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METHODS FOR INCREASING CHILDREN'S
COMPREHENSION OF PROSOCIAL VALUES AS
TRANSMITTED THROUGH TELEVISION PROGRAMS

BY

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THESIS

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ABSTRACT

This study examined the effect of intervening commentary and generalization discussions upon the generalization of prosocial values as transmitted through a commercially broadcast prosocial television program.

The subjects participating were 50 first graders and 50 third graders. They were randomly assigned to one of five treatment conditions (control, film only, film with commentary, film with generalization, and film with commentary and generalization).

Contrary to predictions, the intervening commentary used as a means of directing attention to the critical points in the story, did not have an effect upon the comprehension of the values implied in the program. It is suggested that explicit explanatory comments coupled with value judgements may be effective in enhancing comprehension. Also contrary to predictions, the use of the general discussion concerning the value promoted in the program did not increase generalization of the value to a novel but similar situation.

The effect of the prosocial program upon the first grade audience differed according to their level of comprehension. First graders with higher comprehension errors violated the rule significantly more than those

with lower comprehension errors. Although the third graders as a whole had high levels of comprehension, the prosocial film appeared to have a suggestive effect, as those exposed to the prosocial film violated the rule significantly more than those exposed to the control film.

It appears that in order for the prosocial values to be generalized it is important that the program be directed towards the demonstration of the prosocial behaviors themselves.

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INTRODUCTION

The majority of studies designed to investigate the influence of television viewing on children's behavior have focused on the deleterious effects of exposure to televised violence (e.g., Drabman & Thomas, 1974; Leifer & Roberts, 1972; Liebert & Baron, 1972; Steuer, Applefield, & Smith, 1971). This emphasis is understandable in view of the fact that aggressive themes repeatedly have been found to be those most frequently depicted in both adult and children's television programs (Gerbner, 1972; Gerbner & Gross, 1974). However, in addition to providing convincing evidence that children both readily imitate aggressive actions and are less inhibited with respect to aggression following exposure to programs depicting violence, this body of research also has stimulated interest in exploring the possibility that prosocial behaviors might similarly be acquired and enhanced through observation of prosocial behaviors on television programs. A number of studies have been reported which indicate that children will imitate sharing, helping, self-control, and delay of gratification after witnessing models who demonstrate the relevant behavior (e.g., Bandura & Mischel, 1965; Liebert, Hanratty, & Hill, 1969;

Rosenhan & White, 1967; Staub, 1971). These studies are important and have provided preliminary information as to the feasibility of transmitting societally-valued norms through televised models. However, because the behaviors displayed were relatively simple and because imitation was assessed immediately following exposure in situations identical to those witnessed, their utility in predicting the effects of the more complex messages transmitted through television programs might be questioned. Thus far, only a few studies have examined the influence of exposure to prosocial content in actual television programs.

Stein and Friedrich (1972) observed the behavior of preschoolers in a naturalistic setting before, during, and after exposure to a series of neutral children's films, aggressive cartoons, or "Mister Roger's Neighborhood." Observations were taken during a three-week baseline period followed by the four weeks during which the children viewed 12 episodes of the appropriate program and finally during two weeks following exposure to the programs. Children who had watched "Mister Roger's Neighborhood," a program which stresses prosocial behaviors, exhibited more achievement and self-control behavior than children in the other film groups. For lower socioeconomic status children, exposure to "Mister Roger's Neighborhood" also resulted in increased cooperation, nurturance, and verbalization of feeling. Although less robust, there

was some evidence of maintenance of these effects over time. A second study by those researchers (Friedrich & Stein, 1975) demonstrated that exposure to programs from the "Mister Roger's Neighborhood" series resulted in the learning of specific prosocial content by young children and that the effects of the exposure generalized to helping behavior in another situation. ~

