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An Evaluation of Perspective-Taking Ability: Its Effects on Television-Mediated Prosocial Behaviors

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An Evaluation of Perspective-Taking Ability: 
Its Effects on Television-Mediated 
Prosocial Behaviors

by

Mary Doheny Feczko

A Dissertation Submitted to the Faculty of the Graduate School 
of Loyola University of Chicago in Partial Fulfillment 
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CHAPTER I

INTRODUCTION

During the past two decades, the effect of televised violence on children has been repeatedly and carefully documented. The vast majority of these studies, tapping highly divergent samples of children and adolescents, have shown that video violence produces increased aggressive behavior in the young. Criticism of violent programming has received frequent exposure in the literature and has been widely disseminated in the lay press. Additionally, the Federal Communications Commission and the Surgeon General of the United States have supported extensive research and have held congressional hearings in hopes of clarifying how TV violence affects the immature viewer.

The compelling results of these investigations and the general climate of disturbance over televised violence have generated some changes in network programming. The three national networks recently instituted a "family viewing hour" in the early evening banning the most graphic violence until later hours when children are allegedly in bed. The networks have also argued that they substantially reduced video violence in response to the steadily growing evidence of its detrimental effects. The CBS Office of Social Research, which generates an index of TV violence for all prime
time shows on all three commercial networks, claimed that the mean number of violent incidents per network per hour has dropped in the past four years from 2.3 incidents in the 1972-1973 season to 1.9 incidents in the 1975-1976 season (cited, Gunther, 1976).

These figures have been contested by behavioral science researchers. Gerbner (1972a) has performed elaborate content analyses and has issued a "Violence Profile" based on a 1-week sample of programs on the three major networks, every year since 1967. Gerbner defines violence:

...in its strictest physical sense as an arbiter of power. Analysts were instructed to record as violent only the overt expression of physical force against others or the self, or the compelling of action against one's will, or pain or being hurt or killed. The expression of injurious or lethal force had to be credible and real, even if it has a presumable comic effect. But idle threats, verbal abuse or comic gestures with no real consequences were not to be considered violent. (p. 31)

Gerbner does not include as "violent" the very prevalent verbal hostility, depreciating comments, and ethnic, religious, and racial slurs aired on TV. Yet his analyses have indicated no significant reduction in the overall level of televised violence since 1967. The reduction in violence during the "family viewing hour" was offset by substantial increase in violence in later hours. The profile also documented increases in violence in weekend daytime programming geared to youthful viewers.

A recent study by Baird (1976) concurred with the Gerbner findings. Baird examined content from 1965 through
1974 and found that the proportion of violent programs (including Crime, Military, and Western programs) broadcast on television rose from 24% of the total programming in 1965 to 39% in 1974. Baird's analyses undoubtedly underrepresented total TV aggression, as he excluded from his violence index any violence occurring in programs labelled Drama, Medical, or Comedy and he excluded all movies aired on TV.

Recently researchers have devoted considerable energy to exploring how television cultivates constructive as well as violent behaviors, attitudes, and values. The potential of TV for producing and encouraging prosocial behaviors, as well as for teaching cognitive skills has only begun to be explored. Television has been shown to be an effective socializer of young children. In the case of well executed programming like Mr. Roger's Neighborhood, television is capable of teaching such behaviors as affection, cooperation, adaptive coping, delay of gratification, task persistence, expression of emotion and empathy (Friedrich & Stein, 1975; Sawin, 1974; Shirley, 1974). Social values are also conveyed to the young (and older) viewers by the distribution of dramatic roles vis a vis sex, race, age, ethnicity, occupation, and by the relatively sympathetic or unsympathetic manner in which roles are depicted. Images and stereotypes presented on television have been shown to be important sources of adult's as well as children's social perceptions (Gerbner, 1972b; Gerbner & Gross, 1976; Greenberg, 1972).
Studies have confirmed that television programming encourages both antisocial and prosocial behaviors, yet research has not focused consistently on why some individuals are more susceptible to TV's influence. That there is great variation in how individual subjects respond to TV has been well documented (cited in Stein & Friedrich, 1975). The personality factors which moderate or heighten the effects of TV programming certainly merit further study.

A previous study by the present author (Feczko, 1976) explored the impact which the specific personality factor of social perspective-taking, i.e., the ability to accurately perceive and comprehend the behavior, feelings and motives of another individual—had in mediating the influence of aggressive television on grammar school children. The purpose of the present study was to further clarify the influence of social perspective-taking and empathy on children's responses to TV, while expanding the design to expose the children to both violent and prosocial stimulus material, and to allow the children the possibility of making constructive or helping responses subsequent to viewing.

A secondary intent of the study was to explore relationships between perspective-taking and real-life aggression, as rated by peers, and between perspective-taking and various other variables (aggression anxiety, activity level, success in aggression, viewing time, violence level of typical viewing, self-report of aggression, peer integration, and parental control of viewing).
CHAPTER II

REVIEW OF RELATED LITERATURE AND HYPOTHESES

Relation of Television Viewing to Subsequent Aggression.

Social scientists in the United States and England have dealt fairly extensively with the effects of televised or filmed violence on the attitudes and the probability of assaultive behavior by child and adult viewers. Before approaching a substantive review of the evidence concerning the psychological effects of TV violence, it would seem desirable to highlight the major research strategies of the work underway or completed in this field.

Initial evidence on the possible harmful results of TV was gleaned by means of large scale surveys undertaken by investigators in the late 1950s through the middle 1960s. Results from the survey studies provided no sound basis for an overall decision on the behavioral impact of television or movie violence. The survey studies were unable to answer the sort of question raised by experimental research—the effects of viewing violence on immediate behavior. Surveys were used to advantage to determine such variables as frequency of viewing, indication of favorite programming, children’s exposure to aggressive television programming, etc.
A second research strategy employed to explore the question of effects of television upon children was that of correlational studies. This method dealt with the degree of relationships between two or more variables, in this case, those of television and aggression. Correlational methods had been widely implemented in considering such questions as "Are children who watch much aggressive television more aggressive than those who watch little?" Correlational studies of TV and aggression illuminated certain consistent relationships. For instance, studies showed a positive relationship between the amount of aggressive television which a child watched and the degree to which he behaved aggressively in life situations (Eron, 1963; McLeod, Atkin, & Chafee, 1972). It could not be inferred, however, that such a relationship was a causal one. Simply because exposure to violent TV fare and interpersonal aggression were positively correlated did not mean that violent TV caused aggression. It is possible, for example, that highly aggressive children were more likely to select violent programs for viewing. Correlational studies were therefore supplemented by experimental research permitting logical inferences about causal relationships.

In this third research tactic, the experimental study, treatment of subjects was equated except for differential exposure to one or more manipulated events or independent variables. Subjects were subsequently tested on one or more measures (dependent variables) thought to depend upon the inde-
dependent variable. When subjects were randomly assigned, and necessary steps were taken to control possible initial differences between subjects, the experimenter was able to conclude that the differences in the treatment or independent variable caused the differences on the dependent measures.

Survey studies. The surveys carried out by Himmelweit, Oppenheim, & Vance (1958) in England, by Schramm, Lyle & Parker (1961) and by Maccoby (1964), studied myriad variables dealing with the impact of television, extending from its effect on eyesight to its effect on school achievement. The results of these surveys indicated no grossly harmful consequences of television viewing, at least as tapped through mass interviewing techniques. However, the surveys asked subjects for typical behavior, and it is likely that specific occasions of reactions to filmed aggression were forgotten. There was some suggestion in the surveys that very young children showed increased nightmares and negative emotion after scenes of violence closely related to their life experience. Klapper (1968) in reviewing these surveys, stated that although the data indicated that 20 per cent of all children reported fearful reactions to violence the context of the violence was more significant than amount of violence. Westerns evoked little disturbance, but violence by knife or other weapons closer to daily experience proved upsetting. There were suggestions, but scant evidence, of greater distress when victims of film
violence were closer to viewers in age, sex, and life experience.

Recent survey research conducted under the auspices of the National Institute of Mental Health dealt with the frequency of violent content on commercial TV as well as with the frequency with which children were exposed to such content. Gerbner (1972a) studied the frequency of overt physical violence during prime evening time and Saturday morning network programs during the fall of 1969 and compared these data with similar 1967 and 1968 studies which he had conducted for the National Commission on the Causes and Prevention of Violence. He found that in 1969, "about eight in ten plays still contained violence, and the frequency of violent episodes was still about five per play and nearly eight per hour" (p. 35). Interestingly, cartoons, the most violent of programs in 1967 increased their lead in 1969.

Lyle and Hoffman (1972) conducted an extensive survey of media use among over 1,000 children of heterogeneous background, and found that television saturation was almost total; only two percent of the students reported that there was not a working TV set in their home. Lesser (1970) reasoned that a child born today will, by the age of 18, have spent more of his life watching TV than in any other single activity except sleep.
Lyle (1972) found that the amount of television viewing increased steadily from age 3 to approximately age 12, or the beginning of adolescence. Total number of viewing hours declined among adolescents. He also found that boys and girls watched approximately equal amounts of television during their latency years, but girls watched slightly more than boys in adolescence. Male adolescents preferred more violent programs than did females. Although female adolescents viewed more television than did males, they watched less violence.

Children from higher socioeconomic status families watched less television and significantly less violent fare than did those from lower-social-status families. Black children watched more television and more violence than did whites, even when socioeconomic status was held constant (Lyle, 1972).

Early survey research (Schramm et al., 1961) suggested that very intelligent children were heavy television viewers in the elementary years but not in adolescence. The recent work of Lyle and Hoffman (1972) found a negative correlation between television viewing and high intelligence or school achievement at all ages, from age 3 to 12. They found heavy television to be significantly associated with low intelligence or poor achievement.

McIntyre and Teeven (1972) citing the Violence Commission staff reports of 1969 emphasized the observations
that "there is a great deal of violent content available, at all times of the day, for all manner of intended audiences and that the presentation of violence is typically a means of achieving virtually any type of goal as well as that the use of violence whether sanctioned or not, is likely to be a successful means of achieving such goals" (p. 385). In addition, high violence programs were very favorably rated by children. Lyle and Hoffman (1972) found that first graders preferred programs that were heavily saturated with violence. Twenty-four per cent of the children said that cartoons were their favorite type of program, while another 13 per cent stated that detective and "hip adventure" programs were their favorites. It should be noted that surveys provided valuable information on the amount and content of current television viewing—they uniformly demonstrated that violent television fare was abundantly available and that children did view violent programming with regularity and interest.

**Correlational studies.** In an early correlational study of TV and aggression, Riley and Riley (1951) demonstrated that elementary school children who enjoyed good peer relationships were less attracted to violent programs than were children who did not manifest good peer acceptance. Other personal characteristics of subjects such as intelligence (Himmelweit, et al., 1958; Schramm, et al., 1961), social class (Maccoby, 1964), age (Pate, Miller, & Stevenson, 1968) and personal adjustment (Bailyn, 1959; Maccoby, 1964) were
correlated with various aspects of television viewing, but their effects upon outcome of viewing televised aggression were not clearly determined.

Eron (1963) found that third grade boys who were rated as aggressive and as having poor interpersonal relations tended to prefer violent television programs even if they did not watch television frequently.

Several correlational studies were directly relevant to the question of whether a relationship exists between the amount of violence a child views and his own subsequent aggressive behavior. Dominick and Greenberg (1972) related the amount of exposure to television violence for 434 fourth-, fifth-, and sixth-grade boys to their approval of and willingness to use interpersonal violence. Approval of and willingness to use violence were assessed by items taken from the Sears' Antisocial Aggression Scale (1961) and the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957). In addition, measures were obtained on the degree to which the subjects perceived violence as effective and the degree to which they would offer violent solutions to conflict situations when presented with open-ended questions. They found that exposure to aggressive television was related to the boys' stated willingness to use violence and to their perceptions of its effectiveness when used. Higher exposure was correlated with greater approval. The investigators used the same methods to relate televised violence and aggressive attitudes for girls. The re-
results were highly similar to those for boys—with greater levels of exposure to television violence, girls were more willing to use violence as a solution to conflict and to perceive it as effective.

McLeod et al. (1972) studied the relationship between viewing aggressive television fare and several measures of aggressive behavior in two large samples of adolescents. They found, among male and female adolescents at two grade levels (junior and senior high), that the more the child watched violent television material, the more aggressive he or she was likely to be as measured by a variety of self-report devices. The partialing-out of total TV viewing time, socioeconomic status, and school performance did not substantially alter the basic pattern of first order correlations, thus ruling out these variables as alternative explanations of the high level of aggressive behavior associated with high-violence viewers.

Lefkowitz, Eron, Walder, and Huesmann (1972) gained impressive support for the proposition that exposure to aggressive television is associated with performance of aggressive acts. Lefkowitz et al., tapped a sample which encompassed the entire population of children of a particular age in a rural New York county and studied this sample at age 9 and again at age 19. The subjects' interpersonal behavioral aggression was rated by their peers. The particular instrument utilized to rate aggression was developed by Walder,
Abelson, Eron, Banta, and Laulicht (1961). The initial data from this study (Eron, 1963) yielded a significant relationship for third grade males between the amount of televised violence they viewed and independently assessed peer ratings of aggression.

Lefkowitz et al. (1962), in reporting the results of the longitudinal phase of their study, showed that, for males, the amount of aggression watched in the third grade was significantly related to peer ratings of aggression at age 19. It should be noted that although third grade preferences for aggressive material on television predicted later aggression, later television preferences did not relate to the youngster's earlier aggressive behavior at all. On the basis of cross-lagged correlations, Lefkowitz et al. provided stronger evidence for a causal relationship than is ordinarily available from correlational studies.

Although unable to claim causation, these correlational studies, particularly those by recent investigators, showed a strong positive relationship between exposure to aggression on television and aggressive behavior or aggressive attitudes for young children and adolescents.

Experimental studies. Experimental investigations designed to show that limited exposure to filmed aggressive behaviors led to their acquisition by children consistently demonstrated that learning of novel aggression was effectively mediated by television and film-format (Bandura, 1963; Bandura,
Ross, & Ross, 1961; 1963). In the initial study of the effect of a filmed model on the learning of aggression, Bandura et al. (1961) investigated four groups. The first group of nursery school subjects observed a live adult aggression against a 5-foot Bobo doll. The second group witnessed a film of the same behavioral sequence projected via a television. The third group viewed the aggressive behavior as acted out by a cartoon cat, while the fourth group observed no model. After mild frustration, the children were observed for imitative aggressive behavior (i.e., the extent to which the child mimicked the unique aggressive actions and verbalizations of the model). The three experimental groups manifested significantly more aggressive behavior than the control group. Furthermore, the study indicated that filmed models (both human and cartoon) were more effective in eliciting modelling than was the live adult model.

In another study Bandura et al. (1963), employed a similar design and investigated the effects of a filmed model's being rewarded or punished for aggression. Children who viewed an aggressive model punished were less likely to imitate than any of the other groups. Although children often referred to the rewarded model's aggressive behavior in negative terms, they imitated it both verbally and in physical play. In addition, Bandura (1963) demonstrated that children imitated the aggressive play of either a rewarded model or neither rewarded nor punished model with greater frequency than they
did the aggressiveness of a punished model. When later encouraged to reproduce the modelled behavior, children who had observed the punished model were able to accurately reproduce the behavior. These findings pointed up the difference between learning and overt performance and indicated that the punishment had not prevented the children from learning the novel aggression. Liebert and Fernandez (1960) similarly demonstrated that vicarious punishment did not impede the learning or recall of aggressive acts.

Hicks (1965, 1968) provided evidence that behavior acquired through film modelling may be recalled for long periods of time as shown by delayed retests of acquisition. In an initial study (Hicks, 1965), films of adults and children of both sexes in aggressive play were shown to children via television. Subjects were then mildly frustrated and tested for aggressiveness in play. After about six months, the children were again frustrated (without additional film exposure) and observed. Next, the children were induced to recall by describing or performing all the behavior they had originally observed. All experimental groups initially exhibited more aggressive behavior than did a control group, the greatest effect occurring for the aggression by the boy model. Only the imitation of the male adult's aggression persisted over six months, and this effect was short of statistical significance.
In a second test of retention of modelling behavior, Hicks (1968) showed young girls both aggressive and nonaggressive behavior on film. The girls rated the actions on a scale from "awful" to "nice." Two months later, the girls were again shown the aggressive behaviors. A test was made of each child's retention of the behavior with a prize serving as inducement for recall. After eight months, another retention test tapping recall of behaviors, was administered without any film viewing. It was found that initially 72 per cent of all aggressive behaviors were recalled, after an additional eight months about 41 per cent of these actions were still remembered. Hicks also found that, while positively evaluated responses ("nice") were retained initially, after eight months there were a significant decrease in the positively rated responses but not in the negatively scored ones. Negative attitudes towards behaviors were good predictors that the behaviors would be learned by the children.

Stevenson (1962) reasoned that enduring recall of filmed content would be most likely for young children if the material to which the child was exposed produced emotional responses, if the content was discussed with others, and if a common theme was repeatedly observed. Osborn and Endsley (1971) studied this relationship between emotional response and program content. Four- and 5-year old children observed a variety of TV presentations, including one containing human violence, one cartoon violence, and cartoon and human films
with no violence. Galvanic skin responses revealed that the violent programs, and particularly the one containing human violence, produced more emotional arousal than did the non-violent programs. Interestingly, recall of the human violence or cartoon violence episode was significantly better than that of episodes detailing non-violent human interaction.

Recent studies employing similar designs and providing support for observational learning from film models will be briefly cited. Ellis and Sekyra (1962) found that first graders assigned to an aggressive cartoon treatment emitted more physically aggressive behaviors during "free play" in the classroom, than did subjects who either viewed a neutral film or no film—a finding in line with modelling theory. Fechter (1971) found that mentally retarded subjects tended not to model specifics of a television presentation, but were influenced by the general mood of the film—the effect being differentially related to differences in personality. Dubanoski and Parton (1961) studied imitative aggression in children in a model present versus a model absent condition. In the model present condition, the child viewed a film with an additional person in the room. In the model absent condition the child viewed the film alone. The results indicated that the presence of a model facilitated imitation but that much imitation could be accounted for by observation alone.

That the effects of aggressive modelling were not confined to "make-believe" or play targets was indicated by ex-
periments undertaken by Hanratty, Liebert, Morris, and Fernandez (1969). The first experiment employed 4- and 5-year-old boys from a Sunday school kindergarten as subjects. Half the children watched a 2 1/2 minute color sound film in which an adult male aggressed against a human clown. The aggression included verbal insults to the clown, shooting at the clown with a toy machine gun and beating the clown with a plastic mallet. Half the group was shown no film.

