1-1-1983

Work Status, Television Exposure, and Educational Outcomes

Paul Messaris
University of Pennsylvania, pmessaris@asc.upenn.edu

Robert Hornik
University of Pennsylvania, rhornik@asc.upenn.edu

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Paul Messaris and Robert C. Hornik
The Annenberg School of Communications
University of Pennsylvania

In two-parent and one-parent families in which all resident parents are employed full time outside the home, it seems reasonable to assume that their children may be using television differently from the way they would if one parent remained at home. One possible difference—perhaps the most obvious one—is that these children may be spending more time with television as a result of being under less frequent parental supervision. There are other, more complicated and less obvious possibilities as well. If parental work status does indeed make a difference to children's use of television, what are the educational implications of this difference? This is the central concern of this paper, and we address it by breaking down the question into two parts: What are the educational consequences of children's recreational use of television? How does parental work status affect this use?

Our examination of these two questions is organized into four sections. The first section is an overview of possible educational consequences of children's television viewing. We begin with a review of some findings and some speculation about ways in which television might affect how children do in school. Then we consider television's implications for education in a broader sense, less strictly related to school performance. Our review of the existing evidence does not turn up much solid support for any of the possibilities we discuss. However, given the methodological limitations of much of the research, as well as the lack of any research in some areas, we may conclude that we still know little about the educational consequences of television use.

Each of the next three sections of the paper examines a relatively distinct way in which parental work status may affect the links between television and education. In the second section we consider what is probably the simplest possibility—that parental work status may affect the amount of time children spend watching television. The bulk of this section is devoted to an analysis of four different data sets. The outcome of this analysis does not support the assumption that children's time spent watching television is affected by their parents' work status.

The less obvious possibility examined in the third section is that parents' work status may affect the kinds of television programs children watch. In examining this possibility we looked at two kinds of data: first, the extent to which parents in general (regardless of work status) are likely to exercise any direct control over their children's program choices; second, the relationship between parental work status and this kind of guidance of children's viewing. Although the findings are not as clear as one would wish, they are, if anything, supportive of the assumption that working parents may be somewhat less likely to guide their children's program choices in an "educational" direction. We then briefly consider other ways in which parental work status might affect program choices (e.g., children's modeling of parent's behavior), although for these other possibilities there is no available evidence.

The fourth and longest section of the paper examines a possibility that is considerably more complex than the others suggested: Parental work status may affect the environment of the child's viewing—specifically, the extent and nature of parent-child coviewing. Such an effect, if any, may in turn have certain educational consequences. We begin this section with a general discussion of the nature of parent-child coviewing: how often it occurs, what it involves in the way of parent-child discussion, etc. Then we examine three specific ways in which parent-child interactions during coviewing might influence a child's mental development. Evidence on each of these possibilities is weak but supportive. Next we look at some data on the relationship between coviewing (as well as associated discussions about television) and parents' work status, and here we do not find any support. We conclude this section with a brief discussion of some possibilities that these data may not be telling us about.

The paper ends with a summary of its main findings and, as an afterword, a brief consideration of how expected future trends in video technology may change the picture we have examined here.

EDUCATIONAL CONSEQUENCES OF TELEVISION VIEWING

This discussion of ways in which television may affect a child's education is divided into two parts: First we consider education in a narrow sense,

corresponding to formal schooling. This is the primary focus of this paper as a whole. We rely heavily on a recent paper entitled "Out-of-School Television and Schooling: Hypotheses and Methods" (Hornik, 1981). We begin by discussing some overall findings on the relationship between television viewing and school performance, then we briefly discuss several specific ways in which it has been claimed that television affects how children do in school. In the second part of this section we consider television's implications for education in a somewhat broader sense, less directly related to formal schooling.

Consequences for Formal Schooling

There are dozens of studies that establish a negative bivariate association between time spent watching television and school performance in such areas as mathematics (see, for example, California State Department of Education, 1980) and reading (see, for example, Morgan and Gross, 1980). However, when variables known to be associated both with television viewing and with school performance (particularly social class and IQ) are controlled, the bivariate associations tend to wash out (Childers and Ross, 1973; Morgan and Gross, 1980; Thompson, 1964).

As Hornik (1981:199) summarizes (ignoring the caveats scattered throughout):

> What then do all of these studies seem to say? Regardless of the approach no researcher has established a believable relation between television exposure and achievement in any specific subject but reading skills. Once researchers control for what the student brings to school in IQ, social background and other characteristics, the correlation between television exposure and achievement in mathematics, or in any other subject that has been measured (including sciences, social studies and others) is invariably zero or close to it.

As this quotation suggests, there is an exception to this no-effects conclusion when one turns to reading skills. Two recent studies (Hornik, 1978, in El Salvador; Williams et al., 1977, in Canada) found clear negative effects on reading skills among children with recently acquired access to television. Williams found that children in a community that had recently acquired access to television fell back in reading skills to the level of children in matched communities over whom they had previously held an advantage. Hornik found that children with newly acquired televisions in their homes showed less growth in reading skills over two subsequent years than did children without television sets at home. This occurred despite the fact that television owners came from homes of relative economic advantage.

Relying inevitably on less persuasive designs—with no choice but to accept universal television access as a research given—two recent U.S. studies have produced converging results. Morgan and Gross (1980) found that when they introduced control variables into the association between television exposure and reading, the link disappeared for all but the high-IQ students, for whom it remained pronounced and negative. Complementary results come from the recently reported California Assessment Program (California State Department of Education, 1980). Researchers in that program also found that a negative association between television exposure and reading was pronounced among the children of well-educated parents. Since parents' education and child's IQ are known to be correlated, this result may be seen to support the Morgan and Gross result, although the lack of a direct IQ measure would make the study suspect if it stood on its own.

Aside from measuring the direct relationship between television viewing and school performance, several investigators have also looked into some mechanisms that may link the two. Much of the writing in this area is speculative, however, and we deal with each of these possibilities only briefly below.

