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The Ohio State University, Ph.D., 1975
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THE SOCIAL PERCEPTIONS OF
THE PHYSICALLY HANDICAPPED CHILD:
A COMPARISON WITH THE NONHANDICAPPED

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
James Alan Seguin, B.A., M.A.

The Ohio State University
1975

Reading Committee:
Robert Monaghan
Leonard Hawes
Donald Cegala

Approved By
Robert Monaghan
Adviser
Department of Communication
Like most major undertakings, this dissertation required more of everything than planned. Marge Monahan contributed to every phase of this study, even when it required much more than she planned. She was my able and persistent helper and the backbone of my support.

Don Cegala was my most careful critic and is responsible for much of the fine tuning in this study and Bob Monaghan encouraged fresh approaches and imparted many other important intangibles over the years.

The National Center on Educational Media and Materials for the Handicapped, Columbus, Ohio provided a great deal of assistance and support. Tom Whitney and Bill Donohue were of immeasurable help in planning computer programs and statistical analyses. And Lisa Cantini, Mary Beth Snyder, and Luanne Saar conducted much of the coding and data analysis. Their hard work was much appreciated. Toni Gray and Elaine Lynch saved me many headaches by handling the typing and editing. Many thanks to them.

Finally, I have great respect and appreciation for the students, school administrators, teachers, and secretaries with whom I worked and who gave me so much cooperation. Hopefully it was a small amount of time well spent. It was for me.
THE SOCIAL PERCEPTIONS OF THE PHYSICALLY HANDICAPPED CHILD:

A COMPARISON WITH THE NONHANDICAPPED

By

James Alan Seguin, Ph.D.

The Ohio State University, 1975

Professor Robert Monaghan, Advisor

This study is a comparative analysis of content, organization, and amount of verbal response in physically handicapped and non-handicapped children's personality descriptions (social perceptions) of self, others, and self through others (how children thought certain others would describe them). The sample consisted of 28 physically handicapped children, 9 to 16 years of age, matched in sex, age, and intelligence with 28 nonhandicapped children; the sample was divided into four groups: 9-13 year old handicapped and nonhandicapped children, and 13-16 year old handicapped and nonhandicapped children. Descriptions were gathered in individual face-to-face interviews; the interviews were audio recorded.

Problem: The study is based in both Piagetian developmental theory and social communication research. Piaget's developmental theories have seldom been applied to the social development of the physically handicapped child. His experiments (1952) demonstrate the importance of interpersonal interaction, physical testing of one's
learning capacities, and particularly the importance of imitation in the development of symbolic processes. It is conceivable, though unexplored, that a physical handicap interrupts, retards, or alters the rhythmic process of social learning. In addition, social communication research indicates that physically handicapped individuals may be less socially perceptive than nonhandicapped (Ingwell, Thoreson, and Smits, 1967) and that in face to face encounters handicapped persons often exhibit strained and controlled communication behaviors (Goffman, 1963; Davis, 1961; Kleck, 1966, 1968; and Comer and Piliavin, 1972). Others report that parent-child communication and attitudes (rejection, overprotection) tend more toward the extreme when the child is physically handicapped (Barker, 1953; Wright, 1960).

Hypotheses: With these developmental and social considerations in mind, the author hypothesized that: (1) Physically handicapped children will respond with fewer words than nonhandicapped children. (2) Physically handicapped children will respond with proportionately less use of personality descriptors (3) and behavioral consistencies than nonhandicapped children. (4) Physically handicapped children will respond with proportionately fewer organizational words than nonhandicapped children.

Method: Children were asked to give eight personality descriptions: A friend they liked, one they disliked, self, a teacher, mother, an opposite sex friend, how the subject thought his mother would describe him, and how he thought a good friend would describe him. The measures consisted of 13 content categories, one organizational measure, both modified from Livesley and Bromley (1973), and one verbal quantity
measure. Direct tests of the hypotheses were conducted using the Mann-Whitney U Test and t-tests. A multivariate discriminant analysis (Overall and Klett, 1972) and a descriptive analysis were applied to search for differences other than those predicted.

**Major Findings:** Hypotheses (1), (2), (3) and (4) were not supported. The discriminant analysis indicated significant differences in the content and organization measures, $F = 2.215$, with 39 degrees of freedom, significant to the .01 level.

The 9 to 13 year old handicapped children's responses demonstrated significant separation ($v = 38.641$, $df = 39$, significant at .025) from the responses of other subjects. This group of children, those in segregated handicapped school settings, were particularly devoid of statements of mutual interaction, social factors, and statements that indicate knowledge of interpersonal networks.

The 13-16 year old nonhandicapped children demonstrated superior ability to describe and organize information about personality characteristics, behavior patterns, interaction, and interpersonal networks.

In general, handicapped children responded with fewer words, less variability in amount of verbal response, demonstrated a special mother-child relationship, and inferior ability to describe and organize personality information.


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CHAPTER I.

Problem

Preface

A physical handicap has profound social effects on the physically handicapped child. Despite the enormity of the problem we have little knowledge of the implications of these effects, especially on the social development of the child. No one, for example, has traced the development of physically handicapped children or systematically compared the process of social learning with similar nonhandicapped children. Could a physical disability alter the process of social learning—the process by which we learn of the complex nature of personality and social interaction? We can only guess at this. Insights about the social or psychological effects of disability are hazy and research findings are often inconsistent (Wright, 1960; McDaniel, 1969).

It is not that the social sciences are devoid of studies about the social perception, social communication, or social competence of the physically handicapped. Some research questions have been tested. Consider the work of Ingwell, Thoreson, and Smits (1967) for example. These authors compared the ability of 12 physically handicapped women and 12 similar nonhandicapped women to predict the behavior of others. Their results suggest that "the physically handicapped are less socially perceptive than a comparable group of nonhandicapped
persons" (p. 114). Their report identifies part of a major theme of the literature of effects of disability—that physically handicapped persons show less insight in understanding the behavior of others and exhibit, in certain situations, uncertain and strained communication behavior (Goffman, 1963; Comer and Piliavin, 1972).

Beyond this theme, however, as both Beatrice Wright (1960) and James McDaniel (1969) make very clear, it is extremely difficult to identify other consistencies and even more difficult to attempt to integrate previous data into any theoretical framework. McDaniel (1969), a professor of physical medicine, sees this as the major problem for the researcher (p. 34):

An overview of the major theoretical foundations of the study of the psychological aspects of physical disability and chronic illness must lead to the conclusion that while we are not devoid of a rationale for our studies, the progress of research and education in rehabilitation fields has definitely been impeded by a relatively weak foundation. In addition, the fact that such an overabundance of largely unfounded opinion and folklore exists in the field makes the job of getting at the facts even more formidable. Nowhere in the literature of any endeavor is there to be found such a great amount of material with such little evidence to support it. Nowhere in any field is there to be found such unreliable information and poorly conceived and executed "research."

The present study grows out of a need to understand and to develop theory about the social learning process of the disabled child. The beginning point is the disabled child—what are his perceptions of self and other people? This is not a question about whether the child has a positive self image, but one about what the child knows about self and others in terms of psychological qualities of personality characteristics. If the handicapped person shows less ability to predict the behavior of others and if he often exhibits tense,
controlled communication behavior, one wonders what he knows about people. Is it possible that a handicapped child is unable to develop a full concept of what people are like? Or could a disabled child have a different, perhaps more simple, way of organizing the knowledge he does have? These questions are important in learning about the social development of all children.

One way to gain insight into how a child develops socially and how he construes self and others is to ask him to describe himself and certain other persons he knows. This method, employed by several developmental psychologists, has proved to be a viable and useful way of learning about how children think of self and other people, yet it has not been used to compare, systematically, the development of the handicapped child. If a handicapped child were given the opportunity to describe himself and certain others, would these descriptions differ in content or organization from similar descriptions of nonhandicapped persons? This is the central question of this study and two basic research questions flow from this initial one:

1. What information do children, ages 9 to 16, relate about psychological qualities or personality characteristics of self and others and how do they organize this information when asked to give verbal descriptions of self and others?

2. Are there differences in content, organization of content, or amount of information in each response when physically disabled children perform this task and when nondisabled children perform it?

In developing these questions, the study has five distinct purposes.
1. The evidence that the communication behavior and social perception of the physically handicapped may differ significantly from that of the nonhandicapped will be considered.

2. Some theory will be presented that could account for such differences with particular emphasis on the developmental psychology of Jean Piaget. His theories have not been applied to the physically handicapped child, but offer potential in explaining certain social learning problems.

3. Literature about the nature and methods of investigation of social perception will be reviewed. What insights do these studies offer about the social knowledge an individual "has at his fingertips" and uses in interacting with other people? This will conclude the first chapter along with refinement of the research questions, development of hypotheses, and discussion of what findings could occur and the meaning of these findings.

4. A research tool designed to elicit what children know about self and others will be constructed and explained.

5. The research tool will be applied by asking children, some physically handicapped, to describe themselves, others, and how others would describe them. These data will be descriptively and content analyzed (Livesley and Bromley, 1973).

The Socialization of the Physically Handicapped Child

The socialization of any child can be conceptualized as a process of learning and acquiring communication behaviors. One property of behavior easily overlooked is that behavior has no opposite; it is,
In other words, impossible not to behave. If we accept the premise that all behavior in an interactional situation has message value, it follows that it is impossible not to communicate. (Watzlawick, Beavin, and Jackson, 1967).

The child grows up in this communication environment where both response and lack of response are important. The bubble within which he lives is composed of significant others who communicate with each other and with the child. From the first year of life, children imitate and test the communication behaviors of those around them, and gradually develop their own patterns of communication and conceptions of people—what people are like, how they are like and different from one another, and how they communicate.

A child learns to differentiate among self and others at first by physical referents: by touch, sound of voice, or by physical appearance; later a child can make more complex judgments about people. By three years of age the child can make role differentiations (Finch, 1955) and by six years of age he can differentiate among people on the basis of simple personality characteristics (Watts, 1944). In each case, the child is making a judgment on the basis of observations over time; in the case above, the child is relating patterns of behavior that form "mother's role" and different patterns of behavior that form "father's role." Similarly, the child sees personality characteristics through communication behaviors, and it is the pattern of these communication behaviors one develops that form the basis of an individual's personality.

The socialization of the child, or perhaps more conceptually accurate, the communication of the child, may lie at the basis of interpersonal competence, the ability to communicate within the norms
established by society. It is my contention in this study that the process of communication for the handicapped child differs significantly from that of the nonhandicapped child, not only because the disabled child cannot fully participate in the developmental process, but also because individuals communicate differently to him and about him. These effects of the social environment upon the child will be considered later; let us first consider the social development of the handicapped child.

The Early Development of the Physically Handicapped Child

The framework Piaget outlines is that the child begins life with simple reflex actions and gradually moves toward purposeful activity and thought. The process of development builds like an inverted pyramid—the first stage and each successive stage is necessary for the next to occur, but the first stages are not discarded; they are merely extended and surpassed. These are basic notions essential in understanding Piagetian thought. The inference, of course, is that a child not mastering the first simple reflex activities and other simple movements will have difficulties throughout the developmental learning process. One can begin to see already that a serious physical disability might interrupt even the earliest learning processes. This is to be explained in more detail below.

It is imperative to consider the development of the handicapped child in comparison to normal development. How might serious motor or limb impairment affect the learning process? A discussion of the first two years of life, the sensi-motor period illustrates this.
Piaget (1969) has divided the sensi-motor period into six stages. His data are based on careful longitudinal observations of his own three children. In the first stage (0-1 month), the child's activities are best viewed as spontaneous and reflexive. The child responds to stimuli in the environment; the basic reflexes are sucking, grasping, crying, and movement of arms, trunk, and head. Activities occur fortuitously or accidentally, such as thumbsucking, but quickly become "dependent on the movements of arm, hand, and mouth" (Piaget, 1969, pp. 7-8).

In stage two (1-4 months), fortuitous activities become patterned or habitual. The infant begins to distinguish between objects. He can distinguish a nipple from other objects. Some new behaviors appear, thumbsucking being the most characteristic, and eye-hand coordination develops. The child learns to follow moving objects with his eyes and he will move his head toward the source of sounds. Overall, the infant exhibits some sensi-motor coordination, but behaviors are basically still reflexive. The early stages of learning about self and others are through physical response to the environment. A physically handicapped child cannot fully respond to the environment.

In stage three (4-8 months), the child becomes slightly less egocentric. Previously, his behaviors centered on himself. Now he reaches out to grasp and manipulate everything within his reach. The child repeats and tries to sustain interesting activities; this process develops what Piaget calls secondary circular reactions (Piaget, 1952, p. 151); again learning and physical manipulation are closely linked.

Stage four (8-12 months) marks the development of intentional behaviors. The child can use known means to gain an end, e.g., pull a
small rug closer to be able to reach an object outside the crib. The child also develops object concept, a sense of constancy of size and shape of objects, and a concept of causality, that objects other than himself can cause activity.

The child shows the first signs of intelligence in stage five (12-18 months); he can develop new means to solve problems (intelligence is defined here to be the ability to solve problems). Through the use of trial and error the child can apply new means to gain a desired goal and is continually experimenting with objects to see how they behave in new situations, e.g., pushing objects under water.

The sixth stage (18-24 months), marks the end of the sensi-motor period and acts as the transition to higher mental operations. In this stage the child demonstrates solution of problems by sudden invention or by mental representation. The child can think out problems mentally without using trial and error. Piaget (1969) presents this example (p. 12):

For example, a child confronted by a slightly open matchbox containing a thimble first tries to open the box by physical groping (reaction of the fifth stage), but upon failing, he presents an altogether new reaction; he stops the action and attentively examines the situation (in the course of this he slowly opens and closes his mouth, or as another subject did, his hand, as if in imitation of the result to be attained, that is, the enlargement of the opening), after which he suddenly slips his finger into the crack and thus succeeds in opening the box.

During the first two years of life, the child moves from purely reflexive behavior to actual mental problem solving. This is an astounding amount of change, perhaps more than any other two year period. The child learns to distinguish himself from other objects and learns the properties of many objects, he learns that persons
differ from inanimate objects, gains an initial notion of causality, and the first stages of language. The developmental process outlined by Piaget (1952) is a delicate, intricate, perhaps rhythmic process that can be easily interrupted by physical inabilities, e.g., motor inhibitions, especially of arms or legs. The early stages of learning about self and the environment is physical—sucking, grasping, manipulating, reaching, and repeating and imitating.

The process of repetition and especially imitation is particularly important in presenting a clear theoretical basis and link to the discussion that follows here since imitation seems to be the forerunner of developing symbolic behaviors. Learning can certainly occur without manipulation and imitation of certain actions, but the amount and type of learning may be significantly affected by the child's ability to perform and imitate events and communication behaviors of persons. Consider the importance Piaget places on imitation (1969, pp. 55-56):

Imitation makes its appearance (with Stages two and three of infancy) through a kind of contagion or echopraxis. When someone performs in front of the child a gesture the child has just made, the child will repeat the gesture. A little later, the child will imitate any gesture made by an adult, provided that at some time or other this gesture has been performed by the child himself. There is thus at first an assimilation of what the child sees to his own schemes, and a triggering of these schemes. Then a little later the subject attempts to reproduce these models for the sake of the reproduction itself and no longer by automatic assimilation. This marks the appearance of the "prerepresentative" function fulfilled by imitation. Then the child advances rather quickly to the point where he copies gestures that are new to him, but only if they can be performed by visible parts of his own body. An important new phase begins with the imitation of facial movements (opening and closing the mouth or eyes, etc.). The difficulty is then that the child's own face is known to him only by touch and the face of the other
person by sight, except for a few rare tactile explorations of the other person's face. Such explorations are very interesting to note at this level, when the child is forming correspondences between the visual and tactilo-kinesthetic sensations in order to extend imitation to the non-visible parts of his body. Until these correspondences are elaborated, imitation of facial movements remains impossible or is accidental. For example, yawning, so contagious later, is not imitated until the age of one, if it is silent. Once the correspondences have been established by means of a series of indications (auditory, etc.), imitation is generalized and plays an important role in the child's knowledge of his own body in analogy with the bodies of others. It is no exaggeration, therefore, to regard imitation as a kind of representation in action.

Thus, imitation is at first physical and performed in the presence of the model. In the course of the second year, the child begins to imitate previous actions in the absence of the model which Piaget calls deferred imitation, but this ability does not imply any representation in thought, merely repetition in absence of the model. Consider, however, a little boy, who for the first time, sees a playmate fall down and then become very scared, clench his fists and scream; then several hours later the boy imitates the scene, including the clenching of the fists, but laughing while he is doing it. This is the beginning of mental representation occurring through imitation and perhaps the beginning of the child's ability to differentiate a person from his behavior.

The child develops from simple to more complex forms of imitation and representation. The ability to pretend in symbolic play is much more complex than simple physical imitation. Piaget tells of the little girl who invented her first symbolic play by pretending to sleep — "sitting down and smiling broadly, but closing her eyes, her head to one side, her thumb in her mouth, and holding the corner of the table-cloth, pretending that it was the corner of her pillow, according
to the ritual she observes when she goes to sleep" (Piaget, 1969, pp. 53-54). From symbolic play the child learns to draw as a form of representation. This represents the intermediate stage between symbolic play and developing the ability to mentally represent activities and can be seen as internalized imitation. The last stage of mental representation is developing verbal representation.

The process of social learning, i.e., learning about self, others and social interaction is intimately linked to physical manipulation and imitation of events and behaviors. It is not a far jump to see the link between imitation of people's actions and of social interactions as essential in the process of learning what people are like. Even Piaget sees this possibility, but does not conjecture about it. As noted above, he says, "It is no exaggeration, therefore, to regard imitation as a kind of representation in action. Baldwin goes one step further, seeing it as an essential instrument in the complementary formation of the other and the self" (Piaget, 1969, p. 56).

The intention of this study is not to test the physically handicapped child under two years of age, but to lay the foundation for the thesis that physical disabilities will affect the social learning level of the child later. If serious physical disabilities can alter the social learning process, questions arise naturally about the effects of these impairments. What are the effects of an inability to imitate fully the actions of others? Is the process of learning altered because the child is limited in the beginning stages of developing mental images of others? These are essential and scientifically intriguing questions
which leave us without any answers. If the disabled child, at a very young age, sees a playmate angry, stamp her feet, and scream, is he able to develop a concept of the actions and the person? If this happens daily over the years of growing up, does the handicapped child have limited or poorly developed concepts of personality structure of self and others? This is the central question of this study.

