

**The Value of Children  
and the Household Economy -  
A Review of Current VOC Studies  
in the Developing World**

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## Introduction

Since the early 1970s, there has been an increasing interest in the social psychological study of the value of children (VOC) as one of the basic determinants of fertility behaviour. The social psychological approach has been hailed as a major theoretical 'breakthrough' in the understanding of fertility differentials between socio-economic strata, and of fertility decline in modernizing societies. In Asia, more major demographic surveys have been conducted in the past decade than elsewhere in the world, and, particularly in South and Southeast Asia, there has been more social psychological research on fertility behaviour than in any other region of the developing world (see Duncan, 1973; Baum, *et al.* 1974; ESCAP, 1974). What are some of the major empirical findings that the VOC approach has yielded? To what extent can its claim of having made significant theoretical contributions be substantiated? What are some of the major gaps still existent in the present state of knowledge about human fertility, in particular, what are the predominant social and economic supports for high fertility in the developing world today?

This paper is a review of the major contemporary VOC studies in the developing world. First we shall briefly discuss how the approach rose to popularity in the first place, and what are some of their main empirical findings. Then, we shall critically examine these studies in terms of their methodology and their theoretical framework. Emphasis is placed on the need to study VOC dimensions, and, for that matters, the study of fertility behaviour, within a total societal context. We see the need for more sociological and anthropological studies to fill the present gaps in theoretical knowledge with regard to human fertility.

## Emergence of VOC Studies

The recent VOC studies can be said to have come about as a reaction against the economic model of fertility on the one hand, and the lack of a theoretical framework in the conventional KAP (knowledge, attitude, and practice of family planning) studies, on the other.

The micro-economic model of fertility behaviour seeks to explain individual household decisions to limit family size by assuming a 'trade-off' between preference for a higher standard of living and preference for children, beyond a certain income threshold (see Leibenstein, 1957; Becker, 1960; Easterlin, 1969; Robinson and Horlacher, 1971). The macro-economic analysis interprets the differences in fertility levels across societies in terms of differences in their stage of socio-economic development in general (see United Nations, 1953; Ryder, 1959;

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Adelman and Morris, 1966; Heer, 1966; United Nations, 1973). Under the latter approach, the major processes studied include urbanization, industrialization, and other indicators of socio-economic development such as the level of education and women's participation in the labour force. The link between individual fertility and societal modernization is said to lie in the concept of 'individual modernity', which is commonly operationalized as a measure of the individual's orientation towards technology, the future and social change, and his general sense of personal efficacy (see Fawcett and Bornstein, 1973). Earlier works on individual modernity suffer from the conspicuous absence of individual fertility desires in their measurement of individual modernity. In this connection, the works of Inkeles and associates (Inkeles, 1969; Inkeles and Smith, 1974) represent a notable departure, in that the individual's desired family size and his attitudes towards family planning are specifically built into his OM (overall modernity) scores.

However, both the micro-economic and the macro-economic models have come under attack in recent years. On the one hand, major criticism has been directed against the basic assumption of the micro-economic model, that is the assumption that children are like 'consumer durables' (see Blake, 1968). On the other, recent works on the demographic transition in nineteenth-century Europe and in contemporary transitional societies have questioned the validity of the macro-economic model in assuming a correlation between fertility decline and socio-economic development (see Coale, 1973; Caldwell, 1976). While data from the developing countries have shown a consistent, negative relationship between the level of urbanization, or urban experience, and fertility (see Miro and Mertens, 1968; United Nations, 1968; Caldwell, 1968; Goldstein, 1973; Choi and Chan, 1973), it is widely known that in transitional societies, despite technological development and rapid socio-economic changes, fertility levels remain high (see United Nations, 1973). This calls for sociological and anthropological investigation into the economic and social supports for high fertility in the developing countries.

Conventional KAP studies, made mostly in connection with family planning programmes, have concentrated on the socio-economic determinants of contraceptive behaviour. Rosario's 'Guide for Researchers' (1973) indicated that the majority of family planning research between 1946-1972 have been KAP studies, where the most commonly-used independent variables are norms, values, and belief systems regarding family-size desires and birth-control practice. However, the abundant data accumulated from these KAP studies are found to be of limited value in providing a basis for understanding human fertility. There is a major gap in theoretical knowledge, as gained from these KAP studies, pertaining to the link between family-planning beliefs and practices and the final achieved family size. The inconsistency between attitudes and behaviour found in KAP studies thus becomes a central theoretical as well as a methodological concern (see Figa-Talamanca, 1972). In examining the basic fallacies in many family-planning programmes, Bogue (1974) noted the invalidity of many of their psychological, social psychological, and sociological assumptions, and stressed the need for a sound theory of fertility motivation.

