Book Reviews

Television in the Lives of Our Children. Wilbur Schramm, Jack Lyle, and Edwin B. Parker. Stanford University Press, Stanford, Calif., 1961. vii + 324 pp. Illus. $6.

The Impact of Educational Television. Wilbur Schramm, Ed. University of Illinois Press, Urbana, 1960. 247 pp. $5.

Television in the Lives of Our Children is the first comprehensive research report on the social and psychological impact of commercial television on American children. It closely parallels in research design and conclusions the British study prepared by Himmelweit, Oppenheim, and Vince, *Television and the Child.*

The senior author, Wilbur Schramm, is a professor of communications research at Stanford University, a professional writer with a great variety of experience, and a person committed to the concept of self-regulation of the mass media by the present owners and managers. He is not only interested in analyzing the consequences of the mass media, but also in pointing the direction for social policy. Because he is sympathetic to the present organization of the mass media and is not a rabid critic of "mass culture," his findings and recommendations stand as the most sober and critical evaluation of television yet produced. Despite his balanced language, Schramm implicitly and explicitly calls for major modifications in television programming for children.

The basic design of the research involved the administration of questionnaires and interviews to a variety of samples of children, including some drawn from two Canadian towns, one of which had not been exposed to television. The frame of reference is broader than the stimulus-response model that dominates much communications research, in that the authors are fully aware of the audience's active role in selecting and using television for its needs. Unfortunately, the authors do not investigate how the decisions on programming are made, or why the directors of television conclude that only a diet of overwhelming violence and crime is appropriate for American children.

Schramm and his associates describe, with scientific precision, this overwhelming concern with crime and violence in the programs produced for children. They document the oceanic quality of television in the daily lives of children, nine out of ten of whom expose themselves to the medium by the time they reach the first grade. By the time they reach the sixth or seventh grade, children spend three to four hours a day watching TV; this begins to fall off slowly throughout high school. Television dominates the leisure time activities of its audiences. It cuts into movie attendance, radio listening, and reading. It reduces time for play.

Children's Reactions

Television has high prestige among children. Exposure to commercial television seems initially to increase the vocabularies of the brightest and the slowest children; however, these advantages decline as the child progresses through school. The bright child who was a heavy user of television will score less well on knowledge tests and will do less well in school than a light user. In their teens, the bright children considered television less important and less necessary to prestige than children who were not so bright. In short, intelligence and motivation can and do conquer the TV medium. In fact, as the child grows older, he uses printed media for reality experiences and serious learning.

The authors try hard to affirm that television broadens horizons, but in the end the best that they can say is "we do not say that television does not or can not stimulate a child to broader horizons; merely that it seems not to do those things in any greater degree than takes place in the absence of television." It may increase their knowledge of popular singers but not especially their knowledge of topics closely related to public affairs or their knowledge of subjects chiefly learned in school—for example, science.

The authors make much of what they see as a sharp difference between "fantasy" and "reality" experiences developed by exposure to television. But fantasy and reality reactions are more interwoven than they assume. The development of a sense of reality depends on certain types of fantasy experiences which are difficult to identify. Nevertheless, their findings in this area are worth while, for they confirm other studies showing that children who have unsatisfactory relations with their family or peer groups tend to retreat into television. It is refreshing, however, that Schramm and his associates do not therefore claim that television is a passive agent in this process but rather go on to demonstrate how television in turn contributes to the reinforcement of undesirable fantasy and heightened antisocial aggression. This relationship between unsatisfactory social relations, exposure to mass media, and, in turn, increased aggression, is sharper among middle-class than among lower-class children. Children are mainly frightened when harm involves cutting, stepping in a trap, or some nonritual violence. They are frightened, particularly, when they view such programs in dark rooms or alone.

Exposure to commercial television is not seen as an advantage or as a barrier to success in school. Nevertheless, it does in some cases contribute to passivity in children, although long-term studies will be required to determine the lasting effect. "But the best way to avoid excessive passivity in our children is not to give them television as a mother-substitute in early life; rather to make them feel loved and wanted at home and, so far as possible, to surround them with friends and activities." The authors answer the complex question of the link between television's emphasis on violence and delinquency with "television is at best a contributory cause." But as a contributory cause, they do not deny its relevance.

Educational Television

The Impact of Educational Television is a collection of research studies dealing with educational television broadcasting. The effort was sponsored by the National Education, Television and Radio Center, which made 50 research

grants-in-aid for educational research during the period 1956–59. In a chapter entitled "A decade of teaching by television," Hideya Kumata summarizes the available data on the use of TV in classroom situations. The basic finding, derived from almost 300 comparisons, is that there is no significant difference, in the overwhelming number of observations, in the amount of immediate information gained when students taught by television are compared with students taught under face-to-face conditions. Moreover, the same result holds true for the retention of subject matter. Superiority of television is reported more often in voluntary audience situations than in captive audience situations. Thus the differences are in motivations among audiences rather than in the fact of transmission.

