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The Effects of Instructions on Prosocial Behavior of Preschool Children

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AN ABSTRACT OF THE THESIS OF Jane Marie Blackwell for the Master of Science in Psychology presented August 3, 1979.

Title: The Effects of Instructions on Prosocial Behavior of Preschool Children.

APPROVED BY MEMBERS OF THE THESIS COMMITTEE:

Cathleen L. Smith, Chairperson

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This experiment examined the effects of instructions on the prosocial behavior (i.e., helping, sharing, teaching, and sympathy) of preschool children. Forty-eight individual children ($\bar{X}$ = 56.7 months) interacted with two adult women on two separate occasions, an initial session measuring baseline levels of prosocial behavior, and a second session several days later. In the second session, children received instructions in helping, sharing, and teaching, and an opportunity to rehearse, or practice, these prosocial behaviors. Children were given either power assertive instructions (i.e., instructions which directly told the child what to do), or inductive instructions (i.e., instructions which focused

the child's attention on the needs of others). A control group received no instructions to behave prosocially. At the close of the second session, all children were given an immediate test to assess their level of helping, sharing, and teaching in the absence of instructions. An opportunity to display sympathy or comforting behavior was included to test for generalization of the instructional training to a new behavior. Approximately one week later, a third session, where the child interacted with two new adult women who gave no instructions but presented opportunities for the child to help, share, teach, and sympathize, was included to test for internalization and long term generalization.

In general, both power assertive and inductive instructions were shown to be effective in promoting prosocial behavior. Both the power assertive and the inductive instructions were effective in eliciting rehearsal of the prosocial behaviors. Those children who received power assertive instructions regarding helping, sharing, and teaching behaviors were subsequently more likely than children who received no instructions to exhibit sharing and teaching both immediately and on a delayed test with new adults. In addition, boys and girls who received power assertive instructions were also more likely to help immediately. On the delayed test of helping, however, the power assertive instructions proved effective only for girls. Inductive instructions were similarly effective in promoting prosocial behavior in children. Specifically, in comparison with the non-instructed controls, children who received inductive instructions regarding helping, sharing, and teaching behaviors subsequently displayed more sharing and teaching on the immediate test and several days later with different adults. However, unlike power

assertive instructions, inductive verbalizations did not immediately increase helping behavior in either boys or girls, but did prove effective on the delayed test with girls.

The instructions also had an effect on the uninstructed prosocial behavior of sympathy, or comforting. The instructed children expressed more kindness to an injured adult than control children, both immediately and on the delayed test, and girls expressed more comforting behavior than boys during the delayed test.

The results of this study suggest that instructions are effective in promoting prosocial behavior in the very young child. An instruction which focuses on the consequences of the child's behavior for others may be as effective as one which directly tells the child to behave prosocially. These instructional techniques have immediate results as well as effects which endure over a week's time, and suggest a useful method for parents and other caregivers who wish to promote prosocial behavior in young children.

THE EFFECTS OF INSTRUCTIONS ON PROSOCIAL BEHAVIOR
OF PRESCHOOL CHILDREN

by

JANE MARIE BLACKWELL

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TO THE OFFICE OF GRADUATE STUDIES AND RESEARCH:

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

This study attempted to examine the effects of instructions on the prosocial behaviors (helping, sharing, teaching, and sympathy) of preschool children. During socialization children are exposed to instructions from adults to engage in prosocial behavior in everyday situations. Yet the efficacy of instructions has generally been investigated in areas of response suppression (i.e., punishment) rather than as a socialization technique for increasing cooperative responses. However, instructions may also be important for eliciting positive forms of behavior as well. Specifically, instructions which employ reasoning statements may be particularly important in the acquisition and internalization of cooperative responses.

In the literature review which follows, studies which examine the effects of parental disciplinary techniques on children's moral development will first be considered. Next, theoretical accounts of the effectiveness of reasoning will be summarized. Laboratory studies of verbal influences will then be reviewed. Finally, the effects of practice, or rehearsal, on children's prosocial behavior will be examined.

Parent-Child Interaction Studies

Investigators suggest that socializing agents have important effects on the moral development of children. In particular, a parent's use of reasoning with a child has been thought to be especially influential

(Walters and Grusec, 1977; Hoffman, 1975; Hoffman and Saltzstein, 1967; Staub, 1979). In his review of the literature, Hoffman (1970) purported that induction (i.e., pointing out to the child the consequences of his or her behavior on others) is a major antecedent for the development of internalized moral values and moral behavior. Hoffman and Saltzstein (1967) examined the effects of a child's most influential socializing agents, the parents, by classifying three types of parental responses, Love Withdrawal, Power Assertion, and Induction. Love Withdrawal was defined as the withdrawal of affection by the parent through ignoring the child, not speaking to the child, or by physically separating the child from the parent. Power Assertion was described as the parent "capitalizing on his physical power or control over material resources" (Hoffman, 1970, p. 285), and included the use of physical punishment, force, deprivation of materials, or threat of any of these. Induction was defined as those disciplines which furnish the child with explanations or rationales that focus on "the consequences of the child's behavior for himself or others" (p. 286). Hoffman (1970) gave special attention to techniques which he called other-oriented induction, which contain references to the implications of the child's behavior for another person by pointing out the needs or desires of others. These classifications of parental behavior were then related to several measures of moral development of seventh grade middle and lower class children, including cognitive indices, the child's overt reaction to transgressions, and peer ratings of his or her consideration for others (Hoffman and Saltzstein, 1967). In the middle-class sample the frequent use of parent-oriented induction by mothers was related to higher moral development, whereas the use of power

assertion by mothers was negatively related to moral development. In the lower-class sample, the relationships were not as clear; there were few relationships between perceived parental discipline by the children and the reports from the parents. However, peer ratings of consideration for others for both middle and lower class boys were associated with the mothers' reports of the use of power assertion.

In a similar procedure, Hoffman (1975) examined the relationship of parents' altruistic values, their use of victim-centered discipline, and parental affection to fifth grade children's consideration for others as rated by peers. Significant correlations were obtained between altruistic behavior in the children and altruistic values in the same-sex parent. The girls' altruistic behavior was marginally related to fathers' altruistic values. A relationship between children's altruism and their parents' use of victim-centered discipline was also significant, although only with respect to opposite sex parents. Finally, a positive relationship between maternal affection and altruism in boys was found.

These findings indicate that parents who communicate altruistic values and who frequently use victim-centered discipline tend to have altruistic children. They also suggest that induction may be a contributor to prosocial behavior; it directs the child's attention to others' distress and communicates responsibility to the child (Staub, 1979). Other investigators have also emphasized the importance of reasoning with the child (Baumrind, 1967).

However, not all the parent-child research supports the use of reasoning by parents in the moral development of the child. In one of the few investigations in which parent-child interactions were directly

observed, Greenglass (1972) studied Canadian and Italian mothers and their nine or ten-year-old children. In addition to observations of the mother and child as they attempted to reach consensus on a variety of tasks, Greenglass observed the children's resistance to temptation when they were exposed to a game in which cheating was required to win.

The results indicated that Italian mothers used more demands during interactions with their children, while Canadian mothers tended to use more justifications (i.e., reasoning) with their children. Rather than offering a rationale to the child, the Italian mothers simply commanded him or her to do something, while the Canadian mothers were more likely to take into account the child's own response, as well as to explain their own reasons for wanting the child to respond in a particular way. Since the Italian boys cheated less on the game, these results indicated that among boys, resistance to temptation was negatively correlated with maternal use of reasoning and positively correlated with maternal restrictiveness and authoritarianism. The results of the cheating measure indicated no differences between the two ethnic groups of girls; however, there was evidence to suggest a positive relationship between highly controlling discipline practices and the girls' resistance to temptation.

The findings of this study suggest that a relationship exists between children's resistance to temptation and the restrictiveness of their parents. It is unclear if this same relationship is an important antecedent to prosocial behavior.

Within the framework of parent-child interactions, Lytton and Zwirner (1975) sought to discover functional relationships between different categories of parent behavior and subsequent child compliance. Through

a complex sequential analysis of behavior during home observations, Lytton and Zwirner were able to determine what kinds of parental behaviors promoted compliance in 32-month-old boys. The use of suggestions by parents elicited compliance in the child more often than the use of commands or prohibitions. As the authors pointed out, however, requests such as, "Put the toy there" were scored as suggestions rather than commands. Thus the efficacy of suggestions was very likely due to use in areas with little conflict where the child had fewer motives for disobeying. Reasoning, on the other hand, brought about less compliance than commands or prohibition. It is interesting to note, however, that reasoning statements were not followed by more noncompliance, but rather by the matter being dropped. "Parents, having justified their demands or prohibitions, were more willing to let the matter be forgotten" (p. 778).

The long term impact of various parental techniques on compliance may be a different matter. The more enduring effects of the parents' behaviors were demonstrated by a multiple regression of the child's compliance on various mother predictors (Lytton, 1977). Data were again gathered by in-home observations of parent-child interactions, supplemented by maternal interviews. The most important positive predictors of child compliance, viewed as a summary trait, were the mother's consistency of enforcement of rules, use of psychological rewards (e.g., praise), play with the child, and the encouragement of mature action. In contrast, the amount of physical punishment was a negative predictor of compliance. The use of induction played a lesser role in the prediction of compliance, and in particular played no significant part in the prediction of internalized standards. According to Lytton this may have been due to the

young age of the subjects.

There are several methodological considerations which are important in examining the results of these parent-child interaction studies. In general, those investigations which obtained support for the use of reasoning (Hoffman and Saltzstein, 1967; Hoffman, 1975) were those in which parental behaviors were assessed by interviews. When parents are questioned concerning their childrearing practices, their responses may not accurately reflect actual parenting behavior. An additional problem exists with the Hoffman and Saltzstein (1967) and Hoffman (1975) studies. In these investigations, parents of fifth and seventh graders were required to respond to descriptions of disciplinary situations as they would have responded when their child was five years old, several years earlier. These responses were assumed to be not only accurate, but also consistent with the currently used parenting style. In addition, in both of these studies the assessment of the child's consideration for others was obtained from peer ratings, which are also subject to questionable reliability.

In contrast, those investigations which did not support the effectiveness of induction (Greenglass, 1972; Lytton and Zwirner, 1975; Lytton, 1977) measured parental techniques by direct observation rather than interview. In fact, both Greenglass and Lytton and Zwirner demonstrated the superiority of power assertive over inductive techniques, in marked contrast to the conclusions drawn by Hoffman and his associates (Hoffman and Saltzstein, 1967; Hoffman, 1975). It is not entirely evident why these discrepancies exist. Not only did the methods of assessment of parental behaviors differ, but the ages of the subjects and the dependent

measures varied as well. Clearly, the effects of adult influence on a child's moral development cannot be fully understood through the correlational approach of these parent-child interaction studies.

Induction: Theoretical Considerations

Induction has been thought to be an important antecedent of the tendency to behave prosocially for several reasons. According to Hoffman (1970), induction directs the child's attention to the needs of others, which may often elicit empathic responses. The use of induction also helps the child recognize how his or her actions affect another (i.e., induction communicates responsibility concerning the child's actions). Furthermore, reasoning (i.e., induction) supplies the child with information which may generalize to later deeds. A rationale such as "Don't play with the toy because it belongs to someone else" gives information that pertains not only to the immediate situation but to a general rule that a child could use at a later time. As Walters and Grusec (1977) point out, the use of reasoning enables children to generalize from the current misdeed to future related misdeeds in the absence of the original socializing agent. Through the use of induction, then, children may learn systems of cognitions by which they evaluate and interpret events (Staub, 1979).

Inductive statements are assumed to acquire their effectiveness by frequent association with punishment of the child, whereby the statements (and presumably, the accompanying cognitions in the child) become conditioned stimuli eliciting affective responses such as anxiety (Walters and Grusec, 1977; Staub, 1979). Indeed, the efficacy of in-

duction has generally been investigated in the laboratory in conjunction with response suppression (i.e., punishment), rather than as a technique to promote prosocial behavior. Representative of such research, LaVoie (1973) compared the effectiveness of punishment (i.e., an aversive buzzer) and reasoning in promoting first and second grade children's resistance to deviation. In this study, the aversive buzzer was more effective than reasoning. However, Parke (1969) showed that the addition of reasoning increased the effectiveness of an aversive buzzer, while Cheyne (1969) found that the inclusion of an inductive statement reduced deviations in third graders but not in kindergarten children. With older boys, LaVoie (1974) demonstrated that a person-oriented rationale similar to Hoffman's (1970) other-oriented induction, which appealed to the adolescent boys' respect for others' property and rights, e.g., "You are not to play with that toy because it belongs to another boy/girl and it might get broken and I don't have another toy to replace it," (LaVoie, 1974, p. 183) was more effective than a loud buzzer. Even this brief sampling of the response suppression literature, however, indicates that the conditions under which induction is effective, particularly for younger children, are poorly understood.

It is clear, however, that cognitive factors are implicated in any analysis of induction.

What parents tell children about the world, about other people, and about ways of interacting with people will shape the kinds of attributions children make about the motives or intentions that guide others' behavior, will influence how they evaluate people, events, and behavior, and will affect the kinds of strategies and plans that they develop for relating to other people (Staub, 1979, p. 165).

These evaluations and attributions have been the focus of much recent

theoretical speculation. In particular, an attempt has been made to link attributions with the process of internalization. Since behaving appropriately in the absence of the original socializing agent has traditionally been the operational definition of internalization, then an important goal of the socializing agent is to become unnecessary (Walters and Grusec, 1977). Attribution theory (i.e., the theory which studies the ways in which individuals perceive the motivation of themselves and others) provides a theoretical framework for understanding this internalization process. The child's perception of the amount of control exerted by the socializing agent may be an important determinant of his or her later behavior. If children perceive that their behavior is due to strong external coercion, their value systems will not change as much to conform with the behavior as would be the case if they were not able to perceive any external coercion. On the other hand, children who do not perceive their behavior as controlled by external pressure would be more likely to continue behaving in the same way in the absence of those external constraints.

It has been assumed that a procedure such as reasoning minimizes the intrusiveness of external pressure, thereby facilitating internalization. Dienstbeier, Hillman, Lehnhoff, Hillman, and Valkenaar (1975) maintain that the negative emotional states associated with punishment remain with a child, but the causal attributions concerning these states may change. For instance, if a child is punished for taking money from his/her mother's purse, the temptation to steal in the future should be followed by anxiety that was rooted in the original punishment-training situation. However, the cause for the anxiety can be attributed in various

ways. For example, the child could attribute the anxiety to being detected and punished. On the other hand, the anxiety could be attributed to the understanding that good children do not steal. If the fear of being detected is perceived as the reason for the anxiety, the child should not be expected to refrain from stealing when there is no chance for detection. If the perceived reason for anxiety is connected with being a good person, however, then the child would likely refrain from stealing even when detection is impossible. The latter perception illustrates that honesty has been internalized.

In summary, according to theoretical accounts, induction should be effective because it focuses attention on the needs of others, supplies information, and contributes to the development of internal attributions. Although the majority of investigations have examined induction in conjunction with response suppression, pointing out the positive aspects of desirable behavior, such as the improved welfare of others, positive emotions associated with such behaviors, and the like, may also be important in the development of a tendency to act prosocially as well. Supposedly the incentive to behave prosocially is greater when, due to the anticipated self-reward or anticipated empathic experience, people can foresee and consider the benefits their behaviors will produce. The satisfaction gained from acting prosocially will also be greater. Further, by adding to the awareness of one's power in helping others, positive induction can also contribute to a sense of responsibility for prosocial intervention (Staub, 1979).

Laboratory Studies: Verbal Influences on Children's Prosocial Behavior

Since induction is a childrearing technique which relies primarily on a verbal medium, it is important to review the literature on verbal influence in general. A number of investigations have examined the effects of verbal communications delivered by adults on children's subsequent prosocial behavior.

