UPTON, MARSHA ANN. The Relationship of Group Size, Sex of Benefactor and Sex of Recipient to Sharing Behavior in Young Children. (1976) Directed by: Dr. J. Allen Watson. Pp. 60.

The purpose of this study was to investigate the effects of sex of benefactor (the subject), sex of recipient and the number of recipients present on sharing behavior in young children. Ninety-six children, 48 boys and 48 girls, were subjects in the experiment. The white, five-year-olds were randomly selected from five lower-middle and middle class day care centers. Subjects were given a bag of cookies and an opportunity to share them with children of the same age and sex while they listened to a tape-recorded story. The potential recipients of the cookies were actually confederates who constituted the "groups" consisting of either one or two children who were male or female.

It was hypothesized that there would be no significant relationship between a group size of one or two children and the amount of sharing behavior. It was also hypothesized that there would be no significant relationship between sex of the subject or sex of the recipient and the number of cookies shared.

Sharing was recorded by observers into four response categories, such as number of cookies shared with recipient and number of cookies eaten by subject (Staub & Sherk, 1970). Latency of the first sharing response was also measured. An analysis of variance was calculated to determine differences among the groups' sharing behavior.

The hypothesis that there would be no difference in the effect of a group size of one versus a group size of two on sharing behavior was retained. The same finding applied to the hypotheses that there would be no difference between male and female subjects or male and female recipients in the number of cookies shared.

THE RELATIONSHIP OF GROUP SIZE, SEX OF BENEFACTOR AND SEX OF RECIPIENT TO SHARING BEHAVIOR IN YOUNG CHILDREN

by

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APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

"What is it about man that he can often act so cruelly" (Cohen, 1972, p. 40) and yet, at the same time, so altruistically towards his fellow man? Debate over this phenomenon, which Cohen (1972) calls the "'altruistic paradox,'" has raged for centuries. Rousseau saw man as basically good and society as the evil influence. Freud was more pessimistic, believing that man is bad since he is controlled by animalistic tendencies. Both of these viewpoints still affect our thoughts and theories about man's basic nature and his "innate capacity for good, evil, sympathy, callousness, justice and injustice" (Cohen, 1972, p. 40).

Statement of the Problem

Researchers in the field have defined the concept of altruism as helping, sharing, volunteering and prosocial behavior. There are a countless number of variables to manipulate and no agreed-upon operational definition of altruism. This fact partially explains the lack of replication in the literature.

The definitions of altruism presented in the literature "imply self-sacrificial other-directed behavior but they do not establish it" (Krebs, 1970, p. 259). The two constant characteristics appearing throughout the definitions seem to

be "voluntary" and "intentional." Situations can be constructed fairly easily to help control for the former characteristic of volunteerism. Naturalistic observation would yield the most accurate results since there would be no effects of experimenter bias. Often, in a new area of research such as altruism, simple naturalistic designs are the best indicators of the direction future research should take. The latter characteristic, the intent behind a behavior, is much more difficult to establish since it determines the moral value of an act. As Krebs (1970) said, "...no way has been found to measure its [altruism] motivational base" (p. 297). One reasonable approach to assessing intent is the measurement of degrees of the dependent variable, altruism. Simply categorizing a response as altruistic or not indicates very little about the possible motivation behind a behavior. Observing what variables influence levels of altruism brings researchers closer to identifying possible motivators. Another reason for expanding the narrow response categories usually examined would be that, otherwise, generalization of results to real-life situations is limited. Rarely is a response simply altruistic or not. Rather, there are varying stages of altruism.

In a 1970 review article, Krebs reported that the majority of findings offered no support for sex differences in children's altruistic behavior. Studies since that time, using a wide variety of age groups, have been scarce and have found contradictory results (Grusec & Skubiski, 1970; Ruston,

1975; Staub & Sherk, 1970). Also, few researchers have examined effects of the interaction between the recipient's sex and the benefactor's sex on altruistic responding (Feshbach & Roe, 1968; Staub, 1971). Results, however, do indicate a trend towards same-sex helping. Replication is needed with specific age groups in order to substantiate some of these findings and to help establish what effect sex interaction is having on certain types of altruism at these ages.

One manipulation that has proven to be powerful in research on several types of behavior has been the effect of group presence on subjects' behavior. Latane and Darley (1970) have done a vast amount of research on the effects of groups and group size on helping behavior. One of these studies was designed to look at the effect of the number of recipients rather than the number of benefactors on altruism (Latane, 1970). In this case, the dependent measure was donating and requesters in a group were more likely than single requesters to receive help. No researcher has manipulated this variable using any other dependent measures such as sharing or helping responses. Furthermore, nothing comparable to this has been tried with children.

The purpose of the present investigation, then, was to examine the effects of three variables whose effects on children's sharing behavior have not been established thus far in the literature. The dependent variable, sharing, was recorded in four scoring categories according to the amount and type of sharing. The three independent variables manipulated were:

sex of subject, sex of recipient and number of recipients present. The procedure included giving male or female subjects a bag of cookies to eat while listening to a tape-recorded story. The potential recipients, a "group" consisting of either one or two, male or female, children, were brought into the room after the subject was briefed. The experimenter said nothing about the cookies and went behind a partition in the room after turning on the tape recorder. She and another observer recorded the subjects' sharing responses into categories on a scoring sheet. After the story, the subject returned to his class.

Hypotheses

The null hypotheses of this study were:

(1) There is no relationship between a group size of one or two persons and the amount of sharing behavior.

(2) There is no relationship between sex of the recipient(s) and the amount of sharing behavior.

(3) There is no relationship between sex of the subject (benefactor) and the amount of sharing behavior.

Limitations

Few trends are apparent in the altruism literature. More research on variables indicating contradictory effects and an examination of new variables is needed. This study was an attempt to do both.

There are several limitations in this study. The confederates who helped the experimenter were very young and sometimes found it difficult to maintain their "act." Their unplanned-for behavior may have differentially affected the dependent variable, sharing.

The type of cookies given to the subjects had to be chosen so that it followed certain guidelines. The cookies had to be large enough to be easily counted by the observers. At the same time, they had to be a kind which could be eaten rather quickly in order that the subject have numerous opportunities to share them with the recipient(s).

In every day care center, the experimental room was different. Although it is unlikely that placement of the equipment had an effect on the dependent variables, it is possible.

The subjects' brief interaction with the experimenter and receiver(s) and the fact that these persons were strangers to the subject may have had an effect on the amount of sharing behavior. In addition, the five-year-olds' stage of cognitive and moral development is still unclear. It is possible that the ability to empathize with the potential receiver(s) had not yet developed in these children.

Definition of Terms

The following is a list of definitions used in this study:

(1) Altruism--operationally defined as the number of cookies shared by a subject with the recipient(s).

(2) Sharing--a specific type of altruism--the giving up of material rewards, that one might have kept for oneself, to others (Grusec, 1972).

(3) Group size of 1--one benefactor and one recipient.

(4) Group size of 2--one benefactor and two recipients.

