

SOME DIRECTIONS FOR RESEARCH ON FERTILITY CONTROL

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INTRODUCTION

RECENT rapid declines in mortality in some of the economically underdeveloped areas and the imminence of such declines in others have provoked considerable concern over the problem of "overpopulation." On the whole, demographers have tended to view such trends with alarm and to stress fertility limitation as a solution. Economists tend to take a more optimistic outlook and to stress economic development as a solution. Both sides, if pressed, usually agree that economic development and fertility reduction are two desirable facets of a general program of change in selected areas. Indeed, there are increasing indications that leaders of the underdeveloped areas themselves are beginning to think in terms of a joining of such programs.

The present paper deals only with the fertility aspect, on the assumption that controlled fertility can be a useful aspect of national planning. It concentrates, moreover, on those aspects of research which might provide specific and practical suggestions for programs of fertility control. The paper is divided into two major sections, the first dealing with problems relating to groups of power and influence in underdeveloped areas; the second with problems relating to the general population in such areas.

¹ From Cornell University. This essay is a revised version of a memorandum originally commissioned by the Committee on Preventive Medicine and Social Science Research. The Committee has been established by the Social Science Research Council to define and develop areas of mutual interest to public health and social science. The Committee and the writer recognize that efforts to limit population represent only one of many possible approaches to the complex problem of improving the balance between population, health, and means of subsistence in certain regions of the world. Following the Committee's request, the author has addressed the problem of studying fertility dynamics with special attention to particular regions familiar to him. Within this limitation the writer has developed his topic as he saw fit.

PART I: ELITE GROUPS

The social sciences have recently been turning their attention to problems of introducing technical change into underdeveloped areas. In the area of human fertility, the major object of research has been the peasant or lower class worker. Less systematic attention has been paid to the elite groups who either are not defined as targets for the innovations, or are written off as representing "no problem." While a case might be made for such assumptions in certain areas of change, with respect to fertility control the elite are of fundamental importance.

On a high policy level they can block or facilitate social programming, as well as the research itself. Recommendations based on competent investigations of popular attitudes and behavior may go unheeded if they ignore or minimize the personal attitudes of the elite, or their conceptions, erroneous or not, of lower class patterns.

On the village level the elite are strategic in terms of setting personal examples for behavior, or of more directly disseminating new ideas. It is the feeling of the writer that the practical importance of such groups for implementing research and policy is so great that future fertility research in underdeveloped areas must at least in part be directed toward them. The following pages give some of the writer's impressions of the elite's attitudes toward the problems of overpopulation and fertility control, as well as indicating the implications of these for the direction of future research.

FEAR OF THE POLITICAL IMPLICATIONS OF RESEARCH AND
PROGRAMMING IN FERTILITY CONTROL

Religious Issues. In countries where a substantial proportion of the population are members of religious denominations opposed to fertility planning, political leaders are understandably chary about initiating research or programming in this direction. Often, however, middle and upper class leaders

have little understanding of the influence of religion on the lower class person's life. The rigidity of class structures often insulates the upper class individual from accurate perception. Faulty assumptions are then based on (1) the behavior and attitudes of *middle class* groups where the church may extend most of its efforts and obtain the greatest degree of adherence to the letter of its teachings; and (2) the conspicuous ritualistic and ceremonial behavior of the lower class, which is interpreted as indicating close adherence to the tenets of the church.

As regards certain Latin American countries, the available evidence indicates that the actual influence of the church on the daily life of the lower class individual is small indeed. Church attendance is rare, common law unions customary, and superstitious practices at odds with Catholicism are widespread. Further research, documenting more precisely the influence or lack of influence of religion in general on the life of the average citizen in specific countries, would be of the greatest importance in helping policy makers reach politically intelligent decisions. Such studies, it should be pointed out, are relatively innocuous, and can be carried out prior to fertility focussed surveys.

Even where the influence of the church is considerable *in general*, it may not extend to the sphere of family planning. In Puerto Rico, for example, Catholics tend to disagree with the church on this point, and when religious leaders on the Island raised family planning as an issue in a recent election it apparently did them little good. The important point here is that the church's failure on this point might have been predicted from survey findings. If similar results were obtained in other countries, they might pave the way for more cooperation from governments.

Finally, in areas where the reactions of the religious leaders themselves are uncertain, special surveys of the clergy are needed.