**Communication Environment and the Physically Handicapped Child**

The developmental process outlined above certainly cannot account fully for differences in social comprehension of physically handicapped and nonhandicapped children, if, in fact, these differences do exist. Research studies, personal testimony of handicapped individuals, and over fifty interviews of parents of handicapped children and professionals who work with handicapped children catalogue a strong case that the family communication environment for the disabled child is often significantly different from that of the nondisabled child.

Beatrice Wright's (1960, p. 377) summary of parental attitudes toward their physically handicapped children reflects past and current research insights into this area:

The evidence is rather clear that the attitudes of parents toward their children who have a disability tend to the extreme more often than toward their nondisabled children, centering about the following patterns: oversolicitude, rejection, pressing for accomplishments beyond the child's abilities, and inconsistent attitudes. Overprotection appears to occur more frequently than over-rejection. And genuinely positive attachments of parents to their disabled children are not infrequent.

Karen Hathaway's (1947), *The Little Locksmith*, is a moving and poignant account of the process of becoming aware that she was
handicapped, and also an account of the communication environment and the excess of ridicule and rejection she received.

The argument that the social communication learning process differs for that of the handicapped child widens graphically. Not only may he be unable to participate fully in the developmental social learning process, but also he passes through a social communication environment in which he is the target of different communication behaviors from others, whether they are intended or not. Rejection, overprotection, avoidance, or rejection are communicated to the child through behaviors; they are indeed very strong messages whether spoken or acted out, and from Karen Hathaway's (1947) account and self reports of handicapped children, these communication behaviors are perceived (Allen and Pearson, 1928).

The physically handicapped child is often less mobile than others, and often needs more help. Many helping relationships are adult-child relationships so that the child may have more encounters with adults and fewer peer relationships than normal children. Richardson, Dornbusch, and Hastorf (1961) asked 736 children to describe three other children and themselves to make up stories about six children, with and without physical handicaps. The researchers' content analyzed these descriptions by dividing them into units—one thought or fact about a person. Then each unit was coded into one of 69 first order categories, such as age, religion, physical aggression, trust, humor and then into one of nine more abstract categories such as negative evaluation, morality, positive evaluation, role-taking, and achievement motivation. These categories were developed inductively from examination of the descriptions or deductively from theory. Richardson,
Dornbusch, and Hastorf (1961), however, did not report their findings in detail, but rather indicated some general conclusions. One finding is that physically handicapped children used fewer categories of involvement with peers, but greater use of categories describing relationships with adults. Their study may indicate some of the effects of the social environment on the child's thinking.

Communication exchanges between handicapped and nonhandicapped individuals (termed mixed interactions) are often characterized by strained, controlled communication behaviors on the part of both handicapped and nonhandicapped individuals.

Comer and Piliavin (1972) studied the communication behavior of physically handicapped and nonhandicapped persons in a structured interview setting. Some handicapped persons were interviewed by a physically handicapped interviewer (a confederate) and others were interviewed by a nonhandicapped interviewer. Analysis of their data indicates that mixed interactions resulted in the handicapped person: (a) terminating the interactions sooner, (b) showing greater motoric inhibitions, (c) exhibiting less smiling behavior, (d) demonstrating less eye contact with the interviewer, (e) admitting to feeling less comfortable in the interaction, and (f) maintaining greater physical distance with the nonhandicapped interviewer. This is a piece of evidence that communication behaviors differ in mixed interactions, and it is these kinds of communication behaviors that comprise much of the communication environment.

I am suggesting, then, that the stigmatized individual—at least the visibly stigmatized one—will have special reasons for feeling that mixed social situations make for anxious unanchored interaction. But if this is so, then it is to be suspected that we normals will find these situations shaky too. We will feel that the stigmatized individual is either too aggressive or too shamefaced, and in either case too ready to read unintended meanings into our actions. We ourselves may feel that if we show direct sympathetic concern for his condition, we may be overstepping ourselves; and yet if we actually forget that he has a failing we are likely to make impossible demands of him or unthinkingly slight his fellow-sufferers. Each potential source of discomfort for him when we are with him can become something we sense he is aware of, aware that we are aware of, and even aware of our state of awareness about his awareness.

David (1961, p. 123) makes a similar statement.

Whether the handicap is overtly and tactlessly responded to as such or, as is more commonly the case, no explicit reference is made to it, the underlying condition of heightened, narrowed, awareness causes the interaction to be articulated too exclusively in terms of it. This, as my informants described it, is usually accompanied by one or more of the familiar signs of discomfort and stickiness: the guarded references, the common everyday words suddenly made taboo, the fixed stare elsewhere, the artificial levity, the compulsive loquaciousness, the awkward solemnity.

Kleck's (1966; 1968) findings are consistent with the studies discussed above. In structured face-to-face situations persons interacting with physically handicapped individuals tended to show less variability of behavior, terminated the actions sooner, formed a more positive impression of the handicapped, and expressed opinions less representative of their actual beliefs.

Barker (1953), a pioneer in personality research about handicapped individuals, says that handicapped persons constantly live on the social psychological frontier. "Thus in the stigmatized arises the sense of not knowing what the others present are 'really' thinking about him" (Barker, 1948, p. 34).
Communication Behavior of the Physically Handicapped

The most pertinent study is one mentioned earlier, the research of Ingwell, Thoreson, and Smits (1967) because they ask questions about the handicapped person's ability to empathize with others. The study was generated in response to a series of long term arguments as to whether handicapped individuals are more sensitive to social information than nonhandicapped persons. The arguments, pro and con, are summarized by H. H. Kelly et al (1960).

The arguments that physically handicapped persons are more socially aware are: (a) Handicapped individuals develop an enhanced social perceptiveness so that they can control the stronger, more able bodied majority. (b) Disabled persons need constant social feedback as to how others value them; they therefore develop a capacity to gather this information in social interactions. The arguments that handicapped people are less socially sensitive are: (a) Physically handicapped persons avoid making comparisons of themselves with others because they see themselves in an unfavorable light when they do so. Consequently, many try to avoid making comparisons at all and fail to develop the ability to discern the more covert personality characteristics. (b) Nonhandicapped persons make compensations and often present a blank facade to the disabled person. This results in the handicapped individual being exposed to very few communication behaviors. None of these themes are backed with any strong or consistent research findings.

In the Ingwell study, social perception was defined as the ability to predict another's behavior on the Social Affectivity Scale (modified from Tagiuri, 1952) and the Impersonal Social Perception
Scale (modified form of Dymond's Empathy Scale, 1949). The sample consisted of 12 female physically handicapped and 12 non-physically handicapped University of Wisconsin students. The authors hypothesized that: (a) The physically handicapped are significantly less perceptive than the nonhandicapped in social affectivity, (b) Both groups, physically handicapped and nonhandicapped, are better able to predict the behavior of persons belonging to their own group, rather than a different group, on social affectivity, and (c) Both groups choose friendship choices more often from the nonhandicapped than from the handicapped group.

The subjects were divided into three groups of eight—four handicapped and four nonhandicapped persons in each group. Before administering the scales, the subjects participated in ninety minutes of formal task-oriented social interaction and thirty minutes of informal social interaction. The major finding was that handicapped female college students were significantly poorer at predicting behavior by means of the Social Affectivity Scale than were the nonhandicapped subjects. In addition, both groups were able to predict the behavior of the handicapped subjects more accurately than the nonhandicapped subjects suggesting that handicapped persons have fewer ranges of behavior or exhibit greater consistency of behavior.

The results of the study suggest that "the physically handicapped are less socially perceptive than a comparable group of nonhandicapped persons" (Ingwell, Thoreson, and Smits, 1967, p. 114).

The Ingwell, Thoreson, and Smits (1967) article completes the circle, at least it brings us to a clearer starting point for the research questions posed in this thesis. We began by presenting the
theoretical basis of the present study, that the process of communica-
zation of the physically handicapped child may differ from that of the
normal child because:

1. The physically handicapped child may not be able to partici-
pate in the developmental learning process as a normal child
can, as outlined by Piaget (1952, 1969).

2. The communication environment that the physically handicapped
child and adult finds himself in may have a significant
effect on how the child construes people and actually
communicates (Wright, 1960; Davis, 1961; Goffman, 1963;
Kleck, 1968; and Comer and Piliavin, 1972).

The Ingwell, Thoreson, and Smits (1967) study questions the
ability of physically handicapped women to understand the behaviors
of others. Their conclusions, that these particular handicapped women
were less socially perceptive than similar nonhandicapped women,
suggests several questions. The most relevant and intriguing for
our purposes spring from the theory sketched above. If the
communication process is different for the physically handicapped
child, perhaps the handicapped learn less about people and communica-
tion, the consequence of this being that many handicapped children
have less fully developed, more simply organized conceptions of
people than normals and have less to say about themselves and others.
If this were so, it would certainly place them at a distinct social
disadvantage and explain some of the strained, controlled communication
behaviors discussed by Davis (1961) and Goffman (1963).

The intent of this research is to test whether physically handi-
capped and nonhandicapped children have similar "banks of social
information" to draw upon. Do physically handicapped children have less fully developed, more simply organized conceptions of self and others? It is the author's contention that physically handicapped children do have less complex notions of personality structure than similar nonhandicapped children. Before refining this research question into hypotheses, we should consider the literature of person perception to gain added insight into the process of impression formation.

Research Literature—Person Perception

The intent of the literature review that follows is to gather up what we have learned about how people perceive other people and to study the methodologies that have been employed. How has person perception been defined in the past? What are the research trends? Does the research offer insights about the social perceptions of the disabled child?

The problem of how one person perceives or forms an impression of another has intrigued so many philosophers and social scientists in so many different ways that I find it stretching a point to call it a systematic body of knowledge. It is probably best to consider perception studies as part of a once convenient way to categorize an area of study rather than as investigations of a particular kind of social phenomena (Livesley and Bromley, 1973). One can see from the number of terms that follow that research within this area is wide-ranging and overlapping. These terms are: visual perception, social perception, traits, judgments, personal constructs, values, and attitudes. In general, there are no theories of social perception, but
most personality theories include an area related to social or person perception.

Within such a large and diverse body of knowledge, social perception has several different meanings. It refers both to the process of forming an impression of another and to the content of that impression. Perceptions include data based on visible referents such as size or facial expression and on data not immediately available to the senses. This latter point marks an important part of perception research. Perception studies often are studies of the inferences and extended inferences that an individual makes about others. Bruner (1957) said that the tendency to make inferences that go beyond the information given is characteristic of most cognitive and perceptual processes not just those involved in person perception. Shrauger (1967) outlined four phases in the process of perception, two of which involve inference—the first is interpretive inference in which a person construes selected information to infer general traits of the person and a variety of personal characteristics. The second kind of inference is extended inference in which the perceiver draws implications about what other qualities the person might possess.

In addition to the concept of inference being important in the perception research, the idea of organizing information about people or the interpersonal cognitive organization has been equally important. Osgood (1953) and Newcomb, Turner, and Converse (1965) seem to agree that perception means both organizing information and attributing properties to a person. These properties are normally perceived as constant, while behaviors are seen to vary. Both the concept of inference and of cognitive organization are important in this research.
Research Trends

There appear to be two major trends within the social perception literature. The earliest concerned the accuracy of a person's perceptions. Most often an individual's perceptions of a subject were compared to a panel of judges' perceptions of the same person. This work was first reviewed by Bruner and Taguiuri (1954), Taft (1955), and Cline (1964) and has received severe methodological criticism (Cronbach, 1955). Since the focus is on accuracy of one's perceptions rather than on the content or organizational significance, the intended focus of this study, they are not particularly useful as background here.

The second trend, however, is somewhat more applicable. Asch (1946) was a pioneer in the process of impression formation, and a major influence on later researchers. Asch is best known for his trait research in which he presented subjects with a list of traits and asked them to write characterizations of persons who possessed those qualities. People were quite adept at writing very unified impressions of this hypothetical person without repeating the traits or synonyms of the traits. Related studies by Gollin (1954) and Haire and Gruens (1950) illustrate the same notion—that a person forms a unified, organized impression of another even when presented with contradictory information. Gollin, (1954) for example, showed films of a woman portrayed in contradictory ways. Subjects were able to integrate this information by leaving out material or by bringing in new data.

These studies show both the strength and weakness of previous perception research. They indicate the use of inference—that a person can integrate contradictory information through some internal theory of
personality. If so, there is some indication that traits may be organized into clusters. Thus there is also organization and unity to our impressions of others. These insights are somewhat limited, but they are representative of the insights provided.

The methodologies employed, in general, appear artificial to me. Asch's method was to provide a subject with information and analyze what he did with it. This bears little resemblance to a person's normal and natural mode of perceiving others. There is clearly a need for more naturalistic methods of investigating a person's perceptions of another, methods that allow the respondent more freedom in his response and one that more closely approximates how an individual goes about translating his impressions into language.

Asch (1952) also researched whether an individual resists changing his perceptions of another. He did this by asking subjects to form impressions from two trait lists: intelligent, industrious, impulsive and critical, stubborn and envious. When the respondent had recorded his impressions he was told that all six traits belonged to the same person. The subjects had difficulty imagining that all the traits belonged to the same person. Another group of persons were given all six traits at once and they had little problem in forming a unified impression to that person. The experiment may lend support to the "commonsense" notion that first impressions are important.

Another large body of literature within the process of perception research could be categorized as sources of information about others (Ichheiser, 1949; Vernon, 1964; Livesley and Bromley, 1973). The general theme of this research concerns what the perceiver takes into
account in forming an impression of another. Livesley and Bromley (1973) organize the literature into seven kinds of cues studied:

Some of these studies have implications for the present work. Appearance is important to some in person perception. For example, Stone's (1962) study indicates that most people assume that a person expresses himself through his appearance which may provide information about his values and attitudes. Secord (1958) investigated physiognomic and personality characteristics (Secord and Muthard, 1955). Many other studies also indicate that individuals do stereotype people on the basis of appearance—some of these are Cook (1939), Baer (1964), Manz and Lueck (1968), and Fisher and Cox (1971).

While this study is not directly concerned with the variable of appearance, the above investigations seem to indicate that persons make inferences about others on the basis of very little information. They seem, in addition, not to just make one inference, but several, or perhaps one major inference about another that includes an array of information. Based on experience over time (Kelly, 1955) and very little information, a person makes rather complex judgments about others. It is possible that the disabled child is placed at a disadvantage in this process. Is his experience different enough—based on how he learned about people and how he sees them responding to him—that his inferences are different from nonhandicapped others? Or could his judgments of others be less complete or in any sense inadequate in comparison to the nondisabled? Another important question concerns the
organization of impressions—are there differences in how the disabled child organizes his impressions of others? Is there perhaps different organization (as measured by the number of organizational words used in proportion to the total)? One wonders if a disabled child were asked to describe another person, whether that description would differ in content or organization from a non-disabled child's description of another. This method would allow the child to express himself more naturally than in the studies we have seen so far.

Most of the studies just above were conducted by eliciting responses to photographs. Samuels (1939), however, obtained different responses from persons when he employed schematic drawings and when he used photographs. Argyle and McHenry (1971) found that the length of exposure of the subject to the photograph is an important variable. While using photographic or schematic instruments is probably a useful way to approach the problem, there is a need to gain a better understanding of the research instrument on the subject. Until there is more research about this, one must accept the findings of person perception research based on photo instruments with greater than normal caution. In addition, the investigations give little insight as to the impressions persons form in more naturalistic settings, and at this point in person perception more such exploratory studies are needed.

The context within which an impression is formed may also be an important variable, but the insights about this are severely limited by the methodologies employed. For example, Cline (1956), using line drawings, showed that the interpretation of a facial expression was affected by the second face adjacent to it. Other related studies have similar findings, but they offer no information about more
naturalistic settings.

The order of presentation of material also is important in person perception, again indicating that first impressions are significant. This area has been thoroughly studied through the experimental method. Examples of this work can be seen in Asch (1946), Anderson and Barrios (1961), and Anderson (1965).

Research Literature—The Study of Cognitive Organization

Because how a person organized information about others appeared important throughout the research literature, one wonders whether studies of cognitive organization might add insight to our limited knowledge of this.

The concepts or constructs a person uses to describe and conceptualize others constitute his interpersonal cognitive system (Livesley and Bromley, 1973). This system is part of a complex structure through which a person interprets and makes sense out of his world. Werner (1948), Kelly (1955), and Heider (1958) all point out that the system is hierarchically organized. Thus, part of understanding a person's perceptions of others is understanding the network of constructs that make up a person's interpersonal cognitive system.

According to Livesley and Bromley (1973) a person's cognitive system could be described by its degree of differentiation. The term cognitive differentiation refers to:

(a) the number of elements a person has available for describing and construing a particular set of objects or events (in this case people).

(b) the extent to which the individual is able to use these terms differentially and thus to discriminate effectively between the people or the behaviors he encounters.
How do we gain insight into how people construe other persons?

Two methodologies that have been used and apply to this research are free descriptions of people and the Role Construct Repertory Test devised by the psychologist, George Kelly (1955).

The first method involves asking some subjects to describe some stimulus persons such as an adult you like, your father, etc. Content analysis can then be applied to the content and organization of these descriptions (Hastorf, Richardson, and Dornbusch, 1958, and Beach and Wertheimer, 1961). The studies so conducted seem to offer the following insights (Livesley and Bromley, 1973):

(a) People have a small number of categories or terms that they consistently use to describe others (Hastorf, Richardson, and Dornbusch, 1958).

(b) People differ considerably in the categories they use to describe others—some sex differences have been reported. Beach and Wertheimer (1961) report that males use more ability terms than females. Sarbin (1954) found that women's first impressions contain fewer role or status categories than men; they use more "inner" traits instead.

(c) Persons use different categories to describe different people, although one subject's descriptions of two people tend to be more alike than descriptions of one person obtained from two subjects (Richardson, Dornbusch, and Hastorf (1961).

(d) There is a strong relationship between the categories people use to describe others and those used to describe themselves.

These studies elicit information by having the subject concentrate on one person at a time. This may be quite significant although this is not mentioned by any author. The task of describing one person at a time is not asking the subject to compare persons as in the Repertory Grid method. Thus both methods may elicit some different information about how a person organizes his knowledge about others. A person may
be quite adept in describing people, but less able to indicate how persons differ from each other on the basis of psychological qualities. It is conceivable that a physically disabled child might do well in describing others but poorly in indicating exactly how persons differ from each other on the basis of psychological qualities. It is conceivable that a physically disabled child might do well in describing others but poorly in indicating exactly how persons are alike and different. He may understand people on the basis of constructs, but may now have the facility to make simple, or perhaps more likely, complex comparisons of people.

