Family Television Use and Its Relation to Children's Cognitive Skills and Social Behavior

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It has long been recognized that television occupies a large amount of children's time, perhaps 20 to 30 hours per week, which is more time than they spend on any other single waking activity. But it has also been recognized that television time is shared with other people and activities: talking, eating, reading or studying, playing games, grooming, light handwork, and the like (Anderson, Lorch, Field, Collins, & Nathan, 1986). Despite the fears of polemicists like Winn (1977) and Postman (1979), television has not destroyed the family or intellectually crippled young viewers. What it has done is certainly more subtle, and probably depends as much on what kinds of programming children view and when and with whom they view it, as it does on the gross amount of television they watch.

Despite the obvious importance of parents and siblings in children's television experience, the study of the impact of television on families in western developed countries has been sparse. Content analyses have documented portrayals of families on television as an image of ideal or average family life in that culture. Recently, some investigators have taken account of the role played by television in families as a planned or default activity, as subject matter for discussion and argument, as the occasion for parental regulation and for children's assumption of increasing responsibility for controlling their own time use.

Just as church and family yielded some of the responsibility for raising and socializing children to the public schools in the previous hundred years, so in the last half of the 20th century, all these agents of socialization have yielded some control of that process to the media, especially television. This medium has more access to the child's week than do the schools, and its influence begins well before children enter kindergarten. This chapter therefore pays special attention

to family television viewing in the very early years when the medium may have a special inside track toward influencing children's development, including their future orientation toward, and use of, the medium itself.

One purpose of this chapter is to describe the role of the family in the development of young children's television use. Our analysis is guided by an ecological model of television use illustrated in Fig. 11.1. Family processes and family structure represent one important level of influence. Parents may affect children's viewing through their own viewing patterns, by viewing with their children, by voicing their values and attitudes about television, and by regulating or encouraging different types of viewing. Similarly, siblings are important companions in viewing and influences on viewing choices.

The social institutions with which the family interacts represent the next level. These include school, parents' jobs, and the media available for use. Children's use of television is influenced by structural factors in their lives. For instance, they are likely to view more television if their mothers are at home than if mothers work outside the home and the children are in preschool or day care. They are likely to watch more television if their family subscribes to all available cable options and has a VCR than if they do not (Huston, Wright, Rice, Kerkman, & St. Peters, in press; Piñon, Huston, & Wright, 1989).
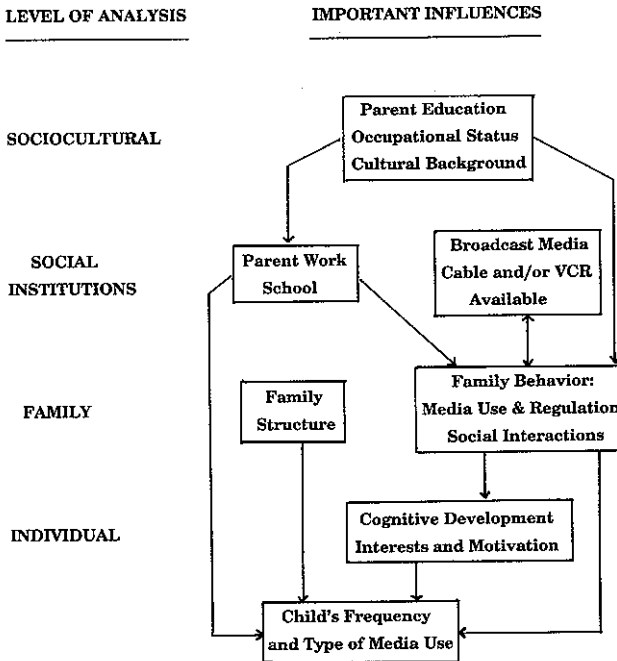

FIG. 11.1.   Model of determinants of children's media use.

Finally, broad sociocultural variables, including education, social class, and ethnicity, are related to families' television use. The analysis of family influences depends in part on the constraints imposed by the other two sets of determinants, as well as on the nature of the medium. Our efforts to analyze family influences on viewing rest on some general assumptions about television use.

Television's influence is not monolithic, but pluralistic. It is possible, for example, to design a television diet for a child confined to bed that is unbelievably rich and varied, one that can in many respects substitute vivid and constructive vicarious experience to replace some of the deficits in such a child's life. By the use of VCRs and cable systems, there is in the 1990s far more opportunity for choice of programming and control of when to view than ever before. Less and less of television viewing is determined by what the major commercial networks broadcast during the hours that most families have time free for viewing, and instead is more dependent on individual tastes. Accordingly, the focus of this chapter is on *what is viewed* and *with which other family members it is viewed*, not just on gross amount of television use.

Despite television's consumption of major amounts of time in a child's life, it is not the most important activity to most children. It has been said that all television is educational television for young children, but it is clearly not planned education for the most part. But it is certainly an entertainment medium first, and one that is used more as a default activity when little else is happening of interest, than as a resource for information or education. Thus, much of what it teaches is incidental and indirect, rather than explicit.

The second major purpose of this chapter is to discuss some of the possible influences of family television use and attitudes toward television on children's *intellectual and social development*. Many people have suggested that parents can mediate or moderate the effects of television content by viewing with children or by giving children guidelines for viewing. Children can learn more from educational television if parents watch with them, and they can comprehend content if adults provide interpretive commentary. Such effects are sometimes difficult to determine because parental education, ethnicity, and economic status all play important roles in mediating the relationship between viewing and learning.

In the following sections, the review of relevant literature is much informed by the work of Gunter and Svennevig (1987). We refer extensively to findings from our own longitudinal study of families with young children. Therefore, a brief summary of that study is presented first.

THE TOPEKA LONGITUDINAL STUDY

The major purposes of the study were to identify patterns of developmental continuity and change in children's early television viewing and to investigate how those patterns are related to family environmental influences and to children's

cognitive skills and social behavior. Two cohorts of children were followed for 2 years from ages 3 to 5 and 5 to 7, respectively. The sample represented a wide range of educational and occupational levels, but families were predominantly White with two parents in the home. Parents completed five semiannual 1-week television diaries describing all viewing by all members of the household. Parents were interviewed and children were tested before and after the 2-year period. Details of the method are available in Huston et al. in press and in Piñon et al. (1989).