The study of social psychological variables in fertility behaviour had precedence in the massive Princeton Study and the Indianapolis Study of the 1950s

(Westoff, *et al*, 1961; Whelpton and Kiser, 1946-58). Unfortunately, these two studies have come to be known as 'failures' in the social psychological approach, in that they failed to establish the relationship of intra-familial relations, emotional attachment, family formation, and the like to fertility. In the 1960s, there were various attempts by sociologists and demographers to focus on 'reproductive motivation' (for example, Hill, Stycos and Back, 1959; Davis, 1967; Blake, 1968; Hawthorn, 1970; Chilman, 1970). However, it was not until the 1970s that social psychologists began seriously to be interested in population research. While several studies can be considered as precursors to the contemporary VOC studies (for example, Pohlman, 1969; Schultz, 1973; Hoffman and Hoffman, 1973; Fawcett, 1970), the VOC studies of the 1970s are far more empirical in orientation, larger in scale, and are cross-cultural in perspective. This has been made possible by funding from international development and population-research agencies, arising from a late recognition of the theoretical relevance of cross-cultural research, as well as a recent awareness of the inapplicability to the developing world of population-research methodology hitherto used in the West.

### Major Findings of VOC Studies in the Developing World

To date, there have been two major cross-cultural studies of fertility behaviour from a social psychological perspective in Asia. One was the 1971/2 ECAFE study (ESCAP, 1975) on Husband-Wife Communication, a study involving four countries: Iran, India, Philippines, and Singapore. While this study contains many VOC dimensions, yet it has not been specifically addressed to such aspects. Rather, VOCs are investigated as part of the large/small family orientations of the couples, and as the title of the project suggests, husband-wife communication is taken to be an independent variable in fertility behaviour. The other study was the pilot study on the 'Value of Children in Asia and the United States', carried out under the auspices of the East-West Population Institute in Hawaii and involving six countries: Japan, Korea, Taiwan, Philippines, Thailand, and the United States (Hawaii) (see Fawcett, *et al*, 1974). This study has now entered the main survey stage and has been expanded to include Singapore, Indonesia, and Turkey as well.

Apart from these two major cross-national studies, there have been other individual country studies with VOC dimensions. For example, the Heng Kong Family Life Survey of 1972 (Choi and Chan, 1973; Choi, 1975; Chung and Wong, 1976), and some recent studies in Taiwan (Mueller, 1972; Yang, 1974). Elsewhere in the developing world, there is an increasing interest in VOC research, as reflected in the studies in Chile (Turner, 1974), and the Changing African Family Project in Nigeria (Caldwell, 1974).

The basic assumption underlying most of these VOC studies is that couples make cost-benefit calculations in making childbearing decisions. Any decision to have an additional child is assumed to be the outcome of a balancing between the positive values (or advantages) and the negative values (or disadvantages) of having children. The positive values of children pertain to emotional benefits, economic benefits and security, self-enrichment and development, identification with children, and family cohesiveness and continuity. The negative values of children pertain to the emotional costs, economic costs, restrictions or opportunity costs, physical demands, and family cost (see Fawcett, 1972; Fawcett, *et al*, 1974).

Country reports on the six-country pilot study have started to come in (for example, Arnold *et al*, 1975; Bulatao, 1975; Arnold and Fawcett, 1975). Some of the significant findings of this study can be summarized as follows:

(1) In general, it was found that most parents in all six countries were quite aware of the conflicting aspects (costs and benefits) of having children. The salience of the values attached varied across countries somewhat, but the variations were much more systematic across the different socio-economic groups in each country.

(2) Family size and family size desires — As is well-known in the general literature, a consistent negative relationship between family size and family-size desires and socio-economic status (SES) was found, with the rural respondents wanting more and having more children than the urban lower-class and the urban middle-class. It was found that in general, wanted and ideal family sizes were quite similar, with a tendency for the ideal size to be slightly smaller. In this connection, it was interesting to note that the size of the family considered to be large or small varied from country to country and across the SES groups. (For the rural Filipinos, a 'small' family was 3.7 children on the average.)