These results are most encouraging in view of their implications for children's television programming. The success of "Mister Roger's Neighborhood" both in terms of its popularity with young viewers and its potential for promoting the acquisition of positive social behavior provides convincing evidence that television programs for children can be developed which are at the same time both entertaining and beneficial. To some extent, commercial broadcasters have followed this lead and are currently airing several programs which appear to be designed to convey positive norms for behavior (e.g., "Fat Albert," "Shazam/ Isis"). In order that the probability of impacting children's behavior through this type of programming might be enhanced, however, it is imperative that psychological research be directed toward identifying those presentational modes which are most successful. For one thing, young children have limited capabilities for processing, retaining, and making sense out of programs which depict characters whose behaviors must be evaluated in the context

of motivations and consequences. It is not always obvious that children will, in fact, extract the same meaning or "message" that the adult producers have intended. A series of investigations of children's reactions to aggressive television programs reported by Leifer and Roberts (1972) is of relevance. - Manipulation of motivations, justification, and consequences of aggressive actions were found to have little effect on children's susceptibility to the influence of these programs. Unexpectedly, only the amount of violence viewed reliably predicted behavior. The more violence watched, the more frequently were aggressive choices made by children on a questionnaire exploring their reactions to interpersonal conflict. Unlike data from adult subjects which reflect an inhibition of aggression following exposure to unjustified aggression or violent actions with negative outcomes (Berkowitz, 1965; Berkowitz, Corwin, & Heironymous, 1963; Berkowitz & Rawlings, 1963; Goranson, 1970), the results of these studies do not demonstrate any such mitigating effect. Leifer and Roberts attributed their failure to demonstrate similar effects with children primarily to children's lack of understanding of motives and consequences as they are commonly presented in television drama. A developmental trend in comprehension was supported, and complete understanding of motives and consequences was achieved only among twelfth graders. Preschoolers were reported to

comprehend very little of what they saw and third graders only understood about half of the material they were tested on. Even tenth graders were able to answer only about 60-70% of the comprehension questions correctly. Other studies have provided similar data. Collins, Berndt, and Hess (1974) showed kindergarten children, second, fifth, and eighth graders a relatively simple eleven-minute edited excerpt from a television program which included several aggressive incidents. Kindergarten children and second graders failed to recall motive cues and evaluated the aggressive actor solely in terms of the consequences of his act, while the older children recalled motives as well as consequences and evaluated the action in terms of either motives alone or motives combined with consequences.

Although the research cited above has focused on children's understanding of the *aggressive* behavior exhibited by television characters, it is reasonable to speculate that the young children may have similar difficulties in inferring the underlying rationale for *pro-social* behaviors particularly when they are presented in the context of a dramatic story plot. Thus far, the only studies demonstrating a positive effect of prosocial programming have used "Mister Roger's Neighborhood" as the stimulus. Because "Mister Roger's Neighborhood" was developed primarily for a preschool audience, the depicted behavior sequences are relatively uncomplicated and

straightforward. Little is known about the impact of programs with plots in which socially undesirable as well as prosocial behaviors are portrayed and whose understanding requires an appreciation of characters' motivations and the long-term consequences of their actions.

A recent study by Thomas and Villanueva (1978) investigated the effects of exposure to a summary theme statement prior to viewing a relatively complex prosocial television program. The subjects were kindergarten, second and fourth grade students. The results of this study suggest that children, particularly preschoolers, may have difficulty understanding the implications of the actions they see on television. However, the use of the preliminary theme statement reliably increased comprehension of the story.

In a second part of this study the subjects were tested for generalization of the prosocial value promoted by the television program to a conceptually related but novel situation. The children were given an opportunity to win a prize based on their performance in a game. Each child played the game alone, and because the scores were predetermined, a winning score could be achieved only by cheating. However, no reduction in cheating behavior as a function of exposure to the prosocial behavior was found. The authors suggested that generalization of prosocial behavior did not occur because, in contrast to an

aggressive program where specific behaviors can be imitated, it is the principles by which one guides one's own actions which must be learned and extended to other situations. Therefore, in order for generalization to occur, the subject not only must thoroughly understand the values proposed by the program but also the potential applications of these values to other types of situations. In other words, in order to fully benefit from viewing a prosocial program the child must: (a) abstract the underlying rule or moral from the specific behaviors that are shown in the program; and (b) on the basis of this rule, devise behaviors to exhibit in a novel situation which are consistent with this principle.

The primary purpose of the present study was to explore the feasibility of one method for increasing the child's ability to apply a general prosocial value gained from viewing a specific instance of this value in a television program to another similar but novel situation. It was hypothesized that a discussion between the child and an adult of the prosocial value promoted by the program and how it might specifically be applied to several other situations would increase generalization by the child in a later similar situation.

