

OPPOSITIONAL BEHAVIORS TO MATERNAL CONTROL AND
SOCIAL COMPETENCE IN PRESCHOOLERS

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ABSTRACT

This thesis examined relations between preschoolers's oppositional strategies and their social cognitive skills and behavioral competence. There is a gap between theoretical formulation and empirical investigation regarding children's oppositional behaviors in the literature. Although positive functions of oppositional behavior have been proposed by theorists, research has focused primarily on its negative nature. The present study intended to show that opposition was not a homogeneous construct and that certain noncompliant strategies were not destructive but rather healthy and desirable.

Forty-nine mothers and their preschool children (age 3 to 5) participated. Mother-child interaction data were collected using naturalistic observation in a structured setting. Children's oppositional strategies were classified into four categories: aversive opposition (e.g., temper tantrums), passive noncompliance (e.g., ignoring), simple refusal, and negotiation. While social cognitive skills (perspective-taking and social problem-solving) were measured through experiments, behavioral competence was indexed using a questionnaire filled by day-care teachers.

The data were analyzed using correlation and regression procedures. Results showed that aversive opposition was more likely to be seen in the children who were less able to see

other's feelings and to generate problem-solving solutions, and who were less competent in a day-care setting. Passive noncompliance was more likely employed by the children who did poorly at a day-care setting, however, they were not necessarily deficient in social cognitive skills.

Negotiators were more likely to be the children who were better at affective role-taking and social problem-solving and were more competent in a day-care setting. Finally, simple refusal had a weak and ambiguous relation to social cognition and competence. These results and their implications were discussed in the light of the existing literature on children's opposition.

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CHAPTER ONE

INTRODUCTION

The aim of this chapter is to review the literature on conflict between parents and their children. There are five parts: a) the significance of parent-child conflict for child development; b) major research and empirical findings; c) developmental functions of children's opposition; d) summary and future directions for the study of parent-child conflict; and e) the present study.

The Significance of Parent-Child Conflict For Child Development

Conflict is a central concept in most major theories of human development. Freud, for example, considers conflict as the incompatibility between the individual's instincts and society's demands and standards (Freud, 1960). In Erikson's eight-stage theory of psychosocial development (1963), each successive stage is defined as a major crisis that must be successfully resolved if healthy development is to take place. At each stage, society presents the developing individual with a particular task, and a particular component of personality must ascend to meet the crisis and find a solution. Piaget (1932) regards the motivating force behind cognitive development as the conflict produced by a

lack of fit between the subjective mental schemes of the individual and the objective demands of reality.

Contradiction or conflict is the fundamental concept in the dialectical model of human development too. Riegel (1976), for example, identifies four dimensions of conflict: "inner biology, individual psychological, cultural sociological, and outer physical." These conflicts between an organism and its environment are believed to occur simultaneously.

Although emphasizing different developmental themes, these theories agree that conflict is a defining aspect of society as well as a major force for development. Resolutions to conflict bring about successful development for both the individual and his or her society.

Interpersonal conflict has been inferred when there are incompatible behaviors or goals between interactors. The incompatibility is expressed when one person overtly opposes another person's actions or statements (Hay, 1984; Shantz, 1987). Likewise, parent-child conflict, in this study, refers to the child's resistance or opposition to his or her parent's directives or control attempts. A more rigid interpretation of conflict requires opposition to counteropposition to infer a conflict (Patterson & Reid, 1984). However, in order to comprehensively review the relevant literature, conflict is inferred in a rather loose form which does not necessarily demand counteropposition.

Opposition or noncompliance to parental control appears

to be a primitive form of social conflict. Parents are the earliest and easiest targets for young children's rebellion using a variety of behaviors such as whining, ignoring, or verbal refusal. The study of parent-child conflict directly addresses one of the most fundamental issues in developmental psychology, the process of socialization, through which a child comes to act in accordance with the rules and values of his or her society. It is in early childhood that children most actively and rapidly acquire socialized patterns of behavior, and they do so partly by learning to successfully resolve conflicts with their parents. Thus, the study of conflict between children and parents holds substantial potential for understanding the processes of social development in children.