- *Learning of school-equivalent content.* Television is full of science, news of the world, reading opportunities, and programs designed to teach. Much of this parallels the objectives of school curricula (although one could argue that more time goes into detailing the facts and describing the wonders than into developing powers of inference and analytical skill, which are closer to the purpose of schooling). Does anyone learn either fact or analytical skill from television? The evidence is thin. Once again, we quote from Hornik (1981:204):

> Sesame Street taught some children some skills under some conditions, but if Cook and his colleagues (1975) are correct those conditions do not duplicate the conditions under which most children watch the program. Himmelweit and her colleagues (1958) could not find much evidence that viewing of programs produced learning of any but trivial content. Despite the flow of news, children and adolescents are rarely in the audience and if they are, like much of the rest of the population, they may not pick up much of the detail. . . . When one moves from the level of fact to the level of skill . . . evidence is even harder to find.

- *Stimulation of interest in school-related topics.* Television is said by some to stimulate children's interest in topics that are later developed elsewhere. It is suggested that children bring their television-whetted interest to the classroom and to the library for fulfillment. There is little evidence regarding interest stimulation in the classroom, and there is

contrary evidence regarding stimulation of book use. While some channeling of book choice may take place, there is no reason to believe that amount of reading or quality of reading is affected by television-stimulated interests.

- *Development of intolerance for pace of schooling*. From kindergarten teachers up through the ranks, suggestions have been made regularly that children's attention spans are shorter than ever before, largely as the result of thousands of hours of television-conditioned expectations. As intriguing as these hypotheses may be, there is no evidence other than anecdotal report to support them.
- *Learning of new cognitive skills*. Among the more intriguing hypotheses under recent investigation is one that relates television exposure to the development of cognitive skills. The most developed research program has been that of Salomon (1979). In the laboratory he has been able to show some improvement in ability to read and organize visual material as the result of practice with visual media. An investigation of exposure to television under normal conditions, however, has been less supportive of the existence of this kind of effect. Only relatively television-naive children showed any influence of television exposure on cognitive skills.
- *Learning of instrumental information*. There has been some speculation about whether children learn information from television that would be instrumental with regard to their conduct in school. While one can argue that 30 hours per week in the classroom gives a child ample opportunity to understand how a school operates and what is reasonable to expect in that environment, there is a possibility that television exposure might condition some expectations with regard to marginal areas. As examples, small children go to school for the first time after two years of "Romper Room" and "Captain Kangaroo," and black and white adolescents meet for the first time in an integrated classroom with news stories about busing and "Welcome Back Kotter" as informational and emotional baggage. Unfortunately, the speculation about such instrumental learning has not been turned into research.
- *Learning of new aspirations*. The only area of school-relevant expectations that has been examined in any detail is occupational aspirations (which, it has been argued, may influence how children do in school). There are some data suggesting that children have better knowledge of the occupations portrayed on television (DeFleur and DeFleur, 1967); there is mixed evidence about the direction and power of television's influence on aspirations from Morgan and Gross (1980); and there is a clear indication of a positive effect of television access on aspirations in El Salvador (Hornik, 1977). None of these studies, however, establishes a link between

changes in expectations caused by television and actions in school, such as course choice or motivation to achieve.

Broader Consequences

Broadening the focus somewhat, we now consider certain possible consequences of television viewing that are not directly related to formal schooling but have to do with education in a broader sense. In particular we examine three possibilities: first, that television may be one of the sources on which children draw in forming a sense of their society's structure and of their own place in that structure; second, that television may provide models for children's social behavior; and third, that television may play a role (perhaps a very important one) in the development of children's aesthetic sensibilities. The first two of these consequences have received considerable scholarly attention, and it is possible to be somewhat less than totally speculative in discussing them. The third, however, is as yet almost untouched as far as academic scholarship is concerned.

The notion that television teaches its viewers—young and old—how their society is organized and where they themselves fit into things (both as children and in their later lives) is present, explicitly or implicitly, in much writing on mass communication. Most of this writing has been concerned with television's portrayal of various demographic groups and with the consequences of these images for the belief systems of viewers—both those who belong to a particular demographic group and those who do not. The dominant assumption in this research is that those social strata that are relatively weaker in the real world are presented unfavorably on television and that viewers' perceptions of how things are—and should be—in reality are molded by these presentations, so that the weak come to acquiesce to their lack of power, while the position of the strong is reinforced. The most prominent instances of the application of this assumption have been the many studies concerning portrayals of sex roles (see Busby, 1975, and Tuchman et al., 1978, for reviews), older people (e.g., Gerbner et al., 1980), and ethnic minorities (e.g., Hartmann and Husband, 1974; Tan and Tan, 1979). Researchers working in this tradition have repeatedly found associations between amount of television viewing and adherence to some of the negative stereotypes that television is charged with perpetuating. For example, several unrelated studies have found that the more television girls watch, the less career-oriented their aspirations are likely to be (e.g., Beuf, 1974; Gross and Jeffries-Fox, 1978). These findings do not tell us anything about the direction of causality operating

here, but, in the absence of other data, they do lend empirical support to the more general assumption from which each particular study was derived. In other words, the notion that television teaches children about social structure does have some support. It also should be evident that education of this kind may well have implications for schooling more narrowly conceived, since a child's sense of what his or her aspirations should be may presumably have some effect on the path he or she chooses to take in school.

A conception of television as a potential educator in a broad sense is present in much of the research on the medium's capacity to provide models for a viewer's behavior. This is the case with both of the directions this research has taken with regard to children: the investigation of the effects of television violence and the investigation of so-called prosocial effects (i.e., the encouragement of sharing, helping, and other forms of friendly cooperation). In both areas, investigators have amassed experimental and survey-based evidence of associations between television exposure and children's behavior (see Murray, 1980:29-39, 44-45, for a brief synopsis of this literature). On the basis of these findings, it is now widely assumed that the role of television in shaping children's real-life conduct has been demonstrated convincingly. We remain somewhat skeptical on the particulars. In our view the problem of disentangling real-life cause and effect from even complementary experimental and survey data remains substantially unresolved. That, however, is an issue for another essay.

The final, necessarily brief item on our list of ways in which television might contribute to children's education is that of aesthetic cultivation—in other words, the development of a capacity to enjoy the exercise or the display of artistic skill (see Gross, 1973). This area remains almost completely unexamined in scholarly writing on television (but see Thomas, 1982), although it seems indisputable that, for vast numbers of children and adults, this medium is the primary occasion for exposure to skills of visual composition, acting, narrative construction, and even music (although this last is unlikely to be the case for adolescents).

