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ABSTRACT

The study examined the development of perspective taking skills in 44 learning disabled (LD) and 44 nonLD children (9 to 12 years old). Each child was administered three tasks designed to assess the ability to judge the affective, perceptual, and cognitive perspective of others. Results indicated that LD children scored significantly lower than normal children on perceptual and cognitive perspective taking tasks. On the affective task, LD children relied on nonverbal cues in making their judgments while normal children focused on verbal information. Correlations among the tasks were similar for both groups suggesting that LD children experience a general perspective taking deficit which may influence their perception of various social situations. (Author/SB)

The Development of Perspective-Taking Skills in Normal and Learning Disabled Children: Do You See What I See?

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This paper was presented at the annual meeting of the Southeastern Psychological Association, New Orleans, March, 1982.

Abstract

The development of perspective-taking skills in normal and learning disabled children between 9 and 12 years of age was examined. The subjects were 44 children diagnosed as learning disabled and 44 children without learning problems, matched with the learning disabled sample on age, race, and sex. Each child was administered three tasks designed to assess the ability to judge the affective, perceptual, and cognitive perspective of others. Results indicated that the learning disabled children scored significantly lower than normal children on perceptual and cognitive perspective-taking tasks. On the affective task, learning disabled children relied on nonverbal cues in making their judgments while normal children focused on verbal information. Correlations among the tasks were similar for both groups suggesting that learning disabled children experience a general perspective-taking deficit which may influence their perception of various social situations.

The Development of Perspective-Taking Skills in Normal and Learning Disabled Children

Recent studies suggest that children with learning disabilities often lack social skills necessary for positive peer interactions. In a 1976 study Bryan and her colleagues compared the social behavior of learning disabled children with that of their non-disabled classmates. Learning disabled children were found to make significantly more competitive and rejecting statements than their peers and to voice fewer consideration statements. In turn, learning disabled children received a greater number of rejections from their classmates than non-disabled children. These findings are consistent with studies by Bryan and Siperstein, Bopp and Bak indicating that learning disabled children are significantly less popular than children without learning problems.

The social difficulties experienced by children with learning disabilities are significant in light of the importance of positive peer relations for normal development. Peer acceptance has been found to correlate with mental health, emotional adjustment, academic achievement, and the development of a positive self-concept and feeling of personal worth. Thus, the poor social skills of the learning disabled child, resulting in negative peer interactions, may have a pervasive effect on development.

A necessary step in remediating the social problems of learning disabled children is to identify the basis for inappropriate social behavior. A possible factor was suggested by Shantz who noted that children's social interactions are influenced by their ability to take the perspective of others. Perspective-taking ability has been found to correlate with a variety of social behaviors including cooperation, communication, and prosocial behavior. A

study by Kurdek and Rodgon in 1975 indicated that the ability to take the cognitive, perceptual, and affective perspective of others develops from preschool through elementary school in normal children.

The importance of perspective-taking skills for successful social interaction suggests that inappropriate behaviors among learning disabled children may be the result of ineffective perspective-taking skills. An initial investigation by Dickstein and Warren of the development of perspective-taking indicated that learning disabled children scored significantly lower on perspective-taking tasks than their normal peers. The present study was designed to further investigate the development of perspective-taking skills among learning disabled and non-disabled chidren. It examined differences in performance on affective, perceptual, and cognitive tasks, and the relationship among these perspective-taking skills.

The subjects in the study were 88 children drawn from a single school district in Chesapeake, VA. Half of the children had been diagnosed as learning disabled while the other half had no learning problems. The learning disabled children were divided into four age groups with mean ages of approximately 9, 10, 11, and 12 years. The non-disabled children were matched with the learning disabled students on the variables of age, race and sex. I.Q.'s of both learning disabled and non-disabled children fell within the normal range.

Each child was tested individually on the ability to take the affective, perceptual, and cognitive perspective of others. The tasks were similar to those used by Kurdek and Rodgon in investigating the development of perspective-taking skills in normal children and were counterbalanced across children within each group.

Affective perspective-taking, or awareness of how another feels, was tested using eight stories and pictures featuring a same sex, same race,

child, referred to as Johnny or Nancy. For half the pictures, the pictured situation and story were consistent with the emotion depicted, e.g., happiness: getting a new toy as a present (overhead).. For the other four pictures the situation and story were inconsistent with the emotion depicted, e.g., sadness: eating your favorite ice cream (overhead). After each story the child was asked "How does Johnny/Nancy feel? Responses were scored in terms of (a) the number correct on consistent stories, (b) the number correct on inconsistent stories and (c) the number of projections; i.e., the number of incorrect answers on the inconsistent stories for which the child gave the emotion he/she would probably feel in the depicted situation.