Bryan and Walbek (1970) conducted an early series of experiments examining the differential effects of words and deeds upon children's generosity. Third and fourth graders were exposed to a same-sex model who preached either generous activity, selfish activity, or who did not refer to any norm of giving during ten practice trials of a bowling game. In the generous preaching condition the model delivered an initial exhortation on the first trial, "If I win any money today, I am going to give some to the poor children. She said we didn't have to, but I think it would be a good idea; it would make them happy" (p. 333). Four other exhortations followed on the subsequent no-win trials, e.g., "If I win more money, I am going to give some away;" "It is really good to donate to poor children" (p. 333). Children in the selfish preaching condition heard a selfish exhortation on the first trial, e.g., "If I win any money today, I am not going to give any to the poor children," (p. 333) as well as during the other four no-win trials, e.g., "If I win more money, I am going to keep it all myself;" "It is not good to donate to the poor people" (p. 333). In the neutral preaching condition the model simply stated on the first two no-win trials her desire to win some money, and made no comments on the other trials. During the winning trials, all subjects were exposed to a model who behaved either charitably

or selfishly by donating or keeping the game winnings. Thus some children saw a model who did not practice what he or she preached. Children in all groups were left unsupervised to play the next 20 trials.

The results showed that modeling practices affected children's subsequent donating behavior, but the same model's preachings did not, i.e., children exposed to generous exhortations donated no more than children exposed to selfish or neutral exhortations. Judging from the children's donations, then, the deeds of the model had more impact than his or her words. However, since these studies did not include a group of children who saw no model, the effects of verbal exhortations alone on children's charitable behavior could not be determined.

One widely accepted explanation for the effectiveness of generous models suggests that a model provides the child with information concerning what he or she is expected to do (Bryan and London, 1970). If information from modeling is a salient contribution to a child's later behavior, certainly verbal statements from adults should have an equally strong effect on children's donating. Following this analysis, Grusec and Skubiski (1970) exposed some of the eight and ten-year-old subjects to a condition in which they observed a same-sex model play a bowling game and very explicitly donate half of the winnings to charity on the five winning trials: "One for the poor children" (p. 354). Other children heard the adult muse slowly to him or herself, taking care not to look at the child,

Well I guess they expect us to share our marbles with the poor children. Probably that's what one had better do. I guess if I gave one of every two marbles I win to the poor children that would be fair . . . I'd take two from the box, put one in the poor children's blue bowl

(the model looks at the bowl) and put one in my yellow bowl. I really ought to hope (I win) . . . Then there would be a chance to give some of the marbles to the poor children (p. 355).

The verbalizing adult was then called away before having a chance to play the game. A control group of children played the bowling game without exposure to performance or verbalizations of generous behavior. For ten minutes prior to these manipulations, subjects were either nurtured or ignored by the adult. Following the modeling or the verbalizations, the children were given an opportunity to play the game alone.

The results indicated that while the model's behavior did affect children's subsequent donating, verbalizations were only effective for females exposed to the nurturant adult. Indeed, three quarters of the subjects who were exposed to an adult who only verbalized about the appropriateness of generosity did not donate. However, since this verbalization was not compared with a more salient version (i.e., one in which the adult directly addressed the child rather than musing to him or herself), it is unclear whether these results reflect ineffectiveness of verbalizations generally or of this verbalization condition in particular.

In a similar study, Grusec (1972) repeated these procedures with seven and eleven year-olds, and in addition asked the children in both the modeling and verbalization conditions to recall as much as they could concerning the adult's behavior. In this study, however, the nurturance manipulation was omitted. Results indicated that younger girls and all of the older children were equally affected by the modeled behavior and the verbal description of appropriate behavior. For younger boys, however, observation of a model was necessary to produce sharing. Interestingly, recall scores for these boys did not differ from recall

scores of the other children. Considering the results of Grusec and Skubiski (1970) and Grusec (1972) together, Grusec (1972) concluded that in the former study nonnurturance may have suppressed the effectiveness of the verbalizations for girls rather than nurturance facilitating it. The reasons why young girls who heard generous verbalizations donated more than young boys who heard the same exhortations remain unclear.

Rice and Grusec (1975) pointed out that in previous studies children in the modeling condition actually saw the model donate, whereas the children in the verbalization condition heard only that the adult considered donating appropriate before he or she was called away. These latter children, for example, may have thought the verbalizing adult could afford to be more generous because he or she had amassed more winnings. Accordingly, children in a subsequent study by Rice and Grusec (1975) were exposed to either a generous same-sex model who donated some of his or her winnings to the poor children, or to an adult who played the game and then delivered a verbalization concerning the appropriateness of donating. A control group saw an adult who played the game and left before claiming the winnings. In all conditions children (third and fourth graders) were then given an immediate opportunity to play the game alone and a follow-up opportunity four months after this initial visit.

Donations of children in the verbalization condition did not differ significantly from those in the modeling condition; children in both conditions donated more than control children. This pattern of results was repeated four months later except that boys in all conditions substantially reduced the amount they donated.

Rushton (1975) attempted to improve the manipulation of the preaching variable and to test the durability of these verbalization and modeling effects. Children aged seven to eleven were exposed to either charitable, greedy or neutral exhortations from a same-sex model who behaved generously or selfishly. Unlike previous studies, the model was introduced as a possible future teacher (i.e., a powerful model) and the needy child for which the donations were intended was referred to by name. For the preaching manipulation, the model looked directly at the child during winning trials and preached generosity ("We should share our token with Bobby;" "It's good to give to kids like him;" "You should give to kids like him," p. 461), greed ("We should not share our counters with Bobby;" "It's not right to share tokens with Bobby;" "You should not give to kids like him," p. 461), or engaged in neutral conversation. The child was subsequently given an opportunity to play the game and donate alone. Eight weeks later, the child was retested.

The results showed that modeling produced significant effects on the immediate test, whereas preaching did not. While modeling still showed a significant effect on the delayed test of generosity, preaching now produced a significant overall effect as well. Specifically, models who preached selfishness produced less donating behavior eight weeks later than those who preached generous or neutral messages. Although not highlighted by Rushton (1975), it is also interesting to note that models who preached generosity did not produce more donating than models who delivered neutral messages. Certainly this study is commendable in that it included a delayed test, but the failure to include groups of children which saw no model makes it difficult to evaluate the effects of verbalizations alone.

Induction as a means of verbal influence. Investigations of the differential effects of verbalizations and modeling on children's donations have largely ignored the content of the verbalizations delivered to the child. However, a few recent studies have begun to address this issue.

Midlarsky and Bryan (1972) suspected that the charitable exhortations of previous studies did little more than remind the child of the norm of giving. In contrast, parents in everyday situations employ strong charitable exhortations that supply reasons to justify acts of kindness. Perhaps stronger exhortations, justifying generosity on the basis of its impact on recipients, would be more successful than normative statements in promoting donating behavior in the laboratory as well. Accordingly, Midlarsky and Bryan (1972) exposed fourth and fifth grade children to a male model who played ten trials of a bowling game. On the five winning trials, he either behaved charitably, donating some of his winnings to charity, or selfishly, keeping all of his winnings for himself. On the losing trials, the model delivered either charitable exhortations, which emphasized the positive impact of charitable acts on the recipient's feelings, e.g., "I hope that I'll win some money because I'd really like to give some to the needy children. . . . It's a good thing to give, especially when you know that it will make others happy," (p. 198) selfish exhortations, which stressed the negative aspects of giving, e.g., "I hope that I win some chips, because I could really use some spending money this week. . . . It's not so good to give, especially when you realize that it makes some children feel pretty bad to get charity " (p. 198). The children then played the

game alone.

Considering the data for exhortations alone, results indicated that the model's exhortations significantly affected the children's donation behavior. Those children who heard the model preach charitable behavior donated significantly more than those children who heard the model preach selfish behavior. This was especially true for the fifth graders. These results suggest, then, that charitable exhortations that are strongly stated and justified in terms of their impact on the recipient are more effective than selfish verbalizations in increasing children's behavior, particularly with older children. The justifications employed in this study fit the definition of other-oriented induction proposed by Hoffman (1970). For the first time, then, a laboratory study demonstrated that inductive verbalizations affect children's charitable behavior. As in previous studies, however, the failure to include groups of children who saw neither a charitable nor a selfish model makes it difficult to assess whether verbalizations themselves affect children's charitable behavior.

Using Hoffman and Saltzstein's (1967) distinction between induction and power assertion, Dlugokinski and Firestone (1974) investigated further the effect of justifications on children's donating behavior. In this study fifth and eighth grade children's generosity was related to their perceptions of their parents' disciplinary techniques as either inductive or power assertive. Children were paid 50 cents for their participation and given an opportunity to donate these earnings to UNICEF under power assertive, inductive, or neutral appeals. The inductive appeal was given by the experimenter while the regular teacher

was absent, and the request for donations was linked to someone who worked for UNICEF. It stated that UNICEF helps children who are "hungry almost every night," who "don't have any decent clothes to wear," and who "have to sleep in the street. . . . These children would really appreciate any donations that people make to them" (p. 24). The power assertive appeal, on the other hand, was made with the regular teacher present and linked the request for donation to the school authorities (the teacher and the principal). The power assertive justification lacked the other-orientation of the inductive appeal and was instead based on the decision of an adult authority to donate, i.e., "They said you should donate at least part. . . . They know a lot about this and think that it's a good organization, and I do too. So, we want you to contribute . . ." (p.24). The neutral appeal was only delivered to eighth graders; it left the source of the appeal ambiguous and mentioned only the option of donating. Children in all conditions were told that no one at school would be informed whether or not they donated.

For each age and sex subgroup, children who perceived their mothers as using inductive disciplines donated more of their earnings to charity than children who perceived their mothers as power assertive. In general, children donated more under persuasive appeals which were consistent with their perceived parental style. For example, children whose professed socialization history was inductive gave more to the inductive appeal than to the power appeal. Power assertive children, on the other hand, tended to give less to the inductive appeal than the power appeal. Additionally, the younger children (fifth graders) gave more under power assertive appeals while older children (eighth

graders) were more responsive to inductive appeals. Both power assertive appeals and inductive appeals produced more donations than neutral appeals. In this study, perceived induction was also positively correlated with the reported importance of other-centered values to the child, with the degree to which the child understood the meaning of kindness, and with peer ratings of the child's kindness.

Eisenberg-Berg and Geisheker (1979) systematically examined the effects of content of generous preachings on children's anonymous donations to UNICEF. Prior to playing a game, third and fourth graders viewed a videotape in which an adult earned 50 cents from the game and delivered statements concerning generosity toward poor children that were either empathic (i.e., " . . . They would be so happy and excited if they could buy food and toys. After all, poor children have almost nothing. If everyone would help these children maybe they wouldn't look so sad," p. 170), normative (i.e., " . . . It's really good to donate to poor boys and girls. Yes, we should give some money to others poorer than ourselves. Sharing is the right thing to do," p. 170), or neutral where the adult simply discussed the game. After the adult delivered the statement, the videotape blurred so that none of the children observed modeling of generosity or selfishness. The children were then left alone to play the game and donate anonymously.

Content of preachings significantly affected children's donations to the charity, with the empathic preaching condition eliciting significantly more generosity than the neutral statement. However, the amount donated in the normative preaching condition did not differ significantly from the amount donated in either the empathic or the neutral

condition. Fourth graders were more generous than third graders, and boys and girls shared equally.

In this study, verbalizations that pointed out the consequences of generosity on others (i.e., empathic verbalizations) enhanced children's donating. In contrast, verbalizations that relied on normative information did not produce more donations than neutral verbalizations.

Grusec, Saas-Kortsaak, and Simutis (1978) exposed eight- to ten-year-old children to a model who practiced charity, preached charity, engaged in a combination of the two, or who did nothing. Two kinds of exhortations were furnished the children. Specific exhortations emphasized that children should share with those less fortunate in order to make them happy, while general exhortations told the children that it is a good thing to make people happy by helping them in any way one can. Thus, both the specific and the general exhortations contained inductive and normative statements. Some children were given no exhortations (no preaching condition). Following the exhortation manipulation, the model either donated half of his winnings or was called from the room before donating. All children were then left to play the game alone. Children were also given several tests immediately following the game, three weeks later, and five weeks after training. The tests immediately following the game assessed the amount of generalization and consisted of whether or not children spontaneously picked up objects the experimenter dropped, and whether or not they shared colored pencils with children who could not participate. Three weeks later the children were given another opportunity to play the game and donate marbles to the poor children as before. In a delayed test of generalization five weeks after

the initial visit, the children were approached in their classroom by a new male experimenter who asked them to collect craft items and make drawings for sick children.

Modeling was more effective than verbalizations on the immediate test, although children in the verbalization condition donated more than control children. On the immediate test of picking up dropped objects, preaching alone actually depressed helping, but preaching combined with modeling did not. Girls helped more than boys. Exhortations did have an effect on boys' sharing of pencils, however. Boys who received specific exhortations shared more pencils than boys who had received general exhortations, and somewhat more than control boys. On the delayed test of donating marbles, the differences between modeling and verbalizations disappeared, although the modeling and verbalization conditions still differed from control. On the ~~generalization~~ test five weeks later, children given only general exhortations about helping others collected more items for the sick children than control children. However, if children had previously observed the model donate half of the winnings to charity, the effects for general exhortations disappeared. Additionally, girls collected more items than boys.

In summary, studies which have examined the effects of verbalizations delivered by socializing agents on children's moral behavior have provided inconsistent results. Under certain circumstances verbalizations have been shown to be effective in promoting children's donating behavior. In conjunction with modeling, charitable verbalizations which are delivered directly to the child (Rushton, 1975) and which present

justifications or reasons for charitable behavior (Midlarsky and Bryan, 1972) are more effective than selfish verbalizations delivered under similar circumstances. When delivered without modeling, charitable verbalizations are also effective in increasing children's rates of donating when children know the extent of the preaching adults' resources (Rice and Grusec, 1975), when the statements include empathic reasons for generous behavior (Eisenberg-Berg and Geisheker, 1979), or when the verbalizations include a combination of inductive plus normative rationales (Grusec, Saas-Kortsaak and Simutis, 1978). In fact, in the latter study, verbalizations affected not only donation rates, but a delayed test of generalization as well. Specifically, children who had been told that it is a good thing to make others happy by helping in any way possible were more likely to collect craft materials for sick children than children exposed to no treatment. Although these results seem impressive at first glance, the elimination of any exhortation effect in children who had also observed a charitable model suggests that they should be interpreted with caution. On the other hand, charitable verbalizations delivered by a nonnurturant adult do not promote children's later donations (Grusec and Skubiski, 1970). Furthermore, at least one study has demonstrated that verbalizations exhorting charitable donations actually decrease the amount of help given on a generalization test (Grusec, Saas-Kortsaak and Simutis, 1978). Normative statements concerning appropriate behavior have been shown to be effective in some studies (Grusec, 1972), but not in others (Eisenberg-Berg and Geisheker, 1979). Finally, there is evidence to suggest that verbalizations consistent with the parental discipline techniques as perceived by the child are

more effective than exhortations which are inconsistent with those perceptions (Dlugokinski and Firestone, 1974). Although research points to various conditions in which verbalizations are effective for increasing children's generous behavior, the conditions that maximize positive effects are still poorly understood. In addition, subjects in these studies were all school-age children, and the effects of verbalizations on the younger child have not been examined.

Laboratory Studies: Influence of Rehearsal on Children's Prosocial Behavior

Preaching charity to children may be an important antecedent to their later generosity, particularly if such exhortations initiate the practice, or rehearsal, of such behavior in the listener. Rehearsing the desired behavior while an adult is present may establish a precedent for a habit of generous responding (Staub, 1979). An adult who demands generosity of children by observing them during practice trials while furnishing them with reminders to give may affect children's later donations. Dressel and Midlarsky (1978) examined the effects of adult exhortations, modeling, and demands on the child to donate or keep the winnings on later donating of seventh, eighth and ninth graders. Adult models varied their behaviors (charitable or selfish) and their exhortations (charitable or selfish) as in previous research, but in this study adults varied demands to donate as well. The preacher of charity stated various reasons for donating to needy children in a local orphanage, using both normative, "We ought to share what we are lucky enough to win," (p. 215) and inductive statements, "Our giving will make those children happy,"

(p. 215). The preacher of greed made verbal statements about her desire to win and keep the winnings to buy things for herself. Once again the model played for ten trials, either keeping the money or donating to charity. The child also received ten practice trials during which the adult model stood behind the child and told him or her to either donate or keep the rewards. The charitable demand was, " . . .I want you to think about the needy children. We must give to them for no one else would think of it " (p. 216). On each of the five winning trials the child was also told, "Remember, give to the poor," (p. 216). The greedy demand was, " . . .I want you to forget about the needy children. We should keep all the money that we win" (p. 216). On the winning trials, the greedy demands continued, "Remember, keep your money" (p. 216). All children were then given an opportunity to donate in the experimenter's absence.