(3) Rural-urban differences in VOC — Again, as generally known in the literature, expectations of economic help from children were shown to be highest for the rural respondents in all countries, and the scores for urban lower-class were consistently between those for the rural and urban middle-class.

(4) SES differences in VOC — One of the most consistent findings from the study was the emergence of distinctive profiles of values attached to children for the three SES groups:

a. For the urban middle-class: psychological or emotional benefits were emphasized, while economic benefits were generally not salient. On the other hand, financial costs of children were highly salient for this SES group, reflecting the desire of the urban middle-class for 'higher-quality' children, as well as the generally higher costs of bringing up children in the urban setting. Finally, opportunity costs or restrictions of various kinds were important to the middle-class parents.

b. For the urban lower-class: like the urban middle-class, the urban lower-class stressed psychological or emotional benefits, but there was an increase of economic motivation and some evidence of a stronger orientation toward continuity of the family name. Lower-class respondents in general showed greater concern than the middle-class about financial costs, in fact, in some countries the data suggested a trend toward curvilinearity, with the urban lower-class being more concerned about costs than either the middle-class or the rural groups. This is not surprising, since the urban lower-class tended to have more children and lower income than the middle-class, while they were being exposed to the same high urban-cost factors, and to have higher costs and fewer economic benefits from having children than the rural group. Restrictions on alternative activities were also important to the urban lower-class, although generally less important than for the middle-class.

c. For the rural group: the economic utility of children came to the fore, with respect to current economic contributions and security in the parents' old age. Given the real economic contributions of children to farm labour, it was again not surprising to find that the salience of emotional benefits of having children was lower for the rural group than economic benefits.

(5) Son-preference — Another consistent finding from the study was the pervasive level of son-preference in the Asian cultures. Continuity of the family name was overwhelmingly the most frequently cited reason for wanting a boy, particularly in Korea and Taiwan. Old-age support and various types of economic and practical help were also often cited. Daughters, on the other hand, were wanted everywhere mainly for the psychological satisfactions and practical help they provide while they are still children and remain with the family. It is also noteworthy that the sex ratio in the family was often mentioned with respect to the desire for daughters — they were wanted in order to provide a 'proper' sex ratio of boys and girls in the family.

(6) Religious influence — In the Philippines and Thailand, influences specifically tied to the religious systems (Catholicism and Buddhism) were important.

(7) Level of economic development and VOC differences — Although the data did not point directly to the linkage between the general economic development of a country and its particular VOC profile, there were some indications that differences in VOC profiles among the six countries did reflect somewhat their different levels of economic development. For example, in Japan and among Japanese and Caucasians in Hawaii, these more affluent respondents living in more modern societies were more concerned about opportunity costs of having children, as reflecting the greater range of alternative satisfactions available to them. They also tended to place greater emphasis on the psychological benefits to the parents in rearing children, and showed very little concern for the economic benefits. Preference for sex of children was also less strong among Japanese and Caucasian respondents, perhaps reflecting societal differences in sex roles and such factors as higher educational levels for the samples.

The six-country VOC study concluded that there were significant statistical relationships between the VOC dimensions and indices of fertility and family planning behaviour. Data on VOC from other individual country studies also tend to support such a relationship. In Hong Kong, for example, it was found that the perception of high emotional costs was related to low actual and desired family size, whereas the perception of high emotional benefits was related to a larger number of children and a greater desired family size. Similarly, high economic costs were related to small size of family desired, while economic benefits were related to larger family size desires (see Chung, 1974; Chung and Wong, 1976). Thus, in general, the VOC dimensions are found to have added significantly to the predictive power of stratification variables and background variables in determining family-size desires and family-planning behaviour.

Apart from the general study of VOC profiles in the six-country study and in individual country studies, one of the most widely studied VOC dimension was that of son-preference in Asia. Son-preference has been shown to be linked

to the cultural emphasis on continuity of the family name, as well as to the practical economic benefits to be had from having boys (for Korea, see Lee and Lee, 1973; Chung, Cha and Lee, 1974; Kong and Cha, 1974; for Taiwan, see Freedman, Coombs and Chang, 1972; Yang, 1974; and for Singapore, Chen, 1973. See also, Williamson, 1972).