Thereafter, half the subjects played in a room where they found a human clown standing aloof, as well as the toy gun and mallet. The rest of the subjects were placed in a similar situation except that they found a plastic Bobo doll instead of a human clown. The children's aggressive responses in the room were recorded for 10 minutes. The film condition led to heightened aggression. Regardless of whether children had seen the film or not, the majority of those who were placed with the Bobo exhibited some aggressive action. Of the children who had not observed the movie, none engaged in any sort of aggressive behavior towards the human clown. Observation of the movie elicited some assaults against the human clown. In a second experiment (Hanratty et al., 1969) it was again found, with both male and female subjects, that an aggressive film without other provocation would lead children to physically assault a human victim. This finding was replicated with older boys (Hanratty, O'Neal, & Sulzer, 1972).
The adequacy and interpretation of research results from studies of imitative aggression have been criticized on the grounds that a child who precisely mimicked an attack against a plastic Bobo doll which he saw displayed in a brief film might or might not be transferring such aggressive behavior to his natural environment, and making it a part of his own behavioral repertoire. It should be noted that children were usually tested in an experimental setting which duplicated the setting for the filmed violence. Direct imitative effects definitionally require an experimental setting identical to the one observed. Emphasis in subsequent research was therefore shifted to the inhibitory or disinhibitory effects of observing aggressive television in terms of a reluctance (inhibition) or willingness (disinhibition) to aggress against other people. The inhibition-disinhibition continuum refers to the counter-imitation (as when the model is punished) or facilitation of behaviors which fall in the same basic class as those which the subject observed, although the behaviors need not be identical in all particulars to those displayed by the model (direct imitation).

Working with nursery school children, Lovaas (1961) showed that children's aggressive behavior increased following exposure to symbolic aggressive stimuli. One group viewed sequences from a very aggressive film while a second group saw a neutral film. Following the film, subjects were presented with two large toys and their play activities were observed.
Depressing the lever on one toy activated a doll who then hit a second doll on the head with a stick. Depressing the lever on the other toy activated a wooden ball enclosed in a cage to jump through obstacles. Children who had viewed the aggressive film engaged in significantly more play with the toy that activated the hitting dolls after exposure to the aggressive film than after viewing the nonaggressive film.

A number of other studies similarly showed that observation of filmed or televised aggression disinhibited children's willingness to engage in a variety of aggressive behaviors. Steuer, Applefield, and Smith (1971) found that children who previously viewed an aggressive TV program showed significantly greater increases in interpersonal aggression from baseline to post-treatment. Noble (1970) demonstrated that children played significantly less constructively, and showed generally reduced social interaction after viewing a war film than after seeing a puppet film. Middle-class children demonstrated a more pronounced experimental effect than did working class children.

Walters and Llewellyn-Thomas (1963) investigated the disinhibitory effects of filmed violence on hospital attendants, high school boys, and young female adults. Subjects in the experimental groups viewed the knife fight scene from the film Rebel Without a Cause while control subjects viewed a movie sequence which showed adolescents engaging in constructive activities. Both before and after exposure to the
film, all subjects participated in what was ostensibly a "conditioning" experiment in which subjects had to administer electric shocks to another person for making supposed errors on a learning task. Subjects exposed to the aggressive film significantly raised the shock levels from pre- to post-test relative to the controls. A critical factor to note was that the heightened aggression was obtained in a situation entirely different from the one depicted in the film and by subjects drawn from varying subcultures.

In a study by Hartmann (1969) delinquent adolescent boys were either angered or treated neutrally and then shown one of three films, two of which contained aggressive material. Regardless of whether they were previously angered or not, seeing a violent film produced more subsequent aggression, as measured by ostensible electric shocks to partner in a learning experiment, than did the neutral film. Boys who had a history of aggressive acting out showed a more pronounced experimental effect than did other boys.

Feshbach and Singer (1971) have contradicted the findings of Walters and Llewellyn-Thomas (1963) and Hartmann (1969) as well as the majority of studies in this area. Feshbach and Singer studied young adolescent boys of either middle or lower class background who were enrolled in private schools or residential treatment centers. Half of each group was assigned to a regular "diet" of aggressive (western, adventure, spy) and half to nonaggressive (comedy, variety, family fare) TV shows
to watch over a period of weeks. The experimenters obtained daily ratings of actual aggressiveness, such as pushing, fighting of boys before, during, or after the experimental "diet." The results were significant only for lower-class boys. Those who watched aggressive films of television were significantly lower in aggression than they had been initially, while the nonaggressive film viewers increased in their aggression. The greater the initial aggressive level of a boy, the more likely he was to reduce his aggressiveness if exposed to a steady "diet" of aggressive films. In contrast, the data revealed virtually no significant differences between the aggressive and the control group for boys in the private schools. Since significant results were confined to lower-class institutionalized males, it was possible that control group boys behaved more aggressively because they were being deprived of their favorite programs. Subjects in the control group did in fact, object strenously to the fact that Batman was not included in their "nonaggressive diet."

Feshbach and Singer (1971) initially held that video violence caused a draining off or "catharsis" of aggression by providing the child with a vicarious outlet for hostile feelings. However, subsequent studies (Feshbach, 1972; Biblow, 1973) did not favor the emotional catharsis theory. These subsequent studies were better controlled in terms of translating the "emotional effects" of TV into behavioral terms, and they found an increase, rather than the expected
decrease, in aggressiveness subsequent to TV viewing.

An alternative explanation for decreases in aggression following exposure to video violence is that violence arouses aggression anxiety. Goranson (1970) speculated that the persistence of the belief in the aggression catharsis notion, resulted from a misunderstanding of the Aristotelian concept of catharsis, which applied only to the tragic feelings of grief and fear that could be discharged through active audience participation in drama. Goranson held that reductions in aggression subsequent to televised violence occur when individuals feel anxious and guilty over the arousal of aggressive impulses. If this anxiety is high, and the individual keenly feels that aggression is morally unacceptable, he is likely to inhibit his aggression. If anxiety is relatively low, viewing violence may lead to heightened aggression.

Feshbach's later studies (1972) and those of Wells (1973) and Parke, Berkowitz, Leyens, West, & Sebastian (1972) have disproved the original Feshbach and Singer hypotheses. Feshbach (1972) found aggression decreased following viewing only when the target of the aggression was a familiar adult, clearly an anxiety provoking situation. In a replication of the original Feshbach and Singer study, Wells (1973) added the additional controls of matching groups on the basis of typical aggressive level, of utilizing outside trained observers in addition to the institution staff as raters and of utilizing a broader geographic sample. He found virtually no differences
in aggressive behavior between boys exposed to the varying TV diets. The differences which did occur were contradictory to those found by Feshbach and Singer. Wells found that boys exposed to aggressive TV were slightly higher in physical aggression, while those boys on the nonviolent TV diet were slightly more verbally aggressive. Wells noted that the content of their verbal aggression was primarily complaints about the television fare.

Parke, Berkowitz, Leyens, West, and Sebastian (1972), studied male adolescent residents of penal institutions in the United States and Belgium. The behavior of the subjects was rated prior to, during, and subsequent to exposure to five, full-length commercial movies shown during one week. Various groups viewed violent or neutral films. For all samples, subjects who watched violent movie fare were subsequently more aggressive than those who had watched nonviolent fare. In the American sample, boys who had viewed nonviolent movies decreased their usual levels of aggressive behavior.

In a similar vein, Liebert and Baron (1972) examined the question of whether exposure to aggression would disinhibit younger children in terms of their willingness to hurt another child. The sample was composed of two age groups (5-6 and 8-9 years) and both sexes. The children in one group viewed episodes taken directly from television which depicted instances of aggression, and the second group of
children viewed exciting but nonaggressive sporting events. Following exposure to one of the films, children in both groups were provided with a series of opportunities to either help or hurt another child by pushing, respectively, either a green or a red button. The children were instructed that pushing the green button would help an absent child to win a prize, and that pushing the red button would hurt him. They were also informed that the longer they pushed either button the more the other child would be helped or hurt. Results showed that children who had observed the violent scenes pushed the red button for significantly longer time than those who had observed the nonaggressive scenes.

Finally, the experimental method was employed in a study by Stein and Friedrich (1972) in which they attempted to determine the cumulative or longer-range effects that observing television had on children. The 97 subjects, who were between 2 1/2 and 5 1/2 years of age, were systematically exposed to television programs of differing content during the course of their participation in a summer nursery school. The experiment began with an initial measurement period in which the free play of children in the nursery was observed and rated according to several categories. This was followed by a four week experimental period in which children were exposed to either aggressive programs (Batman and Superman), neutral programming (various children's films) or prosocial programming (Mister Roger's Neighborhood). A two week post-
viewing period followed in which no TV was shown, but in which effects were observed and assessed. Behavior ratings included measures of aggression, prosocial behavior, and self-control.

The experimenters found that children who were initially in the upper half of the sample in interpersonal aggression subsequently showed greater interpersonal aggression if they were exposed either to the neutral or to prosocial programming. Children who were initially low in aggression did not respond differentially to these treatments.

The clearest main effects of the television programs appeared on self-controlling behaviors. Children exposed to the prosocial TV programs showed higher levels of rule obedience, tolerance of delay, and persistence than children exposed to the aggressive programs. Those in the neutral condition generally fell between the two television groups. The differences among conditions were greatest for high IQ children. Thus, brighter children exposed to aggressive programming were subsequently more aggressive relative to their less bright peers. Children who observed the aggressive programs decreased on measures of self-control relative to the baseline while those who observed prosocial programs increased.

The effects of the programs on children's prosocial interpersonal behavior interacted with socioeconomic status. Lower socioeconomic status children showed increased prosocial interpersonal behavior in the prosocial TV condition but not in
neutral or aggressive conditions. Higher socio-economic status children, however, showed higher levels in the aggressive condition than in the prosocial condition. For the higher socio-economic status children the reduction in self-control produced by aggressive programs was accompanied by increased social interaction that was generally cooperative in nature. Stein and Friedrich (1972) noted:

It appears, therefore, that the aggressive programs had a general stimulating effect for the higher SES children that led to higher social interaction and lower levels of personal control. For those who were already aggressive, it led to aggression as well (p. 275).

The research just reviewed demonstrated plainly that children learned an extensive range of behaviors through the observation of filmed models; that television presentations influenced (inhibited or disinhibited) similar as well as identical behavior on the part of observers; that differences in recall of films increased with age and that differences in recall as a function of content might be increased with violent material.

Experimental studies dealing with disinhibitory and inhibitory effects of television have predominantly supported the hypothesis that observing violence increased a child's willingness to aggress. These findings were consistent with the results of correlational studies. However, Berkowitz (1970) cautioned that one must distinguish between the statement that observation of violence might have deleterious effects and that it will have such effects for any particular
child or even program. Berkowitz noted that a good many situational and personality factors influence the relationship between televised violence and the likelihood of aggressive actions.

Thus, considerably more study is needed on what prior interpersonal experiences or personality predisposition the child brings to the viewing situation that would mitigate and/or intensify the effects of exposure to violence. The literature provides ample support for the existence of such "qualifiers." Riley and Riley (1951) demonstrated that children who enjoyed good peer relationships were less attracted to violent programs than children who were not accepted by their peers. That the difference in emotional reaction to similar programming could be significant for people of varying ethnic or racial background was suggested in studies by Nicholas, McCarter, and Heckel (1971a, 1971b).

Another critical personality factor effecting imitation of film-mediated violence might be the child's degree of imaginative development (Singer, 1966). Evidence from earlier studies (Singer, 1966; 1968) indicated that children and adults manifesting overt aggressive behavior showed less evidence of imaginative or fantasy capacity on several measures and were less likely to indicate concerns about punishments or awareness of consequences in the fantasy behavior. Singer (1970) conjectured that the child with a greater affinity to fantasy was better able to ascribe
televised violence to the realm of "make-believe," whereas his less imaginative counterpart was provoked to direct aggression by what he perceives as reality.

Feshbach (1972) designed a series of studies to determine if the effects of film-mediated violence upon children varied as a function of whether the material was said to be taken from "real life" (newsreels) or was said to be fictional or fantasy material (Hollywood movie). Feshbach proposed that "...a child's acting out of aggressive tendencies should be lessened or unaffected to the extent that dramatic content functions as fantasy in the larger, cognitive sense and is perceived as fantasy in the narrower, fictional sense. If the dramatic content is perceived as 'real,' the possibility of facilitating aggression through such processes as imitation, instruction, and disinhibition should be considerably enhanced" (p. 321).

Results showed that children exposed to the aggressive reality were more aggressive than those exposed either to no film or to the fantasy one. Additionally, as would be predicted from Feshbach's hypothesis, children in the fantasy set condition showed less aggression than children who had not observed a film at all. No noteworthy changes in mood, as measured by a questionnaire, were found.

A study by Kniveton and Stephenson (1970) of the effect of preexperience on the imitation of an aggressive model has elucidated some variables which similarly "qualify"
the simple assessments of televised aggression. The authors of this study followed Bandura's experimental paradigm except that one group of their subjects was allowed to play in the experimental room before seeing the modelling film. In Bandura's studies, the situation to which the children were led following the presentation of the film model was identical to that portrayed in the film, but it was otherwise a novel situation. By allowing some subjects to acquaint themselves with the experimental room before viewing the film, the authors felt that there would be less imitation of a film model. The film, in this instance, could be viewed against a background of experience in the situation portrayed. The authors suggested that such experience inoculated the observers against the model's example, for the suggestions of the model would be in competition with previously established interests. The results showed that imitation was significantly reduced when there was experience in the situation prior to the presentation of the film model.

Kniveton and Stephenson concluded that the child who had previously played in the situation shown on the film had developed his own interests and did not need to rely on the "suggestions" of the filmed model when he returned to the situation. One might extrapolate from these results and suggest that the child, who has had few interests of his own, who has been isolated, or has had little interpersonal contact would be more likely to imitate the behavior of televised
models. The child who has had many interests and who has been self-confident and involved should not be as susceptible to such influence.

**Relation of Television Viewing to Prosocial Behaviors**

The research just reviewed strongly suggested that viewing televised aggression contributed to the subsequent display of aggressive behavior by children and adolescents. The fact that the bulk of the evidence with preschoolers, 7 to 12 year olds, and adolescents indicated that TV influences interpersonal, specifically antisocial or aggressive, behavior, suggests that TV affects interpersonal behavior in general. Researchers have recently studied the ways in which prosocial or socially valued behavior is encouraged by television. The values stressed in the programming labelled by researchers as "prosocial" include such behaviors as helping, cooperative play, rule adherence, expression of feelings, recognizing or understanding the feelings of others, sharing, and task persistence.

Investigators have most frequently studied the program *Mr. Rogers' Neighborhood* and its effects on the social and emotional development of preschoolers. The studies of the prosocial influence of television have generally not focused on older children and adolescents, and have primarily examined the effects of specially produced Public Broadcasting programs such as *Mr. Rogers' Neighborhood* and *Sesame Street*. There have been no detailed content analyses of the prosocial interactions
occurring on commercial broadcasting stations comparable to Gerbner's (1972a) analysis of violent, destructive interactions.

One of the earliest studies investigating the potential of television for stimulating prosocial as well as aggressive behaviors was that of Stein and Friedrich (1972), cited in the earlier aggression section. To recapitulate, 3 to 5 year olds were exposed to either aggressive, prosocial, or neutral television diets. The children's behavior was then observed in free play as well as in experimental tasks. The positive interpersonal behavior of lower social class children increased subsequent to a "prosocial diet", but the behavior of middle class children did not change. When the children were seen in dyads following a mildly frustrating situation, boys who had viewed prosocial TV were more cooperative than were the other television groups, but there were no differences for girls.

Self-control and willingness to tolerate delay were negatively affected by violent TV in this study. Children who saw violent TV dropped markedly in their tolerance of delays in receiving things they needed or wanted. Willingness to accept responsibility for behavior when unsupervised by adults also declined. In a subsequent study, Friedrich & Stein (1975) found that kindergarten children who had viewed four episodes of Mr. Rogers' Neighborhood learned and generalized their learning to novel situations--such subtle interpersonal concepts as helping others, empathizing with the feelings of another, understanding that wishes cannot cause a thing to happen, and valuing
people for inner qualities rather than physical attractiveness. In yet another study, Friedrich & Stein (1973) found that preschoolers who had watched four weeks of Mr. Rogers' Neighborhood showed greater self-control as demonstrated by increased task persistence, by stricter adherence to rules, and by increased frustration tolerance than did children who had viewed four weeks of informational films. Once again lower socioeconomic status children showed more cooperation, nurturance, and verbalization of feelings after watching Mr. Rogers'. When placed in dyads after a frustrating situation, boys were less aggressive after Mr. Rogers' than they were after neutral programs, but girls were more aggressive after viewing Mr. Rogers'. Aggression in free play was unaffected for both sexes.

Shirley (1974) found that preschool children who viewed Mr. Rogers' were significantly less aggressive and more willing to share "valuable" items with other children than were viewers of neutral TV content. Both the increase in sharing behavior and the decline in interpersonal aggression continued during a follow-up period.

Paulson, McDonald, and Whittemore (1973) conducted a series of studies to gauge the effectiveness of TV in producing cooperative behavior. They found that children who viewed segments on Sesame Street stressing cooperation, safety, fear reduction, and understanding another's point of view were more likely to cooperate and share than were children whose
Sesame Street program did not incorporate such segments.

Leifer (1973) studied factors which promote positive social behavior and their interaction with the initial social skills of the viewer. She has also examined the interaction between cognitive abilities and the capability to acquire prosocial messages. She found that preschool children will model prosocial behaviors when they believe they are useful and appropriate.

O'Connor (1972) also utilized specially constructed films to successfully facilitate the social interaction of withdrawn children. The film instructed viewers in specific strategies for joining a group of children, i.e., standing close to the group, proffering a toy. Shy children who viewed the film significantly increased their frequency of initiating social contacts in nursery school.

Sprafkin, Liebert, and Poulos (1975) investigated the effects of commercially broadcast television programs on children's subsequent prosocial behavior. Thirty 6-year old children were exposed to one of three half-hour TV programs: an episode from the Lassie series which detailed a boy dramatically helping a dog; a program from the Lassie series which did not include such an example; or a program from The Brady Bunch, a family situation comedy which displays a large family in very warm positive interactions with each other. The effects of program exposure were assessed by presenting the child with a situation in which he had to choose between
continuing to play a game and gain a prize or terminating his playing of the game to help puppies in distress. Children exposed to the Lassie program with the helping scene displayed significantly more helping behavior than those exposed to either the neutral Lassie program, or to the Brady Bunch.