THE EFFECTS OF PARENTAL WORK STATUS ON CHILDREN'S TELEVISION USE

Having examined some ways in which television viewing might have educational consequences for children, we now turn our attention to another question: How might parental work status affect the link (if there is any) between television and the various educational consequences discussed above? In examining this issue we first consider the possibility that parental work status may affect the amount of television that children

watch. Second, we discuss possible effects of parental work status on the kinds of programs that children watch. Finally, we examine various ways in which children's experience while viewing may be affected by parental work status.

The assumption that parental work status may affect the amount of children's television use makes a great deal of sense: The absence of parents means absence of parental control over television viewing, which in turn may well mean more television viewing. Reasonable the assumption may be; accurate is another matter. The data from three local studies and a recent national survey show that the amount of viewing is more or less the same for children whether or not all resident parents are in the labor force. This result seems to hold for children from both one-parent and two-parent homes—although children in single-parent homes watch a good deal more television than do children from two-parent homes, overall.

The first local study was carried out among New Jersey adolescents by M. Morgan (personal communication) in the mid-1970s: 253 adolescents (ages 11-15) who had working fathers but not working mothers watched an average of 4.2 hours per day; 336 adolescents in the same sample with both parents working reported an average of 4.36 hours of daily viewing. The difference was not significant.

A second local study (Messaris et al., 1982) included middle- and working-class children ages 6-11 drawn from four schools in the Philadelphia metropolitan area. Once again, there was no significant difference, by parental work status, in the amount of viewing that parents reported for their children. Mothers with outside employment reported that their children watched about 2.25 hours per day. Mothers who were not in the labor force reported that their children watched 2.4 hours per day. Controls for social class and age of child in no way changed this pattern.

A third local study by Medrich et al. (1981) makes use of a largely black sample of sixth graders in Oakland, California. The basic result was the same as those of the Morgan and Messaris studies: 203 of the black children in the sample came from homes in which the mother worked full time, and 44 percent of them reported heavy viewing. Of the 85 children drawn from two-parent black families in which the mother was not in the labor force, 49 percent reported heavy viewing. Once again this represented no statistically significant difference. The small sample of white children also showed no differences associated with parental work status.

The richest data come from a recent national survey of parents and children completed in 1981 (F. Furstenberg and N. Zill, personal communication). Table 3-1 summarizes the data for overall viewing. Again, there are no statistically significant differences associated with parental work status, although there is a slight trend in the direction of the hy-

TABLE 3-1 Parents' Work Status and Children's Television Viewing Time (in Minutes)

	Two-Parent Homes		One-Parent Homes	
Children's Television Viewing	Only Father Works	Both Work	Mother Does Not Work	Mother Works
Daily	251.50	262.82	291.95	292.33
Standard deviation	(137.01)	(140.28)	(157.92)	(143.62)
Sample size	(353)	(363)	(134)	(160)
Morning	11.95	9.78	13.95	11.15
Afternoon	100.40	106.40	120.70	126.40
Evening	139.50	146.60	157.30	154.70

pothesis. To examine the issue with more precision, three regression equations were estimated. Only children whose parents' work status fell into one of the four categories in Table 3-1 were included in the sample for the regression analyses.

Each equation uses television viewing (total minutes, minutes in the afternoon, minutes at night) as the dependent variable. Four predictor variables (child's age, sex, educational level of the more educated parent, one-parent versus two-parent home) were entered into each equation: Together they account for 3 to 6 percent of the variance in the viewing variables. Once these four were entered, adding mother's work status to the equation added 0.2 to 0.3 percent to the variance accounted for, a negligible amount. The full equations are displayed in Table 3-2. Overall, the unstandardized coefficients suggest that children with working mothers watch about 15 minutes more altogether, about 9 minutes more in the afternoon, and 7 minutes more at night. Once again, such results should be taken quite lightly, since all three estimates include zero minutes difference in their confidence intervals.

The evidence from the four studies, and in particular from the national study, seems to converge: For all practical purposes, we can assume that children watch about the same amount of television regardless of parental work status. What are we to make of this? Does parental presence in the home really make no difference at all? It seems that we can explain the result in many ways.

Some parents who cannot be at home in the afternoon make sure that their children are engaged in away-from-home, after-school activities, perhaps to a greater degree than parents who know that one of them will be at home. If these children who are more likely to be away from home are combined with the children of working parents who are at home and thus have greater opportunity to watch, their average viewing time might look more or less like that of children who have a parent at home.

TABLE 3-2 Children's Television Viewing and Parents' Work Status: Regression Results

Dependent Variables	Education	Age	Sex	Number Parents	Working Mother
Total TV minutes					
Unstandardized coefficient	−9.96	−8.88	−20.39	−12.40	14.79
Standard error	1.58	2.82	8.75	10.31	8.82
(N = 1006; R Square = .058; Constant = 551.28)					
Afternoon minutes					
Unstandardized coefficient	−4.09	−6.09	−2.00	−11.18	8.94
Standard error	0.90	1.60	4.97	5.85	5.01
(N = 1006; R Square = .042; Constant = 253.56)					
Evening minutes					
Unstandardized coefficient	−4.71	−.44	−12.51	−1.87	7.44
Standard error	0.94	1.68	5.22	6.15	5.26
(N = 1006; R Square = .030; Constant = 229.48)					

SCORING: Education in years; age in years; sex = male (1) female (2); number of parents = one parent (1) two parents (2); mother working = no (0) yes (1).

Children who spend time at home alone (they are assumed to be more numerous among children of working parents) may watch more television than other children but may be less likely to admit it on questionnaires, since they may be under parental instruction not to watch.

It may be that, if only we did another study or looked more carefully at the interactions in the studies we do have, the expected differences would appear.

Or, most parsimoniously, we may conclude that adult supervision of the amount of television watched is in fact unaffected by parental work status, either because children of working parents are as likely to be under adult supervision as are other children or, conversely, because adults do not constrain children's television viewing anyway, and their presence or absence from the home is irrelevant. And if the 4.5 to 5.0 hours of television watched each day (reported by Furstenberg and Zill) is in fact the mean for all children, this latter conclusion seems most likely.