More specifically, psychologists have identified parental controlling interactions as prominent mechanisms of childhood socialization (Baumrind, 1967). Patterson's research (1982) indicates that the manner in which conflicts are resolved is an important indicator of the quality of family functioning and parent-child relations, and that the ability of the parent to adequately manage a young child may influence his or her own self-esteem as a parent as well as the child's tendency to require more control later.

Not surprisingly, the study of children's opposition to parental control has particular significance in the clinical area. Clinicians have labelled as "deviant" the type of

opposition which goes beyond the normal levels of failure to comply, that is, opposition that occurs more frequently, more intensely, and/or over a longer period of time than the "normal" type. Indeed, the recently published DSM-III-R (Diagnostic and Statistical Manual of Mental Disorder, revised third edition, American Psychiatric Association, 1987) includes a specific category called "Oppositional Disorder" for diagnostic use with children and adolescents.

Oppositional behavior is one of the primary concerns of parents seeking the help of mental health professionals in dealing with their young children (Brehm, 1981; Green et al., 1979). In one clinical sample of children, noncompliance was reported as a problem by 96% of the parents (Green et al., 1979). Furthermore, children are referred to psychological clinics or to such government agencies as the police or the court system because they have violated more formalized societal norms. The majority of delinquent behavior consists of direct opposition to more general norms. Obviously, correct diagnosis, effective treatment and prevention of opposition-related disorders or problems depend on a full understanding of the normal development of opposition in children.

The study of parent-child conflict is of considerable theoretical significance and has important implications. Numerous studies have been conducted to address its basic nature and effects.

Major Research and Empirical Findings

Early concerns about children's opposition to parental control are found in the writings of Sully (1898, cited in Levy, 1955), and Baldwin (1900, cited in Brehm, 1981). In one of Sully's chapters in "Extracts from a Father's Diary", one paragraph reads as follows:

Third year...The most striking fact which comes out in the picture of the boy...is the sudden emergence of self-will. He began now to show himself a veritable rebel against parental authority. (p. 211)

Although scientific interest in children's oppositional behavior emerged about a century ago, empirical examinations did not begin until the 1920s. The 1920s and 1930s marked a period of especially intensive research on what was then called "resistant" or "negativistic" behavior in children, with a number of investigators seeking to delineate the determinants and correlates of this behavior (e.g., Caille, 1933; Goodenough, 1929; Tilson, 1929).

In general, these studies focused on peer interaction in nursery school settings. Data were obtained primarily through natural observations, and data analysis was generally descriptive and confined to numerical summaries of the behavioral observations. A classic example is Caille's (1933) study, in which she observed 36 nursery school

children from ages 19 to 49 months during free play. She found that the overall peak of opposition occurred at 37 months and that there were age-related differences in oppositional behaviors, that is, older children used less physical opposition and more verbal opposition with their peers than younger ones. Caille considered oppositional behavior as a complex, multicomponent phenomenon (e.g., physical versus verbal and passive versus active). It might take different forms, each of which might follow a different developmental trend. Although Caille's observations focused on conflict among peers it is particularly noteworthy in that it forecasts in recent research on parent-child conflict and it presents an initial classification of children's noncompliance strategies.

There was little relevant research between the 1940s and the 1970s. Interest in children's oppositional behavior, however, was renewed in the 1970's and continued (e.g., Crockenberg & Litman, 1990; Dunn & Munn, 1985; Kochanska, et al., 1987; Kuczynski, et al., 1987, 1990; Lampard, 1986; Lytton and associates, 1975, 1977, and 1979; Minton et al., 1971; Patterson, 1982). These studies have examined, in the context of parent-child interaction, compliant and oppositional behavior in normal samples of children and in children having a history of chronic opposition. In these studies, children's opposition to parental control was referred as "resistance", "noncompliance", "disobedience"

and "parent-child conflict". Children's opposition to parental control was typically measured in a rather global form or were simply treated as a default of compliance. The contribution of technological advances that facilitate collecting information should be noted here. The recent development of videorecording equipment has led to major changes in the kind as well as the amount of information that can be acquired. It has enabled researchers to obtain a permanent record of actual parent-child interactions, that can be viewed repeatedly.

