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# Maternal Parameters in the Development of Social Intelligence

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MATERNAL PARAMETERS IN THE DEVELOPMENT OF  
SOCIAL INTELLIGENCE

by

Robert L. Duncan

A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University in Partial Fulfillment of  
the Requirements of the Degree of  
Doctor of Philosophy

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## VITA

Robert L. Duncan was born on August 5, 1935, in Salina, Kansas. He graduated from St. Louis University with a Bachelor of Science degree in August, 1958. He then worked for five years as a child care worker with emotionally disturbed children. In the fall of 1965 he became assistant director and a year later director of the Southwest School for Retarded Children. In January, 1968 he left that position to pursue full-time graduate work in clinical psychology at Loyola.

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## CHAPTER I

### INTRODUCTION AND REVIEW OF THE LITERATURE

#### Introduction

This study was based on the assumption that social intelligence is learned and that it might be possible to discover some of the early experiences which lead to different levels of socially intelligent behavior (Kerckhoff, 1969; Weinstein, 1969). It seemed reasonable to assume that this skill is learned in interaction with others and that early in life this learning takes place in interaction with the parents, especially with the mother. These assumptions led to the focus of this research, maternal parameters in the development of social intelligence in children.

This was contour-tracing research as opposed to precise causal-analytic research and it surveyed a broad area which can be most easily conceptualized as three subareas.

First, mothers' social intelligence and disciplinary styles were analyzed in their own right. Social intelligence was assessed both by measures which stem from an individual differences approach (Walker & Foley, 1973) and by a measure representing a cognitive approach (Feffer, 1959). Mothers' social intelligence as operationally defined by these instruments was analyzed in contrast to several measures of intellectual functioning in order to investigate the validity of the construct of balanced decentering in a social context (Feffer & Gourevitch, 1960; Piaget, 1950). Further analyses involving the measures obtained from the mothers were based on the relationship between their

disciplinary styles and social intelligence.

Second, mothers' social intelligence and disciplinary styles were considered in relation to their children's social intelligence. This represented a general exploration of Kerckhoff's (1969) and Weinstein's (1969) theoretical formulations regarding antecedents of children's social intelligence.

Third, actual interactions between mothers and their children were viewed in relation both to maternal attributes and to children's social intelligence. This followed Thorndike's (1920) recommendation that in order to construct an optimal measure of social intelligence one must utilize a genuine situation with real persons.

#### Social Intelligence: Definition and Measurement

Social intelligence has been of interest to researchers of individual differences for a long time, beginning with E.L. Thorndike (1920). He described social intelligence as distinct from abstract intelligence and mechanical intelligence and defined it as "the ability to understand and manage men and women, boys and girls -- to act wisely in human relations (p.228)." There are two aspects of this definition: (1) a cognitive appreciation of others without necessary action on the part of the perceiver and (2) action-oriented coping with others.

Shortly after Thorndike's statement, the George Washington Social Intelligence Test was developed to measure the ability (Moss, Hunt, Omwake, & Ronning, 1927). In the following decade, many instruments were developed to assess social intelligence (Thorndike & Stein, 1937). During the 1940s and 1950s interest in social intelligence waned, but there has been a resurgence of

activity since the late 1960s. In the 50-year history of the construct many tests have been developed and considerable research has been done. Walker & Foley (1973) have thoroughly reviewed the area. They concluded that Thorndike's two aspects of social intelligence must be evaluated before their interaction can be assessed. Another problem noted by Walker and Foley is that abstract intelligence and social intelligence are often significantly correlated, a finding that raises questions about the validity of the social intelligence measures in terms of assessing something more than general intelligence.

Concomittant with the development of the individual differences approach to social intelligence, there arose a social psychological interest in interpersonal judgments. Interest in this area was focused on how people make judgments, their accuracy in doing so, and personality characteristics of good versus poor appraisers of others (Vernon, 1933). Although dealing with much the same phenomena, those working in the judgment area and those working with social intelligence pursued divergent courses. The study of interpersonal judgments developed rather consistently into what is now referred to as person perception, interpersonal processes, and social perception (cf. Asch, 1946; Brofenbrenner, Harding, & Gallwey, 1958; Hastorf, Schneider, & Polefka, 1970; Manis, 1971; Taft, 1955; Tagiuri, 1969; Walker & Foley, 1973; Weinstein, 1969). While the present study has been indirectly influenced by theory on interpersonal judgments, it involved no use of the methodology of interpersonal judgments. Therefore, this survey does not examine the literature further with regard to that area except to cite a very succinct definition from that literature.

Interpersonal competence, according to Foote and Cottrell (1955), involves

the set of abilities enabling people to be sensitive to what others think and feel and to get along effectively with others. This is a function of three factors: (1) the ability to take the role of others accurately, i.e., to correctly predict the impact of various lines of action on alter's definition of the situation; (2) possession of a large and varied repertoire of lines of action; (3) the intrapersonal resources to be capable of employing effective tactics in situations where they are appropriate. One can readily see the parallel between this view of interpersonal competence and the social intelligence as defined previously. Role-taking ability is analogous to Thorndike's cognitive appreciation of others without necessary action on the part of the perceiver, while the repertoire of lines of action and the capacity to employ effective tactics correspond to Thorndike's action-oriented coping with others.

Recently, cognitive theorists have also turned their attention to the study of behaviors which appear to be closely related to social intelligence. This is a particularly welcome occurrence in regard to the study of the development of social intelligence because cognitive theory is developmentally oriented.

According to Piaget (1950), with increasing cognitive maturity the structuring of the environment becomes less determined by the perceptual characteristics of objects and more by internalized cognitive maps. This increased dominance of abstract schemata is concomitant with an ability to refocus (decenter) from one aspect of a situation to another in a flexible, balanced manner. Piaget's concept of decentering activity stems primarily from his investigations of the child's cognitive structuring of the physical, inanimate world, e.g., the thought processes underlying the child's conservation of

quantity or the ability to take different perspectives of a mountain scene. Although Piaget directed his attention primarily to impersonal categories, such as space, time, and number, he did state that impersonal cognitive structuring and structuring of the social world are "two complementary aspects of one and the same whole... (1950, p.166)."

Feffer and Gourevitch (1960) clarified Piaget's comparison of impersonal cognitive structuring and interpersonal cognitive structuring (taking the perspective of others). They stated that:

Piaget's formal considerations with regard to the evaluation of role-taking in terms of balanced decentering stems directly from the assimilation-accommodation concept of adaptation. In successful role-taking, the S has to express change, i.e., decentering, while at the same time observing the structures implied by each previous change, i.e., balance. That is, he has to assimilate the new role to the previous perspectives he has taken, while accommodating to the implications engendered by each new perspective (p.594).

Role Taking Task. In order to operationalize his extension of Piaget's decentering concept to a role-taking context, Feffer (1959) developed the Role Taking Task (RTT). The Role Taking Task required that the subject tell TAT-like stories from scenes involving two or more persons and then retell the initial story from the viewpoint of each of his characters. The structure as well as the scoring criteria of the Role Taking Task have been explicitly organized in terms of decentering activity. The structuring of interpersonal content as assessed by the Role Taking Task has been found to be associated with chronological age (Candell, 1965; Feffer & Gourevitch, 1960; Wolfe, 1963); impersonal decentering, i.e., conservation and part-whole problems (Candell, 1965; Feffer & Gourevitch, 1960); symptom expression (Korstvedt,

1965); and effectiveness of social interaction (Feffer & Suchotliff, 1966).

The Six Factor Tests of Social Intelligence. In pursuing Feffer's extension of Piaget's decentering concept the present investigator became intrigued with its possible relevance to individual differences measures of social intelligence, particularly the Six Factor Tests of Social Intelligence (SFTSI) as developed by O'Sullivan, Guilford, and de Mille (1965). Two of the six tests, Picture Exchange and Social Translations, load highly on Guilford's (1967) factor, cognition of behavioral transformations (CBT). CBT is defined as the ability to reinterpret a behavior so its significance is changed; it relates to the ability for flexibility of interpretation in contrast to rigidity of such interpretation. An instance of this is knowing that similar expressional cues have different meanings in different contexts. A brief look at the structure of these two tests may illustrate the similarity between CBT and balanced decentering.

Picture Exchange. In this test, the examiner's task is to choose the one of three photographs which, when substituted for one marked picture of a four-picture story, will change the story's meaning.

Social Translations. The task is to choose the one of three stated alternative pairs of people between whom a given verbal statement will have a different behavioral meaning, i.e., different from that if spoken between members of another given pair. For instance, a boss saying "Please" to his son or a chauffeur saying "Please" to his boss is a similar polite statement. However, if a beggar were to say "Please" to a stranger, the statement would have a more emotional, imploring meaning.

It is readily apparent that both these tests require the subject to ex-

press change (substitute an alternative picture of an alternative verbal statement), i.e., to decenter, while at the same time observing the structures implied by each previous change (the original stimulus or trial-and-error alternatives), i.e., balance.

Balanced Decentering: Construct Validation. It should be clear that the aforementioned measures of role-taking ability (an element of social intelligence) can each be conceptualized as an instance of balanced decentering in a social context. Having come this far theoretically, one finds oneself on the threshold of the question of validity. Walker and Foley (1973), in reviewing the measurement of social intelligence (SI), concluded that the focal problem seems to have been in the construction of valid instruments for assessing this ability. They added that:

Another problem has been the rather persistent relationship found between scores on the SI tests and those on abstract intelligence (AI) tests. While some investigators in the past overlooked the evaluation of this relation, now it is either pointed out that the AI-SI correlation, even when significant, does not often account for a sufficient amount of variance to be meaningful (Chapin, 1967; Shanley et al., 1965) or great effort is made to construct tests in such a way as to eliminate such relationships (O'Sullivan et al., 1965). Nonverbal test materials are particularly depended upon to achieve this latter goal. For the future, more sophisticated appraisals of the AI-SI correlations such as the multitrait-multimethod matrix of Campbell and Fiske (1959) must replace the use of simple, isolated Pearson rs so that if social intelligence and abstract intelligence are distinct this fact can be recognized sans ambiguity (p. 35).

Following Walker and Foley's lead, one major aspect of this study involved the attempt to clarify the relevance of the balanced decentering construct to



an understanding of social intelligence and general intellectual functioning. This was accomplished using a multitrait-multimethod matrix. The validation process involved using a matrix of intercorrelations among tests representing two traits, each measured by two or more methods. The first trait, balanced decentering in a social context was measured by Picture Exchange, Social Translations, the Role Taking Task, and the Password situation. The second trait, intellectual functioning, was measured by two subtests from the Wechsler Adult Intelligence Scale (Vocabulary and Digit Symbol) and by a measure of Verbal Fluency. The matrix of the correlations was evaluated by the scheme proposed by Campbell and Fiske (1959).

#### Maternal Disciplinary Style: Relationship to Social Intelligence

Disciplinary styles were an area of interest in the current investigation because there were reasons to assume that the mother's mode of discipline would be meaningfully related to her social intelligence. Of special interest was the extent to which mothers used an inductive type of discipline and how this related to social intelligence. Induction is a type of discipline defined by Aronfreed (1961, 1968). The various components of the style of discipline which may be described as induction are as follows:

- 1) A basic acceptance of the child.
- 2) Moderate withdrawal of affection rather than physical punishment.
- 3) Use of extensive (yet age-appropriate) verbal evaluation of the child's behavior in terms of a consequences-orientation or an other-orientation.
- 4) Clear explanation of standards.

- 5) Moderation in aversive affective display when explaining a situation to a child.
- 6) Attempts to get the child to focus on the intentions which precede his actions.
- 7) Reinforcement for the child's own active corrections of his behavior.
- 8) Follow-up for some time after a disciplinary incident.

Bernstein (1961) suggested that in families which are more oriented toward persons and in which discipline is more individualized and intent-oriented, children may come to see the world as others see it and may become more socially intelligent. It seems possible that mothers who have been raised in such families would be both more socially intelligent and make greater use of discipline which is person-oriented (e.g., an induction-type discipline thus mirroring the practices of their family of origin).

Kerckhoff (1969) reviewed disciplinary antecedents of role-taking ability (a component of social intelligence) and concluded that such antecedents were very similar to "induction". An examination of induction as defined above suggests that acceptance of the child and an other-orientation are significant parental acts in this type of discipline. Acceptance of the child obviously requires some social understanding of the child's role and other-oriented explanations clearly entail social intelligence in the mother. The foregoing line of reasoning prompted the present exploration of the relationship between the mother's social intelligence and her use of an induction-style discipline.

The present investigator developed a measure of induction utilizing

theory and methodology from various studies (Aronfreed, 1968; Barger, 1963; Hoffman, 1957; Hoffman & Saltzstein, 1967; Sears, Rau, and Alpert, 1963). The entire Induction questionnaire and the scoring system are included in Appendix A. Since it is a new instrument it seemed reasonable to explore its correlations with an established measure of parental discipline, the Maryland Parent Attitude Survey (Pumroy, 1966; Tolor, 1967). This instrument has four scales: Disciplinary, Indulgent, Protective, and Rejecting. Although this survey is not purported to measure induction, scores on this measure were obtained for purposes of comparison. In this investigator's estimation, the Indulgent scale seemed to relate somewhat to Hoffman's (1963) stipulation that acceptance of the child is a basic dimension of an induction-type discipline. In a similar vein, it seemed that the Protective scale might be related to induction on the basis of Aronfreed's (1968) conclusion that "closeness of supervision may be embedded in the context of induction patterns of discipline (p.318)."

#### Maternal Social Intelligence and Disciplinary Style in Relation to Children's Social Intelligence

In considering maternal factors that might foster the child's development of social intelligence (particularly role-taking ability) one of the most obvious possibilities is that the level of the mother's social intelligence is a major influence. However, the 50-year history of research on adult social intelligence has not provided any data relevant to the possibility that the parent's social intelligence and that of the child may be related.

Antecedents of Social Intelligence. Despite the extensive literature on the measurement of social intelligence as it exists in adults, little research

has been done on the development of social intelligence and the antecedent factors which may affect this development (Weinstein, 1969). Flavell, Botkin, and Fry (1968) were able to list a relatively small number of studies regarding changes in social intelligence with age although their own research indicated that skill in role-taking and communication consistently improved with age. Delaney (1973) reviewed more recent studies of this nature. However, there are virtually no studies which trace the antecedents of social intelligence in parent-child interaction. However, Kerckhoff (1969), in a theoretical paper, presented some semi-empirical guidelines concerned with parent-child interaction and the development of role-taking ability. He suggested that social intelligence is learned and that it may be possible to posit some of the early experiences which lead to different levels of ability. He analyzed the literature dealing with variations in parent-child behavior and their outcomes and concluded that it should be possible to delineate parental styles of imparting social intelligence or role-taking, role-playing ability. He summarized his position as follows:

- (1) Role-taking and role-playing involve knowledge, motivation, and ability relevant to the behaviors and values which define the roles of self and other.
- (2) This knowledge, motivation and ability are acquired in interaction with others.
- (3) Variations in the form of such interaction in early life may reasonably be expected to influence the degree to which they will be acquired.
- (4) The combination of nurturance and control, which seems to be associated with dependency on the other and with the development of identification with the other, increases the motivation for role-taking and role-playing.
- (5) Responses to one's behavior by the other which are explanatory, rather than simply expressive increase the clarity and level of generality and thus the usefulness of information about self and other.
- (6) The combination of motivation and informative

feedback provide the basis for the kind of practice which would be expected to improve the actor's ability at role-taking and role-playing. (7) Thus, a young child who experiences both a dependency relationship with another and explanatory feedback from that other should be expected to develop his ability at role-taking and role-playing more fully than one who does not experience this combination (p.242).

While Kerckhoff's survey yields strong hypotheses as to how social intelligence might develop, there has been virtually no research aimed specifically at assessing parental styles of imparting social intelligence. However, there is growing research evidence that the quality of mother-child interactions influences the child's general cognitive development (e.g., Bee, 1967; Bee, Egeren, Streissguth, Nyman & Leckie, 1969; Bing, 1963; Hess & Shipman, 1968; Witkin, Dyk, Paterson, Goodenough, & Karp, 1962). Hess and Shipman, (1965, 1967, 1968) proposed that one of the major factors influencing children's learning are the maternal teaching strategies. In fact, they found that maternal teaching behavior was as good a predictor of the child's cognitive behavior as IQ measures.

