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# DEVELOPMENTAL CHANGES IN CHILDREN'S KNOWLEDGE OF EFFECTIVE HELPING STRATEGIES.

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DEVELOPMENTAL CHANGES IN  
CHILDREN'S KNOWLEDGE OF  
EFFECTIVE HELPING STRATEGIES

by

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B.A., University of Toronto, 1971

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A Dissertation  
Submitted to the Faculty of Graduate Studies  
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## ABSTRACT

The present study was designed to examine developmental changes in children's awareness of effective helping strategies. Three skills were assumed necessary for effective helping: first, an ability to recognize a need for help; second, a recognition that the helpee's circumstances determine the consequences of any intervention; and third, a knowledge of the strategy which will be most effective. These skills were assumed to be acquired by the child in the prescribed order and essential to effective helping in situations where the kind of help required was not obvious. Thus, it was hypothesized that age-related differences in awareness of effective helping strategies would be most evident in these kinds of situations. In addition, it was assumed that there would be developmental differences in the manner in which children conceptualized a good helper. Children who recognized that the particular nature of the helpee's circumstances determined helping effectiveness would judge an act of helping by the way in which it met the helpee's needs (qualitative reasons). Children who had not acquired this ability were expected to judge the goodness of an act of helping on the basis of the amount of help offered (quantitative reasons).

Eighty-two 5-, 8-, 11-, and 15-year-old boys were asked how they would help four hypothetical children in need of assistance under four different story situations. One story was of a child who was simply unable to complete a task on his own. In each of the other three stories a constraint was introduced which rendered



the most effective strategy less obvious. These constraints included a competition; a duty on the part of the main character to work alone; and a personal goal set by the main character to finish the task alone. The four stories were presented again to each child with the inclusion of a forced-choice test in which two hypothetical helpers were described as providing either direct personal intervention or a kind of help which allowed the main character to complete the task himself (indirect help). Children were asked to judge who was a better helper. To study developmental changes in children's conceptualization of effective help, they were also asked to give reasons why the helper they chose was better.

The results indicated that there were minimal developmental differences in the strategies suggested by the children under the inability story where the most appropriate strategy was obvious. The majority of children suggested direct intervention strategies under this story. Under the three constraint stories of competition, duty, and independence, however, the following developmental sequence of suggested strategies emerged: direct strategies, non-intervention and indirect strategies. Suggestions of the more effective non-intervention and indirect strategies appeared at 8-years for competition, 11-years for duty, and 15-years for independence. The findings on the forced-choice test indicated that there was an increasing preference with age for the indirect helper on all four stories. The age at which children showed a preference for the indirect helper on the forced-

choice test paralleled the findings under the open-ended measure. As expected, the data concerning children's reasons for preferring a particular helper indicated that as children grew older there was a decrease in the use of quantitative reasons and a concomitant increase in qualitative reasons.

As ancillary data, children's stages of moral judgment were obtained by asking them why they would or would not help. Their responses were classified according to Kohlberg's six-stage hierarchy of moral judgment. Stage of moral judgment was not found to be related to effectiveness of helping strategies on the open-ended or forced-choice measures nor to the quality of reasons for preferring a particular helper. Stage four moral judgments, however, were found to be consistently related to more effective helping strategies and to the use of qualitative reasons under all four story situations.\*

The results provide support for the basic assumptions of this study that, in order to be an effective helper in situations where the most appropriate strategy is not readily apparent, the helper must be capable of the three skills described above. Young children, because they fail to consider the relevancy of the helpee's particular needs, suggest inappropriate direct strategies and evaluate helping on quantitative grounds. With the acquisition of skill two, children begin to recognize possible situational constraints. Recognition of constraints against direct intervention, however, does not appear immediately in all situations but is dependent upon familiarity with the particular constraint. In the present study, children suggested non-inter-

vention and indirect strategies in response to competition at a younger age than to duty and at a younger age for duty than independence. Non-intervention strategies appeared to be used by children who first recognized the constraint but could not formulate appropriate helping responses. Finally, with experience in various constraint situations children realize that there are other forms of assistance besides direct intervention which are appropriate and devise alternate indirect helping strategies. To them, the effectiveness of a particular strategy is evaluated in terms of the way in which it meets the task demands placed on the helpee.

## PREFACE

I wish to extend my gratitude to Dr. Akira Kobasigawa, Chairman of my committee, whose guidance was invaluable from the initiation to completion of this paper. I am also thankful to the members of my committee, Drs. Ann McCabe and Frank Schneider, for their helpful comments and careful reading of my manuscripts. Dr. Al Malone contributed significantly in the early stages of this investigation. Dr. Kenneth Rubin, my external reader from the University of Waterloo, offered many thoughtful and constructive comments. Larry Starr's assistance with the computer programming of the data is gratefully acknowledged.

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CHAPTER I  
INTRODUCTION

The major purpose of the present study was to examine developmental changes in children's knowledge of effective helping strategies. A number of studies have appeared in the recent literature concerning age changes in helping behaviour (see the Review of Literature, Appendix A). The results of these studies seem to indicate that the amount of helping behaviour, as measured by donations to charity, sharing with a peer, and giving assistance to another, increases with age until middle childhood and subsequently declines or occurs at the same frequency in adolescence. It is difficult to determine from these studies, however, what children know about the relative effectiveness of different helping strategies. The investigators in these earlier studies have been primarily concerned with age changes in children's tendency to help. Because their focus has been on whether or not children will help and factors that might affect this disposition, they have designed their investigations so that the need for help and the kind of helping behaviour required is relatively obvious. For instance, in studies examining sharing behaviour, children viewed pictures of needy children and were subsequently given the opportunity to donate (e.g., Barnett & Bryan, 1974; Midlarsky & Bryan, 1967). In addition, the dependent variable in the majority of these studies was the frequency or quantity of a particular predefined prosocial response. For example, in the donation studies mentioned

above, age differences were measured in terms of the amount donated or the number of children donating at each age level.<sup>1</sup>

The earlier investigations of prosocial behaviour have added much to our knowledge of both age-related changes in children's disposition to show helping behaviours (e.g., Olejnik, 1976) and factors that facilitate children's tendency to help (e.g., Bryan & Test, 1967; Rosenhan & White, 1967). However, as Chandler (1974) points out, the ability to recognize a need for help and to know the sort of help that is really needed are also important developmental acquisitions. Many authors (e.g., Aronfreed, 1968; Hoffman, 1975, Olejnik, 1975; Rosenhan, 1969; Spivak & Shure, 1974) have referred to the importance of studying developmental changes in children's awareness of effective helping strategies. Very recently Ladd and Oden (1977) examined the relationship between children's ideas about how to be helpful and peer acceptance. The importance of studying the development of effective helping strategies in children can be demonstrated by a consideration of the very manner in which prosocial behaviour is socialized.

Socialization of prosocial behaviour. Consider what is involved in the socialization of prosocial behaviour. The present author believes that most parents attempt to foster a helpful disposition in their children but at the same time do not indiscriminately reinforce every attempt their children make at helping. For instance, if a child offered a certain kind of help which interfered with the personal freedom of another, this would be discouraged. In addition to parental control,

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<sup>1</sup>A series of studies conducted by Staub (1970a, 1970b, 1971a, 1971b) is one notable exception. In these studies helping was not limited to a single predefined behaviour but rather included both active assistance and volunteering help.



a child's helping behaviour becomes increasingly influenced by his peers (e.g., Hartup & Coates, 1967). Peers, perhaps even more than parents, are selective in their reinforcement of prosocial acts and have a variety of labels and remarks for those who do not act in accordance with their norms. For example, children frequently use such terms as, 'mind your own business' and 'busy-body,' to inform a child that his particular attempt at being "helpful" is undesirable. A child who wishes to obtain parental or peer approval must realize that some of his acts of assistance lead to approval and others do not. Thus, there appears to be set of social norms which regulate the helping behaviour of individuals. These norms are transmitted to the child through various socialization agents, including parents and peers, and once learned, should serve to indicate to the child when helping is and is not desirable and which acts of assistance are appropriate and which are inappropriate. As children grow older, one would expect that they will learn to discriminate various cues within the helping situation which allow them to offer an acceptable form of help.

The research of Staub provides some indirect support for the notion that children's helping behaviour comes increasingly under the influence of social norms which allow them to determine what is appropriate in a particular situation. In a study in which children's helping responses to the distress cries of a child in an adjoining room were examined, Staub (1970a) found that assistance in the form of both active help and volunteering

information increased from kindergarten to fourth grade and then decreased to sixth grade. Staub accounts for the low frequency of helping in the kindergarten and first grade children as due to lack of competence, empathic capacity and role-taking skills. The low rate of helping responses in the sixth grade children, however, was considered to be due to a lack of willingness to offer help, fearing disapproval for inappropriate action. In a later study, Staub (1971b) found that the helping responses of seventh grade children were related to prior permission to enter the adjoining room. Those given implicit permission to enter the room were much more willing to go into this room to help the distressed child than those who were not. These studies of Staub, then, provide support for the idea that there may be developmental differences in the extent to which children's helping behaviour is controlled by social normative influences. Thus we should expect children of different ages to behave differently in some helping situations, particularly those in which the most appropriate response is not readily apparent.

There is further evidence which also supports the notion that there may be qualitative as well as quantitative differences in the helping behaviour of children. While conducting a study of prosocial disposition in 5-year-old children, the present author (Tierney, 1975) incidentally observed that there were differences in the manner in which the children chose to help their partners in a ticket sorting task. For example, some

assisted by actually completing the task for their partners, others by offering them clues as to how to finish faster, and still others by simply waiting for their partners to finish on their own. When these children were questioned about their activities, their comments indicated that their behaviour reflected their differing conceptualization of the role of a good helper. For instance, some children felt that a good helper does not interfere with a partner's performance, and thus selected a non-intervention strategy. If such qualitative differences exist among 5-year-olds, it seems reasonable to expect that even greater differences exist in the helping strategies of older children as their behaviour becomes increasingly under social normative control which regulates the appropriateness of a response.

Given that there are qualitative developmental differences in children's preferences for helping strategies and in their conceptualization of the role of a good helper, the first task would seem to be the mapping out of the course of such developmental changes. One question that must be asked initially is under what situations are there likely to be developmental differences in preferred helping strategies since there may be situations under which such differences will not appear. For instance, when the kind of help required is obvious there may be no age differences in what children believe to be the most effective helping strategy. Assuming that there are situations which will result in age differences in strategy preferences, the second question

is what can be said about the developmental course of the attainment of effective helping strategies. Once we have established such a sequence, the third question which must be asked is whether this sequence emerges at the same age for every helping situation. Finally, assuming that older children conceptualize good help differently than do younger ones, the fourth question is what exactly are these differences. These four questions provided the focus of the present study. In order to examine these questions, a conceptual framework was developed.

There is no available theoretical framework to account for developmental changes in awareness of effective helping strategies. In order to generate the skills necessary for effective helping, an approach similar to that of Shure (1968) and the Baldwins and their colleagues (Baldwin, Baldwin, Hilton, & Lambert, 1969) is used. They developed a model to account for developmental changes in children's conceptualization of kindness in others by using Heider's (1958) description of naive psychology. Also, the conceptual framework developed in this paper uses the basic assumptions of a stage theory approach. The development of awareness of effective strategies is viewed as progressing through a hierarchy of stages, each stage representing a reorganization of ideas at the previous stage into more adequate and differentiated ones (Piaget, 1952).

#### Conceptual Framework

The three skills needed for effective helping. It was thought that in order to be an effective helper one must be

capable of the following three skills. First, the potential helper must be able to recognize that help is needed. Second, given that the individual has recognized that help is needed, he must further be able to consider the consequences of his actions in terms of the helpee's particular needs or circumstances. However, this consideration will lead to effective helping only if the individual possesses a third skill - he must know which strategy will, in fact, be most beneficial to the helpee in that situation. It is further assumed that children do not necessarily possess all three skills but that they acquire these skills in the prescribed order.

The first skill, the ability to recognize a need for help was also considered by Severy and Davis (1971) to be the first step in intentional helping. They argued that an individual must be able to see another as "suffering, in distress, faced with difficulties - in short, as needing help" in order that it make sense for him to help another. No form of intentional helping will occur if the individual does not perceive a need for his actions. A similar cognitive acquisition has been posited by Flavel, Potkin, Fry, Wright, & Jarvis (1968) in their description of the development of social perspective-taking skills. The first stage in this development is the ability to recognize the existence of a perspective in another that is distinct from one's own. This ability to recognize the existence of different perspectives in others would appear to involve similar cognitive mechanisms as the ability to recognize that another is in need

of assistance.

The second skill in the development of effective helping, the recognition that the consequences of any actions will be a function of the helpee's particular needs, is analogous to Flavell's second stage of role-taking abilities. He suggests that once a child becomes aware of the existence of other's perspectives he then can use this knowledge to infer the consequences of any action directed toward that other. Spivack and Shure (1974) also considered the readiness to view the consequences of actions and to engage in means-end thinking as prerequisites for effective interpersonal problem-solving.

The third skill assumed to be necessary for effective helping is the knowledge of what strategy will be most effective given the particular needs and circumstances of the helpee. This is analogous to Flavell's third social perspective-taking stage, the ability to apply what is known about another person's perspective in order to interact effectively with that individual.

It can be seen then, that although the three skills assumed to be necessary for effective helping are unique to the present investigation, the development of social cognitive skills in other areas of interpersonal relations have been described in a similar manner.

Situations under which developmental differences are likely to occur. The acquisition of these three skills is not assumed to be necessary for effective helping in all situations. In those situations in which the most effective strategy is obvious, the

ability to recognize a need for assistance alone should lead to effective helping. Take for example, a teacher who suggests that students assist in cleaning the classroom. Both the consequences of the students' acts of assistance for the teacher and the actual strategy to be employed, i.e., direct assistance in the form of cleaning up, are made readily apparent by the teacher's request. In many situations, however, the most effective way to assist is not as obvious and the use of previously effective strategies may result in negative consequences for the helpee. It is in these situations where the ability to recognize that the effectiveness of a particular strategy will be a function of the initial state or circumstances of the helpee is necessary.

There are many examples of situations in which the most effective means of assistance is not readily apparent in the typical encounters of children. In some situations it may be important to consider what means are available to best meet the needs of the one who is faced with difficulties. The helper might consider, for example, what are the proper tools to provide a child who is having trouble building a block tower, or would a crying infant be soothed more by his favorite toy or his blanket? Other circumstances may involve subtle constraints which may not be immediately recognized by the potential helper. An individual may show signs of difficulty in completing a task, yet he may have set a personal goal to finish the activity on his own. In these examples the ones needing assistance may be

showing similar signs of upset, yet the block builder and crying infant may be satisfied with some form of personal intervention which would be inappropriate for the independent youngster.

Still other important situational cues that may be considered by the potential helper are the particular task demands of the activity in which the needy other is engaged. If, for example, the person is competing for a prize, are the rules such that no one may assist the competitors? Is the individual who is providing the distress cues under obligation to complete the task alone? In these instances, the competition or the obligation may be important cues which might affect the decision to help. Thus, it can be seen that recognition of a need for assistance is only one prerequisite for effective assistance. In many instances, the child must also be able to carefully consider environmental cues which might affect the decision to help in order to effectively aid the helpee.

The ability to perceive that help is needed and to consider that there may be situational conditions which might alter the effectiveness of a particular strategy will lead to the most effective form of help only if the child knows which helping strategy is best suited to that situation. The third prerequisite for effective helping then is the knowledge of how to match a variety of helping strategies with the particular situational constraints and/or extenuating circumstances which may be present. In order to do this the child must have a repertoire of helping



strategies including those involving direct intervention as well as the more subtle indirect forms of intervention. Indirect strategies are those which typically provide the person in need with a means to solve his own problems. Direct strategies, on the other hand, are those in which the helper actively participates in problem solution. To continue with the examples discussed under the second prerequisite skill, an effective helper would know which tools to give to the tower-builder or whether a blanket or a toy would best appease the crying infant. Having recognized independence striving in a child, he might consider more indirect means of assistance, for example, supporting the child in his bid for independence, providing appropriate modelling cues, or asking the child if he would like to be helped. In addition, when competition cues or personal obligation indicate the task must be completed alone, encouragement or moral support may be offered as an alternative to direct personal intervention. Without this knowledge of a variety of alternate strategies the child who is only able to recognize situational constraints affecting strategy selection, the second skill, might elect not to help at all.

Developmental course of effective helping strategies. Given that there are three prerequisite skills needed to generate the most effective helping strategies, the developmental course of strategies expected to be preferred at different ages may be considered. Before describing this developmental sequence, however, some speculations on age-related differences in the

possession of the three skills will be presented. It was assumed that there are developmental differences in the possession of these skills and that the skills are attained in the prescribed order, i.e., children learn to perceive the need for help first, then to consider the initial state of the helpee, then which helping strategies are appropriate. There is research evidence which indicates that both infants and preschool children (Hoffman, 1973; Murphy, 1943; Yarrow & Waxler, 1975) are capable of offering sympathetic forms of assistance when they observe other children in difficulty. The remaining two skills, however, are probably not acquired until much later.

The ability to consider the relevancy of situational conditions to the kind of help offered would appear to require more advanced cognitive and social maturation. Experience with a variety of helping situations should aid the child in recognizing various constraints should they exist. A knowledge of the more effective helping strategies would be more likely to appear once a child has had an opportunity to devise alternate strategies in a variety of situations.

Considering, then, both situations in which the kind of help needed is obvious and those in which it is not readily apparent, the following developmental trends should appear. In the former situations, minimal developmental differences should occur because only the ability to recognize the need for help is required and this skill seems to be present in infants. In the latter situations, however, age-related changes in strategy

effectiveness should appear as it is under these situations that acquisition of skill two, recognition of the helpee's initial state, and skill three, knowledge of the most effective strategy, are necessary. Children who fail to recognize that the effectiveness of their actions is determined by the helpee's particular circumstances, will be unlikely to offer effective or appropriate help. On the other hand, children who do possess skill two, and consider the consequences of their actions in terms of the helpee's particular needs, may prefer non-intervention when they do not know the most effective strategy. Finally, children are expected to know effective strategies once they have had more experience with circumstances similar to the ones in which they have found the helpee.

In answer, then, to the first question that guided the present study, i.e., under what situations are there likely to be developmental differences in preferred strategies, it is assumed that age differences will appear in situations in which the kind of help required is not readily apparent. Second, the developmental sequence of strategy preferences in these situations should be from ineffective, to non-intervention, to effective strategies.

Age of appearance of developmental sequence. The third question that guided the present study is whether this developmental sequence emerges at the same time in all situations. It is assumed that it does not but rather is affected by the degree of experience children at a particular age have had with

the situation or similar situations. If children have had no experience with the circumstances in which they have found the helpee, they are not expected to consider devising helping strategies in accord with them. For example, a child who has had no experience with a need to achieve independence may not recognize this need in another as relevant to the kind of helping strategy he chooses to use. Once the circumstance is recognized, however, the child is expected to use non-intervention strategies until he has developed a repertoire of strategies suited to the particular circumstance. The age of emergence of a preference for non-intervention strategies then, may be different under a variety of situations but the sequence of preferred strategies is expected to remain invariant.

Developmental differences in conceptualization of good help.

The fourth question that guided the present investigation concerned the developmental differences in children's conceptualization of good help. It was noted previously that there were differences among 5-year-olds (Tierney, 1975) in what they believed a good helper should do to aid a partner. These different conceptions of the role of a good helper were also reflected in their behaviour. There are a number of criteria upon which one can base an evaluation of a particular helping strategy. For instance, the intentions of the helper may be considered and the act may be valued more highly when the helper intends the beneficial consequences rather than when these occur by accident. The Baldwins (Baldwin & Baldwin, 1970; Baldwin, Baldwin, Hilton, &

Lambert, 1969) found that older children were more likely to distinguish between intentional and incidental consequences of an act of assistance and consider the former as "kinder." Given similar intentions of a helper, the goodness of a particular kind of help might be evaluated on a quantitative basis such as the amount of help offered or time spent in helping. For example, a person who donates \$25 would be evaluated more highly than one who donates \$5. There are other situations, for example, those with constraints against direct intervention, where two individuals may vary in the amount of physical effort but the one offering less stands a better chance of helping the individual. In these instances, we would probably override our quantitative criterion and judge the two helping strategies on the basis of potential effectiveness, a more qualitative criterion.

According to the conceptual framework, one would need to be capable of at least the second skill, i.e., the ability to recognize the relevancy of the helpee's initial state to strategy effectiveness, in order to make a qualitative assessment of an act of helping. On the other hand, children who possess only the first skill, i.e., the ability to recognize a need for help, would evaluate helper effectiveness in terms of the amount of help offered in all situations regardless of existing constraints.

Therefore, one would expect that developmental differences in conceptualization of good help are a function of the situation

as well as of the individual capabilities of the child.

Minimal developmental differences should appear in situations in which the kind of help is obvious and there are no situational constraints, i.e., quantitative reasons for preference of a good helper should prevail for all ages. In contrast developmental differences in the kinds of reasons used to explain preferences in helping strategies should appear in those situations where constraints exist. Children who do not consider the manner in which the strategy meets the particular situational characteristics should evaluate helping solely in terms of the quantity of help offered. Those children who consider characteristics of the situation, however, should evaluate strategies in terms of the way in which these situational aspects are taken into account.

Given this preliminary analysis of those factors involved in effective help, as well as a discussion of the developmental course of strategy preference, the general procedures of the present study will now be outlined.