Baran (1974) explored the relationship between high and low self-esteem in third-grade children and their modelling of prosocial and antisocial behaviors from television. He found that the viewer's sex, self-esteem level, and the content of the program interacted to create significant differences in behavior subsequent to viewing. High self-esteem males tended to model the aggressive behaviors they saw presented on TV, and low self-esteem children of both sexes modelled the prosocial behaviors that they had viewed. High self-esteem females showed significantly less prosocial imitation than low self-esteem males and females, but demonstrated more prosocial imitation than did high self-esteem males.

Research on altruistic behavior with live models has shown that mere observation of a model who behaves in a generous fashion, who is not reinforced for his altruism, and who will not even find out if the subject behaves altruistically, will increase the probability that the subject will behave generously himself (Bryan & Walbek, 1968; Harris, 1970). Recently, in studying the effects of TV modelling on children's generosity, Rushton and Owen (1975) found that while
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TV can increase a child's subsequent generosity, TV models have a much weaker effect than live models with regard to altruistic behavior. Rosenhan and White (1967) had earlier speculated that altruistic behaviors would not be as readily acquired through TV viewing as would aggressive behaviors:

Children constantly observe aggression "live"--in films, on television--and they have presumably learned something of its rewards and consequences. Therefore, observation alone under permissive conditions, is sufficient to elicit aggression. Altruistic behavior, however, is neither so evident nor so overlearned in our culture. Its rewards are neither immediate nor apparent, and on these occasions when children do witness altruism it sometimes elicits a negative or cynical remark from other observers (p. 429).

The studies on prosocial behaviors indicate that TV can teach socially valued behaviors, as well (if not as easily) as violent and societally proscribed behaviors. The lack of studies and programming dealing with prosocial behavior that is geared to the older child should be noted.

Relation of Television Viewing to Social Perceptions and Stereotypes

Few studies have documented the influence of television on children's perceptions, attitudes, and beliefs about individuals in our society, but analyses have been undertaken with adults, the results of which can be readily extrapolated to children. Analyses have been conducted which focus on the roles which males and females, young and old, whites and minorities play in television.
Gerbner (1972b) pointed out dramatically that TV influences the perceptions viewers form of people, life and society, that TV molds "a common consciousness of what is, what is important, what is right, and what is related to what else" (p. 154). Gerbner argued that TV has replaced religion, rituals, and the morality play to become our major mode of acculturation. He stated that television presentations are symbolic of the values of society and the societal power relationships that exist in real life. He held that the crux of violence is its symbolic representation of power, i.e., who is aggressor, and who is victim. Gerbner found a "pecking order" (p. 157) in which white males and animal characters of no apparent race were least likely to be victimized when they were involved in violence and nonwhite females and animal characters judged to represent nonwhites were most likely to be victimized. However, when women and nonwhites do aggress on TV, they are more likely to be punished for their aggression than is the white male.

Women and minority groups are underrepresented in television programming of all kinds. In prime-time network programming 70 - 75% of the focal characters were men (Gerbner, 1972a; Tedesco, 1974). In cartoons and children's programs the percentage of males was even higher. (Gerbner, 1972a, Streicher, 1974). In addition to low visibility females were portrayed as engaging in less prestigious activities. De Fleur and De Fleur (1967) found that
women comprise less than 20% of the roles having definite occupational activity. Turow (1974) found that women in prime time television were rarely engaged in "masculine", professional, action-oriented activities, and that even when women were portrayed in "masculine" or business related activities they were allowed to advise and direct men on only "feminine" matters. Areas of knowledge identified as "feminine" included love, the family, home, personal problems, and the arts. Gerbner (1972a) confirmed that women were presented in romantic or family roles, whereas men rarely were presented in such a context.

Sternglanz and Serbin (1974) studied sex-role stereotyping on commercially produced children's television programs. They found more than twice as many male roles than female roles. Males were more often depicted as making plans, building, being constructive, and aggressive. Females were portrayed as deferent and passive. Males and females were also portrayed as receiving differential consequences for their actions. Males were more often rewarded for their actions, while females typically were neither rewarded nor punished. An exception to this was that females were more frequently punished for high levels of activity than were males.

Blacks and ethnic minority groups were also negatively stereotyped in both children's programs and on prime-time shows (Gerbner, 1972a; Ormiston & Williams, 1972).
Ormiston and Williams (1972) found that blacks were more likely to be secondary characters and villains than were whites. However, Dominisk and Greenberg (1970) found that blacks were shown in occupational roles that were similar to those of whites. Gerbner (1972a) found blacks and foreigners more often cast as villains than were white Americans.

Northcott (1975) studied the way in which the aged are portrayed on television and found that the aged were vastly underrepresented in television dramas. When a portrayal of an aged person occurred, it tended to be contrasted to the competent, middle-aged or younger male or contrasted to the attractive, youthful adult female. The elderly (as well as the very young) were portrayed as suffering more than the average share of problems and relying for help on the "competent" adult. Dialogue tended to negatively evaluate both children and the aged, and to idealize vigor, competency, and physical attractiveness.

Just as youth and physical attractiveness were over-represented, so too were high status occupations. Professional and managerial roles made up about twice as large a proportion in TV as they did in the real world, while labor and service occupations were rare when compared with their numbers in reality (Gerbner, 1972a).

Gerbner and Gross (1976) have found that television's misrepresentation of reality distorted adolescent and adult
perceptions of the world. They found that heavy television viewing (four or more hours per day) was related to seeing the world as more dangerous and threatening than light viewing (two hours or less). Heavy viewers were less likely to trust other people, and were more likely to overestimate their chances of being victimized in a violent action. Heavy viewers overestimated the American percentage of the world's population, as well as the percentage of individuals engaged in professional and managerial occupations. Of course, since the data were correlational it may be that anxious people to begin with were more likely to be heavier viewers of TV. In any case, the examiners found that heavy TV viewers seemed to be highly influenced by television, even those who possessed alternative sources of information, i.e., had some college education and were regular newspaper readers.

Few studies exist on the relationship between children's perceptions of the world and television viewing, yet the available evidence is supportive of the notion that TV strongly influences children's attitudes towards the real world. Bogatz and Ball (1971) found that consistent viewers of Sesame Street had more positive attitudes toward school and toward members of various races than did infrequent viewers. Graves (1975) found that a single presentation of racially diverse programs had an impact on children's racial attitudes. Positive characterizations of nonwhites produced
slightly more positive attitudes for both black and white children. Negative portrayals affected black and white children differently. For blacks, negative portrayals of nonwhites led to positive attitudes, especially for black females seeing cartoons with black women. For whites negative portrayals led to large amounts of negative attitude change.

The studies just presented indicate that TV may, on the one hand, promote positive socialization in children, while, on the other hand, encouraging the acceptance of negative stereotypes. The under-representation of women, the elderly, the working class and minority groups from television, and the often unflattering presentation of these groups, undoubtedly affects children's attitudes and their perceptions of the world.

The research just reviewed emphasized the critical impact of television programming on the socialization of children. Television may trigger interpersonal aggressiveness, and it may also prompt socially accepted and valued behavior. Children derive much of their experience of the world during the extensive hours spent before the "tube." It has been documented in several surveys that children spend more than twice as many hours per week in front of television sets than they spend in classrooms, with only sleep surpassing TV as a time consumer (Faigel, 1971).

During television viewing time, children are presented with
a vast array of information—means and techniques of aggres-
sion, a variety of norms about behavior, ways to solve prob-
lems, and express emotions. TV expands children's worlds
and allows them to experience many diverse individuals, life-
styles, values, attitudes, beliefs, especially when these
differ with those people and norms with which they have had
personal contact. The effects may be deleterious or bene-
ficial to children.

Leifer, Gordon, and Graves (1974) have pointed out
that TV needs to cultivate truly diverse programming in
order to combat the negative stereotypes and distorted world
view conveyed by current programming in which the middle-
class, white American male adult predominates. Leifer et al.,
felt that children should be exposed to a variety of indivi-
duals who embody various personal attributes, occupations,
ethnic "traits", and social roles.

Truly diverse television programming includes people
who are old, young, black, white, Spanish-speaking,
males, females, fat and thin, each in a variety of roles. ...compare this with current programming:
one rarely sees a mother with a responsible job, a
highly intelligent black male, a cooperative white
male, or a black woman solving a problem for a white
woman. (p. 220).

Despite the compelling case that television acts as
a socializer of children, little is known about the impact
of TV as an agent of socialization relative to the other
socializing influences in the child's life—i.e., school,
family, church, ethnic background, emotional experiences.
How TV does or does not affect the individual child is not
solely the result of the nature of the television content to which he is exposed. No one discrete factor will account for such complex behavior. Children's perceptions, interpretations and responses to identical video content vary markedly (Feczko, 1976). In fact, the same filmed content may affect the same individual differentially on separate occasions.

It would seem imperative to further explore those individual personality attributes, as well as familial and cultural factors which provide the context within which a child will be affected by TV content.

It seemed fruitful to this author to pursue the effect of the personality variable known variously as perspective-taking, social intelligence, or interpersonal competence, on children's susceptibility to televised content. A possibly important feature in altering the child's perception of TV content and his reaction to it, perspective-taking or interpersonal facility, has not been dealt with in the research on film and subsequent aggressive or prosocial behaviors, nor has it been dealt with in the general research on aggression. Yet it seemed likely that children who were oriented toward others, who possessed social sensitivity and empathy, would prove less likely to express in overt behavior aggressive influence from TV, and more likely to assimilate prosocial influence from TV than would their less socially adept peers. One would assume that the inter-
personally competent child, who is presumably more accurate in his perception of others and the social world, would have mastered complicated societal proscriptions and permissions concerning aggression, and would have developed internal controls for the acceptable expression of aggression. A report by Spivack (1964) supported this notion to a certain extent, by showing that middle-class children who manifested antisocial "acting out" behavior were no more interested in aggressive content in films than their more socialized peers, but were less able to organize its expression into acceptable play. Similarly, the child who is more socially advanced, is able to assume the perspective of other people. The socially adept child is able to distinguish other peoples' unique points of view, their unique feelings and motives from his own. Such a child would seem to be ripe to absorb TV's pro-social messages, in which the unique worth of every individual is stressed, and a common theme is the understanding and valuing of other's feelings. Little research has been done with older children to isolate which personality characteristics render them most susceptible to TV's influence. In this light, it seemed profitable to pursue the interaction between perspective-taking ability and vulnerability to filmed models.

**Perspective-Taking**

One line of investigation into the phenomenon of perspective-taking has its origin in the research on social
intelligence. Social intelligence was originally defined by Thorndike (1920) as "the ability to understand and manage men and women...and to act wisely in human relations" (p. 228). Chapin (1942) highlighted the active dimension of social intelligence. Chapin saw social intelligence as distinct from social insight which he defined as the ability to assess a social situation from another individual's frame of reference. Social intelligence and perspective-taking have also been subsumed under the rubric of "interpersonal competence" (Foote & Cottrell, 1955; Weinstein, 1969). Weinstein considered this social ability to be analogous to social control. His definition of interpersonal competence is the "ability to manipulate the response of others" (p. 755). A more exhaustive survey of the definition and measurement of social intelligence can be found in Walker and Foley (1973).

Studies dealing with children's conceptualization and mastery of the social world have been greatly influenced by Piaget's genetic epistemology (Piaget, 1967). Researchers have attempted to formulate the developmental sequence of the child's thought relative to various aspects of the social-interpersonal world. Perspective-taking—the ability to view the world and one's self from the vantage point of another—develops successively in graded steps over time (Borke, Chandler & Greenspan, 1972; Flapan, 1968; Gallin, 1958; Shanley, Walker, & Foley, 1971). Using Piagetian theory as a basis for conceptualization, perspective-taking could be viewed as the
development of social and cognitive decentering.

Piaget believed that egocentrism (inability to take the viewpoint of another person), syncretism (reacting globally to a situation instead of analyzing its elements), and centration (focusing on a striking but superficial aspect of a phenomena) uniquely characterize immaturity of cognitive processes. In the Piagetian conceptualization, "perspective-taking" is utilized in tasks which require the child to take the role of others and to differentiate the other's view from his own, to infer the other's motives, capabilities, feelings, and likely responses, and to decenter from the striking but superficial aspects of a story (Flavell, 1963). The young egocentric child does not differentiate between himself and his environment—he is unable to disengage himself from his own unique perspective and is thus unable to take the viewpoint of others. The egocentric child is not able to compartmentalize points of view or different sources of information. The egocentric child may as Weinheimer (1972) pointed out, "assimilate the points of view of others in his way, attributing to all viewpoints his own mental image. Or he may accommodate himself to others, imitating while believing that he is originating behavior" (p. 568). Piaget felt that not until about 7 to 12 years of age is a child able to "extricate" himself from his own limited perspective. Thus, what has been variously defined as social intelligence or perspective-taking develops as the child "decenters."
Feffer (1959) developed a measure which provides evidence of a subject's ability to decenter his attention from (a) the immediate perceptual aspects of the environment, and (b) the impact of his initial point of view. The procedure of Feffer's Role Taking Task will be explored later in some detail. Briefly, it requires that the subject tell a story to a TAT-like picture, and then retell the initial story from the unique point of view of each of the characters in the story. Many of the studies employing The Role Taking Task have been conducted with adult subjects. However, Feffer and Gourevitch (1960) used the measure in an investigation with children 6 to 13 years of age. This study also utilized the WISC Vocabulary subtest and four Piagetian tasks which measured decentering with impersonal (nonsocial) stimuli. Results showed a positive correlation between subjects' scores on the Role Taking Task and on the Piagetian tasks, indicating that decentering, or perspective-taking, is a complex phenomenon which includes both social and cognitive ability.

Feffer identified essentially three levels in the development of role-taking skills. Children at about 6 years of age are able to shift their viewpoint, "refocus," from one character to another, however, when they do so their story develops gross inconsistencies. By 7 or 8 years of age the child may be able to coordinate different characters' perspectives sequentially (e.g., the child will have a second character respond appropriately to a first character's
action). Children at about 9 or 10 develop "simultaneous coordination" of perspectives where the child can reflect on a character's feelings as well as a second character's feelings and take into account the characters' feelings about each other from their own limited perspectives.

Ambron and Irwin (1973) have pointed out that the ability of the child to assume another person's point of view is not a unitary skill. They identified three dimensions of perspective-taking ability, dealing respectively with the child's assessment of the other person's perceptions, thoughts, and emotions. Thus, role-taking or perspective-taking is an interpersonal skill which has perceptual, cognitive, and affective components.

Selman's (1971) model of role-taking abilities is similar to Feffer's. Selman gave a preliminary description of the stages in which perspective-taking emerges: Level A: Child has a sense of the other person but does not distinguish between his thoughts and perceptions and those of the other. Level B: The child has a sense of himself as distinct from the other person, but the child fails to appreciate any commonality of thought between himself and the other. At this point, the child is accurate in the perceptual component to his perspective-taking. Level C: Child hypothetically places himself in the position of the other and attributes his own ideas and feelings to the other as a result. Level C remains egocentric in the sense that the
child does not respond to the unique other's individualized perspective. The child always assumes that the other's thoughts would be similar to his own in the situation. Level D: The child is cognizant that the other has perspectives based on his own feelings and reasoning which may or may not be similar the child's own. Between the ages of 8 and 11, the child may also acquire a further refinement in his ability in a limited way to take account simultaneously both the other's view and of the other's taking his own perspective. This has been labelled "reciprocal role taking" (p.1733-1734).

Feffer's Role Taking Task was seen to have strong cognitive underpinnings. In contrast, Rothenberg (1970) has examined children's perspective-taking abilities by emphasizing affective components. Rothenberg asked her subjects (third and fifth-grade children) to describe the feelings and motives of characters portrayed in various tape-recorded interactions. She found that increased age, higher intellectual ability, and sounder interpersonal adjustment were most closely associated with the development of accurate social perceptions.

The present study was formulated in an attempt to test the hypothesis that the variable of perspective-taking affects the child's perception of televised content and his subsequent response to such content. This hypothesis seemed consistent with available data. Investigators found that television was likely to be most influential when the child had limited contact with or minimal information from other socialization
agencies and consequently had less firm values against which he was able to compare the media themes (Himmelweit et al., 1958; Maccoby, 1964; Schramm et al., 1961). Researchers have also found that children ascribe less reality to television as they mature. Lyle and Hoffman (1972) found, after interviewing first, sixth, and tenth graders, that half of all first graders felt that TV adults were "just like" or "pretty much like" the adults the children knew. Thirty-seven percent of the sixth graders and twenty-five percent of the tenth graders believed that TV people were like real people. However, more than half of the tenth graders felt television was truthful most of the time. Lyle and Hoffman also found that minority children were more likely to grant realism to TV portrayals than were white children. Perhaps the child who is more advanced in perspective-taking would be more discerning in his acceptance and modelling of TV content.

When observational learning of aggression is being considered, one should keep in mind that society teaches complicated norms for aggressive acts—how, when, and where aggression can or should be displayed (Sears, Maccoby, & Levin, 1957). Given the pervasiveness of television, its influence in communicating such norms should not be discounted. In the film media (as in the other media), societal norms for the performance of aggression are transmitted by information about a character's motivation for an aggressive act
and by the consequences which accrue to the character as the result of his act. This information sensitizes the child as to when aggression is justified and when unjustified, when it is admirable and when disgusting. To the extent that a child perceives that televised aggressive behavior is justified, useful, or admirable in various situations, one might expect an increase in the probability of the child's subsequent aggression.

Some experimental evidence indicates that perception of motivations and consequences of aggression influenced performance of modelled aggression. Studies showing that reward, punishment, or neutral consequences (neither positive nor negative) respectively increased, decreased, or did not affect performance of imitative or nonimitative aggression (Bandura, 1963; Bandura et al., 1963; Rosecrans and Hartup, 1967). Another study shows that observed aggression which was perceived as justified increased the probability of an observer's subsequent aggressive responses (Berkowitz and Rawlings, 1963). However, in a recent study Leifer and Roberts (1972) found that understanding the motivations for and consequences of violence in a program did not account to a significant degree for the subsequent aggression scores. The instigating effect of viewing violence was not reduced by an increased understanding of the motivations and consequences which surrounded it. When programs were edited so that each contained only good or solely bad motives, grammar
school children showed slightly increased aggression after seeing good motives depicted and somewhat decreased aggression after seeing bad motives depicted. The children had previously had difficulty in separating out relevant from incidental content.