If current data are in fact faulty in one of the ways just described, is there be a better way to gather the data? Perhaps a natural experiment would be useful. In a situation of rapidly expanding female employment, if one or more regions of the country with particularly sharp acceleration in the rate at which mothers are joining the work force could be identified, then surveys of children's television viewing before and after the women enter the work force should prove informative. Data gathered at several points in time would be particularly helpful. To be honest, however, we

do not expect that such data would lead us to any different conclusions from the one already expressed.

PARENTAL WORK STATUS AND GUIDANCE OF CHILDREN'S PROGRAM CHOICES

In this section we examine whether parental work status may have some effect on the kinds of programs children watch—and hence on the kinds of information they are exposed to. By ensuring the parent's absence from the home during what may be a good portion of a child's daily TV viewing hours, outside employment may make parents less able to monitor and guide their children's TV program selections. If working parents do in fact exercise less control over their children's viewing because of this difficulty and if the absence of parental guidance makes children less likely to watch programs with an educational component (i.e., programs that may provide information about or stimulate interest in topics also covered in school), then children's performance in school may conceivably be affected by this set of circumstances. But how plausible is each of the components of this chain of possibilities?

First, how much sense does it make to ask whether differences in amount of parental guidance influence a child's viewing patterns? Is there any evidence that parents in general do exert any appreciable amount of control over children's program selections, or are most parents so lax in this area that differences among them mean very little?

The most detailed data on this question come from a study by Mohr (1979), based on a probability sample (from Sedgwick County, Kansas) of some 2,500 children in grades 4-9, both of whose parents were also asked to fill out questionnaires. Parents and children were asked to indicate on a 5-point scale (ranging from "must watch" through "no advice" to "must not watch") the degree of parental guidance on each of some 70 prime-time and Saturday morning network programs. The major finding of this study was that guidance, as measured in the study, was generally very low. For almost every one of the 11 categories into which Mohr classified the programs, fewer than 10 percent of the parents reported any degree of negative guidance, and the percentages for "positive guidance" were even lower. But there were two exceptions to these trends. First, about a quarter of the parents said they exercised negative guidance regarding adult dramas. Second—and this is the exception that concerns us here—23.7 percent of the parents said that they exercised positive guidance with regard to news and information programs. (The only demographic variable that made any appreciable difference in these figures was "race": The percentages for blacks were higher than those for whites.)

This set of findings indicates that the notion of parental guidance of

children's television viewing is not entirely fictional—or, at least, that it is not our fiction—and that the direction of this guidance may be toward more educational TV fare. There is also a suggestion in Mohr's data that children are unlikely to watch such programs without parental pressure: Mohr found very strong negative correlations between the degree of positive parental guidance and the extent to which children said they liked the programs on which such guidance was exercised (Mohr, 1979:220). Having found some grounds for believing this much, and despite certain reservations that we shall examine presently, we can go on to ask about the relationship between parental work status and the kind of guidance we have examined above.

Unfortunately, the Mohr study does not provide any useful information; nor do two other, less detailed studies include parental work status as an independent variable (Greenberg et al., 1972; Rossiter and Robertson, 1975). Crude data on the question we are interested in are available, however, from the Messaris study mentioned earlier (based on a non-probability local sample of some 300 mothers). Three relevant questions were asked in this study: (1) "How often do you encourage (name of child) to watch a particular program on television?" (2) "How often do you forbid or try to prevent (name of child) from watching a particular TV program or watching TV at a particular time?" (3) "How often do you have arguments with (name of child) about his/her TV watching?" The mothers answered by means of a 4-point scale: "never," "rarely," "sometimes," "often." The study found that mothers with either full-time or part-time employment outside the home (no distinction was made between the two) report slightly less positive guidance as measured here: 66 percent of nonworking mothers and 58 percent of working mothers exercised such guidance sometimes or often. No significant differences were noted for either of the other two questions. These data are obviously not to be taken as the last word on the subject, but they are mildly consistent with the belief that parental work status does affect the degree to which children receive encouragement to watch educational programs.

Thus there is at least some evidence that working mothers are less likely to report giving children guidance on program choice and that parental guidance, when given, does recommend educational programs. Both inferences rely on parental self-reports of their behavior, always a worrisome procedure when the behavior reported is positively valued. The Mohr study finds that parental and child reports of supervision were substantially correlated, however, somewhat easing our concern. But there is no evidence that parental guidance about program choice has any effect on actual program choices by children. And that, along with the questionable assumption that enhanced viewing of educational programs leads to changed

school-relevant outcomes, is the crucial issue. At this point the guidance hypothesis can only be considered mildly intriguing. Before we leave this issue, however, one more speculative consideration is worth examination.

One problem with using participants' accounts as evidence for the kinds of phenomena of interest here is that this method restricts inquiry to those kinds of behavior that are relatively deliberate, within awareness, and accessible to retrospection. But why should we assume that behavior that meets these criteria is the only way—or even the most important way—in which parents influence their children's program selections? There are data that suggest less obvious links between parental behavior and children's program choices and preferences (see Moles, 1981:6-7, for a useful review). One possibility is that children may model their parents' program choices (or, less directly, aspects of parental behavior with some implication for program choices). Another possibility is that parents' general socialization styles may influence children's viewing behavior regardless of whether parents also attempt to exercise explicit guidance of viewing. Support for both assumptions has been found in several studies by Chaffee, McLeod, and their associates (e.g., Chaffee et al., 1971; McLeod et al., 1972a, 1972b). However, as the authors indicate, the findings with regard to the first of these assumptions are subject to an alternative interpretation: that parents model children's viewing patterns. In any case, their findings regarding the second assumption are more obviously relevant for our purposes: Parental encouragement of open expression and diversity of opinion is associated with an information-seeking orientation to television on children's part. Since this aspect of a parent's socialization style may well be affected by the nature of his or her work experience (Kohn, 1977), the possibility exists that we have here an indirect mechanism through which parental work status may affect the educational character of children's television viewing—although the overall distinction between mere presence and absence of outside employment does not seem likely to be the critical variable in this case. At any rate, in the absence of any data directly relevant to this point, all we can do is mention the possibility and leave it open. The same must be said about the possibility that parental work status may influence children's program choices through some form of modeling: While it can certainly be argued that parental work status influences children's educational aspirations and hence the way they approach television (although this may be stretching things), there is no way to check the latter part of this assumption with existing data. Once again, a simple working/not working dichotomy may be too crude a conceptualization of what aspect of work status makes a difference here (but see Chapter 6).