Research activities and results on the study of children's opposition to parental control can be divided into several topics as follows: parental antecedents, children's own contributions, reciprocal influences, research with clinical samples and age-related research.

(a) Parental Antecedents

A significant contribution to the recent knowledge on compliance and opposition has been made by Lytton and associates (Lytton & Zwirner, 1975; Lytton, 1977, 1979). They have extensively investigated 136 two-and-a-half year old boys and their parents using naturalistic home observations and interviews. One of their research objectives was to examine the parental antecedents of child compliance and opposition. Their results indicate that consistently enforced discipline, encouragement of independence, psychological rewards, and maternal play make

important contributions to compliance in children, whereas physical punishment and the use of material rewards were positively associated with opposition.

Furthermore, sequential analysis of antecedents of child compliance and opposition suggest that parental verbal control, physical control, negative action (e.g., criticizing or scolding), positive action (e.g., expression of love or approval, hugging, smiling), and neutral action facilitate not only compliance but also opposition. However, physical control and negative action facilitate opposition more than compliance, whereas the reverse holds for positive and neutral actions. Lytton (1977) concludes that parents' aversive acts tend on the whole to have negative consequences, whereas positive, or at least neutral acts (which are more facilitative of compliance than opposition) tend to produce positive results. Lytton's findings by and large are corroborated by others (Minton et al., 1971; Kuczynski et al., 1987).

Instead of studying toddlers as Lytton et al. did, Stayton, Hogan, and Ainsworth (1971) investigated the interactions between mothers and one-year-old infants. They reported that compliance to mothers' commands was not a function either of frequency of verbal commands or frequency of physical interventions. Instead, maternal sensitivity, acceptance, and cooperation were found to be the primary correlates of an infant's compliance to commands. This

result is supported by others (Londervill & Main, 1981; Minton et al., 1971). Stayton et al. concluded that a "disposition toward obedience" will emerge in a supportive social environment and that calculated attempts to shape the emergence of compliant behavior are not necessary, at least at this early stage of development. The evidence seems to suggest that in the first year of life compliance or opposition to a large extent is related to maternal sensitivity and acceptance.

Closely related to maternal sensitivity is the quality of attachment. Its positive relation to compliance has been demonstrated (Ainsworth et al., 1978; Londervill and Main, 1981; and Matas et al., 1979). Londervill and Main (1981), for example, found that children judged to be securely attached to their mother at 12 months were significantly more compliant and cooperative than were nonsecure children both to maternal as well as strangers' directives at 21 months. Mothers of securely attached children exhibited more gentle physical interventions and used warmer tones in giving commands than did mothers of nonsecurely attached children.

Recently, researchers have just begun to study specific forms of children's oppositional behavior. Crockenberg and Litman (1990), for instance, found that compliance (child follows maternal directives) and self-assertion (child responds with "no" to direction) were associated with

mother's use of suggestions and explanations whereas defiance (child does the opposite to direction) was associated with more power assertive maternal control strategies (e.g., using force, angry). They conceptualized self-assertion as a more appropriate, autonomous form of noncompliance than defiant behavior. They illustrated a situation in which a mother asked her child to put toys away into the box and reasoned that by saying "No, I want to play" the child was asserting him/herself, whereas by taking more toys out of the box the child was defying her. In the latter case, the child's behavior was oriented first and foremost toward resisting the adult; playing with toys was a secondary concern. Therefore, simple refusal is more constructive than defiance. This conception is supported by their data. They found that defiance and other negative behaviors (i.e., making a mess) were loaded on the same factor while self-assertion and other positive behaviors (i.e., asking for help) were loaded on another factor.