Thomas (1972) investigated the role played by subjects with certain cognitive styles in mediating the influence of aggressive television on young boys. Subjects were assessed for their degree of field independence (Witkin's Rod and Frame Test), for their level of reflection-impulsivity (Kagan Matching Familiar Figures Test), and for their degree of motoric-inhibition or impulsivity (Maccoby Draw-A-Line-Slowly Test). The findings indicated that exposure to televised aggressive content did not necessarily lead to an increase in aggressive responding. Rather, the effects of exposure depended not only on the nature of the content, but also upon the children's individual cognitive styles and their characteristic ways of responding to the environment. Specifically, the data supported three experimental hypotheses:

1. The more differentiated, organized, and articulated the level of cognitive functioning, the less was the impact of the variations in the experimental film condition (aggressive versus non-aggressive film).

2. The level of cognitive functioning was more differentiated, more elaborated, and articulated as a function of maturity.
3. The level of aggression was a function of age of the child with the younger children being more aggressive than the older.

An important implication of this study is that cognitive style—specifically the degree of cognitive flexibility—did account to a significant degree for subsequent aggressive behavior. Thomas' findings indicated a reduction in aggression with increased cognitive flexibility.

Chaney (1970) similarly documented the importance of selective perception of content and individual modes of responding to the environment in the viewing of aggressive TV materials. Chaney pointed out that every dramatic presentation could be judged in relation to several frames of reference—reflection of "real" life, credibility of the dramatic relationships, and dependence on violence as integral to the plot. Chaney contended that the individual's overall subjective response combines these (and other) points of reference. He hypothesized and found that the effect of an aggressive program was greater if viewers failed to maintain a balance and blurred the distinction between different characteristics of content such as realism and aggression. Chaney showed that the effects of the aggressive content could not be predicted purely from an analysis of the content of the performance. The individual's perception and comprehension of content in relation to the behavior and beliefs of his immediate social environment were significantly more
important predictors of behavior subsequent to exposure to aggressive materials.

Dominick (1971) also found that children with merely a high degree of exposure to TV violence did not show more approval of violence nor did they suggest violence more often as a response to conflict situations. However, the interaction of high exposure to TV violence with low exposure to counter-information about violence (social norms, familial norms, etc.) produced the greatest degree of acceptance of violence among middle-class subjects. One could liken the individual who has not been exposed to counter information about violence to the immature, egocentric viewer (present study) or to the cognitively undifferentiated and inflexible individual (Thomas and Chaney studies).

Finally, Whiting (1971) studied the role of empathy (defined as perceptiveness and cognitive flexibility) as it related to the effects of mass media exposure. He found (although specifically working with the role media exposure plays in relation to the modernization of traditional man) that more empathic individuals were more likely to perceive and properly decode the import of media presentations. Highly empathic individuals were also more likely to internalize the import and to utilize it in the modification of their own behavior, when such modification was situationally appropriate. Whiting's study was consonant with the assumption of this paper that empathic and perspective-taking skills play a facilitative role in assisting the individual to ef-
fectively decode the import of a media presentation, and to model such behavior only when appropriate.

Television provides a very complex modelling stimulus for the child—intricacies of plot and character as well as sheer numbers of episodes may obscure the child's perception and comprehension of interpersonal cues, such as the motivations and consequences attributed to a certain act. Clearly the child who is better able to accurately perceive and comprehend the behavior, feelings, and motives of other people, is also better able to perceive and comprehend subtle interpersonal cues about justification for behavior than is his egocentric peer. Given this greater comprehension of the viewpoints of others, coupled with greater resources in absorbing information from disparate sources, the perspective-taking child should be less susceptible to TV's influence, than his less socially advanced peer.

**Design and Hypotheses**

The present study was designed to determine the effect of exposure to varied televised content, both violent and prosocial, on children with varying levels of interpersonal competence and perspective-taking abilities. The impact which perspective-taking has in mediating the influence of aggressive television on children was previously investigated by the present author (Feczko, 1976).

Feczko (1976) found that children who were high in perspective-taking skills as assessed by means of the Role
Taking Task were less aggressive subsequent to being exposed to violent content on television, although this trend was not significant. Contrary to expectation, when perspective-taking ability was assessed by means of an interview which asked subjects to identify the emotion portrayed by television characters, children who displayed high-empathy were significantly more aggressive following exposure to the violent TV content. These results suggested that at least some children may utilize perspective-taking skills in a self-serving, even sociopathic way. Weinstein (1969) has previously noted that perspective-taking ability might be viewed as the "ability to manipulate the others' responses for our own ends" (p. 755). The fact that the individual might not always employ his superior interpersonal skills in benign ways complicates the process of predicting his response to TV content. However, Feczko (1976) found that those children who could accurately assess the feelings of characters depicted in the videotape, could not always actively take account of the character's viewpoint as divorced from the child's own. The child who was high in empathy, but equally high in aggression undoubtedly represented a still essentially egocentric child--one who can project himself into a situation, and who assumes that the characters' thoughts are similar to his own, but who cannot actively experience perspectives dissimilar to his own. Such a child might be quite facile in identifying people's feelings and thoughts without truly having to assume
their unique perspective to complete his understanding of them.

Perspective-taking, as was noted previously, is not a unitary trait but includes cognitive, perceptual, and affective dimensions. In the present study, perspective-taking ability, that is, the ability to accurately assume the viewpoint of another individual, was measured in two different manners. The selected measures were: (a) the Feffer (1959) Role-Taking Task, a measure of the subject's ability to shift from one aspect of an interpersonal situation to another in a flexible manner, and (b) a questionnaire (hereafter referred to as Empathy Questionnaire) in which the subject's understanding of the feelings and subjective psychological experience of individuals portrayed in six commercial television productions was assessed. This measure is similar to Rothenberg's (1970) measurement of interpersonal competence by interviewing children on the feelings and motives of characters they had listened to on tape-recordings.

The Feffer Role-Taking Task and the Empathy Questionnaire were utilized as pretests—so that in the data analysis subjects were assigned to groups, based on a median split of these two measures. In essence, the design is a replicated 2 x 2 factorial design, with the four groups being of high or low Role-Taking Task and high or low on Empathy.

All children were exposed on two separate occasions to both experimental treatments, i.e., the viewing of pro-
social or aggressive sequences. Thus, each subject served as his own control. The effects of videotapes on subsequent prosocial (sharing, tolerance of delay, donating) behaviors were compared to the effects on the same behaviors of exposure to two 8-minute aggressive sequences. The prosocial sequences were excerpted from *The Waltons* and from *Marcus Welby, M.D.* The aggressive sequences included scenes from *The Quest* and *The Rookies*. The order in which subjects were exposed to the experimental conditions was counter-balanced.

Subsequent to viewing the videotaped vignettes—on one occasion displaying prosocial themes, and on the other occasion violent themes, the children were asked to participate in the "Astronaut Game" (Singer, 1961), in which the child was required to remain in one spot, without changing position for 15 minutes or for as long as he could. The child's capacity for delay and his adherence to rules were measured by the length in time in minutes he sat or stood quietly in place before signalling that he could not continue further or that he felt 15 minutes had passed. Each child was required to stand or sit in a narrowly circumscribed area on the pretext that the procedure was used to assess "space men or women of the future," people who could tolerate long periods of time in narrow spaces. The child could choose whether to sit or stand, but he was not allowed to change positions. Excessive fidgeting or a prominent change in bodily position (stooping, bending, stretching)
caused the experimenter to terminate the waiting period.

Following the game, all the children were given equivalent amounts of poker-chip "tokens" which they were allowed to spend as they wished in a "store" set up with candy and small games, each tagged with a price. Next to the store an open box was displayed with a sign that read, "Please Help Needy Children" and displayed pictures of sad looking children.

It should be noted that none of the prosocial videotapes directly modelled sharing or donating behavior; however, they generally supported consideration of others, reciprocity in relationships and socially-responsible behaviors. No direct modelling of donating to charity was provided in any of the videotapes.

The measure of sharing behavior was the number of tokens the child chose to give to needier children.

Two days after all the children were tested under the final condition, a delayed posttest of sharing behavior was gained by the classroom teachers' circulating a sign-up sheet for children willing to help needy children by donating some time on Saturdays. Each teacher was coached in presenting the volunteer list in a studiedly casual manner, so as not to influence the children to volunteer by her expectations.

Additionally, a number of variables which were likely to affect the child's generalized reaction to television
were explored. The child's usual level of aggression was assessed by (a) peer-ratings as in Eron (1971) and (b) self-report, based on an 11-item test adapted from a scale utilized by McLeod et al. (1972) to ascertain the likelihood of displaying overt aggression and to assess general irritability. The child also completed a questionnaire which asked him to report his exact total TV viewing time on the two days prior to testing, in addition to estimating his "average" TV viewing time per day. The child was also asked to report: (a) Parental limits on his viewing; (b) exactly how often he watched 83 commercial TV programs broadcast on weekends and after 4 P.M. on weekdays, which yielded a total violence viewing score; (c) level of peer-integration, number of close friends, etc., as measured by McLeod et al. (1972).

A number of other variables were also rated by peer nomination: popularity, interpersonal activity level, success in aggression, aggression anxiety, and level of prosocial behaviors. The specific hypotheses of this study were:

1. Children high in perspective-taking ability, specifically as measured by the Role Taking Test will be more susceptible to the prosocial versus the antisocial messages of the television presentations, and will demonstrate both greater tolerance for delay and more donating behavior.

2. Those children demonstrating high empathy as measured by identification of characters' feelings, but low perspective-
taking ability will demonstrate less donating and lower capacity to tolerate delay subsequent to aggressive TV viewing.
3. High perspective-taking children will demonstrate less real-life aggression, as measured by peer-ratings and by their own report.
4. High-empathy, low perspective-taking children will reveal greater discrepancies in their self-reported peer-integration as contrasted with their peer integration as measured by peer-nomination.
5. Perspective-taking will increase with greater intelligence.
6. Girls will demonstrate greater susceptibility to pro-social TV messages, relative to boys at the same level of perspective-taking skill.

Finally, relationships among perspective-taking and other personality variables, such as total TV viewing time, overall violence viewing time, parental limits on TV, success in aggression, interpersonal activity level and aggression anxiety were also examined, but no predictions were offered as to their possible impact.
CHAPTER III

METHOD

Subjects

The subjects in this investigation were 80 10- and 11-year-old children, 41 boys and 39 girls enrolled in the fifth and sixth grades of two urban parochial schools.

Ten- and 11-year-olds were chosen as the subject of this study because surveys (Lyle and Hoffman, 1972; Lyle, 1972; Friedrich and Stein, 1973) have shown that fifth and sixth graders were the heaviest viewers of TV as contrasted with preschoolers, 6- and 7-year-olds, and adolescents. Additionally, role-taking skills undergo significant development in middle childhood which might lead these children to be less affected by television content than preschool children. Ten- and 11-year-olds have more behavior and cognitive controls and are more sensitized to adult values about appropriate behavior. Most of the television studies have been done with preschool children. Those undertaken with 5- and 11-year-olds have been short-term laboratory experiments which have not assessed the natural aggresive behavior of the child, and have instead relied on rather contrived measures of aggression. The most frequently used measure with children of these ages involves the adminis-
tration of a noxious stimulus (noise or shock) to an unseen person in another room.

Subjects were equated for social class, with all subjects assessed as middle class on the Coleman (1961) class-status scales. The subjects were of at least average intelligence with the mean IQ on the Otis-Lennon Form J being 109.41. The Otis-Lennon IQs ranged between 98 and 128. Subjects were eliminated if their IQ scores deviated significantly below or above the mean. All prospective subjects were given forms to be signed by their parents authorizing their participation. The letter described the project and solicited any questions which the parents might have about the research. (See Appendix A)

Test Materials

The variable of perspective-taking was initially assessed by means of Feffer's (1959, 1960) Role Taking Task, a measure of decentering ability which employs interpersonal stimuli.

In addition, perspective-taking was appraised by means of an Empathy Questionnaire which consisted of the child's viewing of selected videotapes of aggressive and socially positive TV programs and of answering questions on the feelings displayed by focal characters. The videotapes used to measure empathy depicted scenes from the following programs: Kojak, Delvecchio, Serpico, The Brady Bunch, The Andy Griffith Show, and The Bob Newhart Show.
Perspective-taking, as measured by the Empathy Questionnaire was assessed by the experimenter's interrupting the videotape at strategic points and asking the child to circle the emotion on his answer sheet which best described how he thought a certain character was feeling. The videotaped vignettes varied substantially with respect to how explicitly the characters' feelings were expressed.

Finally, measurements were obtained of each child's habitual or usual level of aggression and of his prosocial behaviors. These measures were obtained through use of the Eron's (1961) Peer-Rating Measure of Aggression with additional items composed by the present author to assess level of prosocial interaction.

The children were next exposed to longer videotapes (approximately 7.5 minutes each). On one occasion, the child was exposed to videotapes of aggressive content (The Quest, The Rookies) or prosocial content (Marcus Welby, M.D. or The Waltons) and then tested on the measure of tolerance for delay (Astronaut Game) and sharing behavior. Two days after the first treatment the subject was exposed to the alternate experimental treatment (e.g., if he had seen aggressive films first, he now viewed prosocial films). The child was then retested on the same measures of prosocial behavior. Following all testing, the classroom teacher afforded subjects with yet another opportunity to donate, in this case their time.
**Role Taking Task.** The Role Taking Task is a projective task developed by Feffer (1959) initially based upon Schneidman's Make-a-Picture-Story (MAPS). The test material for the present study consisted of two scenes, each picturing three focal characters in real-life situations. The subject was shown the pictures and required to tell an initial story about each picture and then to retell the story from the unique perspective of each of the characters.

The first picture had a dark-haired girl of about 6 or 7 years of age who was painting at an easel in a classroom. The female teacher was holding her hand and at the same time looking behind her at a black girl of the same age who was tugging at the teacher's skirt to show her some paint she had spilled.

The second picture depicted a group of boys on a playground. A young boy of about 7 is attempting to slide down the slide, but an older boy of 11 or 12 is obstructing his way. Another older boy looks concerned and seems as if he is intervening in the dispute.

Explicit scoring information is available through the American Documentation Institute (Document No. 58-44). Scoring is reflective of the subject's ability to "decenter" his attention continually from the impact of previous roles, including his own initial orientation, in order to refocus upon the next character. Each refocusing or decentering must be consistent—the change should not be so drastic in
the retelling of the story that it is discontinuous with what had been said in previous roles.

The subject's ability to decenter from the immediate perceptual aspects of the environment is evaluated in terms of "level of actor-description" which is divided into three levels of increasing complexity: (a) space-action, statements that refer to concrete and situational events; (b) internalized state, statements referring to emotions, motives, thoughts, etc., of the characters; and (c) characterization in which actors are described in terms of generalized or enduring traits which are appropriate to, yet transcend the immediate situation presented.

The subject's ability to decenter from his own initial orientation is evaluated in terms of "perspective-taking." The subject is judged with respect to his capacity to shift perspective appropriately and consistently as he tells the story from the points of view of the various story characters. Feffer delineated three levels of perspective-taking: (a) simple refocusing, in which a given character is described differently in the various retellings; (b) consistent elaboration, in which characters are viewed differently in each retelling, but each view is consistent with earlier versions; (c) change of perspective, in which two roles are consistent in that the internal orientation of one role is appropriately reflected in the external orientation of the other. For example, when a character is described from an
internal view--"he's unhappy"--this finds its external counterpart in the description of another character "he looks sad."

Quantitatively, the Role Taking Task was scored as follows. Under the category of simple refocusing, 1 point was given when the refocusing occurred but was blatantly inconsistent with or irrelevant to the theme of the initial story. Two points were earned if the inconsistency was tangential and the theme of the story was not completely violated. Three points were given for consistent and relevant self-entries (self here refers to the focal character in the retelling of the initial story).

The second category is reached when the subject is able to not only refocus on a single character (himself) but also on another character from that character's viewpoint. Once again, there are three subcategories which are based on different degrees of thematic consistency. Four points are given when elaboration occurs, but is inconsistent with the initial story. Five points are given if the elaboration is generally consistent with the initial story, but minor irrelevancies, or contradictions are introduced. Consistent elaboration is awarded 6 points.

In the third scoring category, the subject must demonstrate appropriate inner-outer orientation in his self and elaboration stories. Therefore, the self-entry must be "inner-oriented" and the elaboration entry "outer-oriented."
Seven points are given for differentiation of self and other with thematic consistency and appropriate inner and outer orientation at the space action level. Eight points are earned when the above is accomplished with the addition of a description of internalized state in the self-entry. The internalization is not yet consistent in terms of time and place with the elaboration entry. Nine points are given when the criteria for an eight point answer are met, with the additional requirement being that the elaboration entry is coordinate with the internal state described in the self-entry in terms of time and place. Ten points are given for stories where all of the above are included plus where the elaboration entry includes a description of the character's external characteristics which exactly reflects the internalized state described in the self-entry. Eleven points are scored for a story in which the elaboration entry includes a conjecture as to the actual internalized state mentioned in the self-entry rather than the specific description for the 10-point category.

Finally if a child produces stories in which two perspective elaborations involving the same two characters are generated, the answer is scored by adding together the individual scores of each elaboration.

In this study, the child's stories were recorded and later transcribed. Two graduate students then independently scored 10 complete protocols using the outline just
presented. The reliability for the first story was .93 and for the second story was .95. The overall interrater reliability was .94. Because the interrater reliabilities were high, only one rater scored the remaining protocols. All protocols were scored blind.

Construction of the Empathy Questionnaire. The videotapes of TV programs were made by the author from commercial TV offerings. A brief scene (3 minutes) was chosen from the full-length production. A 3-minute excerpt was chosen to assure that each subject would be able to maintain full attention and to apprehend at least gross differences in the emotions shown and the situational cues presented. A complete and realistic stimulus can be given within a 3-minute period since individual television "scenarios" average from 2 to 3 minutes in length. It was felt that each episode should show a dramatic interaction in which there was some development in the feelings of the characters from the beginning of the episode to the end.

An effort was also made to select scenes which varied in the level of ambiguity with which feelings and motives were presented. To offset a frequent criticism (Shantz, 1975) i.e., that when children judge familiar situations and/or when the person judged is similar to the judge, accuracy may result from the simple attribution of one's own response or characteristics rather than an indication of true role-taking skills, the videotapes dealt exclusively with adults in in-
teractions beyond the direct experience of the child. Rothenberg (1970) also tried to maximize dissimilarity by using adults as targets for children's identification of emotion. Her data (Rothenberg, 1970) did indicate that accuracy in judging other's emotions under conditions of high familiarity and similarity was no more than self-descriptions.