With the adult present, both the modeling and demands affected the donation rates of the children, but exhortations did not. When children donated privately, however, their behavior was affected by exhortations. A correlational analysis revealed that the best predictor of donation behavior in the model's absence consisted of donations in her presence. When the model delivered exhortations of charity as well as demanded charity, children donated a larger percentage of their winnings during private donations. Thus, rehearsing of prosocial behavior had an effect on later behavior.

In an earlier study, White (1972) also explored the contributions of rehearsal on children's later donations by exposing fourth and fifth graders to opportunities to rehearse donating with an adult before

playing alone. In a training session, children in a guided-rehearsal condition played a bowling game while an adult instructed them to donate, e.g., "What we would like you to do is to give one certificate to the orphans each time you win two" (p. 141). If the children failed to donate, they were reminded to do so. It is interesting to note that White did not specify the number of reminders necessary to ensure donating, only that "the children rehearsed the charitable behavior twice in the experimenter's presence, albeit not voluntarily" (p. 141). The children in the other conditions were not given such strong instructions, but only told, "If you win some of these gift certificates and would like to give some of yours to the orphans, you can, but you don't have to" (p. 141). In an observation-plus-unguided rehearsal condition, children were exposed to a model who donated on the two winning trials but did not pay attention to whether or not the child donated on those trials where the child won. Children in an observation alone condition saw an adult donate on the two winning trials, but leave before the child played. Half of the children in each condition were given an opportunity to play the bowling game by themselves both immediately at Session 1 and several days later at Session 2 (played immediately groups) or several days later at Session 2 only (played later groups). Children in the control group received only the game instructions and were left alone to play the game.

Among children who were given the opportunity to donate anonymously immediately following training (played immediately group), those in the guided-rehearsal group donated significantly more than all other children except observation-plus-unguided-rehearsal girls. At Session 2

several days later, however, the superiority of the guided-rehearsal training had largely disappeared, particularly for males. A comparison was made of the donation rates of children who played later (at Session 2 only) with the donation rates at Session 1 of children who played immediately (this was the first opportunity to donate anonymously for both groups). Results showed that the guided-rehearsal-played immediately subjects donated much more at Session 1 than the guided-rehearsal-played later subjects. Apparently the passage of time diluted somewhat the effectiveness of guided-rehearsal. In order to assess the effect of opportunity for prior rehearsal in the model's absence, a final analysis compared the donations rates of children who played later with the donation rates at Session 2 of children who had also played immediately. Again, for both groups, guided-rehearsal was superior to observation-plus-unguided rehearsal, which in turn was more effective than observation alone. However, no significant difference at Session 2 was found as a function of prior opportunity to donate privately. At first glance, this seems a surprising result, given the large number of donations made by the guided-rehearsal-played immediately subjects during the private donation opportunity at Session 1. It would seem that this display of generosity would have set a precedent for later donating. However, as Staub (1979) has suggested, children in this condition may have felt that they had already done their share, and therefore donated less later.

In summary, these results suggest that instructing a child to donate and then reminding him or her to rehearse this behavior produces the most donating, both immediately and several days later. Children who experience this guided-rehearsal also tend to donate more than those

children who simply observe a model. However, partly on the basis of the greater decline from the immediate to the delayed test in the guided-rehearsal condition, White (1972) stressed the efficacy of the less constraining observation-plus-unguided rehearsal condition. Nevertheless, as Staub (1979) has pointed out, children in the guided-rehearsal condition in this study donated more at every point in time, and substantially more immediately after training, than subjects in any other condition. Unfortunately, White did not present data concerning how much children actually donated during training, in the presence of the experimenter, and how this affected later donations. Such a covariance analysis would have been useful (Staub, 1979).

White and Burnam (1975) pointed out that in White's (1972) study, the guided-rehearsal subjects (i.e., those given explicit donation-prompting instructions) observed no model, whereas unguided-rehearsal subjects (i.e., those given permissive instructions) were exposed to a model. In order to eliminate this confound, White and Burnam (1975) factorially crossed constraining and permissive instructions with modeling of differential generosity (i.e., 80%, 60%, 40%, 20%, 0%) and an opportunity to donate publicly (i.e., rehearse in the experimenter's presence) prior to donating privately at the end of the session. Subjects were fourth and fifth grade girls. Regardless of whether donations were assessed publicly or privately, constraining instructions, "What I'd like you to do is give some of the pennies you win to them each time you win five" (p. 560) cued more donations than permissive instructions, "You may give some of the pennies you win to them if you'd like to, but you don't have to" (p. 560). A complex interaction of instructions with

grade and amount of generosity displayed by the model on the amount donated privately was also found. The 80% model produced more private donations with permissive-instruction fifth graders and with constraining-instruction fourth graders, while the 40% modeling condition was most effective with fifth graders receiving constraining instructions and fourth graders receiving permissive instructions. In this study an analysis of covariance was performed on private donations, with public donations serving as the covariate. When private donations were adjusted by the amount donated publicly, the effects of instructions were completely eliminated.

In a single-subject design, Gelfand, Hartmann, Cromer, Smith, and Page (1975) also gave permissive instructions to kindergarten and first grade subjects ($n = 32$) in which they were told that they need not donate to an unseen peer unless they wanted to. All children were given ten opportunities to donate, and those children who displayed low levels of donating were then given one or more prompts, "Maybe it would be nice if you helped that other boy (girl) . . . once or twice" (p. 982). Some children ($n = 11$) responded with high levels of donating to the permissive instructions alone, even though they had been told they need not donate. Other children ($n = 14$) donated only when given the instructional prompt. Some of these children ($n = 6$) continued donating in the absence of further encouragement, but others ($n = 8$) required the addition of social praise to maintain a high rate of donating behavior. Still other children ($n = 7$) required multiple prompts before even one donation was made. Perhaps verbalizations become more effective when the child is explicitly told how to behave (i.e., donate to needy others), rather than given normative statements about donating. Moreover, younger

children may require direct verbalizations or prompts to promote prosocial behavior. It is clear from these data that permissive instructions, "Maybe it would be nice if you . . .," (p. 982) are effective with some children, but not with others. In this study the generous children were not reliably different from those children who failed to donate in socioeconomic status, sex, family composition, or their reported household duties and responsibilities.

It will be recalled that socialization techniques which minimize the perception of external constraints should lead to internal attributions of generosity and hence, increased prosocial responding. Since a model's donating behavior is less coercive than direct instruction to donate, modeling should therefore produce greater internalized generosity. Grusec, Kuczynski, Rushton, and Simutis (1978) caused seven to ten-year-old children to donate winnings from a bowling game to charity through exposure to a generous model, through instructions to donate, or through a combination of the two. Prior to playing the ubiquitous bowling game, all children were given permissive instructions in which they were told that they could give some of their marbles to poor children if they wished. In the modeling conditions, the model stated on the first winning trial his intention to donate half of his winnings to poor children " . . .so they could win prizes too," (p. 53) and subsequently donated on each of the eight winning trials. During the child's turn, the model stood behind the child as he or she played, and if necessary, prompted the child to donate by saying, "If you want to, you can give one of your marbles to the poor children" (p. 53). (Three children required this reminder.) A second failure to donate was prompted by,

"Would you like to give one of your marbles to the poor children again?" (p. 53). (One child required this statement.) In the instruction condition, the adult instructed the child to donate at the beginning of the game by saying, "Now I want you to share one of your marbles with the poor children each time you win. Start to play " (p. 53). On three subsequent trials, the child was again instructed to donate. Obviously, these verbalizations were effective in enlisting the child to rehearse, since no additional prompts were needed. Finally, the instruction-plus-modeling condition combined the two treatments. After donating, subjects in each condition were provided one of three attributions concerning why they had donated. In the self-attribution condition, the adult said,

You shared quite a bit. I guess you shared because you're the kind of person who likes to help other people. You must really like to help others. Yes, for sure you're the kind of person who really enjoys helping other people out (p. 53).

In the external attribution condition, the adult said, "You shared quite a bit. I guess you shared because you thought I expected you to. Yes, you're right. When I'm here with people playing the game, I expect them to give while I'm watching " (p. 53). The remaining subjects were given no attributions. Immediately after these manipulations, all subjects were left alone to play the game and donate their winnings (internalization test), and then given an opportunity to share colored pencils with those who could not participate in the study (generalization test). During a follow-up test two weeks later the children were once again given an opportunity to play the bowling game and donate to charity.

In the immediate test, attributions affected only those children

in the modeling condition: children given the self-attribution donated more than children given the external attribution. Furthermore, the number of children in the self-attribution modeling condition who donated was greater than the number who donated in the external-attribution modeling condition. For the other two treatment groups, attributions had no effect. On the generalization test, children who received self-attributions shared more colored pencils than those children who were given either an external attribution or no attribution, although these two groups did not differ from each other. During the delayed test, there were no significant effects on amount donated for kind of training or attribution. Even in the modeling condition, attribution did not have an effect on the donation rates, since the self-attribution modeling children actually decreased their donations from the immediate to the delayed test. However, in terms of the number of children donating, once again in the modeling condition significantly more self-attribution children donated than external attribution children. In both the immediate and delayed tests, the amount donated by the modeling groups was numerically lower than that of the other two training groups. Finally, there was a tendency for sharing to increase with age, but the amounts donated on the immediate and the delayed tests were not related to the number of pencils shared.

These results suggest that the explanations children are given for the causes of their donating behavior affect donations only if children have observed a model donate, but not if children have been instructed to donate or when modeling has been coupled with instructions to donate. An attributional analysis suggests that children in these

latter two groups already know why they are donating (i.e., they have been told to donate) and therefore they are not affected by explanations provided by the socializing agent. In a new situation of sharing pencils, however, all children in the Grusec, Kuczynski, Rushton and Simutis (1978) study were affected by the attributions provided them. The authors of this study were surprised by the effectiveness of instructions in affecting donation rates. "This failure to find less donation in direct instruction than in modeling conditions is puzzling . . ." (p. 56). Without a control group of children who received neither modeling nor instructions, however, it is difficult to compare the effectiveness of the treatments themselves. In light of the other studies of rehearsal reviewed here, however, it is not surprising that telling a child to be generous and then observing him or her practice generosity is effective.

Induction as a means of initiating rehearsal. One study in which inductive techniques were used to prompt rehearsal of prosocial behavior in very young children failed to demonstrate the effectiveness of this method. Staub (1971) compared the effectiveness of inductive statements delivered by an adult with role-playing situations enacted by the kindergarten children. In one experimental group (role-playing) the children role played (i.e., rehearsed) situations in which one individual needed help while another provided help. In a second group (induction) the same situations were described to the children, and the experimenter pointed out the positive consequences of helping the person in need. These children, then, heard descriptions of altruistic acts but were given no opportunity to rehearse. A third experimental group (role-playing-plus-induction) received both kinds of training. A control group

enacted scenes unrelated to helping. Thus the role-playing group and the role-playing-plus-induction group actually rehearsed the helping behaviors in the presence of the adult, while the induction group only received inductive statements and the control group rehearsed behaviors unrelated to helping.

Induction had little effect on helping (rescuing another distressed child) in an immediate post-test and actually decreased helping (picking up paper clips an adult accidentally dropped) in a delayed test. On the other hand, girls in the role-playing group helped the distressed child significantly more, while role-playing boys shared significantly more candy than control subjects. Both effects were still present in the delayed test one week later. The effects of induction on the role-playing-plus-induction condition were slight.

In summary, laboratory studies of the influence of rehearsal demonstrate that providing children with opportunities to practice a charitable behavior heightens the probability that the same behavior will be displayed by the child at a later time. Instructing a child to donate and then reminding him or her to do so during a practice session is a more effective technique for promoting internalized prosocial responding (i.e., responding in the absence of the original socializing agent) than one which relies on observation of a charitable model who does not prompt during a practice session (White, 1972). In fact, according to some rehearsal investigations with school-age children, the best predictor of later donations in the adult's absence is donation in the adult's presence (Dressel and Midlarsky, 1978; White and Burnam, 1975).

Several differences exist among these studies, however, which make comparison difficult. For example, the instructions delivered to the children to elicit generosity are not always comparable. An instruction to donate such as, "What we'd like you to do is give one certificate each time you win two" (White, 1972, p. 141), or "What I'd like you to do is . . . ," (White and Burnam, 1975, p. 560) may imply more coercion than more permissive instructions such as, "You can share if you want, but you don't have to" (White, 1972, p. 414), or "Maybe it would be nice if you helped the other boy (girl) . . . once or twice" (Gelfand, et al., 1975, p. 982). It is not surprising then, that White and Burnam (1975) found constraining instructions more effective than permissive instructions, since permissive instructions also give children permission not to donate.

Inductive instructions giving reasons to donate such as, "Our giving will make those children happy" (Dressel and Midlarsky, 1978, p. 215), or " . . . so they can win prizes, too" (Grusec, Kuczynski, Rushton, and Simutis, 1978, p. 53) were also employed in some of these rehearsal studies, if somewhat unsystematically. In fact, Dressel and Midlarsky (1978) combined their inductive statement with the normative statement, "We ought to share what we are lucky enough to win" (p. 215). In the literature on verbal influence reviewed earlier, the content of the instruction was found to affect children's later donating behavior. It seems likely that content is an important variable in instigating rehearsal as well. However, with the exception of White and Burnam (1975), content of instructions has not been systematically examined in these studies.

Individual differences among children are also evident in rehearsal

studies. For some children, a subtle or permissive reminder may be adequate to promote generosity, while for others a combination of reminders and social praise (Gelfand, et al., 1975) or a combination of modeling plus instructions (Grusec, Kuczynski, Rushton and Simutis, 1978) is necessary to initiate or maintain generous behavior. The age of the children is another variable that contributes to the difficulty in comparing these studies. The subjects ranged in age from kindergarten children (Staub, 1971; Gelfand, et al., 1975) to ninth graders (Dressel and Midlarsky, 1978). Techniques that are effective with older school age children may not be as effective with preschoolers.

Given the above considerations, it is difficult to ascertain from these rehearsal studies whether the results are due to the effect of instructions, to the effects of rehearsal alone, or some combination of both. If rehearsal is an effective method for enlisting later generous behavior, perhaps the instructions which initiate rehearsal in the first place are not as important as the actual practice of the behavior itself.

Inductive and Power Assertive Instructions: The Present Study

The present study sought to examine the effects of instructions of differing content on the rehearsal and subsequent production of pro-social behaviors (i.e., helping, sharing, teaching, and sympathy) in preschool children. There is evidence from the studies reviewed above to suggest that both power assertive instructions (i.e., instructions in which an adult directly tells a child what to do) and inductive instructions (i.e., instructions in which the consequences of the child's behavior on others are detailed) can be effective in promoting donating behavior, at least with the older child. In this study, adult experimenters

encouraged children to behave prosocially using either power assertive instructions, which commanded the child to behave prosocially (e.g., "When I play with you I want you to share"), or inductive instructions, which focused on the consequences of the child's behavior for others (e.g., "If you share some of your candy kisses, then Jenny will have some too"). A control group of children received no instructions. All children were given an opportunity to rehearse the prosocial behaviors, to display them immediately in the absence of instructions, and to display them on a later occasion with different experimenters. This study, then, attempted to maximize the conditions for promoting prosocial behavior in the young child by combining instruction techniques with the opportunity to rehearse the desired behaviors.

Previous research on the effects of instructions or rehearsal has focused largely on the donating behavior of the seven to ten-year-old child. Subjects have typically been asked to donate marbles or gift certificates earned in a bowling game to an absent needy peer. However, the extent to which this donating behavior can be generalized to other kinds of prosocial responses, or even to sharing in general, is questionable. In fact, in one of the few studies which included both a measure of donation and a measure of sharing (Grusec, Kuczynski, Rushton, and Simutis, 1978), no relationship between the two measures of generosity was found. In contrast, subjects in the present study were preschool children, and measures were taken not only of their sharing behavior, but of their helping, teaching, and comforting behaviors as well. Since donating to needy orphans is not commonly expected of the very young child, however, donation rates were not assessed in the study. An attri-

butional analysis would predict that children given power assertive instructions should increase their prosocial responding in the presence of the demanding socializing agent, but decrease responding once the coercive demands are removed. Children given the less coercive inductive instructions, however, should continue responding in the absence of the original socializing agent.