The other method is Kelly's (1955) Repertory Grid. The Grid has been widely employed to study cognitive processes. In general, these studies support the findings of Hastorf, Richardson, and Dornbusch (1961) and other descriptive studies. Bannister and Mair (1968) also have done a great deal of work in this area.

Research Literature—Person Perception in Children

I have divided the literature of person perception into the adult and child categories because it is quite clear from the work of Piaget (1932, 1951) and others that the assumptions about how adults construe reality and how a child construes reality, even up to the age of 15 or 16, are not the same. It is equally true that we cannot make the same assumptions either about how each group responds to a researcher or his research instruments.

A child has limited cognitive and verbal abilities, and his abilities differ at different age levels. A researcher must have some
understanding of the development level of children before doing research with them.

Because we know little about how children construct their reality, research with them requires methods that allow children to respond in ways that will reveal their thinking patterns. Many tests for children obtain standardized findings, but do not reveal the process of thought or perhaps the unique ways that children approach problems. Research is required that gives insight into not only what the child knows, but also how he organizes his knowledge about it.

There is much research with children that do not meet the above criteria; there is a limited amount that does. The following review is directed at identifying what children know about people, and secondly asking whether these studies offer insights about the social perceptions of disabled children.

Previous research about person perception of children could be divided into the following subgroups:

1. Research with parents about children
2. Children's perceptions of self
3. Children's perceptions of parental roles and parental behavior
4. Children's free descriptions of others

**Research with Parents about Children**

Early perception research often relied on information from the parents about the child's frame of reference. This research deserves severe criticism and has received it from Dubin and Dubin (1965).
Children's Perceptions of Self

This rather complicated but limited research area outlines the little understood influences on the development of an individual's self-concept within a social environment. According to Jourard and Remy (1955) the child accepts into his self-image what he believes to be his parents' view of him. This is an important concept similar to that of Cooley (1922), Mead (1934) and others, and poses significant questions for this study. If a physical disability in a child interrupts, alters, or retards the process of learning about people, then one wonders what a disabled child thinks others think of him. If a handicapped child and a nonhandicapped child were asked to write descriptions of what they thought their mother thought of them—would they both have the ability to do this? When considering a number of children in each group, would there be differences in content or organization of information? These are crucial questions because they could indicate differences, if any, in the social development and potential of a handicapped child.

Studies by Davitz (1955) and Emmerich (1959) indicate that the child, like adults, prefers persons he perceives to be like himself and assigns facilitating behaviors more frequently to own-sex peers and interfering behaviors to opposite-sex peers. I mention these studies because they illustrate the complex relationships between self perceptions, perceptions of others, and development of self concept. Davitz and Emmerich investigations suggest, perhaps, that the child projects his own self-image onto others. They also indicate how little is known about the development of self and the process and importance of the perceptions of others.
Children's Perceptions of Parental-Roles and Behavior

The complex inter-relationship between self-perceptions and the influence of others on oneself is again evident in Rose (1956) and Cooper and Blair (1959). Rose found that young adolescents assigned their own preferred values to their parents. Cooper and Blair's study indicates that even at the early college level a child's regard for a parent is related to the parents possessing similar values to the child. In general, Dubin and Dubin (1965) report that girls are more positively oriented than boys toward people and that as a child gets older his perceptions of people become more realistic and include more subtle aspects of behavior.

Children's Free Descriptions of Others

Watts (1944) was interested in the relationship of language and mental development. His study is one of the earliest that investigated the concepts children use in describing people. Watt's analysis indicates that as children develop they become more aware of the differences among people and the complexities of individuals as they acquire more words to refer to them. The methodology asked children to describe some stimulus persons. Children at the ages of 6 1/2 to 7 usually limited their descriptions to appearance. From about 7 to 11 children described the more obvious traits of people; most often this centered around a univalent theme—a positive or negative tone, but hardly ever both. From 11 years old and older, the child normally saw personality as a cluster of similar traits.

Watts (1944) also found that it was often at 11 years of age that a child began to see personality as a network of good or bad
characteristics. He asked the children whether a person could be faithful and stupid, for example, or both grumpy and generous, or affectionate and dishonest. It was not until after 11 years of age that children could understand these complexities. Only 50% of the children 13 and 14 years old were able to do this.

This late development of the child's understanding of the complexities of personality may be quite significant. It indicates that the child is still developing abilities of perceiving the more subtle and complex parts of personality. The processes of person perception and social adjustment, of course, are still maturing during adolescence. The researcher has an opportunity to observe and catalogue some of these changes at a time when the child has sufficient cognitive and verbal abilities for fairly sophisticated expression. This may allow for insights not as readily available at younger stages since verbal methodologies become less efficient at the younger levels.

Richardson, Dornbusch, and Hastorf (1961), reviewed earlier, conducted an extensive study employing children's free descriptions and content analysis of these descriptions. Their study indicates that the stimulus person described is an important variable; his sex, age, and status affect the categories used to describe the person. They also found, as you may recall, that physical handicap also affected the categories used, i.e., if a person had a physical handicap he used fewer categories of involvement with peers. It is difficult to interpret the meaning of this, however, since the authors report only general findings.
Yarrow and Campbell (1963) report a similar free description study using children, 8 - 13 years of age. The children, all strangers to each other, were placed in summer camp cabins in groups of eight. The children's impressions of the cabin-mate they knew best were elicited in interviews at the beginning and end of the two week camp. Systematic behavior observations were made at the beginning, middle, and end of camp.

The free descriptions were divided into discrete units or thoughts and then each thought was placed into one of 17 content categories. Yarrow and Campbell identified 4 major dimensions of the 17 categories: aggression, affiliation, assertion, and submission and they also report that 46% of the subjects concentrated their descriptions in one dimension. Their findings indicated age differences by descriptive terms only, rather than by uses of concrete-abstract categories. In other words, the children at different age levels may have used the same words, but have had very different meanings at different age levels. If the researchers had also categorized the statements by degree of abstraction, they may have found more differences. Thus I have little confidence in their finding that children as young as 8 years old hold similar perceptions of others as a child of 13. Older children use more abstract psychological terms in describing people than do younger children. This is supported by Watts (1944); Livesley (1969); Haycock (1969); Scarlett, Press and Crockett (1971); and McHenry (1971); and Livesley and Bromley (1973).

Yarrow and Campbell found that children used more interaction statements at the end of camp than at the beginning. Sex differences
were also indicated; girls used more nurturant-related statements and boys used more non-conforming and withdrawal statements. By comparing the behavior observations with the free description data of the withdrawn, hostile, and active children, they found that the active and friendly children gave the most complex descriptions. Friendly children were more likely to make inferential statements and disliked children were described more systematically than liked children. Neutral children were described least systematically of all.

Yarrow and Campbell's findings leave us with several questions. On the one hand, friendly, active children are more adept at describing others; yet the meaning of this is unclear. They may have had more interaction with others and are therefore a little more savvy about others or they may have different backgrounds—we do not know.

The most recent and comprehensive study of the developmental aspect of person perception in children and adolescents was conducted by Livesley and Bromley (1973) of the University of Liverpool. They asked 320 children, ranging in age from 7 to 15, to describe people they liked and disliked. The children responded by writing descriptions of eight persons, including self. The authors employed a six factor factorial experiment. They divided the children into 8 groups of 40 children each, on the basis of age, sex, and intelligence. They investigated the effects of age, sex and intelligence between subjects and age, sex, and whether the child liked or disliked the stimulus person as within subject variables. The analysis had three separate stages. In the first stage they categorized the written responses of the children into central and peripheral statements, i.e., into abstract
and concrete statements about personality. In the second stage, they
categorized the written responses into 33 content categories that they
developed in pilot studies. The major categories for division of
statements were: objective information, contemporary and historical
circumstances, personal characteristics and behavioral consistencies,
aptitudes and achievements, interests and preferences, attitudes and
beliefs, evaluations, social factors, subject-other relations, compar-
ison against standards, family and kinship, illustration (explanation),
and residue.

In the third stage, they considered the organization of the
statements, i.e., whether the child offered explanations of traits,
excluded traits, or qualified his statements about others.

Livesley and Bromley's findings, in general, support the descriptive
studies previously reviewed. Of particular note is that under the age
of 7 or 8, children use a concrete approach to describe others; they
focus mostly on overt rather than covert qualities. Beyond the age of 8
or so, impression formation changes remarkably little, at least as
revealed by their analysis. Although the content of impressions does
not change, the organization of impressions does change with older
children, after about 11 years old. These data support the developmental
cycle outlined by Piaget (1952) and Watts (1944), i.e., generally the
change in content occurs after the child develops the ability to
conceptualize (6 to 7) and more complex organization occurs during the
last developmental period (from about 11 through 16). This stage
Piaget calls "formal operations," and in this stage the child proceeds
from logical solutions to concrete problems to logical solutions to all
classes of problems.
The Livesley and Bromley study, along with the other descriptive studies, trace systematically the development of children's social perceptions and impressions. They form baseline data for the present investigation and appear to be consistent with Piaget's extensive and thorough discussions of the developmental process.

The most salient findings culled from research reviewed thus far are:

1. The developmental process is a delicate, intricate, and rhythmic process that may be easily interrupted by physical disabilities. Movement, manipulation, and especially imitation of events and behaviors are essential ingredients in full development (Piaget, 1952).

2. The family environment of the handicapped child may be characterized more by extreme communication behaviors (oversolicitude, rejection, inconsistent attitudes) than the nonhandicapped child's environment (Wright, 1960); these differences are experienced by the child (Allen and Pearson, 1928; Hathaway, 1947).

3. The communication behavior of the physically handicapped person is often more controlled and strained than the nonhandicapped person; the nonhandicapped person's communication behavior, in presence of the handicapped is also more controlled and strained than usual (Davis, 1961; Goffman, 1963; Kleck, 1968; Comer and Piliavin, 1972).

4. Physically handicapped persons may be less socially perceptive than nonhandicapped persons (Ingwell, Thoreson, and Smits, 1967).
5. Social perception studies indicate, generally, that persons have a small number of terms that they consistently use to describe others.

6. The work of Piaget (1952), Cooley (1922), Mead (1938), Laing (1965), Jourard and Remy (1955) suggest that there is an intimate link between perception of self, others, and what you think others think and expect of you. Terms used to describe others are very similar to terms used to describe self.

7. Developmental person perception studies indicate that children's descriptions of persons get more complex as they get older. Prior to 8 years of age, a child will describe another basically in concrete and physical terms; after 8, the child will begin to describe more covert qualities of individuals—there is, however, little change in the content of descriptions after 8. The changes that occur are mostly changes in organization which begin to occur at about 11 years of age, and even more consistently at 13 years of age.

8. In descriptive studies, the age, sex, and intelligence of the child affect the content and organization of the response.

The previous discussion makes clear that social scientists have little notion of the implications, effects, or consequences of a physical handicap on the social development of the child; nor has there been any systematic application of the theories and methods of Piaget to the social development of physically handicapped children. This
is surprising in that learning theorists and child specialists could
learn much, it would seem, from what children do not know and
cannot do. Needed are systematic investigations, but ones that allow
the child to respond freely so that some insight can be gained of
how the child sees the world and attempts to deal with it.

The present study is a systematic investigation of children's
perceptions of self, certain others, and self-through-others (what
the child thinks certain significant others think of him). The
objectives are:

1. To elicit verbal self-descriptions from physically
disabled children in the age group 9 to 16 years old.
2. To elicit from the physically disabled child verbal
descriptions of certain significant others he knows.
3. To elicit from the physically disabled child verbal
descriptions of how he thinks certain significant others
would describe him.
4. To make comparisons and to test some hypotheses about
the disabled child's responses to these tasks with
similar non-disabled children by analyzing the amount,
content, and organization of these descriptions.

The hypotheses that follow build on Piagetian theory discussed
and the literature reviewed. In general, the physically handicapped
child has more limited knowledge of personality traits and behavior
patterns of self, others, and self-through-others than a similar
nonhandicapped child. In response to the descriptive tasks in the
present investigation, the physically handicapped child (when compared
to the responses of the nonhandicapped child) will:
1. Respond much more briefly. (Children with severe speech problems are not included in the study. It should be remembered, however, that some physically handicapped children have motor problems which may make it more difficult for them to speak, even though it might not be too noticeable.)

2. Include fewer references, proportionately, to personality traits (kind, good sense of humor).

3. Include fewer references, proportionately, to behavioral patterns across all eight descriptions, such as, "He always helps people."

4. Organize their descriptions more simply, i.e., use proportionately fewer explanations of traits and behaviors: "He helps me because..."; proportionately fewer qualifiers of traits, i.e., "He is two-faced sometimes," or "She is very conscientious"; proportionately fewer exclusions of traits and behavior such as, "He is good to me, but..."; and proportionately fewer statements that indicate obscurity of impression such as, "I guess so..."
Chapter II.

Methods and Procedures

Introduction

This chapter is a discussion of the methods and procedures used in the present study. There are three main sections. In section one the sample of subjects and selection procedures are described; in section two the construction of the measuring instruments and coding procedures are presented; and in section three the four major hypotheses and data analysis methods are refined.

Subjects

Fifty-six children ranging in age from 9 years, 10 months to 16 years, 1 month, were selected for the study, 28 of whom were physically handicapped. Physically handicapped children were those who had a visible physical impairment which affected the use of limbs or mobility, and who had a serious enough handicap to be in a special school for the physically handicapped or a special section of a school. The number and types of physically handicapped children are listed below:

1. Thirteen children had a form of cerebral palsy. Two had spastic paraplegia (paralysis of the lower portion of the body and of both legs) and two had spastic
quadriplegia (paralysis affecting all four limbs).
These children used wheelchairs. The others had milder
forms of cerebral palsy, often moving about without
use of a wheelchair.

2. Three children had spina bifida. (A congenital defect
in the walls of the spinal canal caused by lack of union
between laminae of the vertebrae.) They wore braces
and used crutches to get around. All had used wheelchairs
earlier in their development.

3. Three children with juvenile rheumatoid arthritis (a
systematic disease of unknown causes resulting in inflammatory
changes of joints and related structures).

4. Three children with a form of muscular dystrophy. These
children used braces and crutches.

5. Two children (brother and sister) with epidermolysis
bullosa, a rare skin disease. These children were much
smaller than normal, had extreme loosening and flaking of
the outer layer of skin. Neither child had hands.

6. Two children had arthrogryposis multiplex congenita
(persistent contracture of joints). These children were
small in stature and in addition had multiple displacements
of organs. Neither used braces, crutches, or wheelchairs.

7. One child had agenesis of the sacrum and lower spinal
cord. This child was confined to a wheelchair.

The author restricted the sample in two ways. Children who
were considered to be mentally retarded (intelligence scores under
and those who had difficulty in speaking were excluded from the sample. Two children with cerebral palsy had minor difficulty in speaking, but were able to respond adequately to the questions. The children were selected from three schools:

1. An elementary school designated as a school only for physically handicapped children;

2. An elementary school in which the physically handicapped children were in a "regular" school, but were taught in special classes;

3. A "regular" junior high school in which the physically handicapped children were integrated into the classes and activities of the school.

The sample of nonhandicapped children was selected to match the sample of physically handicapped children on the basis of age (years and months), sex, and intelligence. Social economic status and race of each child were recorded but not controlled. Matching children on the basis of intelligence posed a problem. I.Q. scores were taken from the school records, but included ten different intelligence tests. Scores averaged four years old for the physically handicapped children and two years old for the nonhandicapped children. There was little way to adjust the scores of the ten different I.Q. tests. Secondly, because the I.Q. tests were often given verbally to handicapped children, the I.Q. information for physically handicapped children may be less reliable than scores for nonhandicapped children. The child's I.Q. could easily be underestimated because he may be less interpersonally competent (Goffman, 1963; Kleck, 1966, 1968; Comer and Piliavin, 1972). To compensate for these problems,
the investigator used three gross categories of intelligence: below average, average, and above average — on the basis of the "natural groupings" of the scores: Thus I.Q. scores of 80 to 92 composed the below average category; 93 to 112 the second, average category; and above 112, the above average category. Very few scores fell near the extremes of these groupings.

Social economic status of the students was determined from cross referencing information about the parents' occupations and residence. Again large categories were devised to compensate for the complexity of making a decision about a family's social economic status. Five categories were established:

1. Low, income below $8,999.00
2. Middle, $9,000.00-$19,999.00
3. High, $20,000.00+
4. Unknown
5. Child lived full time in an institution

The nonhandicapped children were selected from four different schools: three public and one Catholic school. The children were selected to match the handicapped sample in age, sex, and intelligence and this information was obtained from school reference folders. Since schools file their students by grade level, it was an easy matter to find children of the approximate ages desired. The process of selection began by choosing any number of folders from the appropriate grade level files, dividing them into males and females, and then gradually refining age and intelligence information until
I found a child who matched a child in the handicapped sample.

Race information was considered to assure some racial mix. Social economic status information was recorded, but not used as part of the selection process.

See Table 1 for a comparison of the handicapped and nonhandicapped samples on the basis of sex, intelligence, race and social economic status.

I divided the sample into four age groups so as to facilitate comparisons of children of similar ages and to sort out developmental trends (see Table 2). These age groups were selected to cross the final developmental stage described by Piaget as beginning at about 11 years old; in this stage the child develops mature problem-solving abilities (Piaget, 1952). The ages also cross the development of children's more organizationally complex descriptions of people. As noted in previously reviewed studies (Watts, 1944; Livesley and Bromley, 1973) children at about age 11 begin to offer more organizationally complex descriptions of people although content seems to change little from age 8 on (Livesley and Bromley, 1973).

See Table 2 for demographics of both handicapped and nonhandicapped groups by age groupings.
Table 1
Comparison of Subjects by Sex, Intelligence, Race, and Social-Economic Status (SES).