The importance of maternal speech was first emphasized by Bernstein (1961). He views language as social behavior. As such, language is used by participants of a social network to elaborate and express social and other interpersonal relations and, in turn, is shaped and determined by these relations. He suggested that in families which are more oriented toward persons and in which control is more individualized and intent-oriented, the child may come to see the world as others see it and may learn to take roles and role play with an element of personal flexibility. One can readily draw from this viewpoint the hypothesis that the language of the mother is related to the

role-taking ability of her child. Kerckhoff (1969), in discussing the mother's contribution to the child's level of social intelligence, suggested that the degree to which the mother's behavior is informative is an important variable. He posited expressive and explanatory responses, the former including motoric and the less informative verbal responses, the latter including only those verbal responses which go beyond the expressive reaction and which suggest reasons for behavior. Kerckhoff elaborated his proposal as follows:

The difference in the kind of learning that one would associate with these two kinds of responses is similar to the differences between trial and error learning and learning by tuition. Both may result in an understanding of the general principles involved but the former would usually take much longer than the latter to bring about this understanding.

More is involved than the efficiency of learning however. The individual mother-child interaction is placed in a more general and abstract context through the mother's explanation. Her explanation is couched in terms of general principles which presumably apply to more than the specific relationship involved. The explanation not only suggests that general non-idiosyncratic principles apply to an individual's behavior, but it also suggests that the other individual's behavior may be analyzed, explained, and evaluated in the same terms. Thus, the general notion of the attribution of purpose or principle to an actor is communicated along with the specific principles which the mother applies to the immediate situation.... A crucial point to be made, therefore, is that explanatory responses not only convey the specific principles on which the mother's behavior is predicated, but they also provide the child with the tools of analysis of the contingencies between own and other's behavior in any situation (p. 236).

In the present investigator's opinion, the Role Taking Test (RTT) described earlier is well suited to assessing the degree to which the mother's cognition of social relations would support an explanatory mode. A closer look at what the Role Taking Task taps may give support to the face vali-

dity of this opinion.

Feffer (1959) constructed the Role Taking Task for analysis of the complexity of the individual's cognitive structuring of social content as revealed in role-taking activity. His instrument provided evidence regarding the subject's ability to decenter his attention from the impact of his initial point of view. A high scorer is able to decenter his attention from the constrictions imposed by his initial viewpoint in order to refocus on the various actors from a different perspective. This amounts to very complex role-taking. The Role Taking Task, at a face validity level, would seem useful in discriminating between mothers who make rather simplistic judgments about interpersonal situations and mothers who assess social situations according to complex principles. Furthermore, as research on the Role Taking Task indicates, a beginning has already been made in establishing its reliability and validity (Candell, 1965; Feffer & Gourevitch, 1960; Feffer & Suchotliff, 1966; Korstvedt, 1963). Therefore, this study used the Role Taking Task as a measure of the extent to which a particular mother's style of cognizing social relations was consonant with an explanatory rather than an expressive mode.

Given the adequacy of the Role Taking Task for assessing the amount of information contained in a mother's cognition of social relations, it can readily serve as a measure of the mother's capacity for understanding of role-taking. Similarly one could argue that Picture Exchange and Social Translations also measure maternal social understanding.

Walker and Foley (1973), in their review on social intelligence, highlighted a distinction that must be dealt with at this point. They stated that:

...Thorndike specified two types of social intelligence, namely, understanding others and wise social action. These two broad categories in themselves demand intensive research so that their various facets can be specified. Furthermore, it must be understood that knowing and acting must be evaluated separately before their interaction can be assessed. Too frequently it appears that investigators have equated the two aspects of social intelligence or, in dealing with one, they have assumed the other to be present in subjects. While it is undoubtedly true that acting socially wise presupposes social understanding, social understanding itself is a necessary but not sufficient cause for wise social behavior. To what extent there are people who know what behavior should be exhibited because they are capable of "reading" social cues but choose not to act for whatever reason is an experimental question. This type of problem and research is not new to psychology and can be seen as analogous to other comparisons such as that between learning and performance (p.9).

Clearly, the Role Taking Task, Picture Exchange, and Social Translations tap the "understanding others" aspect of Thorndike's definition. Hence the next question for this study was: How does one arrive at a measure of "wise social action" on the part of the mother?

An answer may be found in Kerckhoff's (1969) discussion of disciplinary antecedents of role-taking ability. Kerckhoff, as mentioned above, concluded that, other things being equal, a mother who used a more informative type of disciplinary response, i.e., an explanatory response, would foster greater role-taking ability. He reasoned as follows:

The original Sears' position suggests that the child's dependence on the mother makes it possible for her to influence him and that this influence is greatest if she associates the flow of her nurturance with his behavior in accordance with her values. We have accepted that basic position, but we have added to it the view that how she goes about conveying to him the connection between his behavior and her nurturance is all-important. If she simply responds in what we have called an expressive manner, her influence will be much less than it might be,



even if she is consistent in what she does and does not reward. Simple love withdrawal, without explanation, is not likely to have the effect we have discussed....

The combination of love withdrawal and explanation which we have stressed is very similar to what Hoffman and Saltzstein (1967) have called "induction". They contrast induction with love withdrawal by noting that the former "includes appeals to the child's guilt potential by referring to the consequences of the child's action for the parent."

Love withdrawal, on the other hand, is viewed as simple rejection of the child and curtailment of interaction with him. Induction, as they define it, thus combines an indication that the child has transgressed and a statement of the interpersonal implications of his action, whereas love withdrawal is a simple expressive response to the child's behavior. The fact that they found induction, but not simple love withdrawal associated with various measures of the child's moral development is thus consistent with the position taken here (p.243).

What Kerckhoff was suggesting is that the use of induction provides not only a mechanism through which the child may learn to identify with the mother but also a mechanism by which he may learn the more abstract skill of role-taking (i.e., one aspect of social intelligence).

The relevance of this discussion to the present search for a measure of "wise social action" on the mother's part is that a disciplinary situation is an action situation; to formulate an inductive disciplinary approach requires wise social activity from the mother. And, according to Kerckhoff, consistent use of "induction" should foster the growth of social intelligence in the child.

In response to Walker and Foley's (1973) suggestions regarding the understanding and action aspects of social intelligence the present investigation included what may be considered to be measures of both aspects of

social intelligence: (1) social understanding (Role Taking Task, Picture Exchange, and Social Translations) and (2) wise social action ( Induction Questionnaire). And, following the conclusions of Kerckhoff regarding antecedents of social intelligence, this investigator hypothesized as follows: (1) The measures of mothers' social understanding are positively related to their children's social intelligence and (2) the induction measure of mothers' wise social action is positively related to their children's social intelligence.

Measuring Social Intelligence in Children. Given the means for measuring possible maternal antecedents of social intelligence in children, there still remained the problem of measuring this ability in children. There is an increasing amount of research on social intelligence in children (cf. Borke, 1971; Bowers & London, 1965; Delaney, 1973; Devries, 1970; Feffer & Gourevitch, 1960; Flavell et al., 1968; Maccoby, 1959,1961; Rothenberg, 1970; Selman, 1971; Weinstein, 1969). However, it was beyond the scope of this study to pursue this literature in detail. Since the only child measures of interest in the present investigation were one developed by Flavell et al., (1968) and one constructed by Maccoby (1961).

Persuasion Tasks. Flavell et al., (1968) were interested primarily in social intelligence as role-taking. They theorized that the common component of all behavior in the general role-taking area is the discrimination of the other's role attributes. This discrimination is done for various purposes, but only the kind of discrimination purpose most pertinent to the present study is to be considered here. This type of role-taking, according to

Flavell et al., occurs when:

... the subject seeks out the other's role attributes, not to play out his role but to understand it-- and understand it from his own, still active role position vis-a-vis the other.

In some cases this act of understanding is itself the only immediate objective, and does not serve as an instrumental response to other actions immediately following....

Often, however, the act of understanding does serve as a means to one's subsequent behavior, the latter generally being in some sense complementary to the behavior of the other. For example, the other is our opponent in some kind of contest, perhaps a competitive game, and our understanding of his role attributes helps to govern our own strategy and tactics. Or the other is, on the contrary, our collaborator or fellow team member in some joint enterprise, and our knowledge of his role attributes and derivative behaviors will again maximize the effectiveness of our own action in furthering the enterprise. Or the other is trying to convey a subtle, hard-to-characterize feeling he has experienced, and your ability to grasp how it felt to him will determine your next response and, perhaps, the whole course of the subsequent interchange between you (psychotherapy is a familiar prototype here (pp. 7-8)).

Flavell et al. (1968) have conceptualized the ability to persuade another as being based on role-taking ability (social intelligence):

The ability to persuade another person effectively ought to presuppose the ability to identify those of his role attributes which are persuasion relevant, that is, the particular needs in the listener to which appeal might profitably be directed, the sorts of arguments to which he might be susceptible-- in general, the "chinks" in his sales resistance which the persuasion message ought to seek out and enter (p.135).

In line with this thinking, Flavell et al., developed two persuasion tasks which provide the child a relatively open-ended opportunity to show his skill in persuading people in two imaginary conditions. In the first condition the

child is asked to convince his father to buy him a television set for his own personal use. The second condition requires the child to persuade his friend to pay his way into a movie theater.

Following the reasoning presented above, it was hypothesized that the various measures of mothers' social intelligence correlate positively with the Persuasion Task measure of children's social intelligence.

Role Taking Questionnaire. Maccoby (1959, 1961) described a type of role-taking that seems to be dynamically different from that contained in the adult social intelligence measures and in the Persuasion tasks. The role-taking tapped by the Adult-Child Role Choice and by the Rule Enforcement scales of the Questionnaire seems to be a more primitive, identification with the aggressor, behavior.

Maccoby calls this type of child role-taking ability "adult role behavior as performed by children." She described this as a set of behaviors which the child learns, but which he seldom performs overtly. Such behavior is part of the role performed by the parents in caring for a child, but it is inappropriate for the child to enact such a role toward the parents. Examples of adult role behavior are setting rules, applying discipline, and administering to the child's needs. While a child soon learns not to enact such adult roles overtly, he does continue to enact them covertly and to learn a great deal about the behavior of important adults in his life. Maccoby (1961) explored the motivating conditions that govern the amount of a child's covert practice. One of these motives is particularly appropriate to the present investigation of induction-type discipline as an antecedent of children's role-taking ability. Maccoby described it as follows:

The second motive underlying a high level of covert practice of adult roles is based, we believe, on a high degree of parental control over the child. If the child cannot satisfy his needs without getting some mediating behavior from his parents (getting their permission to visit a friend, spend money, etc.), then his vicarious trial and error will necessarily involve rehearsing the kinds of controlling phrases his parents would say to him if he asked for their help in getting what he wanted. If he is not required to get parental permission for most of the steps he follows in pursuing his goals, then he will not have to take parental reactions into account in making his plans and will not engage in extensive covert practice of parent phrases and strictures (p.494).

Maccoby, then, has made a strong case for a high degree of parental control as an antecedent of adult role-taking in children. But the question arises: How does this relate to the induction measure discussed earlier? Aronfreed (1968) provided a possible answer: he surveyed the literature on child-rearing patterns and concluded that "restrictiveness in the sense of closeness of supervision, may be embedded in the context of induction patterns of discipline... (p.318)." It seemed reasonable therefore to consider the Induction Questionnaire score as a possible measure of one of the key antecedents of adult role-taking in children.

The measures of adult role-taking in children were obtained from Maccoby's Role Taking Questionnaire (1961). Two scales from this Questionnaire, Adult-Child Role Choice and Rule Enforcement, appeared to be especially relevant to her concept of adult role-taking in children and were used as measures of this variable in the present study.

With respect to these role-taking measures, it was hypothesized that maternal explanatory behavior (Induction Questionnaire score) correlates positive

ly with children's adult role-taking ability.

#### Mother-Child Interaction: Password Situation

The final area to be investigated in the present research is an actual interaction situation involving each mother and her child. Thus far attention has been focused on separate measurements of mothers and children and the relationships between them. Although the Induction Questionnaire and the Maryland Parent Attitude Survey measure the mother's reports of how she might handle a child in a disciplinary situation, this still does not constitute a direct measure of an actual social interaction.

Walker and Foley (1973) indicated that Thorndike believed that, in order to construct an optimal measure of social intelligence, one must utilize a genuine situation with real persons. Walker and Foley go on to say: "While some proponents of both social intelligence and person perception approaches are in general agreement with this notion (e.g., Bronfenbrenner et al., 1958; O'Sullivan et al., 1965; Rothenberg, 1960), utilization of the 'real person' method has been limited (p.4)."

Fortunately there is a recent measure of social intelligence (specifically of role-taking ability) which involves real people in an actual social interaction. This measure is used in the Password situation developed by Feffer and Suchotliff (1966). They conceptualized the Password situation as another extension of the balanced decentering concept, reasoning as follows:

... The password situation represented an analogue of the type of social interaction previously formulated in decentering terms, particularly with regard to the donor's role. The donor's relative adequacy in communicating the test word was viewed as being based on his ability to select, from the myriad of association possibilities

available to him the association clue with the most information value to the recipient. This selection, in turn, was considered to be a function of the donor's ability to modify his intended behavior not only of a general instructional set (that of communicating the test word) but also in the light of his anticipation of the recipient's possible response as well as the recipient's previous response.... The progressive modification and dovetailing of responses thus required to communicate and receive the test word appeared to rest importantly upon the relative ability of each participant to attend simultaneously to aspects of his experience from more than one viewpoint (p. 417-418).

Performance in the Password situation was found to be significantly related to decentering ability as measured by the Role Taking Task using college students as subjects.

One difficulty presented by the Password situation is that it is difficult, if not impossible, to sort out the relative contribution of the donor or recipient to their overall effectiveness as a team. However, it seemed of value to the present investigator to simply assess the effectiveness of a mother-child team in socially cooperating to solve the Password problems. Effectiveness is defined by a success score which refers to the total number of words transmitted correctly within the time limits.

The relation of mother-child social effectiveness in such an interaction to maternal attributes (social intelligence and use of induction) and to child social intelligence has not been examined before. Therefore the present investigation explored those relationships. The following hypotheses were tested:

- (1) Success scores in the mother-child interactions on Password correlate positively with mother's social intelligence (Role Taking Task, Picture

Exchange, and Social Translations).

(2) Success Scores in the mother-child interaction correlate positively with child's social intelligence (Persuasion Task, Adult-Child Role Choice, and Rule Enforcement).

(3) Success Scores in the mother-child interaction correlate positively with mothers' use of induction.

Control Variables. Feffer and Suchotliff (1966) in their study of Password interactions in adults raised the question of whether or not some factor other than capacity for balanced decentering (as measured by the Role Taking Task) contributes to systematic variation in dyad performance. They investigated three variables as being relevant in this regard: first, verbal intelligence which they evaluated by means of the WAIS Vocabulary, second, Verbal Fluency, and, third, degree of word association similarity. They found that neither WAIS Vocabulary scores nor verbal fluency was significantly related to Password. However, degree of associative overlap on the word association measure was significantly related to Password scores. Feffer and Suchotliff analyzed the nature of the associative overlap and discussed it as follows:

...it was found that of the 53 words on which shared associations occurred, 94% of the overlap occurred on the most popular response to each word.... It is possible, therefore, that the more basic variable underlying the relationship between overlap and password performance is the extent to which the subject responds with popular associations on the word association test (p.420).

In interpreting this relationship, Feffer and Suchotliff discussed Rapaport's (1946) approach to the processes involved in the word-association test, i.e., that a reciprocal modification between the task set and associative network is



considered to be the basis of a popular response conceptually coordinate with the stimulus word. They concluded that this formulation bore a strong resemblance to the decentering concept, especially as it applied to the Password situation and that the significantly positive relationship between overlap and Password performance actually strengthened their hypothesis that Password tapped decentering ability in a social context, i.e., social intelligence.

In the present study, associative overlap was determined by assessing responses to O'Connor's (1945) word association test. An interesting aspect of O'Connor's test is his "significant response categorization." He isolated the popular responses to 56 stimulus words in the 100-word test which differentiated persons who scored in the top quartile on popular responses on the test as a whole from those who scored in the bottom quartile on those responses. Research with various occupational groups has suggested that high scores on significant responses are related to an ability to see another's true point of view. Licht (1947) reported that persons in supervisory and group influencing positions tended to score high while writers, research scientists, and artists tended to score low on significant responses. The parallel between this and the role-taking supposedly involved in the Password situation is immediately apparent. Hence, besides using associative overlap as a control for Password, this study also used significant responses in exploring the following hypothesis: Success scores in the mother-child interaction correlate positively with the number of significant responses given by the mothers.