PARENTAL WORK STATUS, FREQUENCY OF PARENT-CHILD COVIEWING, AND CHILDREN'S MENTAL PROCESSING OF TELEVISION CONTENT

Aside from making it physically impossible for parents to supervise their children's viewing at certain times, employment outside the home also makes it impossible for them to join their children at the set and/or to talk to them about what they are watching. Does this fact have any consequences for children's ways of dealing with what they see on television and, furthermore, do any such consequences have educational implications? As a prelude to dealing with these issues, it may be useful to discuss certain more general questions about parent-child coviewing: How often does it occur? What is it likely to involve? What antecedent variables are likely to influence its shape? Tentative answers to these questions will provide us with the necessary background for examining the more specific topic of this section.

Parent-Child Coviewing: An Overview

How often does coviewing happen in the average household? Available data on this point suggest that it is indeed a likely occurrence for most families. The clearest indication of this comes from Bower's (1973) national survey of viewing behavior. One of Bower's questions had to do with the likelihood of some joint viewing, on the "average day," in families with at least one child. As one might expect, the figures varied according to the number of sets in the household, but in all cases they were high: 94 percent in single-set homes (N = 1,036); 80 percent in two-set homes (N = 543); and 66 percent in three-set homes (N = 160). As for the number of hours spent watching together on the average day, mothers interviewed in the Messaris study cited earlier gave a mean estimate of 1.3 hours (standard deviation: 1.0) of daily coviewing with their children of elementary school age (compared with an estimate of 2.5 hours for their own total daily viewing). These figures reassure us, then, that it makes some sense to proceed with an examination of what goes on when parents and children watch together. The obvious next question is whether there is likely to be any kind of interaction between parents and children at such times.

Data on what happens during coviewing are less clear than the figures we have examined above. As a result of some early findings of little interaction among family members in front of the television set (e.g., Maccoby, 1951; Steiner, 1963:101-103), it is often assumed in current writing on the subject that parent-child discussion while coviewing is a

rare phenomenon. More recent data, however (e.g., Barcus, 1969; Lyle and Hoffman, 1972), do not support this notion. One possible explanation of this trend is that, with the passage of time, television has increasingly come to be treated as part of the normal background of family life, so that people talk and do other things while it is on, whereas in the past it was accorded more focused attention. Such a conclusion is certainly consistent with the findings of a handful of studies involving direct observation of families' viewing behavior (e.g., Bechtel et al., 1972; Lull, 1980), most of which describe an overwhelming variety of things going on in front of the set, among which watching is not necessarily the most frequent. Assuming that such findings are not misleading about the likelihood that parents and children do actually interact in some way while the television set is on, we can go on to ask what form these interactions are likely to take.

When parent-child coviewing is discussed in the popular press (e.g., the advice columns of the Singers in *TV Guide*), what people are usually concerned with is to encourage active intervention by parents in their children's uses of and reactions to television. Our concern, however, is not what could be (or should be) but what is. What evidence we have indicates that deliberate involvement by parents in their children's viewing is not something that occurs often enough for us to want to predicate the rest of this section on its existence. Admittedly, the data are not systematic on this point, but we can draw unambiguous provisional conclusions from two kinds of related findings: First, as we have already seen in our discussion of Mohr's (1979) study, parental guidance of children's program selections, which may be taken as one indication of how much deliberate involvement there is, is generally very low. Second, an exploratory study by Messaris, involving open-ended interviews with 120 Philadelphia-area mothers about television-related interactions in their families, turned up very few examples of planned, deliberately instructional maternal comments about television. Our assumption is therefore that most parent-child discussion about television is likely to be casual and fleeting. As to the topics of such discussions, possibilities are suggested by Messaris's exploratory study and by other descriptive work on television and the family (e.g., Anderson et al., 1979; Lull, 1980; Messaris and Thomas, 1981). We emphasize strongly that this discussion is very tentative and in many respects based more on speculation than on strict induction from the data.

As a general rule, parent-child discussions about television appear to be initiated by the child rather than the parent. Among the kinds of occurrences that can precipitate such discussions, three general types stand out: first, a child's incomprehension of some point in a program or of a parent's response to that point; second, a child's distress at some disturbing

element in a program; and, third, a parent's disapproval of a child's response to some aspect of a program or, very often, a commercial message. The particular form that discussions are likely to take in each of these categories varies strongly with the age of the child. For our purposes we distinguish very roughly between younger children (through the first few years of elementary school) and older children (through the early years of adolescence).

From the point of view of this paper, the most important of the three categories of parent-child discussion mentioned above is the first. With younger children, incomprehension of television programming is not only a matter of lack of background information but also in many cases a result of incomplete familiarity with the "language" of television. Parents (or, in fact, any adult viewers available) are thus occasionally called on to explain some aspect of narrative construction (e.g., a transition to a dream sequence) or plot structure (e.g., the relationship between what happened before the commercial and what the child is seeing now). These explanations, usually extremely casual and offhand, may play an important part in children's growing mastery of the medium; they may also have other consequences, which we shall examine below, in relation to schooling. Aside from this kind of explanation, parents are also called on to supply background information that a child does not have, and this kind of explanation (also a casual occurrence) seems to happen quite often, not only with younger children but also with older ones. While much of what a parent may have to explain on such occasions may be unrelated to education in the stricter sense (e.g., sexual innuendo in a joke), there also seem to be many instances, especially with older children, in which the topic of the child's question does have a fairly obvious bearing on educational matters (e.g., vocabulary or the historical background of a movie seen on TV). We discuss this sort of parent-child talk in further detail below.

Although less directly related to our present concerns, the second type of parent-child discussion (occasioned by various kinds of distress on a child's part) may be the most significant of the three, in terms of a child's overall development. With younger children this kind of discussion seems to be a typical occurrence, brought about by children's fear of monsters and other imaginary creatures seen on television (e.g., the wicked witch in *The Wizard of Oz*, whom many mothers describe as having terrified their children). The parent's solution to this kind of problem, of course, is to teach the child about the nature of fantasy and fiction. With older children, however, discussions of this general type do not admit of so simple a solution, because the cause of distress is often realistic or real (e.g., scenes of torture or other forms of cruelty, both in fictional programs

and in the news). In such cases, the parent is charged with accounting for the existence of evil and suffering—and it should not surprise us, perhaps, that many parents report that the only thing they can do in these situations is to confirm the fact that the world outside the home is often a nasty place (see Messaris and Thomas, 1981).

