Population Control

Fertility and Family Planning. A World View. A conference, Ann Arbor, 1967. S. J. BEHRMAN, LESLIE CORSA, JR., and RONALD FREEDMAN, Eds. University of Michigan Press, Ann Arbor, 1969. viii + 504 pp., illus. $12.50. A Sesquicentennial Publication.

Family-Planning Programs. An International Survey. BERNARD BERELSON, Ed. Basic Books, New York, 1969. x + 310 pp. $7.95.

Recently literature on family planning has been increasingly distributed through publications such as these compilations of papers by many authors. Both these books are about fertility and family planning, both have contributors from a variety of disciplines, and each follows a previous public discussion; yet they substantially differ with regard to approach and emphasis. The first, which contains the papers submitted to a conference at the University of Michigan, is a highly technical effort to explain the decline in fertility under varying circumstances and to examine the role of family planning programs. The second, which originated as a series broadcast by the Voice of America, is a descriptive analysis of a number of national family planning programs and of some of their technical aspects.

Fertility and Family Planning is easy to read but difficult to digest. Understanding the issues of fertility decline and of fertility control programs requires a certain technical competence in many disciplines: demography, statistics, sociology, economics, biology, psychology, and public administration. Such competence on the part of the reader is assumed by the authors, who are among the most distinguished scholars in their particular fields, or authorities in family planning, or both.

The book is well organized and its composition is logical and purposeful. It first considers change in fertility as experienced in Europe (A. J. Coale and D. V. Glass) and the United States (N. B. Ryder) and the prospects for fertility decline in less developed high-fertility regions of the world (D. Kirk). The second section consists of analyses and theories concerning fertility decline and its economic and social correlates (R. A. Easterlin, S. Kuznets, Harrison Brown, and A. H. Hawley), a highly controversial subject which is under continuous study. Four papers then treat the biological aspects of fertility control: its impact on genetic composition (J. Sutter), the long-term effects of oral contraception (C.-R. Garcia and E. E. Wallach), biological aspects and current status of fertility control (S. J. Segal), and induced abortion as a means of fertility control (C. Tietze). The fourth section deals with governmental family planning programs: a world-wide examination of their present status (B. Berelson), attitudes toward and practices of contraception in the United States (C. F. Westoff and N. B. Ryder), a methodological study on demographic effects of contraception (R. G. Potter, Jr.), and the government's role in family planning in the United States (L. Baumgartner). The last two sections consist of three national case studies (L. P. Chow and S. C. Hsa on China, N. H. Fisek on Turkey, and M. Requeña on Chile), and suggestions concerning priorities and action needed to speed up population control (J. D. Rockefeller III).

Although properly organized and logical, *Fertility and Family Planning* seems to be rather a collection of good technical papers than a cohesive study of fertility and fertility control. With all the results and findings it brings together, it definitely raises more questions than it answers. Suggestions made by individual authors on the same subjects differ, and most of them reflect an awareness of the inadequacy of existing knowledge.

Family Planning Programs reviews the present status and problems of national family planning programs with emphasis on their technical and international aspects. It covers 13 national situations—in 12 less-developed countries of Asia, Africa, and Latin America, and in the United States. In addition, "specific fields" of family planning programs are discussed, such as services, education, contraceptive techniques, manufacturing of contraceptives, and administration and evaluation of the program. The last section of the book examines external assistance in family planning provided by private organizations and foundations, by the International Planned Parenthood Federation, and by two governments. An overall view is then given by the editor, with comments on ongoing programs and population control in general.

Most of the authors are experts in charge of national family planning programs or experts dealing with international aspects of the field. The backgrounds of the various authors are of course reflected in the book; it is factual, it concentrates on practical problems of family planning programs, and it represents the thinking of a group of persons involved in fertility control. In some respects the book is a rather optimistic self-evaluation exercise that combines both the advantages and disadvantages of introspection.

It is good to see new books appearing on such an important subject as fertility and fertility control, especially if they bring together diverse, complex, and unexplored matters relevant to both theory and governmental action. Since 1961, when *Research in Family Planning* was edited by Clyde V. Kiser, several composite books on the subject have been published with a view to popularizing the idea of family planning and disseminating gradually acquired knowledge. These books have undoubtedly filled a serious gap and have encouraged further research. In the early stages of government family planning programs, and during the emergence of the new discipline, such books were perhaps the only method available for the study of fertility in relation to organized fertility control, and the only means of communication among the authors, the experts, and the public.

However, the idea of a national family planning program has since achieved a significant degree of acceptance by governments and has mobilized impressive research support. As a complicated and delicate government operation, family planning needs a large scientific and technical foundation and, therefore, continuous research input. As a new and intricate component of social science, demography, biology, and public administration, it needs to be examined in a variety of empirical situations and requires imaginative theoretical research. Family planning has now reached the stage at which economic and social planning arrived a decade ago, a stage when no government action is possible without research, and no research is possible without experience and experimentation.