CHAPTER II

METHOD

Overview

Individual children interacted with two adult women on two separate occasions, an initial session measuring baseline levels of prosocial behavior, and a second session several days later. In the second session, children received instructions in prosocial responding and an opportunity to practice (i.e., rehearse) these behaviors. Children who received inductive instructions were given reasons for behaving prosocially that focused on the consequences of their behavior for other people. Children who received power-assertive instructions were commanded to behave prosocially. A control group received no instructions. At the close of the second session, all children were given several opportunities to display prosocial behavior without instructional prompting. A third session, where the child interacted with two new adult women, was included to test for internalization and long term generalization.

Subjects and Experimenters

Subjects were 24 boys and 24 girls, whose parents had given written consent. The subjects attended one of two local day care facilities in the middle and upper-middle class Portland area and ranged in age from 46 months to 69 months, with a mean of 56.7 months. Four boys and four girls from each day care center were randomly assigned to one of three conditions, a Power Assertive instruction condition, an Inductive

instruction condition, or a no instruction Control condition. The mean age across conditions and schools was approximately equal for both sexes.

Two women graduate students experienced in working with children acted as experimenters during Session One and Session Two; two additional women, both postbaccalaureate students and also experienced with this age group, served as experimenters during Session Three.

Setting

The study took place in two Portland day care facilities, Holladayland Day Nursery in northeast Portland, and Mountain Park Learning Tree Day School in Lake Oswego. The experimental setting at Holladayland was a small area partitioned off from a larger room. At Mountain Park a small playroom was used for the study. In each setting a portable observation booth (approximately 4 feet wide, 10 feet long, and 6 feet tall) with one-way mirrors and resembling a storage closet, was installed. The rooms were furnished with a child's folding table and three small folding chairs, two trunks, and several posters decorating the walls and observation booth.

Session One and Session Three were conducted in the morning, while Session Two was carried out in the afternoon.

General Procedure

In three sessions lasting 20-30 minutes each, individual children were exposed to a number of everyday situations in which helping, sharing, teaching, or sympathy were appropriate behaviors. Opportunities to help occurred when an experimenter accidentally dropped objects, when an object became lost, or when materials needed to be moved or cleaned up.

Sharing involved opportunities to relinquish materials that had been labeled as belonging to the child by one of the experimenters (e.g., animal crackers, flower stickers). Teaching opportunities occurred when an experimenter announced that she did not know how to do something. Finally, an opportunity for sympathy occurred when an experimenter appeared to accidentally sustain an injury. The various opportunities for the child to behave prosocially and their temporal order within each session are listed in Appendix A.

These prosocial opportunities were introduced by means of a verbalization of need in which the experimenter labeled the situation as one in which a prosocial response would be appropriate. For example, a verbalization of need for helping indicated an opportunity to come to the aid of the experimenter by presenting a brief statement of the problem plus a possible solution (e.g., "Oh! I spilled the sticks! They need to be picked up"; "My special box is lost! It needs to be found"). The verbalization of need signalling a sharing opportunity indicated the experimenter's desire for an object or material in the child's possession (e.g., "I'd like to plant seeds, but I don't have a cup"; "I really like animal crackers, but I don't have any"). A verbalization of need indicated a teaching opportunity when one of the experimenters acknowledged that she did not know how to do something (e.g., "I don't know how to water seeds like that"; "I don't know how to make a flower stick"). Each teaching opportunity pertained to a simple skill or task that the child had just learned from the other experimenter, and therefore the possibility of differential learning backgrounds and skills was eliminated. Furthermore, all teaching situations were designed to consist of three components (e.g., to make a glitter picture, one must squeeze three blobs

of glue, sprinkle the glitter, and dump off the extra), and in order to ensure that all components were incorporated into the child's repertoire, he or she was questioned about the procedure. For example, after demonstrating to the child how to make a glitter picture, the experimenter asked the child, "Do you remember how we made the glitter picture?" "What did we do first?" "Then what did we do?" "And then what did we do?" until all three components were stated or demonstrated by the child. And finally, an opportunity for sympathy was indicated when an experimenter injured herself and demonstrated mild distress and appropriate nonverbal cues (e.g., "Oh! I bumped my knee . . . It really hurts").

Each experimenter delivered approximately an equal number of need verbalizations in a session, with their manner of presentation and order held constant for all children. As a final method of standardization, the verbalizations of need were presented only when the subject was seated in his/her chair.

Although the interactions with the child were warm and supportive throughout the sessions, the experimenters did not directly praise any prosocial behavior. Therefore the likelihood of confounding training effects with praise was eliminated.

Session One. Baseline. In the first session individual children were invited to "be the special person" by one of the experimenters and escorted to the playroom. In the first part of the session the experimenters attempted to establish a positive, nurturant rapport with the child by directing the conversation to a poster of a farm scene and playing a guessing game. This friendly interaction continued into an activity of planting seeds in paper cups during which the opportunities for the child to respond prosocially (three opportunities each of helping,

sharing, teaching and one opportunity for sympathy) were embedded as naturally as possible into the ongoing situation by taking advantage of the materials and play at hand.

For example, the child was presented with an opportunity to help pick up sticks one experimenter had spilled, to teach an experimenter to water seeds "in a special way," to share a snack of animal cookies, or to sympathize with the experimenter when she bumped her knee on the table.

One procedural detail of the study concerned the presence of a second adult during the verbalization of need. It was thought that a child's behavior might be affected by the presence of this second adult who would not respond to the verbalization of need. In order not to model nonintervention, then, the verbalizations of need were presented while one experimenter had temporarily left the room.

If a child did not begin the prosocial response within a seven second interval, the experimenter did not comment, play resumed as before, and the other experimenter re-entered the room shortly thereafter.

At the end of the session, the adults thanked the child for playing, expressed how fun it was playing with the child, and asked if he/she would come back to play another time with them.

Session Two. Training and Immediate Test. Approximately four days following the first session, the child was again invited into the playroom. As in Session One, each child was given three opportunities to help, three opportunities to share, and three opportunities to teach. For children in the Power Assertive and Inductive training conditions, however, both experimenters remained in the room during the verbalizations of need, and this time the other experimenter instructed the child to behave prosocially.

Children given Power Assertive instructions were commanded to behave prosocially. The instructions stated further that the experimenter expected that the child would behave prosocially. For example, a power assertive instruction for helping stated, "When I play with you, I want you to help. Help move the chairs, Johnny." Similarly a power assertive instruction for sharing stated, "When I play with you I want you to share. Share some of your candy kisses, Johnny." Finally, a power assertive instruction for teaching stated, "When I play with you I want you to teach how to make a glitter picture. Tell her how, Johnny."

If the child did not comply within seven seconds following the instruction, the experimenter restated the situation and the command (e.g., "The chairs need to be moved to the table. Help move the chairs, Johnny."). If the child still did not comply following this initial prompt, a second prompt was given (e.g., "Share some of your candy kisses, Johnny."). If the child failed to respond prosocially to this second and final prompt, the adults made no comment and resumed the play activity as before.

Subjects in the Inductive training condition, on the other hand, were supplied with a reason why a prosocial response was appropriate. The reason was designed to focus the child's attention on the consequences of his or her behavior for the other person. For example, an inductive instruction for helping stated, "Jenny needs your help. If you pick up the papers, she'll be able to play again." For sharing, an inductive instruction stated, "Jenny doesn't have any candy kisses, Johnny. If you share your candy kisses, then she'll have some too." Teaching responses were instructed inductively by the statement, "Johnny, you know how to make a glitter picture. If you tell her how to make a

glitter picture, she can make one too."

If the child did not comply within a seven second interval, the experimenter now focused on the feelings of the person in need (e.g., "Jenny is sad that she doesn't know how to make a glitter picture. You can make her happy if you tell her how to make one, Johnny."). If the child did not comply within seven seconds following this initial prompt, a second inductive prompt which stated a general positive outcome of such behavior was delivered (e.g., "It would be really nice if you'd share. It's really good to share with other people."). If the child still did not comply with this final prompt, the adults made no comment and resumed playing.

Children in the Control condition received no instructions or prompts. The verbalizations of need were presented in the same manner as in the baseline session, with only one adult present in the room with the child.

Occasionally a child carried out the prosocial behavior either before an instruction or prompt could be introduced, or in the midst thereof. In these cases, the experimenter rephrased the prompt as a compliance statement. For example, a power assertive instruction for helping became, "You moved the chairs. When I play with you I want you to help." An inductive instruction, on the other hand, became, "Jenny needed your help. You helped pick up the papers, now she'll be able to play again."

During Session Two the observers recorded the number of prompts given and whether the prompts were rephrased as a compliance statement.

To assess the generalizability of effects from the nine training situations, children were given four more opportunities to behave.

prosocially in the absence of instructions (hereinafter referred to as the immediate test). As the session drew to a close and materials were being cleaned up, one verbalization of need for teaching, sharing, helping, and sympathy, respectively, were introduced in the same manner as Session One. As before, the adult who delivered the verbalization of need was alone with the child and no instructions were delivered.

Session Three. Delayed Test. In order to ascertain the extent to which the child has learned to behave prosocially in the absence of instructions and the original socializing agents (e.g., the original experimenters), the final session involved the child and two new adults. The child was invited for this final session four to seven days ($\bar{X} = 5.4$ days) following Session Two. The original experimenter introduced a new adult ("This is another lady who would like to play with you."). While escorting the child and new adult back to the experimental room, the original experimenter excused herself, and the child and adult went in alone. Once inside, the second new experimenter was introduced and a play activity, this time involving playdough, began.

This session now proceeded as in Session One. The child was given ten opportunities to behave prosocially and the need verbalizations were administered with only one adult present. No instructions or prompts were given.

Observers and Recording Procedures

Two observers behind a one-way glass observation booth recorded the behaviors of the child and nurturant comments of the experimenters during Session I and Session III.

In order that the observers remained unaware of the child's training

condition, Session II was videotaped and scored by the observers after the child had been seen for Session III.

The observers scored the child's helping, sharing, teaching, and sympathy behavior on a scale ranging from 0 to 5, according to the following general format:

- 0 = active refusal
- 1 = no response
- 2 = concern with no involvement
- 3 = concern which poses a solution to the need
- 4 = prosocial response
- 5 = prosocial response with special involvement

A complete description of the operational definitions of the prosocial behaviors and the scoring code is appended (See Appendix B).

Observer Reliability

Inter-observer reliabilities for each of the prosocial behaviors were calculated by using percentage agreement. Exact agreement of observers was 86% for helping, 86% for sharing, 82% for teaching, and 76% for sympathy. By including those disagreements within one point, inter-observer reliability reached 98% for helping, 98% for sharing, 98% for teaching, and 98% for sympathy as well. Those observer scores which differed by more than one point were not considered sufficiently similar to warrant agreement (see Appendix C).

Design and Analysis of Data

The three independent variables were instructional condition (power assertive, inductive and control), sex (male, female), and session (baseline at Session I, presentation of instructions and rehearsal at

Session II, immediate test following Session II training, and delayed test at Session III). The instructions were administered just prior to the immediate test in Session II, and the child's rehearsal of the prosocial behavior (i.e., compliance with the instructions, or rehearsal) was scored. The four dependent variables were measures of helping, sharing, teaching, and sympathy; this scoring was described earlier in Observers and Scoring Procedures. Since three opportunities each of helping, sharing, and teaching were presented in each session, the scores on the three opportunities were averaged for each child, in order to produce a mean score on each behavior for each session. Prior to averaging the scores of these three opportunities, a correlation matrix was examined for positive relationships. The scores per opportunity for each behavior were found to be positively related, (See Appendix for these intercorrelations) and therefore a mean score score for each of the behaviors during Session I, II, and III was used. The helping, sharing, and teaching scores on the immediate test were each based on only one incident as were the sympathy scores for Session I, immediate test, and Session III.

Several 3X2 analyses of covariance were computed to examine the effects of instructional condition (power assertive, inductive, and control) and sex, with $n=8$ for each of the six cells. The covariance analyses were performed on the scores for each behavior in response to the instructions (rehearsal), during the immediate test following the instructional training, and during the delayed test of Session III, with corresponding Session I baseline scores as the covariate. For all sessions the dependent variables were helping, sharing and teaching; the immediate and delayed tests included one additional measure of sympathy.

Planned comparisons using Student's t were carried out to examine the hypotheses that the behavior scores of the power assertive group would not differ from the behavior scores of the inductive group on the immediate test, and that both would be higher than control during the immediate test as well as during the delayed test. A second hypothesis that a higher rate of prosocial responding would be demonstrated on Session III (delayed test) by subjects who received inductive training was also tested (Kirk, 1968).

The relationships between helping, sharing, and teaching were assessed by computing intercorrelations for these behaviors. Correlations were also computed for the relationships of the number of prompts with their respective behaviors.

CHAPTER III

RESULTS

The mean scores on each behavior (helping, sharing, teaching, sympathy) for each condition are presented in Appendix D. The summary tables for the analysis of covariance for all the dependent variables for Session II, the immediate test and the delayed test are contained in Appendix F. Table 1 gives the summary of finding of the analyses of covariance for the immediate test and for Session III. Table 2 shows the mean behavior scores by condition. Profiles of the mean scores for each dependent variable for the three conditions across sessions are included in Appendices G-L. The means and standard deviations regarding the age, the interval of time between Session I and II and between Session II and Session III, and the mean number of prompts per condition are presented in Appendix M. The summary of analyses of covariance for each of the dependent measures on the immediate and delayed tests are in Appendices N-Q.

Prosocial Behavior: Correlational Relationships

The relationships between helping, sharing and teaching are presented in Appendices E and R-W. Prior to the instructional training, a correlational analysis of the prosocial behaviors across incidents for each condition revealed that sixteen of the twenty-seven correlations were positively related to one another ($p < .05$). Despite the fact that one correlation was negative and nonsignificant, ten of the correlations

Table 1

Summary of Condition by Sex ANCOVA For Each of the Four Prosocial Dependent Variables
For the Immediate Test and Session III

Dependent Variable:	Immediate Test		Delayed Test Session III		Sex	Immediate Test		Delayed Test Session III	
	Control	Power	Control	Power		Control	Power	Control	Power
<u>Help</u>									
Condition	F(2, 41)	5.22, $p < .01$	F(2, 41)	10.14, $p < .001$	F	2.25(1.39)	3.88(.64)	3.62(1.16)	3.25
Sex	F(1, 41)	10.83, $p < .002$	F(1, 41)	.53, $p < .47$	M	1.88(1.28)	2.94(1.48)	1.56(.90)	2.13
Group X Sex	F(2, 41)	2.31, $p < .12$	F(2, 41)	3.52, $p < .04$		2.06(1.3)	3.41(1.20)	2.59(1.46)	
Significant Pairwise Mean Differences									
				PA, I > C;					
				F > M	PAF, IF > CF				
<u>Share</u>									
Condition	F(2, 41)	6.17, $p < .005$	F(2, 41)	6.45, $p < .004$	F	1.56(1.05)	3.38(1.33)	3.00(1.07)	2.65
Sex	F(1, 41)	1.32, $p < .26$	F(1, 41)	.74, $p < .40$	M	1.88(.99)	2.63(.74)	2.38(1.16)	2.30
Group X Sex	F(2, 41)	1.13, $p < .33$	F(2, 41)	1.23, $p < .30$		1.72(1.00)	3.00(1.11)	2.69(1.12)	
Significant Pairwise Mean Differences									
				PA, I > C	PA, I > C				
<u>Teach</u>									
Condition	F(2, 41)	7.01, $p < .002$	F(2, 41)	8.28, $p < .001$	F	2.69(1.49)	4.00(1.31)	4.00(.46)	3.56
Sex	F(1, 41)	.94, $p < .34$	F(1, 41)	1.45, $p < .228$	M	3.18(1.28)	3.88(.79)	4.06(.56)	3.71
Group X Sex	F(2, 41)	.05, $p < .95$	F(2, 41)	1.94, $p < .156$		2.94(1.40)	3.94(1.05)	4.03(.50)	
Significant Pairwise Mean Differences									
				PA, I > C	PA, I > C				
<u>Sympathy</u>									
Condition	F(2, 41)	3.91, $p < .028$	F(2, 41)	4.34, $p < .02$	F	1.06(.18)	1.81(.75)	1.81(1.25)	1.56
Sex	F(1, 41)	.000, $p < .988$	F(1, 41)	6.66, $p < .014$	M	1.25(.38)	1.75(1.04)	1.75(.71)	1.58
Group X Sex	F(2, 41)	.401, $p < .673$	F(2, 41)	2.04, $p < .143$		1.16(.30)	1.78(.88)	1.78(.98)	
Significant Pairwise Mean Differences									
				PA, I > C	PA, I > C;				
					F > M				

Note: Values in the above 2 x 3 tables are means, with S.D. in parentheses.