Racial Issues. A powerful deterrent to social programming

and even to investigations in the area of human fertility is the fear on the part of leaders, especially in colonial areas, that attention to fertility control may be interpreted by the populace as efforts on the part of whites to curtail population growth of people of color—or more sensationally stated, mass sterilization of the Negro. It is the impression of the writer, based on preliminary research in Jamaica and Puerto Rico, that this objection is actually rarely raised by lower class groups, but such must be demonstrated empirically in order to assuage the fears of local officials.

COMPLACENCY DUE TO ASSUMED SIDE-EFFECTS
OF OTHER INNOVATIONS

A frequently encountered attitude on the part of government officials in underdeveloped areas is one of complacency concerning the population problem. The feeling is that with general economic and educational improvement, "the problem will take care of itself. Although it might take a little longer without direct action, fertility decline is sure to occur, and, consequently, it is not worth risking trouble by initiating a program." How sound is this argument?

Historical demographic studies of nations which have already experienced an Industrial Revolution have indeed shown that fertility declines eventually occur. The demographer, however, is well aware of the "unknowns" surrounding this empirical generalization. The practical question then becomes; *how sophisticated* are local statesmen concerning this historical evidence? Are they aware that closure of the demographic gap has taken upwards of a century in most areas? Are they aware that such occurred when death rates declined relatively slowly, and when world conditions for industrialization were more propitious than currently is the case? Are they aware that the relation between economic development and fertility decline is most obscure, and that in the light of present ignorance of causative factors, there is no guarantee that fertility decline will inevitably follow industrial development?

It would be extremely illuminating to know precisely how much the local statesman knows in reaching his decision to "sit tight."

In the light of the fact that we know so little about the relation between general social change and change in fertility, and in view of the complacent assumptions concerning this relation, research is urgently needed both to verify the general hypothesis, and, especially to specify it.

A. Some public officials harbor the notion that if public housing concentrates on small apartments, small families will be encouraged, and point to the small average family size in their developments. Obviously the selective process alone may account for the correlation, but whether more than this is at work remains speculative. Medical men contend that new emphases on child care through clinic services make women aware of the importance of having few children in order to give adequate care to each. Other nations, however, have introduced such clinical services partly to *encourage* fertility. Sanitary engineers and medical authorities occasionally hold that by reducing infant mortality they are teaching women that they need bear only few children in order to have their desired number. Actually, if they are aware at all of the change, parents may only be pleased at the reduction of wasted effort. Some officials feel that emigration takes care of the population problem. While undoubtedly of importance as a short term expedient, it is by no means certain that such policies have long range salutary consequences. In all such cases both sides have plausible but untested hypotheses. Our general research question then becomes, *which particular social and economic programs, if any, have a depressant effect on fertility?* This question could be answered by "before and after" studies, designed to ascertain attitudes toward family planning, ideal family size and fertility performance before and after introduction of the social change. Such studies could be conducted in a variety of situations to assess the *differential impact* of various programs of change.

B. Assuming that a given program or programs is found to have the desired consequences for fertility, *what precisely about the program has this effect?* If the education of women is found to influence fertility, just what aspect of the educational process is the effective ingredient? Is it merely the raising of aspirations as a result of "general enlightenment"; the influence of the peer culture at school; or ideas derived from specific courses? Such questions too can be answered by "before and after" experimental designs as well as (more crudely) by surveys employing retrospective questions.

C. *What are the unanticipated negative side-effects of social programs?* Not only can we assume that some aspects of social change in underdeveloped areas have no effect on fertility; there is also evidence that other aspects may increase it—a point rarely realized by local administrators. In the case of Jamaica, for example, there is already good reason to believe that, contrary to common belief, the instability of conjugal unions acts as a depressant on fertility by reducing exposure to conception. Social programs which encourage marriage and stable family relations can, other things being equal, be expected to raise fertility. Again, among certain peoples of Africa, numerous customs have traditionally limited fertility. Periods of sexual abstinence, especially after birth of a child, abortion, and infanticide are examples of birth control practices which are disappearing as a result of modernization.

RESEARCH RECOMMENDATIONS

A. Surveys of elite and power groups with respect to knowledge of and attitudes toward the population problem and the means for fertility control

1. Personal attitudes.
2. Opinions concerning knowledge and attitudes of the lower class.
3. Degree of sophistication concerning effects of social programming.