For each of the six programs, the author isolated three or four instances in which facial, situational, and voice cues were clearly presented. The instances differed in how dissimilar they were to the child's life experience as well as in how clearly the cues about the character's emotional state were presented. Eight advanced graduate students in clinical psychology then responded to each depicted emotion separately—giving four different answers which they intentionally varied on a scale from 1 (inaccurate) to 4 (accurate). A multiple-choice test was constructed consensually utilizing the individual clinician's ratings. Either three or four questions were formulated for each videotaped vignette. Each multiple-choice question contained four alternatives, which were scored from 1 to 4, with the subject receiving 4 points for the most accurate response. The order of presentation of the alternatives for each question was randomized. Appendix B contains all the questions for this measure.
The child viewed the videotapes and completed the Empathy Questionnaire in small mixed-sex groups of no more than five children. They were introduced to the videotape situation by orienting instructions. They were then shown the TV programs which were interrupted by the experimenter at strategic points. At those times, the children were directed to a specific item on their questionnaire, and asked to identify the affect displayed by a specific actor. The possible choices were read aloud by the experimenter. Each vignette was stopped at in at least 3 points, and the feelings of two characters from each show were judged.

**Peer Rating Measure of Aggression.** Eron et al.'s (1971) Peer Rating Procedure is a modified sociometric procedure in which each child in a classroom rates every other child on a series of specific items of aggressive behavior. This measure was used to rate aggression which was defined as interpersonal-extrapunitive behavior, without consideration of intent or provocation. Additionally, it included items relevant to the child's (a) popularity among classmates, (b) interpersonal activity level, and (c) aggression anxiety (the child's assessed reluctance for such past behavior). According to Eron et al., popularity was included because it presumably influences the quality of aggressive behavior—those children popular with peers differ in mode of aggression from those who are rejected by peers. The rating of interpersonal activity level provides a necessary
correction for aggression scores. Those who interact infrequently but always aggressively are thereby differentiated from those who interact constantly and only occasionally aggressively. The rating of anxiety over aggression represented the low end of the scale. Children high in aggression anxiety have few or no nominations on aggression items.

In the administration of the measure each child is given a booklet made up of a number of identical pages, each containing the names of all the children in the class. The names were arranged in two lists, one with boys' names, the other with girls' names. Positions of names in the two lists were randomized. Children were told to mark the names of everyone who fit each question as it was read aloud by the examiner. One page was used for each question, with pages color-coded so that the tester could rapidly determine that all subjects were marking names on the correct page. The subjects were permitted to mark as many names in the list as they thought fit the question; they were however, required to cross out at least one entry in each list. "NO BOY" and "NO GIRL" appeared as names in each list; thus an unmarked list did not mean that no one fit the description but that the test-taker had been careless in his test-taking.

The aggression scores for each child was based on the number of nominations he received as fitting each particular behavioral description. Thus if 10 out of the 40
members of a class crossed out Johnny Doe's name as someone who said mean things, Johnny Doe's raw score was 10 for that item. If he were selected a total of 45 times for the remaining items, his score as a whole would be 55. See Appendix C for test items which comprised the peer-rating measure of aggression.

**Peer-Rating measure of prosocial behaviors.** A series of items were developed specifically for the present study dealing with prosocial behaviors. Prosocial behaviors were defined as interpersonal behaviors which demonstrated cooperation, sharing, consideration for the feelings of other people, delay of gratification, adaptive coping with frustration, persistence at tasks, expression of subject's own feelings. Each child in the classroom rated every other child on 12 items of prosocial behavior in a procedure identical to the peer nominations for aggressive behavior. This procedure summarized the "real life" prosocial behaviors of the subjects as observed by their classmates.

The items dealing with prosocial behavior were subsumed into the peer-rating aggression index and, thus, were administered simultaneously. Children were again asked to mark the names of everyone who fit each question as it was read aloud by the examiner. Subjects were allowed to mark as many names as they felt fit the question.

The prosocial score for each child was based on the number of nominations he received as fitting each particular
behavioral description. See Appendix D for the test items dealing with prosocial behaviors.

Subjects' self-report of aggression, violence viewing, parental control of television and peer integration. The children were asked to respond to 11 items adapted from the McLeod, Atkin and Chaffee (1972) indices for adolescents which were initially gleaned from subscales of the Buss-Durkee (1957) aggression-hostility inventory. The children rated each behavior as "not like me" (1), "a little like me" (2) or "a lot like me" (3). The behaviors included in the battery included four items indexing actual physical aggression, three items on irritability, and four items on verbal aggression. The overall sum was the score for self-rated aggression. The full listing of the entire self-report questionnaire is included in Appendix E.

The children were next questioned on exactly how much TV (in hours and minutes) they had watched on the two days prior to testing. They were also asked to estimate their viewing time on an "average" day. They were asked the number of TV sets in their homes.

The children were given a list of 83 prime time and after school programs and asked to check each show according to how frequently they watched it; very often (nearly every week), fairly often (at least half the time), not too often (once or twice), or never. The shows were grouped according to their manifest content and frequency ratings
were made for each child summed across the shows in each category. The program categories were: (a) crime, police, detective; (b) aggressive-western, military, and superhero-bionic; (c) drama, soap opera; (d) comedy-variety; (e) family shows (such "westerns" as Little House on the Prairie and situation comedy; (f) game shows, documentary-formats. The most violent shows were in the first two categories, and the last three were almost devoid of violence. The sum of the child's frequency ratings for the first two categories was his violence viewing score. (See Appendix E.)

Finally the child was questioned on whether or not his parents set limits on his TV viewing. He was also asked four questions from McLeod et al. which tapped his level of peer integration. For specific items, see Appendix E.

Experimental treatment: prosocial and antisocial videotapes. The videotapes used as the experimental treatment were made by the author from full-length commercial TV offerings. The programs were edited to delete commercials and to present themes in a highly salient manner. Final versions of the edited programs were shown on black and white videotape and lasted approximately 8 minutes each. Thus, subjects were shown 16 minutes of prosocial programming and 16 minutes of antisocial programming.

The two aggressive vignettes, The Quest and The Rookies, have been cited in the lay press for their high
levels of filmed violence. An effort was made in the editing, however, to screen out any particularly objectionable or potentially anxiety-arousing violence. The Quest portrayed the story of two brothers who teach a young orphan to use a gun in self-defense, only to regret it when the youth becomes a gunman. The Rookies showed two young law students plotting to kill a police officer whom they unjustly hold responsible for two deaths at a campus demonstration.

The two prosocial episodes have been as frequently cited in the lay press for their reinforcement of positive, helpful behavior. The episode from Marcus Welby, M.D. dealt with the kindness shown by Dr. Welby's nurse to a runaway girl. The runaway, in turn, is kind and considerate to another foster child in the home in which she is placed. The Waltons showed the Walton family engaging in a family picnic. Mary Ellen speaks of her happiness since marriage while her mother and father demonstrate their own closeness after more than 20 years of marriage.

The Astronaut Game (Tolerance for delay). Subsequent to viewing the videotapes on both occasions, subjects were asked to play a "game" (Singer, 1961) which was in reality a measure of their ability to delay and to exert motor control. The child was taken to an area which was narrowly blocked off by tape, and told he could sit or stand as he wished but he could not keep changing positions. The child was prepared for the game by a description of the
hardship of space travel and the need for finding suitable candidates. The importance of space travel in the future was emphasized, as was the selection of space men/women of the future. The child was told he was to wait with minimal movement for 15 minutes. He was to signal the experimenter when he could wait no longer or when he felt 15 minutes had passed. The child's score was the length in time he waited without major postural changes or excessive fidgetting.

**Procedure**

The methodology of this study involved the initial administration of the Eron et al. Peer-Rating Measure of Aggression, The Peer-Rating Measure of Prosocial Behaviors, and the McLeod et al. Self-Rating of Aggression, Viewing Habits, and Peer Integration. Instructions for the Peer-Rating of Aggression and of Prosocial Behaviors were as follows:

I am going to give each of you a pencil and a booklet with a lot of pages in it. Look at the front page. It is a colored page. What color is it? (Class: "blue.") That's right, it's a blue page. Does everyone have a blue front page? On the front page there are two lists of names. One is a list of boys' names, the other a list of girls' names. I'll read them to you. (Examiner reads names in the order of appearance. When NO BOY and NO GIRL is read, she says, "Remember NO BOY (GIRL) is a name.").

Now look for your own name. Put your finger on your own name. Now draw a line through your own name. Remember you have a first and last name, so make sure you draw a line through your whole name, first name and last name (Examiner and assistant check).
If you want to change your mark, make a wavy line like this (examiner demonstrates on board).

We'll play this game the same way from now on. I'll read you a question for each page. You find all the names in both lists that you think are right for that question. First look at all the names in the list, and then draw a line through the names that fit. Here are the rules of the game: First rule: make a line through at least one name in each list. Do not make a line through your own name. Second rule: look only at your own game. In this game, everyone is right so you don't have to see if your neighbor has a better answer. Third rule: If you want to change your mind, make a wavy line through your mark. Fourth rule: do not answer out loud. Mark names in each list, don't mark your own name, don't answer out loud, don't look at your neighbor's game.

Remember for every question make sure you look at every name in the two lists and make sure you draw a line through any name that fits the question. Do not mark your own name.

Instructions for the Self-Report questionnaire varied with the subsection on which the children were working. The directions for the first section (on rating one's own aggression) were:

Here are things other students have said about getting along with people. Read each statement carefully, and decide how much the statement is like you. If the statement is not like you at all, circle the number 1. If the statement is a little like you, that is, sometimes true of you, circle number 2. If the statement is a lot like you, circle 3 (The examiner writes out an example on the blackboard). Try to be honest. There are no right or best answers to these questions. You know you best, so you need not ask your neighbor what he/she is marking. Please put down the first answer that pops into your head that seems to fit you. Any questions?
The directions for the rest of the questionnaire were similar. Each time the children came to a new part of the questionnaire, the examiner read the directions aloud, and gave an example on the board. During the time the children worked on their reports the examiner and two assistants circulated to make certain the children understood the directions.

At the completion of this session the children were thanked for their cooperation and rewarded with candy. On the following day, two female examiners began administering the Feffer Role Taking Task and the Empathy Questionnaire. The Feffer was administered individually while the Empathy Questionnaire was administered in small (three to five children) mixed-sex groups. Both tests were administered outside of the subject's regular classroom.

Prior to the administration of the Feffer, the examiner chatted pleasantly with each subject and then began the actual test administration. The subject's task was explained as follows:

I'd like to see what a good storyteller you are. Can you tell me a short story about the people in this picture?

After the subject completed his story, the examiner reviewed it for the subject to dispel the possible notion that the subject's memory was being assessed. The subject was then asked to retell his story as it would appear from
the view of each of the pictured characters. The child was asked to assume in turn, the role of each pictured individual. The instructions were as follows: "Now make believe you are the teacher (little girl, upset little girl) in the story you made up. Tell the story again like you are the teacher."

Less emphasis was placed on using a standardized set of instructions than on using illustrations that effectively communicated the task to the subject.

In the administration of the Empathy Questionnaire, the children were asked if they would care to watch some TV with the examiner, and tell her what they thought of some shows. All subjects were very willing as testing was during regularly scheduled school hours.

Prior to viewing the TV scenes the following instructions were given:

We are interested in finding out what children see when watching TV programs. I have some programs of people doing different things. Please watch closely. I will be asking you some questions as we watch. I'll want you to circle on your papers how certain people are feeling. I'll read the choices out loud to you. This is not a test. There are no wrong or right answers. I only want to know what you think the people in TV are feeling, and what you think the character is feeling may be different from what the boy or girl sitting next to you thinks the character is feeling. Some of these will be harder to figure out than others. Do you understand?

Throughout the viewing there were strategic interruptions during which the child was asked to indicate on his questionnaire what a certain character was feeling. The character's face was present on the TV screen in "frozen-frame"
while the children marked on their answer sheets what they thought he or she was feeling. All questions contained four alternative answers and each alternative was read aloud by the examiner.

Approximately a week later, one of the examiners administered one of the experimental treatment (prosocial or antisocial videotapes) and subsequently measured tolerance for delay (Astronaut Game) and donating behavior. After approximately two days the same examiner administered the alternate set of films to the subject and retested him or her on the same behaviors. The order in which the films were shown was counterbalanced among the children.

Following the completion of the TV viewing in which the child was told to "relax and enjoy the TV, like at home," the following instructions were given:

I would now like you to take a special test for me. This is called the "Astronaut Game." Now that we have landed men on the moon and scientists are preparing for more extended trips to other planets, psychologists are interested in what sorts of people would be suitable to ride in rocket and the confined quarters of spaceships. This is a very difficult problem and I'm sure you've read about how particular the government was in choosing our astronauts. They had to be men who could function together as a team and also men who could stay in very small space over a period of several days. (They couldn't very well go for a walk outdoors!) The object of this game is to stay within this square marked off by tape on the floor. You may stand, or sit which ever you choose, but once you've chosen your position, you are to stay as still as you can for 15 minutes. Please signal me when you feel tired or when you feel 15 minutes have passed. The rules are that you may not change your position or let any part of your body go beyond the lines. You should move your body as
little as possible. You must stay still, just as if you were in the cockpit of a spaceship. Any questions?

The subject's waiting was terminated when he signaled the experimenter, when he changed positions or began to fidget excessively. During the waiting time, the experimenter busied herself with papers while unobtrusively observing the subject. The experimenter avoided conversation or any cues that might encourage the child to initiate a conversation.

Upon termination of the waiting period the child was congratulated on his fine performance, and thanked for his participation. He was given five tokens and brought behind the partition where the "store" was displayed with candy and small trinkets tagged with token price tags. The more attractive prizes cost more tokens.

Next to the store of prizes, a prominent poster depicting sad-looking children and labelled, "Chicago's Needy Children" was attached to an open box in which five tokens were maintained, so that the subject would not be influenced to donate solely by his belief that the experimenter would notice the empty box. It was also hoped that the tokens would serve as a cue to sharing behavior. The experimenter showed the child where he should deposit his tokens for the prize he might choose and casually mentioned that some tokens might be given for the needy but that there was certainly no requirement that the child donate. The child was left alone to choose his gift and donate if he wished. Each subject was asked not to discuss the experiment with his classmates.
The delayed posttest of generous or sharing behavior occurred in the classroom seven days after the final experimental treatment. With no allusions to the experiment or experimenter, the teacher circulated a sign-up sheet for "children willing to work hard" during their free time to help in some actual "good cause" decided by each school. The teacher was coached to present the sign-up sheet matter-of-factly, not providing children with obvious cues that they were expected to donate their time.
CHAPTER IV

RESULTS

To summarize briefly, it was hypothesized in this investigation that children high in perspective-taking ability would be more strongly influenced by prosocial TV themes rather than aggressive subjects, and thus would show both increased altruistic (donating) behavior, as well as greater tolerance for delay (waiting) subsequent to the positive TV condition. It was further hypothesized that those children who scored high on the Empathy Questionnaire (based on interpretations of television vignettes) but low on the role-taking task would demonstrate less donating and lower capacity to tolerate delay after exposure to the aggressive TV treatment. Additionally it was predicted that (a) children skilled in perspective-taking would display less real-life aggression, as measured by peer-ratings and by their own report; (b) children who were high in empathy but low in role-taking skills would reveal greater discrepancies in their self-reports of peer-integration as contrasted with peer-integration as measured by peer-nominated popularity; (c) perspective-taking would increase with greater intelligence; and (d) girls would be more affected than boys by prosocial TV messages, given the same level of perspective-taking skill.
Intelligence and Sex of Subjects

The relationship of intelligence (as measured by the Otis-Lennon, Form J and the Peabody Picture Vocabulary Test Form A combined by means of z scores) to the pretest measures of perspective-taking, to the peer-rated and self-reported personality variables and to the dependent measures of donating and delaying gratification was investigated by means of Pearson product-moment correlation coefficients. The correlations are listed in Table 1.

As Table 1 shows, intellectual level was significantly related to both the pretest measures of role-taking and empathy. The significant association between intelligence and perspective-taking (p < .05) had been predicted and the result was in line with the heavily cognitive dimension of the Feffer Role-Taking Task. The strong association between performance on the Empathy Questionnaire and intelligence (p < .01) had not been posited. The only other significant finding for IQ indicated that highly intelligent children were significantly less likely to be judged by their peers as being uncooperative, or socially disruptive (p < .05).

The remaining correlations between intellectual level and experimental variables fell short of the level acceptable for assertion of statistical significance. However, it is interesting to highlight more modest data trends. Self-reported aggression and peer-rated high interpersonal activity level tended to be positively related to intelligence (p < .07).
Table 1
Correlations of I.Q and Sex

With the Pretest Measures of Perspective-Taking,

With the Peer-Rated and Self-Reported Personality Variables and

With the Dependent Measures of Donating and Tolerance for Delay

<table>
<thead>
<tr>
<th></th>
<th>I.Q.</th>
<th>SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pretest Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role taking Task</td>
<td>.19*</td>
<td>.02</td>
</tr>
<tr>
<td>Empathy Questionnaire</td>
<td>.27**</td>
<td>-.04</td>
</tr>
<tr>
<td><strong>Peer-Rated Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>-.12</td>
<td>-.48***</td>
</tr>
<tr>
<td>Success in Aggression</td>
<td>-.02</td>
<td>-.54***</td>
</tr>
<tr>
<td>High Activity</td>
<td>.16</td>
<td>-.32**</td>
</tr>
<tr>
<td>Low Activity</td>
<td>-.09</td>
<td>.27**</td>
</tr>
<tr>
<td>Popularity</td>
<td>.04</td>
<td>.03</td>
</tr>
<tr>
<td>Aggression Anxiety</td>
<td>-.14</td>
<td>.53***</td>
</tr>
<tr>
<td>Prosocial Behaviors</td>
<td>.09</td>
<td>.30**</td>
</tr>
<tr>
<td>Socially Disruptive Behaviors</td>
<td>-.19*</td>
<td>-.40**</td>
</tr>
<tr>
<td><strong>Self-Reported Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>.16</td>
<td>-.08</td>
</tr>
<tr>
<td>Overall Viewing Time</td>
<td>-.05</td>
<td>-.13</td>
</tr>
<tr>
<td>Violence Viewing Time</td>
<td>.02</td>
<td>-.31**</td>
</tr>
<tr>
<td>Parental Limits on TV</td>
<td>.00</td>
<td>.15</td>
</tr>
<tr>
<td>Peer-Integration</td>
<td>.13</td>
<td>-.04</td>
</tr>
<tr>
<td><strong>Dependent Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First testing</td>
<td>.06</td>
<td>.13</td>
</tr>
<tr>
<td>Second testing</td>
<td>.17</td>
<td>.00</td>
</tr>
<tr>
<td>Astronaut Game (delay)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Testing</td>
<td>-.06</td>
<td>-.06</td>
</tr>
<tr>
<td>Second testing</td>
<td>.04</td>
<td>-.08</td>
</tr>
</tbody>
</table>

**Note:** Two-tailed test

**Note:** Boys M I.Q = 110.85, SD = 11.41; Girls M I.Q = 107.90, SD = 10.60

* P < .05
** P < .01
*** P < .001
The other association which approached significance was the positive correlation between intelligence and donating on the second opportunity (p ≤ .06), a result which suggests that perhaps the brightest children were becoming "wise" to the experimental objectives.