### Summary of Hypotheses

The hypotheses explored in this study can be considered in three groups.

1) Mother Measures Considered in Relation to Each Other:

- (a) Mothers' social intelligence measures correlate positively with each other while mothers' intellectual functioning measures correlate positively with each other. (The social intelligence measures were conceptualized as mediating variables for the balanced decentering construct and the hypothesis was tested by means of convergent-discriminant validation, with intellectual functioning measures serving as the discriminant function).
- (b) Mothers' social intelligence measures correlate positively with the measure of inductive discipline.
- (c) Mothers' scores on inductive discipline correlate positively with Maryland Parent Attitude scales, Indulgent and Protective; induction correlates negatively with the Rejecting scale.

2) Mother Measures in Relation to Their Children's Social Intelligence:

- (a) Mothers' social intelligence measures (representing social understanding ) correlate positively with child social intelligence measures (Persuasion Tasks).
- (b) Extent to which mother uses inductive-style discipline (wise social action ) correlates positively with child social intelligence (Adult-Child Role Choice and Rule Enforcement).

3) Mother-Child Interaction in Relation Both to Maternal Attributes and to Child Social intelligence:

- (a) Success scores in the mother-child interactions correlate positively with maternal social intelligence.
- (b) Success scores in the mother-child interactions correlate positively with child social intelligence.
- (c) Success scores in the mother-child interaction correlate positively with the extent of mothers' use of induction.
- (d) Success scores in the mother-child interactions correlate positively with the number of significant responses given by the mothers.

## CHAPTER II

### METHOD

#### Subjects

The subjects of this investigation were 60 mother-child dyads. All were recruited through faculty and graduate student contacts. The only inducement for volunteering was the promise of a two-session class following the collection of the data wherein the general purpose and outcome of the study would be discussed.

The socioeconomic status of the subjects was determined by means of an index developed by Coleman (1959). This index indicated that all but three of the subject dyads were in the middle class, mostly middle, middle class. Also of interest is the fact that for over one-half of the mother-child dyads either one or both of the parents had had training and experience in an occupation requiring definite interpersonal skills; e.g., teaching, nursing, or social work.

The sample involved mothers of children in two age ranges (33 children between 7-0 and 8-11 years of age and 27 children between 11-0 and 12-11 years of age), where 35 were boys and 25 were girls. The mothers and children in this study were subjects in a larger investigation which also involved the assessment of role-taking ability in children in relationship to the children's age, sex, birth order, and intellectual level (Delaney, 1973). The present investigation focused more on maternal parameters in the development of social intelligence (role-taking ability).

## Measures

The tests administered to the mothers can be grouped into three categories: (1) Tests of mothers' social intelligence: two of the Six Factor Tests of Social Intelligence, Picture Exchange and Social Translations (O'Sullivan et al., 1965) and the Role Taking Task (Feffer, 1959); (2) Child-rearing measures: Maryland Parent Attitude Survey (Pumroy, 1966) and the Induction Questionnaire (developed by the present investigator for this study); (3) Control measures: WAIS Vocabulary, WAIS Digit Symbol, Verbal Fluency Test, and a Word Association Test (O'Connor, 1945).

The tests administered to the children can be placed in two groups: (1) Tests of children's social intelligence: Role Taking Questionnaire (Maccoby, 1961) and the Persuasion Tasks (Flavell, et al., 1968); (2) Control measures: WISC Vocabulary, WISC Digit Symbol, Verbal Fluency Test, and a Word Association Test (O'Connor, 1945).

Finally, one test was administered to mothers and children simultaneously to assess effectiveness of social interaction, the Social Interaction Situation (Password) (Feffer & Suchotliff, 1966).

All of these tests are described in the following sections according to the order in which they are cited above.

Six Factor Tests of Social Intelligence. Two of the Six Factor Tests of Social Intelligence, Picture Exchange and Social Translations, were used in this study because they load highly on Guilford's (1967) factor, cognition of behavioral transformations. As was pointed out in Chapter I, cognition of behavioral transformations seems similar to balanced decentering. Picture Exchange and Social Translations are self-administering paper-and-pencil tests.

Picture Exchange. In this task, the subject must choose a photograph and substitute it for a marked alternative in a set of four so that the chosen picture changes the story's meaning.

Social Translations. The task is to choose the one of three stated alternative pairs of people between whom a given verbal statement will have a different behavioral meaning, quite different from that if spoken between members of another given pair.

These tests were administered and scored according to the instructions provided by the authors. In each instance, higher scores reflected higher social intelligence.

Convincing reliability and construct validity estimates based on factor loading have been demonstrated for the Six Factor Tests of Social Intelligence (cf., Hoepfner & O'Sullivan, 1968; O'Sullivan & Guilford, 1966; O'Sullivan et al., 1965).

Picture Exchange has a loading of .51 on cognition of behavioral transformations and reliability of about .32. Social Translations also loads .51 on cognition of behavioral transformations and has a reliability of .85.

Role Taking Task. This test requires that the subject make up initial stories for two TAT-type scenes. After the stories are completed, each scene is again presented and the subject is asked to retell the initial story from the viewpoint of each of his characters. According to Feffer and Suchotliff (1966):

The RTT is evaluated in terms of the degree to which the subject is able to refocus upon his initial story

from the perspectives of his characters while at the same time maintaining continuity between the various versions of the initial story. It is assumed that the change and continuity which define successful role-taking performances are indicative of the subject's ability to consider his behavior simultaneously from different viewpoints. Thus a subtle degree of coordination between versions of the initial story is interpreted as a type of decentering which is simultaneously modulated by previous and anticipated centering; in contrast, inconsistency or discontinuity between the characters' viewpoints is interpreted as a form of sequential decentering, that is, a shift in focus that is not concomitantly guided by other centering (pp.416-417.)

In the present study, the subject was asked to write stories for the two pictures. A description of these pictures and the administration are included in Appendix B . Scoring was done by the present investigator according to a lengthy and detailed manual developed by Feffer and Suchotliff (1966) and which was obtained from the American Documentation Institute, Document No. 9010. All scoring of the Role Taking Task was blind and was completed prior to the investigator having knowledge of the subjects' performance in other tests.

Interjudge reliability with female adults was found to be .69 (Lowenherz & Feffer, 1969). Further information relevant to reliability can be found in Feffer (1959), Feffer and Gourevitch (1960), and Feffer and Jahelka (1968). The assessment of interjudge reliability for the present study was based on a fourth of the records and was determined by the degree of correlation between the total scores obtained by the investigator and an undergraduate trained in the use of the scoring system. The correlation was .73 which is comparable to that obtained by Lowenherz and Feffer.

Validity seems promising since performance on the Role Taking Task has been found to be associated with chronological age (Candell, 1965; Feffer & Gourevitch, 1960; Wolfe, 1963); impersonal decentering activity, i.e., conservation and part-whole problems (Candell, 1965; Feffer & Gourevitch, 1960); symptom expression (Korstvedt, 1963); and effectiveness of social interaction (Feffer & Suchotliff, 1966).

Maryland Parent Attitude Survey. This is a research instrument developed to measure childrearing attitudes with the objective being control of the social desirability set. It consists of 95 items, each calling for a forced-choice response between two paired statements. The pairing of statements was based on: (1) the type of parents they represented according to psychologist judges and (2) the distribution of responses of a group of subjects who had been instructed to answer as they thought a good parent would. The four types of parents, corresponding to the scales, are Disciplinary, Indulgent, Protective, and Rejecting. The test is scored by adding the number of statements chosen for each of the categories. Test-retest and splithalf reliabilities vary from .62 to .84 (Pumroy, 1966) which is similar to other instruments of this nature. Tolor (1967), in assessing its validity, found it to be free of the social desirability set and reported that the four subscales demonstrated the expected internal relationship (with one exception).

Induction Questionnaire. This is a self-administering, paper-and-pencil test which was designed to elicit a picture of a parent's disciplinary style, particularly her use of induction. Induction as defined by Aronfreed (1961, 1968) is a type of discipline in which acceptance of the child and an other-orientation are significant parental acts. (This type of discipline is de-



scribed in detail in Chapter I). This Questionnaire was constructed by the present investigator using applicable items from several interview schedules (Barger, 1963; Hoffman, 1957; Miller & Swanson, 1966). Scoring for induction is based on conceptualizations contained in Aronfreed (1968); Hoffman (1963), and Hoffman and Saltzstein (1967).

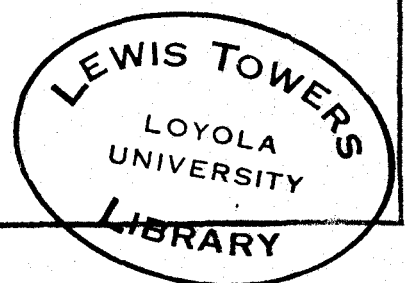
The Questionnaire consisted of six incidents each involving a description of a child's behavior which might be supposed to elicit some disciplinary action by the parent. The mother was requested to write a description of what she would do in response to each incident. Each incident was scored for the presence or absence of nine components presumed to measure aspects of induction (discussed in Chapter I). The score for each component was the sum of the scores for the six incidents. The entire Questionnaire and scoring manual are included in Appendix A.

The Induction Questionnaires were all scored by the present investigator. All scoring of the Induction Questionnaire was blind and this was completed prior to the investigator having knowledge of the subjects' performance on other tests. An undergraduate honors student also scored 25 percent of the protocols in order to check interrater reliability. The results of this reliability check are shown in Table 1. It is apparent that the reliabilities are acceptable for the first five components, but for the last four components the reliability is questionable. However, the reliability is quite good for the overall scores, indicating a high degree of consensus between raters as to a mother's overall use of induction despite arriving at this consensus via differential rating on some components. The component scores used for the factor analysis and to compute the final factor scores were

Table 1

## Induction Questionnaire: Inter-rater Reliability

Variable	Pearson <u>r</u>
Acceptance of Child	.89
Withdrawal of Love	.70
Verbalization of Consequences	.71
Verbalization of Other-Orientation	.74
Explanation of Standards	.77
Moderation in Aversive Affect	.39
Focus on Intentions	.49
Reinforcement for Correction	.44
Follow-up over Time	.42
Overall Score	.88



drawn only from this investigator's ratings.

Using the scores obtained from the 60 mothers, a correlation matrix was obtained and factor analyzed; the results are presented in Table 2. This factor analysis yielded only one factor, a fairly strong one which has been designated "positive induction." The following components showed a loading of .40 or higher on this factor: acceptance of the child, verbalization of other-orientation, explanation of standards, focus on intentions, reinforcement for correction, and follow-up over time. As part of the computer program a positive induction factor score was automatically calculated for each of the mothers and these served as the induction scores for the study.

WAIS Vocabulary and Digit Symbol. These measures along with the Verbal Fluency Test were used to assess intellectual functioning. Intellectual functioning represents the second trait which was contrasted with the balanced decentering trait in the multitrait-multimethod matrix validation analysis of the construct, balanced decentering in a social context. Vocabulary and Digit Symbol were selected because they represented somewhat different measures of intellectual functioning yet have a correlation of .60 for persons approximately the age of the mothers in the present sample (Wechsler, 1955).

The Vocabulary test was administered as a paper-and-pencil test. Printed instructions stated: "Please write the meanings of the following words." Scoring was according to WAIS standards and a scaled score was used in the analyses of the data.

The Digit Symbol test was administered and scored following Standard WAIS procedures and a scaled score was used.

Table 2

## Factor Analysis of Induction Questionnaire Components

Variable	<u>M</u>	<u>SD</u>	Factor Loading
Acceptance of Child	13.9	2.3	.91
Withdrawal of Love	3.0	2.6	.09
Verbalization of Consequences	2.8	2.4	.13
Verbalization of Other-Orientation	6.7	2.7	.74
Explanation of Standards	11.0	2.4	.77
Moderation in Aversive Affect	7.7	4.0	.03
Focus on Intentions	4.8	3.1	.44
Reinforcement for Correction	9.3	2.8	.76
Follow-up over Time	6.2	3.7	.55

Verbal Fluency Test. The score for this measure was the total number of words beginning with the letter P that the subject could state in 1 minute.

Word Association Test. This test, developed by O'Connor (1945), was scored for each mother-child pair in terms of the number of shared associations. This served as a check for the possibility that good performance in the social interaction situation (Password) might be due primarily to associative overlap.

In addition, each mother was assigned a score representing the total number of significant responses she gave on the Word Association Test. These scores reflected the extent to which mothers gave a certain type of popular response (see Chapter I). The relationship of these scores to Password performance was of interest because Feffer and Suchotliff (1966) reported a significant positive relationship between Password scores and the number of popular responses to a word association test.

The following six tests were administered to the children alone.

Role Taking Questionnaire. This is an instrument developed by Maccoby (1961). It consists of 45 forced-choice items which were designed to tap a child's tendency to take an adult role when another child seeks help or breaks a rule. There are eight scales but for this study only two scales, Adult-Child Role Choice and Rule Enforcement, appeared relevant. An example of an item from the Adult-Child Role Choice scale is as follows:

You are at a school movie. You can either sit with friends and watch the movie, or be an usher and show people to their seats. Which would you rather do?

\_\_\_\_\_ Sit with my friends and watch the movie.

\_\_\_\_\_ Be an usher and show people to their seats.

And a sample item from the Rule Enforcement scale is as follows:

You are on your way to school. A boy in your class is walking in front of you. He drops a bottle on the sidewalk, and it breaks in many pieces. The boy walks on. What would you do?

\_\_\_\_\_ Say nothing; it's his business not mine.

\_\_\_\_\_ Tell the boy to pick up the pieces.

The score for each scale was the sum of the items on which the child selected the option scored for that scale. There were both boys' and girls' forms of this test. The entire test and scoring key were reported by Delaney (1973).

Persuasion Tasks. These tasks were taken from Flavell, Botkin, and Fry (1968) and modified somewhat for the present study. These tasks permit the child a somewhat unstructured opportunity to demonstrate his skills in persuading two imaginary persons. In the first task, the child is asked to convince his father to buy him a television set for his own use. The second task required the child to persuade a peer to pay his way into a movie. The administration and scoring of this task are presented by Delaney (1973).

For the purposes of this study, an Adult Task score and a Child Task score representing the number of persuasive arguments presented on each task were used. The interrater reliabilities for these scores (.78 and .93) were determined by Delaney (1973).

WISC Vocabulary and Digit Symbol. These subtests were administered in the standardized manner. Scaled scores were obtained for each subtest.

Word Fluency Test. Same as for mothers.

Word Association Test. Same as for mothers.

The following test was administered to each mother and her child simultaneously.

Social Interaction Situation (Password). This interaction involved 16

words, 6 of which were selected from Feffer and Suchotliff (1966) and 10 additional words which were selected to make the tasks appropriate for even young children. One member of the dyad, as donor, was required to communicate his test word to his partner, the recipient, via one-word association clues. The recipient, in turn, was required to try to guess the test word by giving one-word responses to each association clue of the donor. This form of interaction continued until the test word was communicated or until a 120-second time limit was reached, at which point the word on the next card was attempted. The mother acted as donor for the first eight words; the child was donor for the last eight. Scoring for each subject pair included the median time to successfully communicate the correct word, the median number of clues necessary to name the appropriate word, and the total number of test words successfully transmitted. Preliminary statistics indicated that number of words successfully completed was the best of the three measures and that measure was used in all analyses reported in the present study. The Password list and instructions are shown in Appendix C .

#### Procedure

Each mother-child dyad was tested in two sessions approximately one week apart. They were tested at the Loyola Guidance Center, using separate rooms for the mother and child to preclude their distracting or otherwise immediately influencing each other.

Prior to testing the purpose of the study was explained in very general terms and the mother was asked to fill out a short questionnaire which provides information on her husband's occupation (the basis for rating socioeconomic status). Then the tests were administered in the order shown in Table 3.

