A study examined differences in television viewing behaviors and attitudes across age groups of children in their home environment. Personal interviews were conducted with 162 children, ages 5 to 12, in a midwestern elementary school. The interview assessed home environment (1) television viewing relationships, including viewing companion and parental control; (2) television viewing behaviors, including level of exposure and favorite programs; and (3) television attitudes, including television affinity and perceived realism. The results indicated that siblings were the principal viewing companions across all age groups, while a substantial number of children also watched with their parents. A greater percentage of younger than older children were told by someone at home how much television they could watch. The number of television programs viewed during the day previous to the interview was not significantly different across age groups. The frequency of preferences for cartoons and children's programs decreased with age increments, while the frequency of preferences for comedies and adult drama and adventure programs increased with age increments. Younger children felt that television played a more important role in their lives than did the middle or older groups of children, and the younger children perceived television content to represent reality more directly than did the middle and older groups of children. The findings suggest that what children watch on television and how they perceive television and its content, are very much related to the early stages of a child's cognitive development. (HTH)
DEVELOPMENTAL CHANGES IN CHILDREN'S TELEVISION VIEWING BEHAVIORS AND ATTITUDES

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Abstract

Developmental trends in television viewing relationships, behaviors, and attitudes were examined across three age groups (5 to 7, 8 to 9, and 10 to 12 years) of children. 162 children in a midwestern elementary school were individually interviewed. Findings indicated that television was mostly watched with siblings or parents, not alone. Greater parental control was exerted on younger children's viewing. No age-related differences were observed in television exposure. What children preferred on television and how they perceived television content, though, were related to early stages of cognitive development. Younger children preferred cartoons, while middle-age and older children favored television comedies. Younger children exhibited greater television affinity and perceived television to be more realistic than did middle-age and older children. These changes in television preferences and attitudes would seem to accompany shifts from the preoperational stage to the concrete operational stage of development at around ages seven or eight. Findings were discussed.
The effects of television on children have been widely examined by social and behavioral researchers for the past quarter of a century. The reason for this concern is obvious given the extent of children's television viewing. Most of the research has been couched in media "effects," rather than "uses," terms, adopting a social learning perspective on television influence. Questions of the effects of violence and advertising on children have dominated this genre of research. The most serious obstacles to garnering valid answers to these questions are the perspective's assumption that television viewing is an individualistic, rather than a social, experience, and the guiding research orientation that seeks to determine what television does to the viewer.

Substantially less attention has been given to the cognitive and predispositional characteristics that the child brings to the television viewing experience. A media uses orientation presumes that viewers do things to or with television. For example, the cognitive capabilities that children bring to their television viewing are likely to determine their perceptions of the portrayals of social roles and behaviors that depict "reality." Reeves and Greenberg (1977) argued that perceptual skills that shift with age and environmental factors affect the abilities of children to recognize and sort television portrayals. In addition, how television is used and the degree of importance that the child attaches to television in his or her life
are likely to be affected by both cognitive development and the social situation.

It is important to explore how children at various stages of development use television. Development is a significant factor in children's television use, and recently, researchers have begun to use cognitive development theory as a perspective for studying children's television use and comprehension, with particular emphasis on television advertising, program portrayals, and structural features (Acker & Tiemens, 1981; Collins, 1975, 1979; Collins, Wellman, Keniston, & Westby, 1978; Desmond, 1978; Ward & Wackman, 1973; Ward, Wackman, & Wartella, 1977; Wartella & Ettema, 1974; Wartella, Wackman, Ward, Shamir, & Alexander, 1979).

Murray (1980) identified two general research directions in the study of television and the development of cognitive skills in children. First, researchers have examined the impact of television content on children's cognitive development, learning abilities, and knowledge (e.g., Himmelweit, Oppenheim, & Vince, 1958; Rubin, 1976, 1978; Schramm, Lyle, & Parker, 1961). Second, investigators have studied the formal characteristics of television, such as presentation mode, pacing, and camera techniques, on children's comprehension and development of cognitive skills (e.g., Acker & Tiemens, 1981; Anderson & Levin, 1976; Collins, 1975, 1979; Collins et al., 1978; Salomon, 1979). The latter research direction has also been described as "media literacy." An extension of developmental research has been in the area of children's "receivership skills" (Anderson, 1981).