#### Design of the Present Study

One aspect of the present study was concerned with the developmental changes in children's preferences for helping strategies under various situations. For this purpose, 5-, 8-, 11-, and 15-year-olds were asked open-ended questions regarding how they would help a hypothetical child in need of assistance under each of the following four situations: (a) inability in which the child was simply unable to complete a task on his

own; (b) competition in which the activity must be completed alone in order to win; (c) duty in which the child had promised to complete the activity on his own; (d) independence in which the child had set a personal goal to finish the activity by himself. In the inability situation both the cues for help and the kind of help required were obvious, whereas in the remaining three situations the kind of help required was not obvious and direct personal intervention was ineffective. Furthermore, the latter three situations were assumed to vary in the degree to which children of different ages would have had experience with them. Children are exposed to competition from the time they enter school but emphasis on duty and personal responsibility is probably introduced more gradually as children become capable of working alone. The development of an independent attitude, no doubt, is partly the product of evaluation of one's performance in competitive and obligatory situations. Research has shown that children become sensitive to social norms of competition around age 10 (e.g., Barnett & Bryan, 1974) — but not until approximately 12 years of age for duty (e.g., Kohlberg, 1969). There does not appear to be any research indicating the specific age at which children recognize independence cues. However, because the constraint against direct intervention involves fewer cues (only the independent individual is responsible for setting the goal to work alone) it was assumed that, developmentally, independence would be recognized after competition and duty.

The following three hypotheses were made regarding children's helping strategies suggested in response to these open-ended questions. The first hypothesis was that developmental differences in effectiveness of children's helping strategies were more likely to appear under the themes of competition, duty, and independence than under the theme of inability. Hypothesis 1 was based on the conceptual framework described earlier. It was argued that, in order to use effective helping strategies in situations where constraints make the most effective strategy less obvious, a child must be able to first, recognize that help is needed; second, recognize that the consequences of any actions depend on the nature of the constraint; and third, know which strategies are effective under the particular constraint. Further, it was argued that there would be developmental differences in the acquisition of these three skills. Since only the first skill above is presumed necessary for effective helping in situations in which the best way to help is obvious, one would expect developmental differences in effectiveness of strategies to appear under the three constraint themes only.

The second hypothesis was that the developmental sequence of strategies suggested under the themes of competition, duty, and independence would be as follows: direct personal intervention, non-intervention, and indirect intervention strategies. This developmental sequence was expected to appear under the three constraint themes because children between the ages of 5-



and 15-years were not expected to possess all three prerequisite skills for effective helping. Those children possessing only skill one, i.e., recognition of a need for assistance, were expected to suggest direct forms of intervention. Children capable of recognizing the relationship between situational constraints and strategy effectiveness, the second skill, were expected to prefer non-intervention to direct intervention. Effective indirect strategies were expected to be suggested last in the developmental sequence because to suggest them requires that the child not only recognize the existence of a constraint but also be able to generate an effective strategy given that constraint.

The third hypothesis was that non-intervention and indirect strategies were expected to be suggested at different ages under the three constraint themes. This difference was expected because the ability to recognize the relevancy of the constraint to effective helping was assumed to be a function of experience with the situation. Because it was assumed that children would have had more experience with competitive situations before those involving duty and the latter before situations involving an independent child, the emergence of non-intervention and indirect strategies was expected to occur first under the theme of competition, then duty, and finally, independence.

In addition to these open-ended questions, forced-choice tests were also used to supplement the data on children's preferred helping strategies. In the forced-choice task,

children, were presented with two hypothetical helpers who were providing assistance to the main character in each of the four stories. In each instance, one hypothetical helper was offering a direct intervention strategy, i.e., was actually partaking in task completion, while the other was offering a more indirect kind of help, i.e., was not partaking in task completion but was providing a means by which the main character could complete it himself. The fourth hypothesis was that there would be minimal developmental differences in choice of effective helper under the theme of inability: all children would prefer the helper offering direct assistance. In the remaining three themes, however, the developmental direction of preference for helper was expected to be from direct to indirect helper. The fifth hypothesis was that the emergence of these developmental differences would be different under the three situations: indirect strategy preferences were expected to appear first under competition and later for duty and independence.

Another aspect of the present study was concerned with developmental changes in the conceptualization of good help. In order to obtain the necessary data, children were asked to state their reasons for their preferences on the forced-choice measure. This comparative means of helper evaluation was used in order to determine what children believed made a particular strategy better than another in a given situation. Pilot data indicated that children found it difficult to express this without some concrete referent. By presenting two helpers who

differed in the kind of help they offered, children could express their reasons why one particular helper was better than another. Children's answers to these forced-choice questions were classified as either quantitative, if they only referred to the amount of help offered, or qualitative, if they referred to the specific cues in the stories. The sixth hypothesis was that under the theme of inability, children of all ages would use quantitative reasons as they were the best criteria available to judge strategy effectiveness. Developmental differences were expected for the themes of competition, duty, and independence; the direction of these differences was expected to be from quantitative to qualitative reasons. This hypothesis was based on the assumption that children who have acquired skills two and three would be aware of the situational cues and use qualitative reasons but children with only skill one would not consider them relevant in their evaluation of a good helper and would use quantitative reasons. Again, this developmental sequence would appear as a function of the meaningfulness of each theme to the children. The seventh hypothesis was that children who chose the more effective helpers under the three constraint themes would justify their preferences by using qualitative reasons.

As ancillary data, children's moral judgments were obtained by asking them to explain why they would or would not help in each of the story situations. Their responses were classified

according to Kohlberg's (1969) six-stage hierarchy of moral judgments. These data were obtained in order to determine the relationship between children's stage of moral judgment and the effectiveness of their preferred helping strategy. Earlier studies had predicted and found a positive relationship between moral development and helping behaviour when helping behaviour was measured in a quantitative fashion (e.g., Olejnik, 1975; Rubin & Schneider, 1973; Rushton, 1975). However, whether or not moral development will have the same positive relationship to prosocial development when the latter is defined as a development towards more effective strategy preference is an empirical question.

#### Hypotheses

Seven hypotheses and one empirical question were examined in the present study. The 3 hypotheses concerning responses to the open-ended questions were as follows:

1. Age differences in children's ability to suggest effective helping strategies were more likely to appear under the constraint themes of competition, duty, and independence than under the theme of inability where children of all ages were expected to suggest direct strategies.
2. Under the themes of competition, duty, and independence, the youngest children were expected to suggest direct strategies; older children, non-intervention strategies; and the oldest children, indirect strategies.
3. The emergence of the developmental sequence described under

Hypothesis 2 was expected to be different under the three constraint themes: non-intervention strategies were expected to appear first under the theme of competition, then duty, and finally independence.

There were two hypotheses made regarding the responses to the forced-choice questions:

4. Developmental differences in choice of an effective helper were more likely to appear under the themes of competition, duty, and independence than under the theme of inability.
5. The emergence of developmental differences in choice of helper were expected to be different under the three themes of competition, duty and independence: a preference for indirect helpers was expected to emerge first for competition, then duty and then independence.

The following 2 hypotheses were made regarding children's reasons for selection of helper on the forced-choice task:

6. Minimal developmental differences were expected to appear in the responses to the theme of inability: all children were expected to use quantitative reasons. Age-related increases in the use of qualitative reasons were expected under the themes of competition, duty, and independence.
7. Children who used qualitative reasons to justify choice of helper under the themes of competition, duty, and independence were also expected to be the ones who chose the more effective indirect helpers under these themes.

The empirical question examined was as follows:

1. Is there a relationship between children's stage of moral judgment and the effectiveness of their helping strategies on both the open-ended and forced-choice questions?

## CHAPTER II

### METHOD

#### Subjects

Twenty 5-year-old, 22 8-year-old and 20 11-year-old boys were randomly drawn from an elementary school. Twenty 15-year-old boys were randomly selected from a high school. The mean standard scores on the WISC vocabulary subtest for each of the four groups were comparable and within normal range (11.7, 12.1, 10.7, 11.1, for the 5-, 8-, 11-, and 15-year-olds respectively). All children were from the same predominantly middle-class area in Windsor.

#### Materials

There were two sets of stories devised, each set consisting of four stories with four distinct themes. The four themes used in each story were inability, competition, duty, and independence. A brief description of the stories used to represent these four themes follows. In Set A, the story of inability depicted a child who was attempting to stack his blocks up so he could play with them later but was having difficulty because he had hurt his arm. The story of competition was about a child who was competing in a rope tying contest. The rules were that each individual in the contest had to tie his own knots in order to win. The main character was anxious because his fingers were sore and was afraid he might not be able to finish. The story of duty described a child

attempting to clean his backyard. He had accepted money from his father on his word that he would clean the yard alone. He realized, however, it would take sometime to do the work and wanted to play baseball. The story of independence was about a child who was looking very hard for some leaves in order to complete a class project. He was not being successful in his search but insisted on collecting the leaves all by himself.

The stories in Set B were as follows. In the story of inability, the child was attempting to tie two pieces of rope together. His fingers were sore, however, and he did not think he could finish his job. The story of competition was about a boy who was in a leaf-collecting contest. In order to win the prize, each child had to collect the leaves by himself. The main character was upset because he was looking in the wrong places and could not find any leaves. The story of duty described a situation in which a boy was being punished by his teacher. She had given him the choice of cleaning up the blocks in the schoolyard or cleaning the classroom and warned him that if he did not do either job all by himself he would have to do both. He had promised to stack the blocks in the yard but upon attempting the task found that he would have considerable difficulty completing it alone. In the story of independence the main character was attempting to clean up his own backyard. It was in a state of considerable disarray but he was determined to do the work by himself.



As can be noted from the above descriptions, the four themes were interchanged in the two sets among four basic story plots, i.e., leaf collecting, rope tying, block building and yard cleaning. This dual arrangement of theme and story was designed so that the influence of each theme could be separated from the particular circumstance of each story situation.

Each story had two separate parts. The first part involved only the story about the child who needed assistance and a series of open-ended questions concerning how the subject would offer help and why. The second part entailed forced-choice questions: two helpers were offering the main character of the story different forms of assistance, one direct assistance and the other indirect assistance. Briefly, the action of the helpers for each theme and story was as follows. In the themes of inability (set A) and duty (set B), the direct helper assisted by taking the blocks and stacking them for the main character; whereas the indirect helper showed the main character how to stack them without doing it for him. In the themes of competition (set A) and inability (set B), the direct helper assisted the main character by tying the last knot for him. The indirect helper told him he was doing a good job and suggested he rest his fingers. In the themes of duty (set A) and independence (set B) the direct helper jumped into the yard and started picking things up for the main character. The indirect helper went and got his father's tools so the main character could work faster. Finally, in the themes of independence (set A) and

and competition (set B), the direct helper assisted by gathering hundreds of leaves and giving them to the main character. The indirect helper, instead, told the main character where to look to find many more leaves.

There was a total of twelve black and white drawings which accompanied the stories. Four of these pictures represented the action of the main character in each of the four basic story plots. The eight remaining pictures represented the actions of the hypothetical helpers (i.e., two helpers were depicted for each of the four story plots). Examples are presented in Figure I.

#### Procedure and Order of Presentation

The four themes were pre-arranged in two random presentation orders which when combined with the two story sets A and B, resulted in four possible modes of presentation. Each child received one of these four possible combinations according to a random pre-assignment.

The overall procedure consisted of the four story presentations, each followed by a series of questions: "Would you help?"; "Why would you help?" (moral judgment question); "What would you do?" (open-ended strategy question). Following this, each story was briefly re-read and the subject was asked: "Which one is a better helper?" (forced-choice strategy question); and, "Why is he a better helper?" (conceptualization of good help).

Each child was interviewed individually for approximately 20 minutes. Once rapport was established, the stories were

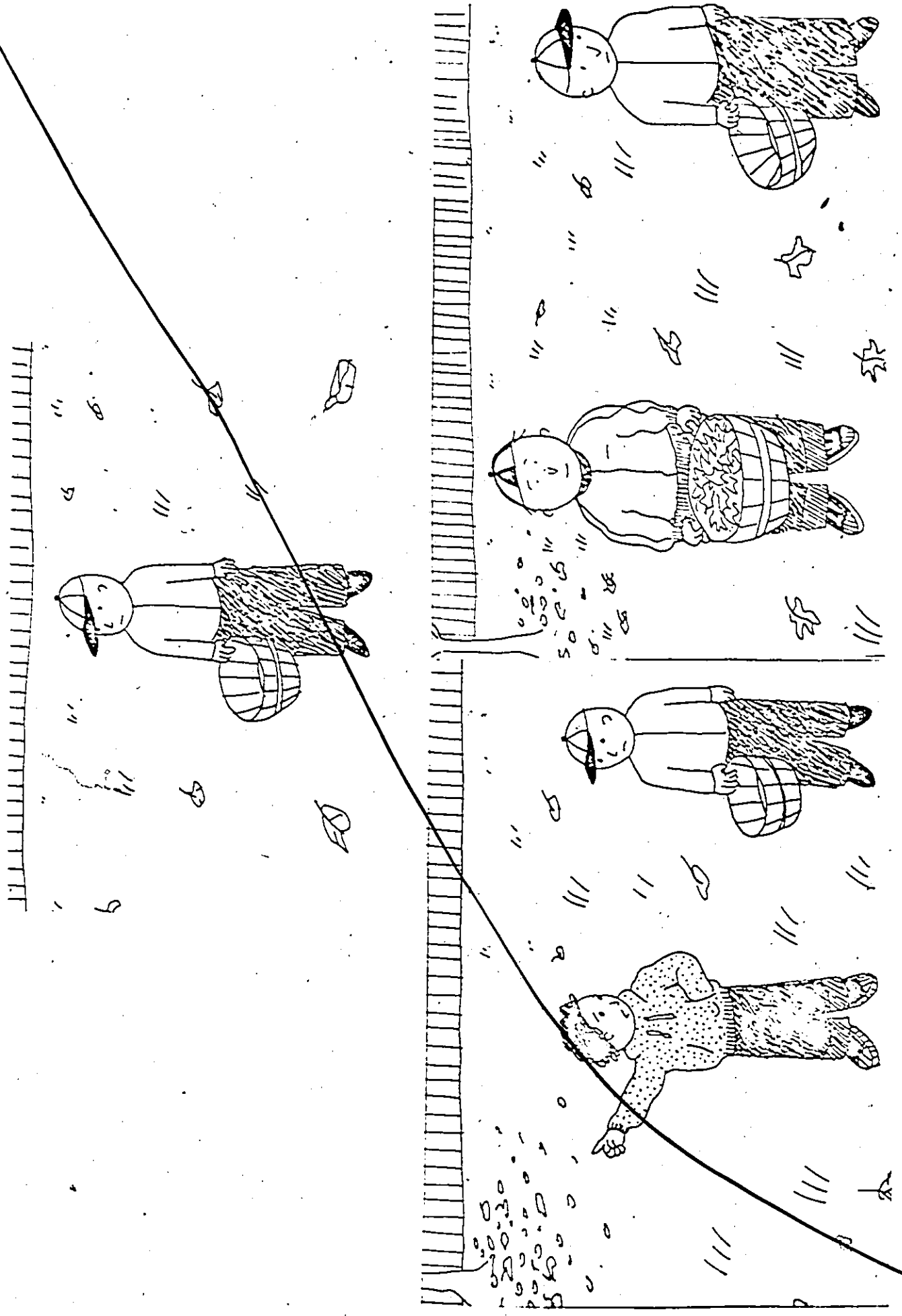


Figure 1. Examples of pictures used to accompany the stories of Competition and Independence.

introduced to the child as follows:

"Today I'm going to tell you some stories and show you some pictures that go with them. I want you to listen very carefully to these stories because afterwards I'm going to ask you some questions about them. Are there any questions? Okay, here's the first story.

This story is about Dale.<sup>2</sup> Here is Dale's picture. Dale and his friends are having a big rope tying contest. Dale is really anxious to win. Everybody had to tie five knots all by themselves to win the contest. Dale had already tied four knots and his fingers are getting very sore. He doesn't think he can tie the last knot."

In order to ensure the child fully understood the nature of the helping situation, several memory probes were used, such as: What was Dale doing? What were the rules of the contest? Once the child demonstrated that he comprehended the story, he was asked the following question to determine whether or not he would help:

"Now I want you to pretend you are here with Dale. You know he is in a contest and that his fingers are sore, would you help him?"

After the child answered this, his level of moral judgment was ascertained by his response to the next question: "Why would (wouldn't) you help him?" Earlier pilot data indicated that children who said they would not help often responded to this question referring to specific cues prohibiting direct intervention, e.g., "He is in a competition." Thus, in order to obtain a moral-judgment response, a number of additional questions were asked, e.g., "Why isn't it right to help somebody who is in a competition? (or who has made a promise? etc.)"

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<sup>2</sup>Not all children received this competition story first. It is used here to illustrate the manner of presentation. See Appendix B for a complete description of stories used.

Once a child clearly indicated why he would or would not help the main character, he was asked: "What would you do?"

His answer to this question was his helping strategy on the open-ended measure. In addition to this the child was asked: "Why would you do that instead of anything else?" This question was asked for additional clarification of the child's preference.

After his response to these questions, the child was then read the next three stories and shown the accompanying pictures. Once the child had answered all the follow-up questions, he was given a short break.

Next, the child heard stories about the helping gestures of two other children. This forced-choice part was included in order to supplement the open-ended data on preferences of strategies. It was presented as follows:

"Do you remember the story about Dale? Here is his picture. He was tying knots in a rope to win a contest. He had to tie all the knots by himself. He was doing a good job when his fingers got really sore. He still had one more knot to tie. Here is how Brian and Len helped Dale.

"Here is a picture of Brian helping Dale. Brian decided he would help Dale by tying the last knot for Dale because Dale's fingers were really sore. That way Brian thought Dale would win the contest.

Now, here is a picture of Len helping Dale. Len helped Dale by telling him to try really hard and tie the last knot. He told him he was doing a good job and maybe he should rest his fingers for awhile so they wouldn't be so sore.

Once again probe questions were asked to ensure that the child understood the nature of the help offered by each of the two helpers. Following this, they were asked these questions:

"Which boy do you think was a better helper", and "Why do you think he was a better helper?" The child's response to the first question defined his forced-choice preference of helping strategy. His reply to the latter question represented his reasons for preference of strategy.

The three other forced-choice dilemmas were then presented to the child in the same order as they were presented in the open-ended part. The child was then thanked for his participation and any questions he had regarding the purpose of the research were answered.

## CHAPTER III

### RESULTS

#### Helping Strategies Suggested on the Open-ended Measure

Three hypotheses were made regarding responses to the open-ended questions. The first hypothesis predicted that developmental differences in the ability to offer effective helping strategies would appear under the themes of competition, duty, and independence, whereas under the theme of inability, children of all ages would suggest direct strategies. The second hypothesis predicted that the developmental sequence toward effective help under the three constraint themes would appear as follows: ineffective direct help, non-intervention, and effective indirect help. Thirdly, it was hypothesized that non-intervention and indirect strategies would appear developmentally first under the theme of competition, then duty, and finally independence.

In order to examine these hypotheses, children's responses to the open-ended question: "What would you do?" were assigned to one of the four categories, for each theme separately. The first category was a non-intervention strategy, i.e., the subject indicated he would not assist or intervene in any way. Some examples of this category were: "I'd walk away and say 'do it yourself'" and "I'd go and clean up my own backyard." The responses in the second category were classified as indirect assistance. In this category were included responses which

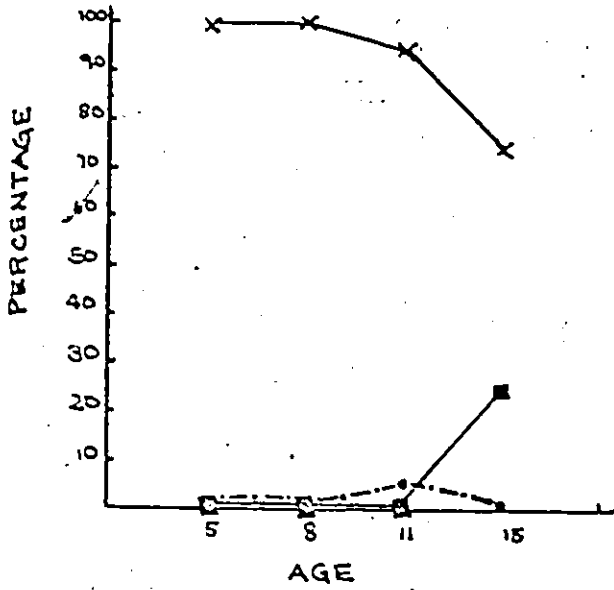
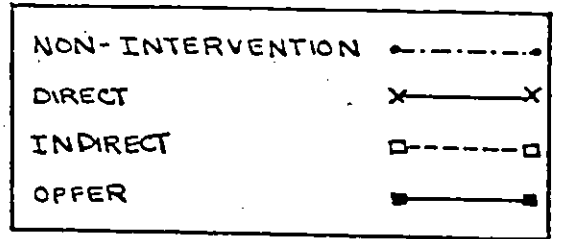
were statements of sympathy or encouragement, or suggestions to improve performance or any combination of these. Examples of this category were: "I'd stay there and watch and cheer him on," and "I'd tell him to put all the junk in the centre of the yard so he would be better organized." The third classification, direct intervention, included all those responses which indicated the subject would partake in the actual completion of the task. For example, some responses in this category were "I'd tie the rope for him" or "I'd start helping him collect the leaves." The fourth type of responses was classified as offers. In these responses the subject gave some indication that he would ask the main character what should be done or whether or not his assistance was wanted. Some examples of responses in this category were: "I'd ask him if he wanted any help" or "I'd offer my assistance to him." Interrater reliability for these classifications was established between two judges who independently rated 80 responses. The percent agreement was 94%.