Table 3

## Order of Testing

## Introduction to the Study

## Mother

## Child

Session #1 Socioeconomic Questionnaire

Role Taking Questionnaire

Maryland Parent Attitude  
Survey

WISC Vocabulary

WAIS Vocabulary

Picture Exchange

Social Translations

## Password Interaction

## Re-introduction

Session #2 Role Taking Task

Persuasion Tasks

Induction Questionnaire

WISC Digit Symbol

Verbal Fluency Test

Verbal Fluency Test

Word Association Test

Word Association Test

WAIS Digit Symbol



The following measures involved the mothers' reading printed instructions and writing down their answers: Picture Exchange, Social Translations, Role Taking Task, Maryland Parent Attitude Survey, Induction Questionnaire, and WAIS Vocabulary. The WAIS Digit Symbol, Verbal Fluency, and the Word Association tests were each administered individually to each mother.

Password was administered to the mother and child together by one of the experimenters. The Adult Role Questionnaire was self-administering in the case of children aged 11-0 to 12-11. However, in the case of children aged 7-0 to 8-11, the instructions and test items were read aloud and answers were recorded for the children. The WISC Vocabulary was administered in standardized fashion except in the case of several older children who were permitted to write their responses and then were questioned only about unclear answers. The Persuasion Tasks, WISC Digit Symbol, Verbal Fluency, and Word Association were each administered individually to each child.

All test administrations were performed either by this investigator, the other researcher who was collaborating in the larger study, or a technical assistant who was trained to administer the tests.

## CHAPTER III

### RESULTS

For the sake of clarity, the results of this investigation are presented in three sections, mirroring the three areas considered in the survey of the literature.

#### Maternal Variables

Since a number of instruments were administered to the mothers, it seemed advisable to present them first as a group. Table 4 shows the means and standard deviations based on scores of mothers of younger children, mothers of older children, and for the total group. The means for the mothers of older and younger children were similar for all measures and none of the differences was significant. It is worth noting that the exploration of IQ scores from the WAIS subtest scores suggested that the mothers were functioning at the superior level on Vocabulary and at the bright-normal level on Digit Symbol.

In the following analyses involving the relationships among mothers' scores and, subsequently, the relationships between these scores and children's scores, all correlations were based on the 60 mother-child pairs (33 involving younger children; 27 involving older children). In addition, the Pearson product-moment coefficient of correlation ( $r$ ) was used in obtaining all of the correlations.

Social Intelligence and Intellectual Functioning. Maternal social intel-

Table 4

Descriptive Statistics for Maternal Measures Based on Scores of Mothers  
of Younger Children, Older Children, and Total Group

Variable	Younger		Older		Total	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Social Intelligence						
Role Taking Task	48.18	8.05	47.59	7.19	47.92	7.40
Picture Exchange	9.38	2.37	9.12	2.93	9.27	2.89
Social Translations	18.71	2.17	18.92	1.94	18.80	2.23
Intellectual Functioning						
Vocabulary	14.15	2.15	14.56	2.10	14.33	2.14
Digit Symbol	11.61	2.20	11.07	2.35	11.36	2.33
Verbal Fluency	18.48	5.72	18.52	4.11	18.50	4.79
Disciplinary Style						
Induction Questionnaire	3.04	1.12	2.70	.79	2.88	0.96
Maryland Survey						
Disciplinarian	22.27	5.97	22.00	6.30	22.15	6.07
Indulgent	22.94	6.54	22.81	6.68	22.88	6.34
Protective	24.18	4.88	25.11	5.42	24.60	6.32
Rejecting	19.48	6.93	18.89	5.85	19.22	6.41

ligence measures (Role Taking Task, Picture Exchange, and Social Translations) were all hypothesized to represent a common construct, balanced decentering in a social context. Similarly, mothers' scores on the two WAIS subtests (Vocabulary and Digit-Symbol) and Verbal Fluency were considered to measure the second construct, intellectual functioning. In order to investigate the discriminant and convergent validity of these measures, the correlations among the measures were obtained. The multitrait-multimethod matrix based on these correlations for all mothers is shown in Table 5.

While Social Translations correlated with the Role Taking Task and Picture Exchange in the expected fashion, the correlation between the Role Taking Task and Picture Exchange fell short of the .05 significance level. Similar convergent validity was not displayed by the measures of intellectual functioning which were not significantly correlated. Furthermore, in the quadrant that was expected to manifest discriminant validity, Vocabulary correlated significantly with all three of the social intelligence measures. More in line with expectations was the fact that the social intelligence measures did not correlate significantly with Digit Symbol and Verbal Fluency.

In order to further explore this irregularity, separate matrices were constructed based on scores of mothers of younger children and of mothers of older children. These results are summarized in Table 6

As this table indicates, the social intelligence measures of mothers of younger children all correlated significantly with each other. In addition, their scores on the measures of intellectual functioning correlated significantly with each other except for Vocabulary with Digit Symbol. Again, discriminant validity was not demonstrated in the quadrant representing corre-

Table 5

Multitrait-Multimethod Matrix for Social Intelligence and  
Intellectual Functioning Based on Scores for All Mothers

	Social Intelligence			Intellectual Functioning		
	1	2	3	4	5	6
<b>Social Intelligence</b>						
1. Role Taking Task						
2. Picture Exchange	.21					
3. Social Translations	.32**	.35**				
<b>Intellectual Functioning</b>						
4. Vocabulary	.27*	.29*	.43**			
5. Digit Symbol	-.08	.13	.18	.11		
6. Verbal Fluency	.13	.04	.22	.12	.14	

\*  $p < .05$  Two-tailed test

\*\*  $p < .01$  Two-tailed test

Table 6

Multitrait-Multimethod Matrix for Social Intelligence and Intellectual Functioning  
Based on Scores of Mothers of Younger and Older Children

Social Intelligence		Social Intelligence			Intellectual Functioning		
		1	2	3	4	5	6
1. Role Taking Task	Younger						
	Older						
2. Picture Exchange	Younger	.40**					
	Older	-.06					
3. Social Translations	Younger	.28*	.30*				
	Older	.41**	.45**				
Intellectual Functioning							
4. Vocabulary	Younger	.13	.37**	.42**			
	Older	.46**	.20	.44**			
5. Digit Symbol	Younger	-.01	.12	.26*	.10		
	Older	-.18	.13	.08	.14		
6. Verbal Fluency	Younger	.12	.08	.34**	.26*	.25	
	Older	.16	-.02	-.03	-.11	-.01	

\*p < .05 Two-tailed test

\*\*p < .01 Two-tailed test

lations of different methods measuring different traits; Picture Exchange correlated significantly with Vocabulary and Social Translations correlated significantly with all three measures of intellectual functioning.

For mothers of older children, Table 6 shows that Social Translations correlated significantly with both the Role Taking Task and Picture Exchange, but the Role Taking Task failed to correlate in the expected direction with Picture Exchange. None of the measures of intellectual functioning correlated significantly with each other. The results in the discriminant validity quadrant were somewhat as predicted but again two of the nine correlations were significant, i.e., the Role Taking Task and Social Translations with Vocabulary.

The results from Tables 5 and 6 can be summarized as follows: (1) in the social intelligence quadrant, Social Translations correlated significantly with the Role Taking Task and with Picture Exchange, but the Role Taking Task and Picture Exchange did not correlate significantly except in the case of mothers of younger children; (2) in the discriminant validity quadrant, Vocabulary correlated significantly with the social intelligence measures in the majority of correlations; Digit Symbol and Verbal Fluency yielded no significant correlation with social intelligence measures except for the correlation with Social Translations scores of mothers of younger children; (3) in the intellectual functioning quadrant, the expected significant correlations were not obtained save for those of mothers of younger children where Verbal Fluency correlated significantly with Vocabulary and Digit Symbol. Overall, these results failed to support the hypothesis that the social intel-

ligence measures used in this study represented a common construct, balanced decentering in a social context. More specifically these data provided no support to the contention that social intelligence as measured is something clearly different from general intellectual functioning, particularly as represented by the Vocabulary measures.

Social Intelligence and Discipline. The next hypothesis of this study was that mothers' social intelligence scores correlate positively with the measures of inductive discipline. Table 7 presents these correlations based on scores of all mothers, mothers of younger children, and mothers of older children. These correlations indicated that the hypothesis was supported for all mothers with regard to Picture Exchange and Social Translations and that the correlation with the Role Taking Task closely approached significance. When the sample was divided into mothers of younger and older children, the hypothesis received variable support. All of the social intelligence measures of mothers of younger children correlated significantly with Induction. It may be worth noting that for these mothers Induction correlated significantly with both Vocabulary and Verbal Fluency ( $\underline{r} = .43$  and  $.31$  respectively). Only one of the social intelligence measures of mothers of older children correlated significantly with Induction. In this case, mothers' Induction scores did not correlate significantly with Vocabulary ( $\underline{r} = .11$ ) and correlated significantly negatively with Verbal Fluency ( $\underline{r} = -.30$ ).

An interesting trend in the data relevant to the two hypotheses considered thus far is that the tendency to support the hypotheses is more pronounced for the one group, mothers of younger children, than for the



Table 7  
 Correlation of Social Intelligence Measures with Inductive  
 Discipline Measures for All Mothers and Mothers  
 of Younger and Older Children

Induction	Role Taking Task	Social Intelligence	
		Picture Exchange	Social Translations
All Mothers	.24	.40**	.26*
Younger	.34**	.57**	.26*
Older	.05	.13	.31*

\*  $p < .05$  Two-tailed test

\*\*  $p < .01$  Two-tailed test

mothers of older children or both groups combined.

The third hypothesis was that the extent to which mothers used an induction-style discipline would correlate positively with two of the Maryland Parent Attitude Survey scales (Indulgent and Protective) and correlate negatively with the Rejecting scale. Table 8 shows the obtained correlations.

For all mothers, only one of the three parts of the hypothesis was confirmed, i.e., that mothers who scored high in Induction were significantly more indulgent. However, the correlations between these variables for mothers of older and younger children indicated that this significant relationship obtained only for the younger children. Also, for mothers of older children there emerged an unexpected, significantly positive correlation between the scores for Induction and Rejecting. Finally, the highest correlations, and ones that were unanticipated, were the significantly negative relationships between the Induction and Disciplinary scores. In sum, it seems that mothers scoring high on Induction tended to be more indulgent, i.e., accepting of the child's needs. This tendency is especially significant with respect to mothers of younger children. In addition, all mothers who scored high on Induction tended to score low as disciplinarians of the sort who stress conformity to adult standards.

#### Relationships Between Mothers' Scores and Children's Social Intelligence

Before exploring the relationships between the mother and child measures, two-way analyses of variance were performed on all of the mothers' social intelligence and discipline scores to ascertain whether the mothers' scores varied on the basis of the age or sex of the child. These analyses yielded

Table 8

Correlation of Maryland Parent Attitude Survey Scales with Induction Scores of All Mothers, Mothers of Younger Children, and Mothers of Older Children.

Induction	Disciplinarian	Indulgent	Protective	Rejecting
All Mothers	-.36**	.31*	-.06	.12
Mothers of Younger	-.37**	.48**	-.20	.04
Mothers of Older	-.39**	.04	.18	.26*

\*  $p < .05$  Two-tailed test  
 \*\*  $p < .01$  Two-tailed test

no significant Fs, i.e., there were no significant main effects for age or sex of child nor were any of the age by sex interactions significant.

Child Variables. Although the child measures were primarily explored by Delaney (1973), they are an integral part of this section of the present study. Accordingly, to help place subsequent mother-child score analyses in context, the means and standard deviations based on scores for the child measures are presented in Table 9. With regard to the Persuasion Tasks, older children were found by Delaney (1973) to score significantly higher ( $p < .01$ ) on both the Adult and Child measures. There was no significant age difference on either of the Role Taking Questionnaire measures. Regarding Vocabulary, Delaney found that the younger subjects scored unexpectedly and significantly higher than older subjects in terms of scale scores. However, he found no significant difference between the age groups on Digit Symbol and, as expected, he discovered that older subjects scored higher on Verbal Fluency.

Mothers' Social Intelligence. The first hypothesis in this section of the study was that mothers' social intelligence is positively and significantly correlated with children's social intelligence scores (the Persuasion Tasks). The results relevant to this hypothesis are contained in Table 10. This table showed no significant correlations between mothers' and children's scores for social intelligence.

Although no hypothesis was proposed regarding the relationship between mothers' social intelligence measures and children's performance on the Role Taking Questionnaire, the correlations between these measures were obtained for general contour-tracing purposes and are presented in Table 11. None of the obtained correlations was significant -- a finding that suggests that the

Table 9

Descriptive Statistics for Child Measures Based on Scores of  
Younger Children, Older Children and Total Group

Variable	Younger		Older		Total	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Persuasion Tasks						
Child	2.25	1.02	3.48	1.53	2.91	1.62
Adult	1.85	1.14	3.34	1.77	2.61	1.67
Role Taking Questionnaire						
Adult-Child Role Choice	6.90	2.49	6.66	2.40	6.77	2.47
Rule Enforcement	4.62	1.50	4.02	1.47	4.27	1.52
Control Measures						
WISC Vocabulary	11.21	1.80	9.41	2.68	10.42	2.46
WISC Digit Symbol	8.84	3.35	10.29	2.57	9.52	3.08
Verbal Fluency	8.87	2.93	13.10	3.61	10.85	3.94

Table 10

Correlations of Mothers' Social Intelligence Measures with Child Social Intelligence Measure (Persuasion Tasks) for All Mothers and Mothers of Younger and Older Children.

	Persuasion Tasks		
	Adult	Child	Total
<b>Role Taking Task</b>			
All	.00	.03	.02
Younger	.00	.03	.03
Older	.01	.08	.06
<b>Picture Exchange</b>			
All	.00	.00	.00
Younger	.02	.06	.07
Older	.00	.00	.00
<b>Social Translations</b>			
All	.00	.02	.01
Younger	.04	.00	.04
Older	-.09	-.02	-.10

Table 11

Correlations of Mothers' Social Intelligence Measures with  
 Adult-Child Role Choice and Rule Enforcement for  
 All Mothers, Mothers of Younger Children,  
 and Mothers of Older Children.

Maternal Variable	Role Taking Questionnaire	
	Adult-Child Role Choice	Rule Enforcement
Role Taking Task	-.08	-.09
All	-.10	-.09
Younger	-.07	-.09
Older		
Picture Exchange		
All	-.17	.15
Younger	-.16	.10
Older	-.17	.19
Social Translations		
All	-.01	-.19
Younger	.00	-.15
Older	.00	-.21

two types of role-taking involved in these mother and child measures tapped dynamically different aspects of functioning which are unrelated.

Mothers' Disciplinary Style. The second hypothesis in this part of the study relating mother measures to child social intelligence was that mothers' use of inductive-style discipline correlates positively with both types of child role-taking, i.e., Persuasion Tasks and Adult Role Taking. The correlation between mothers' scores on the Induction Questionnaire and the two types of child role-taking are presented in Table 12. Since none of the correlations was significant there was no support for the hypothesis. On the contrary, one comparison, that between Induction and Child Persuasion, yielded a negative correlation that approached significance ( $r = .24, p < .10$ ), this suggested that there was a trend for children whose mothers made more use of Induction to do poorly in taking the role of a hypothetical child.

While no hypotheses were proposed regarding the relationship between mothers' disciplinary attitudes as assessed by the Maryland Parent Attitude Survey and the child role-taking measures, these correlations were obtained for general exploratory purposes and are presented in Table 13. There were no significant correlations between these measures.

Relationship of Mothers' Intellectual Functioning to Child Measures. In order to rule out the possibility that intellectual functioning systematically contributed to variation in the predicted relationships between the mother and child measures, the correlations between scores on the measures of the mothers' intellectual functioning and all of the child measures are presented in Table 14.