A secondary interest was to test the effectiveness of another method of increasing young viewers' comprehension of the prosocial value implied in a television program. As

noted above, Thomas and Villanueva (1978) demonstrated that an introductory theme statement was helpful in aiding children's understanding of a prosocial message. However, this technique can have practical application only if program producers were to include such summary statements at the beginning of the program. Another possible means of increasing comprehension is for an adult who is watching the program with the child to make explanatory comments at various intervals. Indeed, Horton and Santogrossi (1977) found the use of adult commentary to be successful in reducing the negative impact of an aggressive program's violent displays. They explained the two primary reasons for the effect as being first, the clarification or modification of what the subjects perceive the adults label as aggression and secondly, a concomitant change in the subject's own definition of aggression. It was hypothesized that adult commentary throughout a prosocial program should have a similar effect of clarifying the prosocial values in the program. Obviously, if successful, parents would be able to offer the intervening commentary and therefore become involved in most children's favorite pastime--television viewing.

The present study included five viewing conditions: 1) control film, 2) prosocial program alone, 3) prosocial program with a co-viewing adult's commentary throughout, 4) prosocial program with a generalization discussion

with a co-viewing adult after the program, and 5) pro-social program with both commentary and generalization discussion.

METHOD

Subjects, Experimenters, and Design

Subjects were 50 first graders (25 boys, 25 girls) and 50 third graders (25 boys, 25 girls) from a public elementary school serving a predominantly white, middle-class area of a southern city. Prior informed consent (see Appendix A) was obtained from a parent or guardian. An adult white female served as experimenter. The subjects participated individually and were randomly assigned to one of five film conditions. The experimental design was a 2(sex) x 2(age) x 5(control film, film only, film with commentary, film with generalization, film with commentary and generalization) factorial.

Film Conditions

The prosocial television program was an episode selected from the commercially broadcast children's series, "Shazam!" This episode depicts the problems encountered by a young boy who continually lies to impress his friends. The lies, which are virtually harmless in the beginning, prove to be quite dangerous when his friends force him to live up to his image. The program begins by showing Allen, the main character, accidentally knocking over a bicycle parked on the sidewalk as he rides on his bike.

He stops, and is attempting to right the other bicycle when the bike's owner, an older boy (Tim) comes on the scene. Upon seeing Tim, Allen immediately jumps on his own bike and speeds off, leaving the older boy calling for him to come back and make restitution for the broken headlight.

The next scene shows Allen approach his friends and after surreptitiously rubbing dirt on his face and clothing, announces to them that Tim had provoked a fight with him but that he had beaten Tim by using karate. Later in the program, Allen again lies to his friends by bragging that he had walked into a wild animal's cage at the zoo. At this time his friends question the truth of his statement and also that of his earlier assertion about beating up Tim. They challenge him to prove his bravery by actually showing them that he would enter a wild animal's cage at the zoo. A series of dangerous events at the zoo then follow. Eventually, Captain Marvel comes to the rescue and saves the boy's life. Allen then realizes the mistake he has made by lying, and the program ends with his admission of his lies to his friends and their subsequent acceptance of him.

Each subject participated individually. Each child was escorted from his/her classroom by the experimenter to a nearby trailer behind the school building and randomly assigned to one of the five viewing conditions.

Subjects in the *Control* group viewed a short neutral film about animals.

Subjects in the *Film Only* group viewed the prosocial film described above. At no time did the experimenter initiate conversation with the child while the program was being viewed. She remained seated with the child in front of the television and if the child spoke to her, she discouraged further interaction by saying, "Let's watch the program."

Subjects in the *Film with Commentary* group viewed the same film but the experimenter made specific intervening comments throughout the program.

1. As Allen was seen rubbing dirt on his shirt and face the experimenter said to herself: "I wonder why he is doing that?" in order to call attention to that particular action.
2. After Allen's comment about beating up Tim using karate, the experimenter stated, "That's the second time he's lied."
3. During the commercial break the experimenter attempted to draw the subject into a discussion by asking, "Why do you think Allen made up all those stories?" If the answer was incorrect or too vague the experimenter said, "I think he's trying to impress his friends but he's really got himself in trouble now. If he doesn't tell them the truth they're going to make him prove he'll go in the animal cage at the zoo! What do you think he should do?" Again after waiting for an appropriate response, she said, "I think he ought to tell them the truth. Usually people like you better when you're telling the truth."
4. The next comment was made when Allen and his friends were seen by a vulture's cage and his

friends were daring him to go into the cage. At this point the experimenter commented: "Boy, he's really got himself in trouble now!"

