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ABSTRACT

This study compares the effectiveness of four experimental training programs designed to foster altruism in kindergarten children. Subjects were 97 children 4-5 years of age in six preschool classes. The children were assigned as a class to one of the six training and control conditions. The four training conditions were: (1) role playing; (2) role playing plus empathy; (3) role playing plus empathy plus helping; and (4) prosocial television viewing. The two control conditions were: (1) neutral television viewing and (2) control-for-preschool experience. The training in all the conditions consisted of a half-hour session per day, five days a week for four weeks. The children were pre- and post-tested on tasks designed to assess empathy, cognitive role taking, social role taking, overt helping, sharing, and cooperation. The results indicated that the most effective training programs were those in which the child received training in various cognitive and social aspects of role taking. However, findings also indicated that even simple observation of standard television programs in which the main characters displayed concern for others could be marginally effective in facilitating altruism. (JMB)

MACQUARIE UNIVERSITY

Study Guide

KINDNESS IN THE KINDERGARTEN:

A MULTIDIMENSIONAL PROGRAM FOR

FACILITATING ALTRUISM

KINDNESS IN THE KINDERGARTEN: A MULTIDIMENSIONAL PROGRAM FOR FACILITATING ALTRUISM

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We began our investigation of kindness in the kindergarten by attempting to bring together several lines of research within the areas of social learning and cognitive development. Our interest was centered on the nature of altruism and the ways in which it might be fostered in young children. In this regard, we were particularly interested in the impact that various types of models--both live and televised--might have on children's prosocial behaviours such as helping, sharing, and cooperation. In addition, we were interested in the impact of these live and symbolic models on the child's understanding of some hypothesized cognitive prerequisites of prosocial acts.

We argued that children's conceptions of kindness and their willingness to engage in helpful acts was a developmental phenomenon which was rooted in the child's understanding of the cognitive and social components of role taking and empathy as well as the childs previous experience with a variety of live and mass media models of prosocial behaviour. Indeed, we harboured the notion that one could best encourage kindness by giving the child

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experiences which developed an awareness that others may or may not share one's own physical or social perspective, which enlarged upon the ability to recognize his or her own feelings and those of other children, and which provided models who demonstrated some proficiency in the skills of helping, sharing, and cooperation. We also anticipated that the more detailed and structured the training programme, the more the child would profit from these experiences and hence, the greater the "kindness." To this end, we developed the four training programmes which are outlined in the first slide. The training programmes were designed to emphasize various components of altruism and to provide this training via live and televised models.

(Slide # 1 here)

The first training programme, Role Playing (RP), consisted of a variety of tasks in which the child took another's point of view but the training excluded any emphasis on emotional awareness. For example, there were games in which there was an emphasis on taking turns, calling upon other students by name, practicing body orientation concepts such as in front/behind, on/in etc., and a figure arrangement communication task in which children took turns arranging felt board figures in response to directions from other members of the class. In addition, there were opportunities for the child to act out various roles in a story, but again, the emphasis was on actions and not feelings.

The second training condition, Role Playing + Empathy (RP+E), was similar in many respects but added the dimension of emotional awareness or empathy. For example, in playing out the roles in various stories, the child was asked to "freeze" at various points

and describe how he or she felt at that moment. In addition, there were various tasks that were designed to elicit a description of feelings such as describing objects not only in terms of physical characteristics but also tactual feel and emotional impressions. Other tasks included describing one's own feelings by looking into a "magic mirror" so that children could look deep inside themselves and tell others something about themselves that made them happy or sad. In addition, there were a variety of other tasks which required the child to make some inferences about other's feelings such as selecting a gift that would make a particular person happy.

The third condition, Role Playing + Empathy + Helping (RP+E+H), was similar to the RP+E training programme, but added the opportunity for the child to engage in helping situations. For example, in some sessions, the class was divided into pairs of "helpers" and "helpees" and each child had an opportunity to play these various roles. The helper could act by direct intervention, verbal consolation, calling upon others for help and so forth. Also, there were various "bystander" children who could offer suggestions for possible forms of helpful acts.

The fourth training programme, Prosocial Television (PTV), consisted of half-hour, standard television programmes that had been videotaped off the air and edited to remove the commercials. The programmes consisted of a range of material that could be seen in the "family viewing period" such as Lassie, I Love Lucy, The Brady Bunch, Father Knows Best, etc. However, a detailed content analysis indicated that these particular episodes were high in the frequency of display of prosocial themes such as

expressing concern for others' feelings, sympathy, task persistence, and explaining feelings of self or others.

