

Das Gupta, P.
An Inquiry into Well-being and Destitution, Clarendon Press, Oxford, 1993.

Davis, K.
"The world demographic transition", **The Annals of the American Academy of Political and Social Sciences**, 237, 1945.

Demeny, P.
"The population of the underdeveloped countries", **Scientific American**, Vol. 231 (3), 1974.

_____
"Social science and population policy", **Population and Development Review**, Vol. 14 (3), 1988.

_____
Policies seeking a reduction of high fertility: A case for the demand side", in **Population Policies and Programmes**, Proceedings of the UN Expert Group Meeting on Population Policies and Programmes, Cairo, Egypt, 1993.

Desai, S.
Gender Inequalities and Demographic Behaviour: India, Population Council, New York, 1994.

Desai, J.
Viet Nam Through the Lens of Gender: Empirical Analysis Using Household Survey Data, UNDP, Hanoi, 1995.

Dick, H.
"Survey of recent developments", **Bulletin of Indonesian Economic Studies**, No. 18, 1982.

Drèze, J.
Widows in Rural India, STICERD Development Economics Research Programme No. 26, London School of Economics, 1990.

Drèze, J. and A.K. Sen
India: Economic Development and Social Opportunity, Oxford University Press, Oxford, 1995.

Dyson, T. and M. Moore
"On kinship structure, female autonomy and demographic behaviour in India", **Population and Development Review**, Vol. 9(1), 1983.

Folbre, N.
Children as Public Goods, AEA Papers and Proceedings, May 1994.

Frank, O.
The Childbearing Family in Sub-Saharan Africa: Structure, Fertility and the Future, paper prepared for Population Council/ICRW Seminar Series on The Determinants and Consequences of Female-Headed Households, October, 1988.

Frank, O. and G. McNicoll
"An interpretation of fertility and population policy in Kenya", **Population and Development Review**, Vol. 13(2), 1987.

Freedman, D. and R. Freedman
Adding Demand-Side Variables in the Interaction Between Demand and Supply in Bangladesh, report prepared for the Policy and Research Division, Population, Health and Nutrition Department, The World Bank, Washington, D.C., 1986.

Freedman, L. P. and S.L. Isaacs
"Human rights and reproductive choice", **Studies in Family Planning**, Vol. 24(1), 1993.

Gage, A.J. and W. Njogu
Gender Inequalities and Demographic Behaviour: Ghana/Kenya, The Population Council, New York, 1994.

Ghosh, A.
"National population policy", **Economic and Political Weekly**, Aug. 20, 1994.

Gomes, M.
"Family size and educational attainment in Kenya", **Population and Development Review**, 10(4), 1984.

Goodkind, D.
"Viet Nam's one-or-two child policy in action", **Population and Development Review**, 21(3), 1995.

Goody, J.
"Futures of the family in rural Africa", in G. McNicoll and M. Cain (eds.), "Rural development and population: institutions and policy", Supplement to **Population and Development Review**, Vol. 15, 1989.

Greenhalgh, S.
"Sexual stratification: The other side of 'growth with equity' in East Asia", **Population and Development Review**, Vol. 11(2), 1985.

_____
"Controlling births and bodies in village China", **American Ethnologist**, Vol. 21(1), 1994.

_____
"Anthropology theorizes reproduction: Integrating practice, political economic and feminist perspectives", in S. Greenhalgh (ed.), **Situating Fertility: Anthropology and Demographic Inquiry**, Cambridge University Press, Cambridge, 1995.

Greenhalgh, S. and J. Li
"Engendering reproductive policy and practice in peasant China: For a feminist demography of reproduction", **Signs**, Vol. 20(31). 1995.

Hammel, E.A.
"A theory of culture for demography", **Population and Development Review**, Vol. 16 (3), 1990.

Han, Hye-Jin
"Unwelcome daughters. Son preference and abortion in South Korea", in **Private Decisions, Public Debate**, Panos Publications, London, 1994.

Hart, G.
Power, Labour and Livelihood: Processes of Change in Rural Java, University of California Press, 1986.

Hartmann, B.
Reproductive Rights and Wrongs. The Global Politics of Population Control and Contraceptive Choice, Harper and Row, New York, 1987.

Hartmann, B. and H. Standing
The Poverty of Population Control: Family Planning and Health Policy in Bangladesh, Bangladesh International Action Group, London, 1989.

Heyer, J.
"The role of dowries and daughters' marriages in the accumulation and distribution of capital in a south Indian community", **Journal of International Development**, 5(6), 1992.

