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**ABSTRACT**

The present study investigates the impact of sibling pairs' friendly or unfriendly viewing styles on the younger siblings' understanding of the content of television programs. A total of 19 sibling pairs were videotaped as they viewed one of two television programs. The younger child in all of the pairs was in first or second grade. Fourteen of the older siblings were more than 3 years older, and five were 1 or 2 years older than their younger siblings. All of the children saw a "Fat Albert" cartoon and an episode of the situation comedy "One Day at a Time." Results indicate that young children who viewed the age appropriate program with a sibling with whom they were unfriendly were better able to interpret that program than were young children who were friendly with their siblings. For the adult program, however, both children from the companionable pairs scored about equally, while those young children from the unfriendly pairs scored quite a bit lower than their older siblings. The disparity of the unfriendly siblings' scores suggests that they interpreted the program independently of one another, whereas the equality of the friendly siblings' scores indicated that the younger sibling may have benefitted from viewing with the older sibling. Three pages of references conclude the document. (RH)

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**The Effect of Sibling Viewing Style on Children's  
Interpretation of Television Content**

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Researchers have long recognized the need for understanding the social contexts of television viewing. Television viewing is not always an isolated activity, but may often be a social activity, taking place in the company of family or friends. Despite this recognition, research on television and behavior during the 1970s continued to focus on the individual level of analysis that has been largely typical of media effects research (IMH, 1982). Recent years have seen an increase in the number of studies investigating the social contexts of television viewing, many of them focusing on the ways in which social contexts influence the use of television or the influence of television on family functioning. Other studies have focused on mediating influences of the social context, that is, the extent to which the effects of television are altered because of interaction with others while viewing television (NIMH, 1982). Brown and Linne (1976) and Leichter (1979) suggested that the family may act as a filter for the impact of television. Leichter (1979) defined mediation as "the processes by which the family (and other institutions) filters educational influences - the processes by which it screens, interprets, criticizes, reinforces, complements, counteracts, refracts and transforms" (p. 32).

The present study focuses on the mediation effects of one particular interpersonal viewing context, that of sibling co-viewing. It addresses the impact of qualitatively different viewing styles between siblings as they view together on the younger siblings' understanding of the content of television programs. This study arises from three research agenda: 1) The

research that has been done on the mediating effects of co-viewing; 2) The social and psychological research on the sibling relationship; and 3) Research on children's cognitive processing of television. Each of these agenda will be reviewed briefly before presenting the results of an experimental investigation of the mediating effects of sibling co-viewing style.

#### The Mediation Effects of the Interpersonal Context of Viewing.

The primary interpersonal context of television viewing that has been investigated by media researchers has been that of adults' viewing with children. Adult co-viewers have been shown to be able to help children understand the implicit content of an adult program (Collins, Sobol, and Westby, 1981) and help them recall the important plot information of a cartoon program (Watkins, Calvert, Huston-Stein and Wright, 1980). Children learned more from Sesame Street when their mothers discussed the program with them (Bogatz and Ball, 1971) and gained more knowledge about Mr. Rogers' Neighborhood episodes when their mothers directed their attention to certain parts of the programs (Singer and Singer, 1974). Mediation studies by Corder-Bolz and his colleagues (1980) suggest that parents and "significant others" can reduce the negative impact of televised aggression, as well as bring about reductions in children's sex role stereotyping.

Other studies indicate the importance of less direct mediation on the part of co-viewers. For instance, Atkins and Greenberg (1977) found that parents only had to be present with their children to ameliorate the children's emotional reactions to television. Children's aggressive behavior (Drabman and Thomas,

1977) and attention to screen patterns have been altered because of the presence of peers (Anderson, Lorch, Smith, Bradford and Levin, 1981). Bryce and Leichter (1983) suggest that this unintentional, indirect mediation that occurs between co-viewers may be a more common occurrence in natural environments than the use of direct, intentional discussion. They assert that "the family's mediational role may be related more to the general structure of family activities and communication styles than to their use of specific television rules or discussions" (1983, p. 314). Thus, co-viewers may unwittingly act as distractors or facilitators regarding program content, but have an important impact on what individuals take away from the viewing situation.