### Methodology of the VOC Studies

Rosen and Simmons (1971) have pointed out earlier the paucity of social psychological studies of fertility across several communities and social classes, along a continuum from rural village through traditional city to the modern industrial metropolis, with the consequence that it was almost impossible to identify the linkages between macro-structural and the psychological levels of analysis. While the contemporary VOC studies may have attempted to compare the VOC of various SES groups, yet their cross-sectional design does not allow the prediction of fertility behaviour from values or attitudes still. As achieved family size is the result of a series of decisions at certain critical points in the family reproductive career, it follows that the changing roles of children, and consequently the changing values attached to children, should have been studied throughout the family life cycle. A longitudinal design, such as follow-up studies on newly married couples, and experimental research with controlled groups would allow stronger causal conclusions.

A far more serious criticism pertains to the use of the survey method and the use of multivariate analysis, as opposed to the anthropological field approach. It was admitted in volume one of the six-country VOC reports (Arnold *et al*, 1975:43) that, although the respondents were generally aware of the conflicting aspects of childbearing, yet they were either unable or were reluctant to discuss children in economic terms. Most parents appeared to have little notion of what it actually cost to raise a child, and many were reluctant to discuss children as if they were consumer goods. Thus, the economic measures, particularly for the costs of children, were couched in rather general terms, components of costs and benefits were not fully specified and aspects such as 'quality' of the child were not explored.

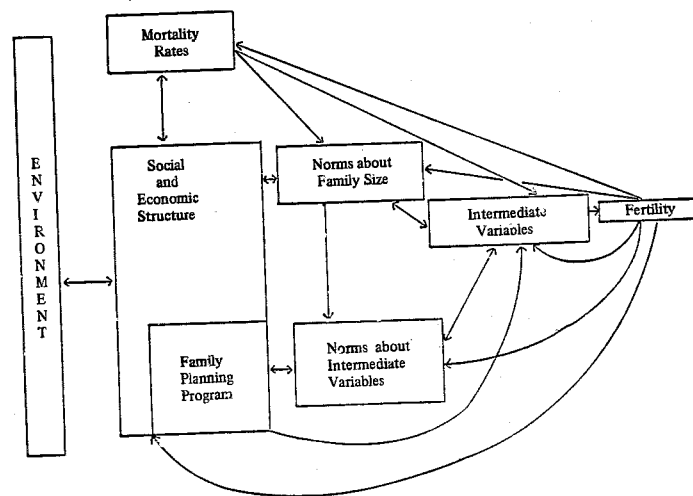
This brings to the fore the question that perhaps a more appropriate methodology for the study of economic value of children, or for that matter, the non-economic aspects as well, would be the anthropological method, which not only permits subtler questions to be asked, but also would place the entire fertility decision-making process within its proper context, namely the village or the urban economy, the household structure and the wider kinship network, individual or family mobility, and the general structure of social change. As mainly cross-sectional studies, the contemporary VOC studies give a truncated picture, and are based on some false assumptions about the relationship between the family institution and the wider community, which we shall explore in the following sections. The use of survey methodology, however, is not unique to the VOC studies but is common to most fertility research. As Caldwell (1974:3) observed, 'the most fundamental barrier at present [in population studies] is not so much inadequate data as imperfect field research.'

## The Conceptual Framework of the VOC Studies

As pointed out earlier in this paper, the social psychological approach as embodied in the VOC studies purports to link the 'modernization-stratification' variables to individual fertility behaviour. The crucial link between socio-economic factors and fertility is said to lie in the reproductive motivation of parents (to read, the balance of positive and negative values of having children). Thus, in this conceptual scheme, the values and attitudes towards children are treated as 'intermediate' or 'intervening' variables. However, it is yet unclear as to how exactly the VOC dimensions intervene between structural variables and fertility behaviour, and to date, the VOC researchers have not yet arrived at a common theoretical scheme.

Following the lead given by Davis and Blake (1956) that certain intermediate variables (intercourse, conception, and gestation variables) should be introduced between structural variables and fertility, or family planning behaviour, Freedman (1973, 1975) introduced 'family size norms' as another set of intermediate variables (see Diagram A). On the other hand, the VOC studies by and large

Diagram A: A Model for the Sociological Analysis of Fertility Levels



From: R. Freedman, *The Sociology of Human Fertility: An Annotated Bibliography*, 1975, p. 15.

adopted Hoffman and Hoffman's (1973) classification of psychological factors, and Arnold *et al.* (1975) treated the VOC dimensions as intervening between background (socio-economic) and situational factors on the one hand, and fertility behaviour on the other, as well as intervening between psychological and social orientation (individual modernity) and fertility behaviour (see Diagram B). This schema implies, although never specifically states, that family-size norms become family-size values which are internalized by individuals, and that fertility becomes almost entirely a matter for individual decisions. If this was what was implied, then this schema is obviously contradictory to the sociological and anthropological field evidence that family-size decisions are often not made by individual couples alone, or purely for their own interests.