Assessment of perceptual perspective-taking, or awareness of what another can see, involved two 12" diameter turntables with three 4" Walt Disney characters (Mickey Mouse, Donald Duck, and Pinnochio) attached to each. The experimenter noted that the turntables were identical and could be rotated to any position. The child was then seated across a table from the experimenter with one turntable in front of each of them. The experimenter rotated her turntable so that Mickey Mouse was directly in front of her. The child was then asked to "turn your tray so you can see Mickey Mouse, Donald Duck, and Pinnochio the same way I'm seeing them now." Three more trials involved the experimenter rotating her turntable 90, 270, and 180 degrees from the original position. Between trials, the child's tray was returned to its original position and the experimenter always moved the tray in both clockwise and counter-clockwise directions. No corrective feedback was given. Possible scores range from 0 - 4 reflecting the number of correct perspective-taking trials.

Cognitive perspective-taking, or awareness of what another knows, was measured using a series of pictures originally developed by Flavell and his colleagues. Seven pictures telling the story of a boy who is out on a walk, is

chased by an angry dog, and climbs an apple tree were presented in order and the child was asked to relate the story. The child was then asked to pretend that a playmate was going to come in and be shown some pictures to tell a story about, too. The experimenter then removed three of the original pictures which significantly changed the meaning of the story, removing any depiction of the angry dog. The child was told that the playmate would see the four remaining pictures and was asked to relate the story the playmate would tell. Accurate perspective-taking involved awareness that the friend did not know about the angry dog and would therefore, not include it in the story. Following the prediction of the playmate's story, two probe questions were asked involving (a) why the playmate would think the boy climbed the tree, and (b) what the playmate would think the dog was doing in the last picture. A score of 0 was given if the child specifically mentioned the angry dog in predicting the playmate's story. If the child did not mention the angry dog in relating the story but did refer to it in answering the probe questions, a score of 1 was assigned. A score of 2 was given if the child refrained from mentioning the angry dog either in relating the story or in response to the probe questions.

The level of performance of the learning disabled and nondisabled groups on each of the perspective-taking tasks is shown in Figure 1. On the affective-consistent task, there was a ceiling effect. Both the learning disabled and non-disabled groups showed nearly perfect perspective-taking when verbal and nonverbal cues were consistent. Analysis of the number correct on the affective inconsistent task showed no significant main effect or interaction, however, the group effect approached significance ($p < .06$). The learning disabled children tended to score higher on this task than the non-disabled children. This surprising finding was supported by analysis of the projection