The present investigation posits the relevance of cognitive developmental stage theory to the study of children and television,
recognizing that children at different age levels respond differently to television stimuli, and that cognitive development and social environment are influential factors that need to be considered in the child's television viewing experience. Specifically, the current study examines differences across age groups of children, ages five to twelve, in their home environment television viewing relationships, viewing behaviors, and television attitudes. The two fundamental premises of the investigation are: (1) children's uses of television are influenced by parent-child (or family-child) relational aspects (Barcus, 1969; Chaffee, 1972; Chaffee, McLeod, & Atkin, 1971; Hess & Goldman, 1962; Himmelweit et al., 1958; Lull, 1980; Maccoby, 1954; Messaris & Sarett, 1981; Mohr, 1979); and (2) differences in children's uses and responses to television correspond to cognitive shifts at various stages of development (Acker & Tiemens, 1981; Desmond, 1978; Wackman & Wartella, 1977; Ward & Wackman, 1973; Wartella et al., 1979; Winnick & Winnick, 1979). Each of these presuppositions should be examined.

First, Chaffee (1972) emphasized the important role of the interpersonal context, especially the family, in socializing a child's use of television. Several explanations for this have been proposed. The traditional "modeling" hypothesis predicts that parental example has a direct influence on a child's television viewing behavior (Chaffee, 1972; Himmelweit et al., 1958; Schramm et al., 1961). Conversely, the "reverse modeling" hypothesis predicts a child's influence on the parent's television viewing (Chaffee et al., 1971). However, a more pervasive form of family influence on a child's television use might lie in "the habitual structure of parent-child communication over the many years of child development"
(Chaffee, 1972, p. 105; McLeod & Chaffee, 1971). In addition, the viewing situation itself provides an important context for parent-child (or family-child) interaction.

Second, Collins (1979) argued that the comprehension of television content involves age-related skills. In an earlier study, Collins (1975) found that older children were less affected by television portrayals than were younger children because the older children were able to comprehend television dramatic plot complexities. Desmond (1978) found that age was the best predictor of what children learned from a television program, and emphasized the importance of cognitive developmental processes in television program comprehension. He also noted that the "interpretive structures of young children change rapidly in kindergarten and early elementary school" (p. 220), and that these changes in interpretive structures determine a child's ability to comprehend. Ward and Wackman (1973) observed a shift from perceptual to functional distinctions between television entertainment and advertising occurring between kindergarten and third grade.

Family relations and cognitive development, then, should be two important factors that affect children's uses of television. These factors are reflected in the current study's concerns. There are three principal research questions for the present investigation. First, how do home environment television viewing relationships differ across age groups of children? Second, how do television viewing behaviors differ across age groups of children? Third, how do perceptions of television, or attitudes toward the television medium, differ across age groups of children? The expectation, in line with prior research and the contentions of cognitive
developmental theory, is that the differences in home environment television viewing relationships, television viewing behaviors, and television attitudes are more pronounced between the ages of seven and eight than they are in later childhood. For example, Reeves and Greenberg (1977) observed that socialization to television, in relation to third and seventh graders' perceptions of television characters, may be complete by third grade. The supposition, though, still requires an additional word of explanation in relation to cognitive developmental theory. In particular, cognitive and communicative activities "seem to change dramatically" at approximately seven or eight years of age, or around middle childhood (Wartella, 1979, p. 13).

Developmental research attempts to describe and explain age-related changes in behavior (Wartella, 1979). Several factors are important to explaining developmental changes, especially environmental aspects and cognitive abilities of children. A variety of cognitive developmental stage theories have been offered to explain cognitive changes in children, the best known of which is Piaget's theory of intellectual development. Piaget proposed that children progress through several sequential stages of qualitative changes in their cognitive abilities and skills from infancy through adolescence. Younger children's perceptions, being organized around a minimum number of cues, are not logically explained and are quite different from how adolescents and adults organize their perceptions and understanding of their environment by relying on logical and symbolic cognitive processes (Flavell, 1963, 1977; Piaget, 1972, 1974).

Of particular concern to this investigation are the differences between the preoperational and concrete operational stages of development. In the
preoperation stage (approximately ages 2 through 7) the behavior of a child, who is beginning to develop symbolic abilities such as language and mental imagery, is closely allied with perception. Judgments seem to be made on the basis of immediacy and perceived appearance of objects. In the concrete operational stage (approximately ages 7 through 12) the child has developed conceptual skills that permit him or her to mediate perceptual activity when dealing with concrete objects. Inferences that go beyond mere appearance become possible.

Consequently, the supposition of this investigation is that changes in television viewing behaviors, particularly in terms of preferred program content, and changes in television attitudes, especially television affinity and perceived realism, will be observed in children at the time they move from the preoperational stage to the concrete operational stage of development. In addition, it would be anticipated that environmental differences in parent-child relationships regarding television might accompany these attitudinal and behavioral changes.