Superiority of television is reported more often in the lower than in the higher educational levels, presumably because of the greater suggestibility of children. Attitudes toward television and toward the subject matter are of prime importance, for students learn less when they have a negative attitude toward TV, and the negative attitude increases with age and educational level. Moreover, measuring the intangibles of education—those aspects beyond mere assimilation of information—has not been adequately studied. Thus, there is now at hand an impressive body of data indicating that classroom television is no magical resource.

When radio was first developed, there were great hopes for its potential as an educational device. Radio never achieved a level commensurate with these hopes, but after a long rather dormant period, university radio has found an active role in the educational division of labor. The initial aspirations for television were even greater, and pressure for the success of television far exceeds that involved in the history of radio. The Ford Foundation has become a major pump primer in television; in universities and to a much greater extent in high schools and public school systems, extensive resources are being allocated. There is every reason to believe that television will have greater success as an educational medium than radio. In the decade ahead, given the tremendous expansion of public school enrollment and the great pressure on schools to expand their custodial and recreational functions, television will become an indispensable resource. But these research observations clearly indicate that television will find its role in the educational system not because of its over-all pedagogical superiority but because of the great pressures for economic savings which face the school system. When TV is used as a resource —as chalk, the blackboard, maps, and the field trip are used—it can apparently serve to augment teaching facilities. But the great danger lies in the possibility that the United States will develop a two-track system, in one segment of which television is used heavily as a mass recreational device.

Much less is known about the impact of educational television from the special stations that transmit to the general public. In the suggestive essay by Ken Geiger and Robert Sokol, "Educational television in Boston," it appears that there are two rather distinct audiences for educational broadcasts. One is a small group of college-trained and college-oriented people who consume educational programs as they would any other form of adult education. For a larger group of much lower educational background and, by implication, of blocked social mobility, the educational programs are transformed into a kind of entertainment or popular culture. Thus, the informal network of educational television stations broadcasting to the public at large may become, in effect, a competitor of the national commercial systems and offer a form of popular culture more compatible with fundamental American values than that currently presented by commercial stations.

Social and Psychological Consequences

While Schramm's research does not conclude that television is ruining or debasing our society, it is now impossible for the managers of commercial television to deny the social and psychological consequences of their medium. The further growth of educational television will be only a partial solution to the questions concerning "television and our children" raised by this study. Commercial television, because it fills so great a part in the lives of youngsters, will have to find its own formula. Competition between networks can hardly supply the basis, for such competition, in the struggle to reach the largest audience, more often debases content. Instead, self-regulation, standards set by the Federal Communications Commission, and active involvement by educational, parental, and civic associations become the instruments of social change. One has only to observe the experiments of the Canadian Broadcasting Corporation: limited funds and less pressure have produced a simpler but more satisfactory programming policy for children.

Schramm's research is also relevant for the development of educational television. If national policy continues to stimulate the growth of educational television stations, the result will be an important alternative to commercial television for the general public. Already there is evidence that commercial television is increasing its output of documentary and public service programs. Thus, competition of this kind will increase standards, if the educational stations are guaranteed an economic base of operation independent of the size of their audience. But the future of educational television depends on classroom use. The research completed to date is only the first step, in that exaggerated claims have been cut down to size. The next step is to study the consequences of educational television on the school systems, not merely on the individual student. What is the impact of television on the teacher? What new skills and techniques are required to integrate this teaching device into the school system? Does the faculty lose control of curriculum when elaborate television productions are introduced? Such questions become crucial if the potentialities of classroom television are to be realized without destroying the autonomy of the teacher.

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Plant Physiology. A treatise. vol. 1A, *Cellular Organization and Respiration.* vol. 1B, *Photosynthesis and Chemosynthesis.* F. C. Steward, Ed. Academic Press, New York, 1960. vol. 1A, xxvii + 331 pp., illus., $13; vol. 1B, xvii + 348 pp., illus., $12.

These volumes follow volume 2 in an intended series of six volumes. Volume 1A has three articles treating cellular organization and respiration; volume 1B treats photosynthesis and chemosynthesis in single articles. Two of the five articles deal chiefly with higher plants: these are "The Plant cell and its inclusions" by R. Brown (in vol. 1A) and "Energy storage: photosynthesis" by Hans Gaffron (in vol. 1B). The first of these is a reasonable treatment in the 126 pages allowed, but it is poorly illustrated for a subject chiefly