Sex, in contrast to intellectual level, was related to several subject variables (see Table 1). Girls, in contrast to boys, were significantly more likely to be judged by their peers as having a low interpersonal activity level (p ≤ .01), as being more anxious about aggression (p ≤ .001), and more likely to engage in prosocial, cooperative behaviors (p ≤ .01). Boys, on the other hand, were more likely to be rated by peers as engaging in aggressive behavior and as being successful in their aggression (p ≤ .001). Boys were more frequently seen by their peers as being interpersonally active and socially disruptive (p ≤ .01). Boys reported themselves to be more frequent consumers of violent TV fare than girls (p ≤ .01).

Further analysis of the relationship of sex of subjects to performance on the various measures seemed warranted. Table 2 presents the means and standard deviations by sex for each pretest measure of perspective-taking. The data were analyzed by means of the t test and revealed no significant differences between males and females on the perspective-taking measures. Table 2 also presents similar descriptive statistics by sex for the dependent measures and for the peer-
Table 2
Means and Standard Deviations for Boys and Girls on the Pretest Measures of Perspective-taking, on the Dependent Measures, and on Peer-Rated and Self-Reported Personality Variables

<table>
<thead>
<tr>
<th></th>
<th>Boys (N = 41)</th>
<th>Girls (N = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Perspective-Taking Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role-Taking Task</td>
<td>47.17</td>
<td>5.88</td>
</tr>
<tr>
<td>Empathy Questionnaire</td>
<td>61.95</td>
<td>4.34</td>
</tr>
<tr>
<td><strong>Dependent Measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donating I</td>
<td>.58</td>
<td>.86</td>
</tr>
<tr>
<td>Donating II</td>
<td>.52</td>
<td>.95</td>
</tr>
<tr>
<td>Astronaut Game I (in seconds)</td>
<td>509.15</td>
<td>279.98</td>
</tr>
<tr>
<td>Astronaut Game II</td>
<td>469.61</td>
<td>240.32</td>
</tr>
<tr>
<td><strong>Peer-Ratings</strong></td>
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<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>47.93</td>
<td>49.48</td>
</tr>
<tr>
<td>Success in Aggression</td>
<td>11.76</td>
<td>10.23</td>
</tr>
<tr>
<td>High Activity</td>
<td>4.56</td>
<td>2.93</td>
</tr>
<tr>
<td>Low Activity</td>
<td>1.90</td>
<td>3.72</td>
</tr>
<tr>
<td>Popularity</td>
<td>7.85</td>
<td>6.49</td>
</tr>
<tr>
<td>Aggression Anxiety</td>
<td>2.80</td>
<td>3.61</td>
</tr>
<tr>
<td>Prosocial Behaviors</td>
<td>19.27</td>
<td>17.66</td>
</tr>
<tr>
<td>Socially-Disruptive Behavior</td>
<td>17.88</td>
<td>14.54</td>
</tr>
</tbody>
</table>

* p = .01
** p = .001
Table 2--Continued

<table>
<thead>
<tr>
<th></th>
<th>Boys (N = 41)</th>
<th>Girls (N = 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Aggression</td>
<td>22.56</td>
<td>2.55</td>
</tr>
<tr>
<td>Overall TV Viewing Time</td>
<td>3.99</td>
<td>1.67</td>
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<tr>
<td>Violence Viewing Time</td>
<td>36.05</td>
<td>11.58</td>
</tr>
<tr>
<td>Parental Limits on TV</td>
<td>.44</td>
<td>.50</td>
</tr>
<tr>
<td>Peer-Integration</td>
<td>5.66</td>
<td>1.71</td>
</tr>
</tbody>
</table>

Note: The t test was applied to these values, significant differences are indicated.
rated and self-reported personality variables. Once again the data were analyzed by means of the $t$ test and the significant sex differences in performance were demonstrated on the basis of peer ratings with respect to the following variables: 1. Boys were significantly more aggressive and more successful in their aggression than girls ($p \leq .001$).

2. Boys were rated as significantly more active ($p \leq .01$) and more socially disruptive than were girls ($p \leq .001$).

3. Girls, for their part, differed significantly from boys in being viewed by their peers as more likely to engage in helpful behavior, as tending to be anxious about aggression, and as less interpersonally active ($p \leq .01$).

**Behavior Subsequent to Varied TV Content**

With respect to the central hypotheses of this study, the predictions that (a) children high in perspective-taking as measured by the Role Taking Task would be more susceptible to prosocial content and display more donating, and longer delay subsequent to it; (b) children high on the Empathy Questionnaire, but low in role-taking ability, would be more susceptible to aggressive TV content and demonstrate less donating and lower capacity to delay subsequent to it, were not supported.

Following the pretesting, the children were divided into four personality types on the basis of their skills, on the respective elements of perspective-taking. As was
originally posited, the pretest perspective-taking measures were related conceptually but were not related empirically, confirming the original supposition that the two pretests were tapping divergent aspects of perspective taking. The Pearson product-moment correlation between the Role Taking Task and the Empathy Questionnaire was .12 ($p < .16$). Children were therefore designated as high or low in perspective-taking, as measured by the Role-Taking Task and as high or low in empathy as measured by the Empathy Questionnaire. The groups were determined by median-split.

Figure 1 presents the changes in donating behavior subsequent to the exposure to aggressive and prosocial content. Figure 2 shows the changes in ability to delay gratification as related to program content. As will be shown later, the programming differences yielding no consistent behavioral effects, and apparently conveyed very different messages to the different groups of subjects.

Donating. The chi-square test was chosen to analyze the data on donating behavior since the distribution of scores on this variable was very skewed, with the bulk of the scores being either 0 (no donation) or 1 (donating one token). Table 3 shows frequencies and chi-square values. There were no statistically reliable differences among the groups on donating behavior.

Delay of gratification: Astronaut game. On Table 4 is a summary of a 4-way Role-taking x Empathy x Treatment x
Figure 1. Donating behavior of different personality types subsequent to varied TV content.
Figure 2. Delay of gratification (waiting time in seconds) of different personality types subsequent to varied TV content.
<table>
<thead>
<tr>
<th>Subject Personality Types</th>
<th>Aggressive TV Content</th>
<th>Prosocial TV Content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Donation</td>
<td>Donation</td>
</tr>
<tr>
<td>1. High role-taking - high empathy</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>2. Low role-taking - high empathy</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>3. High role-taking - low empathy</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>4. Low role-taking - low empathy</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>
Table 4

Analyses of Variance for Total Duration of Astronaut Game (Tolerance of Delay)

Subsequent to Aggressive or Prosocial TV Content

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role-taking (R)</td>
<td>1</td>
<td>.3372</td>
<td>4.06</td>
<td>.10 ≤ p ≤ .05</td>
</tr>
<tr>
<td>Empathy (E)</td>
<td>1</td>
<td>.2153</td>
<td>-</td>
<td>ns.</td>
</tr>
<tr>
<td>Treatment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggressive-prosocial content (T)</td>
<td>9</td>
<td>.2363</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R x E</td>
<td>1</td>
<td>.1634</td>
<td>-</td>
<td>ns.</td>
</tr>
<tr>
<td>R x T</td>
<td>9</td>
<td>.8315</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E x T</td>
<td>9</td>
<td>.1340</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Subjects (S) x RE</td>
<td>4</td>
<td>.2512</td>
<td>1.01</td>
<td>ns.</td>
</tr>
<tr>
<td>R x E x T</td>
<td>9</td>
<td>.1181</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TS x RE</td>
<td>36</td>
<td>.2489</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Error</td>
<td>1</td>
<td>.1419</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: Waiting time in number of seconds transformed: $x^1 = 1/x$
Subjects) mixed-design analysis of variance on the data from the Astronaut Game. Prior to the analysis, the raw data for waiting time in seconds were transformed to logarithm time in seconds. The rationale underlying the transformation of the data was to normalize the highly positively skewed distribution in order to stabilize the variance (Winer, 1971, pp. 397-401). As Table 4 shows, none of the main effects or interactions was significant. However, the main effect for role-taking approached significance $F (1,9) = 4.06; p \leq .10$. Comparison of high and low role-takers showed that high role-takers overall were not able to tolerate delay as long as were low role-takers, a finding which clearly contradicted the predictions.

In order to ascertain whether the design, which required subjects to be tested at two points in time, was confounded by children who cued in to the demand characteristics of the experiment, the data were reanalyzed using only the results of the first testing of each dependent measure. Utilizing only the first session, there were no significant effects for TV content on either donating or delay—a finding which lends credence to the notion that TV had no effect.

Supplementary Hypotheses

Three ancillary hypotheses of the study have yet to be examined. They are: (a) High perspective-taking children (as measured by the Role-Taking Task) demonstrate less real-life aggression both by peer report and by their own
report; (b) high-empathy, low role-taking children show
greater discrepancies in their self-reported peer integra-
tion as contrasted with their peer integration when measured
by peer-nomination; and (c) given the same level of perspec-
tive-taking skill, girls demonstrate greater susceptibility
to prosocial TV messages than boys.

High perspective-taking and real life aggression.
Table 5 shows that, as predicted, high perspective-taking
children were significantly less likely to be singled out
by their peers as aggressive (p < .05), or socially disrup-
tive, (p < .05). However, on the self-report, the associa-
tion between perspective-taking (as measured by the Role-
Taking Task) and aggression was nonsignificant. Interest­
gly, highly skilled role-takers tended to watch less tele­
vision (p < .05), and experienced less parental control over
their viewing (p < .05). In further examining Table 5, the
absence of a significant relationship between performance on
the Empathy Questionnaire and aggression should be noted. In
contrast to the children who did well on the Role-Taking Task,
high-empathy children were rated by peers as being highly
active (p < .01) and as being likely to engage in prosocial
helpful behaviors (p < .01). High role-takers tended to be
seen as less active although the association was not statisti-
tically significant (p < .15).
Table 5

Correlations of the Pretest Measures of Perspective-Taking With the Peer-Rated and Self-Reported Personality Variables

<table>
<thead>
<tr>
<th>Pretest Measures</th>
<th>Role-Taking Task</th>
<th>Empathy Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peer-Rated Variables</strong></td>
<td></td>
<td></td>
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<tr>
<td>Aggression</td>
<td>-.20*</td>
<td>.04</td>
</tr>
<tr>
<td>Success in Aggression</td>
<td>-.13</td>
<td>.05</td>
</tr>
<tr>
<td>High Activity</td>
<td>-.12</td>
<td>.27**</td>
</tr>
<tr>
<td>Low Activity</td>
<td>-.02</td>
<td>.17</td>
</tr>
<tr>
<td>Popularity</td>
<td>-.12</td>
<td>.15</td>
</tr>
<tr>
<td>Aggression Anxiety</td>
<td>-.11</td>
<td>.15</td>
</tr>
<tr>
<td>Prosocial Behavior</td>
<td>-.04</td>
<td>.29**</td>
</tr>
<tr>
<td>Socially Disruptive Behaviors</td>
<td>-.20*</td>
<td>.01</td>
</tr>
</tbody>
</table>

| **Self-Reported Variables** |                  |                      |
| Aggression                 | .02              | -.15                 |
| Overall TV Viewing Time    | -.22*            | -.01                 |
| Overall Violence Viewing   | -.08             | -.11                 |
| Peer-Integration           | .02              | .01                  |
| Parental Control of Viewing| -.18*            | -.04                 |

* $p \leq .05$

** $p \leq .01$
Discrepancies between peer nominations and self-reported popularity. Table 6 shows the Pearson product-moment correlations between self- and other-reported popularity. The prediction that low role-taking, high-empathy children would show the greatest disparity between their own notion of their popularity and others' conceptions of them was unsupported, and, in fact, contradicted. They, as a group, achieved the greatest congruence between self- and peer-ratings ($p \leq .10$). Interestingly, they were also the most popular group. The high role-taking, high empathy group revealed the greatest discrepancy between self- and other-ratings of popularity. They, as a group, tended to rate themselves as much less popular than did their peers ($p \leq .01$).

Susceptibility to prosocial messages: Girls v. boys. The prediction that girls would be more affected by pro-social content relative to boys of the same personality type was not consistently supported by the data. As Table 7 demonstrates, within the personality type of high role taking—high empathy, boys, after watching positive content, were able to tolerate delay longer than were girls, $t (18) = 2.36$, $p < .05$. The only other significant relationship reversed this pattern, with low role taking, high empathy girls waiting significantly longer than boys of the same personality type, $t (18) = 2.94$, $p < .01$. 
Table 6

Correlations Between Peer-Rated Popularity and Self-Reported Peer-Integration for Children of Varying Personality Types

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Peer Nomination Popularity</th>
<th>Self-Reported Peer Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>1. High Role-Taking/High Empathy (N=20)</td>
<td>8.05</td>
<td>5.85</td>
</tr>
<tr>
<td>2. High Role-Taking/Low Empathy (N=20)</td>
<td>5.55</td>
<td>5.80</td>
</tr>
<tr>
<td>3. Low Role-Taking/High Empathy (N=20)</td>
<td>10.30</td>
<td>5.15</td>
</tr>
<tr>
<td>4. Low Role-Taking/Low Empathy (N=20)</td>
<td>8.30</td>
<td>5.55</td>
</tr>
</tbody>
</table>

* \( p \leq .10 \)

** \( p \leq .01 \)
Table 7
Differences in Reactions of Boys and Girls of Similar Personality Types to Prosocial TV Content

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Boys M</th>
<th>Girls M</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronaut Game (time in seconds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. High Role-Taking/High Empathy</td>
<td>535.62</td>
<td>378.08</td>
<td>2.36</td>
<td>.05</td>
</tr>
<tr>
<td>Donating</td>
<td>.87</td>
<td>.92</td>
<td>.24</td>
<td>ns.</td>
</tr>
<tr>
<td>(N=8)</td>
<td>(N=12)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. High Role-Taking/Low Empathy</td>
<td>476.5</td>
<td>393.5</td>
<td>1.48</td>
<td>ns.</td>
</tr>
<tr>
<td>Donating</td>
<td>.60</td>
<td>.70</td>
<td>.14</td>
<td>ns.</td>
</tr>
<tr>
<td>(N=10)</td>
<td>(N=10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Low Role-Taking/High Empathy</td>
<td>402.27</td>
<td>608.33</td>
<td>2.94</td>
<td>.01</td>
</tr>
<tr>
<td>Donating</td>
<td>.45</td>
<td>.67</td>
<td>1.35</td>
<td>ns.</td>
</tr>
<tr>
<td>(N=11)</td>
<td>(N=9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Low Role-Taking/Low Empathy</td>
<td>518.33</td>
<td>468.12</td>
<td>1.14</td>
<td>ns.</td>
</tr>
<tr>
<td>Donating</td>
<td>.41</td>
<td>.63</td>
<td>1.57</td>
<td>ns.</td>
</tr>
<tr>
<td>(N=12)</td>
<td>(N=8)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All data in table reflect raw scores.
Subject Personality Variables

Dependent measures. Correlational analyses were performed to determine the relationship between the peer-rated personality variables, the self-reported personality variables, and the dependent measures of delay of gratification and donating. Donating and delaying gratification on each testing occasion were significantly interrelated (p ≤ .05). Test-retest on each separate dependent measure was also highly related (p ≤ .001).

In terms of the relation of the dependent measures to other personality variables, donating was significantly related to a high interpersonal activity level (p ≤ .001). Ability to delay gratification was negatively associated with both successful aggression and with socially disruptive behavior (p ≤ .05). It was positively related to aggression anxiety, low activity level (p ≤ .01), and to prosocial behaviors (p ≤ .05).

Intercorrelations among peer-rated and self-reported personality variables. As shown in Table 8, peer-rated aggression was significantly positively associated with success in aggression, with high activity, with high activity level, and with socially disruptive (uncooperative) behaviors (p ≤ .001). Peer-rated aggression was negatively related to the following variables: low activity (p ≤ .01); popularity (p ≤ .05); aggression anxiety (p ≤ .001); prosocial behaviors (p ≤ .001). Interestingly, peer-rated aggression was significantly associated with overall time spent watching TV (p ≤ .01) and with total
Table 8

Intercorrelations Among the Dependent Measures of Donating and Delay of Gratification
and the Peer-Rated and Self-Reported Personality Variables

<table>
<thead>
<tr>
<th>Dependent Measures</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tbody>
<tr>
<td>1. Donating I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>2. Donating II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.53c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Astronaut I (delay of grat.)</td>
<td>.23a</td>
<td>.20a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Astronaut II</td>
<td>.14</td>
<td>.22a</td>
<td>.59c</td>
<td></td>
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Peer-Ratings

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<tr>
<td>5. Aggression</td>
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<td>.08</td>
<td>-.06</td>
<td>-.15</td>
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<td></td>
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<tr>
<td>6. Success in Aggression</td>
<td>-.08</td>
<td>.02</td>
<td>-.06</td>
<td>-.20a</td>
<td>.64c</td>
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<td>7. High Activity</td>
<td>-.06</td>
<td>-.12</td>
<td>-.14</td>
<td>.26b</td>
<td>-.31b</td>
<td>-.32b</td>
<td>.09</td>
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<td>8. Low Activity</td>
<td>.01</td>
<td>-.06</td>
<td>-.05a</td>
<td>-.06a</td>
<td>-.20a</td>
<td>.24a</td>
<td>.21a</td>
<td>.09</td>
</tr>
<tr>
<td>9. Popularity</td>
<td>.06</td>
<td>.01</td>
<td>.21a</td>
<td>.25b</td>
<td>-.38c</td>
<td>-.41c</td>
<td>.08</td>
<td>.58c</td>
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<td>10. Aggression Anxiety</td>
<td>.10</td>
<td>.17</td>
<td>.15</td>
<td>.18a</td>
<td>-.35c</td>
<td>-.12</td>
<td>.31b</td>
<td>.46c</td>
</tr>
<tr>
<td>11. Prosocial Behaviors</td>
<td>-.07</td>
<td>.06</td>
<td>-.09</td>
<td>-.21a</td>
<td>.93c</td>
<td>.67c</td>
<td>.59c</td>
<td>-.23b</td>
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Self-Report

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<tr>
<td>13. Aggression</td>
<td>-.09</td>
<td>-.04</td>
<td>.07</td>
<td>-.08</td>
<td>.12</td>
<td>.11</td>
<td>-.14</td>
<td>-.22a</td>
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<td>14. Overall TV Viewing</td>
<td>-.02</td>
<td>-.02</td>
<td>-.02</td>
<td>.10</td>
<td>.25b</td>
<td>-.03</td>
<td>.08</td>
<td>-.08</td>
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<tr>
<td>Time</td>
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<td></td>
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<td></td>
<td></td>
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<td>15. Violence Viewing Time</td>
<td>.04</td>
<td>.17</td>
<td>-.07</td>
<td>.11</td>
<td>.30b</td>
<td>.31b</td>
<td>.20a</td>
<td>.27b</td>
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<td>16. Peer-Integration</td>
<td>-.01</td>
<td>.07</td>
<td>-.05</td>
<td>.03</td>
<td>-.13</td>
<td>.07</td>
<td>-.27b</td>
<td>-.25b</td>
</tr>
<tr>
<td>17. Parental Control of Viewing</td>
<td>.10</td>
<td>.00</td>
<td>.14</td>
<td>.03</td>
<td>-.01</td>
<td>.03</td>
<td>.06</td>
<td>.03</td>
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### Table 8--Continued

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<td>16</td>
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<td>.19&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.65&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.74&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.06</td>
<td>-.30&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.23&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>-.28&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.39&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.34&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.14</td>
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<td>-.11</td>
<td>-.04</td>
<td>-.18&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>.10</td>
<td>-.21&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>-.31&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.10</td>
<td>.19&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-.03</td>
<td>-.31&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.23&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.19&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.15</td>
<td>.17</td>
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<td>-.20&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.05</td>
<td>-.22&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>, <sup>b</sup>, <sup>c</sup>

\( p \leq .05 \)  \( p \leq .01 \)  \( p \leq .001 \)
time spent watching violent TV ($p \leq .01$).