In considering the total sample, there were no significant correlations



Table 12

Correlation of Mothers' Use of Induction-type Discipline with Both Types  
of Children's Role Taking for All Mothers and Mothers of Younger  
and Older Children

Induction Score	Adult Persuasion	Child Persuasion	Adult-Child Role Choice	Rule Enforcement
All	-.04	-.24	-.03	-.05
Younger	.09	-.24	.00	-.01
Older	-.07	-.23	-.03	-.05

Table 13

Correlation Between Maryland Parent Attitude Survey Scales  
and Children's Role-Taking Measures

Parent Attitude Survey	Adult	Child	Adult-Child Role Choice	Rule Enforcement
<b>Disciplinarian</b>				
All	.03	-.03	.19	.16
Younger	-.10	-.09	.18	.17
Older	.12	.14	.19	.14
<b>Indulgent</b>				
All	-.05	-.06	.01	.03
Younger	.01	.01	.00	.03
Older	-.14	-.14	.02	.01
<b>Protective</b>				
All	-.05	.16	.21	-.06
Younger	-.02	.03	.20	-.04
Older	.06	.11	.20	-.07
<b>Rejecting</b>				
All	.10	-.04	-.17	-.17
Younger	.08	.05	-.14	-.16
Older	.06	-.07	-.16	-.17

Table 14  
 Correlation between Measures of Mothers' Intellectual  
 Functioning and Child Measures for Younger and  
 Older Children and Total Sample

Child Variable		Mother Variables		
		Vocabulary	Digit Symbol	Verbal Fluency
Vocabulary	Younger	.18	-.04	-.01
	Older	.17	-.02	-.02
	Total	.19	-.03	-.00
Digit Symbol	Younger	-.01	-.01	-.05
	Older	-.16	-.17	-.16
	Total	-.12	-.14	-.10
Verbal Fluency	Younger	.11	.25	.16
	Older	.06	-.25	.15
	Total	.17	-.09	.15
Persuasion Tasks	Younger	.02	-.16	.01
	Older	-.04	.39**	.01
	Total	.04	.07	.01
Adult Role	Younger	-.11	.00	.11
	Older	-.12	.01	.11
	Total	-.12	.00	.11
Rule Enforce.	Younger	-.24	.09	.08
	Older	-.23	.07	.02
	Total	-.24	.08	.03

\*\*  $p < .01$  Two-tailed test

between the measures of mothers' intellectual functioning and the child measures. With respect to the younger and older groups, there was only one significant correlation, that between Digit Symbol and Persuasion for the older group. Such an isolated correlation could be obtained by chance in such a large matrix. It seems likely, therefore, that the variables tapped by the measures of mothers' intellectual functioning did not contribute to any unhypothesized, systematic variation in the child variables.

#### Mother-Child Password Interaction: Relationships with Other Variables

This part of the study was concerned with how the mother's and child's combined, cooperative performance on Password performance was related to their individual performances on other measures.

In the interest of efficiency, the scores for Password performance were based on the combined Success score on that test, i.e., the number of words correctly transmitted by mother to child and by child to mother. Use of this score seemed justified because Delaney's (1973) examination of the hypothesized relationships for two other Password scores (Time, i.e., median time to transmit words; Clues, i.e., median number of clues to transmit words) indicated similar results for the three measures. As noted this Success score is a combined score, i.e., a sum of the successes on words where the mother was donor plus the successes on words where the child was donor. The reason for this is that while separate scores could be obtained for mother or child as donor, there was no way to sort out the relative contribution that the recipient was making to the ostensible success of the donor. Therefore it seemed that only the overall success of mother and child as an interacting dyad could be legitimately assessed and accordingly the combined Success scores were used.

Relationship with Social Intelligence. The first hypothesis of this section of the study was that successful interaction on Password correlated positively with mothers' social intelligence. Table 15 shows the correlations relevant to this hypothesis. Examination of this table indicated that there was no support for the hypothesis that success on Password is positively related to mothers' social intelligence and, in fact, there was one significant negative correlation between Password and the Role Taking Task for mothers of older children.

The second hypothesis for this section of the study was that successful Password interaction correlated positively with children's social intelligence. Table 16 shows the correlations regarding this hypothesis. This table shows that effectiveness of mother-child interaction was significantly and positively related to the child's social intelligence in terms of the child being able to take the perspective of someone he wishes to persuade. In addition, the effectiveness of this Password interaction was significantly related to the extent of the child's use of an identification-with-the-aggressor type of role-taking, i.e., Rule Enforcement, but there was no significant relationship between Password scores and Adult-Child Role Choice.

Relationship with Inductive Discipline. The next hypothesis was that successful mother-child interactions correlated positively with the degree to which mothers' used Induction. Table 17 shows the results relating to this hypothesis.

Clearly the correlations did not support the hypothesis and even showed a slight but consistent trend towards significance in the opposite direction, i.e.

Table 15  
 Correlation of Combined Success on Password with Mothers'  
 Social Intelligence Based on Scores of All Mothers  
 and Mothers of Younger and Older Children

Password Success	Role Taking Task	Picture Exchange	Social Translations
All	-.03	-.12	.10
Younger	-.05	-.19	.00
Older	-.28*	.19	.03

\*  $p < .05$  Two-tailed test

Table 16

Correlation of Combined Success on Password with Child Social Intelligence Based on Scores of All Children and Younger and Older Children.

Password Success	Child Score			
	Persuasion Tasks		Role Taking Questionnaire	
	Adult	Child	Adult-Child Role Choice	Rule Enforcement
All	.37**	.34**	-.02	-.41**
Younger	.32**	.38**	.00	-.40**
Older	.39**	.30*	-.02	-.42**

\*  $p < .05$  Two-tailed test

\*\*  $p < .01$  Two-tailed test

Correlations between Induction Scores and Password  
Success for Mothers of Younger Children,  
Older Children and Total Sample

	Induction
Password Success (Combined)	
Younger	-.20
Older	-.25
Total	-.23



that use of inductive discipline is related to poorer performance in the Password interaction.

Relationship with Intellectual Functioning and Word Association. The final hypothesis in this section was that mother-child Password successes correlated positively with the number of significant responses given by the mother (in response to the Word Association Test). The results for this hypothesis are shown in Table 18. Because the number of significant responses given by the children was available (as part of a larger study) the correlations of these with Password are also shown in the table although no hypothesis was made regarding these. The results certainly did not support the hypothesis for mothers. However the correlations between children's significant responses and Password success were highly significant.

As a check on the possibility that an unhypothesized variable may have contributed to systematic variation in the predicted relationships between Password success and mothers' and children's measures, the correlations between these measures and measures of associative overlap on the Word Association Test and of mothers' intellectual functioning are presented in Table 19. Associative overlap was scored for each mother-child pair by counting the number of associations they had in common in response to the Word Association Test. This served as a check for the possibility that good performance on Password might be due primarily to associative overlap.

There were no consistent, significant correlations between the measures of mothers' intellectual functioning and the Password and significant response measures. This indicates that mothers' intellectual functioning did not serve as a source of unhypothesized systematic variation.

Table 18  
 Correlations between Significant Responses ( of Mothers  
 and of Children) and Password Success (Combined)  
 for Younger Children, Older Children and Total  
 Sample

	Significant Responses	
	Mother	Children
Password Success		
Younger	-.13	.30*
Older	.12	.49***
Total	.04	.43***

\*  $p < .05$  Two-tailed test

\*\*\*  $p < .001$  Two-tailed test

Table 19

Correlation of Measures of Mothers' Intellectual Functioning and of Word Association Overlap with  
 Password Success and Significant Responses for Mothers of Younger and Older Children and

## Total Group

Password and Significant Response Measures		Vocabulary	Digit Symbol	Verbal Fluency	Associative Overlap
Password Success (Mother donor)	Younger	.00	-.05	-.20	.33**
	Older	-.18	.08	-.11	.17
	Total	-.09	.04	-.15	.29*
Password Success (Child donor)	Younger	-.02	.11	-.08	.08
	Older	.05	.09	-.03	.09
	Total	.01	.12	-.07	.09
Password Success (Combined)	Younger	-.18	.00	-.22	.26*
	Older	.26*	.22	-.08	.11
	Total	.00	.14	-.15	.23
Significant Responses (Mother)	Younger	.09	-.21	-.11	.37**
	Older	.02	.00	-.16	.49***
	Total	.07	-.12	-.13	.44***
Significant Responses (Child)	Younger	-.01	-.08	-.21	.40**
	Older	-.28*	-.22	-.19	.84***
	Total	-.18	-.06	-.23	.54***

\*  $p < .05$  Two-tailed test

\*\*  $p < .01$  Two-tailed test

\*\*\*  $p < .001$  Two-tailed test

There were consistent, positively significant correlations between associative overlap and Password success in the case of both mother as donor, and for the combined mother-child scores. Therefore, associative overlap does seem to make a significant contribution to Password Success, but this was clearly not mediated by verbal intelligence (correlations between associative overlap and intellectual functioning were nonsignificant). One cannot rule out the possibility that associative overlap may somehow measure role-taking between mother and child.

There were also significant positive correlations between associative overlap and significant responses for both mother and child.

## CHAPTER IV

### DISCUSSION

In this chapter, as in previous chapters, the presentation is divided into three parts for the sake of clarity: (1) mothers' social intelligence and disciplinary styles are considered in their own right; (2) mothers' social intelligence and disciplinary styles are discussed in relation to their children's social intelligence; (3) actual interactions between mothers and their children are analyzed in relation both to maternal attributes and to children's social intelligence.

#### Social Intelligence and Disciplinary Styles of Mothers

A major aspect of this section of the study was the attempt to clarify the relevance of the balanced decentering construct to an understanding of social intelligence as opposed to general intellectual functioning. Accordingly, a hypothesis was explored to the effect that the measures of mothers' social intelligence should be significantly related to each other but not to measures of intellectual functioning. The social intelligence measures were conceptualized as mediating variables for the balanced decentering construct and the hypothesis was tested using a multitrait-multimethod matrix with measures of intellectual functioning representing the divergent trait.

All in all, the results of this analysis did not support the hypothesis. It is true that the social intelligence measures were significantly correlated with each other except for the correlation between the Role Taking Task and

Picture Exchange (and even that correlation approached significance). However, the quadrant that was to have served a discriminant function, i.e., showing low correlations between social intelligence and intellectual functioning, revealed correlations as large as those between the social intelligence measures themselves. Certainly the results of the present study with regard to the two sets of tests purporting to measure different things indicated that they appeared to be measuring somewhat the same thing. In view of the consistently significant relationships of social intelligence measures to Vocabulary, but not to Digit Symbol and Word Fluency, one might conjecture that verbal intelligence is associated with social intelligence. Regarding the Role Taking Task, Feffer and Gourevitch (1960) found significant positive correlations between scores on this test and WISC Vocabulary scores for children. However, for college adults, Feffer and Suchotliff (1966) found neither WAIS Vocabulary nor Verbal Fluency to be significantly related to the Role Taking Task. Walker and Foley (1973), in their comprehensive review, pointed out the persistent relationship found between scores on measures of social intelligence and abstract intelligence and, regarding the Six Factor Tests of Social Intelligence, they concluded that the abstract intelligence and social intelligence relation is equivocal at least as assessed by these measures. Still, while significant correlations between the Six Factor Tests and abstract intelligence have generally been found (e.g., Shanley, Walker, & Foley, 1971), the size of most reported relationships has been .40 or less (Hendricks, Guilford, & Hoepfner, 1969; Hoepfner & O'Sullivan, 1968; Shanley et al., 1971; Suran, 1970; Tenopyr, 1967).

Further complicating the finding of a positive correlation between social intelligence and verbal intelligence in this study was the lack of correlation between measures of intellectual functioning. In view of the rather homogenous sample involved in this study, one might first suspect that restricted range may have contributed to this lack of correlation. Yet, while mothers as a group were higher on Vocabulary than might have been anticipated, the standard deviations for their scores were similar to those reported by Wechsler (1955) and thus did not indicate a marked restriction of range.

Perhaps this new instance of a verbal intelligence-social intelligence relationship, coupled with the research history of similar correlations between these two variables gives further credence to Thorndike's (1920) suggestion that in order to construct an optimal measure of social intelligence one must utilize a genuine situation with real persons. And indeed, in this study, measures of intellectual functioning did not correlate with the social interaction situation (Password) for the total sample. It may also be that the problem must be met more directly by considering whether it is realistic to expect that verbal intelligence should not correlate with social intelligence. If one regards social intelligence (or balanced decentering in a social context) as a cognitive variable and one assesses it with measures that elicit verbal solutions to interpersonal problem situations, it does not seem surprising that there should be a relationship with more traditional measures of verbal intelligence.

Even if one could expect a relationship between social intelligence and verbal intelligence, there still remains the question as to why the measures

of balanced decentering in a social context (social intelligence) did not correlate higher with each other. In fact, the measures of the balanced decentering construct were as related to vocabulary as to each other. While this does not necessarily invalidate the social intelligence tests, it does suggest that as measures of the construct they are seriously lacking. Besides using more valid social intelligence measures, future researchers should include subjects selected from a broad spectrum of socioeconomic circumstances to enhance the probability of finding differences.

The next part of this study explored the relationship between social intelligence and the maternal discipline variables. It was hypothesized that the measures of mothers' social intelligence would correlate positively with their use of inductive discipline. The reasoning behind this hypothesis was that: (1) induction entails acceptance of the child and a use of other-oriented explanations on the part of the mother and (2) acceptance of the child and use of other-oriented explanations requires social intelligence on the part of the mother. The results for all mothers generally supported this hypothesis, especially with regard to Picture Exchange and Social Translations. However, the correlation with the Role Taking Task for all mothers only approached significance. When the results for this measure were considered separately for mothers of younger and older children the hypothesis was strongly supported for the mothers of younger children and virtually not supported for mothers of older children. Perhaps it should be noted that Induction scores were significantly related to WAIS Vocabulary ( $r=.29$ ,  $p<.05$ ) and that this correlation and the aforementioned correlations of Vocabulary with measures of social intelligence make it impossible to rule out the possibility



that the relationships between Induction and social intelligence might have been mediated by verbal intelligence. As for the discrepancy between the correlations with Role Taking for mothers of younger and older children, this might have been due to chance characteristics of sampling. In pursuing subsequent research, one might wish to ensure a sampling process that would provide comparable subgroups or else posit hypotheses that allow for main effects for age of children.

The third hypothesis of this study was that use of inductive discipline would correlate positively with two of the Maryland Parent Attitude Survey scales, (Indulgent and Protective) and would correlate negatively with the Rejecting scale. The only part of this hypothesis that was confirmed for the total sample was that mothers who used more inductive discipline tended to be more indulgent and that relationship, upon further analysis, turned out to be true only for mothers of younger children. And yet, despite this difference between the correlations for mothers of younger and older children, both groups of mothers were quite comparable in terms of the amount they reported using induction.

A positive correlation had been hypothesized between Induction and the Protective scale of the Maryland because it was thought that both measures had in common a "closeness of control" factor. However, no supporting correlation was obtained. This lack of support may have resulted because this investigator's measure of induction did not actually measure a closeness-of-control factor even though theoretically this factor is an important component of inductive discipline. A more subtle possibility might be that protective parents, in their concern to guard their children against any risks, in effect,

are insensitive to children's need to grow and therefore lack the other-sensitivity that would lead to scores on Induction correlating positively with scores on the Protective scale.

The expected negative correlation between Induction and the Rejecting scale did not materialize and, quite contrary to prediction, a significantly positive correlation was obtained for mothers of older children. This is a puzzling relationship as it suggests that mothers who scored high on a measure tapping acceptance of the child (Induction) also scored high on a measure assessing rejection of the child. As a possible explanation, one might conjecture the operation of two factors. First, older children are more independent and may more often challenge authority in a way which engenders hostile, rejecting feelings in parents. Second, parents who make more use of induction (which includes sensitivity to and acceptance of children's feelings) may well be more accepting of their own feelings and may more readily acknowledge hostile feelings about their children without necessarily acting them out in destructive ways with their children.

Interestingly, there were consistent, significantly negative correlations between Induction scores and the Disciplinarian scale even though no hypothesis had been stated regarding that scale. In view of this relation, an examination of the Disciplinarian scale seems in order. According to Pumroy (1966), disciplinarian parents can be described as follows:

These parents need and expect fairly strict obedience from the child. The child knows that if he does not comply he will be punished, as the rules are explicitly stated by the parent. This punishment is carried out in a fair and consistent manner. This parent is constantly pushing the child to achieve beyond his ability,

forcing him to grow up early (p.75).

This disciplinary attitude does seem to be at the opposite pole from the acceptance and other-orientation of Induction; hence, in retrospect, the negative correlation is not surprising. Tolor (1967) reported that disciplinarian attitudes correlated significantly and negatively with indulgent attitudes as measured by the Maryland. And, of course, Induction correlated positively with Indulgence; therefore the negative correlation of Induction with the Disciplinarian scale seems reasonable.

#### Maternal Social Intelligence and Disciplinary Style in Relation to Children's Social Intelligence

As indicated in the preceding section, the measures of mothers' social intelligence seemed weak, e.g., they correlated almost as strongly with measures of intellectual functioning as they did with each other. The measures of inductive disciplinary style also proved to be rather lacking in discriminative power. As for the measure of children's social intelligence, Delaney (1973) stated that "the Persuasive Ability measure did not provide ample opportunity for variation between groups to manifest itself (p.75)." He also suggested that scores on Persuasive Ability may be as much a reflection of verbal facility as of social intelligence. All in all, the nature of these measures does not augur well for support of any hypotheses relating mother variables to child variables.