#### The Sibling Relationship

While the research that has been done concerning the mediation effects of adult co-viewing is crucial, it is insufficient for explaining children's most typical viewing situations. Surveys conducted by Bower (1973), Rubin (1982) and Haefner (1985) have indicated that most viewing of television by children is done in the presence of siblings. The recent naturalistic inquiry by Alexander, Ryan and Munoz (1984) revealed an abundance of talking taking place between the siblings that they observed in the children's own homes. These authors conclude that sibling co-viewing interaction provides a fertile arena for children's learning of television, wherein they develop their interpretations of television and themselves.

It was not until the late 1970s that family relations researchers began naturalistic inquiries into the sibling

relationship in the children's own environments. Bryant's (1982) research with siblings in middle childhood has indicated that their experiences with each other may occur primarily during leisure time rather than in more formal, task oriented situations. Although the evidence is somewhat limited, it appears that siblings do share an important social experience during childhood, that differs markedly from their experiences with peers, parents or other adults (Bryant, 1982; Dunn, 1983).

Dunn (1983) notes the unique nature of the relationship between siblings in its blend of complementary and reciprocal qualities. Complementary qualities refer to those most characteristic of adult-child interactions. Because of their age differences, siblings differ in their behavior and perspectives. In complementary roles, older siblings may take on responsibility for meeting the needs of the younger through teaching or caretaking, much as a parent would. Reciprocity refers to the familiarity and intimacy of the children, much like the qualities of peer relationships, that put the children on equal footing with each other. Dunn (1983) notes that the distinction between reciprocal and complementary sibling behaviors may oversimplify the complex quality of the relationship. Even so, the distinction can help to direct attention to the differences between sibling interaction and peer or parent-child interactions.

Brody and Stoneman (1963) suggest that family members take on various roles in the television viewing context. For instance, mothers have been found to manage and teach in the viewing context (1980; 1982). Brody, Stoneman and MacKinnon (1982) found that

older siblings take on the roles of teacher and manager of their younger siblings in organized play situations. Because of the nature of the sibling relationship and the nature of the television viewing situation, these authors suggest television co-viewing may set up different role expectations for siblings than if an adult were present (Brody and Stoneman, 1983).

#### Children's cognitive processing of television content

The final research agenda from which this study arises is that concerning children's cognitive processing of television content. The concern of this research has been primarily to investigate the processes of cognitive activity while viewing that lead to observable effects. One of the major findings of research stemming from this approach is that, with age, individuals encode, retain and evaluate information presented by television with increasing sophistication. Age-related differences have been found in children's abilities to recall central and incidental plot information (e.g., Collins, 1970; Newcomb and Collins, 1979; Collins, Wellman, Keniston and Westby, 1978). Generally, young children have been found to be more likely to only remember the non-essential material, whereas older children are better at picking out the important program content. Furthermore, children have also been shown to improve in their abilities to make inferences about implicit program content as they grow older. With age, children increasingly try to pull the explicitly portrayed scenes together in a meaningful way by making inferences about implied program content. Wright and his colleagues (Wright and Vlietstra, 1975; Wright, Watkins and Huston-Stein, 1978; Wright and

Huston, 1981) assert that, with general cognitive growth and experience with television and the world, children progress in their ability to actively search for the logical structure of the television material in front of them.

Character motivations and emotions are two types of program content that require the ability to make inferences if they are to be properly understood by viewers. Many programs that children watch are created for mature viewers and, thus, are often characterized by intertwining messages and motives designed to hold a mature viewer's attention. Furthermore, characters may often display conflicting emotional cues that require the ability to recognize emotions and interpret them in the context of the rest of the program. Research on children's ability to infer character motives indicates that older viewers have the ability to hold motives in mind and use them to interpret actions in programs, even though they may not be explicitly expressed (Collins, Berndt and Hess, 1974; Berndt and Berndt, 1975; Purdie, Collins and Westby, 1979).