Method: Such an investigation could obviously not be under-

taken in the routine survey research fashion. Interviewers would probably have to be high status foreigners, and the interview conducted in an informal, conversational way. After initial soundings on personal attitudes, a useful technique would be to cast the elite figures in the roles of expert consultants. For example, if a questionnaire survey of popular attitudes were planned, a rough draft of the questionnaire could be presented and the following questions asked of the elite respondent:

1. "What important areas have been omitted, and what areas included which you feel could be omitted (i.e., answers to which are obvious)?"

2. "Fill out the questionnaire the way you think the average lower class person would; and/or indicate the distribution of responses you would expect to result from asking the following questions of the lower class population." The procedure could be justified on the grounds that the investigators need to have advance information on what to expect, for purposes of training interviewers and setting up the analysis.

Such studies have several advantages. First, they may flatter the official, capture his interest, and, because of this involvement, help to insure that the research results will be read and taken seriously. Second, we may find that the first target of education concerning population problems should be the elite rather than the general population. Third, such an approach alerts the investigator to include questions in his general survey which may have crucial political relevance, even if of no special academic interest, or even if the investigator feels there is already sufficient information on the matter.² This aspect requires some further elaboration.

B. Studies which take as their main hypotheses the assumptions of the elite. We have already outlined the suggested con-

² In a Jamaican exploratory survey, no respondents mentioned the race issue, thereby indicating the wastefulness of repeating this question in a larger survey. However, the concern of local officials over this question makes it vital that it be included in subsequent studies in order to prove more conclusively that it is of little significance in lower class motivations.

tent and method of special studies concerning the presumed effects of broader social programs on fertility. The advantages of such studies concern both the researcher and the administrator. For the former they might provide answers to questions which have been treated only speculatively for decades.

For the social planner two practical advantages are present. First, such studies will indicate more precisely which programs and which aspects of these programs can be expected to have the desirable effect, and which will have the undesirable effects. *In countries where there are firm resolutions to make no direct attack on the problem, such information is crucial.* Second, for those programs with positive consequences, some indication of the length of time required for significant effects on fertility can be provided. With such information policy makers are in a better position to weigh the advantages and disadvantages of direct versus indirect action.

C. Studies of Special Elite Groups and Village Level Opinion Leaders. In addition to investigating the beliefs of power groups on the national level, it is obviously of importance to collect data on individuals who are of more direct influence on the lower class. In some areas at least, such groups might serve as the targets for programming, rather than the mass of the population, for obvious economic reasons. This assumes (1) that there are individuals who substantially influence family behavior; (2) that such individuals can be located, and (3) that they can be persuaded to exert their influence in the desired directions. All three of these assumptions are testable, and should be tested prior to any large scale program.

An illuminating illustration of the value of one aspect of such research can be drawn from the work of B. Ryan in Ceylon.³ A poll of Buddhist priests was taken to ascertain their attitudes toward family planning. It was found that the well educated upper class priests tended to be in favor of birth control, while the poorly educated village priests had no crys-

³ Ryan, Bryce: *Hinayana Buddhism and Family Planning in Ceylon. In INTER-RELATIONS OF DEMOGRAPHIC, ECONOMIC AND SOCIAL PROBLEMS IN SELECTED UNDER-DEVELOPED AREAS.* New York, Milbank Memorial Fund, 1954.

tallized attitude or were unfavorable. Since the latter can probably be assumed to be opinion leaders on the local level, it is clear that any mass program which did not give special, prior attention to this group (clearly by utilizing the influence of the upper class priests) might be sabotaged. It is not unlikely that uncrystallized attitudes on this subject are typical of much of the local leadership. It therefore becomes of the greatest importance that they be reached earlier than the general populace. *Who* "they" are and "*how* best they are to be reached" becomes a challenging research problem.

PART II: LOWER CLASS FERTILITY PATTERNS

Initially, we shall divide the underdeveloped countries of the world roughly into two broad types strategic for research on human fertility. The first covers countries where the nuclear family is subordinate to wider kinship groups, especially to the families of orientation; the second concerns countries where the nuclear family functions relatively independently of wider groupings.

KINSHIP-DOMINATED CULTURES

K. Davis notes that where the nuclear family is subordinated to wider kinship groups, positive consequences for fertility are several. Cost and effort of child care fall on many shoulders, age at marriage can be quite young, and the couple is strongly motivated to have numerous progeny in order to raise their status and strengthen the larger family.⁴ Given such a family structure, high fertility becomes psychologically, socially, and economically functional. If this is literally the case, there is little need for further research into motivations concerning high fertility in such areas, since the explanation is quite sufficient to account for it. Moreover, there would be little point in initiating direct programs of change with respect to fertility, since there would be no reason to believe they would be anything but ignored.