<table>
<thead>
<tr>
<th></th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Intelligence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below Average</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Average</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Above Average</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Afro-American</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Middle</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>High</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Unknown</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Institutional</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
### Table 2

Comparison of Subjects by Age Groups,
Group Mean Age, Group Age Range, Sex,
Intelligence, Race, and Social-Economic
Status for Each Age Group.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Mean Age</td>
<td>10 years, 5 months</td>
<td>10 years, 4 months</td>
</tr>
<tr>
<td>Age Range</td>
<td>9 years, 10 months - 10 years, 11 months</td>
<td>9 years, 9 months - 10 years, 9 months</td>
</tr>
<tr>
<td>Sex</td>
<td>2 Males, 7 Females</td>
<td>2 Males, 7 Females</td>
</tr>
<tr>
<td>Intelligence</td>
<td>5 Below Average, 4 Average</td>
<td>5 Below Average, 4 Average</td>
</tr>
<tr>
<td>Race</td>
<td>8 Caucasians, 1 Afro-American</td>
<td>8 Caucasians, 1 Afro-American</td>
</tr>
<tr>
<td>SES</td>
<td>6 Middle, 2 High, 1 Unknown</td>
<td>3 Middle, 3 High, 3 Unknown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 2</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Mean Age</td>
<td>11 years, 11 months</td>
<td>12 years, 2 months</td>
</tr>
<tr>
<td>Age Range</td>
<td>11 years - 12 years, 10 months</td>
<td>10 years, 3 months - 12 years, 2 months</td>
</tr>
<tr>
<td>Sex</td>
<td>6 Males, 1 Female</td>
<td>6 Males, 1 Female</td>
</tr>
<tr>
<td>Intelligence</td>
<td>4 Below Average, 2 Average, 1 Above Average</td>
<td>4 Below Average, 3 Average</td>
</tr>
<tr>
<td>Race</td>
<td>7 Caucasians</td>
<td>5 Caucasians, 2 Afro-Americans</td>
</tr>
<tr>
<td>SES</td>
<td>5 Middle, 1 High, 1 Unknown</td>
<td>4 Middle, 3 High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 3</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Mean Age</td>
<td>13 years, 10 months</td>
<td>13 years, 9 months</td>
</tr>
<tr>
<td>Age Range</td>
<td>13 years, 4 months - 14 years, 13 months</td>
<td>13 years, 3 months - 14 years, 16 months</td>
</tr>
<tr>
<td>Sex</td>
<td>4 Males, 4 Females</td>
<td>4 Males, 4 Females</td>
</tr>
<tr>
<td>Intelligence</td>
<td>2 Below Average, 3 Average, 3 Above Average</td>
<td>1 Below Average, 3 Average, 4 Above Average</td>
</tr>
<tr>
<td>Race</td>
<td>7 Caucasians, 1 Afro-American</td>
<td>7 Caucasian, 1 Afro-American</td>
</tr>
<tr>
<td>SES</td>
<td>1 Low, 3 Middle, 2 High</td>
<td>3 Middle, 2 High, 1 Institutional</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 4</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mean Age</td>
<td>15 years, 6 months</td>
<td>15 years, 8 months</td>
</tr>
<tr>
<td>Age Range</td>
<td>15 years, 2 months - 16 years</td>
<td>15 years, 3 months - 16 years, 1 month</td>
</tr>
<tr>
<td>Sex</td>
<td>1 Male, 3 Females</td>
<td>1 Male, 3 Females</td>
</tr>
<tr>
<td>Intelligence</td>
<td>1 Below Average, 1 Average, 2 Above Average</td>
<td>1 Below Average, 1 Average, 2 Above Average</td>
</tr>
<tr>
<td>Race</td>
<td>4 Caucasian</td>
<td>4 Caucasian</td>
</tr>
<tr>
<td>SES</td>
<td>3 Middle, 1 Unknown</td>
<td>3 Middle, 1 High</td>
</tr>
</tbody>
</table>
Procedures

Many of the children selected to participate in the study were students in the Columbus Public School system. Permission was requested and granted to work within the school system by the Superintendent of Schools (see Appendix A and B). Permission to work within individual schools was requested in an interview with the principal of each school. Permission of parents was requested by letter. Two different letters were required, one for parents of physically handicapped children (Appendix C) and one for parents of nonhandicapped children (Appendix D). About 70 percent of parents granted permission for their child to participate in the study.

Physical Setting

Interviews were conducted where facilities allowed, sometimes in an empty classroom, sometimes in some other spare room, but conditions were always private and quiet.

Data Gathering

Each child was interviewed individually, either by the investigator or by his associate, a graduate student with twelve years' experience in teaching primary-age school children. The author was able to meet and develop some rapport with most of the children prior to the day of data gathering. Of the 56 children in the study, I interviewed 32 of the children, my associate, 24.

Data gathering interviews took from fifteen to thirty minutes, and were audio recorded. After developing rapport with the child, the following verbal instructions were given.
I'm going to ask you to describe some people. I'm going to ask you to pick someone you know, like a good friend, and ask you to describe what they're like. When I say describe, I don't mean what they look like, whether they have light or dark hair, whether they're tall or short, or what kind of clothes they wear. I want you to tell me what kind of person they are; I want you to tell me what they're like. If a friend of yours came up to you and said, "Hey, what's that new guy like?" — that's what I mean. Do you understand?

What we talk about here today is confidential (secret). No one else other than me and another person who helps me will know what you say. O.K.?

I'm going to record this if you don't mind. (The recorder was visible). Is that o.k. with you? (Talk about the recorder, whether they had one at home, had used one, etc.)

The child was then asked to describe persons in the order below.

1. A same sex friend you like, about your age.
2. One of last year's teachers.
4. A friend you dislike, about your age.
5. How you think a friend would describe you.
6. Mother.
7. How you think your mother would describe you.
8. An opposite sex friend you like, about your age.

The order was the same for all interviewees to minimize threat.

Some children did not feel at ease describing a friend of the opposite sex so this description was placed last. Descriptions were also designed so that the child would be describing self, others, and self-through others, so that both adults and children, liked and disliked persons, would be described.
The interviews were systematically facilitated. I found in the pilot study that it was important to set up an informal atmosphere to help the child feel at ease, to encourage the child to talk and to explain very general statements.

The interview began with small talk, the purpose of the interview, and talk about the tape recorder—whether the child had one at home, had used one, etc. With children less familiar with the recorder, the interviewer recorded some conversation and played it back for the child.

After thorough explanation of the rules of the interview, the researcher began by asking about the first person to be described: "I want you to think of a boy (a girl, for girl subjects) you know, someone about your age, and someone you like. I want you to describe what he or she is like. What kind of person is he?"

If the child had difficulty in responding, the interviewer rephrased the directions: "If a friend of yours asked you, "What's he really like?" What would you say?"

If the child still had difficulty, the interviewer gave an example. If the child remained unable to give a description, the interviewer went on to the next description.

Almost all children's descriptions begin by saying, "He's nice." In the pilot study I found it useful to ask, "What do you mean when you say nice?" The child would often give much more specific personality information.

At the end of each description, the interviewer would ask if the child had anything to add. After this response the interviewer went on to the next description.
The researcher and assistant practiced interviewing procedures with several children before beginning actual interviews. We exchanged audio tapes and discussed differences in interviewing procedures. We then played the tapes for a third party, a graduate student in Communication, and again reviewed procedures. We found that we were able to interview very similarly. We learned to stay within the rules of the interview, but to bend to the needs of each child. Some children did not respond at all to prodding, and these were encouraged less. Others needed a little extra encouragement to give any information at all. One had to be aware of how the child was responding and to encourage him or her appropriately.

I have included a typical interview below. It does not include the small talk that occurred prior to recording nor instructions, but it demonstrates how the interviewing procedure was adapted to this child.

Interview with handicapped boy, age 11.

Description I:
R: I'd like you to describe a boy you know, someone about your age, and someone you like. How would you describe what he's like?
S: This boy is pretty nice.
R: What do you mean, "nice?"
S: His personality is pretty good. He's still a kid. He hasn't grown up that much. Even though his age is up there, he hasn't done as good as I have I'd say. I just kick around with him and he just got to go the way he is and like if you're playing a game with him and he starts losing a little bit, he starts pouting or something
like that and you'd sadden him out.
R: Anything else?
S: No, nothing.

Description II:
R: Okay, how about describing one of last year's teachers? What kind of a person is she?
S: She was fair. Now, she's got, I would say, a sort of temper. Like, I remember, one morning I came in and I usually gave her my coat to hang up and I didn't even know I do that or plopped it down or anything and she just plopped it down in my desk or someplace else and says you didn't have to throw it to me or something like that and gets all mad about it. And I'd say she has sort of a temper but I like her.
R: Anything else about her personality?
S: She has a good personality but she's just a little short tempered.

Description III:
R: Now I'd like you to describe yourself. What are you like?
S: I assume I have a good one but that's my opinion and nobody else's. I'm taking this from what other kids talk about me and say that I'm not one of the best kids around here. They like me and they don't like me. I'm not saying I love myself or anything but I think I'm pretty good. I do the best I can.
R: What kind of personality do you have?
S: It all depends on what's going on. It just changes. I'm like my father, actually, and we just, I think I got a good personality. It's cheerful and stuff like that most of the time. I like camping, actually. We go camping every weekend near Sunbury and Saturday I played all day
outside and I paid for it too. I got a sore hip. And I just play with my friends and run around and do whatever I want to do and just have fun.

R: What else would you say about yourself?

S: Actually, I'm not too good when the weather's bad like tornadoes or something like that. I'm scared and I'm shaking all over. Actually, I know what to do but I'm still scared of them and I imagine everybody is. Or when I'm mad or something like that.

Description IV:

R: This time I'd like you to describe someone you don't like.

S: He's kind of dirty. He says things kind of dirty and he does things dirty and if he wants to make the teacher mad he starts fights and stuff, pretends fights. And he's just the kind of kid that he's my friend, yes, but on the other hand, I can take him or leave him.

R: What's his personality like?

S: It all depends. Sometimes it's good and sometimes it's bad. It all depends on what kind of day or how his mood is and stuff like that. Sometimes he's got a temper. He says I do too. Well I do a little bit but he gets mad a lot.

Description V:

R: Now I want you to pick a friend and tell me how that person would describe you.

S: A friend would describe me as a dumb-dumb. I'm just kind of dumb but I be pretty good in play and stuff like that. They'd probably say I've got a good personality. I've got a temper and stuff like that.

R: Any other way they'd describe you?

S: That I play well. I don't get mad too much.
Description VI:
R: How about your Mom. How would you describe her?
S: She has a nice personality. She likes kids and when she's ready to retire herself – when she's retired, she wants to help crippled kids and stuff like that. And I would say she's got a nice caring personality and she cares about people and stuff like that. She's got feelings too. And like if I stay some place too long and I don't come back to see her when she comes home she gets mad.

Description VII:
R: How would she describe you?
S: If she would talk to me now she'd say well, I'm a good kid at times. There are other times he's not very good. He's got a good personality and I get mad at him once in a while.
R: Would she describe you any other special way: any special words she'd use to describe you?
S: I don't know. Have to ask her.

Description VIII:
R: Okay, this is the last one. I want you to describe a girl you know, someone about your age. What kind of person is she?
S: She's nice and she's got a good personality and I like her and she plays good with me and stuff like that. And she's sort of like a tattle tale. She tattles on everybody. The teacher yelled at her too.
R: The teacher yelled at her?
S: Yeah, she's an orphan girl too. Her parents, I guess, when she was born didn't want her. So her family now that's got her doesn't
treat her too good so I try to let her come over to my house and play
with me and try to get her so she can be happy because as far as she
tells me she just sits around the house and does nothing. So she must
go places and do things with other people since her mom and dad won't
do anything with her. Her mom's lazy.
R: What else can you add?
S: Nothing else.

Pilot Study—Developing the Content Categories

A pilot study was conducted to explore the following problems:
1. Is the free description method feasible?
2. What are the procedural problems?
3. What kind of data are received?

The sample consisted of 10 children, four handicapped (three boys
and one girl), and six nonhandicapped (three boys and three girls),
ages 11-14. There was a mix of intelligence abilities in both groups
but the range of intelligence and ages could not be matched, so direct
comparisons of children are difficult.

The children wrote descriptions of self, how their mother would
describe them, how a friend would describe them, how they would describe
last year's teacher, their father or mother, a boy they knew and liked,
a girl they knew and liked, and a friend they disliked (this description
was only done by the nonhandicapped group).

Analysis of this project indicated that the method was indeed
feasible, but verbal interviews, audio recorded, would be more useful
than interviews in which the children responded in writing. The
physically handicapped children had difficulty in writing the responses.
The data were descriptively analyzed, but conclusions were unwarranted because the responses were written. Similarly, the data were analyzed using Livesley and Bromley's 33 content categories. Again, results are not reported because differences found may have resulted from ability or inability to write with ease. The Livesley and Bromley (1973) system, however, was found to be useful, but perhaps overly complex. The author modified the content category system as a result of this pilot study.

Developing the Content Categories

The content category system used as part of the data analysis in the present investigation is modified from that of Livesley and Bromley (1973) reported in their work, *Person Perception in Childhood and Adolescence*. Their category system, meticulously developed over a period of two years consisted of 33 content categories divided into 13 major areas.

I. Objective Information
II. Contemporary and Historical Circumstances
III. Personality Characteristics and Behavioral Consistencies
IV. Aptitudes and Achievements
V. Interests and Preferences
VI. Attitudes and Beliefs
VII. Evaluations
VIII. Social Factors
IX. Subject-Other Relations
X. Comparison Against Standards
XII. Illustrations, Corroboration and Explanation

XIII. Residue

In their main investigations with 320 children, Livesley and Bromley (1973) identified 989 different kinds of statements children made about others. From these they devised 33 content categories and 9 organizational categories. Coding reliability ranged from 85.8% to 92.4%. Intra-judge reliability was assessed at 81.8% agreement when the interval between codings was two years. The reliability of the coding for the organizing and qualifying terms was 78.3% and 72.5% agreement.

In developing the category system for the present investigation, the author considered several category systems in addition to that of Livesley and Bromley (1973), but there is no doubt that their method was more thorough, and more importantly fit the theoretical and methodological considerations. In deciding on the final set of categories, the author selected responses randomly from handicapped and nonhandicapped subjects which included data from all eight descriptions required of each subject. He then divided the statements into the Livesley and Bromley categories; their system did not provide a category for statements of reactions of the subject to self-emotions and evaluations of self or for statements of hopes and wishes. These categories were provided. Many other categories were collapsed into one category because they had little to do with the hypotheses of this research and showed low frequency of usage in the pilot study.
Categories Developed

The 23 categories used in this study fall into 12 major classifications. These are:

I. Objective information
II. Personality descriptors and behavioral consistencies
III. Aptitudes and achievements
IV. Interests and preferences
V. Attitudes and beliefs
VI. Evaluations
VII. Social factors
VIII. Subject-other reactions
IX. Comparisons
X. Potential, hopes, wishes
XI. Collateral facts and ideas
XII. Irrelevant and unclassifiable

The 23 categories are:

I. Objective Information

Category #1: General information and identity. This category includes references to:

1. Appearance. References to physical build, facial appearance and clothing.
   Examples: "He is tall." "She would say that I am good looking."

2. Identity. The person's name, age, sex, nationality, religion, residence or school.
   Examples: "His name is John Goodman." "She is Catholic."
3. Family relationships.
   Examples: "She is my sister." "They are brothers."

4. Possessions.
   Examples: "I have a pet rabbit in my backyard."

5. Daily or weekly routines.
   Example: "She goes to work at eight o'clock everyday."

6. Background, origins, childhood experiences.
   Examples: "She comes from Pittsburgh." "He was brought up in a bad neighborhood."

7. Physical condition:
   Examples: "She is strong." "He's crippled."

Category #2: Actual incidents. This category includes statements about specific actions, things done and said, or events someone has been involved in or places visited.

   Examples: "Like last week my teacher took some gum away from a friend of mine...." "He bumped into me and said...."

II. Personality Descriptors and Behavioral Consistencies

Category #3: Personality descriptors. This category includes terms or phrases that describe "what a person is like" or "what sort of person he is." They could also be said to describe psychological qualities or inner states of self or others. This includes very general terms such as nice, good, bad, all right, normal, okay, when offered as an overall description of what a person is like. Also included are words and phrases that more specifically describe personality, such as kind, mean, conscientious, two-faced, humorous,
and terms describing temperament.

Examples: "One thing you can say about him is that he's two-faced." "She thinks I'm mean, but I'm not really."

Category #4: Specific behavioral consistencies. This category includes statements about behaviors over time, reactions to others of a specific nature or general habits, but not including hobbies or interests.

Examples: "She never calls you names." "He complains a lot." But not, "I like to hike." This is a hobby or interest. But, "I like to argue with my father at supper," is a behavioral consistency. Other examples: "She can't take a joke." "He always gives her a hard time."

Category #5: Motivation, Aspiration. This category includes references to motivation in tasks undertaken, trying hard, learning about, statements about success (rather than competence), and status, statements about self improvement, aspirations, aims, ambitions, and desires.

Examples: "I want to be a lawyer." "He works really hard to get what he wants."

III. Aptitudes and Achievements

Category #6: Intellectual aptitudes and achievements. Mental skills and intellectual capacity, scholastic achievements and failures. References to intelligent, bright, smart, dumb, stupid, good in arithmetic (for example), quick, sharp as they apply to mental abilities.

Examples: "She gets C's and B's on her report card." "My grades are all right..." "He's really smart."
Category #7: Achievements and skills. This category includes general achievements, especially in sports, but not limited to sports. Competence, doing a task or performing a role well, physical successes and failures.

Examples: "This year I was captain of the basketball and football teams." "She's pretty well coordinated and good at sports." "He is a good worker." "She'd say that I could run fast."

IV. Interests and Preferences

Category #8: Preferences and aversions. Includes references to likes, dislikes, and interests in things, events, and behaviors usually called hobbies or interests.

Examples: "My father likes the outdoors." "She likes to do fun things." "He is really psyched about football." "She likes boys."

V. Attitudes and Beliefs

Category #9: Beliefs, attitudes, and values. This category includes standards, values and ideals that a person accepts and conforms to.

Examples: "I think that she shouldn't be a teacher." "Sometimes I have to lay it on the line."

Category #10: Subject's opinion of another's self attitude and state of awareness.

Examples: "She thinks she is very beautiful." "He thinks that he is better than anyone else." "I don't think he even realizes it." "They don't know it."

VI. Evaluations

Category #11: Subject's emotions, feelings, reactions to situations
and evaluations of self. Such feelings as pride, disgust, nonacceptance, fears, loneliness are included.

Examples: "I'm proud of that." "That really makes me mad."

Category #12: Emotions, feelings, reactions to situations and evaluations, of others on other individuals.

Examples: "He makes people feel embarrassed." "She makes the principal meaner than she really is." "It drives her crazy."

VII. Social Factors

Category #13: Social roles. This category includes references to group and organizational membership, occupational role.

Examples: "He's a dentist at his work." "He's the football coach."

Category #14: Reputation. Includes references to what people in general think of the subject or another person.

Examples: "Everybody likes him." "A lot of people know her." "It's just that people think I'm mean." "Nobody likes her."