METHODS

Personal interviews were conducted with 162 children, ages 5 to 12, in a midwestern elementary school. The children were in grades kindergarten through six. Their mean age was 8.2 years, with a median age of 8.4 years. The sample was 55.6 percent male and 44.4 percent female, and 87.0 percent white and 11.7 percent black; 98.1 percent of the children had watched television during the previous day.

To conduct the face-to-face interviews, arrangements were made to individually release each child from class for approximately 15 minutes. At
that time, each child was interviewed by the project's research associate. The standardized instrument employed for these interviews assessed several variables in the study: home environment television viewing relationships, including viewing companion and parental control; television viewing behaviors, including level of exposure and favorite programs; and television attitudes, including television affinity and perceived realism.

**Home Environment Relationships**

After ascertaining whether or not they had viewed television during the previous day, the children were asked to indicate if they had watched television by themselves or with someone else. Over 82 percent of the children stated that they did not watch television alone. These children were then asked to identify with whom they had watched television. Multiple answers were possible. These viewing companion responses were identified as follows: parent, brother or sister, friend or other person, or alone.

The children were also asked the following question to ascertain the extent to which their parents or anyone else controlled their amount of viewing: "Someone at home tells me how much TV I'm allowed to watch." Response options to this parental control measure included "yes," "sometimes," or "no."

**Viewing Behaviors**

Because of the highly questionable reliability of children's self-report responses that provide aggregate amounts of television viewing, one question was asked requesting, not the number of hours of television watching, but the approximate number of different programs that the children had watched during the previous day. The goal of the question was to render
a comparative estimate, not an absolute yardstick, of the children's level of television exposure. Responses ranged from 0 to 12 programs, with a mean of 3.8 and a median of 3.2 programs.

The children were also asked to identify the names (or to describe as best they could when a title was unknown) of their favorite programs on television. Multiple responses were recorded when provided. The programs were sorted into 16 categories by two independent coders who achieved 90 percent agreement. Subsequently, several categories were collapsed or eliminated (when they contained fewer than 5 percent of the total responses) for data analysis. This procedure resulted in four principal program categories that contained over 95 percent of all responses: cartoons, children's programs, situation comedies, and adult adventure/dramas.

**Television Attitudes**

Two television attitude indexes were constructed by adapting items used previously by Rubin (1979). The television affinity index assessed how important television was in the lives of the children in response to three statements: "I would rather watch TV than do most anything else;" "I miss TV very much if I don't see it;" and "Watching TV is one of the most important things I do each day." The television realism index assessed how true-to-life the children perceived television content to be in response to three statements: "Things I see on TV are true, just like they are in real life;" "If I see something on TV, I know that it's really that way;" and "TV does show life as it really is."

Response options for the three items of each index were "true" (3), "sometimes" (2), and "false" (1). The affinity and realism indexes were
formed by summing responses to their three respective items, with a possible range of 3 to 9 for each index. The mean affinity response was 5.83, while the mean realism response was 5.90. Realism item responses were less stable than were affinity item responses. The affinity and realism indexes had .63 and .35 alpha reliability coefficients and mean item-index correlations of .76 and .66, respectively.

Data Analysis

In order to provide sufficient group sizes and to enable conceptual comparisons between appropriate age divisions of the children, the 162 respondents were divided into three age groups for data analysis: 5 through 7 year olds (N = 62), 8 through 9 year olds (N = 49), and 10 through 12 year olds (N = 51). The objective of the analysis was not to correlate age with the other variables of the investigation, but to observe if there were differences in home environment television viewing relationships, behaviors, and attitudes between the children at certain age divisions. The expectation, in accordance with developmental stage theory, was that any differences noted would be between the youngest group and the middle and oldest groups, rather than between the middle and oldest groups. Chi-square and analysis of variance procedures were employed to examine these associations.

RESULTS

The findings of the investigation are systematically presented according to the study's three research questions. In sequential order, age associations in home environment television viewing relationships, television viewing behaviors, and television attitudes are examined.
Home Environment Relationships

The initial research question pertained to the home environment television viewing relationship differences across the age groups. The two home environment relationship variables studied were television viewing companion and parental control of television viewing levels.

The data in Table 1 indicate that there were no significant differences across the three age groups as to the children's viewing companion ($X^2 (6) = 4.45, p = .38$). Most of the children, irregardless of their age, did not watch television alone. Brothers or sisters were the principal viewing companions of these children, while a substantial percentage of responses revealed that the children also watched television with their parents.