Because we assumed that different types of programs could have quite different effects, all television programs viewed were classified according to *intended audience* (child or adult), *informative purpose* (yes or no), *animation*, and *program type* (real-world events and information, variety, comedy, drama, or action adventure). Children's viewing was also classified according to the presence of one or both parents, siblings, and other people.

Interviews at the beginning and end of the 2-year period covered parental attitudes toward TV and their children's use of it, parental regulation and encouragement of viewing, and the degree to which television-related themes permeated children's conversations and play. Parents also rated their children's aggressive and prosocial behavior.

Children's vocabulary was tested at the beginning and the end of the study. At the end, children's attention to television, knowledge about television production conventions, reading skills and ability to solve a Piagetian problem when presented in a live versus a televised format were measured.

FAMILY INFLUENCES ON CHILDREN'S TV USE

We turn now to the major purposes of the chapter. In this section, we examine how children's television viewing develops and how it is related to family characteristics. For example, how much of young children's television viewing is shared with parents or siblings, and how much of it is alone or unsupervised? At times when parents and children watch TV together, who controls the selection of programs? Does the parent–child co-viewing diet depend more on the parents' tastes or those of the children? Do mothers and fathers have parallel or distinctive influences? As the child emerges from parental control and begins to select his or her own programs, to what extent does the child's taste in programming reflect what he or she has watched most often with the parents? How effective is parental regulation and encouragement of children's television use?

As developmental psychologists, we focus especially on psychological and developmental variables in the analysis that follows. But it should be noted that by no means are all, or even most of the determinants of viewing are of that kind. Families are influenced by socioenvironmental conditions in which they live and the social institutions of school and work with which they interact. Such factors

as family structure, maternal employment, educational level and cultural orientation of parents, and what programming is available during convenient viewing hours account for a very large percentage of the variability in family television use.

The Amount and Types of Programs
Co-Viewed With Parents

Cross-sectional data suggest that television becomes firmly established in children's lives well before their first experiences in formal educational settings. Six-month-old infants respond to the sights and sound of television (Hollenbeck & Slaby, 1979), and children between 1 and 2 years of age react to particular characters and events by imitation, pointing, verbal labeling, and selective attention (Lemish & Rice, 1986; Meltzoff, 1988).
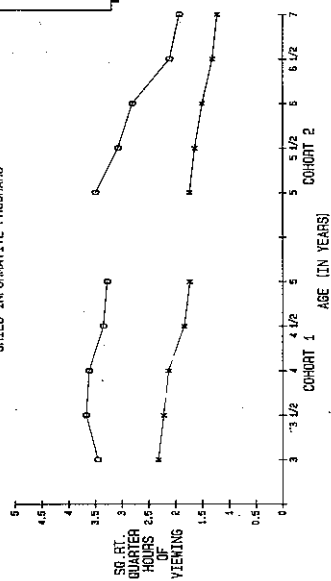
For young children, a major determinant of what and when they view is what and when their parents view. Younger children do not usually operate the set independently. Bower (1973) surveyed family viewing patterns and found that co-viewing was the most common pattern, even in families with multiple sets. Most of that co-viewing was adult with adult and child with child, rather than cross-generational family viewing.

On the whole, the amount of co-viewing declines with age, as does the time spent with parents in other activities (Carpenter, Huston, & Spera, 1989; St. Peters, Fitch, Huston, Wright, & Eakins, 1989). But the types of programs co-viewed with parents show different time courses over the early years. Figure 11.2 shows the mean amounts of coviewing of different program types over time in our longitudinal study.
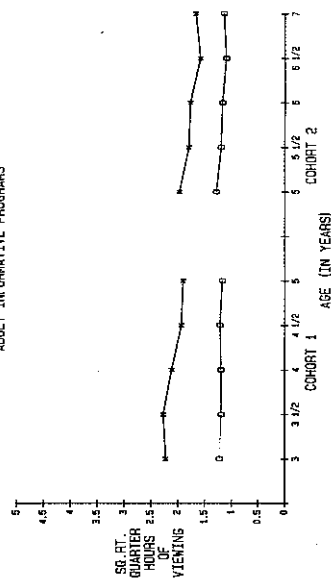
Schramm, Lyle, and Parker (1961) suggested that children learn patterns of TV viewing by imitating their parent's viewing. Indeed parental viewing patterns, both amount viewed and reasons for viewing, predict children's viewing patterns (Brown & Linne, 1976; McLeod, Fitzpatrick, Glynn, & Fallis, 1982; Timmer, Eccles, & O'Brien, 1985). McLeod and Brown (1976) argued that the modeling hypothesis is simplistic, particularly for older children and adolescents, because it fails to take into account social class, which may account for viewing patterns, and the possibility that children sometimes influence parents' viewing. There is no doubt that children's viewing tastes come to resemble those of their parents, but the evidence for direct influence on such preferences at an early age is sparse, especially when family income or parental education is controlled. Nor is there much evidence that the similarity in taste is mediated by co-viewing experiences.