CHAPTER II

REVIEW OF LITERATURE

Although altruism is a relatively new concept in the literature, research on the topic is voluminous. However, research progress has been slow mainly because no theoretical constructs on which to base the concept have been identified in the literature. The procedures used and the variables manipulated and measured differ from study to study, thereby making comparison of results difficult and definite conclusions almost impossible.

Researchers' lack of agreement on a definition of the dependent variable, altruism, is a major problem. Definitions employed are often situation-specific and may have little meaning outside of the experimental setting. Another limitation on generalization of experimental results is the narrow response categories usually examined. Too often, a response is recorded as altruistic or not, without accounting for any degrees of the response.

Krebs (1970), in his review of the altruism literature, named the two persons involved in an altruistic act: (a) the benefactor, or the person who gives; and (b) the recipient, the one who receives. In the present review, benefactor and recipient variables will be dealt with together since characteristics of these two often overlap. The research will be

organized into four general categories of independent variables: personality traits or long lasting attributes; social norms; demographic variables such as race, age, sex, which are "basically characteristic" (p. 263); and psychological states, that is, situationally induced variables having a limited effect.

Personality Traits

Research which deals with personality correlates of altruistic behavior is concerned with natural, rather than experimentally induced, relationships. That is, what type of people are altruistic?

Turner (1948) found that parents' and social workers' altruism ratings of boys, ages nine to sixteen, were highly correlated with social adjustment and emotional stability. In measuring altruism of college sorority members, however, Walker and Mosher (1970) found no correlation between sociometric altruism and scores on three personality inventories, Marlowe-Crowne Social Desirability Scale, Interpersonal Trust Scale and Internal-External Locus of Control Scale. The results of rating scale and pencil and paper measures of altruism are tenuous, at best. Although a large number of relationships are usually found, there are rarely any checks of validity.

Few studies have assessed the relationship between personality variables and children's altruistic responding. Meltzer (1970) investigated the relationship between sharing

and the personality trait, level of ability to take another person's role. Her subjects were from kindergarten, second and sixth grades. Amount of subsequent sharing with a supposed victim whom subjects had previously helped or not was measured. There was no significant relationship found between role-taking ability and sharing. Another similar experiment by Staub and Sherk (1970) examined the relationship between children's need for approval and their sharing behavior. A significant negative relationship was found between the subjects' high scores on the need for approval scale and the amount of candy they shared and ate in the presence of another child. Staub and Sherk hypothesized that in a situation where the norms for appropriate behavior are not clear, children high in need for approval may "remain inactive in order to avoid disapproval" (p. 251).

Other authors (Gergen, Gergen & Meter, 1972) believe that whether there is a relationship between certain personality traits and altruism "depends on the type of situation in question" (p. 116). Gergen, Gergen and Meter contend that because people have different "payoff preferences" (p. 117), that is, different types of altruistic behaviors appeal to different people for different reasons, looking for traits associated with altruism seems "fruitless" (p. 117). "Although more faith can generally be put in behavioral measures of altruism" (Krebs, 1970, p. 284) rather than the other types mentioned, behavioral measures do have the problem of

determining the intent behind the altruistic behavior. Looking at the overall results, no definite conclusions can be drawn about the personality traits of altruistic people.

Social Norms

The next major category of research concerns norms that affect altruism. The two hypothesized norms most widely discussed and researched are the norm of social responsibility and the norm of reciprocity. Krebs (1970), for one, questions whether this type of analysis really explains anything. Krebs suggests that existence of the norm "is established by the effect it produces" (p. 295).

Norm of Social Responsibility

The norm of social responsibility contends that people should help those who need help. Bryan's (1972) major conclusions on the operation of the norm in children include the following: (a) that children believe one should help those who need help; (b) that reminding children of the norm does not appear to have any effect on their behavior; and (c) that the correlations between questionnaire measures of a child's feelings about social responsibility and actual donating behavior do not indicate a causal relationship between the two.

Staub (1972) attributes a great deal of power to norms, calling them "equally held expectations" (p. 143) about how people will act. Using seventh graders, Staub (1971) looked

at the effects of unstated rules of conduct on altruism. Subjects either had permission to enter an adjoining room, were prohibited from doing so, or were told nothing about it. Permission was expected to decrease the subjects' fear of disapproval from the experimenter. While subjects were drawing, a girl's distress sounds came from the adjoining room. Subjects in the permission group helped significantly more than those in other conditions. Adults, in the same situation, helped equally as much in the no-information and permission groups. Staub suggested that this difference was partly due to the increase in strength of norms with age. While adults are more sophistocated in their ability to discriminate between those situations where other norms take precedence, children are not. At this age (ten to thirteen years), children are overly concerned with not breaking the rules.

Norm of Reciprocity

The norm of reciprocity, according to Gouldner (1960), makes two demands: people should help those who have helped them, and people should not harm those who have helped them. Reciprocity is, in one sense, a payment of debt and according to this definition, "strict reciprocity falls outside the range of altruistic behavior" (Krebs, 1970, p. 295).

Results from a study by Staub and Sherk (1970) seem to offer some support for the reciprocity norm. One of a pair of fourth graders (the giver) was given a bag of candy that could be shared with the second child. Subsequently, the

second child (the receiver) was given a crayon and an opportunity to share its use with the first child. The authors wished to examine the relationship between candy sharing behavior of the giver and crayon sharing of the receiver. According to the norm of reciprocity, the more candy the second child received, the more he would share the crayon later. Results showed a positive relation between crayon sharing and number of candies received. Also, the more the giver ate in the company of the receiver relative to what he gave him, the less the latter shared his crayon. The authors suggest that the amount of sharing behavior by the receiver was influenced by his "perception of the fairness or generosity of the givers' behavior" (p. 251). Piaget (1932) has long suggested that children learn to evaluate behavior in terms of reciprocity. However, there are findings which limit this explanation. For example, Berkowitz and Friedman (1967) found that the type of norm employed depended on the social class of the individual.

As Krebs (1970) notes, another problem with normative explanations is that they "can be invented post hoc to explain almost anything" (p. 295). Since norms are powerful because they can evoke positive and negative affect, they must be cognitively based. It seems, then, that no real understanding of their operation is possible until their "cognitive-affective representations" (p. 295) are understood.

Demographic Variables

The relationship between demographic variables and altruistic behavior is difficult to interpret. As Krebs (1970) points out, "The fact that people of different sex, ordinal position, social class, and nationality share a large number of traits makes specification of precise antecedents difficult" (p. 286).

Racial Differences

Only recently has the variable, race, been given much attention by altruism researchers. The majority of the researchers have used adults as subjects. Piliavin, Rodin and Piliavin (1969) staged a situation on the subway where confederates acted sick or drunk. They found that race of the victim had an effect on the race of the helper only when the victim was drunk. In that case, there was same-race helping. In another study (Wispe & Freshley, 1971), two women confederates, one white and one black, dropped a bag of groceries outside of various grocery stores. The only effect of race was that women tended to be less helpful towards women of the same race. Lerner, Solomon and Brody (1971) also found no significant differences in helping behavior influenced by race.