The suggested strategies of each age level for the theme of inability are presented in Figure 2 (a)<sup>3</sup>. At each age level, direct help was the predominant strategy; significantly more children suggested direct help than any other strategy,  $p < .05$ . In Figure 2 (a) it can be seen that there was no relationship

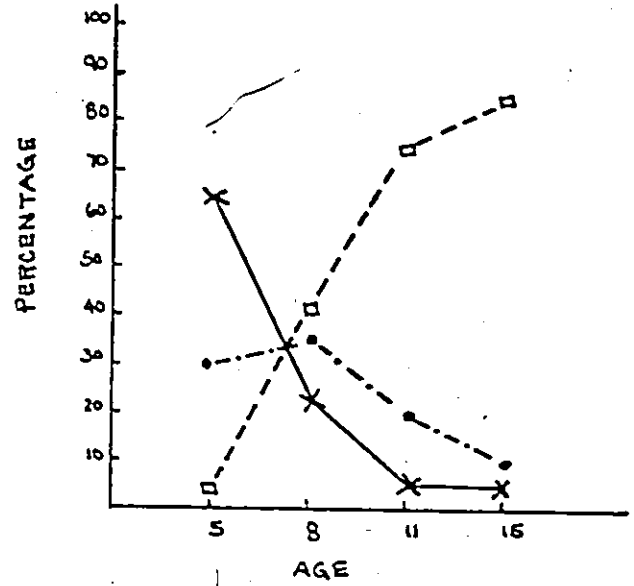
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<sup>3</sup>There were two extraneous variables in the present study: two presentation orders and two sets of stories. These data were collapsed for purposes of analyses. Any significant relationships between these variables and the other measures will be indicated. The effects of these extraneous variables are presented in Appendix D.

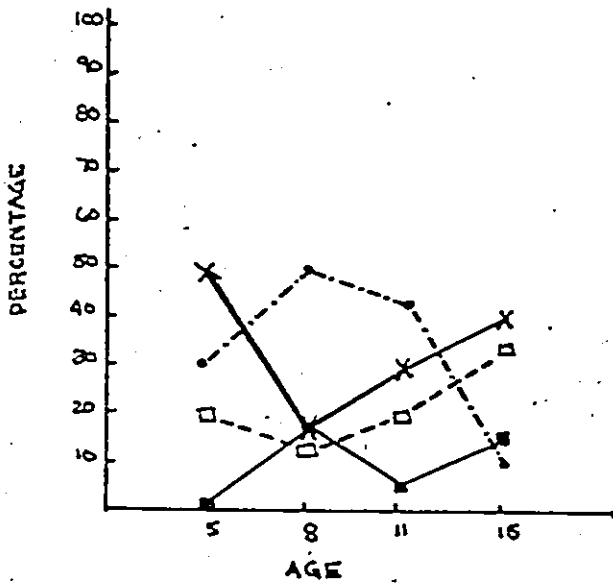




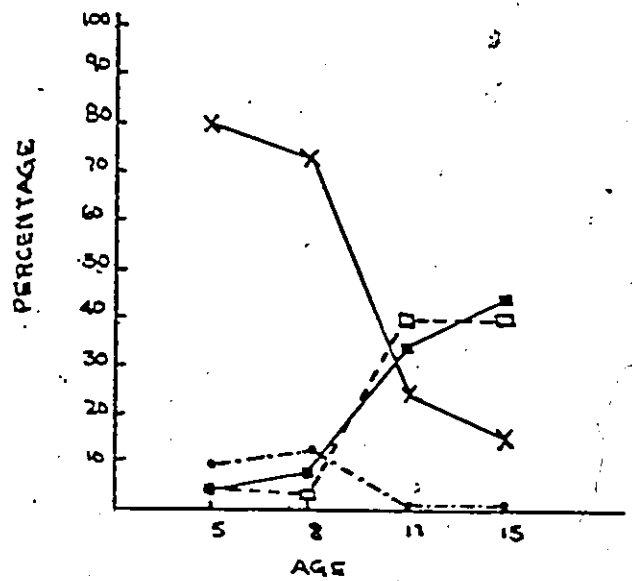
(a) INABILITY



(b) COMPETITION



(c) DUTY



(d) INDEPENDENCE

FIGURE 2. Percentage of children at all ages suggesting a particular helping strategy on the open-ended measure, under the themes of Inability, Competition, Duty, and Independence.

between age and strategy between 5- and 11-years, as was predicted. When the responses of the 15 year-olds were included, the age was found to be significantly related to suggested strategy,  $\chi^2(6) = 19.53, p < .003$ . This is explained by an increase in suggestions of "offer" strategies by five 15-year-olds. Some examples of the 15-year-old children's responses in the offer category were: "Ask him if he wants me to tie the rope... Cuz you don't know how people will take things" and "I'd offer to help but if he didn't want any, I wouldn't... cuz he might get mad and throw me out." Their responses to this theme clearly did not indicate a reluctance to help but rather reflected their desire to not offer help that would be unacceptable or inappropriate.

Figure 2 (b) shows the suggested strategies at each age level for the theme of competition. The relationship between age and suggested strategy was significant,  $\chi^2(6) = 38.58, p < .0001$ . The frequency of indirect strategies increased significantly between 5- and 8-years,  $p < .01$  and between 8- and 11-years,  $p < .025$ . No significant increase however, appeared after 11-years. Non-intervention strategies were suggested by 20 children. This strategy was suggested fairly frequently by the 5- and 8-year olds (30 and 36.3%, respectively), but decreased between 8- and 11-years and was suggested by only 10% of the 15-year olds.

The pattern of helping strategies for each age for the theme of duty is presented in Figure 2 (c). This relationship was marginally significant,  $\chi^2(9) = 16.13, p < .06$ . The 5-year-olds

suggested direct strategies (50%) significantly more than any other strategy,  $p < .01$ . The 8-year-olds, as expected, suggested non-intervention (50%) significantly more than the other strategies,  $p < .01$ . There was no significant tendency to suggest any particular strategy by the 11-year-olds; however, non-intervention was the most frequently occurring and was suggested by 45% of these children. The frequency of suggestions for direct strategies unexpectedly increased between 11- and 15-years (30% and 40%, respectively). By 15-years, both direct and indirect strategies were suggested significantly more than the other strategies,  $p < .05$ . The reasons given by the 15-year-olds for suggesting a direct strategy were different than the 3 younger groups. The majority of younger children (98.5%) indicated they would offer direct help because they might receive payment or favours and/or because they liked to help their friends. Only 50% of the 15-year-olds used these reasons. The remaining 50% of the 15-year-olds referred to a conflicting obligation in one of the duty stories (Set A), i.e., the main character had promised his friends he would play baseball. This indicates that the direct strategies of the 15-year-olds, more so than the 3 younger groups, were a result of a consideration of the alternatives suggested in the story. The younger children rarely made use of such related aspects of the story and mainly referred to personal implications (friendship and favours). Also, along with an increase in suggestions of direct and indirect strategies between 11- and 15- years of age, there was an increase in suggestions

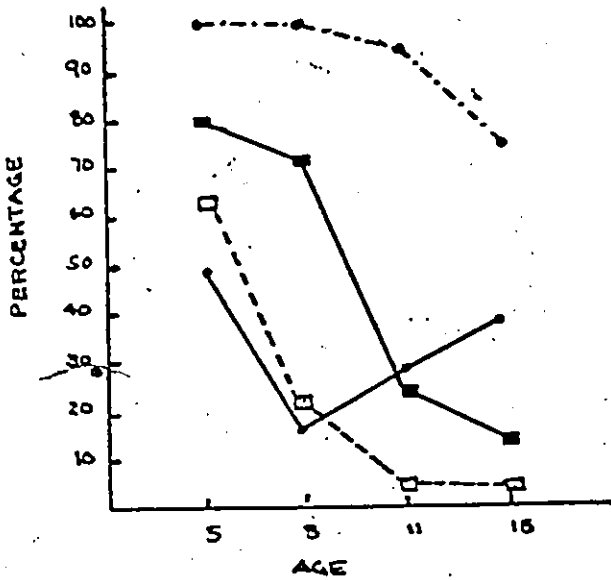
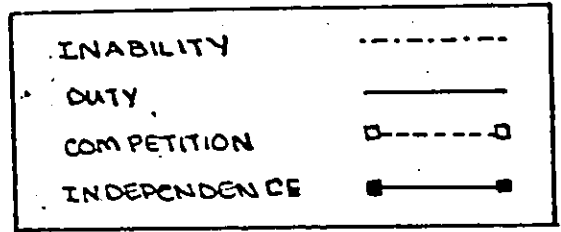
of offer strategies (5 and 15%, respectively).

The pattern of responses to the theme of independence is presented in Figure 2 (d). The relationship between age and suggested strategy was significant,  $\chi^2(9) = 40.21, p < .0001$ . Direct strategies were predominant among the 5- and 8-year-old children but decreased considerably with age. There was a significant decrease in frequency of direct strategies between the 2 younger and 2 older age groups,  $p < .001$ . Non-intervention strategies, on the other hand, increased slightly from 5-years to 8-years and dropped out completely after that age. Indirect strategies clearly increased with age and this increasing preference was paralleled by an increasing preference for offer strategies. Although there were no significant differences in the strategies suggested by the 11-year-olds, the 15-year-olds suggested both offer and indirect strategies significantly more than the other strategies,  $p < .001$ .

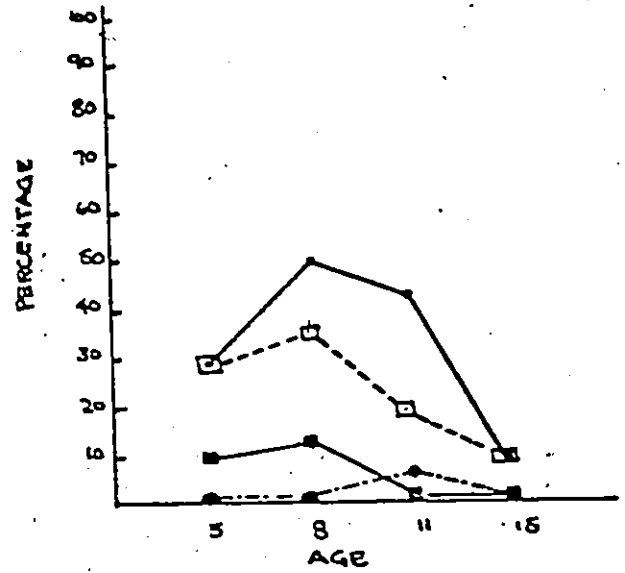
In summary, the helping strategies offered to the open-ended questions provide support for Hypotheses 1, 2, and 3. As predicted by Hypothesis 1, there was an increase in suggestions for more effective strategies under the themes of competition, duty, and independence, whereas the differences were minimal under the theme of inability. Further, the developmental sequence of helping strategies under the three constraint themes of competition, duty, and independence, as predicted by Hypothesis 2, was as follows: The younger children suggested direct intervention strategies most frequently; suggestions of non-intervention

strategies decreased after the middle-age range; and indirect and offer strategies were suggested most by the older-children. The only exception to this predicted sequence was the unexpected increase in direct strategies with age under the theme of duty. Some support was also provided for Hypothesis 3 in that the non-intervention and indirect strategies were suggested first under competition then duty, and lastly for independence.

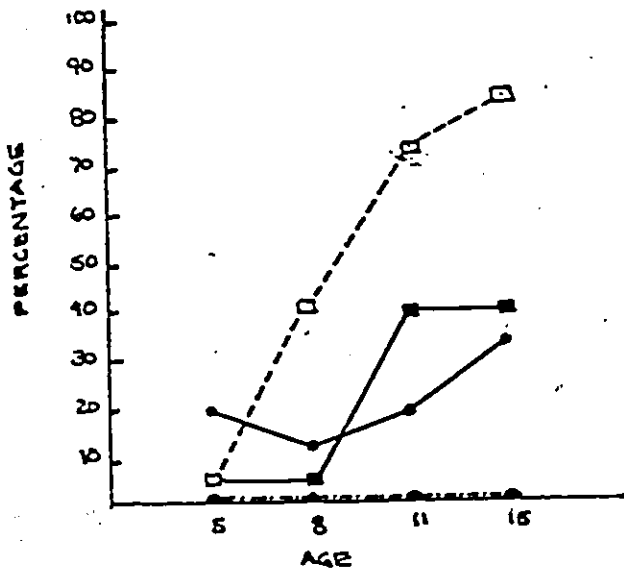
In order to more fully examine the developmental pattern of helping strategies to the open-ended question, the age-related changes as a function of each theme are presented for each of the four helping strategies in Figure 3. The developmental pattern of direct strategies for each of the four themes is presented in Figure 3 (a). As can be seen, for all themes except duty, there was a decrease in the frequency of this strategy with age. Also, direct strategies were used most frequently at all age levels under the theme of inability. The pattern of non-intervention strategies is presented in Figure 3 (b). There was a small increase in the frequency of this strategy in the middle age range, particularly under the theme of duty which subsequently decreased by 15-years of age. Non-intervention strategies appeared most frequently in the responses to the theme of duty. Age-related changes in the use of indirect strategies for each theme are presented in Figure 3 (c). Except for the theme of inability, suggestions of indirect strategies increased with age. This strategy was most frequently suggested under the theme of competition. The developmental pattern of



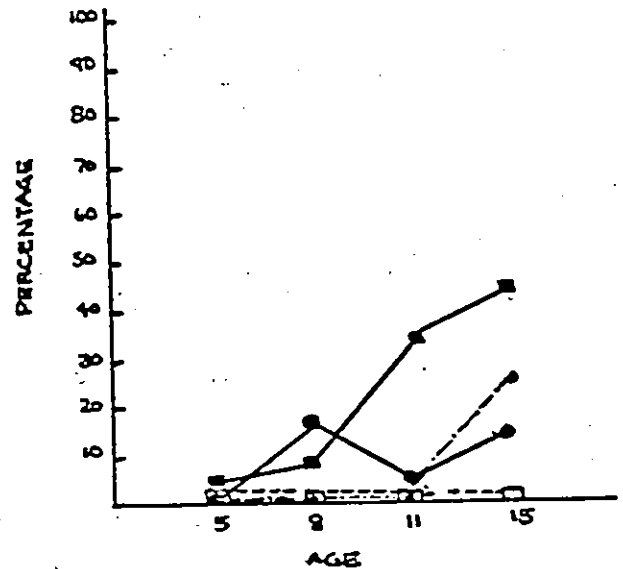
(a) DIRECT



(b) NON-INTERVENTION



(c) INDIRECT



(d) OFFER

FIGURE 3. Percentage of children at all ages suggesting direct, non-intervention, indirect, and offer strategies under each theme on the open-ended measure

offer strategies is presented in Figure 3 (d). This strategy increased with age and was suggested most frequently under the theme of independence. No children suggested this strategy under the theme of competition. One characteristic of the data which is clearly evident in Figure 3 is that each of the four strategies was suggested more frequently under one theme than any other theme. With all age groups combined, 46% of the direct strategies were suggested under the theme of inability; 52% of the non-intervention strategies, under duty; 54% of the indirect strategies, under competition; and 59% of the offer strategies, under independence. For each theme, then, strategies were generated, particularly by the 11- and 15-year olds, which were appropriate to the task demands of each situation.

#### Preferred Helper on the Forced-Choice Measure

Two hypotheses were concerned with the pattern of responses to the forced-choice questions. Hypothesis 4 predicted that as children grow older they will show more preference for the indirect helper under the themes of competition, duty and independence whereas they will continue to prefer the direct helper under the theme of inability. Hypothesis 5 predicted that emergence of age-related changes in choice of helper was expected to be different under the themes of competition, duty and independence: A preference for an indirect helper was expected to appear first under competition, next under duty, and lastly under independence.

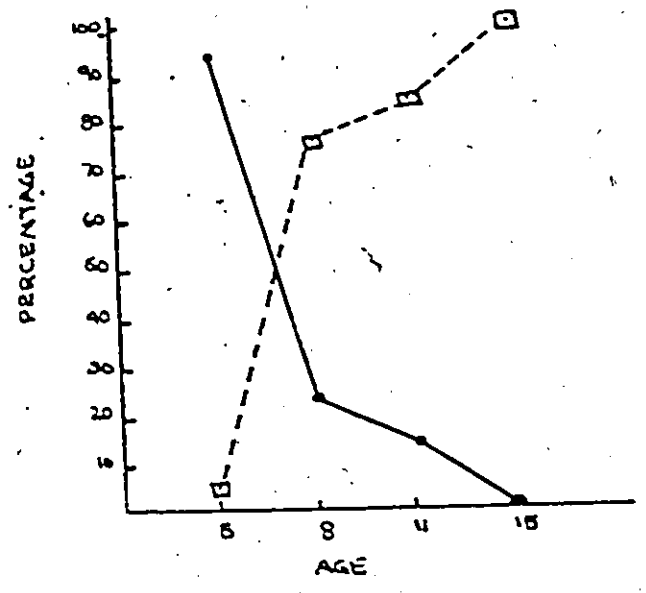
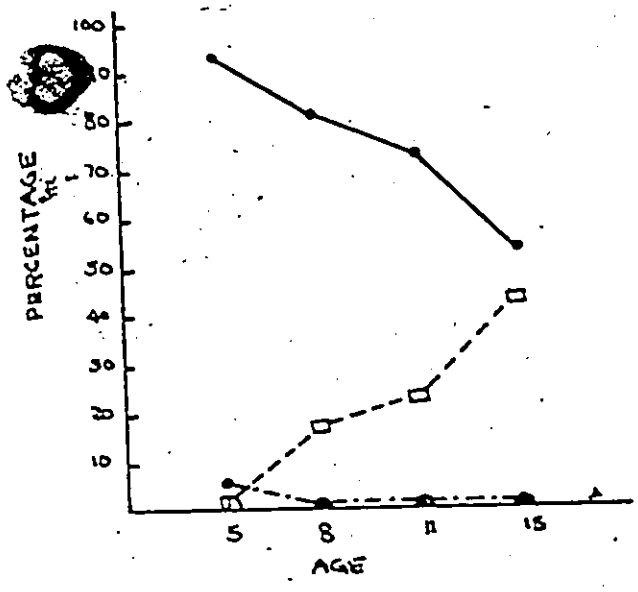
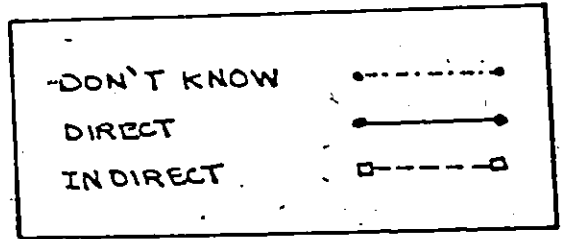
These predictions were examined by assigning children's responses to the forced-choice question, "Which boy is a better helper," to one of two categories: (1) direct if the child preferred the helper who directly assisted in task completion; (2) indirect if the child preferred the helper who did not directly intervene but offered the helpee a means to complete the task on his own; and (3) don't know, if the child did not respond.

The preferred helper of each age level for the theme of inability is presented in Figure 4 (a). Only one kindergarten child did not respond on this measure. Children between 5- and 11-years chose the direct helper significantly more than the indirect helper,  $p < .05$ . There was, however, a decreasing preference for the direct helper with age; the 15-year-olds chose the indirect helper almost as frequently as the direct helper (45 vs. 55%, respectively). The overall relationship between age and preferred helper was significant,  $\chi^2(6) = 14.74$ ,  $p < .02$ .

Preferred strategies to the forced-choice question at each age level for the theme of competition are presented in Figure 4 (b). The age was significantly related to preferred helper,  $\chi^2(3) = 48.66$ ,  $p < .0001$ . Preference for indirect helpers increased significantly between 5- and 8-years,  $p < .001$ . This helper was chosen significantly more than the direct helper by the 8-, 11-, and 15-year-olds,  $p < .025$ .

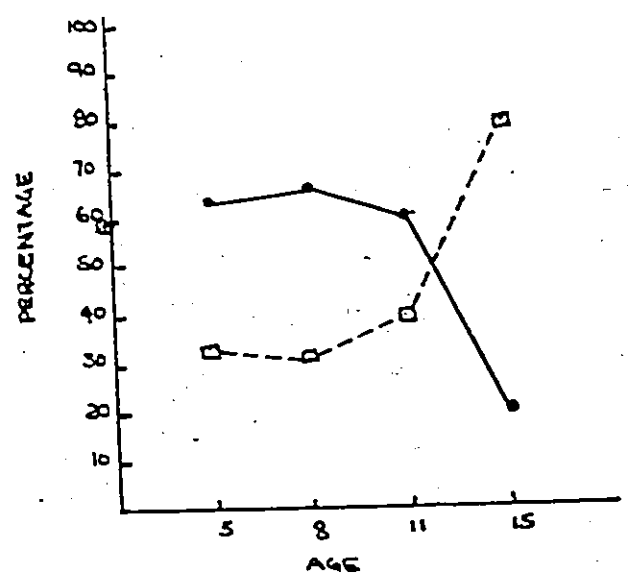
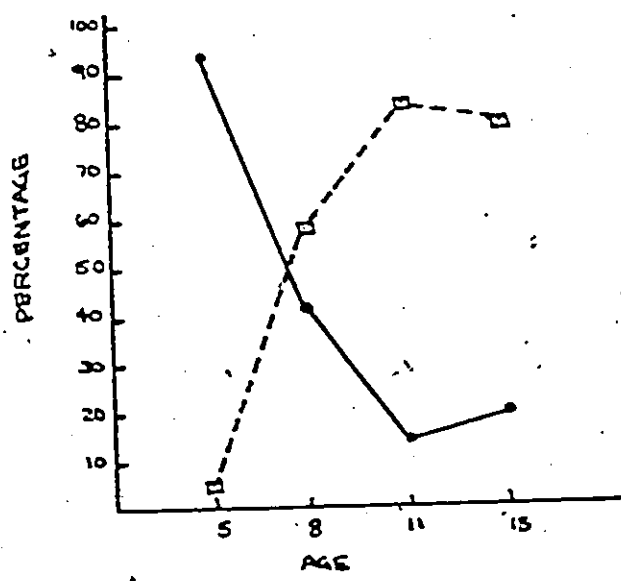
As can be seen in Figure 4 (c), there was also an increase with age in preference for an indirect helper for the theme of





(a) INABILITY

(b) COMPETITION



(c) DUTY

(d) INDEPENDENCE

FIGURE 4. Percentage of children at all ages choosing the direct or indirect helper on the forced-choice measure under each theme.

duty. This relationship between age and preferred helper was significant,  $\chi^2(3) = 32.88, p < .0001$ . A significant preference for the indirect helper did not appear under this theme until 11-years of age,  $p < .01$ .