The third category of parent-child discussion is occasioned by a parent's reaction to something a child does in response to television. This kind of situation seems to happen primarily with younger children, who often have to be cautioned not to imitate certain things they see on television (e.g., trying to fly like Superman, or poking one's brother or sister in the eye in imitation of the Three Stooges), but there are also other ways in which a child's reactions to television may lead a parent to intervene. For example, the mothers interviewed in the Messaris study often mentioned having to educate their children about the mendacity of commercials after being pestered with continuous requests for expensive or harmful products (see Robertson, 1979). Discussions of this general type (i.e., disapproval of a child's reaction to television) have been examined in experimental settings, and the results are encouraging about the prospects of real-life parental comments of this kind.

As we have indicated above, an important antecedent variable influencing the form of the parent-child discussions we have looked at is the child's age. In comparison with age, none of the other variables that we have been able to examine in this connection seems to play a major role here. Two studies by Messaris and his colleagues (Messaris and Thomas, 1981; Messaris et al., 1982) do indicate that social class (especially its educational component) and overall family socialization style make some difference, but the differences are not substantial enough to require discussion in a preliminary treatment such as this one. We reserve discussion of the one variable that is of greatest importance to this paper—parental work status—for the appropriate place below. To conclude this review of coviewing and associated discussion, we briefly raise the issue of whether there is any evidence that it does influence children's behavior in any way.

As it happens, there is at least one area in which there is substantial support for the notion that parental commentary can make a difference to children's responses to television: the relationship between television violence and real-life aggressiveness (see, for example, Dominick and Greenberg, 1972; Grusec, 1973; Hicks, 1968; Korzenny et al., 1979; McLeod et al., 1972a, 1972b). There are also several general arguments in favor of the proposition that children's responses to any aspect of television are likely to be conditioned in important ways by family viewing context, assuming there is one (Chaffee, 1972; Leifer et al., 1974; Messaris and

Sarett, 1981). In principle, therefore, we do have some basis on which to proceed with our investigation of specifically (or narrowly) educational consequences of coviewing—and, of course, with the additional question of whether parental work status makes a difference in these matters.

We shall examine three partly related assumptions about ways in which coviewing might have an educational influence on children. The first assumption is that parental coviewing may inhibit the development of short attention spans, incoherent information processing, and other deleterious mental habits that television is often charged with fostering. The second assumption is that parental coviewing may contribute to children's mastery of television's visual syntax and, consequently, of the cognitive skills that this mastery has been said to entail. The third assumption is that parents' informational commentary about a program may contribute to children's knowledge about topics related to the formal educational curriculum. There is some evidence—not much and not entirely satisfying—in favor of these assumptions. After examining each of the assumptions and the associated evidence, we talk about the likelihood that parental work status may affect these processes.

Coviewing and Children's Attention Spans

The first assumption we consider is that parental coviewing may affect the degree to which children pay sustained attention to what they see on television and the degree to which they construe programs as overall structures (as opposed to unrelated fragments). The implicit link to school performance should be evident here, since it appears frequently in public denunciations of television: Attentiveness and coherence of interpretation in the presence of television may conceivably be related to a child's attentiveness to and awareness of the logical structure of material encountered in class (Hornik, 1981:202-203). However little support there may be for the latter part of this overall assumption, is there any reason to believe that parental coviewing makes a difference? Although the question has not been dealt with directly, there are in fact some findings that are, if anything, supportive of such a belief. To begin with, a useful experimental study by Collins et al. (1981) indicates that appropriate commentary by an adult can indeed increase a child's ability to deal with a television program in terms of structural interconnections among its parts. In this study, children were shown a dramatic television program in the presence of an adult who, at three points in the program, made one of two kinds of comments, either a facilitating comment, which made explicit a plot connection that the program did not show directly, or a neutral comment, which merely put into words the action on the screen.

The children were then tested on their ability to make various inferential connections among parts of the program. Those who had heard the facilitative commentary did better, not only on those questions directly related to the comments but also—and this is the more important finding—on questions about other aspects of the plot structure (Collins et al., 1981:161). This study gives us some reason to believe that commentary of this kind can lead to "better" viewing habits (in the limited sense we are considering here). But is there any reason to believe that parents do in fact make such comments to their children while watching television with them?

On this question the only data are from the exploratory study by Messaris, in which mothers were asked to give examples of the kinds of television-related discussions that typically occurred in their families. Relevent data came from the following question: "Do your children ever ask you to explain your response to something on television?" More than 50 percent (55.7 percent of an opportunity sample of 120) of the mothers gave specific examples of such discussions. While some of these involved explanations of background material needed to understand some aspect of the content of a program, many others involved explanations of (or, very often, merely emphasizing or pointing to) relationships among parts of a program that a child had already seen. Since this study required respondents to give actual examples (rather than simply estimating the frequency of such situations), it is probably safe to treat this evidence as support for keeping alive the assumption that parental commentary may in fact have something to do in real life with the interpretational tendencies that children develop in response to television. In any case, this is the only evidence we have on this specific part of the assumption.

Coviewing and New Cognitive Skills

The second assumption is closely related to the first and can be dealt with very briefly. The starting point for this assumption is the McLuhanesque hypothesis that the most important intellectual consequences of exposure to television stem from the types of mental operations that one develops in dealing with the medium's most typical modes of organizing and presenting information. One form of this more general hypothesis has been formulated and tested, with considerable success, by Salomon (1979), whose work has led to much speculation about possible implications for formal schooling (Hornik, 1981:204-206). To what extent is this aspect of children's dealings with television influenced by their parents' ability to coview and discuss things with them?