Another set of problems worth considering before turning to a consideration of specific hypotheses in this section are the matters of range and sampling error. The fact that most of the mothers came from the same neighborhood, belonged to the same narrow spectrum of socioeconomic class, and often

shared an involvement in social-service type occupations introduces the possibility that homogeneity of the sample might preclude discrimination. Furthermore, it is difficult to know what effect it may have had that the younger boys were significantly higher than the older boys on WISC Vocabulary, but it does not give one much confidence that these were two comparable, random samples.

The first hypothesis in this section was that mothers' social intelligence would correlate positively with children's social intelligence. This hypothesis received no support, all of the correlations were virtually zero. One or more factors may account for this lack of support. Besides the previously mentioned weakness of the mother and child measures, another possible limiting factor might have been restricted range of test scores due to the homogeneity of the samples, but these could scarcely have reduced the correlations to zero if there had really been a relationship. Another possible limiting factor is that the mothers' social intelligence measures may tap quite different functions than the children's social intelligence measures do even though both types of instruments are assumed to measure social intelligence. Finally, it is possible that mothers' social intelligence is simply not related to children's social intelligence in so direct a way if, indeed, there is a relationship. For example, children's social intelligence may well be related to a combination of maternal and paternal influences plus the effects of sibling and peer relationships.

Since it seemed likely that maternal disciplinary style would affect the development of social intelligence, it was hypothesized that mothers' use of Induction would correlate with children's role-taking measures, i.e., the

Adult and Child Persuasion Tasks and two of the Role Taking Questionnaire scales. None of the correlations with Persuasion was significant. This failure to obtain confirmation of the hypothesis is not so surprising in the light of what has already been said about the weakness of the measures and about sampling error. There was a fairly low but consistently negative relationship between the use of Induction and Child Persuasion which further suggests that the Persuasion Tasks may measure something other than role-taking ability. It could be that children whose mothers made effective use of inductive discipline were used to being treated in a considerate, child-oriented way and therefore tended not to encourage the child in manipulative behavior of the sort appropriate to "conning" money out of another child as is required for a high score on the Child Persuasion Task.

Returning to the hypothesized positive relation between Induction and the Role Taking Questionnaire, this hypothesis was also not confirmed. Again, one must wonder about the appropriateness of the measures and sampling error. However, the problem may have been a more specific one; the original reasoning behind this hypothesis was that inductive-type discipline involves a high degree of parental control and thus meets Maccoby's (1961) criterion for an antecedent of adult role-taking in children. Subsequently, an analysis of the discipline components that went into the single factor score obtained for the Induction measure revealed that most of the weighting for this score was for acceptance of the child, verbalization of other-orientation, explanation of standards, and reinforcement for correction. None of these really gets directly at closeness of control, and with this mediating variable absent it may not be surprising that the hypothesized positive correlation between

Induction and the two Role Taking Questionnaire scales failed to appear.

Mother-Child Interaction in Relation to Maternal Attributes and to Children's Social Intelligence

The major issue here was whether or not the mothers and children's combined performance on Password was related to their individual performances on other measures.

The first hypothesis relevant to the above issue was that successful mother-child interaction (on Password) would correlate positively both with mothers and children's scores for social intelligence.

There was no support for the hypothesized correlation between Password and mothers' social intelligence. Again, one must consider the effects of weak measures and sampling problems. Another, more interesting possibility, is simply that Password performance represents the actual coping aspect of social intelligence while the social intelligence tests taken by the mothers represented only the social understanding aspect and, in the case of this study, the twain did not meet. However, this does not account for the significant negative correlation obtained between Password Success and the Role Taking Task for mothers of older children. A possible explanation of this unexpected correlation is that Password performance might contain a significant achievement component. This notion of an achievement component arose from observation of many qualitative signs of mothers and children's concern to do well on the Password situation, especially the mothers' concern. Indirectly supporting this notion is the fact that the Role Taking Task was negatively correlated with the Disciplinary scale (although not

significantly so,  $r = -.16$ ,  $p < .12$ ). Now if by extrapolating from this trend, one assumed that mothers who score high on role-taking are low on disciplinarian attitudes (thus less prone to push their children to achieve), one might expect their children to put in less effort toward succeeding in general and on Password in particular. As to why this negative correlation held only for older children, Delaney (1973) found that older children performed significantly better on Password than did younger children. One might conjecture, therefore, that the older children had ability which they could mobilize in response to maternal cues to achieve whereas younger children could not respond too well no matter what the circumstances. Furthermore, older children might be expected to be more oriented to achievement than primary grade children. The possible role of motivational factors, while tenuous, might be explored in future research.

The other half of the hypothesis, i.e., that Password success would correlate positively with children's social intelligence was well supported in relation to the Persuasion Tasks. There was no support for Password success being correlated with the Adult-Role Choice scale of the Role Taking Questionnaire, but there was a significant negative relationship with the Rule Enforcement scale of that questionnaire. It seems, then, that effectiveness of mother-child interaction is positively related to children's social intelligence in the sense of the child being able to take the perspective of someone he wishes to persuade and is negatively related to the extent to which the child uses an identification-with-the-aggressor type of role-taking, i.e., Rule Enforcement. The Persuasion Tasks require putting oneself flexibly in another's place and effective Password interaction is also enhanced by

this ability. On the other hand, Rule Enforcement entails a rather rigid incorporating of elements of the adult's role behavior without the clear differentiation of self and other that is involved in flexible perspective-taking or that was required in the Password situation.

Turning to the relationship between inductive discipline and the mother-child interaction, it was hypothesized that Password performance would correlate positively with the mother's use of Induction. In fact, there was a consistent, albeit nonsignificant trend for the use of inductive discipline to be related to poorer performance in the Password situation. This trend seems similar to the case where the Role Taking Task performance of mothers of older children was negatively related to Password success. In both cases one might conjecture about the operation of an achievement orientation factor in the Password interaction. In the case of the consistent, negative correlation of Induction with Password one might speculate that children of parents who use inductive discipline feel less impelled to respond in interaction with their parents and therefore might perform less well on Password. Supportive of this reasoning is the fact that Induction scores were significantly and negatively correlated with the Disciplinary scale of the Maryland and high scores on this scale characterize parents who push their children to succeed.

The final hypothesis of this study was based on O'Connor's (1945) word association test, more specifically on his "significant response" categorization. O'Connor suggested that high scores on this category of response were related to something like role-taking ability. Accordingly, in this study, it was hypothesized that successful mother-child interaction would correlate positively with the number of significant responses given by the mother.



There was no support for this hypothesis. However, the number of significant responses given by children correlated significantly and positively with Password success. Why should there have been a significant correlation between children's significant responses and Password while no significance was obtained between mothers' significant responses and Password? This seems even more puzzling in view of the fact that the mother's mean for significant responses (22.3) was higher than the children's (19.07). One might conjecture that significant responses represent a response style that increases with age and that is somehow connected with role-taking ability. In adults, the amount of role-taking ability required for success in the Password situation may not discriminate high levels of adult role-taking ability, just as fourth grade arithmetic problems cannot discriminate different levels of mathematical ability among middle class adults. However, for children, where the role-taking ability implied by a significant response style is still developing, the Password situation may well have been challenging enough to discriminate different levels and therefore the correlations between their significant responses and Password were significantly positive.

#### Relationship of Control Measures to Mother Measures and Child Measures

Correlations between measures of mothers' intellectual functioning and child measures were obtained in order to check for the possibility that un-hypothesized variables may have contributed to systematic variation. Only one correlation attained significance in a matrix of 54; with such odds, this significant correlation could easily have occurred by chance. Hence it seems that the variables tapped by the measures of mothers' intellectual functioning

did not contribute to any unhypothesized, systematic variation.

In order to rule out the possibility that an unforeseen variable might have contributed to systematic variation in the predicted relationships between Password success and mothers and childrens' measures, correlations were obtained between these measures and measures of mothers' intellectual functioning and of associative overlap. These correlations indicated that mothers' intellectual functioning was not a source of unforeseen variation in the predicted relationships for Password and for significant responses. However, associative overlap did seem to make a significant contribution to Password success, but this was clearly not mediated by verbal intelligence. Feffer and Suchotliff (1966) found similar, significant relationships between shared associations and Password scores. They analyzed the nature of this associative overlap and decided that the more basic variable underlying shared associations is the extent to which the subject responds with popular associations. They then cited Rapaport's (1946) explanation that a reciprocal modification between task set and associative network may form the basis of a popular response conceptually coordinate with the stimulus word. In its emphasis upon a reciprocal modification between task set and associative network, Rapaport's formulation bears a strong resemblance to the decentering concept particularly as applied to the password situation as a measure of balanced decentering in a social context (i.e., a measure of active social coping). So too, in this study, the correlation of associative overlap with Password success may be construed as supportive of the validity of this Password measure.

Associative overlap also was significantly and positively related to significant responses. This seems reasonable in the light of what has just been said about associative overlap and popular responses as representing a form of balanced decentering akin to that involved in Password, and in view of O'Connor's (1945) finding that significant responses were related to a type of role-taking ability (which, coming full circle, involves balanced decentering). It should be recalled that significant responses as scored by O'Connor are popular responses.

## CHAPTER V

### SUMMARY

The present study explored maternal factors involved in the development of social intelligence utilizing 60 mother-child pairs (35 boys and 25 girls) at two age levels (7-8 years old and 11-12 years old). Mothers were given measures of social intelligence, intellectual functioning, and disciplinary style. Children were given measures of role-taking ability and intellectual functioning. Mother-child pairs were given a social interaction measure.

The hypotheses proposed can be grouped according to the following three areas.

(1) Mother Measures in Relation to Each Other: Although social intelligence measures did correlate significantly with each other as hypothesized, the correlations were not high and these measures also correlated with general intellectual functioning. The hypothesis that use of inductive discipline would be positively related to mothers' social intelligence was supported. The hypothesis regarding the relationship between inductive discipline and various scales of a parent attitude survey met with only partial success.

(2) Mother Measures in Relation to Their Children's Social Intelligence: The hypothesis that mothers' social intelligence would be positively related to children's social intelligence (role-taking ability) received no confirmation. Furthermore, the hypothesis that use of inductive discipline would correlate positively with both types of children's role-taking ability was unsuccessful.

(3) Mother-Child Interaction in Relation Both to Maternal Attributes and

to Child Social Intelligence: The hypothesis that successful mother-child interaction would correlate positively with mothers' social intelligence was not supported. The hypothesis that successful interaction would correlate positively with both types of child role-taking ability was only partially confirmed. The hypothesis of a positive relationship between use of inductive discipline and success on the interaction measure met with no success. Finally, the hypothesis that performance on the mother-child interaction measure would correlate positively with the number of significant responses given by the mother to a word association test received no support.

The rather meager support for the hypotheses was ascribed to several factors. The sample may well have been too homogenous to facilitate discrimination, and there was even a possibility that the two age-groups of children were not comparable. The social intelligence measures seemed to be only weakly discriminating; moreover, mother measures and child measures were perhaps theoretically and methodologically much different from each other than was supposed.

Suggestions were made for future research in this area.

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APPENDIX A

## (Induction Questionnaire)

Parent-Child Incidents

Name: \_\_\_\_\_ Date: \_\_\_\_\_

This questionnaire is concerned with parent's ways of handling children. We do not yet know the best ways to handle children, but feel there are probably many ways to be good parents. Your responses will help clarify some of these ways. There are six questions to be answered. Please try to limit yourself to 5 minutes per question

The following are some examples of common problems. We would like to have your ideas about what you would do if they come up with your child when you were with him/her.

Try to imagine yourself actually in these situations.

1. After telling your ten-year-old child that he/she can't go swimming with his/her friends today, you hear him/her mumble a nasty description about you.

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)

2. Your child and some of his/her friends have formed a "club". You overhear him/her telling his/her friends they shouldn't include a new child in the neighborhood because "he/she" is kind of dumb and besides he/she is "clumsy".

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)

3. Your child went bicycle riding with his/her friends right after school without letting you know about it. He finally comes home an hour after supper is finished.

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)

4. Your child is in the yard with a much younger neighborhood child. The younger child carelessly knocks over your child's bicycle, and your child pushed the younger child and makes him cry.

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)

5. You're certain that you left a handful of change on the kitchen shelf. Your child was the only person in the kitchen and the change is no longer on the shelf. You are fairly certain that he/she took the money but he/she/ denies this when you ask him/her.

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)



6. You have just found out that your twelve-year old child has given a younger child some old comic books in exchange for a fairly expensive microscope set.

What do you do?

(Include what you would think & feel.)

(State word for word what you would say.)

(How would your child respond to this?)

(How would you handle his/her response?)

(Would there be any follow-up?)

Scoring Manual  
for Induction: A Method of  
Inducing Internalized Controls

Definition of Induction. Induction is a type of discipline which involves the following components: (1) a basic acceptance of the child; (2) moderate withdrawal of affection rather than physical punishment; (3) use of extensive (yet age-appropriate) verbal evaluation of the direct consequences of the child's behavior; (4) use of extensive evaluation of direct implications for others of the child's behavior; (5) moderation in aversive affective display so as not to disrupt information transfer; (6) attempts to get the child to focus on intentions which precede its actions; (7) reinforcement for child's own active corrections of its behavior; (8) clear explanation of standards; and, (9) child held responsible for some time after transgression.

General Scoring Instructions. This manual contains separate scoring instructions for each of the nine components mentioned above. Each set of separate instructions consists of three parts: (1) a general statement of the nature of parental disciplinary activity which is characteristic of the particular induction component being considered; (2) more specific descriptions of parental behavior characterizing low, medium, and high use of an induction component for each of the six parent-child incidents in the Induction Questionnaire.

For quantitative purposes scoring of individual components is done on a four-point scale: score zero (0) for lack of any activity representing the particular induction component being considered; score one (1) for low use of the component; score two (2) for medium use of the component; score three (3) for high use. To ascertain a parent's use of a particular induction component, one must score the parent's response to each of the six parent-child incidents in terms of their use of the component and sum these scores. This means six judgements are required to obtain one parent's score on one component, and since there are nine components, 54 judgements are needed to totally score a single parent protocol. While this may seem very time consuming, with a little experience it is possible to score a single protocol, requiring 54 judgements, in 15 minutes.

As this is only an experimental instrument, one might use one or the other of different scores, e.g., use only component scores, or sum all the component scores for an overall induction score. The present investigator, using the component scores from 60 mothers, obtained and factor analyzed a correlation matrix. This factor analysis yielded only one factor, a fairly strong one which was designated "positive induction." The following components showed a loading of .40 or higher on this factor: acceptance

of the child, verbalization of other-orientation, explanation of standards, focus on intentions, reinforcement for correction, and follow-up over time. As part of the factor analysis program, positive induction factor scores were calculated for each of the mothers and served as induction scores for this study.

## Acceptance of the Child

### General Description

This component assesses the extent to which parental behavior (1) allows reasonable emotional and impulsive expression, (2) is likely to create positive feelings for the parent which may then be generalized to others, (3) provides a positive model with which to identify (especially as it provides an other-sensitive model). Note: Overindulgent behavior is seen as only moderately accepting on this scale.

### Description of Different Scoring Levels.

Low	Medium	High
Direct forms of punishment, physical and verbal attacks, e.g., spanking & slapping, yelling & bawling out. Ridicule and public shaming. These are clearly more attacks on the child than communications of parental values or explanations.	Somewhat neutral statements, i.e., on the one hand, not strongly attacking, and yet, not as child-centered as the comments in the High level. Or approaches which on the surface seem to fulfill the criteria for high level, but which actually represent over-indulgence. This quality is difficult to define but consists of a "too nice" feeling to the protocol. Or an approach which does child role-taking yet is followed by negative feelings toward the child.	Involves behavior which fulfills the three criteria (in the general definition of this dimension) to a reasonable degree. Look for indications of taking the child's position, reasonable humor, and/or a philosophical, tolerant attitude toward the child's behavior

### Scoring Examples for Different Levels

Low	Medium	High
1. " You are a brat, thoughtless, in fact, I don't like you. And still say you can't go swimming ... in fact a week of no swimming."	1. "I would call him in and ask him to repeat what he said and make him stay in for a while."	1. " I will tell him that I remember having bad feelings when I was in his situation, but some times we have to accept orders.."