Note: Values in the above 2 x 3 tables are means, with S.D. in parentheses.

Table 2
Sessions I and II Mean Behavior Scores
By Condition and Sex

Behavior:

<u>Session I</u>					<u>Session II</u>				
Help					Help				
Condition					Condition				
Sex	Control	Power	Inductive		Sex	Control	Power	Inductive	
F	1.78	2.56	2.55	2.28	F	1.56	3.89	4.04	3.16
M	2.77	1.94	2.21	2.31	M	2.54	3.98	3.75	3.42
	2.28	2.25	2.38			2.05	3.94	3.90	

Share					Share				
Condition					Condition				
Sex	Control	Power	Inductive		Sex	Control	Power	Inductive	
F	1.58	1.36	1.95	1.63	F	1.63	3.98	3.99	3.13
M	1.79	1.74	1.52	1.68	M	1.65	3.92	3.40	2.99
	1.68	1.55	1.74			1.64	3.95	3.60	

Teach					Teach				
Condition					Condition				
Sex	Control	Power	Inductive		Sex	Control	Power	Inductive	
F	1.94	2.36	2.22	2.17	F	2.81	3.93	3.75	3.50
M	2.43	1.56	1.35	1.78	M	1.96	3.58	3.31	2.95
	2.19	1.96	1.79			2.39	3.76	3.53	

Sympathy				
Condition				
Sex	Control	Power	Inductive	
F	1.13	1.71	1.88	1.57
M	1.88	1.67	1.28	1.61
	1.51	1.69	1.58	

Note: n = 16 for each group

were nonsignificant and positive. Of these positive correlations, nine fell between $r = .2$ and $r = .4$. Table 3 presents the overall correlations of the mean prosocial behaviors at Session I. The relationships of helping behaviors with sharing, teaching and sympathy were all significant ($p < .05$). However, the correlations of sharing with teaching and sympathy, and teaching with sympathy were higher than correlations of helping with the other behaviors.

Table 3
Overall Correlations of the Mean Prosocial Behaviors
at Session I

	Helping	Sharing	Teaching	Sympathy
Helping	1	.299 (.016)	.372 (.003)	.277 (.023)
Sharing		1	.518 (.001)	.466 (.001)
Teaching			1	.496 (.001)
Sympathy				1

Note: significance levels are in parentheses

Prosocial Behavior: Rehearsal in Session II

Helping. A significant main effect for instructional condition ($F(2, 41) = 47.95, p < .001$) showed that power assertive instructions promoted more helping than no instructions (control) ($t(41) = 8.71, p < .001$), and inductive instructions similarly promoted more helping than no instructions ($t(41) = 8.35, p < .001$). The two instructional

conditions did not differ from one another ($t < 1$).

Sharing. There was a significant main effect for instructional condition ($F(2, 41) = 40.41, p < .001$). Once again children given power assertive instructions received higher sharing scores ($t(41) = 8.36, p < .001$) than control children. Inductively instructed children also exhibited more sharing than control children ($t(41) = 6.90, p < .001$). While the power assertive sharing scores were numerically higher than inductive sharing scores, they did not differ significantly ($t(41) = 1.46$).

Teaching. A significant main effect for training ($F(2, 41) = 17.96, p < .001$) showed that both power assertive and inductive scores were greater than control for teaching ($t(41) = 5.50, p < .001$; $t(41) = 4.65, p < .001$); however, the two instructed groups did not differ from each other ($t < 1$).

Prosocial Behavior: Session II Immediate Test

Helping. In the immediate test there was a significant main effect of instructional condition on the children's helping scores ($F(2, 41) = 5.22, p < .01$), and a significant main effect for sex ($F(1, 41) = 10.83, p < .002$). Children who were exposed to power assertive instructions received higher helping scores than children who received inductive instructions ($t(41) = 1.93, p < .05$), or children in the control condition who received no instructions ($t(41) = 3.22, p < .005$). The helping scores in the inductive condition did not differ from those in the control condition ($t(41) = 1.29$). Additionally, girls were more helpful than boys.

Sharing. Instructional training had a significant effect on the children's sharing ($F(2, 41) = 6.17, p < .005$). The children in the power

assertive and inductive instructional training groups received higher sharing scores than control children ($t(41) = 3.38, p < .001$) and $t(41) = 2.51, p < .01$, respectively). However, the sharing scores of the power assertive group did not differ from the inductive group ($t < 1$).

Teaching. There was also a significant main effect of training ($F(2, 41) = 7.01, p < .002$) on the teaching scores. Once again the scores of the power assertive group and inductive group were higher than the teaching scores of the control group ($t(41) = 3.02, p < .05$ and $t(41) = 3.49, p < .001$, respectively), but the training groups did not differ in effectiveness, ($t < 1$).

Prosocial Behavior: Session III Delayed Test

Helping. There was a significant main effect due to instructional condition ($F(2, 41) = 10.14, p < .001$) as well as a significant condition by sex interaction ($F(2, 41) = 3.52, p < .04$) for the helping scores on Session III. Power assertively instructed children obtained higher scores for helping than control children ($t(41) = 3.56, p < .001$), and inductively instructed children also obtained higher helping scores than control children ($t(41) = 4.17, p < .001$). The significant condition by sex interaction revealed that instructional training in the long run (delayed test) was effective for girls, but not for boys. In other words, the helping scores for girls in the inductive group were significantly higher than the helping scores of the control girls ($t(41) = 4.88, p < .002$) and the helping scores of the girls of the power assertive group were also significantly higher than the corresponding scores of control girls ($t(41) = 4.21, p < .002$). On the other hand, the helping scores for the power assertively trained boys did not differ from control boys'

scores ($t(41) = .831$) and the inductively trained boys also did not differ from the control boys for helping ($t(41) = 1.099$). The scores of the girls in the two instructed groups did not differ from each other ($t < 1$).

Sharing. As in the immediate test, instructions the children received affected their later sharing scores ($F(2, 41) = 6.45, p < .004$). While both power assertive and inductive children received higher sharing scores than control children ($t(41) = 2.75, p < .005$; $t(41) = 3.396, p < .001$), the two instructed groups' scores did not differ from one another ($t < 1$).

Teaching. There was a significant main effect of instruction on teaching as well ($F(2, 41) = 8.28, p < .001$). Those children who were given power assertive instructions earned higher teaching scores than control children who received no instructions ($t(41) = 4.01, p < .04$). Similarly, inductively instructed children obtained higher scores for teaching than the control children ($t(41) = 2.79, p < .005$). Although children in the power assertive group obtained numerically higher scores than children in the inductive group, these differences were not significant ($t(41) = 1.22$).

Sympathy: Immediate and Delayed Effects

In an attempt to measure the generalizability of the instructional procedures to a different prosocial behavior, both immediate and delayed effects on the children's sympathetic, or comforting behavior were assessed. A significant difference in the sympathy scores due to instructions was evident in the immediate test ($F(2, 41) = 3.91, p < .028$). Although there were no differences between the two instructed groups themselves ($t < 1$), children who received power assertive instructions expressed more sympathy than children who received no instructive training

($t(41) = 2.28, p < .025$); likewise children who received inductive training expressed more sympathy than control children ($t(41) = 2.5, p < .025$).

On the delayed test, the sympathy scores also differed according to the instructional group to which the children belonged ($F(2, 41) = 4.34, p < .02$). There was also a significant main effect for sex; girls comforted the injured adult more than boys ($F(1, 41) = 6.66, p < .014$). Planned comparisons between the groups showed that power assertively trained children were more sympathetic than control children ($t(41) = 2.08, p < .025$), and inductive children were also more sympathetic than control children ($t(41) = 2.84, p < .005$). However, the instructional groups did not differ from each other ($t < 1$).

Training Prompts in Session II

It will be recalled that children who did not respond prosocially to the initial power-assertive or inductive instruction during training were given an additional instructive prompt. Children who still did not behave prosocially in response to this prompt received a second and final prompt.

The mean number of prompts delivered to the children in the power assertive and inductive groups for each behavior did not differ significantly from one another. Specifically, the mean number of helping prompts given to children in the power assertive group did not differ from the number given to children in the inductive group ($t(31) = .42, p < .67$). Although the mean number of sharing prompts delivered in the inductive group was somewhat higher than the number delivered to the power assertive group, this difference was not significant ($t(31) = 1.27, p < .09$).

Likewise, more teaching prompts were required in the inductive group, but the difference was not significant ($t(31) = 1.05, p < .3$).

Correlations between the number of prompts given to children for each behavior during training and their score for that behavior are presented in Table 4. For the children trained with power assertive instructions, lower helping scores during Session I (baseline) were related to more power assertive prompts required during the training session ($p < .002$). Additionally, the more helping prompts that power assertive children received during the training session, the lower the helping scores during that session (Session II) ($p < .1$). This same pattern continued during the immediate test ($p < .05$) and Session III (delayed test) ($p < .002$) for these children given power assertive instructions. Thus, it seems that those children who required more power assertive prompts were those children who not only had lower helping scores to begin with, but who maintained lower scores in the immediate and delayed tests as well. Children in the inductive instruction group who displayed low rates of helping during Session I (baseline) also required more prompts during training and these children also received lower helping scores during training. However, the number of helping prompts for the inductively trained group was not related to helping scores for the immediate test or the delayed test.

For those children trained with power assertive instructions, the number of sharing prompts was also not related to the immediate test sharing scores or scores on Session III, although their Session II training scores tended to be negatively correlated with the number of prompts required ($p < .1$). In the inductively instructed group those

Table 4

Pearson Correlation of Number of Prompts with Prosocial Behaviors

Group	Prompt	Session I	Session II	Immediate Test	Session III
Power	Help	-.6653****	-.3655*	-.4427**	-.7161****
	Share	-.0585	-.3677*	-.3008	-.3124
	Teach	-.5098**	-.6675****	-.2769	-.4651**
Inductive	Help	-.3439*	-.5379**	.0168	-.2661
	Share	-.3715*	-.8072****	.0406	-.3868*
	Teach	-.1522	-.5829***	.2867	-.1203

* $p < .1$ ** $p < .05$ *** $p < .01$ **** $p < .002$ $n = 16$ for all correlations

children who obtained low Session I sharing scores also tended to require more sharing prompts during training ($p < .1$), and obtained lower scores during training ($p < .002$) and during the delayed test ($p < .1$).

There was no relationship between the number of inductive teaching prompts received and the teaching scores during Session I (baseline), but for children trained with power assertive prompts, those children who required more prompts during training were those children with low teaching scores during Session I ($p < .05$). The more prompts a child in the power assertive group received during training, the lower the teaching score during training ($p < .002$). This same pattern was repeated for the inductive group ($p < .01$). For all children the number of teaching prompts bore no relationship to the teaching score on the immediate test. The number of inductive prompts required was not related to the teaching scores during Session III, but the number of power assertive prompts required was related to lower teaching scores on Session III, ($p < .05$).

Thus, although not always significant, the number of prompts in each condition for each prosocial behavior was negatively correlated with the score for that behavior during the baseline Session. Additionally, those children in each training group who did require more prompts to initiate the behavior, did in fact receive lower scores for that behavior during training.

CHAPTER IV

DISCUSSION

The results of this study indicate that prosocial behavior is enhanced by providing preschool children with instructions to behave prosocially and opportunities to practice that behavior. These effects are apparent immediately and endure over a week's time, manifesting themselves in the children's interactions not only with the original socializing agents, but with new adults who have never been involved in the instructional training.

In general, both power assertive and inductive instructions were shown to be effective in initiating prosocial responding. Those children who received power assertive instructions regarding helping, sharing, and teaching behaviors were subsequently more likely than children who received no instructions to exhibit sharing and teaching both immediately and on a delayed test with new adults. In addition, boys and girls who received power assertive instructions were also more likely to help immediately. On the delayed test of helping, however, the power assertive instructions proved effective only for girls. Inductive instructions were similarly effective in promoting prosocial behavior in children. Specifically, in comparison with the non-instructed controls, children who received inductive instructions regarding helping, sharing, and teaching behaviors subsequently displayed more sharing and teaching on the immediate test and on a delayed test several days later with different adults. However, unlike

power assertive instructions, inductive verbalizations did not immediately increase helping behavior in either boys or girls, but did prove effective on the delayed test with girls.

Since previous studies have sometimes failed to show an effect for instructions on prosocial behavior, it is important to specify those factors in the present study which might have contributed to the effectiveness of the instructional training. First, the instructions were delivered in a manner which maximized their salience. The experimenter took care to look directly at the child and to use the child's name when delivering the instruction. As Rushton (1975) has pointed out, directly addressing the child may improve the strength of the verbalization. Timing may be another important factor in the effectiveness of these verbalizations. Each prosocial instruction was presented to the child immediately following a verbalization of need, thereby increasing the probability that the child's attention would be focused on the plight of the adult.

In addition, the content of the instructions conveyed cues to the children concerning the desired behavior. Children given power assertive instructions were told directly what to do. They received information that clearly defined what was appropriate and expected of them by the experimenter (e.g., "When I play with you, I want you to help. Help move the chairs, Jimmy"). When similarly constraining instructions have been used in previous studies (White and Burnam, 1975), effects on donating behavior have also been found. The results of the present study indicate that even for young children, the use of an instruction that commands or directly tells the child what to do is effective in promoting different kinds of prosocial behaviors as well.

The content of an inductive instruction provides information that directs the child's attention to the needs of others and focuses on the consequences of the child's behavior for other people (Hoffman, 1970; Staub, 1979). Through focusing the child's attention on the person in need, the inductive instruction in this study (e.g., "Jenny doesn't have any . . . , if you share some . . . , then she'll have some too") provided the child with the necessary information to intervene prosocially. The results for the inductively instructed children support the findings of Midlarksy and Bryan (1972), who demonstrated that, in conjunction with modeling, charitable exhortations which provide justifications were effective in promoting later charitable behavior. On the other hand, the effectiveness of induction in the present study is in marked contrast to the results of Staub (1971), who found that the helping and sharing behaviors of kindergarten children were unaffected or even decreased by inductive appeals.

A recent naturalistic study by Eisenberg-Berg and Neal (1979) lends support to the result for the inductively trained children in the present study. These investigators demonstrated that preschool children focus on other people's needs when reasoning about their own prosocial behavior. A familiar experimenter observed and questioned twenty-six 40-63 month-old preschoolers concerning their spontaneous (i.e., uninstructed) prosocial behaviors of helping, sharing, and comforting. During the twelve week observation period which involved four hours of observation per week, sixty-four incidents of prosocial responding were recorded; "the median number of prosocial acts per child was between two and three" (p. 229). The children justified these prosocial behaviors mainly with references to others' needs and practical considerations. According to Eisenberg-

Berg and Neal, then, even preschool children are aware of the need of others when coming to their aid. If young children justify their own acts of kindness by referring to the needs of others, then it should not be surprising that instructions which furnish comparable information should prove effective.

In addition to the effects of the instructions per se, another plausible explanation for the results of this study is the influence of rehearsal. Since children who received instructions were also given an opportunity to practice each desired behavior (i.e., helping, sharing, and teaching), the practice itself may have set a precedent for later performance (Staub, 1979). Indeed, children given either power assertive or inductive instructions responded during training by exhibiting significantly more helping, sharing, and teaching behaviors than children given no instructions. Since this pattern was maintained during a later session (with the exception of boys' helping scores) with new experimenters, it is likely that the actual participation in prosocial activity by the instructed children during the training session was a crucial factor in their later behavior. Certainly there is ample evidence with older children to indicate that rehearsing a prosocial behavior such as donating increases the probability that the behavior will be displayed at a later time (White, 1972; White and Burnam, 1975; Dressel and Midlarsky, 1978; Grusec, Rushton, Kuczynski, and Simitus, 1978). The results of the present study suggest that rehearsal may be an important factor in the younger child's performance of prosocial behavior in general, whether sharing, teaching, or for girls, helping.