Hill, K. and D.M. Upchurch
"Gender differences in child health: Evidence from the demographic and health surveys", **Population and Development Review**, Vol. 21(1), 1995.

Hirschman C. and P. Guest
"The emerging demographic transitions of Southeast Asia", **Population and Development Review**, 16(1), pp. 121-152, 1990.

Hull, T.H.
"The positive relation between economic class and family size in Java", Gajah Mada, University, **Population Institute Report Series**, No. 2, Yogyakarta, 1976.

_____
"Recent trends in sex ratios at birth in China", **Population and Development Review**, 16 (1), 1990.

Hyden, G.
"Local governance and economic-demographic transition in rural Africa", in McNicoll, G. and M. Cain (eds.), **Rural Development and Population: Institutions and Policy**, Supplement to **Population and Development Review**, Vol. 15, 1989.

Jacka, T.
"The public/private dichotomy and the gender division of labour", in Andrew Watson (ed.), **Economic Reform and Social Change in China**, Routledge, London, 1992.

Jackson, C.
"Questioning synergism: win-win with women in population and environment policies?", **Journal of International Development**, 1993, 5(6), pp. 651-668.

Jeffery, P., R. Jeffery and A. Lyon
Labour Pains and Labour Power, Zed Press, London, 1988.

Jeffery, R. and A.M. Basu
Girls' Schooling, Women's Autonomy and Fertility Change in South Asia, Sage Publications, Dehli, forthcoming.

Jejeebhoy, S.J. and S. Kulkarni
"Reproductive motivations: A comparison of wives and husbands in Maharashtra, India", **Studies in Family Planning**, Vol. 20(5), 1989.

Johansson, S.R.
"'Implicit' policy and fertility during development", **Population and Development Review**, 17(3), 1994.

Johansson S. and O. Nygren
"The missing girls of China: A new demographic account", **Population and Development Review**, 17 (3), 1991.

Kabeer, N.
The Functions of Children in the Household Economy and Levels of Fertility: A Case Study of a Village in Bangladesh, Ph.D. dissertation, London School of Economics and Political Science, 1986.

_____
Reversed Realities: Gender Hierarchies in Development Thought, Verso Press, London, 1994a.

_____
"Re-examining the 'demand for children' hypothesis in the context of fertility decline in Bangladesh", in **Poverty Reduction and Development Co-operation**, Centre for Development Research, Working Paper, Copenhagen, 1994b.

Kabeer, N. and Tam G. Tipping with T. Peasgood
"Policy-induced or demand-driven: Tracking fertility decline in rural north Viet Nam", mimeo, IDS, Sussex, 1995.

Kandiyoti, D.
Women in Rural Production Systems. Problems and Policies, UNESCO, Paris, 1985.

Kapadia, K.
"Marrying money: Changing preference and practice in Tamil marriage", **Contributions to Indian Sociology**, 1993.

Kennedy, P.
Preparing for the 21st Century, Random House, New York 1993.

Kertzer, D.I.
"Political-economic and cultural explanations of demographic behaviour", in S. Greenhalgh (ed.), **Situating Fertility. Anthropology and Demographic Inquiry**, Cambridge University Press, Cambridge, 1995.

Knodel, J. and E. van de Walle
"Lessons from the past: Policy implications of historical fertility studies", **Population and Development Review**, 5(2), 1979.

Knodel, J. and V. Prachuabmoh
"Preference for sex of children in Thailand: A comparison of husbands' and wives' attitudes", **Studies in Family Planning**, Vol. 7, 1976.

Knodel, J. and M. Wongsith
"Family size and children's education in Thailand: Evidence from a national sample", **Demography**, Vol. 28(1), 1991.

Knodel, J., A. Chamratrithirong and N. Debavalya
Thailand's Reproductive Revolution: Rapid Fertility Decline in a Third World Setting, University of Wisconsin Press, Madison, 1987.

Knodel, J. N. Havanon and W. Sittitrai
"Family size and the education of children in the context of rapid fertility decline", **Population and Development Review**, Vol. 16(1), 1990.

Launay, R.
"The power of names: Illegitimacy in a Muslim community in Côte d'Ivoire", in S. Greenhalgh (ed.), **Situating Fertility. Anthropology and Demographic Inquiry**, Cambridge University Press, Cambridge, 1995.

Leng C.H. and C.C. Khoon
Designer Genes: I.Q., Ideology and Biology Institute for Social Analysis, Selangor, Malaysia, 1984.