The developmental pattern of preferred strategies for the theme of independence is presented in Figure 4 (d). This relationship was significant,  $\chi^2(3) = 12.34, p < .006$ . Preference for the indirect helper increased significantly between 11- and 15-years,  $p < .025$ . This helper was preferred significantly more than the direct helper by the 15-year-olds,  $p < .01$ .

In summary, the age-related increase in preference for an indirect helper under the three constraint themes is consistent with Hypothesis 4. Also as predicted, the 5- to 11-year-olds selected the direct helper significantly more under the theme of inability. Unexpectedly, however, preference for the direct helper decreased at 15-years. As predicted by Hypothesis 5, the indirect helper was preferred more than the direct helper by 8-years under the theme of competition, by 11-years under duty, and by 15-years under independence.

In order to more closely examine age trends in selection of a particular helper on the forced-choice task, the percentage of children at each age level choosing an indirect helper in each of the four themes was compared. As can be seen in Figure 5, the theme showing the greatest amount of choice for the indirect helper was competition. Duty was next, followed by independence and inability. Indirect helpers were never chosen by the

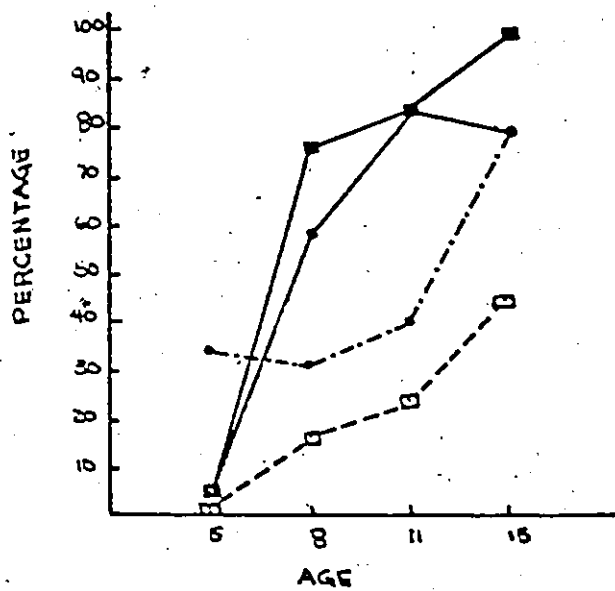
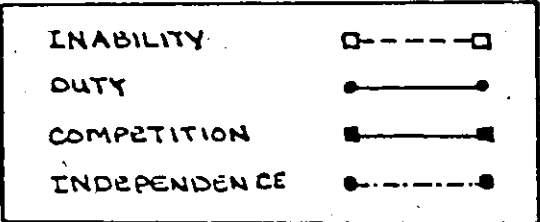


FIGURE 5. Percentage of children at all ages choosing the indirect helper on the forced-choice measure under each theme.

majority of children at any age for the theme of inability.

One notable difference between the 4 themes in the general pattern of forced-choice preferences was the relatively high frequency of 5-year-olds who chose an indirect helper on the theme of independence. There was very little difference between the percentage of children choosing this helper at 5-, 8- or 11-years of age (35, 32, and 40%, respectively). The greatest change in frequency occurred at 15-years where 80% preferred the indirect helper.

Support for Hypothesis 5 which predicted that the age at which children exhibited a preference for an effective helper would be different under the constraint themes has already been provided. Scalogram analysis was conducted to further examine this hypothesis. If the themes could be developmentally scaled in order of the child's ability to select the most effective strategy on each, additional support would be provided. Choice of helper under the theme of inability was included in this analysis. Only the choices of helper on the forced-choice task were analyzed because a pass-fail dichotomy could be readily imposed on these responses. A "pass" was a preference for an indirect helper for the themes of independence, competition, and duty and a direct helper for the theme of inability. A "fail" was considered to be a preference for a direct helper on the three former themes and an indirect helper on the latter. The percentages of children at each age level who selected the most effective helper on the forced-choice task for each theme are presented

in Table 1.

Based on the earlier prediction that children would be able to offer effective strategies to the themes of inability and competition before duty and independence, the following age-related order of emergence of effective helper preference was predicted: inability, competition, duty, and independence. An acceptable scale with a Reproducibility of .918 (Green, 1956) and an Index of Consistency of .569 was obtained. According to Green, the set of items are scaleable if the Index of Consistency is greater than .50. When the data from the theme of inability were excluded from this analysis, the Reproducibility of the scale increased to .960 and an Index of Consistency of .690 was obtained. These findings indicate that the children were responding to the thematic elements of the stories in predictably consistent ways. It also supports the prediction that preferences for effective strategies would emerge at difference ages for each theme.

#### Reasons for Preferred Helping Strategy

The sixth hypothesis of the present study concerned developmental changes in children's conceptualization of a good helper. It was predicted that there would be a significant age-related increase in the use of qualitative reasons to explain preference of helper on the forced-choice test for the themes of competition, duty, and independence, whereas children of all ages would use quantitative reasons under the theme of inability.

Table 1

Percentage of Subjects at Each Age Passing<sup>a</sup> Each Theme

Theme	Age			
	5	8	11	15
Ability	95	82	75	55
Competition	5	73	85	100
Duty	5	59	85	80
Independence	35	32	40	80

<sup>a</sup>A pass on the forced-choice measure was defined as a preference for an indirect helper on the competition, duty, and independence themes and a direct helper on the ability theme.

To examine this hypothesis, children's reasons for their selection of a helper on the forced-choice task were assigned to one of three categories for each theme separately: qualitative, quantitative, and other.

A qualitative reason was one which evaluated the goodness of a helper in terms of the way in which it met the particular constraints of the situation. The criteria for a qualitative response for each of the three constraint themes (competition, duty, and independence) were as follows: for the theme of competition, subjects had to make reference to the way the preferred strategy related to the fact that in order to win, the competitor had to work alone; in the theme of duty, a qualitative reason made reference to the way the strategy related to the earlier promise made by the main character and/or the benefits he would accrue if he completed the task alone; a qualitative response in the theme of independence had to include a reference to the way the strategy related to the desire of the main character to complete the task on his own. For the theme of inability, any reference to a constraint against indirect assistance, i.e., the sore fingers or hurt arm of the main character, was classified as qualitative. In addition, some subject speculated about possible constraints that were not directly referred to in the story but which they thought may have existed. For example, some children referred to independence goals or possible obligations to complete the task alone as their reasons for choosing a particular strategy. These reasons were also classified as qualitative.

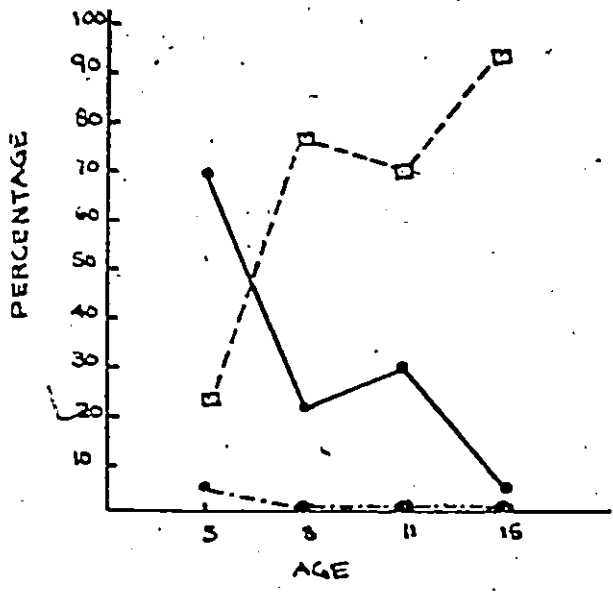
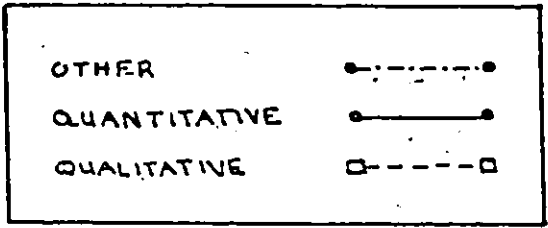
The second type of justification offered by the children was classified as quantitative. A response was judged to be quantitative if the helping strategy was preferred because the helper was engaging in more physical activity. The criteria for a quantitative response in each theme were as follows: Justifications for preference of helper in the theme of competition were classified as quantitative if they were made on the basis of the relative amount of effort exerted by the helper with no reference made to the way this help related to the rules of the contest or the consequences it would have for the competitor; responses to the theme of duty were included if the preference was made solely on the basis of relative amount of physical activity with no reference to the obligation or the effort of the help in relation to this obligation; justifications in the theme of independence made on the basis of the amount of activity with no reference to the effects of the strategy on the desire of the story character to complete his task alone were classified as quantitative; justifications for the theme of inability were included in this category if they referred to the relative amount of activity but made no reference to the way in which the help met the particular disability of the main character.

The third category of responses were classified as other. Responses in this category included instances in which the subject failed to give any justification for his response or referred to idiosyncratic aspects of the story unrelated to

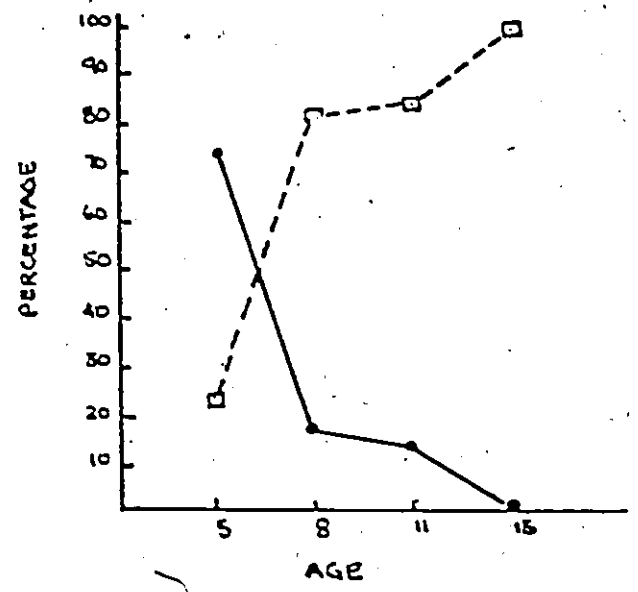


helping, e.g., "my brother's name is Tom so I like Tom better." The interrater reliability of two independent judges on 80 response protocols was 90%.

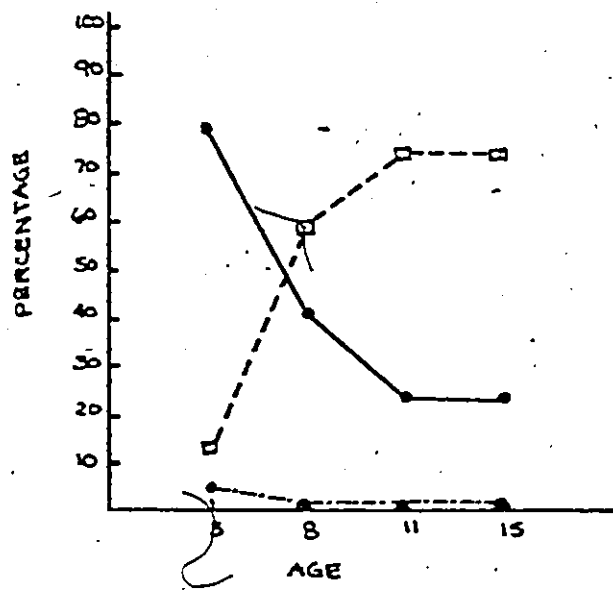
The age-related pattern of reason for preference of helper to the theme of inability is presented in Figure 6 (a). Only one 5-year-old's response was classified in the "other" category. The relationship between age and reason for preference was significant,  $\chi^2(6) = 25.40, p < .0003$ . As can be seen, in Figure 6 (a), quantitative reasons were used by most of the 5-year-olds (70%) but use of qualitative reasons significantly increased between 5- and 8-years,  $p < .001$ . The majority of 8-year-olds used qualitative reasons (77.3%) and use of qualitative reasons continued to be the most frequently used reasons among the 11-year-olds (70%) and 15-year-olds (95%). This pattern of responses did not support the prediction made under Hypothesis 6 that children of all ages would use quantitative reasons to justify their choice of helper under the theme of inability. However, as discussed earlier, an unexpected finding in the responses of the older children was the reference both to constraints against indirect help in these stories (in both cases, the main character had hurt himself) and to the existence of possible constraints which were not directly referred to in the story (e.g., independence needs of the main character). The increase with age in use of these more qualitative reason for preference of a helper, then, conforms to the general contention of this paper that as children grow older they begin to think about how their helping strategy might best suit the particular character-



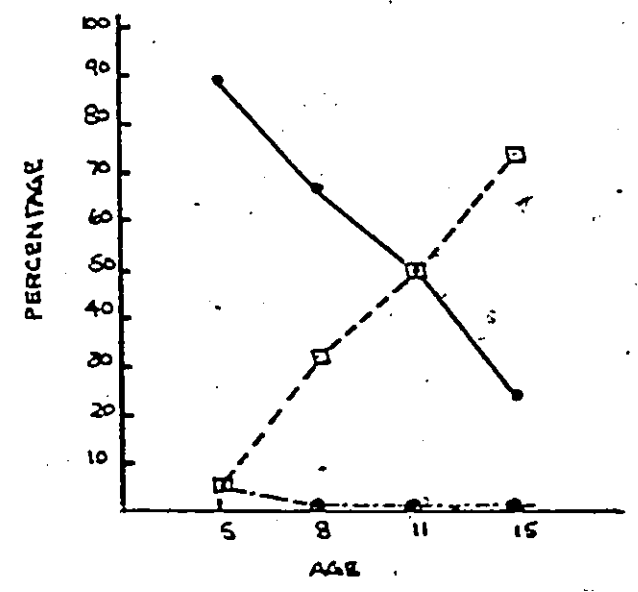
(a) INABILITY



(b) COMPETITION



(c) DUTY



(d) INDEPENDENCE

FIGURE 6. Percentage of children at all ages using quantitative, qualitative, or don't know reasons for strategy under each theme.

istics of the situation.

The pattern of reasons for preference of helper to the theme of competition for each age level is presented in Figure 6 (b). This relationship between age and reasons was significant,  $\chi^2(3) = 33.24$ ,  $p < .0001$ . Clearly the majority of 5-year-olds were using quantitative reasons (75%) to explain their helper selections. Qualitative reasons increased significantly between 5- and 8-years,  $p < .001$ , and were used predominately by the 8-, 11-, and 15-year-olds (81.8, 85, and 100%, respectively).

The reasons offered by children at each age level to the theme of duty are presented in Figure 6 (c). One kindergarten child's response was classified in the "other" category. The age-related pattern of responses was significant,  $\chi^2(6) = 21.18$ ,  $p < .002$ . The general pattern of responses to this theme was similar to the pattern of responses to the themes of inability and competition, however, there were a number of important differences. Although the use of quantitative reasons predominated among the responses of the 5-year-olds (80%) and decreased significantly by 8-years,  $p < .05$ , use of this reason remained fairly frequent among the 8-year-olds (40.9%). In addition, there was no significant increase in use of qualitative reasons after 11-years of age; they were equally used by the 11- and 15-year-olds (75%).

The age-related pattern of responses to the theme of independence is presented in Figure 6 (d). Again, only one kindergarten child's response was classified in the "other"

category. The relationship between age and reasons was significant,  $\chi^2(6) = 23.96, p < .0005$ . As with the other themes, the use of quantitative reasons decreased with age but unlike the other themes, quantitative reasons were used significantly more than qualitative reasons by both the 5- and 8-year olds,  $p < .025$ . Quantitative and qualitative reasons were equally used by the 11-year-olds. Only the 15-year-olds used significantly more qualitative reasons for strategy justification (75%),  $p < .05$ . In comparison, then, with the other themes, children evaluated helper effectiveness in terms of the helpee's particular requirements at a much later age under the theme of independence.

Generally, the age-related pattern of use of qualitative reasons for the three constraint themes supports Hypothesis 6 and was as follows: qualitative reasons increased with age and were used predominantly under the theme of competition by 8-years; under the theme of duty by 11-years; and under the theme of independence by 15-years. Contrary to Hypothesis 6, qualitative reasons increased with age under the theme of inability and were used predominantly by 8-years of age. This developmental sequence of emergence of qualitative justifications as a function of the four themes is congruent with the results of the scalogram analysis for helper preference in the forced-choice task presented earlier.

#### Relationship between Reasons for and Effectiveness of Strategy Preference

The relationship between choice of a particular helper on the forced-choice task and the reasons for making that choice were examined under Hypothesis 7. It was predicted that those

children who chose the more effective helpers would use qualitative reasons.

$\chi^2$  analyses were conducted to examine the relationship between quality of reason and preferred helper on the forced-choice task. The results of these analyses are presented in Table 2. As can be seen, the relationships were significant,  $p < .05$ , under the themes of duty, competition, and independence for the responses of the 8-, 11-, and 15-year olds. The lack of relationship in the 5-year-old sample appeared to be due to the infrequent use of either qualitative reasons (17.5%) or indirect strategies.

What appeared to be responsible for the lack of relationship between reason for and choice of helper under the theme of inability was the age-related increase in use of qualitative reasons accompanying both direct and indirect strategies. As mentioned earlier in this chapter, qualitative reasons for this theme were used by children who speculated in the inability stories that the main character may have wished to do his task alone or may have been obliged to do it alone. This increasing trend with age reflects children's awareness that even when not made obvious, the situation of the helpee may be such that direct strategies interfere with his personal freedom or obligations. Support, then, is provided for Hypothesis 7 that those children who chose the more effective helper were using qualitative reasons to justify their choice whereas an ineffective direct helper, particularly in the three constraint themes, was chosen for quantitative reasons.

Table 2

Chi Square Values for the Relationships Between Helping Strategy Preference and Reasons for this Preference (Forced-Choice Measure) for Each Grade and Each Theme

Theme/Age	Chi Square
Inability	3.158
5	.291
8	.129 (F.E.T.) <sup>a</sup>
11	.550 (F.E.T.)
15	
Duty	5.965*
5	18.058**
8	.009** (F.E.T.)
11	.032* (F.E.T.)
15	
Competition	.250 (F.E.T.)
5	4.404*
8	.046* (F.E.T.)
11	All qualitative and indirect
15	
Independence	2.418
5	10.344**
8	.001** (F.E.T.)
11	.001** (F.E.T.)
15	

<sup>a</sup> Fisher's Exact Test

\*  $p < .05$

\*\*  $p < .001$

### Moral Judgment and Preferred Strategies

This study was also concerned with the relationship between the child's level of moral judgment and effectiveness of preferred strategy. Children's moral judgments were assessed by classifying their responses to the question: "Why would (wouldn't) you help?" This question was asked after the subject indicated whether or not he would help. Children's responses were classified according to Kohlberg's (1964) stage hierarchy of moral judgment. A description of Kohlberg's stages of moral judgments is provided in Appendix C. One stage score was assigned to each of the subjects' four responses (one for each theme). Thus, each child had four moral judgment scores. No single modal score was calculated for each subject because the relationship between moral reasoning and strategy effectiveness on each theme was of concern in the present study. Children's responses fell into one of the following five categories:

- 0) amoral, e.g., "because that's what I want to do";
- 1) obedience, e.g., "you have to obey the rules of the contest";
- 2) utilitarian, e.g., "cuz I want to be nice to people. . . then they'll be nice to you and do things for you";
- 3) conventional, e.g., "it's not nice to go away and leave your friends without helping them";
- 4) law-and-order maintenance, e.g., "cuz if you don't do it fair everyone else will do it wrong; there's no point in doing it".

There were no responses which could be classified according to Kohlberg's stage of "social contract" or "conscience" orientation. Two judges independently scored 80 moral judgment protocols. The interrater reliability was 75%. The disagreements were discussed and a stage of moral judgment was arrived at by a consensus of both judges.

Moral judgment responses were found to be significantly related to the type of competition story,  $p < .03$ : Set A stories were associated with higher moral judgment-stages. In order to determine if the relationships between moral judgment and any of the dependent measures under the theme of competition were different in the two stories, they were examined separately. There were no notable discrepancies between the relationships found when the data were collapsed and when examined separately.

Before investigating the relationship between moral judgment and suggested helping strategy, the developmental pattern of the moral judgment responses was examined. The classification of moral judgment responses for each age level is presented in Figure 7. As can be seen, the pattern of results obtained here closely resembles the developmental sequence found by Kohlberg (1969). The relationship between age and stage of moral judgment was significant,  $F(12) = 57.9$ ,  $p < .0001$ . There was a decrease with age for stage 0, 1, and 2. Stage 3, however, sharply increased with age and remained the predominant stage for the 11- and 15-year-old children. Stage 4 also increased with age but did not reach the ascendancy of Stage 3. The



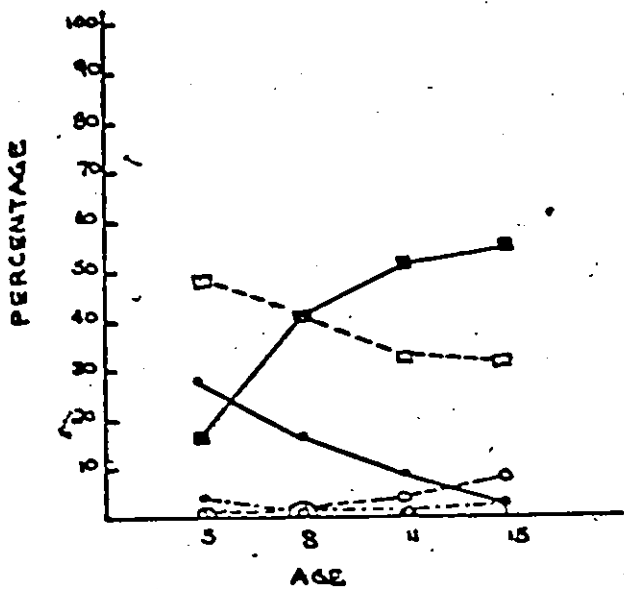
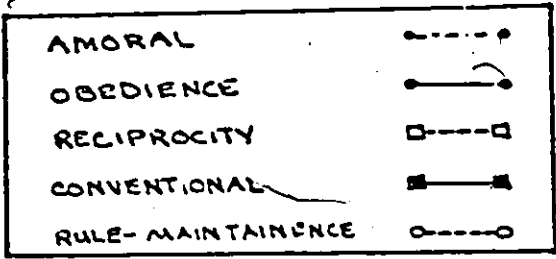


FIGURE 7. Percentage of children at all ages using stages '0' to '4' moral judgement responses under all themes combined.

relationship between moral judgment and age was examined separately for each theme. (See appendix E for these statistics.) A significant relationship was obtained for each theme except duty. The pattern of responses for the theme of duty, however, was similar to the overall pattern described above, with one exception: 100% of the "amoral" judgments were from the 15-year-old boys.