⁴Institutional Factors Favoring High Fertility in Underdeveloped Areas. *Eugenics Quarterly*, March, 1955.

It is more probable that the situation in such cultures is not so simple, nor the outlook quite so hopeless. Several types of evidence support this conclusion:

A. There are probably important class differences within any culture with respect to family structure. For example, whereas many writers have maintained that the typical Chinese family has been of the "joint" type, actual surveys have demonstrated that this pattern is rarely found among poor peasants and farm laborers and is essentially typical only of well-to-do peasants and landlords.⁵ It might be argued that the joint family is nevertheless the *ideal* which permeates the entire society, while realized by only the upper classes; and that this ideal effectively determines all the other positive fertility attitudes and behavior patterns which are consonant with it. While such may be the case (and it is yet to be demonstrated) it is one thing to have attitudes consistent with family structure and quite another to have them consistent only with family structure ideals. Should the latter be true, it becomes a case of showing the peasant that high fertility works to his actual disadvantage, a matter perhaps not possible where the joint family exists in practice.

B. Even where the joint family exists, a point of diminishing returns can be assumed to occur with respect to the benefits of progeny. Even if we assume that this point occurred at the maximum effective fertility in earlier times, modern reduction of infant mortality in underdeveloped areas might be expected to be effecting a surplus of survivors economically dysfunctional even to the joint family.

C. If the explanation concerning the kinship-dominated cultures be true, then we would expect that women would welcome large numbers of children, especially because children are their principal occupation. But what little evidence is available on this point would tend to negate the hypothesis.

Research Implications. In view of the above factors, fur-

⁵ Lang, Olga: CHINESE FAMILY AND SOCIETY. New Haven, Yale University Press, 1945, Chap. XII.

ther research in kinship-dominated cultures seems indicated.

A. Cross-cultural studies designed to discover the distribution of different types of family structure and family structure ideals among the various classes of the population. At the same time, the relation of family structure and family structure ideals to the number of children desired could be investigated.

B. Such studies could be coupled with investigations aimed at discovering the average net economic gain or loss involved in each addition to the family for the various classes and family structure types in the population. Such factual data could be compared with the subjects' *perceptions* of net cost or gain to determine the extent, if any, of the discrepancies.⁶ Obviously, too, non-economic gains and costs must be investigated, but these present greater methodological problems.

C. In areas where infant mortality has been sharply curtailed, to what extent is the average person aware of this? If aware in general, does he feel it has anything to do with *his* family and the number of children he desires to have?

SOCIETIES CHARACTERIZED BY DOMINANCE OF THE NUCLEAR FAMILY

In societies where the larger kinship group fails to absorb much of the burden of child rearing and support there would seem to be much less reason for having large families. However, as we shall illustrate below, prevalence of nuclear-type family structure alone does not seem sufficient to guarantee the practice of family limitation. At least two hypotheses might be advanced to account for this: First, in the relative absence of strong social structural supports for high fertility, the sex drive is sufficient to guarantee it, unless very powerful counter forces are present. With or without society's help, nature will tend to take its course. (Presumably however, so-

⁶ Lower class populations in underdeveloped areas commonly voice the view that children are the capital or the social security of the poor. It is of some importance to discover whether these are rationalizations which are not really believed, or beliefs sincerely felt to be true. In either event, the extent to which the belief has a basis in fact must be ascertained.

cieties where high fertility is relatively unsupported by culture are more *vulnerable* to change in the direction of low fertility if the proper counter forces come into being.) We may find in such societies that the characteristic attitude toward high fertility is better described as *indifference* or *ambivalence* than as positive concern. In the light of biological factors, however, such attitudes can have the same consequences for fertility as do positive attitudes.

Second, where interest in low fertility becomes relatively strong, curtailment of fertility may not ensue because of social organizational impediments or because of explicit objections to known techniques of contraception. Note that the term "*relatively* strong" is used. We can assume that if motivations were sufficiently great, birth control would be practiced regardless of objections.