(Table 1 about here)

The data in Table 2, however, do indicate differences across the age groups in the amount of parental control on the children's viewing levels ($X^2 (4) = 9.41, p = .05, \phi = .23$). A greater percentage of the younger children's responses disclosed that someone at home tells them how much television they can watch. By contrast, over 60 percent of the responses of the middle-age group of children and two-thirds of the older children's responses revealed that there was no parental control of television viewing levels.

(Table 2 about here)

Viewing Behaviors

The second research question addressed the television viewing behavior differences across the age groups. The two viewing behavior variables
examined were level of television exposure and television program preferences.

The average number of television programs viewed the previous day by the younger group (M = 3.69), the middle-age group (M = 3.67), and the older group (M = 4.00) of children were generally consonant. Although the three age group scores indicated slightly higher television exposure levels by the older group of children, the differences across the three age groups in the number of television programs viewed during the previous day were not significant (F (2, 149) = 0.26, p = .18).

The data in Table 3, however, do indicate substantial differences across the age groups in the content of television consumed by the children ($\chi^2 (6) = 117.47, p < .001, \phi = .45$). Younger children were partial to television cartoons, while older children were partial to television comedies. The frequency of preferences for cartoons and children's programs decreased with age increments, while the frequency of preferences for comedies and adult drama and adventure programs increased with age increments.

(Table 3 about here)

**Television Attitudes**

The third research question concerned the television attitudinal differences across the age groups. The two attitude variables observed were television affinity and perception of television realism.

The association between age and television affinity was substantial ($F (2, 159) = 13.22, p < .001$). Duncan's Multiple Range Test was employed for post hoc group comparisons. Significant differences were
observed between the mean affinity scores of the younger group \(M = 6.73\) and those of the middle-age \(M = 5.24\) and the older \(M = 5.29\) groups of children; the affinity scores of the middle-age and the older groups did not differ significantly. The younger children, then, felt that television played a more important role in their lives than did the middle-age and older groups of children.

The association between age and perceived television realism was also substantial \(F(2, 159) = 19.04, p < .001\). Through application of the Multiple Range Test, significant differences were, once again, observed between the mean realism scores of the younger group \(M = 6.66\) and those of the middle-age \(M = 5.42\) and the older \(M = 5.41\) groups of children; the realism scores of the middle-age and older groups did not differ significantly. The younger children, then, perceived television content to more directly represent reality than did the middle-age and older groups of children.

**DISCUSSION**

The principal findings of the investigation can be summarized and further examined. First, most of the children in this sample watched television in the company of brothers, sisters, or parents. Children's television viewing does not seem typically to occur in social isolation. This finding is consistent with past research, but future studies are needed to examine the actual process of social interaction while viewing. In addition, the youngest children indicated greater parental control of their amount of television viewing. This might indicate additional concern on the part of parents as to how much television their younger children should be
permitted to watch. Still, four in ten of the youngest children reported that no one at home controls their television viewing levels. The reasons for this differential parental concern and the affects of these variations on children's television use and consumption require further investigation.

Second, television viewing levels were largely consistent across the three age groups of children. What they preferred to watch on television, however, was quite different. Cartoons dominated the responses of the youngest children, while comedies typified the responses of the two older groups of children. These findings may indicate more contemporary television viewing tastes of children, partially in contrast to one of the earliest children and television studies in this country (Schramm et al., 1961). While cartoons and comedies represented the most favored television programs of second and sixth graders, respectively, in that earlier study, cartoons were often favored and comedies were not preferred by fourth graders. The shift to comedy and more adult-oriented program preference seems to occur at an earlier age in the current investigation. Changes in viewing tastes, then, seem to begin around ages seven or eight and to continue into later childhood years, at which time adult program fare is preferred.

Third, the youngest children exhibited greater affinity with television and perceived it to be more realistic than did the two older groups of children. This finding is consistent with previous research, and is also consistent with the initial cognitive developmental-based expectations posited at the outset of the investigation. Substantial changes in the use and perception of television seem to occur around ages seven or eight, but then television attitudes remain stable throughout later childhood years.
Television is felt to be more important in their lives and is seen as presenting more true-to-life content by younger children, even though there is no difference across the age groups in whether television is viewed alone or with other family members, and even though somewhat greater parental influence guides the level of television viewing by younger children. There is a need for subsequent research to expand the consideration of the influence of cognitive development on television use, as well as to consider other factors that may explain this relationship between age and television attitudes, including the influence of interaction while viewing.