Category #15: Friendships and playmates. References to a person's friends or playmates, including references to the number of friends he has.

Examples: "She has a friend that works here." "Her best friend is...." "He plays with...."

VIII. Subject-Other Relations

Category #16: Mutual interaction. This category includes references to interactions between the subject and another person. Includes the things they do or have done together, frequency of interaction, length of acquaintanceship.
Examples: "We go to the movies together." "I hang around with him." "We get along well." "We talk about girls."

Category #17: Subject's pronouncements about others.
Examples: "I am her best friend." "I like people." "I like my mother."

Category #18: Others' pronouncements about the subject or others.
Examples: "She likes me." "He likes her brother."

Note: Categories 17 and 18 are not to be confused with Category 8 which is based on preferences or aversions of interests, not people.

IX. Comparisons

Category #19: Comparison of self with others or with an ideal.
Examples: "He's just like me." "I'm a lot like my father."
"And I feel that I'm better at sports than most people I know." "I'm the smartest in the class." "He's smart, too." (implied comparison.)

Category #20: Comparison of others with others or with an ideal.
Examples: "He is better at sports than his brother." "He is the quickest in the house."

X. Potential

Category #21: Potential, projections, wishes, guesses of what could be. This category includes references to the potential of persons or situations, guesses as to the motivations of others, or what could have been, wishes and hopes for the future.

Examples: "I always think what would happen if he would die." "I also think that if he kept his mouth shut more often, even more people would like him." "I think if he wanted to, he could be very smart." "I wish he would change."
XI. Collateral Facts and Ideas

Category #22: Collateral facts and ideas. This category includes statements in support of a previous assertion, illustrations of personal qualities, explanations of behavior.

Examples: "...because she is nice to practically everybody." "...unless he is nagged all the time." "...especially when he is in a queer mood." "One reason is because he likes little kids." "...but I don't take that attitude really."

XII. Irrelevant and Unclassifiable

Category #23: Irrelevant and unclassifiable. Other statements that cannot be classified in the above statements. Incomplete sentences. Inaudible material.

Coding Examples

<table>
<thead>
<tr>
<th>Statement</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>He clowns around a lot.</td>
<td>4: Behavioral consistency</td>
</tr>
<tr>
<td>but he's got a serious side too, you know.</td>
<td>3: Personality descriptor</td>
</tr>
<tr>
<td>He'll clown to a point but he knows when to quit.</td>
<td>22: Collateral fact</td>
</tr>
<tr>
<td>He's fairly smart.</td>
<td>6: Intellectual aptitudes and Achievements</td>
</tr>
<tr>
<td>He's taking geometry this year, I think.</td>
<td>1: General information</td>
</tr>
<tr>
<td>He's getting B's and A's and that.</td>
<td>6: Intellectual aptitudes and Achievements</td>
</tr>
<tr>
<td>He's got a good personality</td>
<td>3: Personality descriptor</td>
</tr>
<tr>
<td>and he's probably considered good, you know.</td>
<td>14: Reputation</td>
</tr>
</tbody>
</table>
Everybody's got their different opinions.

He's interested in track like I am.

We run a lot together

She's nice.

She does a lot.

And she knows a lot.

She visits me a lot.

She's happy.

She's hardly ever mad.

except once in a while she gets carried away.

That's about all I know of P.

Organizational Complexity

In the previous chapter, I discussed how a child's descriptions of people become more complex as the child gets older. This is as expected. The noteworthy portion of that discussion is that at about 11 years of age, the child is able to make finer distinctions in an individual's personality structure. Thus as the child gets older the major change in describing people is not in content, but in how the child organizes what he says. This development coincides with Piaget's findings that at about 11 years of age, and particularly after 13 years of age, a child begins to develop full adult problem-solving abilities.

Livesley and Bromley attempted to analyze organizational complexity of children's descriptions in their study previously reviewed, but they were unable to develop strong reliability for their method.
Building on what they learned and the advantage of a computer concordance program, I constructed a simpler measure of organizational complexity, a measure based on the number of organizationally important words used by each child across the eight descriptions. (For example, a child who used 100 organizational words over a total of 1,000 words, had a measure of organizational complexity of 10.) The concordance program provided a list of the words used by all children, or by each child, and the frequency of each word.

Qualifying words say something about the likelihood of occurrence of a quality, or the degree of that quality. Organizational words are used in several ways.

1. They can qualify other words and thus allow for finer distinctions. Thus a person is not only kind, but extremely kind, or very nice.

2. Organizational words allow for exclusion; thus, "She is cheerful, except when she's hungry."

3. Organizational words also explain previous statements or offer reasons for what was said earlier. Thus, "He is mean because...."

4. Obscurity of impression can be indicated by, "I suppose," or, "I guess," "I assume," or by using terms such as "kind of" or "sort of."

See Figure I for a list of the organizational words and phrases tallied as a measure of organizational complexity.
<table>
<thead>
<tr>
<th>Qualifying Words</th>
<th>Exclusions</th>
<th>Explanations</th>
<th>Obscurity of Impressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a lot, lots of</td>
<td>although</td>
<td>because</td>
<td>I assume</td>
</tr>
<tr>
<td>a little</td>
<td>but</td>
<td>since</td>
<td>I guess</td>
</tr>
<tr>
<td>almost</td>
<td>except</td>
<td></td>
<td>seems</td>
</tr>
<tr>
<td>always</td>
<td>not (just, too)</td>
<td></td>
<td>kind of</td>
</tr>
<tr>
<td>at times</td>
<td>very, all the time</td>
<td></td>
<td>sort of</td>
</tr>
<tr>
<td>constantly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>especially</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>every time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fairly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>generally</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hardly (ever)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>just (about)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>many</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>many times</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>most</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>most of the time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mostly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>never</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>normally</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pretty (nice, good)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>often</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>practically</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>probably</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>quite (a bit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(often) (a little)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>scarcely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>some of the time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sometimes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tends to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>too much</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>usually</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>very</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure I: Words Tallied to Compute Organizational Complexity Measure
The author and associate conducted several practice runs on pilot study data to develop reliable coding procedures. The first problem was to establish a method of dividing the data into consistent units. A method similar to Livesley and Bromley's (1973) was used, that of dividing the descriptions into complete thoughts. This is a subjective process, but in line with what Livesley and Bromley (1973) found, two people can generally agree as to how the verbiage can be divided into thought units (see unitizing reliability).

A sample of data is presented below to indicate how the data were divided into units. Units need not begin and end at the same word, but must have the same central thought. No unit of data was coded more than once.

I am a nice person/but I sometimes get a little bit mad/
but usually I'm nice to people./I like jokes and stuff./
And I like most people that are nice to me/and I feel bad
when someone I like is hurt in feelings or something,/
then I try to avoid them being hurt again/and try to
comfort them./I don't know what other people think,/
but I think I'm a nice person./But I stand up for what
I feel is right though and everything,/don't let people
push me around or anything./
Two indices of coding reliability were used in the present investigation. Unitizing reliability was computed to reflect the consistency with which the coders selected the same number of units to be classified in each category. Categorizing reliability was computed to reflect the proportion of units which the coders classified similarly.

Inter-coder reliability was computed three times. The data were coded by beginning with the younger children. Thus the first reliability check was computed for the more simple language structure, and the third represented the most sophisticated language usage in the study. Data selected also represented both handicapped and nonhandicapped groups.

Categorizing reliability was computed by dividing the number of units the two coders classified similarly by the total number of units coded (about 100 units each time). Inter-coder reliability ranged between .74 to .85. As expected, the most conservative estimate of reliability occurred when categorizing the more complex language usage of the older subjects. Unitizing reliability was computed by comparing the number of units each coder categorized in each description. Unitizing reliability remained quite high throughout the analysis ranging from .86 to .93 agreement and was not used in computing categorizing reliability.

Intra-coder reliability was also computed by dividing the number of units coded similarly on the two trials by the total number coded. Intra-coder reliability for coder #1 was .91 and for coder #2, .88 with one week between codings.
Hypotheses

Hypotheses were introduced in the previous chapter but can be refined here. The author was interested in how handicapped children compare with the nonhandicapped in describing people. There are three major areas of interest:

1. Amount spoken (number of words for all eight descriptions).
2. Content, as measured by the content category system.
3. Organizational complexity of descriptions, as measured by the frequency of organization words across all eight descriptions.

Hypothesis 1: Handicapped children will respond with less words than nonhandicapped children.

Hypothesis 2: Handicapped children will respond with proportionately less use of personality descriptors than nonhandicapped children.

Hypothesis 3: Handicapped children will respond with proportionately less use of behavioral consistencies than nonhandicapped children.

Hypothesis 4: Handicapped children will respond with proportionately less use of organizationally important words than nonhandicapped children.

Analysis of Data

The following statistical procedures and computer programs were used for testing the four major hypotheses of this study:

Hypothesis 1: Mann-Whitney U Test.

Hypothesis 2: T-test and Discriminant Analysis, SOUPAC.

Hypothesis 3: T-test and Discriminant Analysis, SOUPAC.

Hypothesis 4: T-test and Discriminant Analysis, SOUPAC.

The statistical analyses are seen as ways of looking at the data,
and as guidelines that point toward more in-depth, descriptive analysis.

Because of the nature of the study, the analyses must be child-centered. The study was begun to gain insight into how the child sees the people in his world and whether a handicap seriously changes that outlook. The analyses were conducted with this in mind.
Chapter III.

Results and Discussion

Introduction

This chapter is a report and discussion of the results of the data analysis. It is divided into three sections. Section one is a discussion of the statistical and descriptive analysis of the amount of verbal response (hypothesis one). Section two introduces multiple discriminant analysis, the method used to test the differences in content and organization (hypotheses two, three, and four); and Section three considers the findings of this analysis.

Hypothesis One

Hypothesis one stated that the sample of handicapped children would offer fewer words in response to all eight descriptive tasks than would the nonhandicapped children. This indeed was the case. The handicapped children spoke a total of 18,402 words in response to the tasks, the nonhandicapped group, 24,828 words. The handicapped group, matched in age, sex, and intelligence, gave approximately 25% less verbal response than the nonhandicapped group. This difference, when tested by the Mann-Whitney U Test is not significant at the .05 level, $U = 3.56$, $Z = 5.81$. Nor are the differences significant when considered by task, i.e., the task of describing self, mother, etc.
Statistics in testing the handicapped-nonhandicapped differences for the task of describing self (the task showing the largest difference) are $U = 3.25$ and $Z = 1.08$; statistics for testing the task of mother are $U = 3.85$ and $Z = 1.14$. Hypothesis one is not supported, but further analysis was required to reveal the nature of the differences found.

Recall that each child was asked to give eight descriptions. They are listed again for convenience:

1. A same sex friend you like, about your age.
2. One of last year's teachers.
4. A friend you dislike, about your age.
5. How you think a friend would describe you.
6. Mother.
7. How you think your mother would describe you.
8. An opposite sex friend you like, about your age.

The first question is naturally, "How do the handicapped and non-handicapped groups compare on each task?" In Table 3, note that the handicapped children offered from 69 words less, when describing a same sex friend, to 2,439 words less when describing self. This is about half as many words as spoken by the nonhandicapped group. In addition, while the handicapped children spoke less on seven of the tasks, they spoke more when describing mother; in fact, they said considerably more when describing mother than when they described anyone else. This is a rather surprising finding considering the pattern on the other tasks.
Table 3

Comparison of Number of Words Spoken by Handicapped and Non-Handicapped Groups by Task

<table>
<thead>
<tr>
<th>Task</th>
<th>Non-Handicapped</th>
<th>Handicapped</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Same Sex Friend</td>
<td>2,433</td>
<td>2,364</td>
<td>69</td>
</tr>
<tr>
<td>2. Teacher</td>
<td>3,311</td>
<td>1,822</td>
<td>1,489</td>
</tr>
<tr>
<td>3. Self</td>
<td>4,851</td>
<td>2,412</td>
<td>2,439</td>
</tr>
<tr>
<td>4. Friend You Dislike</td>
<td>3,611</td>
<td>2,533</td>
<td>1,079</td>
</tr>
<tr>
<td>5. How A Friend Would Describe You</td>
<td>2,097</td>
<td>1,782</td>
<td>315</td>
</tr>
<tr>
<td>6. Mother</td>
<td>3,346</td>
<td>3,655</td>
<td>309</td>
</tr>
<tr>
<td>7. How You Think Your Mother Would Describe You</td>
<td>2,403</td>
<td>1,645</td>
<td>758</td>
</tr>
<tr>
<td>8. Opposite Sex Friend</td>
<td>2,776</td>
<td>2,189</td>
<td>587</td>
</tr>
</tbody>
</table>
### Table 4

Comparison of Number of Words Spoken by Subjects In Describing Self

<table>
<thead>
<tr>
<th>Person</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36</td>
<td>116</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>283</td>
</tr>
<tr>
<td>3</td>
<td>110</td>
<td>64</td>
</tr>
<tr>
<td>4</td>
<td>66</td>
<td>42</td>
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<tr>
<td>5</td>
<td>103</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>106</td>
<td>41</td>
</tr>
<tr>
<td>7</td>
<td>54</td>
<td>537</td>
</tr>
<tr>
<td>8</td>
<td>42</td>
<td>250</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>84</td>
</tr>
<tr>
<td>10</td>
<td>19</td>
<td>41</td>
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<tr>
<td>11</td>
<td>22</td>
<td>38</td>
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<tr>
<td>12</td>
<td>168</td>
<td>142</td>
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<tr>
<td>13</td>
<td>72</td>
<td>50</td>
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<td>14</td>
<td>6</td>
<td>11</td>
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<td>15</td>
<td>96</td>
<td>1,073</td>
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<td>16</td>
<td>18</td>
<td>97</td>
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<td>17</td>
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<td>18</td>
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<td>19</td>
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<td>20</td>
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<td>133</td>
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<td>21</td>
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<td>22</td>
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<td>66</td>
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<td>23</td>
<td>78</td>
<td>44</td>
</tr>
<tr>
<td>24</td>
<td>66</td>
<td>64</td>
</tr>
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<td>25</td>
<td>237</td>
<td>92</td>
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<tr>
<td>26</td>
<td>36</td>
<td>950</td>
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<td>27</td>
<td>124</td>
<td>52</td>
</tr>
<tr>
<td>28</td>
<td>93</td>
<td>188</td>
</tr>
</tbody>
</table>
In describing self, two of the nonhandicapped children account for about 45% of the verbal response for all of the nonhandicapped children. One half of the handicapped children actually gave more response than their counterpart nonhandicapped member. No conclusion is warranted that the sample of handicapped children related significantly less about themselves than the nonhandicapped group. This is the first evidence, however, that the handicapped children's response in this study showed less variability than the nonhandicapped.

This is congruent with Kleck's (1966, 1968) findings that in face-to-face situations handicapped persons demonstrate less variability of behavior. There is some beginning indication here, to be reinforced in other findings of this study, that one effect of a physical handicap is to reduce the variability of communication behavior.

In fact, the notion of variance of response can be carried further by comparing each child's response over the eight tasks. The handicapped group range extends from 96 to 1,860 words while the nonhandicapped group range is much greater, extending from 209 to 4,664 words. See Table 5. In this case, it is the upper extremes of verbal response that were cut short in the handicapped sample. Comer and Piliavin (1972) found that in interviews, physically handicapped persons terminated the interactions sooner. While this was not tested in the present study, a rather interesting parallel was apparent. The two interviewers agreed that the handicapped children as a group had a more difficult time in responding to the task. The information did not seem to be as readily at their fingertips as it did to the nonhandicapped; many of the handicapped children showed little eye contact and often seemed more ill at ease. This
Table 5
Comparison of Total Number of Words Spoken by Subject Across All Eight Tasks

<table>
<thead>
<tr>
<th>Person</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>222</td>
<td>846</td>
</tr>
<tr>
<td>2</td>
<td>163</td>
<td>965</td>
</tr>
<tr>
<td>3</td>
<td>641</td>
<td>361</td>
</tr>
<tr>
<td>4</td>
<td>361</td>
<td>282</td>
</tr>
<tr>
<td>5</td>
<td>1,070</td>
<td>659</td>
</tr>
<tr>
<td>6</td>
<td>540</td>
<td>209</td>
</tr>
<tr>
<td>7</td>
<td>493</td>
<td>2,012</td>
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<td>8</td>
<td>301</td>
<td>685</td>
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<td>9</td>
<td>130</td>
<td>770</td>
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<td>10</td>
<td>212</td>
<td>561</td>
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<tr>
<td>11</td>
<td>207</td>
<td>340</td>
</tr>
<tr>
<td>12</td>
<td>1,285</td>
<td>557</td>
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<tr>
<td>13</td>
<td>844</td>
<td>484</td>
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<tr>
<td>14</td>
<td>96</td>
<td>276</td>
</tr>
<tr>
<td>15</td>
<td>686</td>
<td>3,574</td>
</tr>
<tr>
<td>16</td>
<td>157</td>
<td>694</td>
</tr>
<tr>
<td>17</td>
<td>1,732</td>
<td>486</td>
</tr>
<tr>
<td>18</td>
<td>605</td>
<td>512</td>
</tr>
<tr>
<td>19</td>
<td>394</td>
<td>399</td>
</tr>
<tr>
<td>20</td>
<td>1,313</td>
<td>826</td>
</tr>
<tr>
<td>21</td>
<td>900</td>
<td>343</td>
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<td>22</td>
<td>895</td>
<td>601</td>
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<td>23</td>
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<tr>
<td>24</td>
<td>735</td>
<td>489</td>
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<td>25</td>
<td>1,860</td>
<td>854</td>
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<tr>
<td>26</td>
<td>415</td>
<td>4,664</td>
</tr>
<tr>
<td>27</td>
<td>854</td>
<td>1,354</td>
</tr>
<tr>
<td>28</td>
<td>1,001</td>
<td>596</td>
</tr>
</tbody>
</table>
was certainly not the case for all handicapped children. In relation to the amount of verbiage given, however, the handicapped children often said less, but took more time to respond. Because of the nature of the research task, each child gave eight descriptions, and the child was allowed to take as much time as he or she liked. So in general, the handicapped children may have taken longer to respond, but gave less information in that time.

The overall feeling from that type of interpersonal encounter is certainly one of less satisfaction. Both interviewer and interviewee may come to feel ill at ease, which does not encourage continuing relationships. The amount of verbiage and the style of communication has not been previously studied as related variables, yet they may be intimately linked to the overall interpersonal experience.