Systematic data directly relevant to this point are nonexistent. To some

extent, however, what we have already said about the first assumption may have some bearing here, too. The crux of this connection is the possibility that a child's handling of the syntactic devices discussed by Salomon and others (i.e., modes of temporal and spatial juxtaposition within and across shots) may be affected considerably by commentary that explicates the syntax before it has been fully mastered. (In fact, one could argue that such direct "tuition" is a prerequisite for mastery of this visual syntax, although even in the case of language proper such arguments are controversial.) In other words, very much the same order of parental involvement discussed in the previous section could also make a difference in this case. For instance, one mother in the Messaris study gave the following account of her daughter's experience with a standard device, the flashback. In an episode of "The Incredible Hulk," a young woman whom the Hulk saves from drowning remembers, in flashback, the death by drowning of her sister. On first seeing this episode, the child did not understand the correct sequence of events and wanted to know why the Hulk has allowed the second sister to drown after saving the first one. By supplying the correct interpretation at that point, the mother presumably contributed to her daughter's eventual mastery of this particular syntactic device.

Coviewing and Information-Giving

We have been considering the possibility that the commentary of coviewing parents may contribute to the development of certain cognitive tendencies or skills that may be carried over from television to a child's in-school behavior. But there is also another, more obvious contribution that parents' television-related comments may make to children's educational progress: Commentary of this sort might simply provide children with background information on a variety of topics of some relevance to the formal educational curriculum (for example, history or government). This possibility has occurred to several investigators, and there are consequently some systematic data against which to test it.

Data on the effectiveness in principle of coviewing adults' commentary have been accumulated in several experiments by Corder-Bolz and his colleagues (Corder-Bolz, 1980; Corder-Bolz and O'Bryant, 1978). The typical design was similar to that of the study by Collins et al., 1981 (one group with informative commentary and the other without it), and the results were not surprising: Children who were given the informative commentary were better able to answer questions about the program content to which this commentary was addressed. Once again, of course, we must ask how likely it is that this kind of commentary occurs in real life.

There is some direct evidence, which we shall get to shortly, and there is also some indirect evidence, from two studies that have found connections between coviewing and children's knowledge about various aspects of program content.

In the first of these studies (Salomon, 1977), Israeli mothers were asked to watch "Sesame Street" with their children over a six-month period but were not asked to make any particular kinds of comments—or, indeed, to make any comments at all. In comparison to children whose mothers had not been given such instructions, the children who watched with their mothers had higher scores on certain measures of information gain from the programs. Of course, it is quite possible that this information gain was due solely to heightened attention, of the kind we discussed earlier, since it is unclear to what extent the tests Salomon used were tied strictly to the content of the programs themselves. (Furthermore, data from Israel may not be relevant to inferences about this kind of behavior in the United States) The second of these two studies is clearer on this point. Messaris and Kerr (1982) found that children's knowledge about the occupations of certain television characters was positively related to frequency of mother-child coviewing and discussion of the programs in which these characters appeared (even in the presence of the appropriate controls for viewing frequencies). Since this study was measuring aspects of occupational knowledge that were not covered in the programs themselves, it seems safe to conclude that the specific content of mothers' comments, rather than the mothers' presence, must have had something to do with these results. In any case, both studies lend some weight to the proposition that parental commentary does have some real-life effect on children's learning in the presence of television.

For the most direct data on frequency of parents' informational commentary about television, we turn once again to the study by Messaris et al. (1982) mentioned earlier (forced-choice questions with 332 mothers). The interviews used in this study contained several questions about mothers' informational commentary in relation to television. These questions were prefaced by the following introduction: "Now, what I'm interested in is cases in which you've given (name of child) information in connection with a TV program—in other words, cases in which a TV program has led to a discussion of a particular type of information." The interviewer would then proceed to ask about several areas of information, of which the most relevant for our purposes are: vocabulary (i.e., explanations of words a child had not understood), historical background, geography, science, the mechanisms of human reproduction, adult occupations, and "things of general interest." Responses to all of these questions were given on the 4-point scale described earlier, and the response frequencies

are given, as marginals, in Table 3-3. Perhaps the best way to summarize these data is to point out that, for each of the four areas that are solidly within the bounds of the traditional educational curriculum (vocabulary, history, geography, and science), only a third or so of the respondents answered "rarely" or "never." Of course, there are problems with such data: They come from a nonprobability sample, the measure of discussion frequency is not tied to any explicit common standard, and we cannot tell how much these mothers may have inflated their estimates in talking to the graduate students who interviewed them; but they are the only data of this kind available. Together with the other findings cited above, they tell us that we do not yet have a good reason to discard the assumption

TABLE 3-3 Frequency of Mothers' Informational Comments to Children About TV, by Type of Information and Mothers' Work Status

	Response Category				
	Never (%)	Rarely (%)	Sometimes (%)	Often (%)	Chi-Square[a]
Vocabulary					
Nonemployed mothers	13.5	23.4	41.5	21.6	
Employed mothers	18.0	19.9	39.1	23.0	1.76
Total sample	15.7	21.7	40.4	22.3	
History					
Nonemployed mothers	11.8	17.6	45.9	24.7	
Employed mothers	11.8	27.3	41.0	19.9	4.78
Total sample	11.8	22.4	43.5	22.4	
Geography					
Nonemployed mothers	12.9	21.2	43.5	22.4	
Employed mothers	6.8	30.4	43.5	19.3	6.24
Total sample	10.0	25.7	43.5	20.8	
Science					
Nonemployed mothers	17.0	17.0	38.0	28.1	
Employed mothers	10.6	18.0	42.2	29.2	2.91
Total sample	13.9	17.5	40.1	28.6	
Human reproduction					
Nonemployed mothers	30.6	23.5	34.1	11.8	
Employed mothers	39.4	20.0	27.5	13.1	3.59
Total sample	34.8	21.8	30.9	12.4	
Adult occupations					
Nonemployed mothers	25.1	24.6	36.3	13.5	
Employed mothers	26.9	26.3	33.8	13.1	1.28
Total sample	26.0	25.4	35.0	13.3	
General interest					
Nonemployed mothers	3.5	26.3	46.8	23.4	
Employed mothers	4.3	34.8	36.0	24.8	4.48
Total sample	3.9	30.4	41.6	24.1	

NOTE: Total sample N = 332; nonemployed mothers, N = 171; employed mothers, N = 161.

[a]All chi-squares not significant.

that parental commentary may add to the educational quality of children's television viewing in everyday life and not just in experiments.