5. The final comment was made after the end of the film. The experimenter said: "I think Allen really learned his lesson. Sometimes when you tell lies they can go too far and someone could get hurt."

Subjects in the *Film with Generalization* condition viewed the film as in the *Film Only* condition. However, after the comprehension questionnaire had been administered at the end of the program the experimenter said the following:

That program has made me think about a lot of things. For example, sometimes kids will cheat in games to make other people look up to them. Like, suppose you're playing Hide & Go Seek. You know how to play that, don't you? If you're "it" you could peek and see where the kids have gone to hide, but that wouldn't be right would it?

Or, sometimes kids lie to get things they want. Like suppose the teacher gave all the kids pictures to take home and color. Then the next day, all of the kids are supposed to bring them back and the best picture will win a prize. Well, some kids might get their older brother or sister to color the picture so they'd win. But, that wouldn't be fair, would it? I don't think you'd feel good if you won the prize and you knew it really wasn't fair.

Subjects in the *Film with Commentary and Generalization* viewed the film hearing both the commentary and the generalization.

Comprehension Questionnaire

Immediately after viewing the television program, all

subjects (except those in the *Control* group) were administered a six-item questionnaire designed to measure their understanding of the prosocial program (Thomas & Villanueva, 1978). This questionnaire was read aloud by the experimenter (see copy in Appendix B). Children in the *Control* group were also asked questions about the film they saw but this measure did not enter into any data analysis.

Generalization

Finally, each child was escorted to a second room in the trailer. As the subject entered the room he/she noticed a table full of prizes appropriate for his/her sex and age group and the "rocket ship game." The subjects were told that in order to thank them for their participation they would be given an opportunity to win a prize by playing the "rocket ship game."

The "rocket ship game" is similar to an amusement park shooting gallery and consisted of two rotating rocket ships with a small hole in the center of each one which served as the target. The subject was to aim the "laser" gun at the hole as the rockets went around. Above the rockets were five circles number 1 through 5 which lighted up depending upon where the rocket ship was "hit." The subjects were given the following instructions.

What you need to do is aim the gun right on that hole. If you hit the hole, the "5" will light up. The farther away from the hole you get, the less number of points you'll win. Now, every

time the "4" or the "5" light up, take a chip and put it in this bowl. You must remember to take a chip only when you get a "4" or a "5." You have to get at least *eight* chips in order to win a prize. You get 20 chances and then the game automatically shuts off. Okay?

The experimenter stayed with the subject through the first three or four trials in order to be certain that the instructions had been understood. The experimenter then said:

I've got to make a phone call but I'll be right back. You just finish playing the game and I'll count your chips when I get back. Remember, take chips for only "4's" and "5's." You need at least *eight* to get a prize. I'll knock on the door when I come back. Please open the door for me. It always gets stuck and it can't be opened from the outside.

The experimenter then left the subject to play the game alone. The subject was observed through a one-way mirror. The observer noted the behavior (anxiety, indecision, etc.) of the subject and how many chips were taken. The game was designed to give a predetermined pattern of point values with only four possibilities of earning a chip (scores of 4 or 5). After the eighteenth trial the game seemingly went out of order and a red light came on. Two minutes later the experimenter was signaled by the observer to return to the trailer.

After seeing the game had gone out of order the experimenter pointed out the out-of-order light and apologized to the subject. She reset the machine, returning the chips taken to the original bowl and said, "Since you

didn't get all of your turns let's start over again." The second time, the game was programmed to give the subject scores sufficient to earn at least eight chips. The experimenter stayed with the subject throughout the second game and praised his/her performance. In this manner, no child was rewarded for gaining chips illegitimately nor did any child fail to receive a prize because of honesty. Each child was allowed to redeem his/her chips for a small prize and was thanked warmly for participation. This procedure has been used previously with no apparent ill feelings (Thomas & Villanueva, 1978).