The number of prompts delivered to the two instructed groups did not differ significantly for any of the three trained behaviors. However,

the number of prompts given during training was negatively correlated (at $p < .10$ or better) with the child's prosocial score during the training session itself. In other words, those children who did not respond prosocially to the initial power assertive or inductive instruction (and hence, required prompts) demonstrated less prosocial behavior in response to these prompts. At first glance these results seem puzzling, since these children received more information from the experimenter concerning the desired behavior. Their lowered scores during training could be due to an "oppositional tendency" (Staub, 1979, p. 214). If the children perceived the instructions as pressure to behave in a certain way, the perceived threat to their freedom of action may have produced psychological reactance (Brehm, 1966) and a lessened inclination to respond as the experimenter expected. However, if reactance to the demands of the experimenter was activated, it should have manifested itself on the immediate test, which was conducted with the original experimenters but without prompts or instructions. The number of prompts during training, however, was largely uncorrelated with scores on the immediate test. Nor did the number of prompts delivered during training bear any systematic relationship to the children's prosocial behavior during Session III. It may be that the number of prompts delivered during training was more a function of the individual differences the children brought with them to the experimental situation. Although not always significant, the number of prompts given to children in the power assertive and inductive condition was negatively correlated with their scores on each behavior during the baseline session. Children initially disinclined to behave prosocially may require more reminders, although providing this additional information does not guarantee that the behavior will be displayed.

Attribution theory suggests that socializing techniques which minimize the perception of coercion are more effective in facilitating the process of internalization than techniques which emphasize external control. An attributional analysis of the present experiment would predict that inductive instruction should be more effective than power assertive instructions, at least on the delayed test with different experimenters. A child who is given inductive instructions should perceive less external coercion and therefore internalize the content of the instruction by attributing the behavior to him or herself. On the other hand, a child who is given power assertive instructions should perceive his or her behavior to be externally controlled and, therefore, internalization should be less likely.

Contrary to prediction, however, inductive instructions were not more effective during the delayed test. In fact, both power assertive and inductive instructions were generally equally effective methods for promoting prosocial behavior in these young children. These results are in contrast to those of Dlugokinski and Firestone (1974), who found that inductive appeals were more effective in eliciting donations than power assertive appeals. Dlugokinski and Firestone also found, however, that children donated more under persuasive appeals which were consistent with the perceived discipline style of their parents. Perhaps, as these researchers found, the influence of parenting styles has an effect that is undetectable in the results of the present study. On the other hand, the age differences between the subjects in these studies (eighth graders in the Dlugokinski and Firestone study versus preschoolers in the present experiment) may be a factor in the present failure to demonstrate the superiority of induction. For a very young child, commanding prosocial

behavior is apparently as effective in general as focusing on the needs of others, both immediately and after a week's time.

The effects of instruction on helping were less clear than the effects on sharing and teaching. In the immediate test, children given power assertive instructions were more helpful than children given inductive instructions or no instructions, and girls were more helpful than boys. In the delayed test, prosocial instructions proved effective for girls' helping, but not for boys. It is unclear why children who were given inductive instructions were no more helpful on the immediate test than children who were given no instructions. A concern that inductive instructions were too subtle seems unwarranted, since inductive instructions were effective in initiating rehearsal during training and in promoting sharing and teaching behaviors in both boys and girls during the immediate test. Furthermore, inductive instructions were effective in eliciting helping behavior in girls during the delayed test. The differential effects of instructions on helping during the immediate and delayed tests may be a function of the number of tasks from which the score was derived. The scores for each behavior during the immediate test were derived from only one task, whereas the scores on Session I, II, and III reflect the mean of three opportunities to display each behavior. The helping task on the immediate test (i.e., putting materials away in a basket) may not have been an adequate measure of the children's inclinations to help. Yet, if this task was not representative of an appropriate helping task for children of this age, the significant effects of power assertive instructions should not have obtained. The delayed test did use three tasks as an index of helping, and in this session girls who had previously received either power assertive or inductive instructions were

more helpful than boys or control children who received no instructions. It is uncertain whether the same pattern would have obtained in the immediate test if scores were averaged over three helping tasks.

Aside from these methodological considerations, it is also possible that the cooperative behaviors of sharing and teaching in young children are affected by instructions differently than the behavior of helping. Initiating helping in young children may require a more direct instruction. Dlugokinski and Firestone (1974) demonstrated that while inductive appeals were more effective with eighth graders, power assertive appeals were more effective with fifth graders. Perhaps in everyday situations younger children are consistently given instructions to help that convey the same direct command as the power assertive instructions in this study, and therefore these instructions were more effective immediately than the inductive instructions. However, this line of reasoning does not explain why inductive instructions eventually proved effective in the delayed test of helping, if only for girls.

It may also be that helping represents a different class of behaviors than sharing and teaching. At Session I intercorrelations of helping with the other prosocial behaviors, although significant, were not as high as the intercorrelations of these behaviors with each other. For example, the correlation of helping with sharing was $r = .299$; helping was correlated at $r = .372$ for teaching. However, sharing was correlated with teaching at $r = .518$. These results, in conjunction with the differential effects of instructions on helping versus the other dependent measures, suggests that helping may indeed be representative of a different class of responses than sharing or teaching.

The differential effects of instructions on the helping responses of boys and girls in the delayed test, and girls' overall greater helping on the immediate test, may reflect a separate socialization pattern for girls and boys. Perhaps preschool girls have learned to be more receptive to cues for helping ("The cookie cutters spilled! They need to be picked up") than boys. However, during baseline boys helped as much as girls. According to Hetherington and Parke (1979), girls are more compliant to demands of parents and other adults as early as two years of age, whereas boys are more variable in their response to adult direction. Boys in this study conformed to the helping instruction during training at a rate equal to girls, but they may have felt less pressure to help when the instructions were removed during the immediate test following instructional training and the delayed test at Session III. However, this line of reasoning does not explain why instructed boys and girls were equally likely to share and teach during both the immediate and delayed tests.

The results of this study demonstrated that instructional training on helping, sharing, and teaching generalized to the uninstructed behavior of sympathy. Those children who received either inductive or power assertive instructions to help, share, or teach also expressed more sympathy on both the immediate and delayed test than control children who received no instructions. It may be that the instructions sensitized the children to the needs of others and made them more likely to intervene on another's behalf in a way which had never been specifically trained. The fact that instructed children were given actual practice in helping, sharing, and teaching may also have contributed to their increased comforting behavior. Whether due to the instructions themselves or the rehearsal the instructions induced, the results suggest that

sympathy in young children can be promoted by providing instructions and practice in other cooperative responses.

Girls expressed more sympathetic concern than boys during the delayed test with a new adult. Again, girls may be, as Hetherington and Parke (1979) suggest, more concerned about the approval of this new adult. For whatever reason this sex difference exists, the results are mainly due to the sympathy expressed by the instructed girls.

In general, the results of this study suggest that parents or other caregivers can enhance the cooperative behavior of preschoolers by providing them with instructions to behave prosocially and opportunities to practice that behavior. This method has immediate results as well as effects which are still apparent after a week's time in the presence of unfamiliar adults. Furthermore, providing young children with instructions and practice in cooperative behaviors may generalize to other acts of kindness which have never been trained. An instruction which focuses the child's attention on the needs of others may be as effective as one which directly tells a child how to behave. These effects on children's prosocial behavior were obtained in only three brief interactions with adults who did not have ultimate control over the children's material possessions or privileges within the school. In contrast, in everyday situations socializing agents have the opportunity to consistently maintain their influence on a long term basis. Instructions, then, may provide a valuable method for initiating and maintaining cooperative behavior in young children.

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APPENDICES

APPENDIX A

TEMPORAL ORDER OF PROSOCIAL OPPORTUNITIES

SESSION I (Planting Seeds)

Help move planting materials to table
 Share a cup
 Teach how to plant seeds
 Sympathize about bumped knee
 Teach how to water seeds
 Help pick up spilled sticks
 Share flower sticker
 Teach how to make flower stick
 Help look for lost box
 Share a snack

SESSION II (Painting)

Help move chairs to table
 Share paint
 Teach how to make blow picture
 Help pick up spilled papers
 Teach how to make glitter picture
 Share stars
 Help look for lost pen
 Teach how to make crayon picture
 Share snack

Immediate Test

Teach how to wash brushes
 Help put items in basket
 Share glitter
 Sympathize about stubbed toe

SESSION III (Playdough)

Help move bags to suitcase
 Share playdough
 Teach how to make colored playdough
 Sympathize about bumped elbow
 Teach how to make striped pancake
 Help pick up spilled cookie cutters
 Teach how to make smile cookie
 Share sparkle
 Help find lost red food coloring
 Share a snack

APPENDIX B

SCORING SYSTEM

DEFINITIONS AND OBSERVATIONAL SCORING

SYSTEM: PROSOCIAL BEHAVIOR STUDIES

<u>SCORE</u>	<u>CODE</u>	<u>BEHAVIOR</u>
<u>4</u>	H	<p>Helping: Child assists in a task which is better or more quickly done by more than one person, e.g., finding a lost object (child must get up from seat and look for object for at least 5 seconds); locating any needed object; picking up objects which have dropped to the floor; moving objects from one place to another; clearing objects or materials from table.</p> <p>If child looks for lost object for 5 seconds or more but does not get out of seat, score <u>3</u>.</p> <p>If child looks for lost object for less than 5 seconds, score <u>2</u>.</p> <p>If child helps within one second and does everything by him/herself (e.g., picking up all sticks alone), score <u>5</u>.</p>
<u>4</u>	S	<p>Sharing: Child relinquishes an object which had been in the child's possession or use, or which was owned by the child (ownership must be previously established by telling the child, "This is yours").</p> <p>If child shares only left-overs (e.g., playdough scraps not in shape of cookie), or very small portions of own materials, score <u>3</u>.</p> <p>If child shares <u>all</u> remaining materials, score <u>5</u>.</p>

SCORE	CODE	BEHAVIOR
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<u>4</u>	T	<p>Teaching: Child instructs another in a skill or activity. The instruction can be through physical demonstration or verbal explanation as long as the child gives another information which enables the individual to continue or complete an activity. All 3 components of teaching responses must be demonstrated or explained.</p> <p>If child teaches only 2 components, score <u>3</u>. If child teaches only 1 component, score <u>2</u>.</p> <p>If child demonstrates physically and verbalizes all 3 components of teaching response, score <u>5</u>.</p>
<u>4</u>	Sym	<p>Sympathy: Child offers comfort or condolence, or expresses concern about another's condition. Verbalizations must include words such as sorry, hurt, better, alright, okay, etc. Verbalizations scored as sympathy include:</p> <ul style="list-style-type: none"> - "It's alright." - "Sorry, I know you're hurt" or "I bet it hurts." - "It's okay" or "That's okay" or "It will be okay." - "I think it will stop hurting now." - "It will feel better in awhile" or "It'll get better." - "I'm sorry." - "I wish it didn't hurt." - "Have to get a bandaid for you so it won't hurt!" - "Are you alright?" - "Does it feel better?"

Physical demonstrations of comfort or sympathy include extending a hand or arm toward the injured person and patting, stroking, hugging, kissing in a positive manner. Physical demonstrations receive a score of 4.

If a child displays negative effect, and/or repeats the verbalization of need or equivalent (e.g., "Ouch!") score 2. Note: affect is

SCORE CODE BEHAVIOR

scored only when there is no physical or verbal response.

If child remembers a similar past incident or event which happened to self or others (e.g., "I got an owie and it bled"; "I hurted myself once"), score 2.

If child's statement lacks sympathy or condolence or borders on criticism, or includes an account of own coping behavior in similar situations (e.g., "When I touched it, it didn't hurt me!"; "You didn't hit it very hard"; "What did you do that for?"; "That's what you get"), score as 1.

If child verbalizes a sympathetic response (e.g., "I'm sorry") and displays another prosocial response (e.g., helping or sharing) at level 4, score as 5.

If child verbalizes a sympathetic response and physically demonstrates a response, e.g., kisses the hurt, score as 5.

If the child verbalizes an extensive sympathetic response (e.g., "I'm sorry you hurt yourself. It will get better soon"; "Want to put something on it? I believe it does really hurt. It will heal. I don't think it will be a bruise"), score as 5.

- 3 R₃ Remedy 3: Any neutral or positive verbal response by the child which poses a solution to the problem implied by the verbalization of need. The following are examples of Remedy 3:
- (lost pen) "But we could go outside where you were. Could write with the brush."
 - (no cup) "I'm going to bring one for you cause I didn't bring one."
 - (no cup) "You could get a different one. Use that glass one."

SCORE CODE BEHAVIOR

- (no cup) "You can plant in a garden. I planted in a garden with my dad."
- (no cup) "You can have that one (pointing to model)."
- (no flower sticker) "Take one off there (off model)."
- (no flower sticker) "Do you want a stem? Here's stem. Somebody must have pulled off the flower."
- (no snack) "Do you have some at home? Buy some. Are you going to buy some?"
- (no glitter) "Do you have some at home? Why don't you use some at home?"
- (bumped head) "Go out there and get a cold pack then."
- (bumped head) "Maybe we have some bandaids" or "Do you need a bandaid?"

- 2 R₃ Remedy 2: Any neutral or positive verbal response by the child which falls into one of the following categories:
- a) Child tells adult to engage in the behavior herself, e.g.,
 - (no cup) "Get one can't you? Aren't you allowed to get one yourself?"
 - (things need to be moved to the table) "Alright--do that."
 - (spilled sticks) "Pick 'em up."
 - (spilled sticks) "Well, you'll have to pick them up."
 - (spilled sticks) "You pick them up because you spilled them."
 - (lost box) "Go look for it" or "Look on the floor."
 - b) Child says that someone else (e.g., the other adult) engage in the behavior, e.g.,
 - (no flower sticker) "She's gonna go get some."
 - (lost box) "Ask the other girl when she comes back."
 - (no snack) "She'll give you one."

SCORE CODE BEHAVIOR

- (no snack) "Well, she can go get some more."
- (spilled cookie cutters) "She'll do it."
- c) Child "admonishes" adult by offering comments regularly made by socializing agents in similar situations, e.g.,
 - (spilled sticks) "You shouldn't have dropped them like that."
 - (spilled sticks) "That's cause you shouldn't have opened it."
 - (spilled sticks) "Don't drop them again."
 - (stubbed toe) "You better watch where you're going."
 - (stubbed toe) "What's there? You didn't see that."
 - (don't know how to plant seeds) "You could if you wanted to."
 - (don't know how to water seeds) "I wanna see if you can."
 - (don't know how to water seeds) "Well, you have to try."
 - (bumped head) "You better be careful."
 - (lost box) "Where'd you put it? Stand there till you remember."
 - (spilled papers) "You better be careful."
- d) Child makes an observation concerning the constraints within the situation, e.g.,
 - (no cup) "I know--you missed all of it."
 - (no glitter) "Where is it? This is for me."
 - (no stars) "These are the only ones."
 - (no snack) "There's only three--cause I like animal crackers."
 - (no snack) "Only three for me."
 - (don't know how to water seeds) "There's no more cups."
 - (don't know how to do a flower sticker) "She just took the sticks away."
- e) Child offers an explanation for the adult's state of need, e.g.,

SCORE CODE BEHAVIOR

			-(no cup) "Where are the cups? Someone stole them?" -(lost box) "Where'd you put it?" -(lost pen) "Maybe it went to your home."
<u>2</u>	VP	Verbal Post- ponement:	Child promises to behave prosocially at a later time, but does not follow through. -"I'll do it for you later." -"Just a minute." -"I'll find it after I'm done." -"I'll show you when I get through."
<u>1</u>	A ₁	Associa- tion:	Child talks about content of need verbalization without apparent recognition of the need. -(don't have any cookies) "One time when my mom and I went to the movie we bought this kind of cookies." -(don't know how to cut a cookie) "I'm gonna make a ball." -(don't know how to plant seeds) "I have two cups of dirt now."
<u>1</u>	ACK	Acknowl- edgement:	Child verbally demonstrates aware- ness of another's need, e.g., by repeating or paraphrasing need ver- balization. -(no cookies) "There's none for you." -(no cookies) "You got no cookie." -(no playdough) "You don't have any." -"Oh." -"Uh-huh." -"It did?" -"I do." -"Uh, oh." -(no seeds) "There's no seeds in there either."
<u>1</u>	D	Diver- sion:	A verbal response by the child about an unrelated topic.