Little research exists concerning children's abilities to recognize emotions of characters on television. Research by Izard (1977) indicates that the ability to recognize emotions is a gradually developing phenomenon. Based on previous discussion of children's gradually maturing cognitive processing capabilities, it appears that the ability to understand emotions may also improve with age. Children may have difficulty inferring complicated or incongruent emotional messages because of cognitive and experiential limitations.

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These cognitive processing abilities, recalling essential events and inferring character motives and emotions, are the building blocks with which children and adults construct their interpretations of television. Because of age-related differences in abilities to construct these interpretations, children of different ages vary in the completeness and accuracy of their interpretations. These abilities are measured in the present study in order to assess children's overall interpretation of the content of the programs.

The results of research from these three research agenda indicate that the sibling co-viewing context presents a unique setting in which children can learn to interpret television. Because of their greater experience and more mature viewing skills, older siblings have the potential for influencing younger children as they view television, both through direct and indirect mediation. The mediation itself is likely to differ from that which might occur in the parent-child viewing context because of the unique nature of the sibling relationship. Of particular interest in the present investigation is the effect of the relationship between siblings as they view together on the younger child's interpretation of program content.

The purpose of the present investigation was to determine the effect of siblings' viewing style on the younger children's interpretations of program content. Viewing style was defined as the nature of the relationship between the siblings as they viewed together. The data reported here were collected as part of a larger study about children's learning of television content from

siblings. Nineteen of the sibling pairs from that study were videotaped as they viewed one of two television programs. The younger child in all of the sibling pairs was in first or second grade. Fourteen of the older siblings were more than three years older and five were 1 or 2 years older than their younger siblings.

All of the children saw a Fat Albert cartoon and an episode of the situation comedy One Day at a Time on separate viewing occasions. The order of viewing the programs was varied in order to avoid carry over effects. Fat Albert is an age-appropriate cartoon that the young children in pairs should have been able to understand well on their own. The One Day at a Time episode made for an adult audience and has a complicated plot involving many conflicting motivational and emotional cues. The young children were not expected to do well on this program without the aid, either direct or indirect, of a more mature older sibling. The 19 pairs were only videotaped during one of their viewing sessions. After viewing each program, both younger and older siblings' interpretations of the programs' essential events were assessed.

Two independent coders classified each sibling pair according to their viewing style, either companionable or unfriendly. Pairs were classified as companionable if their overall viewing behavior together was helpful, silly, mutually dependent or sharing. Pairs were classified as unfriendly if their behavior consisted of avoidance, ignoring each other or being mean. There was 100% agreement between the coders, with 8 being classified as companionable and 11 pairs being classified as unfriendly.

The measures of interpretation were developed by first having adult judges identify the three most essential events in each program. Three multiple choice questions were developed about each essential event; 1) recall of the event; 2) recall of character motivations and; 3) recall of character emotions in the event. A total of 57 points were possible for interpretation of each program. Correct interpretation of each program, then, was defined as the degree to which each child agreed with the adults' interpretation of the program.

The young children's interpretation scores were analyzed using a 2 (viewing style) x 2 (program) repeated measures analysis of variance. An interaction effect between viewing style and program resulted ( $F=9.03$ ,  $p \leq .01$ ). Table 1 presents the mean interpretation scores.

Tukey multiple comparison procedures indicated differences in young children's interpretations Fat Albert, depending on the viewing style of the pair. The children from the unfriendly pairs had higher scores than those who were companionable ( $q = 4.75$ ,  $p \leq .05$ ). Those from the unfriendly pairs also had much higher Fat Albert scores than One Day at a Time scores ( $q = 9.91$ ,  $p \leq .001$ ). No difference was found between shows for children in companionable pairs.