It would seem, then, there are two particularly weak links in the VOC conceptual scheme: one lies in the relationship between the situational variables and the VOC dimensions, and the other lies in the relationship between the VOCs and fertility. The latter is partly the consequence of cross-sectional methodology, which we have already discussed. It is also partly the consequence of the failure to arrive at a formulation whereby benefits and costs could be weighted against one another. Volume one of the six-country VOC study reported that:

"Theoretically, it would be useful to have an index of the perceived net economic value of a child — the algebraic sum of expected benefits minus expected costs over time. In this study, no such formulation is attempted. Benefits and costs are measured and analysed separately and perhaps rather crudely."  
(Arnold *et al.*, 1975, p. 43).

Unfortunately, then, there is no way to assess how the VOCs figure in *actual* fertility decisions.

As shown in Diagram B, the situational variables covered in the VOC scheme are: income, wife's current employment, and parity. However, it is suggested here that, to be relevant and valid, some of these variables have to be refined, and some others have to be added onto the list. Thus, income should include mobility considerations, and wife's current employment should be expanded to include alternative satisfaction to childbearing. In addition, two other factors should be taken into account: the family structure (in particular, the husband-wife relationship), and the kinship structure. We shall attempt to show, very briefly, how these expanded concepts will help to clarify the interaction between the situational variables and the VOC dimensions. The following discussion will also serve to indicate that, under certain circumstances obtaining in the developing world, situational variables act directly on fertility behaviour and are more significant than the VOC dimensions.

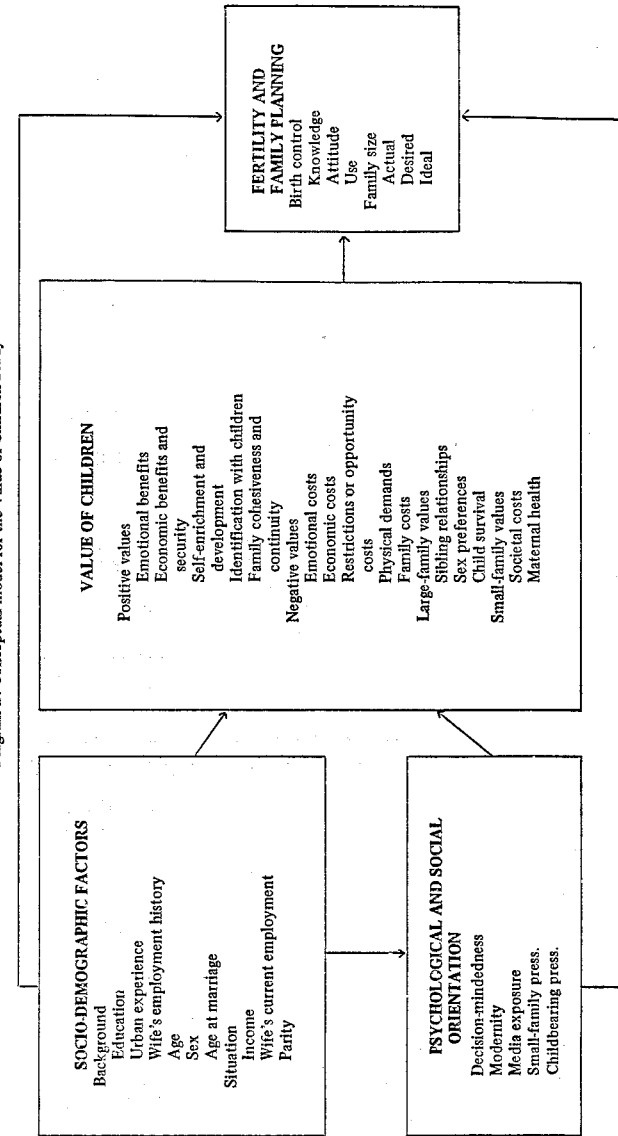
(1) Income and mobility. The economic value of children is not simply a function of current family income. Freedman's early article (1963) threw some light on the relationship between the husband's income and family size through the concept of 'income relative to social status', and Easterlin (1975) discussed the impact on family size of relative changes in income and expectations of such income changes.