Meltzer (1970) did use children as subjects and looked at the effect of race of victim on sharing and helping in an emergency. The subjects were children who attended kindergarten, second or sixth grade. Race of the victim had no

significant effect on the number of candies shared or on potential helpfulness.

The role of race as an influential factor in altruistic behavior is unclear. People sharing certain demographic variables, such as race, differ along other dimensions so "it is not surprising that general trends are not frequent" (Krebs, 1970, p. 292). Krebs calls for more extensive and precise research to help establish general trends.

Sex Differences

As with studies using adult subjects (Latane & Darley, 1970; Lerner & Frank, 1974; Moss & Page, 1972; Wispe & Freshley, 1971), research examining sex differences in children's altruistic behavior is contradictory and inconclusive. One study which indicated no significant effect for the sex variable was conducted by Ugurel-Semin (1952). Using subjects ranging in age from four to sixteen, she measured the number of peanuts a subject shared with a same age and sex partner. Children were told to divide the uneven number of nuts and then were made to perform the sharing act. Results indicated that sex had no effect on the children's amount of sharing, that is, how often they gave the extra nut to their partner. Other studies substantiate this finding (Handlon & Gross, 1959; Ruston, 1975; Yarrow & Waxler, 1976).

In the studies which did report sex differences in children's altruistic behavior, some found girls to be more frequently altruistic than boys and some found data supporting

the reverse. In the Rosenhan and White (1967) study, ten and eleven year old girls gave more than boys when a model was present during the donating period. Additionally, more girls gave in the modeling condition when they had had a prior relationship with the model; but in the no-model condition, more girls gave who had not had a previous relationship than those who had had a previous relationship. Grusec and Skubiski (1970) found that third and fifth grade girls shared more than boys in a condition where the model was nurturant and preached and performed charitably.

Staub (1971), using nursery school children, found sex differences which persisted over time. Also, type of altruistic behavior emitted differed according to the sex of the subject and the sex of the recipient. There were two treatment sessions with children being paired with the same-sex partner in the first session and with an opposite-sex partner in the second. Subjects were to take turns acting as the benefactor and recipient in five different situations involving helping behavior. Children were tested immediately with either a specific test, evaluating the effects of treatment on helping a distressed child, or a generalized test, measuring sharing behavior and helpfulness towards an adult. The specific test involved leaving the subject alone to bowl after informing him that there was a girl playing in the next room. After a few minutes, a crash came from the girl's room, followed by distress sounds. Help was categorized as

(a) active help, (b) volunteering information about the accident, or (c) no help. In the general test, the subject was drawing pictures and the experimenter "accidentally" dropped a box of paper clips. The number of clips the subjects picked up served as the dependent measure. Then, the subject was given some candy as a reward and told he could donate some to a poor child who was having a birthday and whose parents could not afford to buy him any presents. The number of candies shared was measured. Staub found that role playing differentially affected boys and girls. There was an increase in sharing by boys and an increase in helping a distressed child by girls. That is, the results indicated a tendency towards same-sex helping. The author postulated that the difference may have been due to the sex of the child in need. It seems, then, that the elicitation of empathy may have been dependent on the sex of the subject, in addition to, the sex of the recipient.

In an earlier study, Staub and Sherk (1970) reported that fourth grade boys shared more candy with a same-sex peer than did fourth grade girls. One child, the giver, had candy he could share with another child of the same sex, the receiver; and subsequently, the receiver had the opportunity to share a crayon with the giver. The authors found that boys shared more candy than girls; however, no difference in reciprocity between the males and females was found.

There does seem to be some evidence for same sex helping in children although it is not very well substantiated.

Research also indicates that girls' altruistic behavior is more affected by their relationship with a model than is boys' altruism. Aside from these two general findings, there are "no clear trends in the conditions which affect sex differences in altruism in children" (Krebs, 1970, p. 286). Although these findings hint at antecedents, they are hard to interpret and specify.

Developmental Differences

When Krebs reviewed the literature on altruism in 1970, he found that a small amount of research had investigated developmental differences in altruism on the same task. Since that time, there has been a relatively large increase in the number of studies examining the effect of this variable. It is important to keep in mind the difficulty in comparing studies since the dependent measure varies across studies. In one experiment, it may be the number of subjects who shared while in another it might be the amount shared. Also, experimental situations are often very different in their methods of eliciting altruism (Krebs, 1970).

However, regardless of the various methodologies involved there is a consistent finding that amount and frequency of altruistic behavior tends to increase with age. Ugurel-Semin (1952), measuring the number of children who shared an uneven number of nuts either generously or evenly, found an increase in altruism from six to eight years of age. The generality of these results may be questioned, however, since her subjects were Turkish.

Midlarsky and Bryan (1967) reported that out of a group of first through fourth grade subjects, first graders donated less candy than any of the other children. Lane and Coon's (1972) preschool subjects participated in a sticker-pasting contest where prizes were awarded for the most stickers pasted. The subject was given the prizes to divide with his partner. Results indicated that four-year-olds gave themselves more than half the rewards while five-year-olds divided the prizes about evenly with their partners.

Evidence for developmental increases in altruism is also evident in older children. Handlon and Gross (1959) found that with children in kindergarten through fifth grade, as age increases the mean number of pennies kept for self decreases. Sharing behavior here appeared to level off at sixth grade. Staub (1970) also found evidence for a leveling off of helping behavior. In fact, he found a curvilinear relationship between age and helping in an emergency situation. The greatest amount of helping came from second graders and the least amount from first and sixth graders. These results might best be explained by Kohlberg's (1964) theory of the shifting in basis of moral judgment from a hedonistic position to one emphasizing social approval. The older children may have been mostly concerned with the experimenter's expectations of them.

Green and Schneider (1974) extended the analysis of association between age and altruism by investigating three types of altruistic behavior in children ages five through fourteen.

These dependent variables were studied: (a) sharing candy with other children, (b) offering physical assistance to the experimenter (picking up pencils), and (c) volunteering time to work for the needy. The authors found a significant relationship between age and two of the altruistic behaviors, sharing candy and picking up pencils. Contrary to other research (Handlon & Gross, 1959; Staub, 1970), Green and Schneider found a continuous increase in sharing from age five to fourteen. Since age was not a significant factor in volunteering to work, however, it was hypothesized that younger children perhaps do not realize the implication of volunteering on future behavior.

In summary, the majority of the evidence supports the idea that altruism increases with age, "although the findings are not entirely consistent" (Krebs, 1970, p. 290). The most common explanation is that older children have had more of an opportunity to learn the social responsibility norm (Krebs, 1970). However, it could be, as Staub (1970) has suggested, that ability to empathize with victims increases with age and that children six years of age and younger do not have the cognitive base necessary for empathetic (altruistic) behavior. As of yet, there exists no adequate explanation of this phenomenon.