In order to examine the relationship between moral judgment scores and type of strategy suggested on the open-ended measure,  $\chi^2$  analyses were computed, examining each theme and age level separately. The results of these analyses are presented in the left-hand column of Table 3. Of the 16  $\chi^2$  relationships only the relationships between moral judgment and strategies suggested by the 8-year-olds to the theme of duty and competition were significant.

The finding that there were so few significant relationships between stage of moral judgment and helping strategy for each age level and theme is surprising due to the positive relationship which has been reported in the literature. The relationship between moral judgment and strategy was then further examined to determine if there were any helping strategies predictably suggested by any one stage for each theme. The only stage which indicated some consistency was stage 4. All 9 children who used stage 4 moral reasoning either suggested non-intervention strategies (22%) or indirect strategies (78%). It appears that, although children at all stages of moral judgment

Table 3

Chi Square Values for the Relationships Between Suggested Helping Strategy on the Open-Ended and Forced-Choice Measures and Stage of Moral Judgment for Each Age Level and Each Theme

Theme/Age	Chi Square	
	Open-Ended	Forced-Choice
<b>Inability</b>		
5	All direct	3.16
8	All direct	.13
11	.400 (F.E.T.) <sup>a</sup>	.05* (F.E.T.)
15	.634 (F.E.T.)	.4
<b>Duty</b>		
5	3.744	1.96
8	15.120*	3.06
11	8.102	1.70
15	13.871	2.30
<b>Competition</b>		
5	7.321	4.21
8	13.607**	.17
11	4.744	2.48
15	2.176	All direct
<b>Independence</b>		
5	10.208	.81
8	8.301	.49
11	3.430	5.42
15	2.301	.58

<sup>a</sup>Fisher's Exact Test

\* p<.05

\*\*p<.005

were capable of suggesting the more effective indirect and non-intervention strategies, stage 4 appeared to be the stage at which children began to do so consistently.

Parallel analyses of the relationship between stage of moral judgment and the preferred helper on the forced-choice task for each age and each theme revealed a very similar pattern. The  $\chi^2$  analyses were all generally non-significant. The results of these analyses are presented in the right-hand column of Table 3. In these forced-choice selections of helpers, all of the 9 stage 4 children were once again the only ones who consistently preferred an indirect helper.

Next, it was thought that possibly the stage of moral judgments might be related to the kinds of justifications children gave for their preferences of a helper in the forced-choice task. Both of these measures reflected children's rationales for helping. The  $\chi^2$  analyses of this relationship between moral judgment and reasons for preferred helper for each age and each theme were significant only for the 11-year-olds' responses, under the theme of inability,  $p < .02$ .

Again, further analyses were conducted in order to determine whether reasons for preference of helper were consistent at one moral judgment stage. Here, as with helper preference responses, all of the 9 stage 4 children used qualitative reasons. Of the 138 children using stage 3 responses, 72.5% also used qualitative reasons but this was not as consistent as the responses of stage 4 children.

## CHAPTER IV

### DISCUSSION

The discussion of the findings is organized in the following manner: First, the findings are discussed in terms of the two major issues that are being explored. The first issue was concerned with the nature of developmental changes in the kinds of helping strategies suggested by children and how these changes were affected by the particular circumstances of the helping situations. The second issue dealt with developmental changes in children's conceptualization of a good helper and how these changes related to the effectiveness of their strategy choices. Each of these issues is discussed in terms of the relevant hypotheses, related empirical studies, and the theoretical and developmental implications. Second, ancillary data on children's moral judgment stages were obtained and these will be discussed as they relate to the effectiveness of suggested helping strategies. Finally, recommendations for future research are also presented.

#### Developmental Changes in Children's Awareness of Effective Helping Strategies

This study was primarily designed to examine the nature of developmental changes in the kinds of helping strategies suggested by children. The first question that guided the present study was under what situations is there likely to be developmental differences in these helping strategies. It was

assumed that there are three skills necessary before a child can offer effective help in a variety of situations. A child must be able to, first, recognize that help is needed; second, recognize that the effectiveness of his actions will depend on the circumstances in which he has found the helpee; and third, know which helping strategy will be most effective in the particular situation. It was further assumed that these skills are acquired as the child grows older and gains experience within various helping situations. The acquisition of these three skills is not required for effective helping in every situation. In those situations where the kind of help required is obvious, the child need only be capable of the first skill, i.e., recognition of a need for help. In other situations, however, where the most appropriate strategy is not readily apparent, a potential helper will be effective only to the extent that he considers the particular needs of the helpee and knows which actions will be most appropriate.

Based on these assumptions, Hypotheses 1 and 4 were generated to examine developmental differences in suggested strategies on the open-ended and forced-choice measures, respectively. These hypotheses predicted that children of all ages would suggest direct strategies under the theme of inability since the main character was hurt and simply needed assistance completing his task. Developmental differences in effectiveness of helping strategies were expected under the themes of competition, duty, and independence since the constraint against direct help

made it more difficult to determine the most appropriate strategy.

In response to the open-ended questions, direct assistance was suggested by the majority of children between the ages of 5- and 15-years under the theme of inability, but there was an increasing tendency among the 15-year olds to say they would offer their assistance before intervening. The helping strategies suggested in response to the themes of competition, duty, and independence, on the other hand, showed more age-related differences. Generally, under these 3 themes there was an age-related decrease in direct strategies, an increase in non-intervention which declined after 11-years, and an increase in indirect and offer strategies.

Children's selections of helpers on the forced-choice measure were consistent with the strategies they suggested on the open-ended measure. Hypothesis 4 was supported in that the majority of children at all ages chose the direct helper, although there was an increasing preference with age for the indirect helper under the theme of inability. Preference for the indirect helper increased significantly with age under the three constraint themes. These results from both the open-ended and forced-choice measures support the basic assumptions upon which the present study is based. In answer to question one developmental differences in strategy effectiveness emerge in situations where the most appropriate form of assistance is not obvious due to constraints against direct intervention.

The second question of the present study concerned the nature of the developmental sequence of helping strategies suggested under situations in which the most effective strategy is not obvious. It was assumed that in these situations, children who are only capable of recognizing a need for help (skill one), would suggest inappropriate help. Those children who recognize that the particular requirements of the helpee determine the potential effectiveness of any actions (skill two) would suggest non-intervention. Those children who possess skill three (a knowledge of which strategy will be most effective), in addition to skills one and two, would suggest indirect strategies. Because these three skills were assumed to be acquired in the prescribed order, the following developmental sequence of strategies suggested by children on the open-ended measure, was predicted under Hypothesis 2: Under the themes of competition, duty and independence, it was expected that children would initially suggest direct intervention, followed by indirect intervention. Non-intervention was expected to appear between direct and indirect strategies because children would recognize the constraint against direct help but would not know an alternate strategy to suggest. The assumption regarding the developmental sequence received strong support from the data under the themes of competition and independence.

The age-related pattern of responses under the theme of duty only partially supported the proposed developmental sequence. Under this theme, the 5- and 8-year-old children,



as predicted, showed a decrease in suggestions of direct strategies and an increase in non-intervention and indirect strategies. The responses of the 11- and 15-year-olds were unexpected in that they showed an increase in direct strategies. Non-intervention strategies, however, decreased in this age range, while both indirect and offer strategies were increasingly suggested, as predicted. One explanation for the increase in direct strategies among the older children that is consistent with the assumptions underlying the proposed sequence stems from their reasons for using direct help. These children often indicated that they used this strategy because there was a conflicting obligation on the part of the main character. As pointed out in Chapter III, half of the 15-year-olds who offered direct strategies thought it was more important to the main character that he live up to his promise to play baseball with his friends than fulfill his obligation to his father to clean the yard himself. The increasing tendency to conform to the wishes of peers during adolescence is supported by investigations in the area of developmental changes in social influence (e.g., Bowerman & Kinch, 1959). The older children's use of direct strategies, then, may reflect a higher priority given to a peer-centered activity rather than an inability to recognize a constraint against direct intervention.

It was argued earlier that before children progress from direct to indirect strategies, they would suggest non-intervention because they recognized the constraint against direct help but were unable to generate alternative indirect strategies.

Alternatively, one might argue that non-intervention was suggested because the child did not perceive a need for help or did not feel motivated to help. However, there are two sources of data which support the original contention: first, the reasons given by these children for suggesting non-intervention; and second, their preferred helper on the forced-choice task. Both of these will be discussed below.

The replies of children under the three constraint themes to the follow-up question: "Why wouldn't you help?" were classified according to whether or not they referred to situational cues as their reasons for suggesting non-intervention strategies. Reference to situational constraints included such replies as: "He's supposed to do it himself, the rules say so" (competition), or "He would get in trouble if I did anything to help him" (duty), or "He said he wants to do it himself" (independence). No reference to situational constraints included such replies as: "It's his rope, let him tie it." There were a total of 53 non-intervention responses under the three constraint themes and only two of these did not make reference to situational cues. One 5-year-old and one 15-year-old used the latter type of responses. Thus, children's rationales for non-intervention strategies supported the notion that children who suggested these strategies recognized the situational constraints.

The second source of evidence supporting the notion that children were suggesting non-intervention strategies because they recognized the constraint but failed to generate alternative

strategies stems from their preference of helper on the forced-choice task. If these children were, in fact, suggesting non-intervention strategies because they recognized a constraint, when given a choice between a helper who acted in accord with these constraints and one who did not, they should prefer the former. The forced-choice preferences of those children who used non-intervention strategies on the open-ended measure under the three constraint themes were examined for this purpose.

All of the 5-year-olds (n=14) who suggested non-intervention strategies preferred the direct helper on the forced-choice task. The pattern of responses was reversed for the three older groups. Eighty-two percent (n=18) of the 8-year-olds, 85% (n=11) of the 11-year-olds, and 100% (n=4) of the 15-year-olds preferred the indirect helper. Both the reasons for offering non-intervention and the forced-choice preferences of the three older groups then provides support for the assumption that children suggested non-intervention strategies because, although they recognized the situational constraints, they failed to generate an indirect strategy. In addition, the surprise reaction which often accompanied their choice of indirect helper, for example, "Gee, I wish I had thought of that - that's a good idea," indicated that they suggested these non-intervention strategies because they could not think of a better way to help the main character. The 5-year-olds on the other hand, when given the choice seemed to be dominated by the quantity of help offered by the direct helper. This latter

notion is supported by the finding that the 14 children who use non-intervention strategies under the open-ended question used quantitative reasons to justify their choice of the direct helper on the forced choice task.

The next question which was of concern in the present study was whether the developmental sequence from ineffective to effective strategies emerged at the same age for every helping situation. It was assumed that the appearance of the more effective strategy suggestions would be dependent upon the amount of experience a child has had with a particular situation. With no experience in situations where the most appropriate strategy is not obvious, a child would not be expected to devise suitable strategies. After having had some experience, and opportunity to observe others' behaviour in a particular situation, the probability of the child suggesting more appropriate strategies would be expected to increase. Differences then in the age at which children would suggest the more effective strategies, i.e., non-intervention and indirect, were expected under the three constraint themes. Based on research evidence indicating children respond to competitive situations around 8 and not until 11 or 12 for duty, suggestions of non-intervention and indirect help were expected to appear at a younger age under the theme of competition than duty. Children were expected to respond to independence cues at a later age because the cues available were even less obvious. Support for Hypothesis 3 was provided by the finding that indirect strategies appeared under the theme of competition

at 8-years of age; non-intervention appeared under the theme of duty at 8-years of age; and non-intervention and indirect strategies both appeared at 15-years of age under the theme of independence.

The age at which children preferred the indirect helper on the forced-choice task under each of the three constraint themes was again supportive of the trend found under the open-ended measure. Clearly, children preferred the indirect helper by 8-years of age under the theme of competition, by 11-years of age for duty, and not until 15-years of age for independence, thus providing support for Hypothesis 5. In addition, scalogram analyses indicated that the four themes could be scaled in the predicted order, i.e., inability, competition, duty, and independence, in terms of the child's ability to select the most effective helper in each.

The finding of a difference in the ability to suggest effective strategies across the 3 constraint themes is consistent with the assumption that experience with a particular situation facilitates knowledge of the more effective strategies. This experience, no doubt, provides the child with an opportunity to observe effective models and experience first-hand the negative consequences of inappropriate help. Also it is interesting that knowledge of effective strategies in one particular situation (e.g. competition) does not preclude the possibility that the child may be an ineffective helper in another situation (e.g., independence).

There is another related explanation to account for these differences in strategy effectiveness. The cues indicating the existence of the constraint in the competition, duty, and independence stories varied in terms of their visibility. The fewer the external and overt cues available to indicate the presence of a constraint in a particular situation, the more the helper has to rely on his ability to take the perspective of the one in need to determine the most appropriate strategy. In the competition stories, there are many external cues in the form of rules, prizes, and other competitors. In the duty stories, the external cue is limited to a contract between the main character and another person. The major cue in these stories, is the individual's own obligation to live up to the contract since the adult is not there to enforce it. In the independence stories, the cues are totally internal in terms of an individual's own standard of excellence; there are no external forces acting to ensure this standard be met outside of the individual involved. The age differences in ability to offer effective strategies found across the three constraint themes, then, appear reasonable when both the social experiences of children and visibility of the cues are taken into account.

#### Developmental Changes in Conceptualization of Good Help

The second major issue of the present study dealt with developmental changes in the criteria children used to evaluate a good helper. It was assumed that the amount of effort an individual is willing to offer another is one of the earliest

criteria upon which children learn to evaluate an act of assistance. As children grow older, they also learn to evaluate helping behaviour in terms of the way in which it meets the particular needs of the helpee. This is not to say that the quantitative criterion is no longer used, but it will be of secondary consideration, particularly in situations where a lot of help is inappropriate. In the present study, it was expected that under the theme of inability, where there were no constraints prohibiting a lot of help, children between 5- and 15-years would use a quantitative criterion to evaluate the better helper. Under the themes of competition, duty, and independence, however, there were constraints militating against a lot of direct intervention. With age, children were expected to evaluate their preferred helper on the basis of how the strategy suited the particular situation rather than on the basis of the quantity of help, under these three themes. The direction of developmental change, then, under the three constraint themes was expected to be from quantitative to qualitative evaluations of helpers.

The data indicated that under all four themes use of qualitative reasons to justify choice of helper increased with age. This developmental trend had the following characteristics: Qualitative reasons were infrequently used by 5-year-olds, the highest frequency of use was 25%. These children failed to take the circumstances of the helpee into account and evaluated helping in isolation of its potential consequences.

For instance, a kindergarten child when questioned about his preference for a direct helper in the independence story stated what was typical of children at this age, "I know he (the main character) doesn't want anybody to do it for him, but he (the direct helper) still is a better helper because he's getting leaves for him; this other guy is lazy - he's only pointing."

There was an abrupt change between 5- and 8-years. By 8-years of age, as many as 80% were making their evaluations of helping behaviour on the basis of how it suited the particular situation. These children were making reference to the psychological motivation of the helper and to the possible reaction of the recipient. Between 8- and 15-years there was a further increase in the use of these more qualitative reasons but this increase was gradual. The major difference between the 15-year-olds and the 8- and 11-year olds was in the nature of the qualitative reasons these older children used to justify their choice of the indirect helper on the theme of inability. Many 15-year-olds spontaneously generated hypothetical constraints which they thought may have existed. For instance, they speculated that the main character would prefer to be helped indirectly because he would like to or had an obligation to finish alone. Recall that on the open-ended measure there were five 15-year-olds who said that they would offer their help first before intervening under the theme of inability. Their responses to the follow-up question further indicated they were thinking about hypothetical constraints. Very infrequently did this spontaneous analysis of the situation occur in any



of the younger children's reasons for helper preference. Rather, the majority of qualitative reasons used by the 8- and 11-year-olds under the theme of inability reflected their evaluation of the inadequacy of the indirect helper on the grounds that the helpee needed direct help because he had injured himself.

The age at which the developmental shifts in use of qualitative reasons occurred parallels the age-related changes in Piaget's (1952) stages of cognitive development. The abrupt change from quantitative to qualitative reasons between 5- and 8-years parallels the change from preoperational to concrete operational thought. The preoperational thinking of the 5-year olds was evident in many of their responses. One characteristic of preoperational thought according to Piaget (1952) is the inability to consider two or more aspects of a situation simultaneously. The 5-year-olds' inability to judge the goodness of an act in the context in which it occurred is thought to reflect such thinking. The shift in the nature of children's responses at 8-years of age is consistent with the findings of the Baldwins and their colleagues (Baldwin & Baldwin, 1970; Baldwin, et al, 1969). The Baldwins investigated developmental changes in children's evaluation of acts of kindness. They also reported a qualitative change in the responses of children after grade two. They found that kindergarten and grade two children used a different set of principles upon which to make their judgments than did the older children and adults. For instance, the Baldwins found that the

younger children often based their judgments on the amount of material benefit accrued by the recipient whereas after grade two, children evaluated acts of kindness on the basis of such psychological criteria as the intentions of the acts.

Recently, Leahy (1977) examined developmental changes in children's judgments of how peers should be punished for transgressions. He found that 11-year-olds believed that such internal constraints on an individual, as duress and emotional maladjustment, should be taken into consideration when deciding on how to punish. Six-year-olds, on the other hand, only considered such external constraints as provocation in their punishment judgments. As children grow older, the criteria they use to make judgments about the 'wrongness' of antisocial behaviour appear to be similar to the criteria they use to judge the goodness or kindness of prosocial behaviour.

The second major developmental trend found in the present study occurred at 15-years of age. It was at this age when children began to spontaneously think of hypothetical constraints in the inability stories. It was thought that this change reflected the development from concrete to formal operations and the ability to reason on a hypothetico-deductive plane.

Given that qualitative reasons and effectiveness of preferred helping strategies were both expected to increase with age, it was proposed under Hypothesis 7 that children who used qualitative reasons would also be the ones who chose the more effective indirect helper under the three constraint themes. The data indicate that a positive relationship between

preference for an effective helper and use of qualitative reasons emerged at 8 years of age under all three constraint themes. The lack of significant relationship between these two variables in the 5-year-old sample was due to insufficient individual differences in either their choice of helpers (85% chose direct) or quality of reasons (82% used quantitative). However, it is interesting to note the relationship between the reasons the 5-year-olds used and their choice of an indirect helper on the theme of independence. Thirty-five percent of these children chose this helper, yet Figure 6 suggests their reasons may not be like the older subjects'. In fact, these 5-year-olds were preferring the indirect helper because they thought his actions may have produced more material gains for the helpee, not because his actions were designed with the particular constraint in mind.

In summary, what can be said about the nature of developmental change in children's awareness and conceptualization of effective helping strategies? First, if the potential helper is faced with a situation in which there is a familiar constraint, for instance, a competitive situation, even 5-year-olds know that direct help is not appropriate. They will evaluate an act of assistance in these situations in terms of how it meets the requirements of that constraint. Second, depending upon how familiar the particular constraint is to the child, he will prefer either non-intervention (after a moderate degree of experience with the constraint) or an effective indirect strategy (after more experience with it).

Third, if the constraint is not familiar, for example, an independent child wishing to work alone, children as old as 15-years are not able to recognize that direct intervention is an ineffective strategy and judge helping strategies in these situations on the basis of the amount of help offered. Thus, it appears that the attainment of the inability to offer effective strategies and evaluate them in terms of how they meet the requirements of the situation is not an all-or-none phenomenon but rather is dependent upon the child's familiarity with the constraint and recognition that the strategy must be devised in accordance with it.

#### Moral Judgment and Effective Helping


Because children's responses to the question, "Why would (wouldn't) you help?" could be classified according to Kohlberg's stages, these ancillary data were examined in relation to the other variables measured in the present study. When age changes in children's moral judgments were examined in relation to helping strategies on both the open-ended and forced-choice measures, the relationships were generally nonsignificant. Children's moral judgments were also not related to the quality of reasons used to justify choice of helper. Thus, in answer to the empirical question, moral judgment is not related to children's awareness of effective helping strategies.

Earlier investigators have reported a positive relationship between moral judgment and children's disposition to

behave prosocially (e.g., Olejnik, 1975; Rubin and Schneider, 1973; Rushton, 1975; and Ugurel - Semin, 1952). It may be that moral judgment is a significant factor in determining whether or not a child will behave prosocially. It may not, however, be an important factor in determining how effective a helper a child will be, at least in the helping situations used in the present study.

Although moral judgment was not found to be significantly related to effective helping, there was an interesting consistency in the responses of the stage 4 children. The eight children who used stage 4 reasoning always suggested non-intervention or indirect help under all three constraint themes. Of course the number of children is insufficient to draw definitive conclusions but these data do suggest that we can predict that children functioning at the higher stages of moral judgment will be more effective helpers.

One might argue that one characteristic of stage 4 reasoning is an orientation toward social rule maintenance and since effective help in the competitive situation is related to following rules, this explains the consistency. However, even in situations where the social rule is not clear, for example, in the independence stories, stage 4 subjects still showed their consistent pattern of suggesting more effective strategies. Whatever the mechanism producing this consistent relationship between stage 4 moral judgment and effective helping strategies, this is a very interesting finding and should be replicated with older subjects functioning



at and beyond stage 4. It would also be interesting to determine whether this relationship can be generalized to situations other than the four used in the present study.