However, for family-planning behaviour, it seems that considerations for upward social mobility are much more important than income alone. As Leibenstein (1975) pointed out, families with high status aspirations consider numerous children an economic burden rather than an asset. Thus, for the working-class, mobility into the middle-class is a reward for planning family size. Nevertheless, in the developing world, mobility considerations may lead couples either to reduce family size or to increase it! Studies on son-preference in Korea (Kong and Cha, 1974) have shown that one of the reasons for the Korean parents to desire sons (and therefore more children in order to obtain more sons) is that a son can rise to eminence (as against a daughter who becomes an outsider once she is married), and can therefore bring both economic as well as status rewards to the entire family. In Taiwan, Mueller (1972) found that mobility considerations are very important for the Chinese fathers, in that 67 per cent of the husbands interviewed expected at least one of their children to attend college, and an additional 13 per cent spoke of high-school education at least. Among the smaller group of her respondents who mentioned economic advantages of large families and economic disadvantages of small families, some said, 'If you had more children, the chance of having at least one gifted, successful or dutiful child was greater.' However, preliminary findings from an on-going, small-scale intensive study in Singapore (Salaff and Wong, 1976), show that, mainly for mobility considerations, the working-class Chinese families resort to family limitation. In Singapore, where the social system is to a large extent based on 'meritocracy', the government has long stressed the individual family's responsibility for its own upward social mobility. The local population has been subject to over one decade of intense family planning campaign and some recent stringent population disincentive measures, all of which are linked to the government's insistence that individual families must reduce family size in order that their children can have a 'larger share of the pie'. Thus, it has been found that individuals from among the working-class who have a planning orientation and who are taking definite steps to plan for their upward social mobility, also plan for small to medium-sized families.

(2) Women's employment and alternative satisfactions to having children. Children are no doubt the source of many kinds of satisfactions. However, the final family size achieved may not just be a balancing of costs and satisfactions of having children alone, but may be the outcome of balancing satisfactions from the childbearing role with satisfactions from other roles on the part of women. To a certain extent, the VOC conceptual framework has taken account of 'alternative satisfactions' as one of the negative values, namely 'restrictions or opportunity costs' (see Diagram B). However, as the following discussion will show, the wife's work does not have an automatic or direct bearing on fertility, but work must be examined within a structural and attitudinal context.

Blake (1969) hinted that the housewives relate to the community through their children, and that their family role rewards them with the most important social role of their lives, that is, being mothers. Thus, she hypothesized that housewives might have more children than working women. Later research, however, fails to establish a consistent relationship between women's employment status *per se* and family size. Some writers have employed the concepts of 'work commitment' and 'role incompatibility' to specify the relationship be-

Diagram B: Conceptual model for the Value of Children Study



tween female employment and fertility level (see Stycos and Weller, 1967; Safilios-Rothschild, 1972; Hoffman, 1974). However, even where a negative relationship is successfully obtained for the advanced countries, such a relationship does not seem to hold for the less developed countries, nor where extended family ties are particularly strong. In countries or among social cultural groups where extended family ties make childcare arrangements relatively easy, there is no role incompatibility for working women, hence the negative relationship between female labour force participation and fertility level does not hold.

Jaffe and Azumi (1960) have long raised the important question that one significant difference between the developed and developing countries is the incomplete structural separation of work from home; thus unpaid family workers or outworkers were found to have intermediate fertility between agricultural workers and factory workers in Puerto Rico and Japan. Pinnelli (1971) found the same set of relationships for Italy. For full-time female industrial workers in Singapore (see Salaff and Wong, 1976), role incompatibility may become irrelevant, since some women have actually been encouraged by their extended families to work to supplement family income, leaving their children in the care of mothers-in-law or other relatives. Also, the evidence suggests that the degree of work commitment of the female workers living in extended families may have little consequence for their family size, as many of the respondents have been motivated to work outside the home in order to escape the tensions and conflicts arising from extended-family living.

(3) Family structure and husband-wife relationship. The VOC approach assumes that every childbirth is the outcome of a rational cost-benefit calculus on the part of the individual couple. However, it is obvious that not all births are wanted, and it is highly questionable whether birth decisions are always rational decisions. On the contrary, it has been shown that the emotional relationship (or affect) between husband and wife, the cultural definitions of sex roles, and sex mores, all circumscribe family-planning behaviour and family-size desires.