RESULTS

Comprehension

A 4 x 2 x 2 analysis of variance with the factors of treatment condition (Film Only, Film with Commentary, Film with Generalization, Film with Commentary and Generalization), age (first and third grade), and sex was performed on the number of errors obtained on the comprehension questionnaire. The results of this analysis are presented in Table 1. As predicted, the age factor ($F=82.55$; $df=1,64$; $p<.001$) significantly affected comprehension with the first graders obtaining significantly higher error scores than third graders. Neither the effects of treatment condition, sex, nor the interactions reached significance. The mean comprehension error scores by age and treatment condition are presented in Table 2.

Rule Violation

A 5 x 2 x 2 analysis of variance with the factors of treatment condition (Control Film, Film Only, Film with Commentary, Film with Generalization, Film with Commentary and Generalization), age (first and third grade), and sex was performed on the number of unearned chips taken by the subjects during the game. There were no significant effects. The results of this analysis are presented in

Table 3.

Although there were no significant differences among the five treatment conditions, it is of interest to compare the behavior of the subjects in the prosocial film groups (taken as a whole) versus the control film group. Therefore, two separate single control analyses of variance (prosocial film, control film) were performed for the first graders and for the third graders on the number of unearned chips taken. For the third graders the film conditions had a marginally significant effect ($F=3.02$; $df=1, 45$; $p<.10$). The results of this analysis are presented in Table 4. Contrary to predictions, third grade subjects who had been exposed to the prosocial film tended to take more unearned chips than subjects in the control group (see Table 5). Consistent with the results of the first analysis, differences among the prosocial film groups did not prove to be significant.

For the first graders there were no significant effects (see Table 6). Again, however, the ordering of the means is contrary to predictions since subjects exposed to the prosocial film with the generalization discussion took the greatest number of unearned chips (see Table 7).

Chi square analyses were performed to determine the effect of the film on the number of subjects taking additional chips for each age group. These results are presented in Tables 8 and 9. There were no significant

TABLE 1

ANALYSIS OF VARIANCE: COMPREHENSION ERROR SCORES

| Source | df | SS | MS | F |
|-------------|----|--------|--------|---------|
| Film (A) | 3 | 2.637 | .87 | .803 |
| Age (B) | 1 | 90.312 | 90.312 | 82.552* |
| Sex (C) | 1 | 1.487 | 1.487 | 1.359 |
| A x B | 3 | 1.838 | .613 | .56 |
| A x C | 3 | 4.838 | 1.613 | 1.474 |
| B x C | 1 | 1.513 | 1.513 | 1.383 |
| A x B x C | 3 | 3.237 | 1.079 | .986 |
| Within Cell | 64 | 70 | 1.094 | |

* $p < .001$

TABLE 2

MEAN COMPREHENSION ERROR SCORES BY AGE AND TREATMENT CONDITION

| | Film Only | Commentary | Generalization | Commentary/ Generalization |
|-------------|-----------|------------|----------------|-------------------------------|
| First Grade | 2.7 | 3.1 | 3.1 | 2.2 |
| Third Grade | .7 | .6 | .6 | .5 |

TABLE 3

ANALYSIS OF VARIANCE: NUMBER OF UNEARNED
CHIPS TAKEN

| Source | df | SS | MS | F |
|-------------|----|--------|------|-------|
| Film (A) | 4 | 2.023 | .506 | 1.52 |
| Age (B) | 1 | .498 | .498 | 1.5 |
| Sex (C) | 1 | .004 | .004 | .012 |
| A x B | 4 | .87 | .218 | .655 |
| A x C | 4 | 1.188 | .297 | .892 |
| B x C | 1 | .17 | .17 | .511 |
| A x B x C | 4 | 1.467 | .367 | 1.102 |
| Within Cell | 80 | 26.674 | .333 | |

TABLE 4

SINGLE CONTROL ANALYSIS OF VARIANCE FOR
THIRD GRADE SUBJECTS

| Source | df | SS | MS | F |
|--------------------------------|----|-------|-------|-------|
| <u>Between Cell</u> | 4 | 13.48 | | |
| Control vs. prosocial films | 1 | 13.00 | 13.00 | 3.02* |
| Film combinations | 3 | 0.48 | 0.16 | <1 |
| <u>Within Cell</u> | 45 | 193.4 | 4.30 | |

* $p < .10$

TABLE 5

MEAN NUMBER OF UNEARNED CHIPS TAKEN BY
THIRD GRADE SUBJECTS

| Control | Film Only | Film with Commentary | Film with Generalization | Film with Commentary and Generalization |
|---------|-----------|----------------------|--------------------------|---|
| .3 | 1.6 | 1.4 | 1.7 | 1.6 |