The two control conditions consisted of a diet of Neutral Television (NTV) and a Control-for-Preschool-experience (C/P). The NTV condition consisted of half-hour television programmes, many of which were drawn from the same series as the prosocial programmes, but which were judged--on the basis of the same content analysis--to be low in both prosocial and aggressive content. The C/P condition consisted of a group who received the pretest/posttest tasks and periodic visits from the experimenters, but otherwise retained the normal preschool curriculum.

The participants in this study, consisted of 97, four to five year old children attending six preschool classes in five Metropolitan Sydney schools. The children were assigned as a class to one of the six training and control conditions. The training in all conditions consisted of 1/2 hour per day, five days per week, for four weeks. The children were pretested on a variety of measures one week prior to the onset of the training programme and were posttested on these same measures during the week following the conclusion of training.

The pretest/posttest measures are outlined in slide 2. It can be seen that the tasks were designed to assess empathy,

(Slide # 2 here)

cognitive role taking, and social role taking in addition to overt helping, sharing and cooperation. The Empathy task consisted of a series of stories in which the child was required to select from among four drawings of faces (each drawing expressing

the feelings happy, sad, angry, and frightened), the one face that best described the feelings of the main character as well as the child's own feelings in various situations. For example, one situation was: "Johnny and you get some cake. You like cake but Johnny doesn't. How does Johnny feel?" The Cognitive Role Taking tasks consisted of two measures: a Piagetian "three mountains" task and a rotating cube with pictures on four sides. In each instance, the child was required to select the physical/visual perspective of the other person. In the Social Role Taking tasks, the child was told stories which contained a sequence of actions. At the end of the story, the child was asked to describe the relationship between the emotions expressed by the main actor and the antecedent causal events by taking the point of view of the main actor. Then, the child was asked to explain the main actor's feelings by taking the point of view of another character in the story who had no knowledge of the "real" reasons for the main character's current emotional state. Helping was measured by the child's willingness to forego playing with some attractive toys in order to help another, absent, child complete a task which consisted of placing marbles in a box one at a time. Cooperation was indexed by the number of candies that the child won in contrast to his or her partner, while playing a game on a Madsen cooperation/competition table. Sharing was assessed by the number of candies or raisins that the child was willing to donate to a nominated friend out of those that he/she had been given as a reward for participating in the study.

The main programme results were analyzed by means of a 6 Treatment X 2 Sex X 2 Pre/Posttest, non-orthogonal, repeated

measures analysis of variance design. We anticipated that the training provided by the three live modelling conditions would be superior to that conveyed by the observation of prosocial television programmes, and this hypothesis was supported by the results of the main analyses. Thus, on four dependent measures, there was an interaction between treatment and pretest/posttest scores. Subsequent multiple comparisons of the means indicated that only role playing conditions were associated with significant increases in Helping, Sharing, Cooperation, and Cognitive Role Taking but there were no significant gains on any of these measures for the C/P, NTV, and PTV groups. Illustrative of this pattern are the results for Helping outlined in slide 3.

(Slide # 3 here)

It can be noted that the three role playing conditions are all associated with significant increases in posttest helping and that these increases are significantly greater than that manifested by the prosocial television, neutral television and control/preschool groups. (See attached summary of F values.)

In order to test the hypothesis that the prosocial television programmes would have some specific positive effects, we performed two subsidiary analyses in which we compared the PTV condition and the three role playing conditions separately, each with their own control groups NTV and C/P respectively. The results of these more sensitive analyses indicated that the PTV condition was associated with increases on Helping (for boys only) and increases in Cooperation (for both boys and girls). Similarly, the comparison of the three role playing conditions with their own control group replicated the significant gains on Helping, Sharing,

and Cognitive Role Taking.

Our third hypothesis was that cognitive and social role taking and empathy were important components in the manifestation of overt prosocial acts such as sharing, helping, and cooperation. This hypothesis was tested in several ways but received only partial support in our results. In the first instance, we looked at the interrelations among the various tasks during the pretest and posttest phases. The results of this analysis indicated that the pretest measures of Empathy and Social Role Taking were significantly positively related ($r = .21$ to $.30$, $p < .003$ to $.04$) and that the combined Empathy and Social Role Taking scores were very strongly positively related to Cognitive Role Taking measures ($r = .84$, $p < .001$). However, none of the role taking measures were related to the measures of Helping, Sharing, or Cooperation. Furthermore, Sharing and Helping were not significantly related on the pretest. On the other hand, posttest analyses indicated that Sharing and Helping were significantly related ($r = .28$, $p < .01$) and Helping was related to Cognitive Role Taking ($r = .21$, $p < .04$). Therefore, it would appear that the general training on components of altruism was associated with some restructuring of the pattern of children's prosocial behaviour.