We can now classify societies, or classes within societies, more meaningfully into those which *directly* facilitate and encourage high fertility and those which do not. The former category has already been discussed under the designation of (1) "kinship-dominated societies." The latter category can be divided into three further types: (2) Societies where indifference or ambivalence concerning family size vitiates use of birth control; (3) Those in which motivation is relatively favorable to small family size, but where social organization factors block the realization of these ideals; (4) those in which only resistances to known methods of contraception inhibit the use of birth control.⁷ Theoretically, the difficulty of introducing contraceptive habits would decline as we move toward the fourth type. For example, we would expect that an oral contraceptive would meet with least initial success in type one, most success in type four. Let us now move to a more detailed consideration of types two, three and four.

Type 2: Ambivalent Toward Family Size. We may illustrate this type by examples drawn from Puerto Rico, an area cur-

⁷ Whether or not societies can actually be so typed has yet to be demonstrated. Probably elements of each type are present in varying degrees in all societies.

rently undergoing economic development. The lower class family in Puerto Rico, landless and living on the edge of subsistence, is one where the dominance of the family of orientation is absent in the newly formed nuclear family. The ideal is for a couple to live apart from their families; and the breaking of parental authority and its transfer to the husband is most dramatically evident in the lower class elopement pattern where the male "steals" the female from her home to live with him in consensual union. Conspicuous by its absence is the joint or stem family, where the strength and prestige of a family depends to a large extent upon its size. Nor does religion or folk culture provide any basis for ancestor worship. The old, while respected, are not venerated. Thus, the large family is of no particular advantage economically. What, then, is the attitude toward family size?

There is a revealing Puerto Rican proverb which expresses an important aspect of the attitude toward family size: "Children are a sore sent by God." In these few words the ideas of both blessing and curse are contained, as well as a sense of resignation at the presence of a cross which all must bear. Fortunately, our evidence goes beyond the proverbial.

When lower class individuals are asked what number of children they consider ideal, or what number they would like to have "if they had it to do all over again" the replies are seldom in terms of more than three children, and good reasons are given to explain why three are sufficient. The large discrepancy between this number and the number actually borne by this class of Puerto Rican women led the writer and his colleagues to investigate aspects of conjugal interaction which might be frustrating the realization of such ideals. Such investigations have yielded promising results, but certain other evidence has raised questions about the meaning of a stated preference for three children.

As an illustration let us take the following question, asked of about 900 mothers: "Would you agree or disagree with the statement, 'In general, the *more* children a family has, the

happier it is?' ” A half hour later in the interview the question was asked in this fashion: “Would you agree or disagree with the statement, ‘In general, the *fewer* children a family has the happier it is?’ ” A third of the sample agree or disagreed with both forms of the question. When we examine the results of four such items, we find that two-thirds of the sample was inconsistent on one or more questions. Thus, we have reason to believe that earlier assumptions of small family orientation of the Puerto Rican were oversimplified, and that simply stated ideal size preferences may conceal a considerable degree of ambivalence or indifference with regard to this topic.

How can we investigate the nature of this ambivalence? Let us make two broad assumptions: First, ambivalence stems at least in part from competing norms and from the effects on motivation of different aspects of the social structure. Some of these norms and structures have the effect of motivating the individual in one direction, and some in another. Second, the nature of the expressed attitude may at any one time depend upon the particular reference group which is salient in the respondent's mind at the moment.

Bio-Social Factors. Since women must bear children, we can assume certain intrinsic disadvantages for them in having large families—pain, risk of good health, loss of beauty, trouble of rearing, etc. Women the world over are exposed to these same intrinsic disadvantages of the child-bearing function, but these may be mitigated to varying extents by cultural redefinition and reward. (The pregnant woman may be considered beautiful and even the pain of childbirth may be redefined as pleasurable to some extent.) It becomes important therefore, to investigate in various cultures *the degree to which* the factors we have termed intrinsically disadvantageous are so considered by women. This may turn out to be one of the areas of ambivalence—for example the conflict which may result from the lack of correspondence between literal pain and trouble (if there be such things) and their redefinition by the culture as “gifts from God.” It should be noted in passing that such

factors impinge on the male only insofar as he "sympathizes" with his mate—another area which bears investigation.

Social Structural Factors. Concentrating on the family, we may choose here for illustration two extremes—highly stable family structure and highly unstable family structure. With regard to the former, though perhaps more properly placed in a previous section, we may consider the case of societies with patrilineal descent and patrilocal residence. Here, on the one hand, children contribute much less to the woman's family than to the husband's. On the other hand, the very insecurity of the low status female newly thrust into a household of non-relatives may motivate her to consolidate and raise her status by producing a large family.