TABLE 6

SINGLE CONTROL ANALYSIS OF VARIANCE FOR
FIRST GRADE SUBJECTS

| Source | df | SS | MS | F |
|-------------------------------|----|-------|------|------|
| <u>Between Cell</u> | 4 | 22.68 | | |
| Control vs. prosocial film | 1 | .98 | .98 | <1 |
| Film combinations | 3 | 21.7 | 7.23 | 1.53 |
| <u>Within Cell</u> | 45 | 212.3 | 4.72 | |

TABLE 7

MEAN NUMBER OF UNEARNED CHIPS TAKEN BY
FIRST GRADE SUBJECTS

| Control | Film Only | Film with Commentary | Film with Generalization | Film with Commentary and Generalization |
|---------|-----------|----------------------|--------------------------|---|
| .7 | .4 | .7 | 2.3 | .8 |

TABLE 8

NUMBER OF FIRST GRADE SUBJECTS THAT TOOK UNEARNED
CHIPS VS. DID NOT TAKE UNEARNED CHIPS
VIEWING THE PROSOCIAL FILM VS.
THE CONTROL FILM

| | Took Unearned Chips | Did Not Take Unearned Chips |
|----------------------|------------------------|--------------------------------|
| Prosocial Film Group | 9 | 31 |
| Control Group | 1 | 9 |

TABLE 9

NUMBER OF THIRD GRADE SUBJECTS THAT TOOK UNEARNED
CHIPS VS. DID NOT TAKE UNEARNED CHIPS
VIEWING THE PROSOCIAL FILM VS.
THE CONTROL FILM

| | Took Unearned Chips | Did Not Take Unearned Chips |
|----------------------|------------------------|--------------------------------|
| Prosocial Film Group | 21 | 19 |
| Control Group | 1 | 9 |

effects for the first grade subjects. However, the prosocial film did have a significant effect ($p < .02$) on the third graders with more subjects in the prosocial film groups violating the rule than in the control group.

Of interest, also, was the relationship between comprehension of the prosocial film and the number of unearned chips taken. For both first and third graders there was a positive correlation between the number of comprehension errors and unearned chips taken. Both correlations approached significance ($r = .29$, $p = .07$ for the first graders; $r = +.25$, $p = .12$ for third graders).

To explore further this relationship, subjects in each age group were divided on the basis of whether their comprehension error score was above or below the median for their age group. Least squares analysis of variance with the factors of comprehension error score (above median, below median) and prosocial film group (film only, film with commentary, film with generalization, film with commentary and generalization) were performed on the number of unearned chips taken for the first and third graders separately. The results of these analyses are presented in Tables 10 and 11. For the first graders, the factor of comprehension errors was significant ($F = 5.34$; $df = 1, 32$; $p < .05$). For first graders (see Table 12), subjects who were above the median of comprehension errors took significantly more chips than subjects who better understood the film.

TABLE 10

LEAST SQUARES ANALYSIS OF VARIANCE: NUMBER OF
UNEARNED CHIPS TAKEN BY FIRST GRADE SUBJECTS

| Source | df | SS | MS | F |
|------------------|----|--------|-------|-------|
| Median Split (A) | 1 | 22.55 | 22.55 | 5.34* |
| Film (B) | 3 | 21.70 | 7.23 | 1.71 |
| A x B | 3 | 12.99 | 4.33 | 1.03 |
| Within Cell | 32 | 135.25 | 4.22 | |

* $p < .05$

TABLE 11

LEAST SQUARES ANALYSIS OF VARIANCE: NUMBER OF
UNEARNED CHIPS TAKEN BY THIRD GRADE SUBJECTS

| Source | df | SS | MS | F |
|------------------|----|-------|------|------|
| Median Split (A) | 1 | 9.88 | 9.88 | 2.38 |
| Film (B) | 3 | 0.48 | 0.16 | <1 |
| A x B | 3 | 6.2 | 2.07 | <1 |
| Within Cell | 32 | 133.2 | 4.16 | |