Stycos (1962) argued that one of the facilitating conditions for effective fertility control is the extent to which family structure facilitates the sharing of goals and knowledge, that is, the ease of husband-wife communication. Although data from Asia generally tend to support the importance of husband-wife communication for family planning behaviour (see, for example, Mitchell, 1972; Chen, 1973; ESCAP, 1975), it is curious how or why in the first place husband-wife communication should have been found to be so important in Asian marriage patterns where the stability of the marital bond does not depend as highly on the affectual relationship between the couple as is the case with Western cultures. Besides, the ESCAP study did not explore the meaning of children for the husband-wife relationship at all. For example, children may be seen as competing for the affection and attention of the mother, and therefore couples who are concerned with the 'companionship' aspect of their marital relationship may also plan for a smaller family. Again, in Asian cultures, it could be that the 'family costs' posed by children are not perceived to be highly salient.

Similarly, the degree of segregation between husband-wife roles has been found to have a positive relationship with fertility behaviour (see Hill, *et al.*,

1959; Rainwater, 1965). Data from South and Southeast Asia also tend to support the hypothesis that male dominance and rigid husband-wife role segregation is related to fertility (see Rao, 1959; Mitchell, 1972; Chen, 1973). However, Bott's (1957) hypothesis that the degree of husband-wife role segregation is associated with the tightness in kinship network has not been sufficiently explored, particularly where the conjugal relationship is traditionally considered to be subsidiary to the couple's kinship obligations in Asia.

An interesting finding from studies on the role of sex mores in fertility behaviour pertains to the wife's 'modesty' in sex matters. Thus, Chen (1973) showed for Singapore that where the wife is 'modest', husband-wife communication on sex and family planning is inhibited. Similarly, Stycos and Back (1964) and Stycos (1968) showed that in Latin America, 'machismo' is a deterrent to effective family planning in so far as the wife is not free to discuss or engage in birth control for fear of the husband's suspicion of her marital fidelity. Again, this shows that fertility behaviour, as it is influenced by the husband-wife relationship, is embedded in the cultural definition of sex roles, rather than a matter decided upon purely by the couple. Suffice it to say that a survey of the literature indicates contradictory evidence on many of the hypotheses linking family structure and fertility across different societies (see Back and Hass, 1973). In the developing countries, where the kinship network is dense and the family is closely integrated with kin, the effect of the husband-wife relationship on fertility should be studied within the context of the wider kinship network. Mueller (1972) and Freedman *et al.* (1974) showed that in Taiwan, attachment of kin, as opposed to friends, and the use of contraception were negatively related.

(4) Kinship structure. However, studies of kinship structure in relation to fertility have mostly been based on analysis of the household structure, with the consequence that some studies indicated the extended family to be conducive to higher fertility, while some others indicated the exact opposite. Burch and Gendell (1971) showed for Venezuela that the neolocal households had higher fertility than the extended households! Part of the problem was methodological, since studies of household structure and fertility were mostly based on a cross-sectional design, therefore they failed to show the particular circumstances surrounding the formation of the neolocal households. Mandelbaum (1974) argued that in India, the neolocal households might have previously been patrilocal, and had split off from the joint family, so that the couples studied within the neolocal households were older and/or married longer, thus with a larger number of children. A major part of the problem, however, was theoretical, that is the assumption that the nuclear households are able to make and indeed make independent decisions with regard to family size.

As more and more evidence on the urban poor families in both developed and developing countries becomes available, it appears clear that the urban poor live in a wide network of kinship relationships, and that kinship is involved as a crucial social unit in family size decisions. Stack (1974) and Wootman (1976) argued that poverty and unemployment made the nuclear family an inadequate unit for sheer survival. Thus, whether it is a black slum in the United States or a slum in Salvador, the wife's kin becomes central to her social and economic activities, and in fact gives her support in having large families.