As regards unstable family structure, such as is found in the British West Indies, the tenuousness of the conjugal bond may make females reluctant to have children by a partner who may disappear soon after a pregnancy occurs; but by the same token, women interested in stabilizing their unions may be motivated to have a number of children and thereby hold the male. In both of these illustrations the same structure can effect contrary motivations.

Differential Norms and Reference Groups. Social class, age, sex, and marital status are factors used for stratification in all societies, and, usually, we find differential norms and values associated with the various strata. Often such characteristics are so combined in any one individual as to produce conflicting norms; or, while not a member of a given class or group, an individual may aspire to be and accept its norms as more desirable than those of his own class. Thus, a lower class woman living in consensual union may feel that having a small family is the prerogative of the married and well-to-do; but whether this causes her to adopt such patterns or spurn them depends upon her attitude toward that status and class, and her aspirations regarding them.

The same individual may have a number of conflicting attitudes, the salience of any one at any one time depending on

the situation. In the presence of a middle class interviewer the respondent may voice attitudes she feels more acceptable to that class; in the presence of her husband still another attitude might be voiced; in the presence of her peers still another. Ryan's observations in Sinhalese women are interesting in this connection: "The sample of mothers . . . offered evidence that many women are torn between the community valuation of the large family and a personal desire for restricted numbers . . . It was sharply evident to the interviewers that infinite numbers of children were an unqualified blessing in situations where several women were present."⁸

Research Implications. In the light of present knowledge, it would be fallacious to assume that a privately held attitude is more "real" than a publicly held one. There is no reason to believe that one attitude has less consequences for behavior than the other. Indeed, since the number of one's children is a public phenomenon, it might be argued that the "public" attitude is more significant for fertility than the "private" one. Or even in the event that responses are given in terms of a middle class norm, this is by no means an indication that the data are worthless. If an individual is aspiring to middle class status or even believes in the superiority of the middle class norm, the attitude may have consequences for behavior. The important thing is to know more precisely the nature of the attitude. More specifically, where a number of different attitudes toward the same phenomenon are held:

Under what circumstances is each attitude dominant; and

Is there any hierarchy of attitudes: That is, in terms of self evaluation and actual behavior, are reference groups arranged in any order of importance?

In order to answer such questions, a more varied methodology than the standard questionnaire approach is indicated.

A. Interviews stressing *confrontation of discrepancies*. By

⁸ Ryan, Bryce: Institutional Factors in Sinhalese Fertility. *Milbank Memorial Fund Quarterly*, October, 1952, xxx, No. 4, p. 359.

means of repeated interviews and/or persistent and varied questioning within the same interview, discrepant attitudes can first be revealed. Then the respondent can be confronted with the discrepancies and asked to account for them. Ideally, half the interviews should be conducted by middle class personnel, the other half by lower class, to ascertain first whether *different* attitudes are elicited, and second, whether the *salience* of the attitude varies by interviewer type.

B. *Contrived interaction* on the topic of family size in different situations. Here the investigator could place the respondent in different interactional situations and observe the results. For example, hypothetical problems revolving around family size could be given to an individual—in private, in the presence of the spouse, in a group of peers, and in a group of married men and women. In sampling, it would be desirable to have one set of subjects who would participate in all the different situations and to have other *matched* groups which are exposed to only one type of situation. The latter system would be in order to assess the possible effects of “contamination” as a result of repeated queries on the same topic.

C. *Role Playing Techniques*. Here the investigator could play various roles and have the respondent interact as she would typically in such situations, and/or the respondent would play various roles designated by the interviewer.

D. All the above situations are contrived and “artificial” to varying extents. It would be important also to have data from *natural situations*. An anthropologist (or preferably a male and female team) could collect such data by living in the community or communities under study. It would be desirable to have such investigators reside in the community both prior to the entrance of the other field workers and for a period subsequent to their departure.

Such studies would reveal the *content* of ambivalent attitudes, making it possible to direct educational efforts in the proper direction; but even more important, they might indicate the social *circumstances* under which educational efforts would

achieve maximum success—for example, in mixed groups as opposed to husband and wife in private, etc.

Type 3: Social Organizational Obstructions. Let us now assume that the scales are tipped in the direction of motivations for small families. In order for such motivations to be activated, knowledge of the means for curtailing fertility must be known, and, a certain amount of cooperation between the mating couple is required. The social organization may set up blocks in both instances.