If that is the case, a series of questions arise relative to the multidisciplinary publications on fertility and family planning, and to the underlying research. In the context of the present review, two questions seem pertinent: is there an urgent need for integrated interdisciplinary study of fertility and organized fertility control, and has the

time come to look for comprehensive and technical analyses of national programs and their components? An affirmative answer suggests that there may be a need for a new type of book on fertility and family planning, and may therefore have far-reaching research implications.

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Ripe for Change

Run, Computer, Run. The Mythology of Educational Innovation. ANTHONY G. OETTINGER, with the collaboration of Sema Marks. Harvard University Press, Cambridge, Mass., 1969. xxii + 306 pp., illus. $5.95. Harvard Studies in Technology and Society.

American public education has more critics than any other native institution. It is attacked from the Right as being too liberal, from the Left for being irrelevant, and from the Center for not fulfilling its goals. American public education is expensive: schools take up to half or more of local government budgets. It is labor-intensive, employing more professionals than any other institution, with more than half of school budgets going for wages and salaries. Schools have no measures of performance: no one can tell whether a school system is a good one or not. Teaching has low status: teachers are the least highly regarded of the major professions.

Public education is an institution ripe for change, pushed by its critics and pulled by the lure of higher status. It is also an institution that is ripe for being gulled, much as the overcommitted consumer may be lured by the promise of the finance company to consolidate his debts into one smaller payment. Innovations that promise to fix everything—improve performance, lower costs, replace labor by machines, raise professional status by the acquisition of higher-order skills—have a special appeal. Nor do the innovations have to be existent: one can develop a cult that is oriented to a future happy state, much as the natives on some South Sea islands developed "cargo cults" after the Second World War which were designed to bring back the LST's loaded with the goods and foodstuffs the GI's had brought with them during the war.

The computer furnishes the basis for a new educational cult. When the computer comes, it will provide more effective instruction, replace expensive persons, raise the level of skill of those who remain, and individualize education—desiderata with which few can quarrel. The high priests of the cult are the computer companies, which extol the virtues of systems that have yet to be developed. The liturgy of the cult is rich with a rhetoric borrowed from systems "theory," validated by "success" in the RAND Corporation and with the military. The cult has several denominations, each dedicated to one or another system of which none is beyond the pilot stage. In addition to the computer cult, there are several minor, apocryphal movements devoted to new technical devices, some of which are closer to the millennium than are computer-based or computer-assisted learning devices: academic games, language laboratories, new and daring school architecture, and a host of audiovisual aids.

Oettinger's volume is an examination of the cultish aspects of the expected technical revolution. Oettinger is not an atheist. He is a former head of the Harvard computing center and he believes in the computer and its eventual use in connection with some kinds of learning. But he is scandalized by the unrealistic expectation that machines will take over a large portion of the instructional burden within the next decade. He is shocked by some of the educators' adoption of the systems rhetoric in a new form of foamy obfuscation.

The evidence presented by Oettinger rests on two sets of observations: First, he shows that, given the most optimistic estimates of the cost of any projected computer-based system, the present system of education is cheaper by a factor of ten. Furthermore, the expected savings in classroom teachers are most likely to be canceled out by new demands for more highly paid personnel and by the use of teachers to provide individual instruction. Secondly, he examines existing school systems to see how they have handled the existing technology and what the possibilities are for their handling something more complicated. In this last connection he has visited a few schools, looked at some statistical studies, and examined carefully the budget of the Watertown (Massachusetts) school system.

Oettinger reasons that if the school systems are to assimilate in the next decade the highly technical apparatus of computer-based instructional devices, then they should be able at present to employ existing technical devices properly. He finds that schools have a hard time handling even such relatively simple devices as overhead and film strip projectors, let alone the more complicated language laboratories. (A national survey, not cited by Oettinger, conducted by the Bureau of Social Science Research, of Washington, D.C., found that most schools had audiovisual aids on hand and few schools made anything like the optimum use of them.)

The problem is, as Oettinger sees it, that technology has been oversold, that its claims are premature. There are great promises in computer- and other machine-based instructional systems, but their development is nowhere near the point where we can expect anything reasonable within the next decade. But even more important, the current cultish attempts to integrate technology and education divert resources from the more important basic research and development tasks. The point is not how to apply knowledge and technology that already exist, but how to develop the potentialities of technology to the point where it can be used.

Furthermore, the existing educational system is not set up to evaluate properly the claims of new technical advances. Oettinger advocates a healthy injection of competition into the system by allowing consumers more choice. He would encourage the establishment of a variety of separately managed school systems and would give funds directly to families to be spent on the schools they choose for their own children. This seems to Oettinger a reasonable way to motivate school systems to adopt changes which make a difference in the end products, better trained graduates.

Oettinger's book is important, not because it is the best documented study of the problem but because he has raised the kinds of questions that we need constantly to pose against the claims of cultists. Mindless, premature, mishandled innovation can do more to impede the eventual development of a workable educational technology than do the conservatives on local school boards.

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