Psychological States

There are several kinds of experimentally induced psychological states. Those which warrant discussion include

positive and negative affect, observation of models and presence of a group.

Positive and Negative Affect

There are striking methodological differences between adult and child, positive and negative affect studies. For the most part, researchers working with adults have manipulated their subjects' feelings of competency and measured the effect on helping behavior. Findings are not unequivocal (Rudestam, Richards & Garrison, 1971), yet the majority of the evidence provides some support for the hypothesis that helping behavior is more likely to occur after experiencing success rather than failure (Isen, 1970; Kazdin & Bryan, 1971). Kazdin and Bryan (1971) found that subjects who were told they were competent on a task (relevant or irrelevant to the independent variable) offered to donate more blood than those subjects told they were incompetent. The evidence seems to indicate the importance of positive affect in eliciting adult altruistic behavior.

Children's affective states have generally been induced through the subject's generation of either happy or sad experiences. One study used this method with second and third graders (Rosenhan, Underwood & Moore, 1974). Children were promised candy and money for participating in the experiment and were told they could share some of their money with other children who were unable to participate, if they wished. Experimenter I gave subjects a "'hearing test'" (p. 548) and

then asked them to think about and verbally describe to Experimenter II either a happy or sad experience. The child was given his money, told to take some candy and then left alone for two minutes during which time he could share his winnings. The dependent measures were the number of candies the subject took and the number of pennies he shared. As predicted, experiencing positive affect facilitated giving to oneself and others more than experiencing negative affect. Apparently, then, when one feels good, he is more likely to be generous to himself and others.

Bandura (1963) reported that vicarious reinforcement is experienced when one has empathy for a model who experiences positive affect each time he emits some behavior. Therefore, he says, we may predict that if a model expresses positive affect immediately after a greedy or altruistic act, the observer is more likely to imitate the behavior. Midlarsky and Bryan (1972) performed an experiment with fourth and fifth grade children to test this prediction. The results indicated that girls gave more to charity than did boys. The authors suggested that the girls experienced more empathy and responded to an increase in positive affect by being more altruistic.

A unique experiment by Barnett and Bryan (1974) examined the effects of competition with outcome feedback on children's donating behavior. Second and fifth graders participated in a miniature bowling game, competing for chips that could be

kept or donated to the March of Dimes. The authors predicted that information as to outcome would suppress donating relative to that in a noncompetitive atmosphere. They found, though, that this result depends on the outcome. The joy of success and the self-reinforcing perceptions that accompany it are sufficient to counteract selfish behavior apparently generated by the competitive situation.

Although the research seems to support the contention that positive and negative affect do influence altruistic behavior in children, Bryan and London (1970) believe there is a more plausible explanation for the effect. They suggest that the temporal relationship between positive affect and altruism is the critical variable. As of yet, there is no evidence to discount either interpretation.

Modeling Effects

The effects of models on altruism form another category under psychological states. Research has tended to focus on two aspects of the modeling situation: (1) modeling as a function of information given; and (2) behavioral versus verbal models. Rosenhan and White (1967) used a miniature bowling game as their apparatus. Elementary school children played the game with a charitable model and were given the opportunity to donate some of their winnings to a charity. The children subsequently gave almost as much when they played alone as when they played with the model. Internalization of

the social responsibility norm is one explanation (Grusec, 1972), conformity another (Rosenhan & White, 1967), but Krebs (1970) believes the most plausible explanation is that the "temporal contiguity between tasks and the similarity of situations" (p. 296) influenced the children to emit what they saw as appropriate behavior. Results of several studies support the view (Anderson & Perlman, 1973; Bryan & Walbek, 1970a & 1970b) that perceptions of intentions are important for older children in making moral judgments. According to Piaget (1932), once the child enters the moral stage of development, he should base his judgments on the intentions, rather than the material consequences, of an act.

A rapidly growing area of research involves examining effects of behavioral versus verbal models on altruism in children. All the studies to be discussed used an apparatus similar to Rosenhan and White's (1967) miniature electronic bowling game. Subjects' ages varied from seven to eleven years. Bryan and Walbek (1970a) did a series of experiments designed to test the prediction that both verbal instructions and behavioral examples would effect children's helping behavior. Models were either selfish or charitable while their exhortations were either generous, selfish or neutral in the presence of eight and nine year old girls and boys. Results from their series indicated that model behavior affected donating while verbalizations did not. In one experiment, selfish verbalizations by the model significantly lowered the

attractiveness rating of the model while generous exhortation had no effect. However, overall, the exact effect of the verbalizations was unclear. The authors concluded that the best explanation of the modeling effect is that it defines for the child what behaviors are acceptable in the experimental setting.

In a second experiment, Bryan and Walbek (1970b) turned to a social pressure explanation of children's imitative behavior. They assessed the experimenter's effectiveness, verbally and behaviorally, in altering subjects' donating behavior and they wanted to know what the subjects inferred to be the experimenter's expectations. To do this, the researchers used a model who was also the experimenter for half the subjects (high power) and a separate model and experimenter for the other half (low power). They predicted that in situations where the model has little control over the incentives (is not the experimenter), his actions will be more effective than his words in altering subjects' donating behavior. In situations where the model does have that control, the influence of his verbalization will increase. Dependent measures included actual donating behavior, latencies of distributing winnings and evaluations of the model. Second, third and fourth grade girls were shown a film of the model, either the experimenter or someone else, playing a game. The model was either verbally generous, stingy or neutral and behaved generously or greedily. Then the subjects

were given an opportunity to play the game and, subsequently, donate some of their winnings. Results supported the authors' previous finding that the behavioral example was more powerful than the verbal. Contrary to prediction, the power of model did not increase her efficacy in evoking imitative behavior.

Ruston (1975) has put forth a number of valid criticisms of the preaching manipulation in previous research. For one, in most studies modeling occurred when the model was in win trials and the preaching occurred during non-win trials. Second, preaching is never directed at the child, although this seems to be more natural. Third, power of the model is an important variable and should be manipulated. Ruston included these suggested manipulations in his study in addition to a retest after two months. This was included for measurement across time and dissimilar situations. The design was similar to that used by Bryan and Walbek (1970a) except the model was introduced as a possible future teacher at the subject's school (the power manipulation). The retest involved playing the same game two months later with no model present and either the same experimenter or a different one. Results indicated modeling was a significant determinant of imitative altruism but preaching had no effect. The retest provided evidence for the durability and generality of modeling of behavior. Preaching had a significantly high overall effect in the long run.

Cues provided by the model for information concerning permission or appropriateness of certain behavior appears to be the best explanation for altruistic behavior. The model's role, though, remains a mystery. Krebs (1970) emphasized the "necessity for methodological caution in modeling studies" (p. 277) because so many researchers claim their modeling effects are due to more than just experimenter bias. Nevertheless, very few studies have controlled for model expectations.