The number of words given in response to describing mother is also worth exploring further. In this case, the handicapped children actually gave a greater verbal response than the nonhandicapped children. See Table 6. The handicapped children rather consistently offered greater response than the nonhandicapped children unlike their responses in describing self. Fifteen of the 28 handicapped children gave a greater response than their counterpart. This is an intriguing finding since the other data would predict that the handicapped group would again give a briefer response.

It would seem natural that many handicapped children would depend on at least one caretaker more than most nonhandicapped children, and that this dependence would often fall on the mother. The amount said by the children in this study about mother could be a reflection of this
Table 6

Comparison of Number of Words Spoken by Subject in Describing Mother

<table>
<thead>
<tr>
<th>Person</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>73</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>87</td>
</tr>
<tr>
<td>3</td>
<td>112</td>
<td>68</td>
</tr>
<tr>
<td>4</td>
<td>124</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>162</td>
<td>147</td>
</tr>
<tr>
<td>6</td>
<td>67</td>
<td>38</td>
</tr>
<tr>
<td>7</td>
<td>112</td>
<td>280</td>
</tr>
<tr>
<td>8</td>
<td>41</td>
<td>67</td>
</tr>
<tr>
<td>9</td>
<td>25</td>
<td>74</td>
</tr>
<tr>
<td>10</td>
<td>37</td>
<td>54</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
<td>62</td>
</tr>
<tr>
<td>12</td>
<td>139</td>
<td>27</td>
</tr>
<tr>
<td>13</td>
<td>158</td>
<td>43</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>15</td>
<td>97</td>
<td>630</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
<td>71</td>
</tr>
<tr>
<td>17</td>
<td>765</td>
<td>56</td>
</tr>
<tr>
<td>18</td>
<td>52</td>
<td>70</td>
</tr>
<tr>
<td>19</td>
<td>54</td>
<td>41</td>
</tr>
<tr>
<td>20</td>
<td>135</td>
<td>60</td>
</tr>
<tr>
<td>21</td>
<td>139</td>
<td>104</td>
</tr>
<tr>
<td>22</td>
<td>74</td>
<td>68</td>
</tr>
<tr>
<td>23</td>
<td>33</td>
<td>66</td>
</tr>
<tr>
<td>24</td>
<td>181</td>
<td>67</td>
</tr>
<tr>
<td>25</td>
<td>255</td>
<td>83</td>
</tr>
<tr>
<td>26</td>
<td>64</td>
<td>364</td>
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<tr>
<td>27</td>
<td>165</td>
<td>215</td>
</tr>
<tr>
<td>28</td>
<td>210</td>
<td>87</td>
</tr>
</tbody>
</table>
dependence or of the increased interaction this dependence would bring. Wright (1960, p. 377) pointed out that parental attitudes toward handicapped children are often extreme and undoubtedly this may be a part of the explanation.

The evidence is rather clear that the attitudes of parents toward their children who have a disability tend to the extreme more often than toward their nondisabled children, centering about the following patterns: oversolicitude, rejection, pressing for accomplishments beyond the child's abilities, and inconsistent attitudes. Overprotection appears to occur more frequently than over rejection. And genuinely positive attachments of parents to their disabled children are not infrequent.

The related question is whether such attitudes were expressed in the children's descriptions of mother and whether those of the handicapped children differed from the nonhandicapped. The multiple discriminant analysis used to identify content and organizational patterns in the data was not designed to search for such patterns by task, i.e., description of self, mother, etc. The sample was just not large enough.

By reading and rereading the descriptions carefully, some thematic differences are apparent, but they are quite subtle. Almost all of the children conceptualize their mother as being nice and mean. Some express this using more subtle shadings and fuller descriptions than others, but it is the handicapped children that express extreme attitudes more often and who indicate this by fuller description of those extreme attitudes, dependence, resentment, confusion, and appreciation.

Below are three examples of portions of handicapped children's descriptions of their mother that represent an extreme attitude.

The first description illustrates the necessity of strong dependence on a caretaker, especially at certain times. The second is a brief but important account of how this child depends on his mother to avoid
being excluded from certain activities. The third indicates the resentment between daughter and mother, a resentment that could be part of any relationship, but aggravated by the handicap. And the fourth and fifth are descriptions from the same child. He first describes his mother and I have added how he thinks his mother would describe him.

It is a unique view at his world through his own eyes. These descriptions show a definite confusion about how he feels about his mother and how she makes him feel about himself. This young man hates to wait, yet he is praised for it and is proud of his ability to do it. But he is at a loss to explain why he is liked for doing something that he or anyone else wants to do.

"Like last summer, no it was in November, that's a long way from summer, I had surgery on my hip, and she's done quite a bit to help me get back on my feet. See, they were trying to straighten me up to get me back on my feet, and she's done quite a bit to help me back up. I'm still having a rough time, but we're getting there. Well, I'm working on getting back on the crutches. See, I just had surgery. Yes, and like even this year, new math kind of confuses her a little bit, but she's always behind me to try to help anyway, you know."

"Kind, understanding, thoughtful, does things for you, different things, buy clothes and stuff like that. She makes sure that when my sisters are doing something there's something that I can do. She's loving."

"She was real nice to me and all this and then her brother got sick and she went to see him, and when she came back, she was a whole different person like she made everybody get things for her. Like we always have to clean up the house and do the dishes and clean up our rooms and sweep the floors and all that. She doesn't help, we have to do it. Even I have to sweep the floors sometimes. And that's hard with crutches on. And this one time I had to talk with her because I didn't like the way things were because she always lays around and makes us do all the work, and we never get any time of our own, like, to do what we want to do. So, one time I got mad at her and I said I'm getting tired of the way things are around here and I told her I didn't like sitting around all the time while she laid in bed, and she said, well, you can start going over to your friend's house if you've got a way over there and back."
"She's kind of nice and I like to go and give her kisses and hugs. She's better than anybody else I've heard. I think that if she worked here now I'd feel kind of mean and I wouldn't like her but this I really like and I guess I like the way she likes me and that's the way I like it. She really likes to, sometimes I just have to do, she makes me do stuff that I don't want to do but otherwise she's nice. I like her very much. Sometimes I can't go with her somewhere she goes, sometimes she says no I can't or yes I can or whatever, but otherwise I just like going with her because it's kind of lonely staying by yourself at your house and I feel kind of lonely myself."

"She would say I can do gooder things than my brother and sister. She'll say that I'm the goodest in the family because I don't get in so much trouble as my brother and sister do. She'd just say I'm pretty good and she would say that she kind of likes me and I'm nicer, a lot nicer than anyone else, than my brothers and sisters are. She'd probably say I'm pretty good at riding with her. She says I would ride with her in the car and she'll probably say that I could stay in the car as long as I can and if she's too long I can wait longer than I want and she'll come out. She'll probably say it's kind of late I just say it's all right, I'm just waiting on her as long as I could. She'll probably say that I can wait longer than anybody else in my family. And I think that's pretty good myself."

It is these kinds of descriptions that are not found in the non-handicapped data. The dependence of handicapped children is natural and often needed, and the descriptions give some indication of the effect of this dependence.

Age, Sex, and Intelligence

Both Watts (1944) and Livesley and Bromley's (1973) findings indicated that a child's age, sex, and intelligence affect how a child describes other people. Older children are more verbal than younger, females more verbal than males, and children of above average intelligence more verbal than below average intelligence children. Similar results were found in the present study. Table 7 indicates that as children get older they also become more verbal. Note, however, that nonhandicapped
group three does not fit this pattern. They may be a nonrepresentative sample. Females averaged 20 words more per person than did males, and those of high intelligence averaged 18 words more per person than those of below average intelligence.

The major use of these findings is in comparison to previous studies. Since the findings are in the same direction as that of Watts (1944) and Livesley and Bromley (1973), we can take added confidence that the data were carefully collected. Other discussion is not necessary since these results are important in establishing the validity of the findings, but not in further developing the theoretical argument.

Fatigue and Practice Effects

The amount of verbal response is useful for one other analysis. The children did not show indication of fatigue or practice effects in the interviews. Note in Table 3 that both handicapped and nonhandicapped children averaged about the same number of words in response to the first and last task.

Summary

An analysis of the amount of verbal response indicates that generally:

1. Handicapped children showed less variability in amount of verbal response than did nonhandicapped children.

2. Handicapped children gave less verbal response than did nonhandicapped children.

3. Handicapped children consistently used more words in describing mother than any other described person.

4. Older children were more verbal than younger children.
Table 7

Comparison of Average Number of Words Spoken
By Age Group Across All Eight Tasks

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Handicapped</th>
<th>Non-Handicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>435</td>
<td>754</td>
</tr>
<tr>
<td>2</td>
<td>498</td>
<td>927</td>
</tr>
<tr>
<td>3</td>
<td>858</td>
<td>513</td>
</tr>
<tr>
<td>4</td>
<td>1,033</td>
<td>1,867</td>
</tr>
</tbody>
</table>
5. Females were slightly more verbal than males.

6. High intelligence children were slightly more verbal than low intelligence children.

**Multiple Discriminant Analysis**

A multiple discriminant analysis (SOUPAC) (Overall and Klett, 1972) was used to test the hypotheses that the handicapped and nonhandicapped groups would differ as measured by frequency scores on the content and organizational measures.

The multiple discriminant analysis program is appropriate for studying relationships among several groups or populations and it can also provide a basis for classification of individuals among groups. Samples of individuals can be drawn from several different populations when multiple quantitative scores are available for each individual. In this case each subject had 13 scores: 12 content category scores and one organizational complexity score. In all cases, these scores were expressed as proportions. Content scores were expressed as proportions of the total content frequency count across the eight tasks for each child. Thus, if a person's descriptions divided up into 100 content scores and 10 of these scores fell into category three, the score for category three was 10.0. The organizational complexity scores were expressed as a proportion of the total number of words spoken by each child across all eight tasks.

The measurements are assumed to have a multivariate normal distribution with equal variance or covariance within the several populations. In this case, the 13 measurements do not fall neatly into a multivariate normal distribution. This must be kept in mind in interpreting these
The method of multiple discriminant analysis results in a reduction of multiple measures to one or more weighted combinations that have the most potential for distinguishing among members of different groups. Mean scores on the two or more most discriminating functions can be plotted as coordinate values. Thus the program can give a visual display of the similarities and differences among groups.

**Hypothesis Two, Three, and Four**

Hypotheses two, three, and four were questions about the content and organization of the children's responses. As you recall, they were:

- **Hypothesis 2**: Handicapped children will respond with proportionately less use of personality descriptors than nonhandicapped children.
- **Hypothesis 3**: Handicapped children will respond with proportionately less use of behavioral consistencies than nonhandicapped children.
- **Hypothesis 4**: Handicapped children will respond with proportionately less use of organizationally important words than nonhandicapped children.

Because of the low frequency of responses, I conducted a test on hypotheses two and three together. When tested at the .05 level of significance the difference in handicapped-nonhandicapped frequencies (expressed as percentage scores) are not significant, \( t = .36 \), mean difference = 4.32, and standard error = 2.14, with 39 degrees of freedom.

A test on organizational complexity (hypothesis four) did not reveal significance at .05 level, \( t = 1.85 \), mean difference = 2.67, standard error = 1.44, with 24 degrees of freedom.
As stated, these hypotheses are not supported, but I conducted a multiple discriminant analysis to search for other differences.

I collapsed the eight groups in this study into four, by combining two age groups into one. As you recall, there were four matched age groups in each category, handicapped and nonhandicapped. The two younger handicapped groups were collapsed into one group as were the two older groups; the same was done for the nonhandicapped groups. This separated the groups at about 13 years old.

I did this for several reasons. Developmentally, the groups still crossed the important age level of approximately 11 years old. Piaget has pointed out that after age 11, but particularly between 13 and 16, children develop adult problem solving abilities (Piaget, 1969). Watts (1944) and Livesley and Bromley (1973) found that after age 11 children begin to give more complex personality descriptions, but that this ability is more commonly found in children after 13. Thus group comparisons could be made of children under 13 and those over 13.

Secondly, making comparisons between four groups rather than eight fit this particular research study better, because of the small sample of children used and because of the many variables under consideration.

The four groups, as seen in Table 8, were compared on 13 measures, 12 content category scores and one organizational score. The SOUPAC program indicated that significant differences existed in inter-group scores; the F ratio computed with 39 degrees of freedom was 2.215, significant at the .01 level. The significant F ratio is a green light to search for the source of separation among groups. The groups' means for each of the discriminant functions for each of the four groups are shown in the three by four matrix in Table 9.
Table 8

Division of Subjects by Handicap and Age
for Multiple Discriminant Analysis

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Handicapped</th>
<th>Nonhandicapped</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 3</td>
</tr>
<tr>
<td></td>
<td>N=16</td>
<td>N=16</td>
</tr>
<tr>
<td>1 and 2</td>
<td>Age Range:</td>
<td>Age Range:</td>
</tr>
<tr>
<td>Combined</td>
<td>9 years, 10 months to 12 years, 10 months</td>
<td>9 years, 7 months to 13 years, 2 months</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
<td>Group 4</td>
</tr>
<tr>
<td></td>
<td>N=12</td>
<td>N=12</td>
</tr>
<tr>
<td>3 and 4</td>
<td>Age Range:</td>
<td>Age Range:</td>
</tr>
<tr>
<td>Combined</td>
<td>13 years, 4 months to 16 years, 0 months</td>
<td>13 years, 9 months to 16 years, 1 month</td>
</tr>
</tbody>
</table>
Group means for discriminant function one are significant, but means for the second and third functions are not. Formulas used for tests of significance are shown below.

The test for discriminant function one is:

\[ V = \left( \frac{m-1}{(p+k)} \right) \left( \sum_{m=1}^{r} \ln (1 - \lambda_m) \right) \]

Where \( m \) is the sample size, \( p \) is the number of variables, \( k \) is the number of groups, \( r \) is the number of discriminant functions, \( \ln \) is the natural log, and \( \lambda \) is the discriminant criterion (eigenvalues); \( m \) designates the discriminate function.

Thus:

\[ V = [55 - 8.5] \times 1.3542 = 62.9703 \]

\[ V_1 = [55 - 8.5] \times .831 = 38.6415 \]

With 39 degrees of freedom, \( v_1 \) is significant at .025 level.

\[ v_v - v_1 = 62.9703 - 38.6415 = 24.3288 \]

With 24 degrees of freedom, \( v_2 \) is significant at the .50 level.
### Table 9

**Group Means on Discriminant Functions**

<table>
<thead>
<tr>
<th></th>
<th>1 (HC, ages 9 - 13)</th>
<th>2 (HC, ages 13 - 16)</th>
<th>3 (NHC, ages 9 - 13)</th>
<th>4 (NHC, ages 13 - 16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>216.9126</td>
<td>60.0388</td>
<td>61.2872</td>
<td>38.1404</td>
</tr>
<tr>
<td>1 (HC, ages 9 - 13)</td>
<td>52.3495</td>
<td>137.7677</td>
<td>137.7677</td>
<td>144.7053</td>
</tr>
<tr>
<td>2 (HC, ages 13 - 16)</td>
<td>145.2491</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Significant group means are plotted as coordinate values in Figure 1, giving a visual display of separation among groups. By reading along the $y(1)$ axis in Figure 1, one can see that the primary dimension of separation for discriminant function one, discriminates group one, the younger handicapped children, from all other groups. Discriminant function one accounts for 76% of the variance. By reading along the $y(2)$ axis, one can see that the primary dimension of separation for discriminant function two, discriminates group four, the older non-handicapped children, from all other groups, but particularly groups 2 and 3.

The question that follows, of course, is what variables account for the separation in each case? By multiplying each discriminant criterion coefficient by the standard deviation of the particular variable to which the weight is applied, relative magnitudes of coefficients (scaled vectors) that account for the separation can be compared. These relative scores are shown in Table 10.

**Discriminant Function One**

The multiple discriminant analysis separated Group one from the other groups at a significant level. Group one consisted of 16 children, ranging in ages from 9 years, 10 months to 12 years, 10 months. Seven were severely handicapped, but another discriminant analysis conducted showed no significant differences in the scores of the mildly and severely handicapped. Severity of handicap, defined in this study as a physical disability which severely inhibits mobility, was not a major variable. Nine of the children were of below average intelligence, six were of average intelligence, and two were of
Figure 1: Configuration of group means of four handicapped and nonhandicapped groups plotted as coordinate values.
Table 10

Weighted Discriminant Function Scores (Scaled Vectors)
for Content and Organizational Measures (I-XIII)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Objective Information</td>
<td>-0.17598</td>
<td>0.22808</td>
<td>0.95188</td>
</tr>
<tr>
<td>II. Personality Descriptors and Behavioral Consistencies</td>
<td>-0.16693</td>
<td>0.79409</td>
<td>0.13035</td>
</tr>
<tr>
<td>III. Aptitudes and Achievements</td>
<td>-0.37703</td>
<td>0.16268</td>
<td>0.29735</td>
</tr>
<tr>
<td>IV. Interests and Preferences</td>
<td>-0.42223</td>
<td>0.39982</td>
<td>-0.27827</td>
</tr>
<tr>
<td>V. Attitudes and Beliefs</td>
<td>0.26406</td>
<td>0.54170</td>
<td>0.11454</td>
</tr>
<tr>
<td>VI. Evaluations</td>
<td>-0.79702</td>
<td>-0.32006</td>
<td>0.50326</td>
</tr>
<tr>
<td>VII. Social Factors</td>
<td>0.30147</td>
<td>-0.41060</td>
<td>-0.12504</td>
</tr>
<tr>
<td>VIII. Subject-Other Relations</td>
<td>0.91570</td>
<td>0.75197</td>
<td>0.78931</td>
</tr>
<tr>
<td>IX. Comparisons</td>
<td>-0.48224</td>
<td>-0.20452</td>
<td>0.12125</td>
</tr>
<tr>
<td>X. Potential, Hopes, Wishes</td>
<td>-0.24371</td>
<td>0.34113</td>
<td>0.22254</td>
</tr>
<tr>
<td>XI. Collateral Facts and Ideas</td>
<td>-0.33563</td>
<td>0.11639</td>
<td>0.26741</td>
</tr>
<tr>
<td>XII. Irrelevant and Unclassifiable</td>
<td>-0.92481</td>
<td>-0.34041</td>
<td>0.68245</td>
</tr>
<tr>
<td>XIII. Organizational Complexity</td>
<td>-0.62542</td>
<td>-0.49131</td>
<td>-0.18902</td>
</tr>
</tbody>
</table>
above average intelligence. This is similar to other groups, except for Group four. Group four contained six children of above average intelligence. It is interesting to note that another multiple discriminate analysis conducted on intelligence did not reveal significant differences among intelligence groups on content or organizational measures, although strong differences were indicated.