Lesthaeghe, R.
"Production and reproduction in sub-Saharan Africa: An overview of organizing principles", in R. Lesthaeghe (ed.), **Reproduction and Social Organisation in Sub-Saharan Africa**, University of California Press, Berkeley, 1989.

Lightbourne, R.E.
"Individual preferences and fertility behaviour", in J. Cleland and J. Hobcraft (eds.), **Reproductive Change in Developing Countries**, Oxford University Press, Oxford, 1985.

Livingstone, I.
"Population growth and rural labour absorption in eastern and southern Africa", in Lloyd, C. B., **Investing in the Next Generation: The Implications of High Fertility at the Level of the Family**, Research Division Working Papers No. 63, Population Council, New York, 1994.

"Population growth and rural labour absorption in eastern and southern Africa", in McNicoll G. and M. Cain (eds.), **Rural Development and Population: Institutions and Policy**, Supplement to **Population and Development Review**, Vol. 15, 1989.

Lloyd, C. B.
Investing in the Next Generation: The Implications of High Fertility at the Level of the Family, Research Division Working Papers No. 63, Population Council, New York, 1994.

Lloyd, C.B. and A.J. Gage-Brandon
High Fertility and the Inter-Generational Transmission of Gender Inequality: Children's Transition to Adulthood in Ghana, paper presented at the Seminar on Women and Demographic Change in sub-Saharan Africa, Dakar, March, 1993.

Lockwood, M.
"Development policy and the African demographic transition: Issues and questions", in **Journal of International Development**, Vol. 7 (1) 1995.

Mason, K.O. and A.M. Taj
"Differences between women's and men's reproductive goals in developing countries", **Population and Development Review**, Vol. 13(4), 1987.

Mass, B.
Population Target: The Political Economy of Population Control in Latin America, Women's Press, Toronto, 1976.

McNicoll, G. and M. Singarimbum
Fertility Decline in Indonesia: Analysis and Interpretation, National Academy Press, Washington, D.C., 1983.

McNicoll, G.
"Changing fertility patterns and policies in the Third World", **Annual Review of Sociology**, Vol. 18, 1992.

McNicoll, G. and M. Cain (eds.)
Rural Development and Population: Institutions and Policy, Supplement to **Population and Development Review**, Vol. 15, 1989.

Miller, B.D.
The Endangered Sex: Neglect of Female Children in Rural North India, Cornell University Press, Ithaca, N.Y., 1981.

Morgan, S.P. and R.R. Rindfuss
"Household structure and the tempo of family formation in comparative perspective", **Population Studies**, 38, 1984.

Mortimer, M. and M. Tiffen
"Population and environment in time perspective: The Machakos story", in T. Binns (ed.), **People and Environment in Africa**, John Wiley and Sons, Chichester, 1995.

Muhuri, P.K and S.H. Preston
"Effects of family composition on mortality differentials by sex among children in Matlab, Bangladesh", **Population and Development Review**, 17(3), 1991.

Nag, M.
Sex Preference in Bangladesh, India and Pakistan and its Effect on Fertility, Research Division Working Papers No. 27, Population Council, New York, 1991.

Nag, M. M. Badrud Duza and M. Koenig
Explaining Fertility Transition in Matlab, Bangladesh: A Qualitative Study, Population Council/ICDDRB Report, prepared for Swedish International Development Agency, 1988.

Notestein, F.W.
"Population — the long view", in T. Schultz (ed.), **Food for the World**, University of Chicago Press, Chicago, 1945.

Palmer, I.
Gender and Population in the Adjustment of African Economies: Planning for Change, ILO Women, Work and Development Series, Geneva, 1991.

Park, C.B. and N. Cho
"Consequence of son preference in a low-fertility society: Imbalance of the sex ratio at birth in Korea", **Population and Development Review**, 21(1), 1995.

Pebley, A.R. and S. Amin
The Impact of Public Health Interventions on Sex Differentials in Child Mortality in Rural Punjab, India, Research Division Working Papers No. 24, Population Council, 1991.

Pebley, A. and W. Mbugua
"Polygamy and fertility in sub-Saharan Africa", in R. Lesthaeghe (ed.), **Reproduction and Social Organisation in Sub-Saharan Africa**, University of California Press, Berkeley, 1989.

Petchesky, R.
Abortion and Woman's Choice, Verso Press, London. 1984.