Nearly half (McDonald, 1986) to two thirds (Carpenter et al., 1989) of children's viewing is done with parents. However, co-viewing is much more frequent during programs for a general audience than during programs aimed at a child audience. In our sample, when children watched general audience programs, they were with at least one parent 67% to 81% of the time. Only 22% to 25% of their

ADULT INFORMATIVE PROGRAMS

CHILD INFORMATIVE PROGRAMS

CHILD ENTERTAINMENT PROGRAMS

ADULT SPORTS PROGRAMS

-o- CHILD WITHOUT PARENTS

-*- CHILD WITH PARENTS

SQ.RT. QUARTER HOURS OF VIEWING

AGE (IN YEARS)
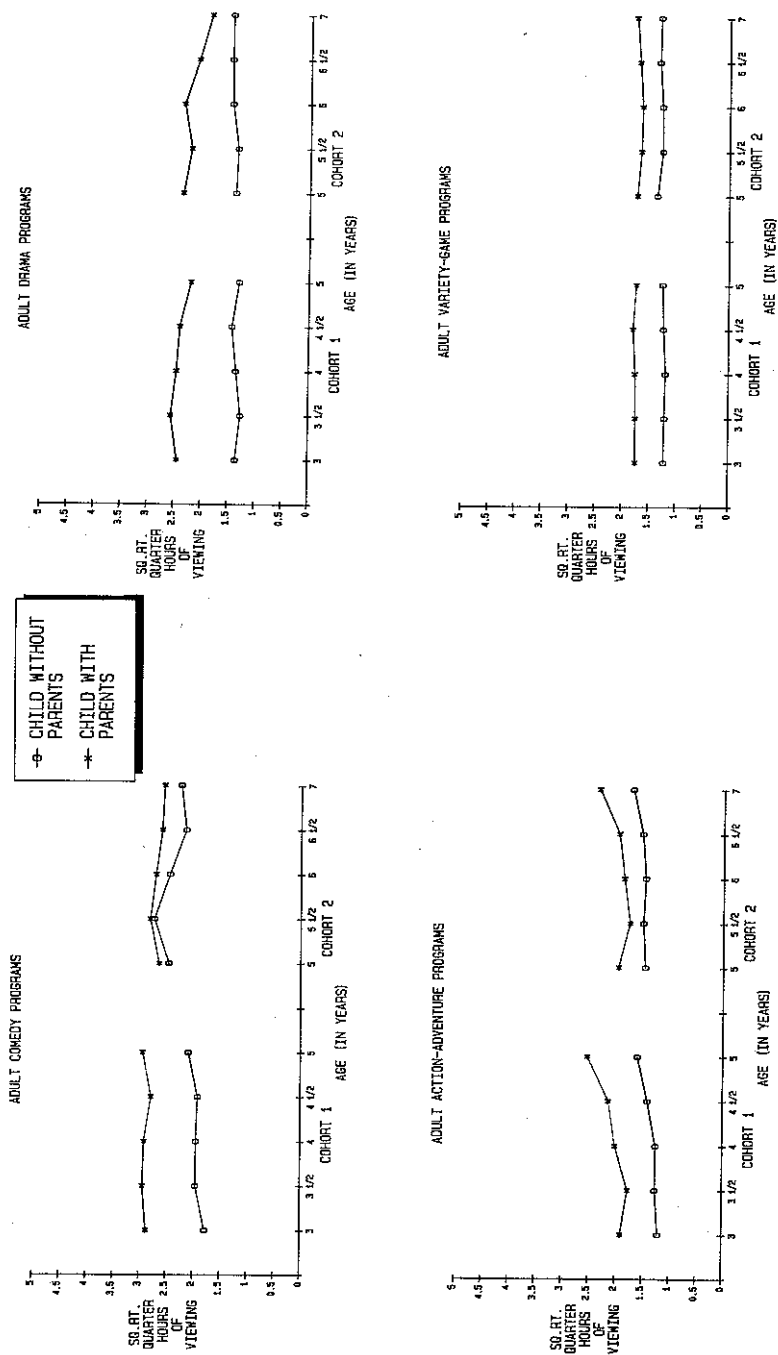
COHORT 1   COHORT 2
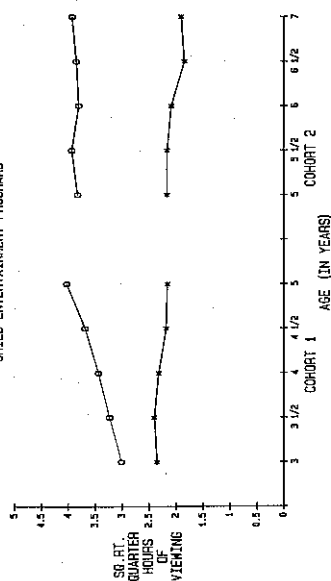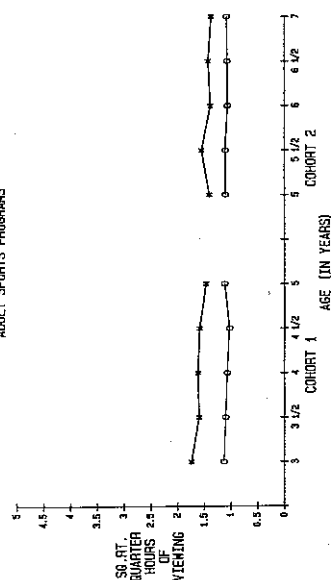
FIG. 11.2.   Mean amounts of viewing by children, with and without parents, at each age level for eight categories of programs.

viewing of child programs occurred with a parent (see St. Peters et al., 1989, for details of this analysis). The average percentages of children's viewing with and without parents are shown in Table 11.1