Group Presence

The last category of research under psychological states involves the effect of presence of a group on altruistic responding. It is important to mention the work of Latane and Darley (1968, 1970) here, since they are viewed as the founding fathers of the diffusion of responsibility concept. Latane and Darley (1970) contend that an individual's inability to react by helping in an emergency situation is due to his state of conflict and indecision. He absolves himself from any responsibility because there are other people present who share the blame. The authors say the effect of group size on the speed of helping is due to the perceived presence of others rather than the influence of their actions, that is, a modeling effect. In a typical experiment (Darley & Latane, 1968), an adult subject is taken to a room where he is told there are other participants in surrounding rooms. The subject is also told that they are all to discuss college

life over an intercom, speaking one at a time for two minutes each. Everyone, the subject is told, will have two turns to speak, will remain anonymous and only the person whose turn it is can be heard over the speaker. Participants' discussions, except for the subjects', are taped and then played in succession with the subject talking last. The first taped voice is that of the victim who admits he has seizures. During his second turn, he feigns an attack, heard over the intercom. The size of the group supposedly present varied in this experiment from two to three to six persons counting the subject and the victim. Eighty-five percent of the subjects who thought they were alone reported the seizure to the experimenter before the end of the fit, compared to 31 percent of those subjects in the six person group. All of the subjects in the two person group reported the emergency eventually while only 62 percent of those in the six person group did. The two and three person groups differed significantly from the six person group in speed of response, also.

In another study (Latane & Darley, 1968), subjects were in a smoke-filled room filling out a questionnaire. They were face-to-face with two passive confederates or two other real subjects or they were alone. Of the subjects who were alone, 75 percent reported the smoke while only 10 percent of those subjects with passive confederates did. The authors concluded that the relationship between bystanders is more important than the bystander-victim relationship.

Staub (1971) tried a similar manipulation with children in kindergarten, first, second, fourth and sixth grades. The children, taken alone or in pairs, knew there was another child in the adjoining room. While the subject colored pictures, the experimenter left to play a tape of a chair falling, followed by sobbing from a young girl. Behavior was recorded as active help (the subject went into the other room or reported the accident to the experimenter), volunteering (the subject reported the accident when questioned by the experimenter about it), or no help. The prediction that children would help more when in pairs than when alone was based on reports that until a certain age, perhaps ten years, children are relatively unconcerned with criticism from their peers. Also, there is more interaction and less inhibition between children than adults and the presence of another child may serve to reduce any stress. What Staub found was that, overall, helping behavior of an individual was unaffected by the presence of another child. However, pairs gave active help more than did individuals. This was the case with subjects from kindergarten to first grade, but then with increasing age, the amount of help decreased. His explanation was that as a child's behavior tends to come more frequently under the control of social norms, he is unwilling to initiate action in an unclear situation. Peer judgment is of increasing concern to the child.

A different type of experiment, assessing the possible influence of an audience on charitable behaviors, was conducted

by Fouts (1972). His hypothesis, that there would be more altruistic responding in the presence of an audience, was based on Zajonc's (1965) social facilitation theory. Zajonc suggests that audience presence is a source of general motivation and increases performance of well-learned responses. Assuming that an audience provides normative pressure to conform to the norm of social responsibility, it was expected that children would respond more to charity stimuli in the presence of an audience than when alone. Results were in the predicted direction but not significant.

Latane (1970) was the only researcher reported who reversed the group size manipulation and looked at the effect of the number of recipients on altruism. Either one (male or female), two (two male, two females or mixed) or three (two males and one female) confederates approached a subject and asked for 20¢ for subway fare. Requesters in a group were more likely to receive help than single requesters. Several explanations are offered for these results. The authors said that if it was gratitude the benefactors were seeking, they were "more likely to receive it from a group than from an individual" (p. 15). Or, they suggested, requesters in a group may have seemed more trustworthy to the benefactor. In other words, how a person interprets a situation will determine his response. No studies comparable to this have been done with children.

In summary, research findings in the area of altruism are, for the most part, inconclusive. There are, however,

some general trends which are apparent. Examination of trait variables and normative analyses have been besieged by difficulties and results are tenuous, at best. The variable, race, appeared to have some relation to altruistic behavior although the exact effect was unclear. Altruism in children was found to increase with age. Psychological states associated with success, competence or just feeling good resulted in an increase in altruistic responding by both adults and children. Also, observation of altruistic models increased the occurrence of altruism. Finally, the presence of a group appears to have had an effect on altruistic behavior; but whether this variable acts to inhibit or to facilitate responding seems to depend on the specific situation.

Being a relatively new area of study, research on altruism has just begun to identify antecedents of specific altruistic acts. The concept is still vague and a method to measure the intent behind the behavior has yet to be discovered. One "hopeful thing" about altruism research is that "it identifies mechanisms that can lead to change" (Krebs, 1970, p. 298).

CHAPTER III

METHOD AND PROCEDURES

The purpose of this study was to examine the effects of sex and group size on sharing behavior in young children. Amount of sharing was measured in a 2 x 2 x 2 factorial design with three independent variables. The variables manipulated were sex of subject, sex of recipient and the number of recipients present. Male or female five-year-old subjects were given a bag of cookies and an opportunity to share them with children of the same age and sex while they listened to a tape-recorded story. The potential recipient(s) of the cookies was (were) actually confederates who constituted the "groups" consisting of either one or two children who were male or female. Sharing was recorded by observers into four response categores. A pilot test was run using five children.

Subjects

Ninety-six children, 48 boys and 48 girls, were subjects in the experiment. The white, five-year-olds were randomly selected from five lower-middle and middle class day care centers and kindergartens throughout the city of Greensboro, North Carolina.

Confederates, Experimenter and Observers

The author served as the experimenter and observer for the study. She was aided in her observation and recording of sharing responses by a female undergraduate student. Both observers were familiar with the response categories after practice during pilot testing.

Other participants, confederates, were members of the "group." These five-year-old children, two boys and two girls, were of the same race and social class as the subjects. They were selected from an independent preschool program different from the subjects' schools. The confederates helped the experimenter during the experimental sessions by acting as the "recipients" of the cookies. In between trials, the recipients stayed in the four-year-old classroom at each school in order to avoid any contact with the subjects prior to the manipulation.

Procedure

The experimenter (E) talked with the four children recruited to serve as recipients during the experimental sessions. She told them that they would be helping in an experiment with other children where they would be listening to a story and giving their opinions of it. They may, E said, have to listen to the same story a number of times but were to act the same way each time. Recipients were told that the subjects would have bags of cookies but they were not told what behaviors the observers were looking for and

recording. E instructed the recipients not to ask for cookies. As long as the subjects offered cookies, the recipients were to accept, each time with a "Thank-you." If the children were offered more cookies than they wanted, they were simply to keep them. The recipients were periodically reminded of the procedure they were to follow and the importance of keeping their identity a secret was stressed. A pilot test with five subjects was run in order to give the recipients a chance to practice and the experimenter an opportunity to answer any unanticipated questions.