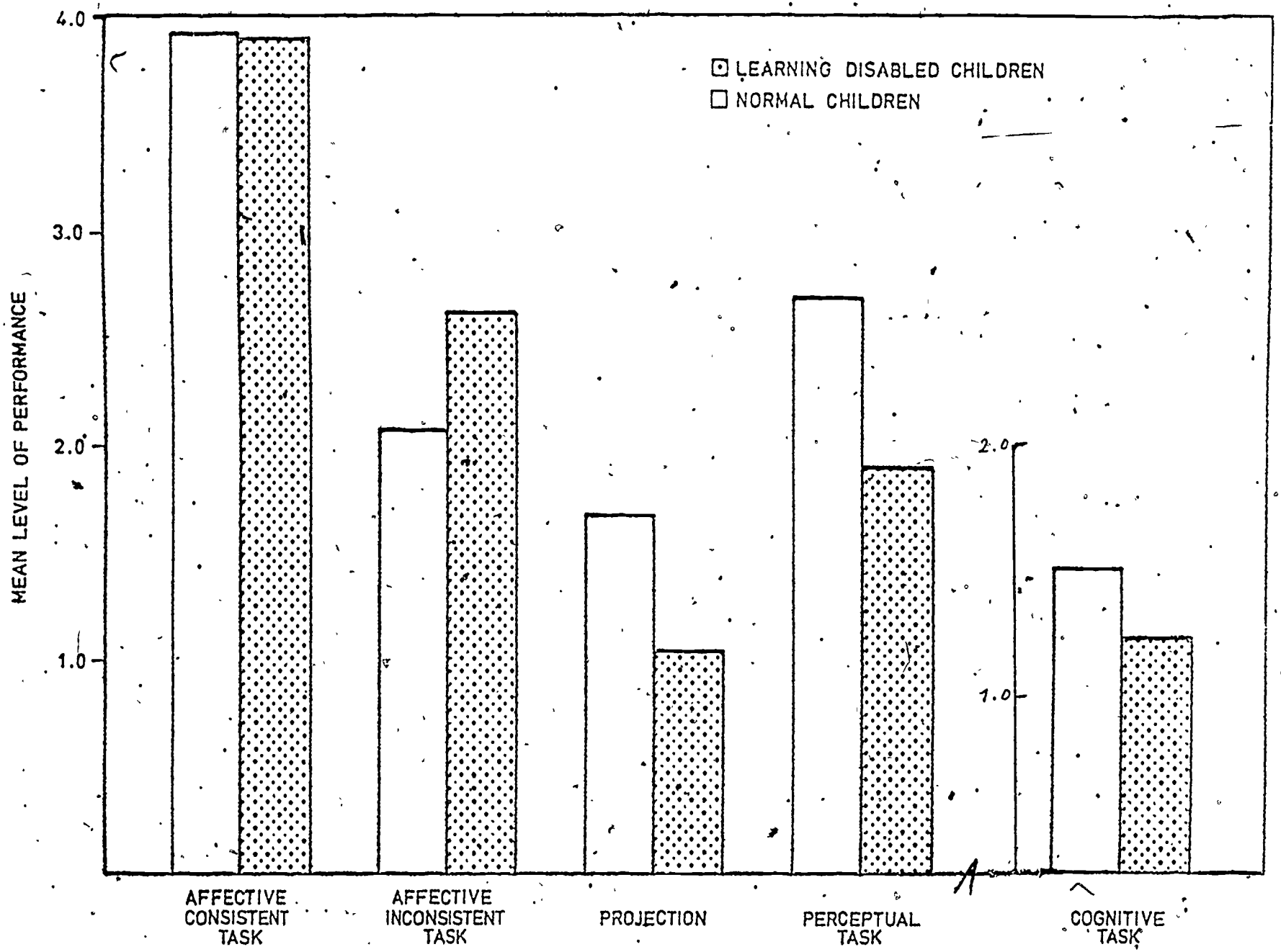
data which indicated that the non-disabled children were significantly more likely than the learning disabled children to report the way they would feel in response to the inconsistent pictures. A similar finding of increased projection by older normal children was reported by Kurdek and Rodgon who noted that projection might result from attending more to the verbal narrative of the story than to the nonverbal, pictorial cues. In the current study, differences between the groups on the affective inconsistent task suggest that the learning disabled children relied primarily on the nonverbal cues in making their perspective judgments, while the normal children focused on the verbal information provided. This finding is in marked contrast to previous indications that learning disabled children are less effective than normals in interpreting nonverbal information when verbal cues are absent. The current data suggest that in the normal communicative situation, where both verbal and nonverbal cues are present, nonverbal cues may hold precedence for learning disabled children.

Analyses of the perceptual and cognitive perspective-taking data showed significant group effects on both tasks. The learning disabled children were significantly less able to take the perceptual and cognitive perspective of others than their non-disabled peers. The age effect was also significant on the congitive task and approached significance on the perceptual task ($p < .07$). Post hoc tests indicated that cognitive perspective-taking increased between 9 and 11 years with a significant decrease between 11 and 12 years. Importantly, there were no significant group x age interactions for either analysis suggesting that learning disabled children may continually lag behind their peers in the ability to take another's perspective. Thus, analyses of the cognitive and perceptual task data indicate that the learning disabled

children showed significant deficits in perspective-taking ability which tended to be maintained across the age range investigated.

Pearson product moment correlations were calculated among the scores on the affective inconsistent, perceptual and cognitive tasks. Correlations were obtained for all subjects, for subjects within each group (normal and learning disabled), and for subjects at each age level. The pattern of correlations was similar across all of the analyses. The number correct on the affective inconsistent task was negatively correlated to performance in the cognitive task, while performance on the perceptual and cognitive tasks were positively correlated. Comparison of the correlations for the learning disabled and non-disabled children indicated no significant difference between the groups in the inter-task correlations. Thus, relative performance on the three perspective-taking tasks was similar despite significantly lower performance levels among the learning disabled children. The previous research by Disckstein and Warren also did not find a significant task effect in the perspective-taking performance of children with learning difficulties. These data suggest that learning disabled children may exhibit a general deficit in perspective-taking ability which influences their perception of a variety of social situations.

The data presented in this study illustrate important similarities and differences in the perspective-taking abilities of learning disabled and non-disabled children. While the pattern of development appears to be similar, learning disabled children score significantly lower than their non-disabled peers on several measures of perspective-taking ability. Further research is necessary to clarify the role of perspective-taking deficits in the social difficulties experienced by learning disabled children.


LEARNING DISABLED CHILDREN
NORMAL CHILDREN
MEAN LEVEL OF PERFORMANCE
4.0
3.0
2.0
1.0
2.0
1.0
AFFECTIVE CONSISTENT TASK
AFFECTIVE INCONSISTENT TASK
PROJECTION
PERCEPTUAL TASK
COGNITIVE TASK