The most obvious case occurs where the class structure is particularly rigid, providing few channels of communication between the upper and lower classes. It is rarely if ever the case that the lower class knows of no birth control methods, but rather that the range of choice is more limited than that of the upper class, because of lack of information. At least two avenues of investigation are suggested:

First, regardless of the rigidity of the class structure, *some* lower class individuals articulate with the upper class. Moreover, other individuals with intermediate status may mediate between the classes. As previously suggested, it becomes important to locate such individuals and determine their potential (both in terms of their communications position and their attitudes) as “carriers” of information. An important aspect here is that in addition to being strategically located, such individuals are more accustomed to dealing with professionals and officials than the average lower class individual. In other words, they are easier to work with.

Second, aspects of the communications system other than the interpersonal need be investigated. Assuming fairly high levels of illiteracy, what other media are present in a society which could be utilized for spreading knowledge? Often the radio is the first luxury (indeed, superceding many “necessities”) a family will purchase, and group listening is a common phenomenon. Moreover, the definition of permissible content for radio waves in such societies is often considerably more liberal than in our own. Finally, troubadour-like singing pat-

terns are another common means of communication which might bear investigation.⁹

Class however, is not the only stratification device which impedes communication. Stratification along sex lines is another block common to most underdeveloped areas. Where the status of the female is low, we often find the woman's life so carefully circumscribed that she is cut off from the "normal" flow of communications. This is not only true of formal education, which means her level of sophistication will be low and her ability to interpret mass media limited, but also interpersonal influences are restricted by means of such techniques as *purdah*, seclusion, and chaperonage. Moreover, in such societies sexual matters are felt to be more the prerogative of the male, while the feminine ideal is one of modesty. Thus information seeking in the sexual sphere is discouraged. Finally, sex stratification has important consequences for communication between husband and wife. The statuses of male and female are so divergent, and socialization of the sexes is so different, that males and females at marriage may find it difficult to communicate successfully. Motivations which may be held in common are not realized because of erroneous assumptions about the other, and knowledge of birth control methods may not be shared.

Obviously we need to know more about this area, but if the situation is as we have described it, can anything be done other than to change the entire social structure? Two avenues which might short-cut such drastic change might be suggested for further research:

First, to what extent would *general* marital and pre-marital counseling stressing the importance of discussion of family problems affect the sexual sphere? Could extension workers,

⁹ The suggestion has been made that for the British West Indies, the calypso song might be an effective vehicle for spreading information of at least a general sort on family planning. The idea may not be as far fetched as it sounds, and at least can serve us as a good illustration. It is feasible since explicitly sexual topics are among the culturally permissible themes for such songs. This is to be contrasted with Puerto Rican folk singing, where such themes are rare, and, therefore, where use of such a medium for the spread of information in the family planning sphere would be limited.

home economists, nurses, and social workers, given some training in this area have any effect on patterns of conjugal interaction?

Second, which contraceptive methods require the least degree of communication and cooperation for their effective use? For example we suspect that one of the factors accounting for the unusual popularity of female sterilization in Puerto Rico is the fact that only one decision is required and further communication and cooperation is unnecessary. An oral tablet, should such be developed, which requires no connection with the sexual act would also seem promising. But within the existing and more traditional methods, what is the priority list in different cultures as regards communication? This carries us to our final type.

Type 4: Resistances to Known Methods of Birth Control. Even where the situation is favorable to family planning on the other points discussed, there may be strong objection to the known methods. Here, of course, the problem is mixed with knowledge, for objections are usually based either on incomplete knowledge of the range of methods, or on misconceptions about known methods. In Jamaica, a high proportion of women appear to know only abortive methods, and are only vaguely aware of other techniques. The unfavorable attitude toward abortion tends in many instances to be spread to birth control in general.¹⁰ The wide use of the condom as a prophylactic measure too, has affected adversely the attitude toward this method as a contraceptive. Both men and women in Puerto Rico and Jamaica often feel its use degrades an "honest woman."

Other common fears are that use of the condom or the diaphragm may cause dread diseases, general loss of health, or that these devices may stay inside the woman and be impossible to extricate. Such objections may represent fears of introducing technology into a sphere of behavior ordinarily free of

¹⁰ Organized opposition to birth control usually capitalizes on this tendency by linking birth control with abortive techniques.

it, or may be eagerly believed rationalizations concealing a basic lack of concern about fertility. At any rate it would seem that such prejudices would be the most amenable to educational efforts, if a basic concern over family size were present.