Mothers' education levels seem to be related to their conflicts with children. The research shows that compared to college graduate mothers, mothers who had not attended college were markedly more prohibitive and intrusive, had children who were more oppositional, and thus had more conflict with their children (Himmelfarb et al., 1985; Minton et al., 1971).

(b) Children's own contributions

There is convincing evidence suggesting that general intelligence may be a main source of individual differences in compliance (Maccoby & Martin, 1983). Higher IQ scores of young children relate to their better ability and higher willingness to comply with maternal directives (Vaughn et al., 1984; Londerville & Main, 1981).

More specifically, Kopp (1982) hypothesized that advances in cognitive skills such as representational thinking and recall memory foster development of compliance in young children. Representational thinking and recall memory both appear at approximately 18 months of age (Piaget, 1952, cited in Kopp, 1982). With representational thought, the child uses symbols to stand for objects; with recall memory the child evokes and sustains the image of the absent object. Kopp argues that representational thought and recall memory are the necessary cognitive mechanisms that allow children to formulate an integrated understanding of their own continuing, independent identity and therefore to associate their own acts with caregivers' dictates about acceptable and nonacceptable forms of behavior, and to begin to recall positive and negative feelings associated with their own actions as well as others' behavior toward them. Consequently, the children's behavioral patterns begin to reflect knowledge of social rules as well as the particular situational demand. Those who have developed representational thought and recall memory need fewer

parental directives and encounter less conflict with their parents. Although Kopp's hypothesis has not been directly examined it is consistent with findings that the frequency of conflict peaks and declines in early childhood (Lampard, 1986), that the number of maternal control episodes is negatively correlated with children's age (Kuczynski et al., 1987), and that there is an age-related increase in the rate of immediate maternal success, and a decrease in maternal use of power (Kochanska et al., 1987).

Furthermore, language maturity has been identified as one of the predominant correlates of compliance and opposition. Analyses of within-age compliance and opposition (Vaughn et al., 1984) suggest that language development is the most consistent predictor of compliance, with more advanced language skills being related to more compliance and less opposition.

Lytton et al. (1977) also found that compliance correlates positively with independence and maturity of child speech. They concluded that the compliance of toddlers to parental directives is a sign of maturity of general competence in living.

Some sex differences in opposition and compliance have been identified. Lampard (1986) found that girls more often and earlier than boys use verbal opposition to maternal control and it results in their more frequently getting their way. Minton et al. (1971) showed that boys were likely

to resist initially and obey later or be forced to obey whereas girls were likely to obey immediately or to find compromise resolutions. Boys were less compliant and elicited more forceful strategies from parents than did girls. Opposition among boys was positively associated with frequent physical punishment and maternal failure to explain prohibition.

The finding that girls more than boys use verbal resistance to maternal controls (Lampard, 1986) is consistent with the literature suggesting that children's verbal skills show marked improvement during childhood and that girls tend to show earlier and more rapid gains in language skills than do boys (Shaffer, 1989). The earlier development of verbal opposition skills in girls appears to result in their better ability to succeed in getting their way more often than is the case for boys who, in contrast, are more likely to continue to employ aversive forms of opposition.

Finally, it has been shown that children with difficult temperaments oppose mothers' control attempts significantly more often than children with easy temperaments, and consequently have more conflict with mothers (Himmelfarb et al., 1985; Lee & Bates, 1982).

(c) Reciprocal influences

Lytton (1977, 1979) find that reciprocity exists between child and parent compliance. Mother's compliance

ratio (to child's requests) makes a significant contribution to the prediction of the child's compliance ratio. (Comply / comply + noncomply). Reciprocal influences operate between the mother's use of reasoning and the child's compliance: reasoning strengthens compliance, which, in turn, reinforces reasoning as a control technique.