Correlates of Parent–Child Co-Viewing

Do parents join children in order to share programs suited to the child's tastes and preferences? Or do parents choose programs suited to their own tastes, allowing the child to join them? The most recent Nielsen audience research data on coviewing collected in 1975 indicated that most parent–child co-viewing occurs during prime time rather than during hours when programs designed for children are shown.
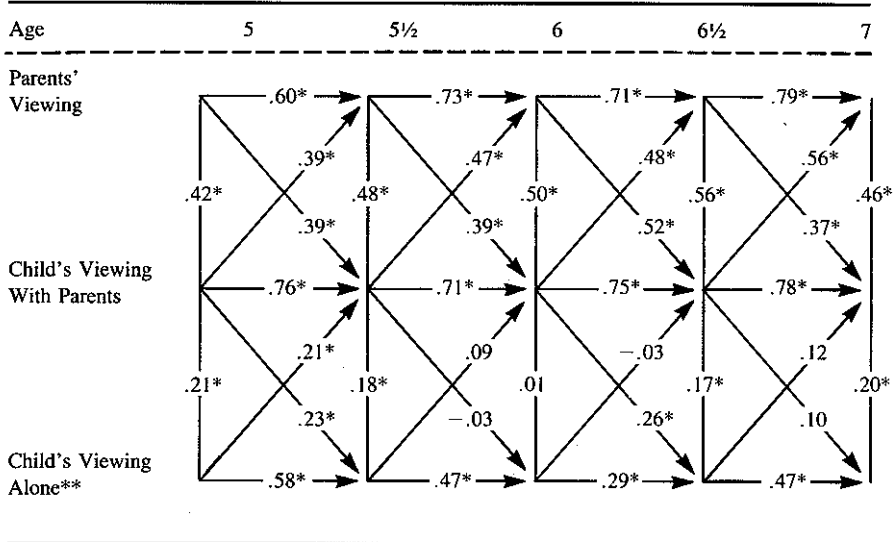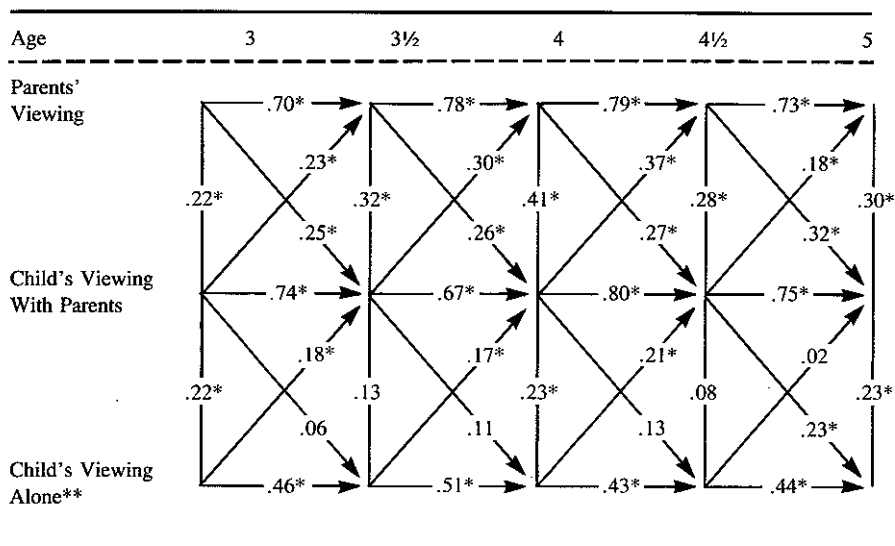
In our longitudinal study, the relation between the types of programs that children and parents watched "alone" and the types of programs they watched together were examined as a means of examining potential influence. For example, if the amount of comedy viewed by a parent without the child predicted the amount viewed together, one might conclude that the parent's tastes guided the selection of those programs for co-viewing. Using cross-lag panel correlations, we could also compare each family member's individual viewing with co-viewing 6 months earlier and 6 months later. These correlations for adult audience programs are presented in Table 11.2.

Children appear to be drawn into viewing general (adult) audience programs by their parents and appear to accommodate to parents' choices of adult programs. The amount of general audience programming that parents watched without children was positively related to the amount viewed with children. By contrast, the amount of adult programming that children watched without parents was not significantly related to the amount co-viewed with their parents.

TABLE 11.1
Average Percentages of Children's Viewing of Television Programs
With and Without Parents

	Program Types			
	Child informative (%)	Child entertainment (%)	Adult informative (%)	Adult entertainment (%)
Co-viewer:				
Without parent(s)	77.8%	74.7%	18.8%	32.9%
With parents(s)	22.2	25.3	81.2	67.1
Both parents	2.6	6.1	31.2	24.8
Mother	15.7	12.3	26.9	28.7
Father	3.9	6.9	23.1	13.6

TABLE 11.2
Cross-Lag correlations Between Viewing and Co-Viewing Adult Programs
by Children and Parents

Age	3	3½	4	4½	5

Parents'
Viewing

.70*   .78*   .79*   .73*

.23*   .30*   .37*   .18*

.22*   .32*   .41*   .28*   .30*

.25*   .26*   .27*   .32*

Child's Viewing
With Parents
.74*   .67*   .80*   .75*

.18*   .17*   .21*   .02

.22*   .13   .23*   .08   .23*

.06   .11   .13   .23*

Child's Viewing
Alone**
.46*   .51*   .43*   .44*

Age	5	5½	6	6½	7

Parents'
Viewing

.60*   .73*   .71*   .79*

.39*   .47*   .48*   .56*

.42*   .48*   .50*   .56*   .46*

.39*   .39*   .52*   .37*

Child's Viewing
With Parents
.76*   .71*   .75*   .78*

.21*   .09   −.03   .12

.21*   .18*   .01   .17*   .20*

.23*   −.03   .26*   .10

Child's Viewing
Alone**
.58*   .47*   .29*   .47*

* r = .26 to .80, p < .001
r = .19 to .25, p < .01
r = .14 to .18, p < .05

** "Alone" means without parents; siblings or others may be present.

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No reciprocal accommodation by parents to children's choices appeared for general audience programs. However, when parents did view children's programs, they almost always did so in the presence of their child, so they apparently accommodated to the child's choices in those instances. As children co-viewed general audience programs with parents much more often than child programs, it appears that children were influenced by parents' tastes more often than parents were influenced by children's tastes. The low frequency of co-viewing children's programs suggests that parents miss opportunities to enhance the educational benefits of programs intended for children.

The majority of children's viewing of adult programs is with parents. Therefore, the concern that young children watch too much adult programming unsupervised is not warranted. However, co-viewing with parents decreases with age, as children become increasingly independent of parents. The opportunity for parents to moderate effects of such programming declines with age. The fact that co-viewing does not predict children's viewing in subsequent waves suggests that parents' choices of adult programs for co-viewing do not have much direct influence over children's tastes, at least over the short haul within the preschool years.