More problematic are objections to female methods because they rob the male of authority in the sexual sphere, and to male methods because they rob him of his virility.

In the light of the various objections outlined above, it might be useful to direct research toward the efficacy of certain methods such as coitus interruptus, douche and sterilization, which are not *en vogue* among the sophisticated, but which might prove effective for the general population in underdeveloped areas. The sophisticated object to these methods as either too drastic (sterilization and withdrawal) or relatively ineffective (douche and withdrawal). With regard to the first point we should note that what is drastic in one culture may not appear so in another. Puerto Rican women who decide they have had enough children, tend to regard a swift, permanent, safe (done by a physician), and prestigious operation as less "drastic" than the persistent, risky, harmful use of contraceptives which require the continual permission and cooperation of their spouses. As regards withdrawal, not only are the usual objections to mechanical and chemical measures seldom raised, but the method is widely known and available gratis to all. Finally, the douche draws its advantages in a manner comparable to the disadvantages of the condom—it is associated with cleanliness and health.

To those who would complain of the intrinsic ineffectiveness of the latter two methods, it can only be said that a relatively inefficient method which is used will prove more valuable than an efficient one which is not. A question which merits serious study is the long run effect on fertility of encouraging wider and more persistent use of relatively inefficient methods which have cultural approval, as opposed to introducing new and initially objectionable methods which have high intrinsic efficiency. An experimental design wherein matched samples are

given the two different treatments and observed over time would be most instructive.¹¹

CONCLUDING REMARKS

The imminence of rapid mortality declines in major underdeveloped regions suggests the need for attacking the problem of fertility reduction on a large scale research basis in the immediate future. There are other reasons, however. Should the "oral pill" be developed in the next ten years, it is of great importance that its dissemination be carried out in a systematic rather than haphazard fashion. There is no guarantee that the pill will "sell itself," and careful groundwork research should precede its distribution to insure a system of introduction which will produce the best results.

Another area where time is a factor concerns those countries which are beginning to change from uncontrolled to controlled fertility. Long range observational studies which follow the actual process of change are much superior to *ex post facto* studies where the investigators are confronted with a fait accompli and compelled to look backwards to account for it. Japan is a good example of an area which *could have* been studied in this fashion. A number of other countries are beginning to experience radical economic changes, and it is important that their fertility behavior be watched *during the process*.

Perhaps the most basic recommendation of all concerns the *coordination and focussing of future studies of fertility on an international level*. Currently, substantial projects are underway in the United States, the West Indies, Japan, and India, and others are prospected. There has been no systematic at-

¹¹ Another question, relative here, is the effect of contraceptive failure. It may be argued that the use of intrinsically ineffective methods will, upon failure, effect a loss of confidence in all methods, and a consequent abandonment of birth control. On the other hand it might be argued that the most important step is getting families to practice any method of birth control. This reasoning would imply that the logical first step is to introduce a culturally approved method, albeit intrinsically ineffective. Though failure may occur, the pattern of use is established, and more effective methods will be sought out. In this connection it is interesting that in Japan resort to abortion typically occurs after failure of contraception; in Puerto Rico, sterilization.

tempt to coordinate such studies, overlap being incidental or coincidental. The risks taken in such independent efforts are greater than duplication of effort—they involve rather the danger of providing non-comparable data for different countries, preventing or greatly slowing down the creation of a more basic and general theory. We cannot afford to rest on the easy assumption that each society's problems are unique and consequently must be studied in a unique fashion. The major bent of international research should be toward the discovery of similarities rather than differences among societies. Differences can be found too easily—the basic similarities require greater effort to be uncovered, yet are of greater importance both from a practical (economic) and purely scientific point of view.

The efforts of official agencies at bringing together scholars of various countries in this connection has been essentially negligible. Such official conferences either ignore the problem because of its delicacy or bury it in a mass of technically oriented demography. Improved methods of collection and analysis of vital statistics and census data are of unquestionable value, but they do not go far in solving the kind of problems outlined here.

Investigation has progressed far enough so that cross-cultural research is feasible. Our methodological tools and substantive hypotheses have been sufficiently sharpened at least to the extent where, with some effort, we can focus our research projects more meaningfully on an international scale.