Experimental Session

Subjects were randomly assigned to one of eight groups with twelve replications in each. The groups varied according to sex of subject, sex of recipient and number of recipients present. (See Figure 1). In Condition A, there was one recipient in each group and the groups consisted of the following: (1) male subject--male recipient, (2) male subject--female recipient, (3) female subject--male recipient, (4) female subject--female recipient. Condition B had two recipients in each group and composition of the four groups was: (1) male subject-two male recipients, (2) male subject--two female recipients, (3) female subject--two male recipients, (4) female subject--two female recipients.

E conducted the experimental sessions at the subjects' school. She took the subject alone to the experimental room where there was a tape recorder on a table and a few chairs

RECIPIENT

SUBJECT	CONDITION A Group size of 1		CONDITION B Group size of 2	
	Male	Female	Male	Female
Male	12	12	12	12
Female	12	12	12	12

Figure 1. 2 x 2 x 2 Design of the independent variables, sex of subject, sex of recipient, and number of recipients.

around it. The room had a small area sectioned off with a partition, behind which the observer sat. E introduced herself to the subject as a person interested in what kinds of stories children liked to hear. She told the subject she would like him (her) to listen to a tape-recorded story and, afterwards, give his or her opinion of it. There were many comparable stories used interchangeably so that the recipients would not become unnecessarily bored. The stories were read by a woman who worked with five year olds and who was experienced in reading to them.

Next, E told the subject, "Here are some cookies for you to eat while you listen to the story." She handed the subject a bag containing twelve small cookies. Under the auspices of saving time, E mentioned bringing in either one or two more children to listen to the story. She said, "I believe I might as well bring in someone else to hear the story, too. It would save me some time. Unfortunately, I don't have enough cookies for him (her) (them). But I suppose I'll bring him (her) (them) in anyway." Then E left the room for one minute and returned with the appropriate recipient(s) for the condition. The recipient(s) were introduced by first name only to the subjects who were told that the recipient(s) had come from another school. E repeated the instructions about listening to the story but with no mention of the cookies. She said she had work to do, turned on the tape recorder and went behind the partition. There, she and the

other observer were able to watch and record the subjects' behavior.

Each subject's behavior was recorded according to these scoring categories (Staub & Sherk, 1970): simple sharing (SS)--the number of cookies the subject gave the recipient(s); subject ate during (SA)--the number of cookies the subject ate while he was with the recipient(s); sharing difference (SD)--the number of cookies the subject ate during the story minus the number he gave the recipient(s); subject took before and after (SB)--the number of cookies the subject ate before the recipient(s) arrived and the number he took from the room at the end of the experiment. In addition, the latency between the time the story began and when the first cookie was shared was measured. An observation scoring sheet was used to record each subject's behavior. (See Appendix A).

After the taped story was completed, E returned and talked with the children about the story. She tried to relieve any anxieties that may have developed as a result of the experimental setting and made an effort to leave the children with a positive feeling about their experience. She thanked them for their participation and escorted them back to their classroom. The experimenter then asked for the next boy or girl and took him or her to the experimental room. The same procedure was repeated with the appropriate group of recipients.

CHAPTER IV

RESULTS

The experimenter and an observer recorded the data on an observation scoring sheet (see Appendix A). For each subject, the dependent variables were scored by tallying the number of cookies shared and eaten. The following dependent variables were measured in this manner: the number of cookies the subject shared with the recipient (simple sharing); the number the subject ate while the recipient was present (subject ate during); the difference between simple sharing and subject ate during (sharing difference); the number the subject ate before the recipient entered the room (subject ate before); and the number the subject took with him at the end of the session (subject took after). Latency to the first sharing response was measured in seconds with a score of zero being assigned to those subjects who did not share. Only a small amount of sharing behavior was observed, with only twelve out of ninety-six subjects sharing their cookies.

A multivariate analysis of covariance was performed on three of the dependent variables. These were: simple sharing (SS); subject ate during (SA); and latency (LAT). The number the subject ate before the recipient entered the room (SBATE) was used as the covariate. The analysis of

covariance was performed in order to equalize the subjects on the number of cookies they possessed when the recipient(s) entered the experimental room. Several subjects had been observed eating cookies during the minute the experimenter was gone to bring the recipient(s) to the room. Table 1 shows no significant relationship between sex of subject, sex of recipient and number of recipients and the three dependent measures, SS, SA and LAT.

Since the three way interaction of the multivariate analysis of covariance suggested an interactive effect of sex of subject, sex of recipient and number of recipients (although not significant), a univariate analysis of covariance was performed on each of the dependent variables with SBATE as the covariate. As Table 2 indicates, neither sex of the subject nor sex of the recipient had a significant effect on sharing behavior. However, the relationship between the number of recipients and amount of simple sharing approached significance ($F = 3.58$, $df = 1/87$, $p < .06$). More simple sharing occurred when there was one recipient present.

The fact that there was a trend for the number of recipients to relate to the amount of sharing suggests that sex of subject, sex of recipient and number of recipients were more strongly related to the frequency of helping than the data indicated. To better clarify this possibility, chi squares on the frequency of sharing were computed for the main effects. A significant effect was found only for the

Table 1

Summary Table of Multivariate Analysis of Covariance with SBATE as the Covariate*

Source	df	F value	Prob > F
Subject ate before	3	6.35	.0009
Sex of Subject	3	.48	.7
Sex of Recipient	3	.09	.96
Number of Recipients	3	1.45	.23
Sex of Subject x Sex of Recipient	3	.52	.67
Sex of Subject x Number of Recipients	3	.17	.92
Sex of Recipient x Number of Recipients	3	.32	.82
Sex of Subject x Sex of Recipient x Number of Recipients	3	1.93	.13

* Fs based on Pillai's Trace

Table 2

Summary Table of Analysis of Covariance of Simple Sharing (SS) Scores

Source	df	Sequential SS	F value (unadjusted)	Partial SS	F value (adjusted)
Subject ate before	1	.50	.46	.69	.64
Sex of Subject	1	.33	.31	.34	.32
Sex of Recipient	1	.26	.24	.26	.24
Number of Recipients	1	3.85	3.58*	3.86	3.58*
Sex of Subject x Sex of Recipient	1	.21	.20	.21	.19
Sex of Subject x Number of Recipients	1	.42	.39	.40	.37
Sex of Recipient x Number of Recipients	1	.51	.47	.51	.47
Sex of Subject x Sex of Recipient x Number of Recipients	1	3.18	2.95	3.18	2.95

$R = .3$ $R^2 = .09$ $df = 1, 87$

*$p < .06$

number of recipients ($\underline{x}^2 = 6.59$, $\underline{p} < .02$). This result indicates that more subjects shared than were expected when one recipient was present (observed frequency = 10, expected frequency = 5.84) and less than expected when two recipients were present (observed frequency = 2, expected frequency = 6.16).

Table 3 shows no effect of subjects' sex, recipients' sex and number of recipients on the dependent variables, subject ate during (SA). However, as shown in Table 4, there was an interaction of sex of subject, sex of recipient and number of recipients in latencies to the first sharing response ($\underline{F} = 4.70$, $\underline{df} = 1.87$, $\underline{p} < .05$). Subjects tended to share more quickly with one recipient of the opposite sex than with two children or with a same-sex partner.