CO-VIEWING WITH SIBLINGS

Alexander, Ryan, and Muñoz (1984) observed siblings between the ages of 2 and 16 years of age at home with TV. Although much of the conversation was not related to the television program, older children frequently interpreted and evaluated the program for the younger siblings. Younger children frequently asked questions concerning characters, narrative conventions, and visual techniques.

In our dataset, only children did a lot of child-informative viewing alone. Among children with siblings, most viewing of children's programming occurred with siblings and without parents. Children with older siblings watched more entertainment programs with their siblings, and children with younger siblings watched more child-informative programs with their brothers and sisters. Viewing of informative children's programs declined at an earlier age among children with older siblings than among only children, and later among children with younger siblings than among only children. Children with older siblings saw a larger number of comedies with their siblings and without adult mediation; those with younger siblings typically had an adult present as well. Only children did most of their comedy viewing with adults.

In general, the presence of older siblings led children to abandon child-informative programs such as "Sesame Street" for cartoons and comedies at a relatively young age. Conversely, children with younger siblings continued to

watch child-informative programs at a relatively late age, and watched adult programs with the entire family present.

FOREGROUND VERSUS BACKGROUND

Although families may "watch" television together, the television programs are often background to other activities. One or more TV sets are likely to be turned on for 7 hours a day in a typical American family with children. The actual viewing by individual family members is more like 4 hours per day, with children watching about as much as parents (A. C. Nielsen, 1984). Most people report doing other things concurrently while watching TV (BBC, 1984; Svennevig, 1987). Studies of time use and studies of the behavior of people while viewing recorded by in-home cameras or observers show that television must be shared with a variety of other activities, such as eating, exercizing, socializing, reading, and maintenance tasks like housekeeping, folding laundry, sewing and ironing, personal hygiene, and a variety of games and hobbies (Anderson et al., 1986; Lull, 1980; Palmer, 1986; Robinson, 1986; Silverstone, 1985).

Stability of Individual Viewing by Program Categories

But if the set is on more time than it is being actively watched, that does not mean that viewers are insensitive to what is on the screen. The stability within individuals over months and years of viewing by program categories is impressive, ranging in our data from 0.42 to 0.81. Short-term stabilities reported by Robinson (1986) were about 0.85. Individuals differ consistently in their tastes and those differences continue over time. The stabilities of young children's viewing by program categories over successive 6-month intervals is scarcely lower than that of their parents. For the younger children, the child's viewing may simply be dependent on the set-controlling parents' tastes, but for 5- to 7-year-olds, that stability begins to represent a characteristic of the child, rather than a parentally mediated artifact.

Webster and Wakshlag (1982) noted that stability in program choices is found in situations where co-viewing groups are constant. In their data, solitary viewers were most likely to watch or avoid watching certain types of programs. People who watched sometimes alone and sometimes with others displayed less program loyalty. When a person viewed consistently with the same others, program loyalty prevailed. These authors suggest that viewing is either dominated by certain individuals or that members of a group who view together regularly develop similar tastes.

HOW IS CHILDREN'S TV DIET DETERMINED?

Control of the Television Set

Undoubtedly there are some homes where the set is on all day on the preferred channel, or the one with the best reception, and it is almost entirely a matter of chance what young children in such families actually see on television. But most studies have found systematic patterns of viewing, channel control, and parental regulation and encouragement of children's viewing, especially young children's viewing.

Regulation and encouragement begin with control of the set. When family members watch together, children apparently have some influence over program choices, but parents, especially fathers, often prevail. Some investigators have found that adults make most of the program choices (Bower, 1973; Lull, 1978; Smith, 1961). Others have found that children have considerable influence or that decisions are often made jointly by family members (Niven, 1960).

Parental Encouragement and Regulation in Early Childhood

Survey evidence shows that parents are concerned with bad language, violent and sexual content on TV, and some parents are concerned with the amount of time children spend watching. However, parents frequently underestimate their child's viewing time and are not aware of the extent of the undesirable content to which their children are exposed (Abel & Beninson, 1976; Cantor & Reilly, 1982; Greenberg, Ericson, & Vlahos, 1972). Moreover, many surveys have indicated that most parents have few if any rules about their children's television use, at least after about age 6 (Holman & Braithwaite, 1982; Lyle & Hoffman, 1972; Steiner, 1963; Streicher & Bonney, 1974).

In two recent studies, parents were asked about their encouragement of television as well as regulation (Dorr, Kovaric, & Doubleday, 1989; St. Peters et al., 1989). Many parents encourage children to watch particular programs that they consider educational or good entertainment for children. Such encouragement apparently reflects selectivity on the part of parents; it is not the reverse of regulation. In our data, high levels of encouragement were uncorrelated with high levels of restriction on viewing.

Program content, rather than time of broadcast is the most common reason given for parental restrictions and encouragement. That is, parents are more apt to encourage viewing because they see positive value in the content than because of the time of day. Similarly, parents are more likely to prohibit viewing on the basis of the content than to put time restrictions on children. Parents value educational programs and "specials" prepared for children. Violence, sexual content, and frightening content are often reasons for restrictions. However, parents seem to consider much of television innocuous—neither good nor bad

for children to watch. Despite the fact that they mention excessive violence most frequently as a reason for prohibiting viewing, they do not discourage many of the program categories that contain high rates of violence, such as cartoons, police shows, and superhero shows. Parents' comments suggested that they were particularly concerned about explicit violence of the kind shown on cable movie channels. Their stated concern about sexual content and adult issues probably form the basis for discouraging soap opera viewing.

Parental encouragement and restrictiveness did predict children's viewing in our study. Perhaps more important, they predicted patterns of coviewing. When parents encouraged viewing, children watched high levels of child-informative programming, but not higher levels of child entertainment, suggesting that parents were being selective. However, they also watched more general audience programs than did children of nonencouraging parents.

Children whose parents restricted viewing watched less child-*non*informative programming and less general audience programming than those whose parents did little regulating. Hence, restrictive parents were successful in reducing noneducational television use.