Acceptance of the Child--Scoring Examples (continued)

Low

Medium

High

2. "I want to talk to you. I think you are very selfish and mean."

2. "How would you like it if they said that you could not join?" "Aw, I wouldn't like it." "Well then clumsy or not, ask him to join. You know no one is perfect, not even you."

2. "I would think how unkind kids are and wish my child could be more charitable. I would also understand that everyone is not appealing to everyone else, and feel bad for the new kid."

3. "The child would be punished, a spanking first, then the bicycle would be taken away for a week."

3. "You are never to go anywhere without asking me first. I don't care where it is. Get up to your room till dinner time."

3. "Rob, you broke two rules (States them) I am very angry about it. You will have to stay in the next two evenings. I care about you very much and I was very worried about you."

4. (Scream): "Pick up your bike and apologize to that little child. Now go up to your room".

4. "Why did you make him cry. He is a little boy. Take care of your bike... Try and make her understand that the child is small and to take care of her bike."

4. "I would remind him that accidents happen and humorously remind him that he once did similar things."

5. "I would confront him... and if he still denied it I would punish him for stealing and telling a lie... there would be severe punishment if it happened again."

5. "I think that all kids tend to take things at a certain stage and I must follow up on it... I know I had money in here and now it is gone. You were the only one in here. Where is it?"

5. "Do you need money for something? I wish you would talk to me about it. We can arrange extra money for extra jobs... A family needs to trust each other. If you have needs I don't know about, I'd like to hear."

6. "You are nothing but a sneaky cheat. Return the microscope immediately- and he can keep the comics. Maybe that'll teach you."

6. "I'm annoyed... Matt, I've told you that you are not to trade anything without telling me..."

6. "I would feel it's not a fair trade and wonder if my child knew this.. (Child would have chance to justify self) I'd tell him I could not watch him be unfair. We would have to work out some way of having him earn one of his own."

## Constructive Withdrawal of Love

### General Description

This component assesses the extent to which the parent relies on withdrawal of affection, within the context of nurturant ties. May be effected by calmly separating the child from the parent's presence. Withdrawal of affection is subdued so as to preclude the occurrence of disruptively high anxiety in the child, tone of this is conveyed in statements such as "I'm disappointed in you." "I know you could do better than that."

### Description of Different Scoring Levels

Low	Medium	High
<p>Misuse of withdrawal of love, e.g., refusing to speak to the child for long periods, indicating to the child that he is disliked, ostracizing. Usually includes strong anger display.</p> <p>May involve an attempt to use affectionate relationship between child and parents to a greater degree than in power assertion or induction but this is done in a way more likely to produce a disruptive anxiety response in the child.</p> <p>Look for excessive guilt and confession by the child.</p>	<p>Moderate use of withdrawal of love, e.g., some anger, ignoring the child, isolating him, or temporary withdrawal of parental services (e.g., have child fix own meal). Also there is no use of positive side of affectional relationship to reinforce desired behavior.</p> <p>May include suggesting that child's behavior almost puts child into a less likeable category in the parent's eyes - but this is not the derogatory name-calling of the Low level.</p>	<p>Key element: <u>love 'withdrawal' component is more subdued.</u> Entails reasonable withdrawal of affection as a technique for inducing the child to reinstate affection by introducing active changes in his behavior.</p> <p>Look for more emphasis on use of praise and approval for desirable behavior.</p> <p>Phrases such as, "I'm <u>disappointed</u> in you" or "I'm <u>proud of you</u>" carry the tone of a High level response.</p>

## Constructive Withdrawal of Love (continued)

### Scoring Examples for Different Levels

**Low**  
1. "You are a brat, thoughtless, in fact I don't like you... (Child would be:) "...upset, hateful" (mother's response:) "I would just walk away and not listen any more."

2. "I want to talk to you. I think you are very selfish and mean and I'm not going to even talk to you the rest of the morning."

3. "How could you worry me so? You know how much I care about you. Now you've made me sick again, where are my pills?"

4. "I would think he was acting like a bully. 'You really think you're big picking on little kids (said sarcastically)!"

5. "You make us sad when you are so bad. I want the "Real Truth" or else I can't love you."  
Child response? "If guilty they confess and cry."

**Medium**  
1. "I would feel angry with her words....you can come in and stay in... Ignore her for a while till we both get over it."

2. "Angry and disappointed. If that is your attitude you may not belong to the club. You know how I feel about being unloving and selfish."

3. "I feel relief to see him back but anger at his inconsideration and disobedience. Where have you been. Didn't you know we'd be worried? You have been very disobedient and will be punished."

4. "I'd be annoyed with my child. Mark, you know you shouldn't push younger kids...bullies do that."

5. "...would feel very angry to think she was lying to me. Nobody else could have taken it. The money isn't half as important as the fact you are lying. Her father would be told."

**High**  
1. "I would be disappointed that such a minor incident caused that reaction. I would be distant for a little while and later would explain to her my disappointment."

2. "Rob, I overheard the conversation and I am disappointed at your part in this. I would try to explain why I felt this was unkind. I would encourage him to bring the new child home with him."

3. "I am very upset and disappointed in you. You had me terribly worried and you disobeyed the rules. The whole family spent much time looking for you. Do you think that was fair?"

4. "I'm surprised at you., Jimmy, pushing a younger child. I know you can do better than that. Remember how you helped Mary when she fell. I was proud of that."

5. "I would feel quite disappointed if you did take it, tell me and we can work it out. She'd probably admit it. I'd tell her I was glad she'd told me, and that I trusted her and didn't think

Constructive Withdrawal of Love (continued)

Low

Medium

High  
it would happen again."

6. "You little cheat; I'm not even talking to you for the rest of the day."

6. "I'd be aggravated and tell him it's a sin to cheat other people and that he must trade back."

6. "Bob, you usually show better judgment than that. You reverse the trade and then we'll talk this over."



## Verbal Evaluation of Consequences

### General Description

This component assess how extensively the parent uses verbal evaluation which communicates to the child the direct consequences of his behavior. Examples are: "You'll drop it and it will break if you run so fast." "We don't wear shoes in bed; it dirties the sheets." "If you break them, we'll have to pay for them." These verbalizations must be geared to the child's level of comprehension.

### Description of Different Scoring Levels

#### Low

Discipline statements are almost entirely imperative. The child is asked for a simple mental response. He is to attend to an uncomplicated message and to make a conditioned response (to comply); he is barely called upon to reflect or to make mental discriminations. There is only a faint implication of consequences.

Or only one half of the "if...then..." structure of statement of consequences is clearly stated.

#### Medium

This level involves the explaining of consequences after the fact, e.g., "Maybe the child felt clumsy because you were so standoffish with her."

Or, foretelling of consequences is strongly implied but not clearly stated.

#### High

Involves optimal use of the techniques as listed above. These statements are as much instructive as imperative and therefore allow the child to achieve the behavior rules by presenting them in a specific context and by emphasizing the natural consequences of alternative actions.

This level involves "foretelling" consequences - and is considered higher in induction as it orients the child more clearly to controlling future behavior.

### Scoring Examples for Different Levels

#### Low

1. "Since you feel that way about it, you can come in and stay in."

#### Medium

1. "Explain again the reason why she can't go, for example, if she had a sore throat that was why she couldn't go swimming."

#### High

1. "I might also bring up health factors (too hot, too cool, skin infection dangers) or the safety facts, depending upon what area they were going."

Verbal Evaluation of Consequences (continued)

Low

Medium

High

2. "God made us all different. He gave you a good brain and you should be willing to help others less fortunate."

2. "Maybe the child felt clumsy because you were so standoffish toward her."

2. "Tim, that new boy hasn't got any friends around here. Couldn't you include him in your group? Maybe you'll like him when you get to know him better."

3. "We have been worried sick why didn't you tell us where you were going? I had to call a dozen people to find where you were."

3. "If you had let me know where you were going I would have figured you went too far and were only a little late. Then I wouldn't be mad."

3. "You're going to have to be a little more responsible and find out what time it is or I won't be able to let you take your bike off our block."

4. "Look, Peter, what's the sense in pushing John down when you're so much bigger than him."

4. "...the bike wasn't hurt, it's metal...bring your bike in or lock it up--and remove the temptation."

4. "Shel, you know she is just 6 and doesn't play the same as you do. If you can't help take care of her, you can't play with her."

5. "Well, I believe you, but don't let me find out that you are lying about it..."

5. "Maybe tell him that this money was used for treats for everyone and when he took it he deprived others of treats."

5. "I would comfort her and tell her again that if she ever needs money, ask and I will give it and never to lie to me because one lie leads to another."

6. "You return it immediately!"

6. "Gifts should not be given away because they are a personal thing between two people and it's like saying you don't care for the generosity of another person."

6. "I would try hard to let the theory of natural consequences take place. Maybe she will know better next time."

## Verbal Evaluation of Other-Consequences

### General Description

This component assesses the use of techniques involving extensive verbal reference to the "implications" of the child's behavior for "another person." Such techniques capitalize on the child's empathy. First they direct the child's attention to another's pain, which should elicit an empathic response. At the same time they indicate to the child that he has caused that pain, without the latter response the child might respond empathically but dissociate himself from the causal act. Finally, the parent in conveying the information should serve as a model of other-sensitivity, i.e., be sensitive to her child.

### Description of Different Scoring Levels

#### Low

Minimal verbal reference to others and/or use of only one of the first two key approaches mentioned above.

Or, fairly good use of the first two key approaches, but with parent serving as a very poor model of other-sensitivity.

Or, a suggestion of some sensitivity to the child's plight in the disciplinary situation.

#### Medium

Extensive verbal reference to both these two key approaches:  
1) direct the child's attention to other's pain, which should elicit an empathic response;  
2) meanwhile indicating to the child that he has caused this pain.

Or simply use of strong, clear modeling of other-sensitivity by the parent.

Or use of (1) or (2) in context of moderate modeling of other-sensitivity by the parent.

#### High

Involve maximum use of the three techniques listed above. The statements to the child are as much instructive as imperative and thus allow the child to achieve the behavioral rules by presenting them in a specific social context, and emphasizing the other-consequences of alternative actions.

### Scoring Examples for Different Levels

#### Low

1. "I would feel embarrassed and would later tell him so and make him feel ashamed."

#### Medium

1. "Bill, I realize you don't agree with me, but I don't want you going to the beach today. I remember saying many things to my mother and being severely punished, but I understand that you don't like me very much at this moment."

#### High

1. "That remark you just made kind of bothers me. I know you're disappointed about the swimming but you must know I won't change my mind under pressure."

Verbal Evaluation of other-consequences (continued)

Low

2. "I think you are very selfish and mean. All children are not the same. God made all of us a little different."

3. "We have all been looking for you. Didn't you know we'd be worried."

4. "He should have told you he was sorry but if he didn't it was not cause to shove him."

5. "The guilty child would get a sermon about other people's property."

6. "I would ask him if he thought the child's parents would feel he had been fair. I would ask him to return the set."

Medium

2. "All of you should at least try and understand the child." He/she would say, but you don't know the kid"... "I would let them think it out for themselves."

3. "We were so worried about you. You're our special boy and we love you so much... He would be sorry - he just didn't think we would worry so."

4. "Look, he's crying, and you did it. How would you feel if someone bigger than you pushed you down?"

5. "You've really shaken my trust in you."

6. "You know the younger child will want the microscope after he tires of the comics. How do you think he'll feel, knowing that you cheated him."

High

2. "Maybe he needs your friendship more than anyone else in club... I'm not saying you have to...but try to feel how Rickey must feel, think about how you would feel if they didn't want you in the club..."

3. "Did you know that your father missed supper because of looking for you? I know you're excited about that new bike but you must remember your actions have effects on all of us."

4. "I feel my child is still young and learning. I'd say see, you made Johnny cry you hurt his feeling. I know he pushed your favorite toy, but perhaps you'd assure him you're still friends."

5. "Well, I guess every child tries that at least a couple times. You know John, if you swipe money people will lose trust in you."

6. "I would ask him how he would like it if I duped him into an unfair trade and how did he think the other child's parents would feel about it."

(Entire protocol showed strong

Verbal Evaluation of other-consequences (continued)

Low

Medium

High  
modeling of other-sensitivity  
by mother)".

## Moderation in Aversive Affective Display

### General Description

This component assesses the extent that the parent uses discipline without an aversive affective display so strong as to disrupt information transfer. Must involve some communication of displeasure to be scored. Look for parental response under "think and feel?" for clue as to affect, and then examine their "word for word" response. Finally, consider the relative emphasis given to affective displeasure in contrast to information transfer.

### Description of Different Scoring Levels

**Low**  
An aversive display so strong as to disrupt information transfer. Consists primarily of relatively direct and concrete application of aversive stimulation to the child, e.g., physical punishment, verbal assaults.

Strong aversive display is virtually the only thing communicated or at least completely overshadows information transfer.

Clearly more affective displeasure than information transfer.

**Medium**  
An initially strong aversive, affective display followed by a cooling down and more subdued and informative approach.  
Or an initially relatively subdued and informative approach followed by a more aversive display if child transgresses again.  
Or, simply a moderately aversive display that seems about as important as information transfer.

**High**  
Affective displeasure is conveyed but is modulated so that the child can expand his cognition about transgressions. The affective displeasure emphasis clearly secondary to communication of information about behavioral expectations.

### Scoring Examples for Different Levels

**Low**  
1. "What did you say? How dare you say such a thing to me. How dare you. I might also slap her."

**Medium**  
1. "Since you feel that way about it you can come in and stay in." (Then).. ignore her for awhile." (Completed with some later talk).

**High**  
1. "Mark, I heard what you said, and I'm not happy about it. You've been able to go to the beach every day this week but

Moderation in Aversion Affective Display (continued)

Low

Medium

High

2."Talk about clumsy and dumb, you're the one who's clumsy and dumb! If I ever hear such a thing again I'll slap your face!"

3."You brat! Get off that bicycle before I knock you off it."

4. "(Scream): Pick up your bike and apologize to that little child. Don't you ever dare to do that again!"

5."You little sneak thief! God will get you for that."

6."What a rotten cheat you are! You're gettin a whipping when your father gets home."

2. "Shout" (then follows somewhat of a tongue-lashing). (Then): "Calm-ing down, I would go over it again and request she get to know X."

3."I'm sure I would be very angry and say; "I can't believe you would do something like this. I am so angry at you and disappointed. Go up to your room and I will discuss it with you later."

4."I would be annoyed:"Put your bike in a safer spot. You know the little ones don't realize what they are doing. Are you going to pay the doctor's bill if that child was injured by what you did?"

5."I would be hurt... He might first deny it but after asking a second time more strongly, the truth would come out... If he repeats the issue, serious considerations would have to be taken."

6."I'd be annoyed and say:'Don't try to pull a fast one. You've taken advantage of the younger child. That aggravates me for you should know better. Don't let it happen again, or else!"

today we're all going to grandma."

2."John, I don't like what I just heard...I'm not saying you have to take him in the club, I'm asking you to think about it."

3."Rob, you broke two rules (states them). I am very angry about it. You will have to stay in the next two evenings. I would examine his excuses, but insist on the punishment."

4."You know how I feel about someone picking on someone littler than them. I know he knocked over your favorite toy, but you could have just told him you're angry."

5."I feel pretty unhappy about this situation. I hope you realize that money lying around the house is not to be taken without asking."

6."Tell him that I feel he wasn't fair - and what does he think. Was it fair exchange?"

## Focus on Intentions

### General Description

This component assesses the extent to which the child is required to focus on the intentions preceding its actions. There may be inquiry into motivation behind actions or at least conjecture on the parent's part about the child's motivation. Parents who focus on the child's intentions are explicitly or implicitly acknowledging that the child is a self-motivated, complexly cognitive being who is responsive to more than simple conditioning.

### Description of Different Scoring Levels

Low	Medium	High
Attention is directed <u>almost</u> solely to the visible manifestations of transgressions. There may be some implications of question re motivation (e.g., (1), (6). Or the question may be ambiguous: "why didn't you call?" may well mean: "you should have called."	Child may be asked a general question as to reasons. This general question is clearly an attempt to get at the child's motives and should not be confused with the ambiguous and/or almost rhetorical questions of low level responses. Or, parent clearly conjectures about child's motivation but fails to really probe for it.	Child is quite carefully probed as to specific intentions; parents doing this usually also manifest conjecturing about motivation in the protocols. Or, the child's response indicates he has learned to give extensive consideration to intentions.