Parental Work Status and Coviewing

To return to the broader question: How does parental work status affect the processes we have just outlined? Do we have any evidence that employment outside the home prevents parents from watching and talking about television with their children as much as they otherwise would? Once again, our only source of data is the study by Messaris et al. (1982); but since we are examining relative frequencies only, rather than absolute numbers, the reservations we expressed above are less damaging. Table 3-3 presents data on the relationship between mother's work status (absence or presence of employment outside the home) and frequencies of the kinds of informational comments we discuss above. As the table shows, there are no significant associations (nor does this situation change when we control for social class, although this part of the analysis does not appear in the table). This study also contained a broader question on mother-child coviewing (a modified version of the standard viewing-frequency question used in the National Opinion Research Center national survey): "Approximately how many hours of television would you estimate that you and (name of child) watch *together*, in each other's company, on the average day?" Here, too, we find no relationship to mother's work status, even though the equivalent question for the mother's own total viewing did yield the expected relationship. In short, there is nothing in the data presently at our disposal to suggest that parental work status has any effect on the amount of time that parents spend watching and talking about television with their children. Consequently, we are bound to conclude that there is no support for the overall assumption that parents' work status affects the educational quality of children's use of television by making it less likely that parents will spend time in television-related activities with them.

Before concluding this section, however, we should note that there may be other, more complicated links between parental work status and coviewing. In particular, it may be that mere presence or absence of employment outside the home is too global a variable for our purposes. Rather, what counts may be certain details of the parent's relationship to work. In a review of findings about the effects of mothers' employment on children's lives, Hoffman (1974) concludes that mothers' attitudes (satisfaction, resentment, etc.) toward their jobs (or the absence of a job) are of greater consequence for the mother-child relationship than the mere fact of employment outside the home. More recently, D'Amico, Haurin,

and Mott (Chapter 6) have reported preliminary findings that support this general conclusion. What are the implications of such findings for the processes we have examined in this paper? Since a simple employed/nonemployed dichotomy is likely to lump together, on both sides of the dichotomy, people with very different attitudes toward their current status (employed or otherwise), it could be that the data we have looked at obscure certain underlying differences that might have been revealed if attitude toward employment had been available for inclusion in the analysis. One possibility that suggests itself is that employed mothers who are happy with their jobs make an extra effort to spend some time watching television with their children (or sharing in other activities, of course), while employed mothers who find their jobs too demanding react by withdrawing from their families at home. These two types of mothers might end up, then, on opposite sides of the nonemployed mothers with regard to amount of coviewing—a difference that would be masked if the only work-related variable used in the analysis were the presence or absence of employment. Unfortunately, the available data on the kinds of issues we have examined in this paper are in fact limited to that single global distinction, and we must therefore leave this point on the level of pure speculation.

CONCLUSION

This paper was structured around two basic questions: First, does children's television viewing have any educational implications? Second, does parental work status have any influence on the television-education link? Our examination of the first question indicates that there is evidence of a negative relationship between television viewing and reading skills, and some of this evidence supports the conclusion that television is the causal agent in the relationship. There is no other solid evidence of a relationship (outside the laboratory) between television and any schooling outcomes, but there are several possibilities that have not yet been investigated adequately. With regard to education in a more general sense (i.e., going beyond schooling), television viewing has been found to be related both to children's perceptions of social reality and to certain qualities of their interpersonal conduct (aggressiveness, prosocial behavior), but interpretations of the direction of causality in these relationships (when measured outside the laboratory) are problematic. Again, it should be emphasized that there are aspects of television's potential educational effects that are almost entirely untouched by formal research.

With regard to the second question, we have quite good evidence that parental work status is not related to the amount of children's television

viewing and some tentative evidence that parental work status may have consequences for children's program choices: Working mothers may be less likely to guide their children's viewing toward explicitly educational programming. Finally, we have a variety of evidence and speculation on whether and how parent-child coviewing may influence the educational quality of children's encounters with television. There are many indications—some strong, some not so strong—that coviewing can influence the cognitive skills and tendencies as well as the stock of information that children may develop in conjunction with television viewing. There is no indication, however, that presence or absence of parental employment outside the home has any influence on the relevant aspects of coviewing. Other aspects of parental employment (such as degree of job satisfaction) may make a difference here—although the lack of pertinent data has prevented us from examining such a possibility in any detail. We conclude, therefore, on a wholly appropriate note of uncertainty.

AFTERWORD

This paper, motivated to some extent by a concern for the impact on the family of trends in patterns of employment, has not dealt at all with the process of change in television itself, and there are numerous projections of what the likely trends might be in this area. In considering the consequences of these trends for the processes we have just examined, we offer a very quick review of four projected developments in the state of television: cable television (including pay-cable services), video recording and playback devices (tapes and disks), video games, and home computers.

Cable television has already made considerable inroads into broadcast television, and its projected growth is expected to continue. Its penetration of the nation's TV households has risen from 7.6 percent in 1970 to 20 percent in 1980, and it is expected that the figure for 1990 will be about 60 percent. Pay cable, which had a penetration of 10 percent in 1980, is expected to reach over 45 percent by the end of the decade. The standard assumption about cable is that its vast channel capacity (compared with the number of broadcast channels with good reception) will lead to more selective viewing and, some say, to greater use of educational and cultural channels. Perhaps this will come about, but we doubt it. For one thing, current ratings for most public television fare suggest that its audience is minuscule. Furthermore, print media, in which great diversity already is available, are still characterized by mass consumption of a few supermarket-rack magazines and best-sellers.

The same reasoning leads us to expect little substantive change from the increasing use of video cassettes and video disks, even though both

of these media undoubtedly have a bright economic future: The sale of video cassette recorders went up 70 percent in 1981, while video disks, despite gloomy press notices, did better in their first year on the market than any other comparable innovation (e.g., color TV).

The two developments that do seem to us to have potentially significant consequences for the kinds of processes we have been discussing in this paper are the video game and the home computer. The proportion of U.S. households with video games is still relatively low (8 percent in 1981, up from 3.5 percent in 1980); but the video game industry is the fastest-growing segment of the toy market, and manufacturers assume that a 50 percent penetration figure is attainable reasonably soon. Predicted annual growth rates in the sales of personal computers are in the 30-50 percent range for the next few years. Both of these technologies engage the user's mind in ways very different from those that are presumably characteristic of television viewing, and both may displace some of the time spent now with television. It seems reasonable to expect that their impact, if and when they do achieve more substantial penetration, will be considerable. However, as is—or should be—the case with most predictions about the social consequences of technological change, this one is offered with very little confidence.

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