Perhaps most interesting, parents who were high in encouragement of television were more apt to watch television with their children than low-encouragement parents. Children in these families spent more hours co-viewing with their parents and less time watching television without parents than low-encouragement families. In restrictive families, absolute viewing time was lower, but when children did view, they were less likely to watch with a parent than children in encouraging families. Children whose parents neither encouraged nor restricted television use watched a large amount of general audience programming without an adult coviewer: Further support for the idea that television viewing is primarily a default activity.

Socioenvironmental Determinants of Viewing

Social Institutions.   In the model presented earlier, social institutions surrounding the family are proposed as important influences on viewing patterns. These include school and work because they control time available for viewing, and media because they control what is available at what times. For example, Timmer, Eccles, and O'Brien (1985) found that mothers employed outside the home watched less television with their children (6.7 hours per week) than did homemaker mothers (8 hours per week). Similarly, in our data, the single strongest predictor in multiple regressions of total child viewing was typically whether the mother worked outside the home, and the second strongest was whether the child had entered school.

Two facts about availability as a determinant of viewing appear paradoxically opposed: (a) Total viewing is surprisingly independent of how many options for different kinds of programming are available. (b) A large portion of the predictable

variance in viewing is associated with television availability. Some evidence indicates that people apparently have a stable appetite for television. When the number of available sources of programming is sharply increased, the total amount of viewing goes up for a time (a novelty effect), but soon returns to the same baseline. This finding is consistent with the time-sharing and background nature of much television use, and the stability of viewing by program category previously reported. It says that TV fills the gaps, and the number and size of gaps to be filled does not change much. Conversely, when the time to be filled does change sharply, such as in school entry, convalescence, or retirement, then the amount of viewing does change accordingly, and stabilizes at a new level, almost regardless of the variety of channels available.

However, across individuals, it is true that people with greater opportunities to view indeed do view more. Some of this relationship is mediated by consumer choice: Those with greater interest in television purchase more options for viewing, such as cable subscriptions, satellite antennas, and VCRs; and they are also the same individuals whose interest leads to more viewing. Such families would probably view more than others even if they did not have access to the variety of programming that they ordinarily purchase—that is the stability of appetite referred to in Point 1. It shows up elsewhere in our data in the statistical power of variables describing the TV orientation of families to predict family viewing.

Sociocultural Predictors of Viewing. Demographic variables such as education and social class are consistently related to total television viewing. On the average, viewing is greater for people with lower educational levels and lower occupational status. With social class controlled, Blacks watch more television than Whites (Comstock, 1982).

These demographic variables also predict the type of viewing. In our data, parents' education and occupational status were strong negative predictors of the amount of time children spent watching general audience entertainment programs both with and without their parents. Children from less-educated homes also watched more child entertainment than those with better educated parents. However, parent education and occupational status was not related to viewing children's informative programs; all social class and educational groups were equally likely to make use of television's beneficial programs for children.

SOME CONSEQUENCES OF FAMILY
TELEVISION VIEWING

Social critics and social scientists express divergent opinions about the value, positive or negative, of family television viewing. On the one hand, many recommend that parents watch television with their children. They argue that co-viewing provides opportunities for parents to select, interpret, and answer

questions about program content. On the other hand, many describe co-viewing as "nonquality" time during which family members are essentially passive and noninteractive (e.g., Timmer et al., 1985). The available literature does not settle this issue definitively. There is considerable evidence that parents *can* aid learning and clarify values during and after co-viewing television, but it is apparently rather rare for them to actually *do* so.

Concurrent Effects: Social Interaction and Family Routines

Observations by participant observers demonstrate that behavior organized around the TV set and television is the background for much activity. Family routines are structured in time around television viewing routines (Lull, 1980; Palmer, 1986; Silverstone, 1985).

Critics have often asserted that television interferes with family interaction and communication. Early studies demonstrated that families spent more time together after the introduction of television, but many reported little conversation or interaction during that time (Himmelweit, Oppenheim, & Vince, 1958; Maccoby, 1951; Walters & Stone, 1971).

Brody, Stoneman, and Sanders (1981) observed 3- to 5-year-olds with their parents watching TV and in a "family playtime" when the TV was off. When looking at the TV, children talked less, were less active, and less oriented toward their parents. However there was more touching between parents and children during TV viewing than during playtime. Gadberry (1974) also found that children interacted less with a peer during television viewing than during other types of play.

On the other hand, Lyle and Hoffman (1972) reported that television viewing in families was characterized by interactions between viewers rather than simply watching the screen. Bechtel, Achelpohl, and Akers (1972) using video recording found that talking was the most frequent activity during TV viewing; other concurrent activities ranged from reading and sleeping to more active pursuits, such as doing exercises and dancing.

Alexander, Ryan, and Muñoz (1984) observed siblings between the ages of 2 and 16 at home with TV. Most of the conversation was not related to the television program, but there was frequent interpretation and evaluation of the program, with the older child interpreting for the younger. Younger children frequently asked questions concerning characters, narrative conventions, and visual techniques.

One reason for conflicting results may be that the nature of interactions around television vary by age and by individual personality attributes. In a Swedish study (Johnsson-Smaragdi, 1983), adolescents considered TV a popular activity engaged in with parents. Adolescents with stronger friendships outside the home exhibited less interaction with parents during TV viewing.

For 11-year-olds, TV viewing appeared to stimulate interaction with parents.

The more they watched TV, the more they engaged in activities with their parents; the less they watched TV, the less they interacted with parents. Thus, for these 11-year-olds, TV seemed to be a stimulus for family interaction. For older adolescents (15-year-olds), the opportunity to be with parents was more important than TV viewing. Thus, although parent interaction and TV viewing were related, the nature of the relationship changed with age.

Cognitive Effects

Attention.   If children become accustomed to conversing and carrying on alternative activities during television viewing, they may also learn not to attend closely to program content. Moreover, because much general audience programming is beyond their level of comprehension and interest, children may learn generally to give television little attention. In the Topeka study, children were observed watching cartoons in an experimental laboratory session. Young children who had histories of viewing adult entertainment programs (both with and without parents) had low levels of both visual and auditory attention.