Pritchett, L.H.
"Desired fertility and the impact of population policies", **Population and Development Review**, Vol. 20(1), 1994.

Pyne, H.H.
"Reproductive experiences and needs of Thai women: Where has development taken us", in G. Sen and R.C. Snow (eds.), **Power and Decision. The Social Control of Reproduction**, Harvard University Press, Cambridge, MA, 1994.

Rahman M. and J. Da Vanzo
"Gender preference and birth spacing in Matlab, Bangladesh", **Demography**, Vol. 30(3), 1993.

Rahman, M., J. Akbar, J.F. Phillips and S. Becker
"Contraceptive use in Matlab, Bangladesh: The role of gender preference", **Studies in Family Planning**, Vol. 23(4), 1992.

Raikes, A.
"Women's health in East Africa", **Social Science and Medicine**, Vol. 28(5), 1989.

Robey, B. S. O'Rustein and L. Morris
"The fertility decline in developing countries", **Scientific American**, Vol. 269(6), 1993.

Robinson W.C. and D.E. Horlacher
Population Growth and Economic Welfare, reports on Population and Family Planning No. 6, The Population Council, 1971.

Rosenzweig, M.R. and T.P. Schultz
"Market opportunities, genetic endowments and intra-family resource distribution: Child survival in rural India", **American Economic Review**, Vol. 72(4), 1982.

Russell, M.
"Women, children and marriage in Swaziland", **International Journal of Sociology of the Family**, Vol. 23, Spring, 1993.

Schuler, R.S. and S.M. Hashemi
"Credit programs, women's empowerment and contraceptive use in rural Bangladesh", **Studies in Family Planning**, Vol. 25(2), 1994.

Sen, A.
Economic Development and Women's Concerns' in Integration of Women's Concerns into Development Planning in Asia and the Pacific, UN-ESCAP, New York, 1992.

_____
"More than 100 million women are missing", **The New York Review**, Dec. 20, 1990a.

_____
"Gender and co-operative conflicts", in I. Tinker (ed.), **Persistent Inequalities**, 1990b, Oxford University Press, Oxford, 1990b.

Sen, G. and C. Grown
Development Crises and Alternative Visions: Third World Women's Perspectives, DAWN Secretariat, Bangalore, 1985.

Shepherd, G.
"Attitudes to family planning in Kenya: An anthropological approach", **Health Policy and Planning,** Vol. 2(1), 1987.

Simmons, G.B.
"Theories of fertility", in Farooq, G.M. and G.B. Simmons (eds.), **Fertility in Developing Countries: An Economic Perspective on Research and Policy Issues**, Macmillan Press, London, 1985.

Sinding, S.
The Demographic Transition in Kenya: A Portent for Africa, paper presented at the School of Public Health in the Distinguished Lecture Series on International Health, University of North Carolina, Chapel Hill, 1991.

Stinner, W.F. and P.D. Madden
Sons, Daughters or Both? An Analysis of Family Sex Composition Preferences in the Philippines, 1975.

Summers, L.
"The most influential investment", **People and the Planet**, Vol. 2(1), 1993.

Svedberg, P.
"Undernutrition in sub-Saharan Africa: Is there a gender bias?", **Journal of Development Studies**, No. 3, 1990.

Thomas, N.
"Land, fertility and the population establishment", **Population Studies**, Vol. 45, 1991.

Tiffen, M.
"Population density, economic growth and societies in transition: Boserup reconsidered in a Kenya case-study", **Development and Change**, Vol. 26, 1995.

Todaro, M.P. and E. Fapohunda
Family Structure, Implicit Contracts and the Demand for Children: A Consideration of Southern Nigerian Data, Centre for Policy Studies, Working Paper No. 136, Population Council, New York, 1987.

Townsend, J. and J.H. Momsen
"Towards a geography of gender in developing market economies", in J.H. Momsen and J. Townsend (eds.), **Geography of Gender in the Third World**, State University of New York Press, Hutchinson, London, 1987.

UNFPA
State of the World's Population, New York, 1995.

Ware, H.
Women, Demography and Development, Development Studies Centre, Canberra, 1981.

Watkins, S.C.
"If all we knew about women was what we read in **Demography**, what would we know?", **Demography**, 30(4), 1993.

White, B.
Production and Reproduction in a Javanese Village, Ph.D. dissertation, Columbia University, New York, 1976.

Yuval-Davis, N.
"The Jewish collectivity", in **Women in the Middle East**, Khamsin Series, Zed Books, London, 1987.