### Scoring Examples for Different Levels

Low	Medium	High
1. "Jeffrey, you may disagree with my logic and my decisions, you may be annoyed with me what you may not do is call me a name."	1. "Alright, Sherry, what's the problem?"	1. "That doesn't seem like him. He usually doesn't flare up like that. What would cause him to react in this manner?" (Then probes.)
2. "Why don't you treat people nice for a change?"	2. "I would call him in and ask him to explain his reasons..."	2. "Would she feel disappointment that she did not have the empathy that I always thought she had... I would try to discover any underlying reasons



Focus on Intentions(continued)

Low

Medium

High  
for her behavior.

3. "Ask where he was and why he didn't call."

3. "Jeffrey explain yourself, where have you been? Why haven't you called, and why are you so late?"

3."Mary, what's going on with you today? You're not your usual responsible self. I wonder if you feel you should be given as much freedom as your older brother."

4."Why did you make him cry?"

4."I'd ask why the devil she lied in the first place and what did she need the money for that was important enough to take it and then lie."

4."Eileen, why did you push John like that? He made you very angry didn't he? I know how well you take care of your bicycle. Did he do it on purpose?"

5."I would ask first. Did you take any of my change, son? If you need it why did you not ask for it?"

5.(Would discuss)... "why he might have believed he needed the money."

5."I would ask her why she took it and if she felt she really needed the money. I would say that I know it it is tempting when she sees money around, but if she really needs something she should come and ask me about money."

6."I would be a little upset because the older child ought to know that he shouldn't do that."

6."I think the child needs to be corrected and feel there must be a reason for doing these things at that late age.(but then parent only makes a simple inquiry:)"... "If you wanted a microscope why didn't you ask us for one?"

6."I would feel it was not a fair trade and wonder if my child knew this. Charlie did Peter's mother know he made that trade? Well, do you think it was a fair deal? Did Peter get cheated in that?"

## Reinforcement for Self-Correction

### General Description

This component assesses the extent to which the child is reinforced for its own active corrections of his behavior: The emphasis is on the child's activating his own resources to evaluate, arrest, or correct its transgressions ( thus, explicitly or implicitly suggests a means for reparation). Parents, therefore, are regulating punishment so as to give child options for exercise of control over his behavior. Look for self-admission and verbal recognition of wrong-doing and reinforcement for same. Look for child verbally attempting to evaluate behavior without being unduly manipulating. Look for positive reinforcement of child's corrections rather than just the cessation of an oversive parental reaction.

### Description of Different Scoring Levels

#### Low

Punishment occurs, and what the child does toward the end of evaluating, arresting or correcting, behavior is minimally related to the ending of punishment.

Or the child's evaluating, correcting, or arresting behavior is related to the ending of punishment but (1) child is being clearly manipulative or (2) child is not really being autonomous but is giving in to an overriding parental demand.

Or, after rather sketchy admonition the parent shrugs and leaves the decision up to the child.

#### Medium

What child does toward the end of evaluating, arresting or correcting behavior is clearly related to ending of punishment. But there is no indication of more positive fostering of child's being reasonably self-active.

Or, positive reinforcement is given to child's uncritical acquiescence.

Or while parent does not actively punish she handles the "Transgression" by actively enlisting his cooperation in evaluating the situation, one sign of this is the child responding by arguing reasonably in his own behalf, and the parent may then suggest a reasonable compromise.

#### High

Conditions described above are more or less filled. Note: parents scoring high will use positive reinforcement and/or cessation of negative. They clearly give the child some leeway for making a choice of behavioral options.

Or, the parent is implicitly reinforcing of the child as a reasonably autonomous, competent agent (this parental attitude can be seen in reading the entire response to the incident).

Reinforcement for Self-Correction (continued)

Scoring Examples for Different Levels

Low

1. "He would probably say he was sorry and that if I didn't punish him it wouldn't happen again."

2. "All of you should at least try and understand the child... (Child) "But you don't know the kid..." (Mother) "Don't argue with me."

3. (Child response?) " He would know that he was very wrong and may make some lame excuse."

4. (Child response) It might depend on the situation. It might be a "let's see how far I can go" attitude or possibly an annoyed "well, I want to buy a pop."

Medium

1. "Son, what have I done to deserve that nasty description?" (Boy:) "Oh, my, I had a bad day at school, I'm sorry, Mom..."

2. "Maybe you'll like him when you get to know him better, He would argue that he already knows him and no one like him. I would ask him to talk to his club members and reconsider. I would not insist."

3. (Follow-up?) "Possibly a reminder to call next time she went out, if she was going to be late - and a reminder to leave a note about where she would be."

4. "Andry, he is so much younger, why do you have to push him? Just tell him to leave it alone or put the bike in the garage."

High

1. "I did <sup>point</sup> out that 'no one is perfect' which is a favorite phrase they use with me when I have a critical comment. I might suggest they try him but I do think they have a natural sense of seeking their own level."

2. "Why don't you think about it more before you decide... I know you will come to a fair decision 'cause you are a nice kid... I would go along with his final decision-hopefully it would be what I want him to do."

3. "All right, you know you broke the rule. Now what do you think we should do about this?" (Child:) "No bike riding tomorrow?" (Mother:) "Ok, and then we'll try again."

4. "...If something like that happens come to me and together we can maybe work it out ...If problem seems major in my child's eyes the neighbor child will have to go-other-wise to see if they can play

Reinforcement for Self-Correction (continued)

Low

5. "What happen to the change I left here? And you had better tell the truth, because if you lie you will be spanked, but if you tell the truth, you won't be spanked."

6. "But, Mom, his mother said it was OK. Alright but I didn't and I would like to talk to his mother about it first."

Medium

5. "Did you take the money from the shelf? If you did, I would like it put back before 1/2 hour is over."

6. "She would argue that it was a fair exchange because the younger child agreed to it. I would tell her the values were unequal and ask her to use the microscope while the child reads the comics and then change back."

High

together, Mike will have to tell the child we don't do those things."

5. "Bob. it seems to me I left it there and don't remember using it. If you remember later that you took it, let me know. Gives him time to tell me if he did it and present his case..."

6. "How would you feel being on the other side? And I presume that Johnny's mother will be calling, unhappy about the trade. Why don't you do something to rectify the matter before she calls."

## Explanation of Standards

### General Description

This component assesses the extent of the parent's use of instructive statements which offer information or commands which carry a rationale or justification for the rule to be observed, e.g., "I would tell him about the importance of minding the teacher." Entails clear definition of what the parent does or does not want. Also involves communication of principles that go beyond the specific disciplinary situation.

### Description of Different Scoring Levels

#### Low

Use of vaguely instructive statements which offer only simple information.

Or use of somewhat confusing statements, e.g., statement of a rule coupled with a presentation that goes against the rule.

Or use of overly rigid, general statements.

#### Medium

Use of instructive statements which offer information or commands which carry a rationale or justification for the rule to be observed. Such statements carry a fair amount of information (as compared to the simple or terse or conflicting statements of the LOW level), but they do not have broader relevance than the specific situation or repetitions of the situation.

Or explanation of general principles only, no specifics.

Or vague use of both specific and general instructions.

#### High

Use of clearly instructive statements which are (1) not only situationally relevant but (2) also communicate principles of general relevance.

At times the principle of general relevance may be simply a rule that covers a variety of situations.

Explanation of Standards (continued)

Scoring Examples for Different Levels

Low

1. "She would probably apologize later and I might discuss why she couldn't go swimming in the first place."

2. "Fairness and tolerance is very important to me and I talk about it often to the children" (followed by): "What a terrible rotten way to form a club... spoiled brats."

3. "You are never to go any place without asking me first. I don't care where it is."

4. "You, son, are not to push anyone under any circumstances."

Medium

1. "You've been able to go to the beach every day this week but today we're all going out to Grandma and Grandpa... well you can go tomorrow but you can't go today... grandma and grandpa are planning on us for supper."

2. "I think he realizes that think for yourself and don't do everything so-and-so does is my philosophy."

3. "I must get my point across this is not the right thing to do. From here after if you're going to be late for any reason call home--leave the message if I'm not in, but call."

4. "That wasn't necessary. He's younger and didn't mean it... later I might discuss being kinder to younger children."

High

1. "I might tell him... sometimes we have to take orders even tho we disagree. We would talk about parental responsibility and the fact that I don't say no constantly and discuss negative feeling in detail."

2. "I am unhappy because I have often spoken of how we don't make fun of people who are not what we think they should be also have said many times, everyone plays together ..." (Mother then goes into specifics.)

3. "The rule is that I know where they are going when they're off the block and they are supposed to be here when the church bells ring at 6:00" (Mother then deals specifically with the bike situation).

4. "Tell him he is only 2 and ask him to be careful of the 2 year old... Don't ever hit little babies.... little children don't understand all the do's and don'ts yet."

Explanation of Standards (continued)

<sup>Low</sup>  
5."..I would tell him not to take money again without asking."

6."I would send him to tell the boy that he is unable to keep the set and to get his books back."

<sup>Medium</sup>  
5."I would try to make her understand that any change lying around the house is mine and should not be taken... I feel she could ask."

6."I would tell her what she already knew (the values are unequal) and ask her to use the microscope while the child reads the comics and then change back."

<sup>High</sup>  
5."I will tell him it is wrong to help yourself to things that don't belong to you, and if you need any change don't help yourself, ask us first."

6."I would tell him the younger child hasn't developed a sense of value yet. You can't take a cheap item and expect to get an expensive one for it. You have to be fair. Trying to cheat one is wrong."

## Follow-up over Time

### General Description

This component assesses the extent to which the child is held responsible for transgressions reasonably long after their point of occurrence. Transgressions of the child may be referred to in conjunction with later, similar transgressions, i.e., use of "follow-up" but a reasonable follow-up. Time extension refers to the period from the first moment that the child is aware (at some level) of the parents intervening to the last referral made by the parent about the transgression.

### Description of Different Scoring Levels

#### Low

Punishment is immediate and focused in time. It makes the avoidance or occurrence of punishment, rather than any act of the child, the event that primarily markd the end of the transgression.

Or some simple response (other than "no") to the follow-up question- provided that the response does represent some minimal broadening of the time focus.

#### Medium

While punishment is not focused in an immediate way, it does take place within only a slight extended time interval, say 15 minutes to an hour or so. Child does have some effect on marking the end of the transgression.

There is "Middle-range" follow-up by parents.

Or there is suggestion of increasingly stern authority with succeeding transgression- this implies that previous transgressions are referred back to.

#### High

Meets the conditions above. Especially long-range follow-up. Such follow-up indicates the parent relates specific incidents in time to later incident that are meaningfully related to the course of the child's development of internal controls.

### Scoring Examples for Different Levels

#### Low

1. "I'd spank him and that would be that."

#### Medium

1. "I want you to sit somewhere and think about whether you meant it or just said it in a temper. After you have done that we will talk about it and see who is at fault."

#### High

1. "I find there is constant follow-up in all dealing with our kids, probably tomorrow something will happen that will relate to today's incident."



Follow-up over Time (continued)

Low

2. "I'd think she was very selfish and mean and I would tell her so."

3. "Don't you ever do that again, And I'd probably be so mad I would slap him."

4. "I would be angry and would tell him so and then we'd both forget about the incident."

5. (Follow up?) "We would tell him not to do it again."

6. "You return it or you'll get a spanking. Later I'd ask if he returned it."

Medium

2. "I would leave the children to make their own decision." (Follow-up?) "If the child were not included I may make an effort to include the child in some family outing."

3. (Follow-up?) "No unless this is a third time, then Dad would handle it."

4. (Follow-up?) "he would say he was sorry, I might discuss being kind to younger children when he and I were alone later."

5. "Tell him he would benefit from going to his room and thinking about this problem and then we will talk in 10 minutes."

6. "Matt, I've told you that you are not to trade anything without telling me...I'd walk down with Matt to see the mother and trade back. Then I'd try to impress him again with the rule about no trades without my knowledge."

High

2. "Discuss it with him, tell him my feelings about it, but leave it up to him. Ask a week later, if Rickey's in, say I'm proud; if out say, I'm disappointed."

3. (Follow-up?) "The next day I might remind him to watch the time, check in before he rides off after school."

4. (Follow-up?) "No punishment but I'd be on the lookout for outbursts of temper and see if I couldn't help him to be a little more understanding."

5. (Follow-up?) "I would set up an allowance plan where he would have a little of his own money provided he did a little work to earn it."

6. "Give him a day or two to make the exchange. If he did not then I would go over it with him again."

APPENDIX B

## Role Taking Task

### Description of Pictures

The first picture was card #2 of the Thematic Apperception Test. This is a country scene: in the foreground is a young woman with books in her hand; in the background a man is working in the fields and an older woman is looking on.

This picture was selected for the Role Taking Task because it seemed to have potential for stimulating rather complex perspective-taking, and, therefore, was seen as providing sufficient ceiling for the test.

The second picture was card #11B of the Michigan Picture Test. This scene depicts some sort of confrontation at a doorway. In the foreground, outside the doorway, looking in, are two figures; only their backs can be seen. One appears to be uniformed and he is holding a grade school age boy by the arm. In the background, inside the doorway looking out, is a woman who appears to be a housewife.

This picture was chosen as a stimulus because it seemed to depict a situation with which the mothers in the study could identify, and, therefore, was seen as providing sufficient bottom for the test.

### Test Administration

This test was self-administered. The above cards were numbered and covered with a blank sheet of paper so that the mothers would not see them before reading the instructions. Beside the cards were printed instructions which the mothers read themselves. These instructions are presented on the following pages.

Instructions

This is a test of imagination, one form of intelligence. You are going to look at two pictures, one at a time. Your task will be to make up as dramatic a story as you can for each. Tell what led up to the event shown in the picture, describe what is happening at the moment, what the characters are thinking and feeling, and then give the outcome. Write your thoughts as they come to your mind. You will have about four minutes for each story. Please number your stories as you go along. Make sure your handwriting is legible. If you have any questions, please call the examiner.

Now look at picture #1 and write a story about it. When you have finished that story, turn to picture #2 and write a story for that picture. (Remember: only about 4 minutes per story.)

When you have written stories for both pictures turn to the next page of instructions.

NOTE: Do not read this page of instructions till after you have written stories for each of the two pictures.

Now you are to look at the same pictures again, but this time make believe that you are each one of the people in the story you made up.

Look at Picture #1. Make believe you are the person to the left and you are in the situation. Retell the story from the point of view of this person. That is, tell the story again but this time as though you were really this person. You have up to three minutes for each character. Use a new sheet of paper for each character.

Now make believe that you are the person in the middle. Tell the story as though you were really this person. (Use a new sheet of paper; take three minutes.)

Now make believe that you are the person on the right. Tell the story as though you were really this person. (Use a new sheet of paper, take three minutes.)

Look at Picture #2. Make believe that you are the person to the left and you are in the situation. Retell the story from the point of view of this person. That is, tell the story again but this time as though you were really this person. You have up to three minutes for each character. Use a new sheet of paper for each character.

Now make believe that you are the person in the middle. Tell the story as though you were really this person. (Use a new sheet of paper; take three minutes.)

Now make believe that you are the person on the right. Tell the story as though you were really this person. (Use a new sheet of paper; take three minutes.)

APPENDIX C

## Password

Instructions:

Are you familiar with the Password Game on T.V.? The next thing I'm going to ask you to do is to play Password together. The idea is that I will give you, Mrs. X, some cards with one mystery word on each card. Taking one card at a time, I want you to help your child guess the word correctly by giving a one-word clue and waiting for his one-word guess and giving a second clue and waiting for his second guess, etc., until he either gets the word or until two minutes have passed. For example, if the word were "chair," you might say, "table" and if your child guessed, "dinner" you could give him the clue, "sit" and hope that he/she might guess, "chair." Remember to continue giving clues until the exact form of the word is guessed. Do you have any questions? Let's try a couple of words for practice. (The mother is given two practice words, and she may ask questions about the procedure. After the mother has been the donor on eight words, the child takes his turn in giving clues and the mother does the guessing. He is also given two practice words.)

Word List--Mother:

take  
earth  
mad  
red  
juicy  
bird  
eye  
argue

Word List--Child:

kite  
happy  
moon  
chalk  
street  
girl  
rain  
bible

APPROVAL SHEET

The dissertation submitted by Robert L. Duncan has been read and approved by members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 21, 1973

DATE

Jeane Foley

ADVISOR'S SIGNATURE