The adjusted means used in the analysis of covariance are shown in Table 5. As can be seen, there was a trend for females to share fewer cookies with the female recipient and to eat fewer cookies themselves than did male subjects. When female subjects did share, they tended to do so more quickly (within 6.75 seconds) than males. There were no differences between male and female recipients in the number of cookies received, the latency to the first sharing response or the number of cookies eaten by the subject in the recipient's presence. However, as indicated earlier, a single recipient tended to receive more cookies from subjects than did two recipients but latencies were longer in the single subject

Table 3

Summary Table of Analysis of Covariance of Subject Ate (SA) Scores

Source	df	Sequential SS	F value (unadjusted)	Partial SS	F value (adjusted)
Subject ate before	1	80.24	15.70*	77.19	15.11
Sex of Subject	1	4.63	.91	4.57	.89
Sex of Recipient	1	.26	.05	.26	.05
Number of Recipients	1	2.16	.42	2.14	.42
Sex of Subject x Sex of Recipient	1	1.56	.30	1.57	.31
Sex of Subject x Number of Recipients	1	.50	.10	.50	.10
Sex of Recipient x Number of Recipients	1	2.34	.46	2.34	.46
Sex of Subject x Sex of Recipient x Number of Recipients	1	.41	.08	.41	.08

$R = .41$ $R^2 = .17$ $df = 1, 87$

*$p < .001$

Table 4

Summary Table of Analysis of Covariance of Latency (LAT) Scores

Source	df	Sequential SS	F value (unadjusted)	Partial SS	F value (adjusted)
Subject ate before	1	164.49	.11	402.44	.27
Sex of Subject	1	1058.74	.70	1085.43	.72
Sex of Recipient	1	10.53	.01	10.53	.01
Number of Recipients	1	4433.88	2.94	4443.80	2.95
Sex of Subject x Sex of Recipient	1	2058.88	1.37	2029.90	1.35
Sex of Subject x Number of Recipients	1	.01	.00	.35	.01
Sex of Recipient x Number of Recipients	1	855.62	.57	855.62	.57
Sex of Subject x Sex of Recipient x Number of Recipients	1	7082.18	4.70*	7082.18	4.70

$R = .35$ $R^2 = .11$ $df = 1, 87$

*$p < .05$

Table 5

Means Adjusted for: SBATE

Sex of Subject			N	SS	SA	LAT
female			48	.263	1.625	7.113
male			48	.383	2.063	13.867
Sex of Recipient						
female			48	.271	1.792	10.159
male			48	.375	1.896	10.821
No. of Recipients						
1			48	.523	1.993	17.297
2			48	.122	1.694	3.683
Sex of Subject x Sex of Recipient						
female	female		24	.164	1.444	2.174
female	male		24	.362	1.805	12.051
male	female		24	.378	2.139	18.142
male	male		24	.388	1.987	9.591
Sex of Subject x No. of Recipients						
female	1		24	.529	1.847	13.860
female	2		24	-.003	1.403	.366
male	1		24	.518	2.140	20.734
male	2		24	.247	1.987	6.999
Sex of Recipient x No. of Recipients						
female	1		24	.544	2.098	19.951
female	2		24	-.003	1.487	.366
male	1		24	.503	1.890	14.642
male	2		24	.247	1.903	6.999
Sex of Subject x	Sex of Recipient x	No. of Recipients				
female	female	1	12	.320	1.888	3.301
female	female	2	12	.007	1.000	1.047
female	male	1	12	.737	1.805	24.418
female	male	2	12	-.013	1.805	-.316
male	female	1	12	.768	2.307	36.600
male	female	2	12	-.013	1.972	-.316
male	male	1	12	.268	1.973	4.867
male	male	2	12	.508	2.000	14.314

condition ($\bar{x}$ = 17.30 seconds) than in the two-recipient condition ($\bar{x}$ = 3.68 seconds).

In the interaction between sex of the subject and sex of the recipient, the data indicate there was a lesser amount shared between two females than any other combination of the sexes. When female subjects did share with female recipients, though, they tended to do so quickly, within an average of 2.174 seconds. There was the least amount of sharing when there were two recipients present regardless of the subject's sex.

The data from the three-way interaction show that the greatest amount of simple sharing took place when there was a female subject with one male recipient (.737) and a male subject with one female recipient (.768). The least amount of sharing behavior was emitted by subjects paired with two recipients. Sex was not the most important factor here. The results indicate, then, that there were some near significant effects of group size on the dependent measures but few differences according to sex of the subject and sex of the recipient in the mean number of cookies the subject ate in the presence of the recipient, the mean number shared with the recipient and the mean amount of time taken to emit the first sharing response.

CHAPTER V

DISCUSSION

The effects of subjects' sex, recipients' sex and number of recipients on sharing behavior were examined. The occurrence of sharing responses was assumed yet only 12 out of 96 subjects shared their cookies. Since a very small amount of sharing behavior was observed, it is important to discuss the possible relation of this finding to the age of the subjects. There is considerable evidence that altruism increases with age, "at least during the latter half of the first decade of life" (Bryan, 1975, p. 163). However, Bryan's general finding leaves many questions about altruistic responding in younger children unanswered.

Bryan (1975), in his review of children's altruism, agrees that the research supports a positive correlation between age and altruism but discounts most of the interpretations. One of those to which he gives merit "pertains to changes in children's moral and cognitive processes" (p. 164). The hypothesis is that preschoolers' egocentrism prevents them from taking the other's point of view. Shantz (1975) cites Piaget and other researchers who claim that not until approximately age six does a child begin to be able to accurately infer others' feelings.

These hypotheses and findings leave room for doubt as to whether five-year-olds have the ability to empathize with

another child. Shantz (1975) suggests that the average age depends on: (1) the type of task and, (2) the type of response required. Although these two vary widely in research using preschoolers, age five seems to be a crucial point in the development of altruistic behavior. Results from the studies mentioned previously indicate that five-year-olds share less than first graders (Handlon & Gross, 1959) but more than four-year-olds (Lane & Conn, 1972). Age five seems to be an in-between stage where many processes may be shaping the prosocial responses of the child.

The two independent variables, sex of the subject and sex of the recipient, had no significant effect on sharing behavior. Males shared as much as females and males were shared with as often as females. Most of the research reports are contradictory. Shantz (1975) would have predicted that similarity between the subject and the other person (recipient, in this case) increases empathy and, therefore, sharing. The results of the present study do not support this viewpoint since, when group size was one, there was more sharing when the subject and recipient were of opposite sexes. When the subject was male and the recipient, female, three subjects shared and when the subject was female and the recipient, male, four subjects shared. The other three incidents of sharing were divided between the two same-sex conditions. One male subject shared with another male and two female subjects shared with a female recipient. When group size was

two, the only sharing that took place occurred twice between males. It is probable that the lack of significant results for the sex variables was due to the small number of subjects in each cell who shared. The data from one subject may have changed the variance of the scores such that different results would have been obtained.