As can be seen in Table 10, scores which account most for the separation of Group one from other groups are as follows: VI Evaluations, VII Social Factors, VIII Subject-Other Relations, and XII Irrelevant and Unclassifiable Information.

Evaluations, VI

The Evaluations classification consisted of three separately scored categories:

Category 10: Subject's opinion of another's self attitude and state of awareness.

Category 11: Subject's emotions, feelings, reactions to situations and evaluations of self. Such feelings as pride, disgust, nonacceptance, fears, and loneliness are included.

Category 12: Emotions, feelings, reactions to situations and evaluations of others on other individuals.

The Evaluations classification is not a highly used classification. It accounts for about 1.5% of the statements.

The typical idea communicated in Category 10 is, "He really thinks he's cool, but he isn't." Characteristic statements from Category 11 are:

"When it starts to thunder I really get scared."
"It's hard on me to be like this."

"I'm not too good at that." (at making friends)

"I felt bad when I hurt her feelings."

"She makes me so angry."

Characteristic statements from Category 12 are:

"She makes the principal meaner than she really is."

"She has a bad effect on my mother."

Group one children did not use any statements that indicated an awareness of another's self attitude, Category 10. Most statements in this classification, however, were scored in Category 11 which included the subject's emotions or reactions to a situation. These statements not only report an incident, but go one step further in indicating the effect on the subject. This kind of information gives the listener a much clearer impression of the meaning of the event to the speaker; it is a more complicated description, taking not only the event into account, but also the reaction to the event. Group one children offer very few of these statements; this is one of many reasons why their descriptions seem to be less complex in content and organization. They consistently leave out certain kinds of information occasionally included in others' descriptions. In this case the information lacking is a personal reaction or evaluation and to a lesser degree indicating some knowledge of another's self attitude. Very few statements fell into Category 11.

Social Factors, VII

The Social Factors classification consisted of three separately
scored content categories:

Category 13: Social roles: References to occupational role and group membership.

Category 14: Reputation: References to what people in general think of self or another.

Category 15: Friendships and playmates: References to another person's friends or playmates.

The scores in the Social Factors classification were accounted for almost entirely by statements about reputation and these statements were almost exclusively statements about another person's reputation. Statements as those below are typical reputation statements:

"She's pretty popular."

"Most people like him."

"No one likes him."

The three other groups of children made occasional use of these kinds of reputation statements when describing people but Group one, the younger handicapped children, were devoid of such statements. Since Group one consisted of 16 children who each gave eight descriptions, it is noteworthy that they did not even occasionally use such statements. Reputation statements are not statements that children use often, but use of them expands the description offered. For example, one could describe someone thoroughly, but never place him in relationship to his friends, whether he is liked or disliked. Such information can give a much fuller impression of the person. Group one children were able to describe individuals, but did not place those persons in relationship to others.

There are no similar data in the literature that compare handicapped
and nonhandicapped children in this way so we cannot draw on past research. The meaning from this study may be quite clear, however, particularly when seen in light of other findings. Group one type children, with one exception, were all handicapped children in segregated school settings (schools for handicapped children only). They came from two schools, a school only for physically handicapped children and the other in which the handicapped children were segregated from the rest of the school and only occasionally interacted with nonhandicapped children.

Describing a person fully and placing them in context of their friends is a more complicated task than just describing them. It requires seeing the person as a cluster of traits and as part of a network of friends.

This is the first evidence in this study that the type of environment may influence social perceptual skills. There are many reasons why segregated environments could retard social development; such environments could change the amount or nature of a variety of interpersonal interactions. Certainly the possibility exists that segregated environments reduce the amount of interaction or limit the variety of interactions. We saw previously that handicapped children showed less variability in behavior, shorter interpersonal interactions, less smiling behavior, and less eye contact. Further, there is a strong helping theme in the mutual interaction statements of Group one (to be discussed later). Interactions limited by mobility, interpersonal style, and emphasis on helping probably limit the variety of other interactions and consequently the learning about people. One way this may be reflected
is in the ability to offer the fuller personality description that includes how a person fits into a network of friends.

In this study, the ability to describe people in terms of reputation statements does not seem to be closely linked to age. All other groups, including the group matched in age with this handicapped group, made significantly more use of the category.

The other category under the classification of Social Factors that accounts for separating Group one from the other groups, is the category of friendships and playmates, and the finding confirms the discussion above. Children in Groups two, three, and four, when describing another person, made occasional use of statements about who another's friends and playmates were, sometimes even noting the number of friends the person had. Examples of such statements are:

"He's real good friends with my cousin."

"She's got a real good friend that she can talk things over with."

"He has four close friends."

Group one is devoid of these statements. Again, it is a case of not placing the person in a social context and the same reasons of restricted interaction apply here.

Another interesting point is that these statements, statements of reputation and friendships, are applied exclusively to peers; it is about peer relationships with which children of eight years of age and older are very concerned. The reputation and friendship statements of Groups two, three, and four confirm that this plays a role in children's thinking. Group one perhaps has not developed the conceptual framework in which to conceptualize the person as an individual and as an individual in relationships to others.
Piaget (see Flavell, 1963) stressed that the emergence of operational thought depended on experience with others, on repeated interpersonal encounters in which the child is forced into a variety of interactions, both pleasant and unpleasant. The one thing that segregated environments might do is to reduce the amount and variety of interaction and prolong the overprotective environment.

Subject–Other Relations, VIII

Group one also showed significantly lower scores in the classification, Subject–Other Relations, a classification closely linked to Social Factors, but stressing interaction. Subject–Other Relations consists of three separately scored categories. They are:

1. Mutual interaction: References to interaction between the subject and another person.

2. Subjects' pronouncements about others: References to liking and disliking another person.

3. Others' pronouncements about the subject or others: References of another's liking or disliking.

This classification area accounts for 9\% of the children's statements whereas the previous classification area, Social Factors, accounted for but 1\%. Of the three separately scored categories in the Subject–Other Relations classification, statements about mutual interaction are the most prevalent. Group one used fewer mutual interaction statements than Groups two, three and four. Examples of such statements are used below:

"He comes over and plays with me about everyday."

"We go fishing a lot."
"We talk about things."

The implication of fewer Social Factors statements discussed previously was that segregated environments perhaps limit interaction. This seems to be reflected here in Group one's fewer statements about interaction, and in addition by the types of interaction statements. Helping is certainly a part of being handicapped, and perhaps less a part of older handicapped children. The older handicapped children, Group two, showed less emphasis on helping. These children were in an integrated environment so it is unclear whether age or environment or both were important factors in reducing the helping theme. This older group also had nine seriously handicapped children as part of the group which would seem to limit mobility and increase helping behavior. Perhaps the younger handicapped children have not mastered the self-help skills as well as the older handicapped children. Certainly a high concentration of handicapped children in one place increases the need for them to help each other, and thus may alter the nature of interactions. Some of the helping statements concerned academic helping, such as:

"She helps if I have homework."

"She helps me with my math."

So the helping should not be conceived only in terms of physical helping. The academic statements are not frequent enough to make the difference in significance, however.

The study of Richardson, Dornbusch, and Hastorf (1961) indicated that handicapped children used interaction statements more frequently about adults and less with peers than did nonhandicapped children. Similar data are not available here, but it does point to the importance
of interaction statements in differentiating descriptions of handicapped and nonhandicapped children, in this case in separating out handicapped children in segregated settings. It would be interesting to know how the interaction statements broke down on several dimensions, including adult-peer, male-female, and a more thorough thematic analysis of types of interaction statements. But all fronts cannot be covered in one study. Certainly some further research should be conducted in this area since the interaction variable is an important one in the development of the handicapped child. It is perhaps the interaction which is emerging as the key variable in the development of social and interpersonal competence. This is something that intuitively makes sense and is supported by Piaget's argument that interaction is very important in developing operational thought.

Group one also used significantly fewer statements of pronouncement, i.e., statements about liking and disliking, such as:

"I like him."

"She likes me."

"My mother likes her."

These statements were almost always brief and carried a ring of confidence and certainty. In regard to self it is an expression of preference, such as, "I like her," and in regard to others it is an understanding of their preferences. Understanding others' preferences is related to a full understanding of others' friends and the nuances of interpersonal attraction. Perhaps it is indication of Group one's general lower level of descriptive ability, or reluctance to communicate preferences in the research interviews.
Irrelevant and Unclassifiable Information, XII

Group one showed significantly lower scores in the classification, statements that had nothing to do with the topic at hand, or incomplete sentences, or material that was inaudible on the audio cassette. This finding is the opposite of what I expected. Livesley and Bromley (1973) found that younger children used more irrelevancies than older children. Group one children certainly had more difficulty in responding to the tasks than did the other groups and, perhaps, they were so brief they did not give themselves a chance to wander from the task. Irrelevancies and redundancies are probably silence fillers in many cases and occasional use may give a smoother verbal presentation, in the sense of the person who casually adds stories or anecdotes that illustrate a point.

Overall, Group one showed lower scores in Social Factors, Subject-Other Relations, and Irrelevant and Unclassifiable Information. The implication of these findings is that the Group one child was less sophisticated in placing a person in an inter-personal network and in describing a variety and equivalent amount of interaction as children in the other groups. Recall that the separation of Group one accounted for 76% of the variance and was significant at the .01 level.

**Discriminant Function Two**

The multiple discriminant analysis did not show significant separation at the .05 level of Group four from the other groups. (Significant separation is shown at the .50 level). However, because of the possible importance of this separation it is worth further investigation. Three
important measures account for the separation: Classification II, Personality Descriptors and Behavioral Consistencies; Classification VIII, Subject-Other Relations, and Classification XIII, Organizational Complexity.

Group four consisted of 12 nonhandicapped children ranging in ages from 13 years, 4 months to 16 years, 1 month. Discriminant function two accounted for 16.5% of the variance.

As you will see as we proceed, the overall implication is that Group four responded more directly to the research questions, "Describe what the person is like," or "What sort of person is she?" The Group four child showed greater facility in handling abstract terms of personality and behavior patterns and in organizing their descriptions into an integrated whole. These children were more able to construe persons as a cluster of personality traits and behavior patterns, and to shade the meanings of the terms used in ways that indicated an understanding of the nuances of personality in two very important ways. First, they indicated an understanding that personality is made up of a complex cluster of traits that may seem contradictory, and secondly, that a person's personality sometimes depends on the situation or some other temporary variable. "Kind" in one situation is slightly different than "kind" in another situation. Thus the Group four child used proportionately more personality terms, but not a greater variety of terms than the other children. This is an expected finding from several perspectives, and is meaningful in understanding the differences indicated between the social perceptions of handicapped and nonhandicapped children.
First, it is not surprising that the older groups of children did not use a wider variety of personality descriptors than the younger children. Kelly's (1955) research indicated how few constructs we use in conceiving of self and others. We consistently employ a small number of terms although over 18,000 are available to us.

The finding that the Group four child used a higher proportion of personality descriptors and behavioral consistencies and showed a more complex organization in their descriptions is extremely important.

Watts (1944) and Livesley and Bromley (1973), as I have pointed out before, have both shown that the major changes from 8 years of age and older are not changes in describing content, but changes in organization. Watts (1944) found that the 11 year old and older no longer expressed a single theme only in giving descriptions of people, but was able to integrate positive and negative traits as being part of one person. This ability may be mostly a development of the organizational skills to integrate very different ideas. Watts' (1944) findings have been confirmed solidly by Livesley and Bromley (1973) who also found that children's ability to organize personality information was more complex after the age of 11. The older children qualified, excluded, and explained personality traits to a much greater degree than the younger children.

Piaget's experiments (1969) showed that some children begin to develop adult thinking skills at about the age 11, but complex skills are more commonly found in children 13 and older. He called this stage, formal operations; his experiments demonstrated that the child in this period develops the ability to handle hypothetical, verbal problems and
is able to integrate multiple bits of information (Piaget, 1969) much more easily.

The children of Group four are 13 years and older. They are far into the formal operation stage and have shown that they are able to describe personality as a complex cluster of traits. Their descriptions demonstrated an internal coherence not shown in the other descriptions. A look at the categories will help demonstrate this.

The Group four child scored higher in the Classification II, Personality Descriptors and Behavioral Consistencies. This classification consisted of three separately scored content categories. They are:

Category Three: Personality Descriptors: References to "What a person is like," that describe psychological qualities or inner states.

Category Four: Specific Behavioral Consistencies: References to consistent behaviors over time.

Category Five: Motivation and Aspiration: References to motivation in tasks undertaken, trying hard, learning about, success, and general goal orientation.

Most of the classification is accounted for by categories three and four. Examples of such statements scored in three are:

"She was nice."

"He is mean."

"Sometimes he's two-faced."

"She was very conscientious in her work."

"I have a good sense of humor."

Typical behavioral consistency statements are:

"She is always calling you names."

"He's always telling jokes."
"He goes around and bullies people."

As indicated before, these two scores are best interpreted along with the organizational complexity information to gain understanding of the differences in Group four's descriptions from the others. The Group four descriptions below give some idea of the type of organization of their descriptions.

"He clowns around a lot but he's got a serious side too, you know. He'll clown to a point but he knows when to quit. He's fairly smart; he's taking geometry this year I think. He's getting B's and A's and that. He's got a good personality and he's probably considered good, you know, everybody's got their different opinions. You know, most people like him. I don't know, it's sort of intangible. He's interested in track like I am. We run together a lot."

"This girl, her name's Pam and she's one of my best friends. We do a lot of things together like we bowl on the weekends and she's really fun to be with but sometimes we get into fights a lot, you know, like she might say something about me to my other friends and it gets back to me like being two-faced. We fight a lot over that. Other than that she's really a nice kid. She has a split personality, probably because sometimes she can be really nice but other times she's two-faced towards me, you know, she'll say something about me to some other girl or boy and then she'll say she didn't say it if you ask her about it. She's nice but, you know, like any other kid, you know, she's kind of two-faced in front of friends."

"Well, my mom's kind of young. She's in her thirties. She understands us but she and my dad are different things, you know. Dad won't let us do what we want to do but mom, if we ask to do something and she knows where we're going then she lets us go. She's much easier on us, you know, because she's much younger, I guess. But like all daughters and mothers have problems, you know, always arguing over something or another. Other than that she's really a great mother. She's easy to get along with and she don't ask so much of you, you know. She'll ask you to clean the house and that's about all. Well, if you have a problem, well, you're kind of scared to talk to her about it at first, you know, but once you talk to her about it she'll understand half the time but most of the time she does. Now, if she doesn't understand, she, you know, kind of like takes your side. She always takes my side, you know. If I'm in the wrong or not she'll stick up for me and do the best what's the best for me. She's a great person. She's the kind of mother you can always talk to, you know."
One can see the extent of the organization required to communicate how the subject intends the trait to be understood. There is a clear understanding that a personality trait can have many meanings and that it must be qualified and explained to really communicate how the person is "understanding" or when the person is "nice." Not only can personality trait have many shadings which must be explained, but each person can have his own perspective. This is something that is not part of any previously planned analysis, but which clearly separates the Group four description from the others. Group four children demonstrated a much clearer understanding that people just naturally have different perspectives and that the description presented is purely "my own."

Note the complexity of the qualifiers in description one. The person clowns, but has a serious side. Thus the person's personality has these two major dimensions which is further explained. He's a clown, "to a point," who "knows when to quit." He's fairly smart—another important dimension of his personality; this statement is followed by two pieces of evidence of this. The second half of the description proceeds to how other people probably feel about the described person, but stressing that everyone has his own opinion. The subject ends by indicating some obscurity of impression, in the sense of, "While I'm telling you quite a bit, there is much about him of which I am unsure." The subject completes the description by comparing the person to himself.

The description has five distinct parts:

1. Major personality dimensions. Explanations.
3. Overall impression.
4. Others may have different thoughts, but... (states his reputation)

5. Comparison with self.

While brief, the description is quite sophisticated in giving an overall impression of what the person is like.

The second description is a good example of one that expresses both positive and negative information and attempts to offer an explanation for both. The subject indicates a clear understanding that the person's personality varies between the two extremes of being, "nice," "fun to be with," "my best friend," and being, "two-faced," and "getting into fights a lot" (with each other). Her description shows an understanding of the complexity of personality and the likelihood that their relationship will continue much the same way as it is now. The personality attributes are described, basically by describing very opposite behaviors.

The third description also demonstrates complex organization. Note the explanations and the comparisons used, but of particular importance is the statement about the problems in general that are part of mother-daughter relationships. Again, the subject not only is describing a person, but placing that person and characteristics of their relationship into some framework. This is representative of a major difference between Group four descriptions and those of the other groups.

A comparison with descriptions of other groups indicates that often they do not have the internal consistency of Group four. Certainly there are not the mentions of different perspectives nor the ability, in general, to present a variety of personality traits organized into a coherent framework. Examples of descriptions of handicapped children similar to Group 4 children follow.
"I guess I'm nice. Well, nice to people, help people, help them with things that they need help and they can't do. I understand so I help them with that and try to be nice to people and try not to get mad. That is hard to do. I try to get along with people, treat them the same way they treat me. I try to get good grades in school so I can get farther. You know, I try to keep them up. Nice, I guess. I get along with people fairly good. I get along with a lot of boys, it's easy, and girls. I understand more problems than some people do because I've had them myself. I help them solve them."

"She's nice and she's helpful. She has a nice disposition. She's friendly. I don't know."

"She's a good mom. If I have a problem or something, she helps me to get out of it. Then if I do something wrong and I tell her, she understands me. There's things around the house that she expects me to do, chores. She's just a good mom. She's a Swede, she's Swedish."

Note that many personality traits are not qualified; while the descriptions are organized, they are not as fully developed as those of the non-handicapped children presented. These descriptions were not selected because of their brevity, but because of their contrast in degree of organization.

In addition to scoring higher on personality descriptors and organizational complexity, Group four also scored higher in category five, Motivation and Aspiration. Such statements as those below were characteristic statements in this category.

"I try hard to learn."

"I want to go to college."

"I plan on becoming a lawyer."

Group four also showed significantly higher scores in classification VIII, Subject-Other Relations, discussed under discriminant function one. Again, the major portion of this classification is accounted for by statements of mutual interaction. Secondly, Group four showed higher scores in statements of pronouncements. Of these findings, statements of
mutual interaction seem to be most important. They, of course, contrast with the findings of Group one which demonstrated a lower use of mutual interaction statements.

The findings that separate Group four from the other groups are quite intriguing. Group four can be seen to be the most sophisticated not only in describing personality, but also in amounts of interaction indicated in the statements. They seem to excel almost across the board in presenting abstract, organized descriptions, and offering information based on interactions.