Another way of assessing the relation between the cognitive and social components of role taking and overt prosocial acts was accomplished by comparing the pretest/posttest performance of high vs. low role takers. This comparison was achieved by summing the pretest performance on the five role taking tasks and performing a four factorial (Sex X Treatment X Role Taking

Level X Pre/Posttest) repeated measures analysis of variance. The results of this analysis indicated partial support for the notion that high role takers are more sensitive to others need and would therefore be more altruistic. The main data supporting this view are the differences in pretest and posttest Helping scores for high vs. low role takers. High role takers helped more on the pretest and increased their helping to a greater extent than low role takers on the posttest (difference in gain scores for high vs. low role takers: $\underline{t}_{120} = 2.99$, $p < .05$).

The results of the present study point to the conclusions that altruism among preschool children is dependent upon the child's understanding of a variety of complex cognitive and social skills. The major dimensions of these skills include an understanding that others may have feelings and perspectives that are different from one's own, a concern for others feelings, a willingness to assist others, and knowledge about the appropriate course of action that will redress the other's discomfort. However, a more important conclusion from the results of our study is the knowledge that these skills can, to some extent, be facilitated by appropriate training programmes. The most effective training programmes employed in the present study were those in which the child received training in various cognitive and social aspects of role taking but we were also encouraged by the finding that even simple observation of standard television programmes in which the main characters displayed concern for others, could be marginally effective in facilitating altruism in these young children.

COMPONENT TRAINING CONDITIONS

ROLE PLAYING TRAINING

1. RP — COGNITIVE ROLE PLAYING**UNDERSTANDING THE OTHER PERSON'S' PHYSICAL/VISUAL PERSPECTIVE.

2. RP+E — SAME AS RP BUT ADDS TRAINING IN RECOGNIZING OTHER'S FEELINGS AS DISTINCT FROM ONE'S OWN.

3. RP+E+H — SIMILAR TO RP+E BUT ADDS TRAINING IN HELPING SKILLS**TAKING ROLE OF HELPER/HELPEE.

TELEVISION MODEL

4. PTV — STANDARD TELEVISION PROGRAMMES SUCH AS LASSIE, BRADY BUNCH**HIGH IN PROSOCIAL THEMES SUCH AS HELPING, SHARING, COOPERATION, EMPATHY.

CONTROL CONDITIONS

5. NTV — TELEVISION PROGRAMMES THAT WERE SIMILAR TO PTV**BUT LOW IN BOTH AGGRESSIVE AND PROSOCIAL CONTENT.

6. C/P — CONTROL FOR PRESCHOOL EXPERIENCES**NO TRAINING PRETEST/POSTTEST AND EXPERIMENTER VISITS TO CLASSROOM.

PRETEST AND POSTTEST MEASURES

1. EMPATHY: A SERIES OF STORIES IN WHICH VARIOUS EMOTIONS WERE DEPICTED (i.e., HAPPY, SAD, ANGRY, and FRIGHTENED). THE CHILD MUST SELECT THE PICTURE THAT BEST DESCRIBED THE STORY CHARACTER'S FEELINGS.
2. COGNITIVE ROLE TAKING: TWO TASKS-- (A) "THREE MOUNTAINS" and (B) A CUBE WITH PICTURES ON FOUR SIDES. THE CHILD MUST MATCH THE PERSPECTIVE OF THE EXPERIMENTER.
3. SOCIAL ROLE TAKING: TWO STORIES IN WHICH THE CHILD MUST TAKE THE POINT OF VIEW OF THE MAIN ACTOR (IN TERMS OF THE ACTOR'S FEELINGS) AND THEN EXPLAIN ANOTHER CHARACTER'S UNDERSTANDING OF THE MAIN ACTOR'S FEELINGS.
4. HELPING: A MARBLE GAME IN WHICH THE CHILD MAY HELP AN ABSENT CHILD COMPLETE A TASK AND WIN POINTS.
5. COOPERATION: A COOPERATION/COMPETITION TASK IN WHICH THE CHILD COULD WIN CANDY.
6. SHARING: EACH CHILD WAS GIVEN AN OPPORTUNITY TO SHARE SOME CANDY WITH AN ABSENT FRIEND.