TABLE 12

MEAN NUMBER OF UNEARNED CHIPS TAKEN BY FIRST GRADE
SUBJECTS ABOVE AND BELOW THE MEDIAN
COMPREHENSION ERROR SCORE

| | Film Only | Film with Commentary | Film with Generalization | Film with Commentary & Generalization |
|--------------|--------------|-------------------------|-----------------------------|---|
| Above Median | 1.33 | 0.5 | 3.75 | 2.66 |
| Below Median | 0 | 0.83 | 1.33 | 0 |

Neither the effect of treatment condition nor the interaction reached significance. For third graders, however, although the mean differences are generally in the same direction (see Table 13), no significant effects were obtained. A possible explanation for this discrepancy is that because comprehension levels for third graders were generally rather high, there was not much of a difference between the scores of those above and below the median.

TABLE 13

MEAN NUMBER OF UNEARNED CHIPS TAKEN BY THIRD GRADE
 SUBJECTS ABOVE AND BELOW THE MEDIAN
 COMPREHENSION ERROR SCORE

| | Film Only | Film with Commentary | Film with Generalization | Film with Commentary and Generalization |
|--------------|--------------|-------------------------|-----------------------------|---|
| Above Median | 2.0 | 2.4 | 1.6 | 2.2 |
| Below Median | 1.0 | .4 | 1.8 | 1.0 |

DISCUSSION

Contrary to predictions, the use of adult commentary throughout the prosocial program did not result in increased comprehension of the prosocial values implied in the program. Although a ceiling effect was found for third graders, commentary still had no influence on the first graders whose comprehension level was rather low. A possible explanation for this result is that the comments were ambiguous and made solely as an effort to have the subjects focus on actions in the story which were critical in understanding the outcome of the story and the values implied. The comments neither explained nor evaluated the actions in the story. It is probable that, particularly for the younger children, a more effective method would have been to give an explicit explanation of the actions and the motives coupled with a value judgement. This is similar to the method Horton and Santogrossi (1977) found effective in reducing the negative impact of aggressive programs on young children.

The use of the general discussion concerning the values promoted by the program, again contrary to predictions, did not increase generalization of these values to the game playing situation. In fact, for the first

graders, exposure to the film with commentary and generalization resulted in the greatest number of rule violations. However, the film and the discussion exposed the child to the inappropriate manner of handling a situation.

Although the theme of the film suggested that the behavior was inappropriate, the child was never exposed to appropriate ways of handling those situations. In fact, the outcome for the main character was positive despite the fact that he never displayed appropriate behavior until he verbally admitted his mistakes at the end of the program. If the subject missed the connection between the actor's recognition of his behavior as unacceptable and the positive outcome, then it is likely that the outcome would be related to the inappropriate behaviors themselves. The low levels of comprehension for the first graders seem to indicate that this, in fact, may have occurred.

The generalization statements, on the other hand, made mention of the appropriate ways in which the situation could be handled as well as asking the subjects how they would handle the situation after the statement concerning the inappropriate management of the situation was made. Records of the subjects' statements were not kept in this study. However, such information may prove useful in future studies. A number of subjects responded by saying they would have behaved in the inappropriate manner. It would have been interesting to correlate the verbal

responses given to the generalization examples with the actual behavior in the game.

The child was, therefore, exposed to many inappropriate responses to situations. This exposure may have suggested to the child inappropriate responses which he/she may not have been aware of previously. It is interesting to note that the first grade subjects with higher comprehension error scores violated the rule significantly more than the subjects with lower comprehension error scores or the subjects exposed to the control film. This seems to indicate that those subjects who were able to relate the positive outcome of the story (peer acceptance) to the value implied in the story (honesty) were not negatively affected by the exposure to the inappropriate behaviors. However, if the child was not successful in understanding this relationship, they were more likely to violate the rules of the game.

The effect of suggestibility was also noted in the third grade subjects as those subjects exposed to the prosocial program, regardless of treatment condition, took significantly more chips than those exposed to the control film. This is puzzling when it is recalled that the third graders had relatively high levels of comprehension of the prosocial program. Further inspection of the data, however, is revealing. Of the nine first grade subjects that violated the rule, eight of them took enough unearned chips

to win a prize. This seems to indicate that their purpose for violating the rule was, in fact, to obtain a prize. On the other hand, less than half of the third graders (9 out of 21) violating the rule actually took enough unearned chips to win a prize. Perhaps the majority of the third graders took the unearned chips in an effort, not to obtain a prize as the first graders appeared to do, but to save face before the experimenter and their peers. Possibly, they did not consider their behavior as dishonest since they did not take enough chips for a prize. Of interest is the fact that the story line of the prosocial program dealt precisely with this issue--the actor's efforts to impress his friends by lying. The third grade subjects, who in general fully understood the program's implications, seem to have been attempting to walk a thin line between obtaining an acceptable score in the game and avoiding doing something obviously dishonest (winning a prize by falsifying their scores).