#### Directions for Future Research

The present study has provided indication of the development of effective helping strategies up to 15-years of age. It is unlikely that knowledge of effective strategies is complete at 15 as evidenced by the many older children who were offering direct strategies in response to the independence story. Adults must learn to respond appropriately to many varied and complex helping dilemmas in which they encounter individuals in need of assistance. Although social experience within these situations would aid the helper in effective strategy selection, it is almost impossible for an individual to have had experience in each situation which could be encountered. In those helping situations where there has been no prior experience, an approach to the problem which may lead to effective strategy selection would be to consider the initial circumstances of the helpee and the possible implications of direct intervention. For example, a student may encounter another student having problems with an assignment. A direct strategy may in some cases be most beneficial depending on the importance and benefits of the assignment to the helpee. In most instances, however, direct intervention, although it may provide immediate benefits, will in the long-run retard the individual's ability to independently complete

future assignments. An effective helper must carefully weigh the costs and benefits of the various alternative strategies from the helpee's perspective. Another often perplexing problem for many adults is the question of donations to foreign countries. Although we are constantly faced with donation requests, one may also consider the argument that assistance of this sort may lead to a maintenance of the subsistence level of deprived people and retard their motivation to change their plight. Again, without the consideration of all possible implications of different strategies from the helpee's position, what appears on the surface to be a charitable act may produce negative consequences. The important component of effective helping is the shift in emphasis from the quantity of help offered to the implications of the particular strategy for the helpee. Whether such approaches to helping dilemmas will distinguish the effective from ineffective adult helper is a question for future research. This could be studied by presenting mature subjects with various situations in which help is needed but in which there is no easily available solution. Do adults consider only quantitative aspects of helping when they do not know the solutions, as the young children in the present study so often did? Do adults prefer non-intervention when they realize the possible negative consequences of direct intervention? What social and cognitive factors might be associated with an effective adult helper?

With the use of more mature subjects, the relationship between moral reasoning and ability to generate effective strategies could be examined more extensively. The inclusion of subjects who use stages 5 and 6 moral judgments would indicate whether there is a consistent relationship with helping abilities at these higher stages as was found with stage 4 moral reasoners in the present study. Perhaps an independent assessment of their moral judgments using Kohlberg's dilemmas may be more appropriate in order to obtain a more vertical assessment of moral maturity.

One major limitation of the present study was the exclusive use of male subjects and story characters. The developmental nature of helping strategies offered by females needs to be examined in order to substantiate and test the generalizability of the present findings. Also, the sex of the subject and story character may be important variables affecting knowledge of effective helping strategies. Preliminary pilot data (Kullman, 1976) has indicated that male subjects are more likely to offer direct assistance to female than male story characters, regardless of the circumstances of the helping situation. The possibility that stereotyped sex-role learning may retard the ability to offer effective strategies to the opposite sex could be examined in future studies.

A number of methodological improvements appear warranted in the present study. For one, the duty stories need revision. The conflicting obligation of the main character to play baseball in one of these stories confounded the subjects' reaction



to the notion of duty. The inclusion of two "duties" in the story made it difficult to determine whether or not the children recognize the constraint within the story. In addition, both duty stories presented children with a main character who was obliged to an adult. Presently, children's responses to the theme of duty are being investigated with stories in which the main character has an obligation to peers instead of an adult to complete a task alone.

In the present study, an attempt was made to devise stories in which the main character was engaging in activities common to all age groups (e.g., rope tying or leaf collecting). It was hoped that all the subjects would perceive the main character as a peer. This was done in order to control for the perceived level of competence of the main character. Some of the 15-year-olds, however, did not interpret the dilemmas as such but rather saw themselves as "helping a little kid with his problem." In the follow-up research, the stories and characters have been modified so that the age of the story character and activity engaged in is appropriate to the age of the subject.

To assess the subject's moral reasoning, the question posed to the child was "Why would (wouldn't) you help?" This question did not immediately evoke a moral judgment from some of the children. In order to make the intent of the question clearer to the child, the questions, "Should you help?" and "Why should (shouldn't) you help?" are being posed to children in the follow-up research.

The present study examined developmental trends in preferred helping strategies in response to hypothetical dilemmas. What needs to be examined in future research is the quality of children's performance in real-life helping dilemmas. As was indicated in Chapter I, the literature investigating age differences in the performance of prosocial behaviour is limited to the extent that children are removed from the responsibility to decide whether or not help is needed and to select the most appropriate strategy (Chandler, 1974). One of the few studies explicitly designed to measure developmental changes in strategy effectiveness conducted by Severy & Davis (1971) has found that there are age differences in the manner in which children express their help to others. Severy and Davis found that younger children and retardates were less successful in their attempts to help than were older 8- to 10-year-olds. These authors, however, stress the importance of distinguishing between motivation and competence, as the older retardates, although often unsuccessful showed more attempts to help than the older normals. Generally, the literature on prosocial development has focused only on motivation to help and has essentially ignored the competence variable. The present study has focused on developmental changes in competence. In order to fully explore the ramifications of children's socio-cognitive development those factors affecting both children's motivation to help and their ability to do so effectively must be examined.

The following three recommendations for future research into the issue raised above are offered. First, the examination

of developmental differences in performance of helpful behavior needs to be studied in situations where the need for help and the most appropriate strategy is not blatantly obvious. The Present author feels it is important to distinguish between attempted and successful acts of helping, as was done by Severy & Davis (1971). In addition, the performance and competence of the same child should be examined across a variety of situations. This is important because of the variation in performance within one age group across the four themes found in the present study and because of the low correlation reported by Severy & Davis (1971) on psychological and task helping.

The second recommendation is to attempt to judge helping behaviour from the helper's point of view. This would avoid the problem of the experimenter pre-defining helping behaviour and thus taking the risk of ignoring potentially helpful acts. For instance, if the helper refrains from acting, is he doing so because he sees a constraint against intervention not envisaged by the researcher, as was the case in the present study with many of the older children in their response to the theme of inability? Questioning the child after his performance and examining his explanations for his behaviour may provide a greater insight into the behaviour. To merely assume that a child is selfish or non-altruistic may lead to a misinterpretation of the cognitive and social variables contributing to his lack of action.

The third recommendation is to explore the relationship between those factors assumed to be responsible for helping behaviour, e.g., role-taking skills and moral reasoning, by obtaining independent measures of their development and relating them to children's motivation and competence in behavioural settings. Perhaps role-taking is related more to the child's knowledge of effective strategies than to motivation to perform and moral reasoning is related more to motivation. In addition, through experimental manipulation or training procedures those variables which affect motivation and those affecting competence could be examined separately.

## APPENDIX A

### Developmental Changes in Prosocial Behaviour - A Review of the Literature

The purpose of this section is to review the literature pertaining to developmental changes in prosocial behaviour. The extensive reviews of Krebs (1970) and Bryan and London (1970) indicate that children's prosocial behaviour and the variables affecting its occurrence have received much attention. Recently, the literature has focused on the problems inherent in interpreting developmental change due to the considerable variation in operational definitions used to measure prosocial behaviour (e.g., Green & Schneider, 1973; Rushton, 1976). For instance, Rushton (1976) questions whether the same form of prosocial response (e.g., sharing with a friend) has the same meaning to children of different ages. The wide variety of measures has led some investigators to examine whether prosocial behaviour is a unitary concept (e.g., Yarrow & Waxler, 1976). In addition, investigators are beginning to examine more than just the change in frequency of prosocial responses with age but are also considering the manner in which children express their benevolence to another (e.g., Hansen, Goldman & Baldwin, 1975; Severy & Davis, 1971). There also appears to be a movement toward more ecological and naturalistic studies of children's prosocial responsiveness.

This review then will focus on those developmental studies of prosocial behaviour conducted after the reviews of Krebs (1970) and Bryan and London (1970). The different operational definitions

and methods of investigations which have been employed to study developmental change will be described. Particular attention will be paid to those studies which have attempted to describe age-related changes in the manner of expression of prosocial behaviour and which have provided some indication of the generality of performance on the various measures. A number of theoretical explanations have been posited to account for developmental changes in prosocial behaviour. These theories will be described and evaluated in terms of how well they accommodate the existing data. Finally, directions for future research in this area will be suggested.

Before describing the developmental trends reported in the literature, it is worthwhile to consider the problems of defining prosocial behaviour, both conceptually and empirically. Recently, the difficulties involved in defining prosocial behaviour have been discussed by Bryan (1975), Rushton (1976), and Staub (1975). According to them, many of the problems arise because investigators use the term 'altruistic' to describe the children's responses on their measures. Altruism may be considered a type of prosocial behaviour in that both deal with behaviours that have beneficial consequences to a recipient. They are different, however, in that in order for a behaviour to be defined as altruistic, the actor must not receive any benefits for his benevolent acts. For instance Macauley & Berkowitz (1970) define altruism as "behaviour, carried out to benefit another without anticipation of rewards

from external sources" (p. 3). Leeds (1963) and Bryan and London (1970) have also referred to the importance of no personal gain for the actor and the assumption of unselfishness when defining behaviour as altruistic. As Rushton (1976) points out, many investigators have avoided this issue by narrowly defining 'altruism' as donations to charity or helpfulness to a friend with the assumption of a benevolent intent. Problems arise when one attempts to account for the mechanisms responsible for altruistic dispositions. Often the explanations generated require that the behaviour under investigation be motivated totally out of concern for another. For instance, Aronfreed (1970) defines altruism as behaviour generated out of empathic concern for the feelings of another. Other investigators have posited such mechanisms as role-taking (e.g., Olejnik, 1975) and empathic development (e.g., Hoffman, 1973) as prerequisites for altruistic behaviour. If the data generated in the literature do not support these theoretical conceptualizations, it may be because the motivational bases for 'altruistic' responding have varied considerably from study to study.

It would seem advantageous, then, for researchers to carefully consider the nature of the behaviour they are investigating. If no attempt is made to examine the intentions of the actor or possible benefits he may accrue, it appears necessary to label that behaviour as prosocial and not altruistic. Investigations of prosocial behaviour are not to be considered any less valuable. As Staub (1975) points out, even when the actor tries to gain benefit for himself by benefiting others at

least he is doing so by other than antisocial means, such as instrumental aggression. Both prosocial and altruistic behaviours will be reviewed in this chapter. In the next section the literature examining the developmental characteristics of children's prosocial behaviour will be described.

### Developmental Changes in Prosocial Behaviour

In order to describe the developmental trends reported in the literature, this section will be organized in the following manner: First, the measurement and characteristics of developmental changes reported in naturalistic and experimental studies of prosocial behaviour will be discussed separately. Second, the numerous experimental investigations will be categorized according to their operational definitions of prosocial behaviour. Variations in procedures and measurement of age change which may be responsible for inconsistencies across studies will be pointed out.

### Naturalistic Observations of Prosocial Behaviour

There are very few available studies examining prosocial behaviour in naturalistic settings. The majority of those available have used a single or limited age range of subjects. The behaviour of infants (Yarrow & Waxler, 1975), preschool aged children (Hansen, Goldman, & Baldwin, 1975; Murphy, 1943; Wareing, Strayer, & Rushton, 1976; Yarrow & Waxler, 1976) and elementary school children (Ginsburg, Wauson, Easley & Pollman, 1977; Severy & Davis, 1971). The behavioural categories of



prosocial behaviour are numerous and include: responding to distress cues (psychological help), giving solicited and unsolicited help on tasks (task help), sharing material (possessions, cooperation with others, defending, and rescuing. The findings of these studies will be discussed according to the age groups they have employed.

Infant Studies. The results of Yarrow and Waxler's (1975) observations indicate that children as young as 10 months showed distress reactions during parental arguments. They also observed that 2-year-olds were using relatively sophisticated methods of assistance (e.g., attempting to help by putting on a band-aid). Yarrow and Waxler, however, point out that these incidences were not frequent and there were "many, many occasions on which benevolence was not forthcoming."

Preschool Children. Those studies examining the frequency of prosocial acts among preschool children (ages 3- to 5-years) generally indicate that these children do emit the variety of prosocial behaviours listed above. Murphy (1943), for instance, found considerable incidents of sympathetic responses by 3-year-olds in which they reacted with worried or upset looks to another's distress. The older children in her sample were more likely to engage in helpful acts. Hansen, et al., (1975) observed 23 4-year-olds for over 40 hours and found some 150 incidents of prosocial responses. They collected their data by recording any interaction that resembled prosocial behavior and derived their categories at a later time. They found 62 instances of solicited or spontaneous sharing; 82 instances of

help including giving information and aiding in another's task; and 31 instances of showing concern, comfort or instrumental help to a crying or injured child. As was reported by Murphy (1943), Hansen, et al., found large individual differences among the children and very little generality across the three behavioural categories.


Yarrow and Waxler (1975; 1976) observed 108 3-to 5-year-old children in four 10-minute samples of free play and found prosocial acts expressed by 87% of these children. On the average, sharing and comforting occurred 2.1 times and helping, 6.2 times. They found no age differences in the frequency of children exhibiting these behaviours and no evidence of inter-correlations among the three behavioural categories.

Recently, Wareing, et al., (1976) reported the frequency of prosocial acts by preschool children to be unusually frequent. They observed 26 3-to 5-year-olds for 30 hours during free play activities and recorded over 700 incidents of prosocial behaviours. No age differences in frequency or kinds of prosocial behaviours were reported. They did, however, find evidence of cross-category generality. Their categories of prosocial behaviour included: object-related acts (mainly sharing); cooperative acts; helping; and empathy. As with the Hansen, et al., (1975) study, their categories were derived after the behaviour was observed. It is possible that these large differences in reported frequency of prosocial acts could be due to the method of data collection: time sampling and

narrative event were used in the other studies whereas Wareing, et. al., videotaped all behavioural events. Also, because wide individual differences characterize the prosocial behaviour of children observed in these studies, it is possible that the Wareing, et al., sample could be biased in favour of children with greater dispositions to respond prosocially.

Severy and David (1971) observed the helping behaviours of normal and retarded preschool (3- to 5-years) and elementary school children (8- to 10-years) during several free-time play periods. They found that the majority of their normal preschool subjects did exhibit concern for others and showed the highest incidents of task assistance of the three subject groups observed. Very infrequently did these children offer psychological assistance in the form of attempting to relieve physical suffering, sorrow and other negative emotional states. The authors argue that the low incidents of psychological assistance in this group did not reflect their unwillingness to help but rather their lack of social competence to offer this type of assistance. They also found a modest generality of helpfulness as a trait in children.

In summary, the evidence from observations of preschool children indicates that these children do engage in acts of sharing and task assistance, as well as show concern for others' discomfort. They do not, however, show much evidence of acting on this emotional concern, as the total incidents of psychological help is low. There is further evidence of wide individual differences among children in their expression of



concern for others - some share, others help, and some do neither or both. Thus, among the preschool children observed in their nursery school there is little to indicate that pro-social behaviour is a unitary concept. At this age the lack of generality across the various behavioural categories could be due to personality variables, previous learning history, or differences in their level of social competence - many have not yet learned how to act on their empathic reactions.

Elementary School Children. There are two recent studies in which the prosocial behaviour of elementary school children has been observed in a naturalistic setting (Ginsburg, et al., 1977; Severy & Davis, 1971). Ginsburg, et al., (1977)<sup>4</sup> observed the incidents of intervention on behalf of another child during episodes of aggression between two children during unstructured playground activities. They observed male elementary school children (exact ages were not indicated) for 45 hours and recorded only 36 instances of intervention out of a total of 237 skirmishes. They noted that the probability of intervention was much higher when the attacked child exhibited submissive cues. Aggression then was usually redirected toward the aid-giver but the recipient of aid rarely returned to help his benefactor. He was too busy fleeing the scene.

The methodological procedures employed by Severy and Davis (1971) have been described previously as they used preschool as well as 8- to 10-year-old normal and retarded subjects. They found that the older retarded children behaved quite similarly

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<sup>4</sup>Abstract available only.

to the younger normals in that both groups showed more task help than the other two groups. The older retardates also showed more evidence of psychological help. However, because this group had a higher ratio of attempted vs. successful intervention, their overall accomplishments were not significantly different from the older normals. The older normals, on the other hand, who had the intellectual competence to offer the most sophisticated kinds of help, were characterized as ignoring others and situations calling for help. Their findings indicate, then, that among the retarded sample there was an age-related increase in helping but a decrease or no change among the normals. Severy and Davis (1971) argued that the older normals did not help when they had the skills enabling them to do so because they had conflicting goals (e.g., achievement and competitiveness) which served to inhibit helping among same-age peers. The milieu of the older retarded children, they argue, did not foster achievement or independence goals to the same extent and thus did not mask their greater competence. This raises an interesting empirical question: Do older normal children really know more effective helping strategies than their younger preschool counterparts who supposedly were limited to expressions of concern by their lack of competence?

These naturalistic investigations of children's prosocial behaviour indicate that infants are capable of responding to emotional upsets and offering some rather sophisticated attempts at aid-giving. Preschoolers are even more responsive to the

emotional upsets and discomfort of others. Although they frequently provide assistance to others in the form of completion of a recognizable task, infrequently do they attempt to intervene to reduce the psychological discomfort of another. Elementary school children do provide psychological assistance to others but the evidence indicates that the ability to offer this form of help may be masked by more individualistic concerns.

In the subsequent section the age-related patterns of prosocial behaviour found in experimental laboratory investigations will be discussed.

#### Experimental-Laboratory Studies of Prosocial Behaviour

The age-related changes in prosocial behaviour found in laboratory investigations are discussed according to the operational definitions employed to measure this behaviour. Operational definitions used in the study of prosocial behaviour have included: donations to charity, sharing with another, helping, and self-sacrificing:

Donations to Charity. Those studies investigating children's donations to charity have generally found an increase with age in both the number of items donated (Barnett & Bryan, 1974; Emler & Rushton, 1974; Harris, 1971; Midlarsky & Bryan, 1967; Rushton & Wiener, 1975; White & Burnam, 1975) and the number of children donating (Rosenhan, 1969). This increase in donating behaviour has been observed between the ages of 6- to 13-years of age. It occurred when the materials were either won by the child or given for participation in the experiment and

also occurred for donations of candies, gift certificates, pennies, and tokens.

Rushton (1975) found an increase in donations of tokens to charity between the ages of 7- and 11-years on a two month retest but not on the immediate test of generosity. White and Burman (1975) found that while there was a significant increase in the number of pennies donated to charity between grades 4 and 5, there was an age-by-instruction interaction. Grade 5 children donated more under permissive instructions (i.e., do what you like) whereas grade 4 children donated more under constraint instructions (i.e., I'd like you to donate).

A number of studies using generous models reported no developmental increase in the number of items given to charity (Aronfreed, 1968; Bryan, 1971; Bryan & Walbek, 1970; Grusec & Skubiski, 1970; Rosenhan & White, 1967). As Krebs (1970) suggests, the influence of the generous model may affect the behaviour of younger children more than older ones, masking an age-related increase in donations.

Zinser, Perry and Edgar (1975) also found no age changes in the number of candies donated between 4- and 6-years. They found these nursery school children donated more of their less valued (vs. highly valued) candies to poor recipients than rich ones.

One important characteristic of these studies finding no developmental change was that there was only a one to two year age difference in subjects tested. Studies using larger age differences between subjects (up to four years) consistently

reported age increases in donating behaviour, suggesting that developmental changes may not always be detected when the age range is not large enough.

The only study reporting a decrease in donations with age was conducted by Midlarsky and Bryan (1972). They found grade 5 children gave more than grade 4 children when a model provided charitable exhortations but less than grade 4 children under the greed exhortation condition.

In conclusion, then, these results generally point to an increase with age in donations to charity; a conclusion also reached by Krebs (1970) and Bryan and London (1970). There does appear to be some evidence of differential effects with age of modeling and preaching, suggesting the possibility of different reasons for donating at different ages.

Sharing with Others. Similar results occurred when age trends are examined for evidence of sharing with others. Generally, between the ages of 4- and 13- years, there is an increase in the number of children sharing with their peers (Dreman, 1976; Green & Schneider, 1974; Handlon & Gross, 1959; Harris, 1971; Lane & Coon, 1972; Mikula, 1973; Morris, Marshall & Miller, 1973; Olejnik, 1975; Rushton & Wiener, 1975; Staub, 1973). There were a few exceptions, however.

Two studies reported curvilinear relationships between age and number of items given away. Ugurel-Semin (1952) found that when children were asked to divide nine nuts between themselves and another child, 4- and 5-year-olds kept more than



they shared, 6- and 7-year-olds shared more than they kept, and 8- to 15-year-olds generally divided them equally. This same trend was found by Larsen and Kellog (1974). They asked children to divide twenty seals after performance in a cooperative task in which their partner performed better. Yarrow and Waxler (1976) found no differences in the frequency of sharing a snack or toy with an adult by children between the ages of 2- and 7 1/2-years.

Because the sharing behaviour of children at different ages appears to have distinct characteristics, the behaviour of children at the various age levels will be described separately. Nursery school children have been found to be 'selfish' in their allocation of goods, i.e., they keep more than they share (Handlon & Gross, 1959; Lane & Coon, 1972; Larsen & Kellog, 1974; Ugurel-Semin, 1952). This relationship holds true regardless of the presence or absence of the peer, the manner in which the items were obtained (i.e., won or given to the child) and the types of materials to be shared (nuts or picture seals). Yarrow and Waxler (1976) found that among their nursery school sample of 3- to 7 1/2- year-olds, only 33% responded to at least one of the two sharing tasks. This is somewhat consistent with the results of the naturalistic studies examining sharing behaviour in preschool children. Although they found evidence of sharing, the majority of these studies reported it occurred rather infrequently.