For example, Acker and Tiemens (1981) argued that how children interpret what they see on television is related to the principal distinction between "what seems to be and what really is" (p. 341). Their investigation of how children perceived changes in the size of a televised image proceeded from a cognitive developmental orientation. Through expanded consideration of developmental stage theory that suggests how children at various stages of development organize their perceptions of the world, understanding of television behavioral and attitudinal differences may be embellished.

In addition, while prior research has proposed that children's television viewing patterns and preferences are influenced by parent-child interactions, investigators need to examine the process of this interaction as it affects viewing choices and responses. For example, Krull and Husson (1979) reported that the attention of younger children, in contrast to older children, is more affected by prior attention (i.e., whether they were already watching television when a new program comes on) than by program
variables. Various social interaction factors would obviously have an effect on prior attention, and therefore, on the use of television by younger children.

Two recent typology schemes that emphasize social and cognitive aspects might provide guidance for future children and television research. In considering television as an important social resource of interpersonal communication, Lull (1980) identified two primary types of social uses of television in the home: structural (i.e., environmental, and regulative); and relational (i.e., communication facilitation, affiliation/avoidance, social learning, and competence/dominance). In discussing the consequences of parent-child interactions in which television program content is an explicit referent, Messaris and Sarett (1981) proposed four categories that may affect a child's development: the learning of interpretational skills; the articulation of cognitive categories; overt behavioral consequences; and the development of social relationships. In-depth explorations of the influence of family interaction on the actual viewing process in line with these typologies would seem to hold substantial heuristic promise for comprehending the foundations and effects of varied patterns of children's television attitudes and behaviors.

What children watch on television and how they perceive television and its content, then, are very much related to the early stages of a child's cognitive development. Substantial changes in program preferences, television affinity, and television realism seem to occur at the approximate time the child moves from the preoperational stage to the concrete operational stage of development. In this study, these shifts were observed
to happen around the ages of seven or eight. While cognitive theorists argue that cognitive developmental changes are individual, this investigation supports the contention that these individual shifts tend to occur at relatively consistent epochs with regard to television use.
NOTES

1 The author would like to acknowledge the assistance of the project's research associate, Ms. Joyce Vargo.
REFERENCES


Chaffee, S. H. The interpersonal context of mass communication. In F. G. Kline & P. J. Tichenor (Eds.), *Current perspectives in mass communication research*. Beverly Hills: Sage, 1972, 95-120.


<table>
<thead>
<tr>
<th>Viewing Companion:</th>
<th>Age Group</th>
<th>5 - 7 Years (n = 74)</th>
<th>8 - 9 Years (n = 64)</th>
<th>10 - 12 Years (n = 73)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td></td>
<td>16.2%</td>
<td>7.8%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Parent</td>
<td></td>
<td>28.4</td>
<td>28.1</td>
<td>32.9</td>
</tr>
<tr>
<td>Brother/Sister</td>
<td></td>
<td>50.0</td>
<td>54.7</td>
<td>42.5</td>
</tr>
<tr>
<td>Friend/Other</td>
<td></td>
<td>5.4</td>
<td>9.4</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Note. n's refer to the number of television viewing companion responses provided within each age group.

χ² = 4.45, df = 6, p = .38
# TABLE 2

Parental Control of Television Viewing X Children’s Age Group

<table>
<thead>
<tr>
<th>Parental Control</th>
<th>5 - 7 Years (n = 62)</th>
<th>8 - 9 Years (n = 49)</th>
<th>10 - 12 Years (n = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>40.3%</td>
<td>61.2%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>25.8</td>
<td>16.3</td>
<td>17.6</td>
</tr>
<tr>
<td>Yes</td>
<td>33.9</td>
<td>22.4</td>
<td>15.7</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 9.41, \text{ df} = 4, p = .05, \phi = .23 \]
<table>
<thead>
<tr>
<th>Program Category</th>
<th>5 - 7 Years (n = 180)</th>
<th>8 - 9 Years (n = 144)</th>
<th>10 - 12 Years (n = 137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartoons</td>
<td>67.8%</td>
<td>46.5%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Children's</td>
<td>12.2</td>
<td>2.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Comedies</td>
<td>13.9</td>
<td>33.3</td>
<td>54.7</td>
</tr>
<tr>
<td>Adventure/Dramas</td>
<td>6.1</td>
<td>17.4</td>
<td>24.8</td>
</tr>
</tbody>
</table>

**Note.** n's refer to the number of favorite television program mentions provided within each age group.

\[ \chi^2 = 117.47, \text{ df } = 6, \text{ p } < .001, \text{ C } = .45 \]