For older children, a history of viewing child-informative programs with their parents predicted high levels of visual attention to cartoons. Older children who continue to watch educational programming appropriate to their level of understanding and who are afforded the opportunity to have a parent co-view with them may learn to attend closely to television.

Learning From Television.   Adult co-viewers can enhance children's comprehension and learning from television content by offering commentary during and after the program. Experimental studies show that comments by an adult-co-viewer can lead to improved comprehension of central program themes (Watkins, Calvert, Huston-Stein, & Wright, 1980) and to improved inferences about implied events (Collins, Sobol, & Westby, 1981). In a pair of studies designed to compare "live" and televised instruction for teaching number conservation to preschoolers (Butt, 1979; Raeissi & Wright, 1983), a responsive adult co-viewer was found to be essential for training to generalize from the televised instructional mode to real objects. Children also demonstrated improved comprehension of prosocial messages in "Mr. Rogers' Neighborhood" when an adult provided verbal rehearsal immediately following each program (Friedrich & Stein, 1975).

More naturalistic studies also demonstrate that as co-viewers, parents can reinforce lessons presented during educational shows designed for children. Lemish and Rice (1986) observed mothers watching television with their children aged 6 to 29 months. Co-viewing interactions centered around language—naming objects, identifying objects, repetition of new words, asking questions, and relating television content to the child's own experience. Verbal interactions were frequent when the program being coviewed was age-appropriate for the child (i.e., "Sesame Street"). Older preschool children also benefit from repeating

specific phrases, asking questions, calling attention to central information, and encouraging children to participate at home. Children who watched "Sesame Street" with one or both parents learned more than those who watched it alone (Lesser, 1974; Salomon, 1977).

Quite often, it appears that parents do not capitalize on the opportunity to enhance the effects of television. In our data, parents did not co-view children's programs very often; when they were in the same room viewing, there is little evidence that children benefitted. Although children's vocabularies increased as a function of watching "Sesame Street" between ages 3 and 5, that increase was associated with viewing alone rather than the amount of viewing with parents (Rice, Huston, Truglio, & Wright, in press). Similarly, Field (1987) found that children's comprehension of television was correlated with the total amount of time children spent with television, not with parent–child co-viewing.

Understanding Television Form and Reality.   Parents can also help children interpret the conventional devices used in television programs, including formal features (e.g., zooms, pans, flashbacks), and can clarify the nature of fiction and reality on television. One of the most important variables in children's affective responding to and cognitive learning from television is their perception of the reality of its content. Media literacy programs often emphasize teaching children about the fictional nature of television content as a means of reducing the effects of program content and advertising (Corder-Bolz, 1980; Singer, Zuckerman, & Singer, 1980). In one investigation, children's fearful reactions to television were reduced by explaining its fictional character (Wilson, Hoffner, & Cantor, 1987). Once again, however, parents may not provide such explanations in naturalistic contexts. The amount of co-viewing family programs was unrelated to children's perceptions of the reality of such programs (Dorr et al., 1989).

Messaris and Sarett (1981) interviewed parents about their interaction with children concerning television. They reported talking about television production techniques, explaining why some event happened and what happens next, and having discussions about the reality of depicted events. They point out that such learning probably occurs during or just after co-viewing, and may be accomplished through parents' explicit teaching, or indirectly through corrections to the child's interpretation of TV content. For example, superhero stunts were often cited by parents as the first evidence children used to question the reality of television portrayals. One mother reported that her children imitated their father's skepticism toward the medium. These authors propose that learning to evaluate television reality may develop from the "cumulative pattern of parental comments on particular types of programming or on television in general" (p. 369). Indeed, the family's use of the medium may set the tone within the family, promoting general attitudes about the credibility of television or specific types of programs.

Understanding the forms and production techniques of television is important

to understanding reality distinctions, time relationships, and content. Form provides the syntax of television; it can also convey connotative meanings (Huston & Wright, 1989; Wright & Huston, 1983). In our longitudinal study, children's comprehension of several different formal feature conventions were tested. In one set of studies, their ability to distinguish fictional from factual segments with similar content was evaluated. In a second procedure, understanding of the time-violation conventions in instant replays was assessed. Finally, comprehension of the form cues signifying feminine or masculine content (e.g., slow dissolves vs. rapid cuts) was tested.

If parents use co-viewing opportunities to explain the meaning of form conventions, then children with histories of frequent co-viewing might understand them well. On the whole, however, co-viewing did not predict comprehension on any of these tasks. Performance was clearly associated with general verbal ability, suggesting that children had learned television conventions largely through their own efforts.

Children's Use of and Preference for Print. Television is often accused of displacing print use and interfering with children's acquisition of reading skills. If parents are models of heavy television viewing, they may encourage children in a pattern that leaves little time for reading. At the same time, parents' use of print can serve important modeling functions as well.

In the Topeka study, children's interest in the print media and print use were assessed from parental reports. Parents' own use of print was also measured. Parents' print use was a strong predictor of their children's interest in books and use of print media, suggesting that children were influenced by their parents' patterns.

The relation of television viewing to print attitudes and use depended on the type of programming. For older children, a history of viewing adult-informative programs with or without parents was positively related to subsequent use of print. Children who watched informative and fairly demanding programs were those who also liked to read. Conversely, children who co-viewed child entertainment programs (primarily cartoons) with their parents were uninterested in books. Viewing adult entertainment was also associated with low interest in print media. When parents co-view entertainment programs with their children they may be encouraging indiscriminate viewing of entertainment programs, and discouraging the use of print as an alternative activity.

Social Behavior

Messaris and Sarett (1981) proposed a theoretical model in which co-viewing creates opportunities for parents to reinforce or introduce moral standards. During or immediately following viewing, parents can refer to something a character has done that was particularly good or bad (e.g., "Wasn't it nice that Tom shared

with Dan?"). Parents can also influence children's overt behavior when they make connections between the child's behavior and the behavior of a television character. The model is supported by interview reports, but has yet to be substantiated by direct observation.