Kindergarten children have also been found to be rather selfish (Green & Schneider, 1974; Mikula, 1973, Olejnik, 1975). There are some exceptions at this age. Lane and Coon (1972) reported that 5-year-olds shared their 25 picture seals equally with a partner regardless of the relative performance of each on a cooperative game. Larsen and Kellog (1974), however, found that when their partner performed better than they, 5-year-old children were generous in their distribution of picture seals. Five-year-olds, then have been reported to be selfish, although unlike preschool children, have been observed to reveal both equality and generosity in their sharing behaviour.

The sharing behaviour of grade 1 and 2 children (6- and 7-year-olds) is similar to that of 5-year-olds. A number of studies have reported selfishness (Green & Schneider, 1974; Mikula, 1973). Dreman (1976) found that 7-year-olds shared an average of 1.08 candies out of a possible seven with an unknown child. Rushton and Wiener (1975) also found that 7-year-olds were relatively selfish: of 24 sweets, they shared an average of only 4.5 with their best friend.

Larsen and Kellog (1974) found 6- and 7- year-olds gave as many picture seals to a fictitious partner as they kept for themselves. Ugurel-Semin (1952), on the other hand, reported that children in this age range shared more nuts than they kept for themselves. In grades 1 and 2 then there is evidence of selfishness but there is some indication of generous and equalitarian sharing at this age.

Much more evidence of equality in the distribution of goods with another is evident in the sharing behaviour of grade 3 and 4 children (8- and 9-year-olds). Two studies report relatively selfish behaviour on the part of these children when marbles were won individually by the child (Harris, 1971) and picture seals were earned cooperatively with a peer (Handlon & Gross, 1959). The greatest proportion of the studies report equal sharing (Green & Schneider, 1974; Mikula, 1973; and Ugurel-Semin, 1952). Finally two incidents of generosity have been found (Larsen & Kellog, 1974).. It appears that under a variety of situations children between the ages of 5- and 9-years of age gradually become less selfish and more egalitarian and generous. There is no selfish sharing behaviour reported in the literature after nine years of age.

Children in grades 5 and 6 (10- and 11-year-olds) for the most part are very equalitarian in their sharing. Equality in distribution of the materials occurred for this age group when the items had been earned in a cooperative task (Mikula, 1973). Equal distribution of candies and nuts which were given to the child for participation in the experiment was also found (Dreman, 1976; Green & Schneider, 1974; Rushton & Wiener, 1975; Ugurel-Semin, 1952). Harris (1971) found equal distribution of tokens when these tokens were won by the child. Two studies report generous behaviour, both for seals earned cooperatively (Handlon & Gross, 1959) and candies given after participation (Staub, 1968).

The next age group to be considered are children from 12- to 14-years of age (grade 7 and 8). There are only three studies using children from this age range indicating a need for further investigation here. Ugurel-Semin (1952) found that these children vacillated between generous and equal sharing of nuts with a peer. Green and Schneider (1974) found that 13- and 14-year-olds were very generous in their sharing of candy bars, which were given to them for their participation in the experiment. Dreman (1976) also found 13-year-olds to be generous with an unknown child; these children donated approximately 60% of their candies.

In summary then, the accumulative incidence of sharing behaviour reported in the literature to date seems to have the following characteristics. Selfish behaviour occurs frequently in nursery school children but from kindergarten to grade 6 this selfishness gradually diminishes and finally disappears. In its place generous and equalitarian behaviour emerges. Children appear to vacillate between generous and equalitarian sharing from grades 5 to 8 but do not show any evidence of selfish behaviour. The major problem with these studies examining sharing behaviour is the lack of control over the differential value of the shared materials over the age range sampled. Since practically every study measured the distribution of candies or nuts, the reported developmental trends may be a result of the decreasing worth of these foods to older children. In order to obtain a more accurate sense of developmental changes in sharing behaviour investigators should use items which have as much

value to older children as to younger ones.

Helping Behaviours. Both the number of helping acts and the number of subjects performing them increase after nursery school. This increase with age, however, seems to reach a peak in middle childhood (10-years of age) and from that point helping either remains unchanged or begins to decline.

Consider first the helping behaviour of kindergarten and nursery school children. Staub (1970a) found that nursery school children were less willing to respond to the distress cries of a child in an adjoining room than were grade 1 children. Recall the findings of Severy and Davis (1971) who examined the helping behaviour of preschool children in a naturalistic setting. They found the incidents of psychological help among this group to be low - these children showed concern but lacked the skills to intervene. Because Staub's task demands the child respond constructively to the distress cries of another, it could be classified as a psychological helping task. Possibly then, one reason for the infrequent helping found by Staub is that nursery school children do not know how to offer assistance in this type of situation and not because they lack the motivation to intervene.

Yarrow and Waxler (1976) examined the frequency of helping an adult pick up tennis balls or spilled cutlery in nursery school children between the ages of 3- and 7 1/2-years. Although they report no developmental changes, they did find that 52% of the children responded on at least one of the tasks. These findings are also consistent with those of Severy and Davis (1971) who

reported that nursery school children frequently offered help on tasks in which the demands were rather obvious. Yarrow and Waxler (1976) also found that 37% of these children responded to the distress cues of an adult by providing aid to her. There were age differences in the frequency of children's responding to distress cues; older children responded less than younger ones to an adult's pinched finger. They suggest that this developmental decline was due to socialization practices in which children themselves are told to "grin and bear it" rather than solicit help for minor physical discomforts.

Studies examining the helping behaviour of grade 1 children report rather inconsistent findings. Staub (1970a) found that more grade 1 children helped a child in distress than kindergarten, but less than grade 2 children. In another study, Staub (1970b) found no overall significant differences between kindergarten and grade 1 children in helping a child in distress. Morris et al., (1973) found that grade 1 children sorted fewer squares for an experimenter than grade 2 or 3 children. This task was timed, however, and the authors do not report whether there were any developmental differences in the amount of time spent sorting. The fact that grade 2s and 3s sorted more squares may simply be function of superior dexterity rather than a difference in altruistic motivation. Green and Schneider (1974) found that fewer kindergarten and grade 1 children picked up pencils for the experiments than older children.

In summary then, grade 1 children offer assistance to a child in distress about as frequently as, or slightly more than, kindergarten children. As was stated previously, this may be due to a lack of proper skills to react to sounds of distress. Performance on measures demanding task assistance to the experimenter indicate that grade 1 children are not as helpful as grade 2 and older children.

The helping behaviour of grade 2 children reveals a gradual increase in the performance of psychological (child in distress) and task (sorting squares and picking up pencils) assistance. Grade 3, 4, and 5 children also show an increase on these measures. However, psychological helping does not appear to increase in frequency after grade 5. Staub (1970a) found that more grade 4 and grade 6 children offered help to a distressed child. There was no difference in the number of pencils picked up for an adult, by children between the ages of 3- and 8-years (Green & Schneider, 1974). Adults, however, offered more help than grade 7 children to a distressed victim only when no information regarding the subjects permission to enter the adjoining room was given (Staub, 1971). Cox (1974) examined the amount of help offered by grade 8 children to a peer during a puzzle arrangement task. She found that two thirds of the subjects offered no help at all. Also, the amount of prior help offered by the recipient accounted for only 12% of the variance in helping scores.

In review, helping behaviour from nursery school to adulthood exhibits a very distinct pattern. Young children, although they may show concern appear to lack the necessary skills to offer psychological assistance, e.g., to a distressed victim. Task assistance also appears to be relatively infrequent in this group but this may well be a function of the task and not motivation to help another. After grade 1 there is a steady increase with age in the performance of both psychological (Staub, 1970a) and task assistance (Green and Schneider, 1974). Around middle childhood, however, psychological forms of assistance appear to reach their highest frequency and begin to decline in pre-adolescents (Staub 1970 a), although there is evidence of another developmental increase in adulthood (Staub, 1971). Task assistance also reaches a peak in middle childhood (Green & Schneider, 1974) but does not evidence any decline from this point.

Self-sacrificing Behaviour. This form of behaviour has been investigated relatively infrequently. It involves the denial of reward to oneself in order to please another. Three studies examined the number of times a child illuminated a light for the pleasure of the experimenter or model with subsequent loss of candies for self (Aronfreed, 1970; Bryan, Redfield & Mader, 1971; Midlarsky & Bryan, 1967). Developmental trends are not clear and generally the data do not indicate any change with age in this form of behaviour. Midlarsky and Bryan (1967) found that when the model delivered expressive cues



followed by hugs to the child, grade 2 children were most self-sacrificing only when expressive cues were given by the model prior to the child's performance. There were no treatment effects on grade 3 and 4 children. Green and Schneider (1974) investigated children's sacrificing of their free time at lunch in order to help needy children. The number of periods volunteered did not vary significantly from 5- to 14- years of age.

The available evidence then indicates that there are no significant developmental difference in the performance of self-denial responses between the ages of 5 to 14. These findings, however, may well be a function of the incentive value of the rewards to be given up. For instance, in the Green and Schneider (1974) study, free time at lunch may be more valuable to older than younger children. The novelty of the task designed by Aronfreed (1970) may also contribute to the lack of developmental differences. As was the case with studies examining sharing behaviour, an attempt to equate the value of the items at each level must be made.

#### Summary of Developmental Trends in Altruism

The review of the literature on developmental altruism indicates that donating to charity, sharing with another, and psychological and task assistance all increase from nursery school to middle childhood. The low rate of responding by nursery school children, particularly on psychological helping tasks, appears to be best explained by their lack of knowledge regarding how to help rather than a lack of concern for the

needs of another. Sharing behaviour during middle childhood has been found to be both generous and equalitarian. There is a decline in pre-adolescent psychological assistance with a subsequent increase in adulthood. Although self-sacrificing behaviour does not change significantly with age, the measures used may mask any developmental changes which do exist. There is little evidence to indicate that there is any generality in the behaviour of children on the different measures of prosocial behaviour particularly at the younger age levels.

Theoretical explanations to account for these developmental trends have been offered. The utility of these various theories will be discussed in the following section.

### Theoretical Interpretations

Many theoretical explanations have been posited to explain the occurrence of prosocial behaviours (see Krebs, 1970). This section will consider only those theories which are directly relevant to the question of developmental change in this behaviour.

### Learning Theory

Observational learning. According to social learning theory (Bandura and Walters, 1963) models influence behaviour through the induction of, first, long-term behavioural predispositions and, second, performance of imitative behaviours (Krebs, 1970). Modeling of prosocial behaviours has generally produced imitation of these behaviours by children (e.g., Bryan & Walbek, 1970;

Rosenhan, 1969). Studies have also provided evidence of the long-term durability of model's influences (e.g., Rushton, 1975; Yarrow Scott, & Waxler, 1973).

There have been relatively few studies, however, that have examined the interaction of modeling conditions with age. Those studies that have, indicate that: (a) when children of different ages view generous models, there are no developmental differences in the amount of donations (Krebs, 1970); and (b) grade 5 children donate more than grade 4 children when the model uses charitable rather than greedy exhortations (Midlarsky & Bryan, 1972) and when the generous model provides permissive instructions regarding donations (White & Buman, 1975). The argument posited by some social learning theorists (e.g., Grusec & Skubiski, 1970) that children become more prosocial as they grow older because they have observed more prosocial models does not account for these differential effects of models at different ages. Also, this explanation does not account for the curvilinear relationship with with age found in studies of helping behaviour (e.g., Staub, 1970a). To merely assume that helping decreases because children are exposed to more selfish models begs the question of why children now choose to imitate selfish ones. As Rushton (1976) points out, social learning theorists have not adequately accounted for how models come to exert their influence. Cognitive mediating variables may provide a more adequate explanation for the effects of models as well as the developmental changes in prosocial behaviour. These will be discussed in more detail in a latter section.

Role of reinforcement. The child's history of reinforcement and the development of self-reward mechanisms have been considered important in the development of prosocial behaviour by Aronfreed (1970) and Rosenhan (1969). Aronfreed believed that true altruism, or the willingness to forego reward for another's pleasure, could only develop out of the pairing of positive affect arousal in the child with expressions of joy in the recipient. Temporal contiguity is essential in this empathic conditioning. The child is motivated by positive emotional consequences of the altruistic act for himself. Midlarsky and Byran (1967) measured the degree of internalization of altruism after the temporal contiguity of the child's positive affect and the experimenter's delight. They found that, not only were the children willing to emit more self-sacrificial behaviours for the model but they also donated more candies to charity. Not only is anticipation of positive affect an important motivating factor in altruism but Moore, Underwood, and Rosenhan (1973) found that positive affect arousal will lead to more charitable behaviour than a neutral or negative affect.

This research offers an explanation for the early development of prosocial behaviour. It may explain the relatively 'selfish' behaviour of nursery school and kindergarten children in that they have not had sufficient empathic conditioning experiences so that positive affect will be aroused through prosocial responding. However, like the observational learning account of altruism, it does not account for the decrease in

prosocial behaviour of older children. Other studies have examined the influence of empathy on prosocial and have defined empathy as essentially a cognitive-affective skill, therefore, this research will be dealt with later.

The role of external reward or punishment on prosocial behaviour has also been investigated. Morris et al., (1973) found that when noncontingent punishment was given to a non-sharing model, the child donated more to charity and assisted the experimenter more with a sorting task than when contingent punishment for nonsharing was applied. This effect increased with age. The authors explain this behaviour as a means of dealing with a threatening environment which does not provide any information about what response must be avoided to prevent punishment. The child thus performs prosocial behaviours since these have rarely lead to punishment in the past. With age, children arrive at this conclusion faster. This argument explains the child's cognitive interpretation of the situation.

The type of analysis presented above places prosocial behaviour in a very negative light -- a response performed to prevent punishment. Also, studies in which altruism increases when positively reinforced (Fischer, 1963) place the motivating emphasis on the external reward value of the act for the subject. This is not in accord with the view of many researchers who consider the major motivating influences of prosocial behaviour to be concern for an other. This problem of disagreement regarding the nature of the behaviour under investigation was referred to in the introduction of this chapter. Whether one

is attempting to account for the developmental trends in altruism (with the emphasis on the unselfish intentions of the actor) or prosocial behaviour (with the emphasis on the beneficial results to the recipient) will influence one's theoretical conceptualization of the factors affecting its occurrence. It appears that for the most part, with the exception of Aronfreed's work, social learning theorists have been concerned with 'prosocial' behavioural development. Cognitive-developmental theory, which will be discussed in the next section, appears to be more concerned with altruistic behaviour.

#### Cognitive-Developmental Approach

Cognitive-developmental theorists have attempted to explain developmental changes in prosocial behaviour by examining parallel changes in the cognitive acquisitions of the child. Changes in prosocial behaviour have been related to changes in empathic ability, role-taking skills, and moral reasoning.

Empathic skills. Although most investigators of empathy consider it an important motivator of altruism (e.g., Hoffman, 1975; Iannotti, 1974) the manner in which empathy is defined may lead to differential explanations as to the nature of its influence. The three major classes of definitions used to define empathy will be reviewed briefly.

Empathy has been defined as the ability to perceive or recognize emotion in another (e.g., Dimotrovsky, 1964); the ability to take the role or perspective of another (e.g., Chandler & Greenspan, 1973); and an affective match between the emotions

of the subject and those of a target person (e.g., Feshbach & Roe, 1968). When considering the motivation of altruism, perception or recognition of emotion in another allows one to detect a need for one's assistance. Also, role-taking enables one to determine from the situation that helping or sharing is called for. Both of these forms of empathy are cognitive reactions to the emotional state of another. But awareness of a need for assistance does not fully explain why altruistic behaviour might ensue. Other factors must be brought in to explain subsequent helping behaviours. The inclusion of the vicarious affective component of empathy does sufficiently describe the motivating influences empathy may have on altruistic behaviour. The vicarious experience of the uncomfortable emotion (e.g., sadness, distress) endured by the other can, in and of itself, elicit a desire to alleviate this discomfort. Behaving altruistically should ease the vicarious discomfort.

Studies in which the various measures of empathy were correlated with altruism, found one rather consistent finding. Altruism (defined as helping and sharing) was positively related to the child's ability to match his own feelings with those of a target person's feelings only when the facial and situational cues were incongruous (Iannotti, 1974). Simple matching with congruous cues (Huckabay, 1974) or identification of emotion with congruous or incongruous cues (Deutsch, 1972) were not related to helping or sharing in children. The use of incongruous facial and situational cues demands role-taking skills because the child must anticipate how someone in a different

position from his own might feel. The child must acknowledge the fact that others may react to a specific situation in a manner unlike his own. The manner in which role-taking skills have been thought to relate to prosocial or altruistic responses will now be discussed.

Role-taking skills. Recently, a number of investigators have speculated that role-taking skills may be a prerequisite to prosocial behaviour (e.g., Rubin & Schneider, 1973; Olejnik, 1975). They argue that the young child's inability to place himself in the role of another person prevents him from detecting the other's need for help. Researchers have attempted to examine this question directly by correlating a variety of measures of role-taking ability with children's disposition to behave prosocially. Waxler and Yarrow (1977) examined the relationship of 3- to 7-year-old children's performance on 10 measures of role-taking and 3 measures of helping, sharing and comforting. Four of the ten role-taking tests were 'perceptual' (e.g., a child was asked to set a knife, fork, and spoon so they appeared to E the same way they appeared to the child) and six were 'conceptual' (e.g., the child was asked to choose a gift appropriate to his mother, father, and opposite-sex peer). They found a significant relationship between combined role-taking score and responsiveness to an adult on the three measures of prosocial behaviour for the 3-year-olds only. No relationships were obtained on these measures between 4- and 7- years.



Rubin and Schneider (1973) found that 7-year-old children's scores on a communicative egocentrism task were positively related to their frequency of helping another child sort tickets and to the amount donated to charity. Olejnik (1975) assessed kindergarten to grade 3 children's performance on four measures of role-taking. These measures were adapted from Flavell, et al., (1968) and Chandler and Greenspan (1972) and required the child to recount a story from the perspective of a naive late-comer. Olejnik found that at each grade children's combined role-taking score was positively related to the number of candies they shared with a friend and stranger. Although these studies provide no indication of the direction of the relationship between role-taking and prosocial disposition, a training study conducted by Staub (1971) provides evidence that improved role-taking skills facilitates prosocial behaviour. Staub had kindergarten children enact role-playing situations in which one child needed help and another provided it. This training procedure produced an increase in the number of girls who helped a distressed child and the number of candies shared by boys. These effects persisted over a one week interval.

A number of studies have reported no relationship between role-taking and prosocial behaviour. As indicated previously, Waxler and Yarrow (1977) found sharing, helping, or responding to the distress cues of an adult by 4- to 7-year-olds was not related to their performance on measures of perceptual or conceptual role-taking. Rushton and Wiener (1975) assessed the performance of 7- and 11-year-olds on seven role-taking tasks,

including measures of person perception, conservation, and perceptual role-taking (after Flavell, et al., 1968). They found that the amount children donated to charity or to a friend was not related to their performance on any of these role-taking tasks. Emler and Rushton (1974) found no relationship between the amount 7- to 13-year-old children donated to charity and their role-taking ability.

In summary, studies examining the relationship between helping, sharing and responding to distress cues and a variety of measures of role-taking skills seem to indicate that the two are related in early childhood - approximately between the ages of 3- and 7- years. After this age, however, the evidence seems to point to a lack of relationship between the two variables. This suggests that in the emergent stages of role-taking and prosocial behaviour, the capacity to respond on both these measures may reflect consideration of the states of others (Waxler & Yarrow, 1977). As children grow older, however, other factors may effect their predisposition to respond, particularly on the prosocial measures and thus mask the relationship between the two variables.

Chandler (1974) has speculated that role-taking experiences may be related to another aspect of prosocial responding - the ability of the child to know the kind of help that is really needed. This dimension of children's behaviour has rarely been assessed as most investigators have been concerned with the frequency of children's response in donation situations or rather obvious help-needing situations. Severy and David (1971) in

their naturalistic study of children's helping behaviour, however, do suggest that the helping scores of the younger normals were low, not because they did not recognize a need for help, but rather because they lacked the skills to offer effective psychological assistance. Yarrow and Waxler (1976) also believed that the non-intervention of preschool children did not imply a lack of empathic sensitivity but reflected a lack of competence regarding what to do. The notion of competence in helping may also be responsible for the generally low relationships reported in the literature regarding children's performance on different prosocial measures (e.g., Rushton, 1976; Hansen, et al., 1975; Severy & Davis, 1971; Yarrow & Waxler, 1976). There is as yet no literature available regarding developmental changes in children's knowledge of effective helping strategies and this dimension of prosocial behaviour appears in need of investigation.

Moral development. There has been considerable speculation that the developmental changes in prosocial behaviour may be mediated by changes in moral development (e.g., Hoffman, 1970; Kohlberg, 1969; Piaget, 1968). Both Piaget (1968) and Kohlberg (1964) have developed theoretical frameworks in which they describe the invariant stages of moral reasoning. Generally, they describe this development as one from a self-centered, hedonistic orientation, to an orientation where judgments are made on the bases of intentionality vs. physical consequences, and finally to an orientation based on principles of justice

and fairness. Those studies examining the relationship between moral development and prosocial behaviour will now be reviewed.

In 1952, Ugurel-Semin found that the child's moral reasoning was related to their generosity. She reported that children who were generous in their allocation of nuts to another child were the ones most influenced by customs, moral rules and religious attitudes. More recently Rubin and Schneider (1973) found that 7-year-olds stage of moral development (as defined by their responses to Lee C. Lee's, 1970, adaptation of Kohlberg's dilemmas) was positively related to their donations to charity and helping a peer on a ticket-sorting task. Emler and Rushton (1974) also reported a positive relationship between generosity to charity and 7- to 13-year old children's stages of moral development as measured by Piagetian moral dilemmas. Rushton (1975) replicated those findings with 7- to 11-year-old children using six Piagetian stories. Olejnik (1975) found that the number of candies kindergarten to grade 3 children shared with a friend was positively related to their stage of moral reasoning as defined by their responses on Piagetian stories. Olejnik's data also lead him to suggest that advancements in moral judgments may only be a necessary but not sufficient condition for generosity as some children with higher moral judgment scores were not generous, although the opposite relation did not appear. Finally, Dreman (1976) found that 7-, 10-, and 13-year-olds' judgments of intentionality on three Piagetian stories were positively related to the number of candies they donated to an unknown child.