Peer-rated success in aggression was significantly related to the following variables: high activity level ($p \leq .01$); popularity ($p \leq .05$); socially disruptive behavior ($p \leq .001$); and to total time spent watching violent TV ($p \leq .01$). Logically enough those viewed as successful aggressors were not likely to have low activity levels ($p \leq .01$) or to suffer from aggression anxiety ($p \leq .001$).

Peer-rated high interpersonal activity level was significantly positively related to the following variables: popularity ($p \leq .05$); prosocial behaviors ($p \leq .01$); socially disruptive behaviors ($p \leq .001$); and total time viewing violent TV ($p \leq .05$). High activity was negatively associated with self-reported peer integration ($p \leq .01$).

Peer-rated low activity level was positively related to both aggression anxiety and to prosocial behaviors ($p \leq .001$). Low activity level was negatively associated with the following variables: socially-disruptive behaviors ($p \leq .01$); self-reported aggression ($p \leq .05$); time spent watching violent TV ($p \leq .01$) and also peer integration ($p \leq .01$).

Peer-rated popularity was significantly related to aggression anxiety ($p \leq .05$) and to prosocial behavior ($p \leq .001$). Popularity was negatively related to self-reported aggression ($p \leq .01$).
Peer-rated aggression anxiety was positively associated with prosocial behavior \((p \leq .001)\) and with parental control of viewing \((p \leq .05)\). Aggression anxiety was negatively related to socially disruptive behavior \((p \leq .01)\); to self-reported aggression \((p \leq .001)\); to time spent viewing violence \((p \leq .05)\); and to peer integration \((p \leq .01)\).

Children rated high on prosocial behaviors were unlikely to engage in disruptive behaviors \((p \leq .05)\), to spend time viewing violent TV \((p \leq .05)\), or to report themselves as aggressive \((p \leq .001)\).

Children rated high on socially disruptive behavior were likely to watch violent TV \((p \leq .01)\), and were likely to view themselves as unpopular \((p \leq .05)\).

Total time spent watching TV was significantly related to overall violence viewing \((p \leq .05)\) and negatively associated with parental limits on TV viewing \((p \leq .05)\). Time spent watching violent TV was positively associated with the child's self-report of popularity \((p \leq .05)\), but was not related to his peer's perception of his popularity. Time spent watching violence was negatively associated with parental limits \((p \leq .05)\).

**Experimental Prosocial Behaviors and Real-Life Volunteering**

The delayed posttest of generous or sharing behavior was able to be implemented with only 55 of the 80 children, since one school required that their teachers not be associated
in any way with the testing. The following results therefore utilized only 69 per cent of the subjects. The delayed posttest involved an actual task--i.e., the children's volunteering for some rather onerous spring cleaning about the school. The total scores (summed across the two testing sessions) of each child on the donating and tolerance for delay measures were correlated with whether or not the child volunteered his or her services in a clearly nonlaboratory type situation. The Pearson product-moment correlations were as follows: between total donating score and volunteering, $r = .29$ (53), $p < .05$; between total tolerance of delay and volunteering, $r = .13$ (53), $p = \text{ns}$. 
Major Hypotheses

The central thrust of this study's findings was not consistent with the prediction suggested by earlier research—that children of varied role-taking skills would react differentially to aggressive and prosocial television programming. The data raise serious questions about assumptions that the observation of aggressive or prosocial content on TV affects subsequent altruistic behavior. The fact that specific program content (violent versus prosocial) did not have an appreciable effect on the children is significant. Since the subjects were tested at two points in time, it is possible that the design was confounded by subjects who cued in to the demand characteristics of the experiment and attempted to please the examiner, by waiting long periods of time, and by, in general, providing what was believed to be desired results. However, reanalyzing the data using only the first testing session lent support to the hypothesis that the lack of effects of TV was not attributable to the subjects' attempts to give what the experimenter "wanted."

An alternative explanation of why TV content had no effect was that the children were angered or at least irri-
tated, at having to watch the prosocial segments. Thus, the beneficial programming may have generated resentment and caused a "backlash" effect to its interpersonally positive content. The researcher recorded several spontaneous comments about the prosocial films—all of them negative. Some of the children stated that the prosocial segments were: "mushy," "sappy," "babyish"; and that "you should leave those at home, lady." The prosocial films were maligned by a relatively small proportion of the children—but those who criticized them did so vehemently. Due to experimental "blind," the comments could not be traced back to a specific perspective-taking type.

The fact that the different programming had no effect might also be attributed to how stimulating the respective films were, over and above the thematic material. Tannenbaum and Zillman (1975) reported that emotionally arousing films of many types increased subsequent aggression. Stein and Friedrich (1972) similarly found that the positive interpersonal behavior of lower-class children increased after exposure to Mr. Rogers, but middle-class children did not change. When confronted with a mildly frustrating experience, subsequent to viewing Mr. Rogers, middle-class girls became more aggressive. What may be operating is a direct relationship between the level of emotional arousal generated by TV and aggressiveness that is independent of specific aggressive content.
Lyle and Hoffman (1972) found that as children matured they showed an increased preference for violent programs and reacted to violence with less anxiety than did younger children. After repeated exposure to aggression, children may become immune to its effects. Cline, Croft, and Courrier (1973) studied children between the ages of 5 and 12 and classified them in terms of how many hours per week they watched TV. All children were then shown a movie montage in which they viewed a violent fight, an arousing but nonviolent skiing scene, and a humorous slapstick episode. The children's reaction during the film viewing showed that prior high exposure to television reduced the arousal potential of the violent sequence. Thus the result of cumulative saturation with violence may be virtually total habituation. Since the subjects under study are the greatest consumers of TV of any age group, one might expect them to be the most inured to its effects.

Paulson et al. (1972) found that children who had watched prosocial TV were likely to engage in similar behavior immediately subsequent to the viewing, but did not generalize these positive behaviors to new situations. However, generalization of aggression to novel situations did occur. The basis of this difference is not clear. It may be that prosocial content is more complex, more subtle, and thus longer exposure may be necessary to obtain measurable and durable behavioral effects. Transfer of positive social
behavior may be complicated by such factors as censure by a relatively "cynical" peer group, or by the simple fact that children see proportionately fewer instances of positive social behavior in their naturalistic, day-to-day television viewing. Limited exposure to each of the viewing conditions also restricted the effects of specific program content, as will be discussed in greater detail later.

**Sex Differences**

The findings regarding sex differences in this study were consistent with the literature. Boys have, in virtually all studies, and across all age groups exhibited aggression more frequently than girls. The fact that girls were seen as being more anxious about aggression and more likely to engage in prosocial, helpful behaviors is in line with sex-role research. Traits included in the sex-role expectation of males center around competence and assertion, while traits facilitating interpersonal warmth and emotional expressiveness form the core of sex-role expectation in women (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). Girls are expected to be, and are said to be, more interested in people and interpersonal relations; boys are expected to be active, independent, competitive, and aggressive. Females have more anxiety about aggression, since it is "inappropriate" sex-role behavior, and as such, girls' aggressiveness is simply not tolerated as much as is male aggression. It is interesting to note that the role-taking and empathy tests did not
differ significantly between the sexes. Since the tests measure interpersonal competence, one might suspect that girls would be favored due to the girl's greater social relatedness and attunement to the interpersonal environment. However, recent work (Harris, 1976) with male and female infants found that girl infants were more responsive to auditory than to visual stimuli, and more attentive to human faces than to inanimate objects. However, boys were more responsive to visual than auditory stimuli and were equally responsive to social and nonsocial stimuli. Thus, testing perspective-taking from a method utilizing both visual and auditory stimuli may cancel out any sex-role or biologically based bias in the performance of the sexes.

Contrary to prediction, girls were not more susceptible to prosocial TV content (holding perspective-taking type constant) than were boys. The prediction was generated on the basis of the sex-role expectation that girls are more attuned to interpersonal expression. However, the finding is consistent with research that girls are much more variable than boys in their adoption of sex-typed behaviors and are allowed more role-deviation than are boys. Donelson (1973) found that 10-year-old girls are less stereotypically feminine than are 4-year-olds. In fact, in fifth and sixth grade, the age of the present subjects, 37 per cent of girls preferred masculine toys and 21 per cent preferred being a father than a mother.
Subject Variables

The fact that the subjects in this sample were all (a) in the middle or upper-middle range of socioeconomic status; (b) bright children (mean IQ was 109); and (c) enrolled in religious, rather than public, schools, may have affected the experimental results. It is obvious that television, while having a profound effect on identification, role modeling, and emotional responsivity, is not the sole or even the most potent influence on the child. Little has been done to test the combined roles of the home, the school, and television in influencing the child. The relative magnitude of each of these respective socializers can only be conjectured or extrapolated from rather limited data. Middle-class parents have been shown to be effective in moderating the effects of violent TV, presumably by clearly communicating disapproval of violence, and conveying a value system promoting other than aggressive problem solving (McLeod et al., 1972). Similarly, the strong disapproval of violence and acting-out behavior, and the decided emphasis on socially appropriate behaviors, such as cooperation, altruism, self-control, and charity which are emphasized by the religious schools, undoubtedly limit the impact of any television exposure. Given the special characteristics of this sample, it seems reasonable to assume that the normal variability of children with regard to prosocial behaviors was rather severely limited. It would be profitable to explore the current research with a broader range of chil-
dren whose other socialization forces—social class mores of family, religion, school, etc.—did not affect them in such a uniform manner.

**Supplementary Hypotheses**

As expected, children who scored high on the Role Taking Task were rated by their peers as being significantly less aggressive in their day to day interactions. Interestingly, there was no such association between scoring high on the Empathy Questionnaire and low interpersonal aggression. This finding suggests that the conceptualization of high empathy individuals as interpersonally competent in a self-serving, even sociopathic way, is not a totally specious notion. High-empathy children were seen as more likely to engage in prosocial behaviors, and to be interpersonally active. A Machiavellian child freely utilizes guile, flattery, and deceit to influence people, yet he does so in a way so as to be "perceived as sincere and unmanipulative" (Weinstein, 1969, p. 770).

In the present study high empathy subjects were perceived as high in prosocial behaviors which tapped traits such as cooperation, generosity, expression of feelings, leadership, and acceptance of other. Yet, unlike children rated high on role-taking, high empathy children were not seen as unaggressive.

The prediction that high-empathy-low-role-taking children would demonstrate an inflated notion of their own importance or popularity was contradicted by the data. This
group, Machiavellian or not, was the most popular and the most accurate in terms of their self-appraisals of their standing with peers. It is interesting that most of the children tended to view themselves as being less popular with their peers than they actually were, a finding which supports earlier work by Katz and Zigler (1967), who noted that with increasing age, children's self-concepts tend to decline. However, the high role-taking-high empathy group viewed themselves as significantly less integrated into the peer group \((p < .01)\) while other personality types tended to have more realistic views of themselves. Rothenberg (1970) also found little relation between high perspective-taking ability (as assessed by means of an instrument similar to the empathy measure in the present study) and accurate appraisal of one's own position in the peer group. She did, however, find that teachers' and peers' ratings of such a child were substantially correlated. Rothenberg speculated that the child who is high in perspective-taking ability has incorporated more of society's mores, values, and behavioral expectations than his less socially sensitive peers, and is therefore more acutely aware of his deficiencies in living up to societal demands. Thus, the higher the perspective-taking skill, the less favorable will be the self-perception.

Other analyses among peer-rated and self-report indices yielded quite predictable findings. Some interesting and anticipated relationships were: (a) real-life aggression
was significantly associated with overall time spent watching TV and with time spent watching violent TV, (b) peer-ratings of low activity level were negatively associated to violent TV viewing, (c) time spent watching TV and overall violence viewing were associated with lack of parental limits, and (d) children who watched violent TV were likely to be disruptive socially and to view themselves as unpopular. These findings are consonant with reports of the association of TV usage and general social adaptation of children.

**Experimental Prosocial Behaviors and Real-Life Volunteering**

That donating within the context of an experiment was significantly related to nonlaboratory volunteering lends support to attempts to generalize the findings of the experimental situation to the naturalistic setting of school and home. The fact that tolerance of delay was unrelated to volunteering suggests that they are prosocial skills which may be independent of each other. The fact that some generalization of prosocial behavior was found was gratifying since the extent to which an experimental measure accurately reflects real life situations is always open to question.

**Final Considerations and Implications for Future Research**

The findings of this research project that TV content had no effect on altruistic and self-controlling behaviors may have been in some measure a result of the very nature of the experimental design itself. The impact of a brief segment
of TV viewing (15 minutes) is inconsequential in comparison to the mean 3.79 hours per day watched by these subjects. The effect of one brief, albeit dramatic, episode cannot be hoped to reveal an accurate picture of the effects of exposure. Effects should be studied in future research after continued exposure, preferably in a naturalistic rather than a captive-viewing setting. As was stated previously, researchers (Paulson et al. 1972; Stein & Friedrich, 1972) have found that transfer of positive social behaviors does not occur as readily as generalization of aggressive behavior. It was speculated earlier that the subtler nature of prosocial content and the cognitive complexity of its themes may limit its immediate, short-term effects on the child, with behavioral changes accruing only after long-term exposure.

The earlier review of the literature emphasized that the observation of media violence contributed to the subsequent display of aggressive behavior. However, Singer (1970) has aptly pointed out that the emphasis upon media content evoking behaviors may minimize the impact of more important variables, such as the value system of his primary reference group, peer-pressure toward conformity, and level of intelligence. Dominick and Greenberg (1972) pointed out that, although television influences behavior, it is not as important an influence on the child as the attitudes of his family regarding appropriate behaviors. Since the present subjects were all middle or upper-middle class, and intelligent, presumably they were more greatly
influenced by these variables than by exposure to a relatively short media presentation. The greater cognitive sophistication of these intelligent subjects combined with the internalization of middle-class, behavioral prohibitions and prescriptions may render them relatively immune to media content.

Although this research yielded rather ambiguous findings, its desirable features should be noted. Boys and girls in their pre-adolescent years were utilized as subjects, and were closely matched in terms of socioeconomic status and IQ. The experimental stimuli were exact copies of current TV programs rather than specially produced programs or old film clips. The subjects were each exposed to both experimental treatments, thus each subject served as his own control. Finally, the dependent measures were samples of actual anonymous donating and ability to wait quietly—both measures were conceptually close to the child's everyday interpersonal world.

Future directions in research on prosocial programming and behavior might explore any number of stimulus, population, and subject parameters. The role of perspective-taking and Machiavellian empathy bears further exploration with multiple measures of perspective-taking and possible sociopathy. The effects of repeated exposure to prosocial themes of children's behavior in naturalistic contexts should be explored. The differences between short-term imitation of prosocial behavior and cumulative enduring behavior changes and the sort of stimuli which elicit both could be fruitfully explored. The rela-
tive influence of such variables as family, school, religious orientation, and intelligence (and their combined impact) in counteracting or promoting the effect of specific TV themes should be looked at more extensively. More evaluative research could be undertaken to assess the effects of current prosocial programming. Development of compelling prosocial programming for the older child seems warranted and would necessitate careful assessment of what content maximizes appeal (minimizes "mushiness") while still conveying the socially beneficial messages. The types of characters, plots, narration, etc. which enhance the impact of prosocial messages should be explored. In any case, given the substantial impact that television has on children every effort should be made to counteract the influence of violent content and to determine how to augment the effects of prosocial programming.
SUMMARY

The effect of perspective taking as a possible explanatory factor in children's responses to violent and to prosocial content in television was examined. Perspective taking or the ability to take the position of another person and to infer correctly the other person's inner psychological state, was measured by the Feffer Role Taking Task and by a questionnaire devised by the present author to test children's understanding of feelings as displayed by actors in videotaped TV vignettes. Fifth- and sixth-grade, middle-class urban parochial school children (N=80) were pretested on these two measures of perspective-taking. The two measures of perspective-taking stressed differential aspects of this global ability. The Feffer heavily weighted cognitive and linguistic abilities whereas, the Questionnaire (referred to as the Empathy Questionnaire) strongly emphasized affective abilities, as well as the quick "sizing-up" of facial and situational cues. Children were divided into four groups based on their performance on the respective perspective-taking tasks: (a) High role-taking (as measured by the Feffer) /high empathy (as measured by the Empathy Questionnaire); (b) High role-taking/low empathy; (c) Low role-taking/high empathy; (d) Low role-taking/ low empathy. The children were then exposed to two TV viewing conditions--one condition
featured two violent excerpts from full-length TV programs (*The Ouest, The Rookies*), while the other condition included two prosocial excerpts (*Marcus Welby, M.D., The Waltons*). All children viewed both violent and prosocial content and order of presentation was counterbalanced. There were two days between alternate viewing conditions for all subjects.

Subsequent to both violent and prosocial content the children were tested on two measures of positive interpersonal behavior: (a) anonymous donating to charity, and (b) tolerance for delay, as measured by how long the child could wait quietly with minimal movement in a rather confined space. One week following all testing the children were given the opportunity by their classroom teacher to volunteer their services at a rather onerous task after school and on the weekends. Subjects were unaware of any ties to the prior experiment. This measure of real-life prosocial behavior was then compared to the prosocial behaviors demonstrated in the laboratory context.