Of great potential contribution to the theoretical understanding of the relationship between kinship structure and fertility are the concepts of the 'non-residential, extended family' and 'the intergenerational flow of wealth'. It has been widely hypothesized that in order to be upwardly mobile, families have to break away from the residential extended family on the one hand, and to have smaller number of children on the other. These two conditions are interrelated in that, when the individual family lives neolocally, it is also able to evade the kinship pressure to have a larger family. However, evidences from Taiwan (Chuang, 1972) and Singapore (Salaff and Wong, 1976) reveal that, by moving away from the parental family, an individual family is not necessarily freed from kinship ties and obligations. In Taiwan, when the rural youth migrate to the cities and live in independent nuclear households, they are still considered to be belonging to their parents' families and clans in their native places. The non-materialistic interests of the nuclear family are fused with those of the family groupings in the countryside. This kind of non-residential family does not hinder individual mobility, while at the same time it may provide the lead for upward mobility for the entire parental family and clan in the village community, because the successful, upwardly-mobile children bring material benefits as well as social status to the folks back in the countryside.

Materials from the Singapore study (Salaff and Wong, 1976) reveal a strong, matrifocal kinship network surrounding the working-class families. The links in this network of interchange of goods and services among the kinsmen focus on the children, with grandmothers helping in the care of the children of their married daughters, whether working or not working. In return, the married daughters contribute money to their own parents, either as a reward for such services, or the children are used as an excuse for the continued partial support of and intense interaction with their parents even though the daughters have been married off. The effect of this tightly-knit kinship network on fertility is highly interesting, in that it can either support high or low fertility on the part of the respondents! Respondents wanting and having small families have support from their own kins, similarly as those respondents wanting and having large families have support from their own kins. This suggests that, in the case of Singapore where the demographic transition (for want of a better term) has already gone underway for nearly two decades, demographic innovators are to be sought, not among the present generation, but among the parental generation. For even though the young adults are now living in independent households, their parents have already prepared them for family limitation, and have actually made things possible for their upward social mobility. Again, it does not seem necessary for individuals to break away from their own families in order to plan upward mobility; on the contrary, there are some cases where parents, having had large numbers of children themselves, have sacrificed the education of some of the children, so that the brighter ones can be sent through school and eventually help the whole family to improve their standard of living.

Professor Caldwell's (1976) concept of the 'inter-generational flow of wealth' as one major socio-economic support for high fertility in Africa can also be applied to different transitional societies. Thus, in the Philippines, Madigan (1967) revealed that one of the reasons why Filipino fathers wanted more and had more

children was that the inter-generational respect shown by Filipino children for their parents would enhance the parents' power and influence in the community in later life. Maher (1974) discovered that the system of fostering children to kinsmen as institutionalised in Morocco was also a system for expanding the patron-client relationship in the local community.

## Conclusion

To sum up, the above discussion serves to underscore the importance of studying fertility behaviour within the total social and cultural context. We have emphasized in this paper that fertility decisions occur in a family which is placed not only within a wider kinship structure and a social class structure, but which is also integrated into a socio-cultural framework.

The VOC approach has yielded valuable findings on certain social cultural supports for fertility, such as son-preference, and other social-psychological determinants of fertility within the individual families. However, it is specially lacking where larger units of the social structure have to be considered, particularly, the kinship network and the structure of the household economy as it is linked to the structure of the national economy. We have indicated that in developing societies, the extended kin and the incomplete separation of female employment from the household setting are two important structural conditions influencing the individuals' perception of satisfactions to be obtained from children.

For a study of fertility decisions over the reproductive cycle, we suggest that a longitudinal, rather than a cross-sectional design would be more appropriate. We have also argued that, to study fertility behaviour within the individual household, the anthropological field approach, based on small-scale intensive studies, would yield more accurate information on how fertility decisions actually take place, against the background of household economic activities, and familial and cultural traditions pertaining to the meaning of children for the performance of sex roles. The small-scale studies can then serve as pilot studies to locate the strategic societal factors influencing individual family size desires and family planning behaviour.

However, there is still need for relatively well-integrated theoretical schemes which can tie together the socio-economic, cultural and personality variables, thus enabling causal explanations to be made with respect to fertility behaviour. As Fawcett and Bornstein (1973:109) observed:

... the social psychological themes related to fertility change (at present) can be incorporated only loosely within a theoretical framework. There does not exist a systematic and comprehensive theory of fertility, although some useful attempts have been made to develop conceptual schemes that incorporate diverse kinds of variables.

While the social psychological approach as embodied in the study of value of children can make significant contributions to our understanding of reproductive motivation, the study of fertility behaviour calls for an inter-disciplinary approach, which can successfully bring to light the various societal as well as individual determinants of reproductive behaviour.

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