<u>SCORE</u>	<u>CODE</u>	<u>BEHAVIOR</u>
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<u>1</u>	NR	No Response: Child displays no physical or verbal response to verbalization of need.
<u>0</u>	Rf	Refusal: Child verbally declines or physically declines by shaking head no. -(no red paint) "I won't give you any of mine (covering own red paint with hand)." -(no candy kisses) "You can't take mine. You can't take hers either." -(no cookies to take home) "You can't take hers. Can't take mine either, 'cause you lost yours." -(no flower sticker) "I can't share one of mine."

Additional Scoring Rules (General)

1. Subject's responses which are delayed (occur after 7 seconds following need verbalization, model, or prompt) receive a score of 1 point less.
2. Subjects who respond prosocially but verbalize reluctance and/or reasons why s/he shouldn't (e.g., "Now I won't have very much"), score as 1 point less.
3. Subjects who report the inequity either before (e.g., "What about the other girl?") or after the need verbalization (e.g., "She doesn't have any playdough"; "She couldn't find her special box"), or who display a continued recognition of the need (e.g., "She bumped her head"; "Do you know where the special box is?") receive a score of 1 point more.
4. Subjects who respond prosocially before the need is verbalized receive a score of 1 point more.

APPENDIX C

RELIABILITY OF OBSERVERS

Dependent Variable		Total Agreement ^a	Agreement ^b Within One Number Value	Agreement ^c Within Two or More Number Values
Session I	Helping 1	92%	6%	2%
	2	85%	17%	
	3	63%	34%	2%
	Averaged	79%	19%	2%
	Sharing 1	92%	8%	
	2	96%	4%	
	3	83%	17%	
	Averaged	90%	10%	
	Teaching 1	83%	15%	2%
	2	79%	6%	15%
Session II	3	69%	31%	
	Averaged	77%	17%	6%
	Sympathy	83%	13%	4%
	Helping 1	94%	6%	
	2	85%	15%	
	3	75%	17%	8%
	Averaged	85%	13%	2%
	Sharing 1	90%	8%	2%
	2	94%	4%	2%
	3	96%	4%	
	Averaged	93%	6%	1%
	Teaching 1	88%	10%	2%
	2	90%	10%	
	3	88%	10%	2%
	Averaged	89%	10%	1%

^aProportion of subjects for whom total agreement was reached

^bProportion of subjects for whom agreement was reached within one number value

^cProportion of subjects for whom agreement was reached within two or more number values

APPENDIX C (continued)

Dependent Variable	Total Agreement ^a	Agreement ^b Within One Number Value	Agreement ^c Within Two or More Number Values
<hr/> Immediate Test			
Helping	88%	10%	2%
Sharing	67%	27%	6%
Teaching	81%	19%	
Sympathy	77%	19%	4%
<hr/>			
Session III			
Helping 1	100%		
2	92%	8%	
3	88%	10%	2%
Averaged	93%	6%	1%
<hr/>			
Overall Averages			
Helping	86%	12%	2%
Sharing	86%	12%	2%
Teaching	82%	16%	2%
Sympathy	76%	22%	2%

APPENDIX D

MEANS AND STANDARD DEVIATIONS OF PROSOCIAL BEHAVIOR
AT EACH INCIDENT FOR EACH CONDITION

Session I	Power		Inductive		Control	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
Help						
H ₁	1.86	1.30	1.42	1.02	1.52	1.09
H ₂	2.41	1.55	2.68	1.60	2.72	1.48
H ₃	2.49	1.33	3.03	1.30	2.60	1.31
S ₁ Help (Avg. of H _{1,2,3})	2.25	1.12	2.38	.98	2.28	.97
Share						
Sh ₁	1.54	.89	1.56	1.03	1.68	1.02
Sh ₂	1.54	.89	1.73	1.11	1.59	.92
Sh ₃	1.56	.91	1.91	1.10	1.79	1.20
S ₁ Share (Avg. of Sh _{1,2,3})	1.55	.77	1.74	.98	1.69	.84
Teach						
T ₁	1.05	1.40	1.87	1.37	2.00	1.37
T ₂	2.06	1.36	1.48	1.05	2.13	1.40
T ₃	1.96	1.14	2.00	1.28	2.44	1.46
S ₁ Teach (Avg. of T _{1,2,3})	1.96	.93	1.78	1.07	2.19	1.17
S ₁ Symp	1.69	1.03	1.58	1.09	1.50	.70
Session II						
Help						
H ₁	4.06	.25	3.91	.27	1.94	1.45
H ₂	4.00	.18	3.88	.96	1.81	1.26
H ₃	3.75	.48	3.91	.42	2.41	1.34
S ₂ Help (Avg. of H _{1,2,3})	3.94	.21	3.90	.35	2.05	1.16
Share						
Sh ₁	3.72	1.08	3.22	1.46	1.41	.88
Sh ₂	4.06	.25	3.81	.75	1.78	1.20
Sh ₃	4.06	.44	3.75	1.00	1.72	1.21
S ₂ Share (Avg. of Sh _{1,2,3})	3.95	.43	3.60	.90	1.64	.98

APPENDIX D (continued)

Session II	Power		Inductive		Control	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
Teach						
T ₁	3.45	.92	3.47	1.20	1.97	1.42
T ₂	3.67	1.00	3.00	1.40	2.22	1.45
T ₃	4.13	.47	4.13	.39	2.97	1.60
S ₂ Teach (Avg. of T _{1,2,3})	3.75	.63	3.53	.68	2.39	1.25
Immediate Test						
Help	3.41	1.20	2.59	1.46	2.06	1.30
Share	3.00	1.11	2.69	1.12	1.72	1.00
Teach	3.94	1.05	4.03	.50	2.94	1.40
Symp.	1.78	.88	1.78	.98	1.16	.30
Session III						
Help						
H ₁	3.75	.93	3.69	1.08	2.75	1.61
H ₂	3.47	1.23	3.69	.85	2.44	1.38
H ₃	2.88	.90	3.28	1.21	2.09	1.08
S ₃ Help (Avg. of H _{1,2,3})	3.37	.60	3.55	.61	2.43	1.15
Share						
Sh ₁	2.63	1.42	2.66	1.68	1.59	1.05
Sh ₂	2.25	1.13	2.75	1.48	1.31	1.01
Sh ₃	2.25	1.66	2.75	1.61	1.41	.95
S ₃ Share (Avg. of Sh _{1,2,3})	2.38	.95	2.72	1.51	1.44	.97
Teach						
T ₁	3.81	1.39	3.28	1.74	2.56	1.65
T ₂	3.31	1.69	2.56	1.22	1.97	1.42
T ₃	3.66	1.40	3.22	1.68	2.03	1.58
S ₃ Teach (Avg. of T _{1,2,3})	3.59	1.38	3.02	1.31	2.19	1.14
S ₃ Symp	1.78	1.03	1.94	1.08	1.16	.30

Note: each $\bar{x}$ and S.D. are based on $n = 16$

APPENDIX E

INTERCORRELATIONS OF HELPING, SHARING, TEACHING AND SYMPATHY BEHAVIORS
AVERAGED PER SESSION

Dependent Variables:			Helping			Sharing			Teaching			Sympathy		
	S ₁ Help	S ₂ Help	IMHelp	S ₃ Help	S ₁ Shar	S ₂ Shar	IMShar	S ₃ Shar	S ₁ Tch	S ₂ Tch	IMTch	S ₃ Tch	S ₁ Symp	S ₃ Symp
S ₁ Help	.4059 (.001)	-.0471 (.374)	.3665 (.004)	.2993 (.016)	.2284 (.052)	.1914 (.094)	.2648 (.029)	.2284 (.052)	.3725 (.003)	.3766 (.003)	.3019 (.018)	.4064 (.001)	.2772 (.023)	.2316 (.053)
S ₂ Help		.3245 (.011)	.7788 (.001)	.0023 (.494)	.6765 (.001)	.3480 (.007)	.8795 (.001)	.6765 (.001)	-.0731 (.303)	.8440 (.001)	.4613 (.001)	.6373 (.001)	-.0431 (.381)	.1850 (.009)
IMHelp			.2577 (.037)	-.2051 (.079)	.3769 (.004)	.2932 (.020)	.3769 (.004)	.3769 (.004)	-.1226 (.201)	.1895 (.096)	.2191 (.065)	.2708 (.03)	-.1279 (.191)	.0783 (.296)
S ₃ Help				-.0596 (.337)	.4183 (.001)	.6752 (.007)	.4183 (.001)	.4183 (.001)	-.0645 (.325)	.7386 (.001)	.4684 (.001)	.7495 (.001)	.0348 (.403)	.3185 (.012)
S ₁ Shar					.0394 (.391)	.0471 (.374)	.0394 (.391)	.0394 (.391)	.5177 (.001)	.0191 (.447)	.0353 (.405)	.2024 (.075)	.4665 (.001)	.2624 (.033)
S ₂ Shar					.4078 (.002)	.4078 (.002)	.4078 (.002)	.4078 (.002)	-.0399 (.390)	.9104 (.001)	.3519 (.007)	.7194 (.001)	.0424 (.383)	.1723 (.116)
IMShar					.4190 (.001)	.4190 (.001)	.4190 (.001)	.4190 (.001)	-.0140 (.462)	.3922 (.003)	.4582 (.001)	.3981 (.002)	.0415 (.163)	.0666 (.325)
S ₃ Shar									-.0566 (.345)	.6994 (.001)	.2420 (.047)	.8221 (.001)	.0378 (.395)	.3256 (.011)
S ₁ Tch									.0905 (.262)	.1471 (.051)	.2367 (.149)	.1471 (.049)	.4955 (.001)	.3331 (.009)
S ₂ Tch										.4875 (.001)	.7619 (.001)	.0737 (.302)	.3755 (.004)	.1743 (.113)
IMTch												.3818 (.003)	.1154 (.215)	.2423 (.047)
S ₃ Tch													.0897 (.261)	.4040 (.057)
S ₁ Symp													.5119 (.001)	.3642 (.005)
IMSymp														.4426 (.001)
S ₃ Symp														

n = 52 (Four children were unable to complete the study)

Note: significance levels are in parentheses

APPENDIX F

SESSION II REHEARSAL

SUMMARY OF CONDITION BY SEX ANALYSIS OF COVARIANCE
WITH SESSION I HELPING AS A COVARIATEDependent Variable: Helping

Source	df	SS	MS	F	p
Covariate	1	4.90	4.90		
Condition (A)	2	36.68	18.34	47.95	.001
Sex (B)	1	.77	.77	2.02	.163
A X B	2	1.64	.82	2.14	.131
Within	41	15.68	.382		
Total	47	59.68	1.27		

Dependent Variable: Sharing

Source	df	SS	MS	F	p
Covariate	1	2.25	2.25		
Condition (A)	2	50.55	25.28	40.41	.001
Sex (B)	1	.32	.32	.50	.482
A X B	2	.10	.05	.08	.922
Within	41	25.65	.63		
Total	47	78.86	1.68		

APPENDIX F (continued)

Dependent Variable: Teaching

Source	df	SS	MS	F	p
Covariate	1	7.12	7.12		
Condition (A)	2	20.94	10.47	17.96	.001
Sex (B)	1	.53	.53	.90	.348
A X B	2	1.11	.55	.95	.396
Within	41	23.90	.58		
Total	47	53.43	1.14		

APPENDIX G

MEAN HELPING PROFILES FOR THE THREE CONDITIONS
ACROSS SESSIONS

APPENDIX H

MEAN HELPING PROFILES FOR FEMALES FOR
THE THREE CONDITIONS ACROSS SESSION I
IMMEDIATE TEST, AND SESSION III

APPENDIX I

MEAN HELPING PROFILES FOR MALES FOR
THE THREE CONDITIONS ACROSS SESSION I,
IMMEDIATE TEST, AND SESSION III

APPENDIX J

MEAN SHARING PROFILES FOR THE THREE CONDITIONS
ACROSS SESSIONS

APPENDIX K

MEAN TEACHING PROFILES FOR THE THREE CONDITIONS
ACROSS SESSIONS

APPENDIX L

MEAN SYMPATHY PROFILES FOR THE THREE CONDITIONS
ACROSS SESSION:

APPENDIX M

MEANS AND STANDARD DEVIATIONS OF THE
THREE CONDITIONS ON AGE, INTERVAL,
AND NUMBER OF PROMPTS

	Power		Inductive		Control	
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
Age*	57.13	6.85	56.94	7.34	56.13	6.10
Interval 1 ^a	4.94	2.14	4.56	2.00	3.81	1.78
Interval 2 ^b	5.38	1.45	5.50	1.03	5.31	1.14
Prompts ^c						
PH ₁	1.19	.75	1.00	.85	No Prompts Given	
PH ₂	.94	.77	1.06	.68		
PH ₃	1.06	.77	.81	.83		
PSh ₁	1.38	.62	1.81	1.05		
PSh ₂	.75	.45	1.12	.83		
PSh ₃	.81	.54	1.00	.89		
PT ₁	1.56	.81	1.56	.81		
PT ₂	1.19	.91	1.62	1.09		
PT ₃	.44	.51	.69	.60		

Note: $\bar{x}$ and S.D. are based on $n = 16$

*Ages represented in months

^aInterval in days between Session I and Session II

^bInterval in days between Session II and Session III

^cPrompts per incidents of behavior PH₁ = Help 1, etc.

APPENDIX N

SUMMARY OF CONDITION BY SEX ANALYSIS OF COVARIANCE
WITH SESSION I HELPING AS A COVARIATE

Dependent Variable:		Immediate Test Helping			
Source	df	SS	MS	F	p
Covariate	1	.07	.07		
Condition (A)	2	14.63	7.315	5.219	.010
Sex (B)	1	15.18	15.18	10.83	.002
A X B	2	6.465	3.23	2.306	.112
Within	41	57.47	1.402		
Total	47	93.813	1.996		

Dependent Variable:		Session III Helping			
Source	df	SS	MS	F	p
Covariate	1	4.13	4.13		
Condition (A)	2	11.302	5.651	10.136	.001
Sex (B)	1	.295	.295	.53	.471
A X B	2	3.924	1.962	3.519	.039
Within	41	22.86	.557		
Total	47	42.51	.904		

APPENDIX O

SUMMARY OF CONDITION BY SEX ANALYSIS OF COVARIANCE
WITH SESSION I SHARING AS A COVARIATE

Dependent Variable:		Immediate Test		Sharing	
Source	df	SS	MS	F	p
Covariate	1	.113	.113		
Condition (A)	2	14.44	7.22	6.17	.005
Sex (B)	1	1.55	1.55	1.32	.257
A X B	2	2.63	1.32	1.13	.334
Within	41	47.98	1.17		
Total	47	66.70	1.42		

Dependent Variable:		Session III		Sharing	
Source	df	SS	MS	F	p
Covariate	1	11.29	11.29		
Condition (A)	2	14.20	7.10	6.45	.004
Sex (B)	1	.81	.81	.74	.395
A X B	2	2.71	1.36	1.23	.302
Within	41	45.12	1.10		
Total	47	74.13	1.58		

APPENDIX P

SUMMARY OF CONDITION BY SEX ANALYSIS OF COVARIANCE
WITH SESSION I TEACHING AS A COVARIATE

Dependent Variable:		Immediate Test		Teaching	
Source	df	SS	MS	F	p
Covariate	1	3.25	3.25		
Condition (A)	2	14.21	7.11	7.01	.002
Sex (B)	1	.95	.95	.94	.339
A X B	2	.10	.05	.05	.952
Within	41	41.56	1.01		
Total	47	59.87	1.27		

Dependent Avriable:		Session III		Teaching	
Source	df	SS	MS	F	p
Covariate	1	14.94	14.94		
Condition (A)	2	19.58	9.79	8.28	.001
Sex (B)	1	1.77	1.77	1.499	.228
A X B	2	4.59	2.30	1.942	.156
Within	41	48.495	1.18		
Total	47	89.652	1.91		

APPENDIX Q

SUMMARY OF CONDITION BY SEX ANALYSIS OF COVARIANCE
WITH SESSION I SYMPATHY AS A COVARIATE

Dependent Variable: Immediate Test Sympathy

Source	df	SS	MS	F	p
Covariate	1	10.10	10.10		
Condition (A)	2	3.373	1.687	3.911	.028
Sex (B)	1	.000	.000	.000	.988
A X B	2	.345	.173	.401	.673
Within	41	17.68	.431		
Total	47	31.495	.670		