There is some evidence that parental interventions and statements of values can reduce the effects of television violence on children's behavior. Korzenny, Greenberg, and Atkin (1978) found that children with mothers who used discipline with reasoning and explanation were least affected by antisocial television content. Children whose parents conveyed strong antiviolence opinions were less responsive to television violence than those whose parents did not have strong values (Dominick & Greenberg, 1972). During a 2-year longitudinal study, some heavy viewers of violence received instruction about the fictional nature of television violence and the negative values it involves. Aggression was lower for those children at the end of 2 years than for comparable children who did not receive the intervention (Huesmann, Eron, Klein, Brice, & Rischer, 1983).

Parents' regulation of television viewing is associated with disciplinary techniques that could affect aggression and prosocial behavior. Hence, it is sometimes difficult to separate the two. Abelman (1985) studied two modes of parental discipline: induction techniques in which parents use reasoning explanation and appeals to children's pride, and point out a better course of action; and sensitization techniques in which parents threaten children with negative consequences unless children behave as their parents wish. He found that inductive discipline had a positive impact on children's prosocial behavior and exposure to prosocial programs, as well as a negative impact on exposure to antisocial programming. Sensitizing techniques appeared to contribute to the quantity of television viewed (doesn't report more or less) and to preference for antisocial modes of conflict resolution and antisocial content on television. Mothers who use inductive techniques had children who were more likely to react to conflict in a prosocial manner and prefer prosocial program content.

Parents' attitudes toward television and discussion of programs can moderate the effects of television content either directly or indirectly. Brown and Linne (1976) compared frequent and infrequent viewers of a popular Western program that contained "justified" violence, for their typical activities after viewing the program, and their choice of solutions to a hypothetical conflict situation. Nearly all of the frequent viewers who chose aggressive solutions to the conflict situation went to bed directly after viewing the program in the evening. By contrast, none of the infrequent viewers, nor the frequent viewers who chose nonaggressive solutions to the conflict situation went to bed directly after viewing. Instead, they usually played or talked about the program. The authors suggest that this activity, which was under the control of parents, moderated the negative effects of violence viewing.

In our Topeka study, parent ratings of aggression and prosocial behavior were collected. In general, children who had viewed some categories of programs with

their parents had higher levels of aggression and lower levels of prosocial behavior at the end of the 2 years than those who did less co-viewing. Aggression was particularly related to co-viewing adult-informative programs (which included sports) and to co-viewing child entertainment programs—which were mostly cartoons. Viewing adult entertainment programs with or without parents predicted low prosocial behavior in younger children. For older children, a history of co-viewing child-informative programming with parents was negatively associated with prosocial behavior.

Once again, it appears that co-viewing alone is not sufficient to produce the positive effects found in other studies. There are several possible explanations. Parents who watch a lot of television with their children may have different values than infrequent viewers; their children may simply reflect those values. A second possibility is that co-viewing for very young children is an occasion when the child is exposed to programming that is partly incomprehensible, but the parent is inattentive to the child. Parents may not consider the actions in typical cartoons and children's programs to be occasions for discussing values. They apparently do not approve or disapprove of the values presented such programs. They may be more ready to provide commentary for adult programs that fit their definitions of value-laden content.

SUMMARY

Our major purpose in this chapter has been to describe how families use television and how its use is related to children's intellectual and social development. A major determinant of what young children view on television is what and when their parents view. The majority of general audience programs viewed by preschool children is done in the presence of parents, whereas only about 25% of children's viewing of child-appropriate programs is co-viewed with parents. Parental co-viewing of television declines over time as children become more independent of their parents' supervision. Parents' preferences for TV shows usually determine what is co-viewed with young children, yet this co-viewing diet is not particularly influential in determining what children subsequently choose to watch on their own.

The age of siblings also influences what programs children view. Children with older siblings watch more cartoons and situation comedies with their brothers and sisters without an adult present, whereas those who have younger siblings continue to watch child-informative programs past the age of 4 and view most adult programming in the presence of a parent.

Parents are more concerned about the content of the programs their children view rather than the time of day or the amount of time they spend with TV. Parents have few rules concerning television use by their children. However, parents who encourage the use of television watch more TV with their children;

parents who restrict TV use are successful in reducing the amount of television their children watch but do not co-view programs with children as often as "encouraging" parents. Parents who neither encourage nor regulate viewing have children who watch the most adult entertainment programming.

Observational studies have shown that family members engage in many concurrent activities while in the television viewing environment. Although several studies report little verbal interaction during TV viewing, others have shown that older children often interpret program content for their younger siblings and there is frequent physical contact between parents and young children during viewing sessions.

Some studies have shown that when parents do take the opportunity to comment on program content, children's understanding of program messages increased, vocabulary is enhanced, fearful reactions to scary content is reduced, and children learned how to distinguish realistic content from fictional, such as "superhero stunts." Although some studies show that parents' negative statements about violent content can reduce children's imitation of aggressive behavior, parents' regulation of television viewing and their general discipline styles also influence children's responses to viewed aggression. Finally, selection of programs to be viewed affects children behavior. For example, children's aggressive behavior is related to viewing and co-viewing programs that are particularly high in violent content, such as news and cartoons.

In summary, to understand the effects of television on children, their viewing experience needs to be placed within a larger social context. Certainly, children's existing knowledge, interests, abilities, and experience with the medium affect what is learned from television. However, *family structure* (e.g., age of family members and number in the household), *family processes* (parents' discipline styles, communication patterns, and regulation of TV), *availability of media* in the household (e.g., multiple sets and VCRs), *sociocultural variables* (parents' education and occupational status), and time spent with *outside social institutions* (maternal employment or attending preschool) all contribute to television use and affect children's understanding of the messages received.

It appears that the more parents are concerned about their children's use of time and acquisition of knowledge, understanding, and judgment, the more selective their television diet will be; the more valuable their limited occasions for co-viewing will be; and the more television will be used deliberately for constructive purposes instead of being the primary default activity that fills empty moments with more emptiness.

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