The results of this study seem to indicate that many factors are involved for the generalization of prosocial values to occur. First, comprehension of the prosocial program is crucial to the understanding of the values implied. Thomas and Villanueva (1978) demonstrated that comprehension could be enhanced by the use of a theme statement prior to the program. However, the less explicit statements used in the present study were ineffective. It

appears that comprehension can be increased only by offering very specific explanations of the plot. Secondly, it seems that in order for prosocial values to be generalized it is important that the program be directed towards the demonstration of prosocial behaviors themselves. The studies by Stein and Friedrich (1972) and Friedrich and Stein (1975) have demonstrated that exposure to the prosocial content of "Mister Roger's Neighborhood" resulted in generalized prosocial behavior in other situations. This program is very straightforward and focuses only on appropriate behaviors. Although the program format is probably not very interesting to an adult audience, its popularity among young viewers may be an indication to producers that a complex story line with a conflict of values is not necessary in order to hold a young audience's attention. Possibly, in the future, producers could direct their efforts to designing similar programs for somewhat older children with story lines centering around the demonstration of prosocial behaviors.

APPENDIX A

Dear Parent:

In cooperation with the local school systems, faculty members from Florida Technological University have occasionally performed studies in the schools. This type of work often helps us to better understand child development.

Such a project is going to begin in the next few weeks. We are interested in examining the extent to which children understand and learn from children's television programs. Children in this study will see either an episode from a commercially broadcast children's series which emphasizes positive social values or an episode from an animal nature series. Their comprehension of the content will be assessed by asking them several questions about the program afterward. Additionally, their rule adherence in a game will be observed in order to gain information about the effects of these programs to the child's own real-life behaviors. Each child will be given a small prize for participation.

No psychological tests will be given, nor will any record be kept of the behavior of individual children by name. It would be greatly appreciated if you would give approval for your child to participate by signing below and asking your child to return this form to the classroom teacher. Should you wish any further information, please do not hesitate to call me at 275-2216.

Sincere thanks,

Margaret H. Thomas, Ph.D.
Professor of Psychology

My child, _____, may participate in the child development research as described above.

(SIGNATURE OF PARENT OR GUARDIAN)

(DATE)

APPENDIX B

1. How did Tim Sullivan's bike get knocked over?
 - A. Allen ran into it by accident.
 - B. Allen didn't like Tim Sullivan so he pushed his bike over.
 - C. The other kids dared Allen to knock the bike over and said he was a "chicken" if he wouldn't do it.
 - D. Allen wanted to start a fight with Tim Sullivan, so he knocked the bike down.

2. What did Allen do when Tim found out that the bike headlight was broken?
 - A. Allen didn't have \$5.00 to pay for the headlight so he ran away.
 - B. Allen said he was sorry and promised to pay Tim the \$5.00 to buy a new headlight.
 - C. Allen was scared of Tim so he ran away.
 - D. Allen used karate on Tim and beat him up.

3. Why did Allen tell the other kids that he'd been in a fight with Tim Sullivan?
 - A. Because he had broken Tim's bicycle headlight.
 - B. Because he wanted the other kids to think he was brave.
 - C. Because he wanted the other kids to feel sorry for him.
 - D. Because his clothes were dirty.

4. Why did Allen and his friends go to the zoo?
 - A. to talk to Tim
 - B. to see the animals
 - C. to meet Captain Marvel
 - D. to make Allen prove that he would go into the animal cage.

5. The Elders said: "He who lies to cover a mistake has made two mistakes." Who were they talking about?
 - A. Tim
 - B. Billy
 - C. Allen
 - D. the other kids

6. By the end of the story, what had Allen learned?
- A. You should share with your friends.
 - B. You should always tell the truth.
 - C. You should be kind to animals.
 - D. You shouldn't let other people push you around.

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