Dependent Variable: Session III Sympathy

Source	df	SS	MS	F	p
Covariate	1	6.58	6.58		
Condition (A)	2	4.832	2.416	4.34	.020
Sex (B)	1	3.713	3.713	6.66	.014
A X B	2	2.275	1.14	2.04	.143
Within	41	22.84	.557		
Total	47	40.25	.856		

APPENDIX R

INTERCORRELATIONS OF HELPING, SHARING, AND TEACHING BEHAVIORS
ACROSS INCIDENTS FOR EACH CONDITION AT SESSION 1

Condition	HELPING			SHARING			TEACHING		
	1	2	3	1	2	3	1	2	3
Power									
1	1	.1937 (.236)	.5113 (.02)	1	1	.7629 (.001)	1	1	.6258 (.005)
2		1	.3190 (.114)	2	1	.3410 (.098)	2	1	.3944 (.065)
3			1	3		1	3		1
Inductive									
1	1	.2398 (.186)	.3674 (.081)	1	1	.8979 (.001)	1	1	.2676 (.158)
2		1	.3966 (.064)	2	1	.7680 (.001)	2	1	.6425 (.004)
3			1	3		1	3		1
Control									
1	1	.7239 (.001)	.5748 (.01)	1	1	.8406 (.001)	1	1	.5146 (.021)
2		1	.5156 (.02)	2	1	.5346 (.016)	2	1	-.1127 (.339)
3			1	3		1	3		1

Note: $n = 16$ per condition
significance level in parentheses

APPENDIX S

INTERCORRELATIONS OF HELPING, SHARING, AND TEACHING BEHAVIORS ACROSS INCIDENTS FOR EACH CONDITION AT SESSION II

Condition	Helping			Sharing			Teaching		
	1	2	3	1	2	3	1	2	3
Power									
Inductive									
Control									
1	1	.5582 (.012)	.7161 (.001)	1	1	.5016 (.024)	1	1	.6923 (.001)
2		1	.4993 (.024)	2	1	.9670 (.001)	2	1	.4499 (.04)
3			1	3		1	3		1
1	1	-.0480 (.430)	-.8027 (.380)	1	.4052 (.06)	.4052 (.06)	1	1	.1777 (.255)
2		1	-.0104 (.485)	1	1	1.00	2	1	.0000 (.50)
3			1			1	3		1
1	1	.0000 (.50)	.1380 (.305)	1	1	.1930 (.237)	1	1	.6526 (.003)
2		1	.1890 (.242)	2	1	.5649 (.011)	2	1	.1615 (.275)
3			1	3		1	3		1

Note: $n = 16$ per condition
significance level in parentheses

APPENDIX T

INTERCORRELATIONS OF HELPING, SHARING, AND TEACHING BEHAVIORS
ACROSS INCIDENTS FOR EACH CONDITION AT SESSION III

Condition	Helping			Sharing			Teaching		
	1	2	3	1	2	3	1	2	3
Power	1	1	.4579 (.037)	1	1	.6265 (.005)	1	1	.5307 (.017)
	2	1	.7862 (.001)	2	1	.6188 (.005)	2	1	.1793 (.253)
	3		1	3		1	3		1
Inductive	1	1	.2127 (.214)	1	1	.7924 (.001)	1	1	.7268 (.001)
	2	1	.2519 (.173)	2	1	.8920 (.001)	2	1	.5516 (.013)
	3		1	3		1	3		1
Control	1	1	.0654 (.405)	1	1	.3546 (.089)	1	1	.7500 (.001)
	2	1	.0262 (.462)	2	1	.0267 (.001)	2	1	.7082 (.001)
	3		1	3		1	3		1

significance levels are in parentheses
n = 16

APPENDIX U

INTERCORRELATIONS OF HELPING, SHARING, TEACHING, AND SYMPATHY BEHAVIORS
AND INTERCORRELATIONS OF NUMBER OF PROMPTS WITH EACH PROSOCIAL BEHAVIOR
FOR THE POWER ASSERTIVE CONDITION

	S ₁ Help	S ₂ Help	IMHelp	S ₃ Help	S ₁ Shar	S ₂ Shar	IMShar	S ₃ Shar	S ₁ Tch	S ₂ Tch	IMTch	S ₃ Tch	S ₁ Sym	IMSym	S ₃ Sym
S ₁ Help	.2421 (.183)	.1609 (.276)	.4426 (.043)	.0611 (.411)	-.0918 (.368)	.5424 (.015)		-.0127 (.481)	.1453 (.296)	.3250 (.110)	.1556 (.283)	.3930 (.067)	-.0252 (.463)	.5166 (.020)	.1407 (.302)
S ₂ Help		-.0248 (.464)	.2226 (.204)	.0316 (.454)	-.0993 (.357)	.5009 (.024)		-.1991 (.230)	-.1469 (.294)	.2424 (.183)	.2341 (.191)	-.3499 (.092)	.2988 (.130)	.2838 (.143)	-.4780 (.031)
IMHelp			.3360 (.102)	-.4936 (.026)	.2143 (.213)	.4376 (.045)		.1493 (.291)	.1715 (.263)	.5181 (.020)	.1011 (.355)	.1031 (.352)	.0651 (.405)	.1537 (.285)	.1841 (.247)
S ₃ Help				-.5926 (.008)	.1135 (.338)	.5586 (.012)		.0947 (.364)	.1027 (.353)	.4111 (.057)	.6666 (.002)	.1036 (.315)	.1554 (.283)	.0562 (.418)	.1642 (.272)
S ₁ Shar				.0710 (.397)	-.2185 (.208)	-.1155 (.335)		-.2853 (.142)	-.1073 (.346)	-.2853 (.142)	.1171 (.333)	.1971 (.232)	.3602 (.085)	.3602 (.085)	.0235 (.466)
S ₂ Shar				.1731 (.261)	.0773 (.388)	.2240 (.202)		.5987 (.008)	.0536 (.422)	.3745 (.076)	.3098 (.121)	-.1492 (.291)	-.1638 (.272)	-.1638 (.272)	
IMShar				.0262 (.462)	-.0410 (.440)	.6231 (.005)		.3871 (.005)	.1815 (.069)	.1073 (.251)	.1372 (.346)	.0291 (.457)			
S ₃ Shar					-.2542 (.721)	.0958 (.183)		.2421 (.009)	.5815 (.143)	-.2840 (.143)	-.2547 (.171)	.0832 (.38)			
S ₁ Tch					.4106 (.057)	.3743 (.251)		.1814 (.101)	.3373 (.045)	.4371 (.1996)	.5879 (.008)				
S ₂ Tch					.4836 (.029)	.4092 (.058)		.2646 (.161)	.1594 (.278)	.1996 (.229)					
IMTch					.1352 (.309)	.0017 (.498)		-.0887 (.372)	.2641 (.161)						
S ₃ Tch					-.0195 (.471)	-.0740 (.393)		.4253 (.05)							
S ₁ Sym								.4990 (.388)							
IMSym															
S ₃ Sym															

INTERCORRELATIONS OF MEAN NUMBER OF PROSOCIAL PROMPTS FOR EACH OF THE
FIFTEEN PROSOCIAL MEASURES

PH	-.6653 (.002)	-.3655 (.082)	-.4427 (.043)	-.7161 (.001)	.4482 (.041)	.1033 (.352)	-.6627 (.003)	-.2285 (.197)	-.0416 (.439)	-.5628 (.012)	-.4741 (.032)	.3076 (.123)	-.0283 (.459)	-.2808 (.146)	-.2380 (.187)
PSH		.4171 (.054)	-.1261 (.321)	-.3113 (.120)	-.2563 (.169)	-.0585 (.415)	-.3677 (.081)	-.3008 (.129)	-.3124 (.119)	-.0907 (.369)	-.5418 (.015)	-.0997 (.357)	-.4559 (.038)	-.4366 (.045)	-.0465 (.435)
PT		-.4477 (.041)	.0037 (.495)	-.3777 (.075)	-.3355 (.102)	.0386 (.444)	-.2120 (.154)	-.2004 (.208)	-.0827 (.380)	-.5098 (.022)	-.6675 (.002)	-.2769 (.150)	-.4651 (.035)	-.5022 (.028)	-.3897 (.068)

n = 16

PH = Mean number of helping prompts per subject
PSH = Mean number of sharing prompts per subject
PT = Mean number of teaching prompts per subject

significance levels are in parentheses

APPENDIX V

INTERCORRELATIONS OF HELPING, SHARING, TEACHING, AND SYMPATHY BEHAVIORS,
AND INTERCORRELATIONS OF NUMBER OF PROMPTS WITH EACH PROSOCIAL BEHAVIOR
FOR THE INDUCTIVE CONDITION

Dependent Variable:	Helping			Sharing			Teaching			Sympathy					
	S ₁ Help	S ₂ Help	IMHelp	S ₃ Help	S ₁ Shar	S ₂ Shar	IMShar	S ₃ Shar	S ₁ Tch	S ₂ Tch	IMTch	S ₃ Tch	S ₁ Sym	IMSyp	S ₃ Symp
S ₁ Help		.2902 (.138)	-.1166 (.334)	.2134 (.214)	.5745 (.01)	.1564 (.281)	-.0286 (.458)	.2161 (.211)	.5227 (.019)	.4645 (.035)	.3687 (.080)	.5130 (.021)	.6408 (.004)	.5408 (.015)	.4643 (.035)
S ₂ Help			.4060 (.059)	.0437 (.436)	.3040 (.126)	.2189 (.208)	.2757 (.151)	.4131 (.056)	.1104 (.342)	.1008 (.355)	-.0118 (.483)	.2414 (.184)	.3392 (.099)	.1377 (.306)	.2437 (.182)
IMHelp				.1303 (.315)	-.0241 (.465)	.2464 (.179)	.3536 (.09)	.1563 (.282)	-.0134 (.48)	.0192 (.472)	-.0271 (.460)	.4237 (.051)	-.1462 (.295)	-.2746 (.152)	-.2179 (.209)
S ₃ Help					.5094 (.022)	-.0262 (.462)	.6293 (.004)	.7033 (.001)	.4642 (.035)	.4389 (.045)	-.1145 (.336)	.6089 (.006)	.2561 (.169)	.1583 (.279)	.2067 (.221)
S ₁ Shar						.1200 (.329)	.1736 (.26)	.6172 (.005)	.5702 (.011)	.0930 (.366)	.1613 (.275)	.4453 (.042)	.8091 (.001)	.6186 (.005)	.5468 (.014)
S ₂ Shar							-.0956 (.362)	.2094 (.218)	.2904 (.087)	.3581 (.074)	-.3787 (.086)	.3583 (.128)	.3015 (.499)	-.0004 (.351)	.1039 (.2923)
IMShar								.4956 (.025)	.1005 (.356)	-.0299 (.456)	.2861 (.141)	.3646 (.082)	-.2147 (.212)	-.2019 (.227)	-.2923 (.136)
S ₃ Shar									.4093 (.058)	.2075 (.220)	-.1279 (.319)	.6055 (.006)	.4253 (.05)	.2519 (.173)	.3507 (.091)
S ₁ Tch										.4863 (.028)	-.0857 (.376)	.5960 (.007)	.6798 (.002)	.4207 (.052)	.5400 (.015)
S ₂ Tch											-.2483 (.177)	.5910 (.008)	.3666 (.081)	.3264 (.109)	.2752 (.151)
IMTch												.0160 (.477)	-.0975 (.360)	-.0191 (.472)	-.3369 (.101)
S ₃ Tch													.3522 (.091)	.1944 (.135)	.2931 (.135)
S ₁ Sym														.7235 (.001)	.7787 (.001)
IMSyp															.5211 (.019)
S ₃ Symp															

INTERCORRELATIONS OF MEAN NUMBER OF PROSOCIAL PROMPTS FOR EACH OF THE
FIFTEEN PROSOCIAL MEASURES

PH	-.3439 (.096)	-.5379 (.016)	.0168 (.475)	-.2661 (.160)	-.4566 (.038)	-.3411 (.098)	-.2693 (.157)	-.6115 (.006)	-.4479 (.041)	-.2108 (.217)	.1684 (.266)	-.3428 (.097)	-.5332 (.039)	-.3882 (.069)	-.6548 (.003)
PSH		-.1736 (.228)	-.2005 (.454)	-.0312 (.214)	-.3715 (.078)	-.8072 (.001)	-.4046 (.441)	-.3868 (.069)	-.4080 (.058)	-.2979 (.131)	.3964 (.064)	-.5337 (.218)	-.5337 (.017)	-.3669 (.455)	-.3669 (.081)
PT			-.1379 (.305)	-.1119 (.340)	-.0436 (.436)	-.0801 (.384)	.1283 (.318)	-.2540 (.171)	.0118 (.483)	-.5829 (.009)	.2867 (.141)	-.1203 (.329)	-.0897 (.371)	-.3920 (.067)	-.0857 (.376)

N = 16

PH = Mean number of helping prompts per subject
PSH = Mean number of sharing prompts per subject
PT = Mean number of teaching prompts per subject
significance levels are in parentheses

APPENDIX W

INTERCORRELATIONS OF HELPING, SHARING, TEACHING AND SYMPATHY BEHAVIORS FOR THE CONTROL CONDITION

Dependent Variable:

	Helping			Sharing			Teaching			Sympathy					
	S ₁ Help	S ₂ Help	IMHelp	S ₃ Help	S ₁ Shar	S ₂ Shar	IMShar	S ₃ Shar	S ₁ Tch	S ₂ Tch	IMTch	S ₃ Tch	S ₁ Sym	IMSym	S ₃ Symp
S ₁ Help		.7487 (.001)	-.1264 (.320)	.4257 (.05)	.4532 (.039)	.0572 (.417)	.0757 (.390)	-.0686 (.40)	-.6549 (.003)	.2217 (.205)	.5164 (.02)	-.4246 (.05)	-.4046 (.06)	-.0826 (.38)	-.4516 (.04)
S ₂ Help			.0752 (.391)	.5952 (.007)	.3429 (.097)	.0705 (.398)	-.2365 (.189)	-.0568 (.417)	-.4078 (.058)	.1149 (.336)	.2699 (.156)	-.2528 (.172)	-.0618 (.410)	.0868 (.375)	.3742 (.077)
IMHelp				.1071 (.346)	-.2396 (.186)	-.3349 (.102)	-.0624 (.409)	-.1377 (.306)	-.3437 (.096)	-.3443 (.209)	.2180 (.115)	-.3181 (.08)	-.3680 (.110)	-.3242 (.110)	-.0691 (.40)
S ₃ Help					-.1508 (.289)	-.1012 (.355)	-.0915 (.368)	-.2694 (.157)	.1765 (.257)	.2948 (.134)	.2624 (.163)	.2872 (.140)	-.0859 (.376)	.2598 (.166)	.4364 (.046)
S ₁ Shar						.6855 (.002)	.2316 (.194)	.6348 (.004)	.7563 (.001)	.4804 (.03)	.2611 (.164)	.5796 (.009)	.4695 (.033)	.0304 (.456)	.0745 (.392)
S ₂ Shar							.2068 (.221)	.8893 (.001)	.4256 (.05)	.6893 (.002)	.1736 (.26)	.7309 (.001)	.4537 (.039)	.4715 (.033)	-.0201 (.471)
IMShar								.2798 (.147)	.1007 (.355)	.0750 (.391)	.3773 (.075)	.2048 (.223)	.3238 (.111)	.0450 (.434)	-.0104 (.485)
S ₃ Shar									.3167 (.116)	.4307 (.048)	.0909 (.369)	.5178 (.02)	.2420 (.183)	.3639 (.08)	-.1043 (.350)
S ₁ Tch										.6530 (.003)	.4963 (.025)	.7424 (.001)	.5060 (.023)	.0839 (.379)	.1840 (.248)
S ₂ Tch											.4330 (.047)	.8827 (.001)	.6306 (.004)	.3617 (.084)	.0657 (.405)
IMTch												.6027 (.007)	.3273 (.108)	-.0963 (.361)	.4310 (.048)
S ₃ Tch													.5677 (.011)	.2966 (.132)	.1998 (.229)
S ₁ Sym														.3705 (.079)	.2115 (.216)
IMSymp															-.1034 (.352)
S ₃ Symp															

n = 16
significance levels are in parentheses