The three way interaction, Sex of Subject x Sex of Recipient x Number of Recipients, was significantly related to latency of the first sharing response. Since this interaction was not related to either of the other dependent variables, simple sharing and subject ate during, the finding was difficult to interpret.

The relationship between the number of recipients and amount of sharing behavior approached significance. One recipient tended to receive more cookies from subjects than did two recipients, regardless of sex of recipient(s) or subject. A chi square test added support for this finding. The test indicated that the difference between the number of subjects who shared with one recipient versus two recipients was significantly greater than expected. Out of twelve subjects who shared, ten did so when one recipient was present.

In order to hold as many variables constant in this study as possible, recipients were told not to speak to the subject except to say "Thank-you" when offered a cookie. As Krebs (1970) points out in his review article, "passive bystanders" may define the situation simply by their apparent

"lack of concern" (p. 273). Any "distorted perceptions" the subject had of the situation may be validated by the inaction of the recipient (p. 273). This was a new setting for these subjects and both the experimenter and recipient(s) were strangers to them. There is a similarity between the present study and the Asch (1956) studies on conformity where the larger the group present, the more likely the subject was to imitate or conform to the groups' behavior. Based on his findings, one might conclude that subjects would be more apt to conform to the passivity of two recipients versus one recipient. However, data pertinent to this point indicated this was not the case. Just as many subjects were likely to eat their cookies in the presence of one recipient as in the presence of two recipients.

There is one strong viewpoint concerning the effect of a group on behavior which is supported by previously discussed studies. It is the social facilitation theory (Zajonc, 1965) which suggests that the presence of a group is a source of general motivation and increases performance of well-learned responses. The present findings contradict this viewpoint along with the findings of Fouts (1972) and Latane (1970). However, these two studies differed from the present one methodologically. Fouts had an audience present who did not act as the receivers but merely watched the exchanges. Latane's recipients requested money from the subjects rather than waiting for it to be offered. He found requesters

in a group were more likely to receive the money than single requesters.

Perhaps, as with the independent variables, sex of subject and sex of recipient, the explanation of these results lies with something other than proposed theories relating specifically to the effect of group presence. The possibility of demand characteristics of the experimental situation influencing sharing behavior is very probable. Staub (1970; 1971) provided evidence indicating that children are very sensitive to the rules of the situation and, in the absence of permission to help, assume that the rule to be followed is inaction. The present study provides some support for this argument. Those subjects who did not share their cookies also ate fewer themselves than those who did share. This may indicate their tendency not to act in the absence of specific rules of behavior. The children were, in effect, allowed not to eat their cookies.

In the present study, notes were kept on those children whose behavior was unusual in some way. Although no relationship between the independent variables and these "distinctive" behaviors can be noted, the fact that they occurred in over half the subjects is of interest. Several children hid their bags of cookies under their chairs after the recipient(s) entered the room. Over thirty subjects looked nervously back and forth between the cookies and the recipient(s); some tried to open the bag quietly, giving up when they could not,

while others turned their faces away from the recipient(s) while they ate the cookies. These are the children who seemed to be aware that rules of social behavior do exist but for some reason were not willing to follow them. Of all the subjects observed who emitted these unusual behaviors, none shared their cookies and fewer than half ate any cookies themselves. It could be as Staub (1970) said, that the rules of the situation are the ones to which the children are sensitive, rather than any feelings of social responsibility towards the recipients.

As Bryan (1975) points out, "evidence exists and common sense dictates that children are sensitive to the actions and demands of the experimenter..." (p. 146). Although the instructions were carefully worded in the present experiment so as not to give the subject any indication that the recipient(s) was (were) not to receive cookies, direct permission to share was not given. In two cases, subjects did ask the experimenter if they might share their cookies with the recipient(s), indicating their concern for doing the "right" thing or what the experimenter wanted.

It occurred to this writer that the setting of the experiment may have had an adverse effect on sharing. The way in which most schools are structured, sharing is not encouraged. Toys and materials are usually used on a rotating basis. Meals and snacks are strictly individual. The school setting, however, does encourage rule following.

It seems, then, as Staub (1970) contends, that children are not as sophistocated as adults in their ability to discriminate between which norms take precedence in which situations. They are simply concerned with not breaking the rules. Whether this phenomenon is based on the children's low stage of moral development or not has yet to be substantiated. However, the data from the present study seem to indicate that the children's behavior was more related to concern for following adult rules rather than stages of moral development.

CHAPTER VI

SUMMARY

In this study, the effects of sex and group size on sharing behavior in young children were investigated. The variables manipulated were sex of benefactor (the subject), sex of recipient and the number of recipients present. Ninety-six children, 48 boys and 48 girls, were subjects in the experiment. The white, five-year-olds were randomly selected from five lower-middle and middle class day care centers. Subjects were given a bag of cookies and an opportunity to share them with children of the same age while they listened to a tape-recorded story. The potential recipient(s) of the cookies was (were) actually confederates who constituted the "groups" consisting of either one or two, male or female children.

It was hypothesized that there would be no significant relationship between a group size of one or two children and the amount of sharing behavior. It was also hypothesized that there would be no significant relationship between sex of the subject or sex of the recipient and the number of cookies shared.

Sharing performance was recorded by observers into four response categories including, number of cookies shared with recipient, number of cookies eaten by subject before, during

and after the playing of the story (Staub & Sherk, 1970). Latency of the first sharing response was also measured.

An analysis of variance was performed to determine differences among the groups' sharing behavior. In addition, since subjects had been observed eating cookies before the recipients' arrival, an analysis of covariance was run in order to equalize the subjects on the number of cookies they possessed when the recipient(s) entered the room. The results indicated that the hypothesis, that there would be no difference in the effect of a group size of one versus a group size of two on sharing behavior, could be tentatively rejected. Out of twelve subjects who shared, ten did so in the one recipient condition versus two subjects in the two-recipient condition. A significant chi square result indicated that more subjects shared than expected when one recipient was present and less than expected when two recipients were present.

A second hypothesis, that there would be no difference between male and female subjects in the number of cookies shared, could not be rejected. The same conclusion was drawn for the third hypothesis, that there would be no difference in amount of sharing between male and female recipients. Testing revealed no significant findings as a result of the multivariate analysis of covariance nor the subsequent univariate analyses for sex of subject and sex of recipient.

The young age of the subjects was suggested as a probable reason for the small amount of sharing behavior observed. Small cell frequencies for those subjects who shared was postulated as the main reason for obtaining no effects. The important influence of demand characteristics and children's sensitivity to rules were cited as factors affecting the group size manipulation. It was concluded that much more research is needed in order to narrow the field of possible variables which affect altruistic responding in young children.

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Appendix A

Observation Scoring Sheet

Center:_____ Date:_____

Time:_____

Condition	Recipient	Subjects	Responses					
			SS	SA	SD	SB		Latency
			S → R	S ate	SS minus SA	S ate before R	S took from room	