These findings, then, offer support for the notion that as children's moral reasoning increases, their distribution of goods becomes more equitable and generous. These studies, however, have examined the relationship between moral development and rather narrowly defined moral behaviours (e.g., number of candies donated to charity). Whether an individual's stage of moral reasoning also mediates his performance on more widely conceptualized prosocial behaviours in more naturalistic settings is an important question for future research. In addition, researchers should take into consideration Olejnik's (1975) finding that moral development may be a necessary but not a sufficient condition for prosocial behaviour. The conditions which may facilitate the child responding in a manner consistent with his moral reasoning as yet have not been carefully explained. Other factors which have been found to influence an individual's disposition to respond prosocially are parental value orientations (Olejnik & McKinney, 1973) and the individual's awareness of appropriate helpful action (Gottman, Gonso, & Rasmussen, 1975; Latene & Darley, 1970). These appear to be interesting questions for future research in this area.

This review essentially points to three aspects in the study of children's prosocial behaviour that need to be more fully explored. The first area which should be investigated is the nature of children's motivation for behaving prosocially. Rather than simply assuming an unselfish reason on the part of the child, research should be directed at exploring the rationales children offer for their helping behaviour. By attempting

to determine whether motivations are selfish or other-centered we would have a better understanding of the kind of behaviour that is actually being measured. Once we have achieved a better understanding of the behaviour from the child's perspective, the relationship between performance of this behaviour and other factors thought to influence it might be better conceptualized. For instance, instead of assuming all prosocial behaviours should increase with parallel increases in empathy, we might expect only these prosocial behaviours motivated out of concern for others to be related to empathic ability.

A second area for future research concerns the convergence of the social-learning and cognitive-developmental approaches to prosocial development. Researchers typically take one theoretical orientation or the other and examine the problem of interpreting prosocial behaviour from that perspective. Perhaps one could argue that the acquisition of certain cognitive skills (e.g., moral judgments or role-taking) are the essential prerequisites for prosocial responsiveness. The evidence indicates, however, that these cognitive skills by no means guarantee generosity or helpfulness in all children. Social learning theorists, on the other hand, have demonstrated that models and reinforcement affect the performance of prosocial acts but the reasons for their influence are unclear. Here the cognitive capacities of the child could be examined in order to determine if children at different ages with different cognitive skills interpret the behaviour of models in different ways.

One final suggestion for future research is offered. The research to date has been mainly concerned with examining age changes in the frequency of children's prosocial behaviours. With few exceptions, very little attention has been paid to the variety of ways children may choose to express their prosocial disposition. Little is known about developmental changes in children's awareness of effective helping strategies. Do children of all ages know the best way to help another in distress. Are different, perhaps more subtle types of assistance being offered in the experimental situation that go unrecorded because they are not included in the researcher's operational definition? Perhaps young children do not know what to do in some situations. Severy and Davis (1971) and Yarrow and Waxler (1976) found that nursery school children did indicate some concern and awareness of distress in another, yet because of their lack of skills did not offer much psychological assistance. Investigations of the development of knowledge concerning the type of assistance that is required seem to be necessary.

APPENDIX B

Stories Used to Elicit Helping Strategy

Suggestions



## PART I: OPEN-ENDED STORIES

SET AInability

There are a few children in the school yard playing with blocks. They are all trying to stack them up into high piles. Randy is trying to stack his blocks. He is having a hard time because he hurt his arm yesterday and cannot pick up the blocks without them falling. All he wants to do is to stack ten blocks up next to his friends so he can come back tomorrow and play with them again.

Competition

This story is about Dale. Dale and his friends are having a big rope tying contest. Dale is really anxious to win. Everybody has to tie five knots all by themselves to win the contest. Dale has already tied four knots and his fingers are getting very sore. He doesn't think he can tie the last knot.

Duty

A big storm has struck overnight. Some houses have really been damaged. There are broken chairs, and garbage cans all over the place. Peter's yard is a real mess. His father was going to ask Peter to help him clean up. Then Peter said: "Dad, I will do it all by myself if you pay me \$2.00." His father gave him the money and reminded him that he must do it all by himself. When Peter saw what a mess the yard was in he was sorry he promised to clean it by himself. He would probably miss his baseball game.

Independence

Everyone in the class has been told to collect as many autumn leaves as they can find. They can get as many people as they want to help them. Louis has been looking very hard for some leaves but is looking in the wrong places. He can't find these leaves but insists on collecting all the leaves by himself.

SET BInability

This story is about Dale. Dale is trying to tie knots in some rope so that the two pieces will stay together. He needs to tie about five knots. He had already tied a few knots but his fingers are getting very sore. He doesn't think he can tie another knot and the two pieces of rope might not stay together.

Competition

Everyone in Louis' class has been told to collect as many autumn leaves as they can find. The teacher has told them that the one in the class who collects the most leaves will win a beautiful picture book of animals. Each child must collect all the leaves by himself in order to win the contest. Louis has been looking very hard for some leaves but is looking in the wrong places. He can't find these leaves and he really wants to win the picture book.

Duty

Children have been playing with blocks in the school yard all day long. At the end of the day, blocks have been left all over the place. Randy is told by his teacher that because he has been a bad boy he can stack up the blocks in the school yard or clean up his classroom. He promised to stack up the blocks in the school yard. The teacher reminds him that he must do the work all by himself or he'll have to clean up his classroom too. Randy is stacking up the blocks but it is really hard work because the blocks are always falling.

Independence

A big storm has struck overnight. Some houses have really been damaged. There are broken chairs and garbage cans all over the place. Peter's yard is in a real mess. Peter decided he would go out and clean it. It was hard work and he was moving really slowly because the chairs and garbage cans were heavy. But Peter wanted to clean the yard all by himself.

## PART II: FORCED-CHOICE STORIES

SET AInability

Randy was trying really hard to stack his blocks up in the school yard next to his friends. He was having a really hard time though because he hurt his arm and the blocks kept falling.

Here is how Mark and Tom helped Randy.

Mark came in the yard and saw Randy was having trouble. He helped Randy by taking the blocks from him and stacking them up so each one would fit in the other one. This way ten blocks could all be stacked without falling.

Tom didn't stack them for Randy. He helped him by showing him how to stack them so they would stay up. He didn't do it for Randy--he wanted Randy to do it for himself.

Competition

Do you remember the story about Dale? He was tying knots in a rope to win a contest. He had to tie all the knots by himself. He was doing a good job when his fingers got really sore. He still had one more knot to tie.

Here is how Brian and Len helped Dale.

Brian decided he would help Dale by tying the last knot for him because Dale's fingers were really sore. That way Brian thought Dale would win the contest.

Len helped Dale by telling him to try really hard and tie the last knot. He told him he was doing a good job and maybe he should rest his fingers for awhile so they wouldn't be so sore. That way Dale could tie the last knot by himself.

Duty

Peter was given \$2.00 by his father to clean the yard. He was sorry he had promised to clean the yard by himself because he wanted to play baseball.

Here is how Jim and Sam helped Peter.

Jim saw Peter cleaning his yard. Peter told him his father was paying him two dollars if he cleaned the yard by himself. So Jim went and got all his father's tools so Peter could get the job done faster.

Peter also told Sam why he was cleaning his yard for \$2.00 if he cleaned it by himself. So Sam jumped into Peter's yard and started picking things up for him. He did this so Peter could finish faster.

### Independence

Louis is trying to collect some leaves for his class. He can get friends to help him but he wants to do it all by himself. He is having trouble finding leaves though.

Here is how Bob and Roger helped Louis.

Bob went out and found hundreds of leaves for Louis and surprised him with them. That way he thought Louis would be happy.

Roger didn't go with Louis to look for any leaves. Instead, he told Louis that there was a big forest near his school where he could find lots of leaves for his class. That way Louis could go and collect the leaves himself.

SET BInability

Dale was tying knots in some rope so that two pieces will stay together. He was about to put the last knot in the rope when his fingers got really sore. He didn't think he could tie the last knot.

Here is how Brian and Len helped Dale.

Brian decided he would help Dale by tying the last knot for him because Dale's fingers were really sore. That way Brian knew that the last knot would be tied.

Len helped Dale by telling him to try really hard and tie the last knot. He told him he was doing a good job and maybe he should rest his fingers for awhile so they wouldn't be so sore.

Competition

Remember the story about Louis? He was trying to gather leaves to win a picture book. He had to collect the leaves by himself, but he was looking in the wrong places.

Here is how Bob and Roger helped Louis.

Bob helped Louis by going and finding hundreds of leaves for him and surprising him with them. That way he thought Louis would be happy and win the contest.

Roger didn't go with Louis to look for any leaves. Instead, he helped Louis by telling him that there was a big forest near his school where he could find lots of leaves for his class.

Duty

Randy was stacking up blocks in the school yard because he had been a bad boy. If he doesn't do the work by himself he'll have to clean up his classroom too. He was having trouble because the blocks kept falling all over.

Here is how Mark and Tom helped Randy.

Mark came in the yard and saw Randy was having trouble. He helped Randy by taking the blocks from him and stacking them up so each one would fit in the other one. This way Mark could stack the blocks quickly.

Tom didn't stack them for Randy. He helped by showing him how to stack them so they would stay up. But he didn't do it for Randy.

### Independence

Remember Peter had decided he would clean up his backyard after the big storm. He wanted to do it all by himself, but the chairs and garbage cans were heavy and the yard was really messy.

Here is how Jim and Sam helped Peter.

Jim saw Peter cleaning his yard. Jim knew that Peter wanted to clean it by himself but he wanted to help. So Jim went and got all his father's tools so Peter would use these tools to get the job done faster.

Sam knew that Peter wanted to do the job by himself. He helped Peter by jumping into his yard and picking things up for him. He did this so Peter could finish faster.

## APPENDIX C

Kohlberg's Stages of Moral Judgment

Kohlberg (1964) describes moral development as progressing through six invariant stages. Each successive stage represents a form of moral reasoning which is more adequate and differentiated than the earlier one.

Level 0. Amoral

Reasoning at this stage is made on the basis of personal inclination and whim with no regard for social conventions or rules regulating behaviour.

Level 1. Preconventional morality

## Stage 1. Obedience and punishment orientation

In this stage, reasoning is made on the basis of deference to authority, obedience to rules for their own sake and fear of punishment.

## Stage 2. Hedonistic and instrumental orientation

An action is right at this stage if it satisfies one's own needs and occasionally the needs of others. Reciprocity and fairness are present at this stage but are interpreted in a physical pragmatic manner.

Level 2. Conventional level

## Stage 3. Good boy - nice girl orientation

Good behaviour at this stage is that which maintains approval and pleases others. Concern is with conforming to the standards of others in order to maintain goodwill.

Behaviour is frequently judged by intentions.

Stage 4. Law and order orientation

The orientation here is toward authority, fixed rules and the maintenance of the social order for its own sake.

Doing one's duty is important at this stage.

Level 3. Post conventional or principled morality

Stage 5. The social-contract legalistic orientation

Right actions are defined in terms of individual rights and standards which have been agreed upon by the whole society. Although the emphasis is on the legal point of view, the possibility of changing laws in terms of rational considerations of social utility is acceptable.

Stage 6. The universal ethical principle orientation

In this stage right actions are defined in terms of conformity to self-chosen ethical principles which are logically comprehensive, universal, and consistent.

These abstract ethical principles involve justice, equality, and respect for the dignity of human beings as individual persons.



## APPENDIX D

## Extraneous Variables Effects

Order Effects

The four themes were presented in two random reverse orders. One half of the children from each grade received the themes in the following order: ability, duty, competition, and independence (order 1). The other half received the themes in the reverse order (order 2).

Chi square analyses indicated no significant effects due to order of presentation for moral judgments, open-ended or forced-choice preferred helping strategies, or reasons for strategy preferences.

Story Effects

There were two sets of stories (A and B) for each of the four themes, each subject receiving only set A or set B. In order to determine whether the children were responding to a specific theme, their responses on the two sets of stories were compared for the various independent and dependent measures. Also, because of the nature of the stories, a comparison between response to stories with different themes but similar situational content could be made.

Chi square analyses revealed that the type of story was not significantly related to open-ended or forced-choice strategy preferences or reasons for strategy preference. Type of story, however, was related to level of moral judgment

( $\chi^2(4) = 12.25, p < .02$ ). A closer examination of this relationship indicated that the A stories appeared to produce a higher level of moral judgments than the B stories. Eighty-six percent of the 164 moral judgments for the A stories were stage 3 and 4, whereas only 61 of the 164 moral judgments for the B stories were stage 3 and 4.

## APPENDIX E

Table 4

Chi Square Values for the Relationship Between  
Age and Stage of Moral Judgment for Each Theme

Theme	Chi Square	df
Inability	17.64 **	6
Duty	17.36	12
Competition	23.16 *	12
Independence	20.83 *	9

\*  $p < .05$

\*\*  $p < .01$

## APPENDIX F

## Raw Data

Subject	WISC Vocab. Score	Theme	Moral Judgment	Strategy		Reason <sup>c</sup>
				Open <sup>a</sup>	forced <sup>b</sup>	
<u>5-year-olds: Set A</u>						
1	16	A	3	1	1	2
		D	2	0	1	1
		C	3	0	1	1
		I	2	1	1	1
2	15	A	2	1	1	1
		D	2	1	1	2
		C	2	1	1	2
		I	2	0	1	2
3	11	A	1	1	1	1
		D	2	1	1	1
		C	1	1	1	1
		I	2	1	2	1
4	16	A	2	1	1	1
		D	2	1	1	1
		C	2	1	1	1
		I	1	1	1	1
5	14	A	2	1	1	1
		D	1	0	1	1
		C	2	1	1	2
		I	2	1	1	1
6	14	I	2	1	1	1
		C	3	1	1	2
		D	1	1	1	1
		A	3	1	1	1
7	10	I	2	1	1	1
		C	0	1	1	1
		D	1	0	1	1
		A	2	1	1	1

<sup>a</sup>0=Non-Intervention; 1=Direct; 2=Indirect; 3=Offer

<sup>b</sup>0=Don't know; 1=Direct; 2=Indirect

<sup>c</sup>0=Others; 1=Quantitative; 2=Qualitative

8	12	I C D A	2 2 1 2	1 1 2 1	2 1 1 1	1 2 1 2
9	7	I C D A	2 2 1 2	1 1 0 1	2 1 1 1	1 1 1 1
10	6	I C D A	2 2 2 2	1 1 1 1	2 1 1 1	1 1 1 1

5-year-olds: Set B

11	12	A D C I	2 1 2 1	1 2 0 3	1 1 1 1	1 1 1 1
12	10	A D C I	2 2 2 0	1 1 1 1	1 1 1 1	1 1 1 1
13	13	A D C I	2 1 1 1	1 0 0 1	1 1 1 1	1 1 1 1
14	10	A D C I	2 1 1 1	1 2 0 0	1 1 1 2	0 0 1 0
15	9	A D C I	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1
16	12	I C D A	3 2 3 3	1 0 1 1	1 1 1 0	1 1 1 2
17	13	I C D A	3 3 3 3	1 1 1 1	1 1 1 1	1 1 1 1

18	4	I C D A	2 2 1 2	1 1 1 1	1 1 1 1	1 1 2 2
19	13	I C D A	3 3 2 1	2 2 2 1	2 2 2 1	1 2 2 2
20	16	I C D A	0 1 3 3	1 0 0 1	2 1 1 1	1 1 1 1

8-year-olds: Set A

21	14	A D C I	2 3 1 2	1 0 0 1	1 2 2 2	1 1 2 1
22	13	A D C I	2 2 2 3	1 1 1 1	1 1 2 1	2 1 2 1
23	11	A D C I	2 2 1 3	1 3 0 1	1 1 1 1	1 1 1 1
24	12	A D C I	3 3 3 2	1 3 2 1	2 1 1 1	2 1 2 1
25	12	A D C I	2 2 1 2	1 1 2 1	1 2 2 2	1 2 2 2
26	13	A D C I	3 3 1 3	1 0 0 1	1 1 2 1	2 1 2 1
27	11	I C D A	3 3 1 3	3 2 0 1	2 2 2 2	2 2 2 2

28	14	I C D A	1 2 2 3	0 0 0 1	1 2 2 1	2 2 2 2
29	12	I C D A	2 1 2 3	2 2 0 1	1 2 2 1	1 2 2 2
30	11	I C D A	3 3 3 2	1 2 3 1	1 2 2 1	1 2 2 2
31	11	I C D A	3 2 3 3	1 0 3 1	2 2 2 1	2 2 2 2

8-year-olds: Set B

32	8	A D C I	3 1 3 3	1 0 1 1	1 2 2 2	1 2 2 2
33	10	A D C I	3 1 1 3	1 0 0 1	1 2 2 1	2 2 2 1
34	13	A D C I	2 2 1 2	1 1 2 1	1 1 2 1	2 1 1 1
35	14	A D C I	2 1 2 3	1 0 0 0	2 2 2 2	2 2 2 2
36	9	A D C I	3 1 2 2	1 0 0 0	2 2 2 2	2 2 2 2
37	17	I C D A	3 3 3 3	1 2 0 1	1 2 2 1	1 2 2 2

38	14	I C D A	2 1 1 2	3 2 2 1	1 2 2 1	1 2 2 2
39	9	I C D A	2 2 2 2	1 1 1 1	1 2 1 1	1 2 1 1
40	13	I C D A	3 3 2 3	1 2 2 1	1 2 2 1	1 2 2 2
41	15	I C D A	2 2 2 2	1 1 2 1	1 1 1 1	1 1 1 2
42	10	I C D A	3 2 1 3	1 1 0 1	1 1 1 1	1 1 1 2

11-year-olds: Set A

43	12	A D C I	2 2 4 2	1 1 2 2	1 2 2 1	1 2 2 2
44	15	A D C I	2 3 3 3	1 0 2 2	1 2 2 2	2 2 2 2
45	12	A D C I	3 1 3 3	1 0 2 2	2 2 2 2	2 2 2 2
46	10	A D C I	3 1 3 1	1 0 0 2	1 2 2 2	2 2 2 2
47	15	A D C I	3 2 3 3	1 3 2 2	2 2 2 2	2 2 2 2



48	11	I C D A	3 3 3 3	3 2 2 1	2 2 2 2	2 2 2 2
49	10	I C D A	3 4 2 2	3 2 1 0	1 2 1 1	1 2 1 1
50	9	I C D A	3 3 1 3	1 2 2 1	1 2 2 2	1 2 1 2
51	17	I C D A	3 3 3 3	2 2 2 1	1 2 2 1	2 2 2 2
52	9	I C D A	3 3 3 3	3 0 2 1	2 2 2 2	2 2 2 2

11-year-olds: Set B

53	7	A D C I	2 2 2 3	1 0 2 3	1 2 2 1	1 2 2 1
54	12	A D C I	2 2 2 2	1 1 1 3	1 2 2 1	1 2 2 1
55	10	A D C I	3 2 3 3	1 0 0 2	1 2 1 2	2 2 2 2
56	10	A D C I	3 3 3 3	1 1 2 2	1 1 1 1	1 1 1 1
57	7	A D C I	2 2 2 3	1 0 2 3	1 1 1 1	1 1 1 1

58	8	I C D A	2 2 1 2	1 0 0 1	1 2 2 1	1 2 1 2
59	12	I C D A	3 4 2 3	1 2 0 1	1 2 2 1	1 2 2 2
60	10	I C D A	2 2 1 3	1 2 0 1	1 2 2 1	1 2 2 2
61	10	I C D A	3 3 3 3	1 2 1 1	1 2 2 1	1 2 2 2
62	8	I C D A	1 1 1 2	3 2 1 1	2 2 2 1	2 1 2 2

15-year-olds: Set A

63	8	A D C I	3 2 4 2	1 1 2 2	2 1 2 2	2 1 2 2
64	12	A D C I	3 2 3 3	1 2 2 1	2 2 2 1	2 2 2 1
65	12	A D C I	3 2 4 3	1 3 2 3	1 2 2 2	2 2 2 2
66	14	A D C I	3 3 3 3	1 3 2 3	1 1 2 2	2 1 2 2
67	11	A D C I	3 3 3 3	3 2 2 2	2 2 2 2	2 2 2 2

68	11	I	2	2	2	2
		C	4	2	2	2
		D	2	0	2	1
		A	2	1	2	2
69	10	I	3	3	2	2
		C	3	2	2	2
		D	3	3	2	2
		A	3	3	1	2
70	16	I	3	2	2	2
		C	3	1	2	2
		D	3	1	2	2
		A	3	1	1	2
71	8	I	2	2	2	2
		C	4	2	2	2
		D	4	0	2	2
		A	3	3	1	2
72	10	I	3	2	2	1
		C	4	2	2	2
		D	2	1	2	1
		A	3	1	1	2

15-year-olds: Set B

73	11	A	3	1	1	2
		D	2	1	1	2
		C	3	2	2	2
		I	3	1	1	1
74	13	A	3	1	1	2
		D	2	1	2	2
		C	2	0	2	2
		I	3	3	2	2
75	12	A	2	3	2	2
		D	0	1	2	2
		C	3	0	2	2
		I	3	2	2	2
76	8	A	2	1	1	2
		D	1	2	2	2
		C	2	2	2	2
		I	2	3	2	2
77	13	A	3	1	2	2
		D	3	2	2	2
		C	3	2	2	2
		I	2	2	2	2

78	13	I C D A	2 2 3 2	3 2 1 1	2 2 2 2	2 2 2 2
79	10	I C D A	1 3 3 3	3 2 1 3	2 2 2 2	2 2 2 2
80	6	<del>I C D A</del>	2 2 2 3	1 2 2 1	1 2 1 1	1 2 1 1
81	10	I C D A	3 2 3 3	3 2 2 1	1 2 2 2	1 2 2 2
82	14	I C D A	3 3 2 2	3 2 2 1	2 2 2 1	2 2 2 2

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