Real-life aggression, interpersonal activity level, aggression anxiety, popularity, and real-life prosocial behaviors, were examined by means of a peer-nomination technique. Self-reported levels of TV viewing, violent TV viewing, peer-integration, and parental control over TV viewing were also studied as variables hypothesized to be crucial to the focus of this research.

The following relationships were hypothesized: (a) Children high in both areas of perspective-taking ability would be
more strongly influenced by prosocial TV themes rather than by aggressive subjects, and thus would show both increased altruistic (donating) behavior, as well as greater tolerance for delay (waiting) subsequent to the positive TV condition. (b) Children who scored high on the Empathy Questionnaire but low on the role-taking task would demonstrate less donating and lower capacity tolerate delay after exposure to the aggressive TV treatment. (c) Children skilled in role taking would display less real-life aggression, as measured by peer ratings and by their own report. (d) Children who were high in empathy but low in role-taking skills would reveal greater discrepancies in their self-reports of peer-integration as contrasted with peer-integration as measured by peer-nominated popularity. (e) Perspective taking would increase with greater intelligence. (f) Girls would be more affected than boys by prosocial TV messages, given the same level of perspective-taking skill.

Contrary to expectations, neither the aggressive nor the prosocial TV content affected the subsequent donating and waiting behavior of the children. Additionally, the level of respective perspective-taking skills did not affect the children's responses to the TV content. In line with the predictions, children high in perspective-taking skills were lower in real-life aggression, and perspective-taking skill increased with greater intelligence. Contrary to prediction, girls were not found to be more susceptible to prosocial content than were boys at the same level of perspective-taking skill. The
prediction that children who had done well on the Empathy Questionnaire, but poorly on the Feffer would demonstrate the greatest discrepancy between peer-rated popularity and their own reports of popularity was directly contradicted. Of all four groups, this one showed the greatest congruence between popularity as reported by classmates and the child's own notion of his standing in the peer group. Interestingly, most children tended to rate themselves as less popular than they actually were.

Donating behavior within the experimental situation was significantly related to nonlaboratory volunteering, suggesting that the experimental measure was, to some extent, reflecting true prosocial behaviors.

The influence of methodology on the obtained results, the unique limitations of the particular subject sample, and possible future directions for research were discussed.
REFERENCES


Bandura, A. What TV violence can do to your child. Look, November 22, 1963, pp. 46-52.


Gunther, M. All that TV violence: why do we love/hate it? TV Guide, November 6, 1976, 6-10.


APPENDIX A

Letter to Parents

Dear Parents,

I am a behavioral science researcher affiliated with Loyola University of Chicago. I am interested in studying the impact of different types of television content upon children in middle childhood. To partake in the study, your child must return the signed consent form below. The study will ask that your child watch brief episodes (approximately 3 minutes each) from the following programs: The Brady Bunch, The Andy Griffith Show, The Bob Newhart Show, Serpico, Kojak, and Delvecchio, and then answer questions about them. At a later date, your child will be asked to view, somewhat longer excerpts from the following programs: Marcus Welby, M.D., Waltons, The Quest, and The Rookies. The entire study should involve only about two hours (during school hours) of your child’s time.

The content of some of the films might be labelled aggressive, however, the films have been edited to screen out material which might be expected to make your child anxious or upset.

Many of the studies concerning TV that you have read about in the newspapers have been done with very young children. The findings of previous studies show that older children (like your child) are less affected by what they see on TV than are preschool children. Older children are better able to distinguish fantasy from reality, and are more sensitive to adult values and rules about behavior.

I sincerely request your cooperation in pursuing what I believe to be an important research project. If you have any question at all about the research, please feel free to contact me at this number Monday through Thursday 9 AM to 9 PM, Friday 9 AM to 5 PM -- 274-5305 or 274-5306. If I am not in the office, please leave your name and number and I will contact you promptly.

At the end of the entire study the results of my research will be made available to all participants. Additionally the children who participate will at no time be identified by name. Each participant is given a number and is known to the experimenter only by number.
Thank you for your consideration of my project. Please detach the following and return to school. NO CHILD WILL BE ABLE TO PARTICIPATE WITHOUT A SIGNED CONSENT.

My child _______________________________ has my permission to participate in the TV study.

Signed _______________________________
APPENDIX B
The Brady Bunch: Mr. & Mrs. Brady switch jobs for a day.

1) How does Mrs. Brady feel after her second fall?
   a) upset  b) sore  c) discouraged  d) frustrated

2) How does Mr. Brady feel after he has fallen?
   a) sorry  b) embarassed  c) funny  d) hassled

3) How does Marcia feel when she says "Smarty"?  a) sad
   b) angry  c) insulted  d) "stuck-up"

The Andy Griffith Show: Helen Krump, Andy's girlfriend is the director of a school play.

4) How does Andy feel when Helen says, "Who else would pitch in without being asked?"
   a) tricked  b) angry  c) surprised  d) helpful

5) How does Andy feel after Goober's imitation of Cary Grant?
   a) tired  b) angry  c) uninterested  d) bored

6) How does Helen feel when she says, "We did want it to be a surprise?"
   a) worried  b) shocked  c) pleased  d) "on the spot"

Serpico: Serpico, an undercover policeman, pretends to be an M-16 rifle salesman selling guns to black gangsters.

7) How is the Black Man feeling when he tells Serpico to "put his whole life into his story?"
   a) angry  b) worried  c) menacing  d) hateful
8) How does Serpico feel when he is told that he got off at the wrong stop on the subway?
   a) scared  b) upset  c) overpowered  d) sad

9) How does Serpico feel when the black boss tells his men to "Let him go."
   a) happy  b) satisfied  c) brave  d) relieved

10) How does the Black boss feel at the end as his assistant smiles?
   a) clever  b) good  c) pleased  d) worried

**The Bob Newhart Show:** Bob and Emily are visited by Bob's mother.

11) How is Emily feeling when she says, "Could you help?"
   a) unhappy  b) tired  c) aggravated  d) disgusted

12) How is Emily feeling when she asks, "Does the place look all right?"
   a) nervous  b) scared  c) calm  d) worried

13) How does Bob feel when he says, "My mother and father are separated."
   a) shocked  b) insulted  c) confused  d) unhappy

**Kojak:** Joseph Arrow, a young Indian living in New York has a hot temper.

14) How does the old man feel when he says to Joseph, "Who the hell are you?"
   a) angry  b) scared  c) curious  d) shocked

15) How is Joseph feeling when he says, "It was really ridiculous."
   a) desperate  b) insulted  c) unhappy  d) angry

16) How is Joseph feeling when he says, "I just came for my job back."
   a) stupid  b) scared  c) sorry  d) misunderstood
17) What is Ben feeling when he says to Joseph, "Say it, Say it!"?
   a) impatient  b) upset  c) furious  d) important

18) What is Joseph feeling when Ben tells him to, "Go sell your feathers."
   a) unhappy  b) insulted  c) misunderstood  d) rage

Delvecchio: Police officers, Delvecchio (tall and thin) and Chauncy (short and chubby) are on a case. Billy is their suspect.

19) How is Billy feeling when Delvecchio says, "Police Officers, Billy."
   a) scared  b) trapped  c) excited  d) upset

20) How is Chauncy feeling when he says to Billy, "What's the matter with you?"
   a) angry  b) worried  c) "at the end of his rope"  d) impatient

21) What is Delvecchio feeling when he says, "He's all yours, counselor."
   a) disgusted  b) nervous  c) mad  d) upset

22) What is Delvecchio feeling just before he asks the man, "Can we use your phone?"
   a) curious  b) confused  c) thoughtful  d) confident

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Scoring Schedule
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APPENDIX C
### APPENDIX C

#### Peer Rating of Aggression Items

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<td>Aggression</td>
<td>7</td>
<td>Who gives dirty looks or sticks their tongues out at other children?</td>
</tr>
<tr>
<td>Activity</td>
<td>8</td>
<td>Who is too busy to talk to other children?</td>
</tr>
<tr>
<td>Activity</td>
<td>9</td>
<td>Who is very quiet?</td>
</tr>
<tr>
<td>Aggression</td>
<td>10</td>
<td>Who makes up stories and lies about other children?</td>
</tr>
<tr>
<td>Aggression</td>
<td>11</td>
<td>Who does things that bother others?</td>
</tr>
<tr>
<td>Aggression</td>
<td>12</td>
<td>Who starts fights over nothing?</td>
</tr>
<tr>
<td>Aggression</td>
<td>13</td>
<td>Who pushes or shoves other children?</td>
</tr>
<tr>
<td>Aggression</td>
<td>14</td>
<td>Who is always getting into trouble?</td>
</tr>
<tr>
<td>Category</td>
<td>Number</td>
<td>Question</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Success in Aggression</td>
<td>15</td>
<td>Who gets what they want by fighting?</td>
</tr>
<tr>
<td>Aggression</td>
<td>16</td>
<td>Who says mean things?</td>
</tr>
<tr>
<td>Activity</td>
<td>17</td>
<td>Who is always in and out of things?</td>
</tr>
<tr>
<td>Aggression</td>
<td>18</td>
<td>Who takes other children's things without asking?</td>
</tr>
<tr>
<td>Aggression Anxiety</td>
<td>19</td>
<td>Who says &quot;excuse me&quot; even when they have not done anything bad?</td>
</tr>
<tr>
<td>Success in Aggression</td>
<td>20</td>
<td>Who pesters until they get what they want?</td>
</tr>
<tr>
<td>Aggression Anxiety</td>
<td>21</td>
<td>Who will never fight even when picked on?</td>
</tr>
<tr>
<td>Popularity</td>
<td>22</td>
<td>Who are the children that you would like to have for your best friends?</td>
</tr>
</tbody>
</table>
APPENDIX D
## APPENDIX D

### Peer-Rating of Prosocial Behaviors Items

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence, Cooperation</td>
<td>23</td>
<td>Who make good leaders for clubs or groups?</td>
</tr>
<tr>
<td>Consideration for the feelings of others, sympathy</td>
<td>24</td>
<td>Who is very patient with other people, even people who are a &quot;pain in the neck?&quot;</td>
</tr>
<tr>
<td>Adaptive coping with frustration</td>
<td>25</td>
<td>Who is good at making hard work seem more like a game?</td>
</tr>
<tr>
<td>Delay of gratification</td>
<td>26</td>
<td>Who always waits in line without shoving, pushing to get ahead, joking around or teasing?</td>
</tr>
<tr>
<td>Adaptive coping with frustration</td>
<td>27</td>
<td>Who always talks (never fights) his or her way out of problems?</td>
</tr>
<tr>
<td>Consideration for the feelings of others</td>
<td>28</td>
<td>Who is often rude or impolite to other people? (reversed scoring)</td>
</tr>
<tr>
<td>Cooperation</td>
<td>29</td>
<td>Who always has to get his or her own way when working in a group (reversed scoring)</td>
</tr>
<tr>
<td>Task persistence</td>
<td>30</td>
<td>Who always finishes a job that they've started, even if it's difficult?</td>
</tr>
<tr>
<td>Verbalization of feeling</td>
<td>31</td>
<td>Who is the sort of person who really lets you know how they feel?</td>
</tr>
<tr>
<td>Category</td>
<td>Number</td>
<td>Question</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Verbalization of feelings</td>
<td>32</td>
<td>Who is embarrassed to talk about what they think? (reversed scoring)</td>
</tr>
<tr>
<td>Sharing</td>
<td>33</td>
<td>Who never lets people use their things? (reversed scoring)</td>
</tr>
<tr>
<td>Sympathy</td>
<td>34</td>
<td>Who is good at making other kids feel happy and part of the group?</td>
</tr>
</tbody>
</table>
APPENDIX E
APPENDIX E

SELF-REPORT OF AGGRESSION, VIOLENCE-VIEWING, TOTAL TV VIEWING, PARENTAL CONTROL OF TV, AND PEER-INTEGRATION

**Directions:**

Here are things other students say about getting along with people. How much is each statement like you?

<table>
<thead>
<tr>
<th>1. not like</th>
<th>2. a little like me</th>
<th>3. a lot like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whoever insults me or my family is asking for a fight.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>If someone hits me first, I let him have it.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>When I lose my temper at someone, once in a while I actually hit them.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>I can't think of any good reason to hit anyone. (reversed scoring)</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>I lose my temper easily.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>It really makes me mad when someone makes fun of me.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>If someone doesn't treat me right, I don't let it bother me.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>I demand that people respect my rights.</td>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>When people yell at me, I yell back.</td>
<td>1.</td>
<td>2.</td>
</tr>
</tbody>
</table>
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1. not like 2. a little 3. a lot
me like me like me

When people disagree with me, I can't help getting into arguments. 1. 2. 3.

I would rather give in than argue about something. (reversed scoring) 1. 2. 3.

Think of all the programs you watched yesterday and the day before and figure exactly how much time you watched TV.

How much time did you spend watching TV yesterday? ___ hours ___ minutes. What day of the week was it? ____________________

How much time did you watch TV the day before yesterday? ___ hours ___ minutes. What day of the week was it? ____________

How much time do you spend watching TV on an average day? ______

How many TV sets in your house? ____________

How frequently do you watch the following shows:

0=never 1=not too often (once or twice) 2=fairly often (half the time) 3=very often (nearly every week)

Peter Marshall Variety Show 0 1 2 3 Star Trek 0 1 2 3

Walt Disney 0 1 2 3 Phyllis 0 1 2 3

Cos 0 1 2 3 Rhoda 0 1 2 3

Most Wanted 0 1 2 3 Maude 0 1 2 3

Sonny & Cher 0 1 2 3 Ironside 0 1 2 3

Six Million Dollar Man 0 1 2 3 All's Fair 0 1 2 3

Hee Haw 0 1 2 3 Tony Randall Show 0 1 2 3

Kojak 0 1 2 3 Wonder Woman 0 1 2 3
<table>
<thead>
<tr>
<th>Show</th>
<th>0=never (once or twice)</th>
<th>1=not too often (half the time)</th>
<th>2=fairly often (half the time)</th>
<th>3=very often (nearly every week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delvecchio</td>
<td>0 1 2 3</td>
<td></td>
<td>Executive Suite</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Adam-12</td>
<td>0 1 2 3</td>
<td></td>
<td>Zoom</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Little House on the Prairie</td>
<td>0 1 2 3</td>
<td></td>
<td>Tony Orlando &amp; Dawn</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Captain &amp; Tennille</td>
<td>0 1 2 3</td>
<td></td>
<td>Baa Baa Black Sheep</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Happy Days</td>
<td>0 1 2 3</td>
<td></td>
<td>Donny and Marie</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Laverne &amp; Shirley</td>
<td>0 1 2 3</td>
<td></td>
<td>Chico &amp; the Man</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>M.A.S.H.</td>
<td>0 1 2 3</td>
<td></td>
<td>Rockford Files</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Police Woman</td>
<td>0 1 2 3</td>
<td></td>
<td>Serpico</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Rich Man, Poor Man</td>
<td>0 1 2 3</td>
<td></td>
<td>S.W.A.T.</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>One Day at a Time</td>
<td>0 1 2 3</td>
<td></td>
<td>Brady Bunch</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Switch</td>
<td>0 1 2 3</td>
<td></td>
<td>Electric Company</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Family</td>
<td>0 1 2 3</td>
<td></td>
<td>Bewitched</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Waltons</td>
<td>0 1 2 3</td>
<td></td>
<td>I Dream of Jeannie</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Gemini Man</td>
<td>0 1 2 3</td>
<td></td>
<td>Three Stooges</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Welcome Back, Kotter</td>
<td>0 1 2 3</td>
<td></td>
<td>Bubble Gum Digest</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Barney Miller</td>
<td>0 1 2 3</td>
<td></td>
<td>Doc</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Hawaii Five-O</td>
<td>0 1 2 3</td>
<td></td>
<td>Mr. T and Tina</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Nancy Walker</td>
<td>0 1 2 3</td>
<td></td>
<td>Johnny Carson</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>Celebrity Sweepstakes</td>
<td>0 1 2 3</td>
<td></td>
<td>Wide World of Sport</td>
<td>0 1 2 3</td>
</tr>
</tbody>
</table>
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0=never 1=not too often (once or twice) 2=fairly often (half the time) 3=very often (nearly every week)

Barnaby Jones 0 1 2 3 Baretta 0 1 2 3
Gibbsville 0 1 2 3 Mary Tyler Moore 0 1 2 3
Merv Griffin 0 1 2 3 Starsky & Hutch 0 1 2 3
Andy Williams Show 0 1 2 3 Bob Newhart Show 0 1 2 3
Once Upon a Classic 0 1 2 3 Carol Burnett 0 1 2 3
All in the Family 0 1 2 3 Jeffersons 0 1 2 3
Streets of San Francisco 0 1 2 3 Emergency! 0 1 2 3
Mary Hartman, Mary Hartman 0 1 2 3 Holmes and Yoyo 0 1 2 3
Spencer's Pilots 0 1 2 3 Hollywood Squares 0 1 2 3
Sanford and Son 0 1 2 3 Odd Couple 0 1 2 3
Good Times 0 1 2 3 Charlie's Angels 0 1 2 3
Bionic Woman 0 1 2 3 Dragnet 0 1 2 3
The Blue Knight 0 1 2 3 Alice 0 1 2 3
Quest 0 1 2 3 Jacques Cousteau 0 1 2 3

1. What is your favorite game when playing with a group?

2. When playing by yourself?

3. Do your parents set limits on how much time you watch TV?
   Yes _____ No _______

4. Are there certain programs your parents do not let you watch?
   Yes _____ No _______. If so, which programs?
5. How many really close friends would you say you had (friends you'd always help out if they needed you):

none, one or two, three to five, six to ten, more than ten

6. Do you have a bunch of friends that you usually hang around with? Yes ______ No ______

7. How do you like to spend your time: alone, or in the company of friends? 1. Usually like to be by myself
2. Sometimes with friends and sometimes by myself. 3. Usually like to be with friends.

8. Compared with the rest of the kids you know, would you say you have more friends, less friends, or about the same number of friends?

more same less
APPRAOVAL SHEET

The dissertation submitted by Mary Doheny Feczko has been read and approved by the following committee:

Dr. Jeanne M. Foley, Chairman
Professor, Psychology and
Dean for Social Sciences, Loyola University

Dr. Patricia M. Barger
Professor, Psychology, Loyola University

Dr. Deborah L. Holmes
Assistant Professor, Psychology, Loyola University

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Date

May 4, 1977

Director's Signature