Group two, the handicapped children similar to Group four, do not show the sophistication of Group four. Yet according to Piagetian theory they should show a greater facility in abstract reasoning and organization. They clearly are not at a similar level as Group four.

Those handicapped children, similar to Group four in age, sex, and intelligence are not nearly at the social perceptual level of the nonhandicapped children. The younger handicapped children, those in the segregated setting, show deficiencies in describing interaction and relationship patterns when compared to the other children. There seems to be serious indication that both handicap and environment retard development of social perceptual skills. The meaning of this is discussed further in the next chapter.
Chapter IV.

Conclusions

Introduction

This chapter is a presentation of the six major conclusions of the present study and their implications in light of Piagetian developmental and social communication theory.

Conclusions

Conclusion 1: The handicapped children demonstrated less variability of verbal response than the nonhandicapped children. They did not show the flights of expression as did the nonhandicapped group and in addition gave generally briefer responses. Recall that the range of response for the handicapped sample was from 96 to 1860 words across the eight tasks and from 209 to 4664 words for the nonhandicapped group. This is a new finding, but one congruent with the findings of some previous research. Both Kleck (1966, 1968) and Comer and Piliavin (1972) found that handicapped persons in face to face encounters showed less variability of behavior, greater motoric inhibitions, less smiling behavior, and less eye contact.

One finding of this study indicates that an overall effect of a physical disability is a restriction of variability of verbal communication behavior. The sense given is one of inhibition rather than spontaneity and one of guarded withdrawal rather than reaching out.
There are perhaps many reasons for such a finding. Certainly one factor is that many physically handicapped persons have difficulty in speaking even though this might not be a visible impairment. Though I restricted the sample of handicapped children to those who seemed fluent, two children with cerebral palsy (mild) had some difficulty in communicating, although the amount of their response compared favorably with the others. There are additional reasons, perhaps, for the limited range of amount of response that I will discuss later, but whatever the reason, amount of verbal communication is an important part of overall communication behavior, and inability to stay with the norm could place the handicapped child at a disadvantage in an interpersonal encounter.

The amount of response is probably closely related to the overall communication atmosphere generated in any face to face encounter. Both interviewers agreed that the handicapped children, particularly the youngest children, showed greater discomfort and less eye contact than the nonhandicapped children. While this could be a researcher finding what he expected to be there, both interviewers came independently to the same conclusion. More importantly, the handicapped children seemed to have greater difficulty in responding to the tasks. The information did not seem to be "at their fingertips," as it was for many nonhandicapped children. Handicapped interviews often lasted longer in time, but the amount of verbal response was less. I recently relistened to ten randomly selected audiotaped interviews, five of them of handicapped children. It had been six months since I had listened to the tapes. The exercise confirmed my belief that the handicapped children responded with greater difficulty, often searching for what to say or how to say it.

The interviews with handicapped children reminded me of Goffman's
(1963) descriptions of mixed interactions (handicapped-nonhandicapped).

When the child was ill at ease or had difficulty in responding, I also became uncomfortable. Since collecting the data was a delicate process, the child that could not overcome being ill at ease might attempt to say as little as possible. In interpreting the data, therefore, one should keep in mind that the data were collected in a way that in a sense stacked the cards against the handicapped child, since previous research indicated that physically handicapped persons are less interpersonally competent. There is no other way, however, to get natural descriptions of people. Writing the descriptions out would place the handicapped child even at a greater disadvantage, which the pilot study to this investigation bore out. If a child gave a brief description, however, it would not necessarily change the content or organizational measures, since these measures were expressed as proportions of the total number of words or content frequencies. Many very brief descriptions had similar content and organizational scores as much longer descriptions—so that an argument that the data collection strategy biased the findings in this way is probably unwarranted.

Conclusion 2: Handicapped children demonstrated a special mother-handicapped child relationship. The handicapped children consistently had more to say about their mother than they did about any other person they described. They also had more to say about their mothers than did the nonhandicapped children, and it is the only description in which they expressed a greater verbal response than the nonhandicapped sample. In addition, a thematic analysis indicated that the handicapped children more often expressed extreme attitudes, particularly dependence, than did the nonhandicapped children. This finding is very similar to
Wright's (1960) analysis which showed that parental attitudes toward handicapped children more often approached the extreme than parental attitudes toward the nonhandicapped. Examples of data were presented in the previous chapter.

The effect of a special mother-handicapped child relationship depends on many variables, too many to consider here. But certainly, overdependence, resentment, protectiveness, and similar extreme parts of the relationship are not helpful in assisting the handicapped child to develop an independent sense of self and interpersonal competence. Many of the handicapped children must depend on a caretaker to get them to destinations, etc; it is necessary, uncomfortable, but for many can probably never change. There are many cases, however, where the child could be given greater independence. One function of a close relationship with the mother is that it reduces the amount of interaction with others, especially peer interaction. As we will see as we progress, it is the amount and variety of interaction that may be the basis of social learning.

While the data confirm Wright's (1960) findings about extreme parental attitudes, it is a new finding that these attitudes are consistently expressed by the handicapped children.

Conclusion 3: The handicapped children in Group one, those in segregated settings, demonstrated the least sophistication in giving full personality descriptions of people. The Group one type child used significantly fewer interaction statements than the children in the other three groups and fewer statements that communicated understanding of how another person fits into a network of friends.

Conclusion 4: The nonhandicapped children in Group four demonstrated superior ability to describe and organize information about personality
structure and behavior patterns, interaction, and interpersonal networks. They showed a clearer understanding of personality to be a complex cluster of traits and simultaneously expressed an understanding of how a person fits into an interpersonal network. They also showed a clearer sense of personal perspective.

Conclusion 5: In general, handicapped children demonstrated less ability to describe and organize personality characteristics than the nonhandicapped children, although the younger handicapped children gave indications of different deficiencies than the older handicapped children.

Conclusion 6: The type of school environment and amount and types of interaction appear to be key variables in developing personality descriptive abilities.

There is indication from the multiple discriminant analysis that the groups could be placed in a rank order of ability to give personality descriptions of self and others. Group one, the younger handicapped children, fall in the bottom category of ability; Group two, younger nonhandicapped children and Group three, the older handicapped children, scored very similarly and fall in the middle, and the older nonhandicapped children, Group four, are in the first category. One would naturally expect that the younger children would demonstrate less ability to describe people than older children. We have already indicated how children become more verbal as they get older and how they become more sophisticated in organizing personality information (Watts, 1944; Livesley and Bromley, 1973). But this is not how the children compare. The handicapped children appear delayed or less developed in ability than the nonhandicapped. Group one compares poorly to its matched group of nonhandicapped children, especially in giving information about mutual
interaction and interpersonal networks. The other group of handicapped children should compare favorably to the matched group of similarly aged nonhandicapped children, yet they score closely to the younger group of nonhandicapped children. They did not show the more sophisticated ability to use and organize personality information.

It is noteworthy also that the handicapped children of Group one also were children in segregated settings. It is unclear how the variables of age and handicap and setting interact, but the combination of them in this study seem to indicate that there is a reduction of ability to conceive of persons in terms of interaction and relationships. The variable of setting was not planned as a variable under consideration; it happened by chance, but it is the only consistent characteristic of Group one other than being handicapped.

Conceiving of self and others in terms of interaction and relationships may be the single most important finding of this study; as a caution it is clearly an interpretation of the data, but my experience in the interviews and consideration of the data over many months and from several perspectives lead me to an overall impression that draws upon all six conclusions above. The overall effect of a physical handicap on ability to describe personality is a reduction in variability of ways of thinking about self and others. The reduction is quite specific and begins with the concept of interaction, the type of statement which Group one seldom used and Group four used quite often.

These conclusions enhance the theoretical considerations presented earlier.
Theoretical Considerations

McDaniel (1969) made it forcefully clear that there has been little understanding of the psychological aspects of physical disability, and particularly little theory which helps us to place the scattering of findings in any meaningful context. Piaget's developmental theory has seldom been applied to the growth of the physically handicapped child, yet there is no doubt from the present study that his findings have much to offer in developing theory about the effects of physical disability. In fact, there is much to learn about the process of growing up by comparing what some children can do and what others cannot do.

Piaget (1952) demonstrated the importance of the child's physical interaction with his environment as an essential part of the learning process. As the child grows we know that his capacity to learn expands. During the first two years of life, called the sensi-motor period, the child grows from merely reflexive behavior to actual mental problem solving—an astounding amount of development. The child, however, learns of his own capacities mostly through physically testing his environment. For example, in stage three (4-8 months) of the sensi-motor period, the child's behaviors become less egocentric. He reaches out to grasp and manipulate everything within his reach. The child repeats and tries to sustain interesting activities. In stage four, (8-12 months) the child can use a known means to gain an end, e.g., pull a small rug closer to reach an object outside the crib.

The point to be made is that a very essential part of learning is the physical testing and exploring. A thorough presentation of Piaget (1952) is required, of course, for the reader to gain an idea of how important physical interaction with the environment is, but my
interpretation is that it lies at the very basis of the child's steady and rhythmic expansion of abilities. Social learning is similar to any other learning, it begins at a concrete and physical level. Consider the example presented before about how a child learns about fear or anger. The child sees for the first time, another child fall down and become scared and angry, clench his fists, cry, and stomp his feet. Later the child is seen imitating what he saw, only laughing about it at the same time. First, imitation in this case is a very physical process and one which helps the child learn about the feeling and behaviors of fear and anger. Secondly, the imitation is important in that it is the beginning of symbolic behavior. In this example the child is capable of deferred imitation. Imitation begins in the presence of the model and only later can a child imitate when the model is not present; developing deferred imitation is the beginning of symbolic thinking. The child described is learning about the feelings and the concept of fear and anger in self and others.

The meaning of all of this for the physically handicapped child differs naturally with how the physical disability interrupts motor coordination. The physically handicapped child who cannot fully participate in the learning process, may not be expanding his abilities as fully as the nonhandicapped child. Piaget (1969) has also stressed the importance of how later learning is based on the foundations of earlier learning. The learning stages build on one another like an inverted pyramid. Earlier stages are not discarded; they are expanded upon and surpassed. Learning occurring in the sensi-motor period depends more directly on physical transactions with the environment.
than learning in later periods. Deficits or inhibitions resulting in this early period may restrict or alter the learning process in later stages. Like a sophisticated rocket fired into outer space, small early course errors result in very large course corrections required later.

The conclusions of this study would argue that the handicapped child demonstrates less variability of behavior and less sophisticated social perceptions. There is certainly no direct connection indicated in the present study between early learning and later social perceptions of children 9 to 16 years old. It seems to me, however, that scholars have looked to differences in behaviors of handicapped and nonhandicapped persons coming from social and environmental reasons. There is no reason, however, to exclude the possibility that a physical disability sufficiently interrupts the rhythmic learning process; from a theoretical point of view, a disability could account for the differences in social perceptions of the sample of physically handicapped and nonhandicapped children (if these differences do exist). More research is needed, but a worthwhile approach suggested by this thesis is to study the learning process of both physically handicapped and nonhandicapped children from the Piagetian model, since much can be learned from what children can and cannot do.

The process of learning about personality structure seems to pass through three phases. Watts (1944) and Livesley and Bromley (1973) found that children under 8 years of age describe people in very concrete, physical terms. Over 8 years and under 11, children use abstract personality terms, but usually of a single theme. After 11 years and particularly after 13 years, the child demonstrates ability to organize
more information in much more complex ways so that he can present information consisting of two or more themes. The data garnered from this study support much of this. In regard to the content of the descriptions, some children (Group four) demonstrated the ability to conceive of personality as a complex cluster of traits and indicated also an understanding that a person can have contradictory characteristics. The child, after 13 years of age, may also demonstrate another organizational change. It is the ability to conceive of persons as parts of relationships and to know of the person's place within his complex network of friends. The child can then describe someone and see them as part of a fluid interpersonal framework. This is probably an organizational skill. It is also a new finding and as such requires confirmation from further research.

The setting in which handicapped children are placed is extremely important in their social development. Recall that Group one, the children that showed the least ability to describe self and others, were handicapped children in segregated environments. Of course, a number of variables could account for the differences identified, but the only consistent characteristic of this group was that they were handicapped and in segregated settings. Again, this is a new finding. Handicapped children in segregated settings, however, did not differ from handicapped children in integrated settings in amount of verbal response.

The findings of this study suggest directions for future research. Certainly it is worth investigating younger handicapped children than included in this study to see if similar trends are found. Older
children should also be studied to see what indications lie there. Are handicapped children delayed in developing full social perceptions, or is it possible that they do not "catch up" to the nonhandicapped children? Is it possible that they are really not different at all or different in ways that do not matter? Further studies should be conducted to test the significance of handicap and environment on social perceptual development.

Cautions are in order in data interpretation of the present study for several reasons. First, the sample included children with many different types of handicap and different degrees of disability. This was out of necessity, but future studies could test more homogeneous samples. From another perspective, however, significant differences were identified despite the fact that many handicapped children were mildly disabled. This might indicate the profound effect of a handicap on the individual. Secondly, matching children in intelligence and age is very difficult. Intelligence tests are rather gross measures of ability and depend on many variables. If anything, they probably underestimate the intelligence quotients of many of the physically handicapped children since they were administered in an interpersonal mode. If the handicapped children equal or excel the nonhandicapped group in intelligence, the findings identified stand even stronger and could not be argued to result from intelligence differences.

In summary, both developmental and social communication theory could be quite important in understanding the many profound effects of a physical disability on a child. Future research should expand and refine the methods used here to test the potentially important findings identified in this thesis.
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APPENDICES
APPENDIX A

LETTER REQUESTING PERMISSION TO
CONDUCT RESEARCH IN THE
COLUMBUS, OHIO CITY SCHOOL SYSTEM
February 23, 1974

Department of Communication
College and Social and Behavioral Sciences
154 North Oval Drive
Ohio State University
Columbus, Ohio 43210

Dr. Joseph Davis
Columbus Public Schools
Department of Evaluation, Research and Planning
270 East State Street
Columbus, Ohio 43215

Dear Dr. Davis:

I am submitting this proposal and request to conduct research within the Columbus School System in accordance with your publication, Research Guidelines. Because of the proposal's length, I am enclosing two copies of it and four copies of the summary of some pertinent information. I can make other copies of the proposal available to you if you need them.

Last week I had an opportunity to talk with Dr. Bill Staats about the ramifications of the study for staff development and training. I appreciated his insights in this area and I was quite pleased with the potential he saw for my study. The project is the basis for my doctoral dissertation.

Let me add also that if this proposal is accepted, all research will be conducted not only in accordance with your guidelines but also in accordance with the American Psychological Association's guidelines for conducting research with human subjects.

Thank you for your consideration. I will be looking forward to your reply.

Cordially,

Jim Seguin

Enclosure

JAS/mb
APPENDIX B

LETTER GRANTING PERMISSION TO CONDUCT RESEARCH IN THE COLUMBUS, OHIO CITY SCHOOL SYSTEM
March 13, 1974

Mr. James Seguin
970 Jaeger Street
Columbus, Ohio 43206

Dear Mr. Seguin:

The Department of Evaluation, Research and Planning has completed its customary examination of your research proposal. Based on the report I have received from this department, I find that I am in position to give central office approval to your proposed study.

Central office approval attests to the fact that your proposal meets certain standards insofar as the research design, instrumentation, and methodology are concerned. It still will be necessary for you to secure the approval of the principals of the schools in which you wish to carry out your study. In approaching principals to secure their approval, I suggest that you show them a copy of this letter.

On completion of your work, please forward to Dr. William Staats, Special Assistant, Staff Development and Human Relations, a completed copy of your findings.

I am pleased that you provided materials that did enable us to complete the analysis of your proposal.

Sincerely,

Joseph L. Davis
Assistant Superintendent

cc: Dr. Staats
    Mr. Rodosky
    Mr. Williams
APPENDIX C

LETTER OF REQUEST
TO PARENTS OF
PHYSICALLY HANDICAPPED CHILDREN
Dear Parents:

I am conducting a project to learn what effects a disability (especially physical disabilities) have on how young persons learn about people and how they organize their knowledge of people. We know very little about this—and it is an important area to learn about, particularly for educators and others who assist young people in developing social skills.

To do this, my associate, Margaret Monahan, and I are spending a short time with each person selected for the study, some of whom are physically handicapped and some of whom are not, asking them to describe a variety of people. We have tested this procedure in three different schools and with over fifteen students, most of whom seemed to enjoy the task. The interview takes between fifteen and thirty minutes.

Let me assure you that all information gathered in this project will be held confidential and no student's name will be used at any time in the final report. In addition, Dr. Joseph Davis, Director of Research and Evaluation for the Columbus School System, and your principal have carefully reviewed the study and have granted permission to conduct the project.

This study will complete my requirements for a Ph. D. in the Department of Communication at Ohio State University. Miss Monahan is also a Ph. D. candidate in the same department. I will be happy to answer any questions you have—my office number is 422-3400 and my home number is 443-2163.

Please fill out the form below and have your child return it to school tomorrow. Thank you very much for your cooperation.

Cordially,

James Seguin

My son/daughter_________________________ has permission to participate in this project.

Parent's signature________________________

Please return this form to school tomorrow.
APPENDIX D

LETTER OF REQUEST
TO PARENTS OF
NON-HANDICAPPED CHILDREN
Dear Parents:

I am conducting a project to gain insights about how young persons learn about people and how they organize their knowledge of people. We know very little about this and it is an important area to learn about, particularly for educators and others who assist students in developing social skills.

To do this, my associate, Margaret Monahan, and I are spending a short time with each student selected for the study, asking them to describe a variety of people. We have tested this procedure in three different schools and with over fifteen young students, most of whom seemed to enjoy the task. The interview takes between fifteen to thirty minutes.

Let me assure you that all information gathered in this project will be held confidential and no student's name will be used at any time in the final report. In addition, Dr. Joseph Davis, Director of Research and Evaluation for the Columbus School System, and your principal have carefully reviewed the study and have granted permission to conduct the project.

This study will complete my requirements for a Ph.D. in the Department of Communication at Ohio State University. Miss Monahan is also a Ph.D. candidate in the same department. I will be happy to answer any questions you have--my office number is 422-3400 and my home number is 443-2163.

Please fill out the form below and have your son or daughter return it to school tomorrow. Thank you very much for your cooperation.

Cordially,

James Seguin

My son/daughter __________________________ has permission to participate in this project.

Parent's signature ____________________________

Please return this form to school tomorrow.