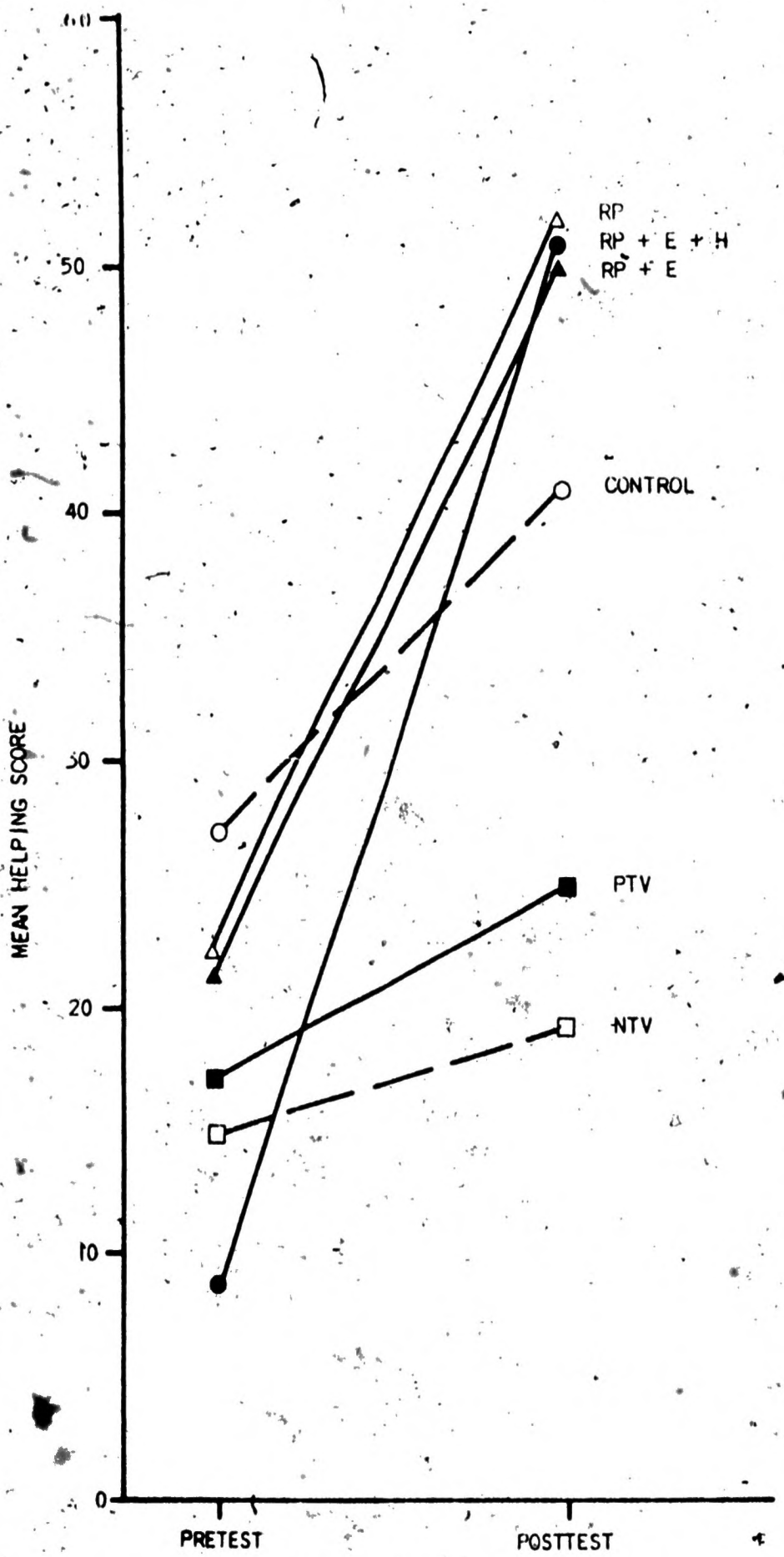
MEAN HELPING SCORE
60
50
40
30
20
10
0
PRETEST
POSTTEST
RP
RP + E + H
RP + E
CONTROL
PTV
NTV

Table 1

Summary of Significant F-values of Analyses of Variance for Each Measure

Source	df	Empathy	3 Mountains	Cubes	Social Role Taking a	Social Role Taking b	Sharing	Helping	Same Sex Cooperation	
									Cooperation Score	Dyadic Similarity
(a) Results of Sex x Treatment x Pre/Posttest Analyses of Variance										
Among subjects										
Sex S	1	9.07[a]						40.13[a]		
Treatment T	5			4.76[a]		2.67[c]	2.55[c]			
Within Subjects										
Pre/Post-test P	1	12.32[a]		26.05[a]	10.11[a]	33.35[a]	4.76[c]	46.60[a]	3.79[c]	47.54[a]
P x T	5			5.18[a]			5.00[a]	2.69[c]		4.80[b]
(b) Interactions of level of Role Taking (R) with Sex, Treatment, and Pre/Posttest.										
Among Subjects										
R x T	5							2.88[c]		
Within Subjects										
P x R	1	7.53[b]	8.24[a]	3.61[d]	6.89[b]	11.51[a]		7.23[b]		4.36[c]

Note: a: $p < .001$; b: $p < .01$; c: $p < .05$; d: $p < .07$.