Younger and older children's interpretation scores were compared using t-tests for small sample sizes (Sincich, 1982). Table 2 presents these mean scores.

For those who viewed Fat Albert, differences were found between older and younger children's interpretation scores for both

viewing styles. All older siblings scored better than their younger siblings, though the difference in scores in the unfriendly condition only approached significance (companionable -  $t = 2.84$ ,  $p \leq .01$ ; unfriendly -  $t = 1.60$ ,  $p \leq .10$ ). For One Day at a Time, only the older children from the unfriendly pairs scored better than their siblings ( $t = 1.90$ ,  $p \leq .05$ ). The children from the companionable pairs scored the same.

These results indicate that young children who viewed Fat Albert with a sibling with whom they were unfriendly were better able to interpret that program than young children who were friendly with their siblings. The friendliness of the children seems to have been detrimental to their interpretations. The unfriendliness of siblings seems to have benefitted younger children in their interpretations of that age-appropriate program.

For One Day at a Time, however, both children from the companionable pairs scored about equally, while those young children from the unfriendly pairs scored quite a bit lower than their older siblings. The unfriendly young children watching One Day at a Time may also have ignored their older sibling while they viewed, but, unlike Fat Albert, this program may have been too difficult for these young children to interpret on their own. The disparity in the older and younger unfriendly pairs' scores suggests that they were interpreting One Day at a Time independently of one another. The equality of the scores of the two children in the friendly pairs indicated that the younger may have benefitted from viewing with an older sibling.

The results presented here need to be interpreted with caution.

since the sample sizes are so small and the viewing style categories are so limited. Furthermore, the assumption had to be made that the viewing styles were the same during both viewing sessions, since videotapes were made of only one viewing session. More data are currently being collected among siblings in Normal, Illinois so that viewing style categories can be defined more specifically. Further, data are being collected among siblings with both small and large age intervals between the siblings and differing sex combinations of the pairs, since these factors may play a large part in determining the type of relationship between siblings.

The results from the present study provide preliminary indications that the nature of the sibling relationship between siblings as they view can indeed affect children's interpretations of program content. Furthermore, it appears that the specific mediating effects of the relationship may depend on the type of content being viewed. Bryce and Leichter (1983) suggested that the communication styles of families may be the most common form of mediation. This study provides evidence that sibling viewing style, as a form of indirect mediation, is effective in altering the interpretations of program content made by young children.

**TABLE 1**  
**YOUNG CHILDREN'S INTERPRETATION SCORES AS A FUNCTION OF**  
**SIBLING VIEWING STYLE AND PROGRAM.**

	EAT ALBERT		ONE DAY AT A TIME	
	M	SD	M	SD
Companionable	34.25 <sup>b</sup>	14.31	27.63	12.98
Unfriendly	45.27 <sup>a,b</sup>	4.34	25.64 <sup>a</sup>	6.83

Note: Means designated by the same letter are significantly different from each other at the alpha level indicated.

a = ( $p \leq .001$ ); b = ( $p \leq .05$ ).

**TABLE 2**  
**MEAN INTERPRETATION SCORES FOR YOUNGER AND OLDER CHILDREN**  
**AS A FUNCTION OF VIEWING STYLE AND PROGRAM**

	P&E ALBERT				ONE DAY AT A TIME			
	Companionable		Unfriendly		Companionable		Unfriendly	
	M	SD	M	SD	M	SD	M	SD
Older	51.25 <sup>b</sup>	9.04	50.27 <sup>c</sup>	7.59	32.50	11.88	37.09 <sup>d</sup>	15.37
Younger	34.25 <sup>a,b</sup>	14.31	45.27 <sup>a,c</sup>	4.34	27.63	12.98	25.64 <sup>d</sup>	6.8

Note: Means designated by the same letter are significantly different from each other at the alpha level indicated.

a, d = (p ≤ .05); b = (p ≤ .01); c = (p ≤ .10)

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