The reciprocity of mother-child interactions suggested in Lytton's studies is supported by others (Maccoby & Martin, 1983; Parpal & Maccoby, 1985; and Kuczynski et al. 1990). After reviewing the relevant literature, Maccoby and Martin (1983) concluded that a style of cooperation tends to co-occur in parents and children. Parents who respect the autonomy of their children, and who are themselves cooperative with their children's needs tend to have trusting and cooperative children.

Kuczynski et al. (1990) show a link between maternal and child strategies in which suggestive and persuasive maternal strategies were associated with children's negotiation, whereas direct control strategies (i.e., explicit verbal statements) were associated with direct defiance (i.e., whining and temper tantrums).

Furthermore, several studies have shown that maternal cooperation rather than warmth or nurturance is the factor influencing compliance and opposition in children. For example, Lytton (1977) found that the compliance of 2-year-old boys was related to the compliance of both

mothers and fathers with the children's requests, even when parental warmth was partialled out. In Parpal and Maccoby's study (1985), multiple regression analysis suggested that it was maternal cooperation, rather than warmth, that accounted for more of the variance in children's compliance.

What might some of the processes be that underlie the effectiveness of maternal responsiveness? One possibility is that by allowing the child to control the interaction, at least briefly, a form of positive mood induction accrues, which in turn elevates helpful, cooperative behavior.

Another is that maternal responsiveness enhances or activates the child's sense of involvement in a mutual relationship and thus makes more salient whatever cooperative scripts are available to children of this age. (Parpal & Maccoby, 1985). Finally, children's interactive strategies may derive from parental models. That is, the model presented by parental interactive strategies may be particularly important in early interactions, as children begin to acquire a repertoire of social behaviors in part by imitation and observational learning.

(d) Research with Clinical Samples

Much of the literature on parent-child conflict has been produced by investigators interested in dysfunctional families and in particular children's aggression and antisocial behaviors. A noteworthy contribution is the construction of an interactional model that describes the

processes through which parent-child conflict becomes "coercive" (Patterson, 1982). Patterson suggests that in problem families both parents and children rely on severe forms of coercive behaviors in order to resolve conflicts. Parents tend to use aversive control acts (e.g., yelling and physical punishment) and children tend to use aversive opposition (e.g., temper tantrums and screaming). This coercive parent-child interaction will go on and escalate until one interactor forces the other to give in. The aggressor is reinforced by victory; the loser's withdrawal is also reinforced by termination of pain. Thus, this pattern of behaviors becomes more likely to occur in the future. Research conducted by Patterson (1982) demonstrates that child opposition is an important element in the development of coercive cycles and the linkages between coercive parent-child interactions and the development of maladaptive social behaviors such as aggression and delinquency in children.

(e) Age-Related Research

A relatively recent area of research is guided by a developmental perspective that emphasizes opposition rather than compliance (Lampard, 1986; Kuczynski et al., 1987, 1990). In these studies investigators abandoned global measures of opposition, and instead attempted to distinguish various forms of opposition and examined them developmentally. Although this kind of research is quite

recent and limited in number, it has produced several interesting findings.

Lampard (1986), for example, conducted a cross-sectional study of oppositional behaviors toward mothers of 10-month, 16-month and 22-month old children. Parent and child behaviors were coded from videotapes of spontaneous interactions in a laboratory setting. The results indicated that ignoring decreased with age, verbal refusal began when children were 16 months old followed by more verbal, more active noncompliance in the 22-month-olds.

Employing a similar observational procedure, a longitudinal study was conducted by Kuczynski et al. (1987, 1990) to examine developmental change both in maternal control strategies and child's responses, and the association between interactive strategies of mothers and children. The subjects were 70 dyads consisting of depressed and normal mothers and their children, who were from 1 1/2-to 3 1/2 years old at Time 1, and 5 years old at Time 2. Children's oppositional behaviors were classified as "direct defiance" (e.g., temper tantrums), "passive noncompliance" (e.g., ignoring), "simple refusal" and "negotiation". The authors argued that some ways of saying no are more subtle and persuasive than others. Direct defiance is considered an unskillful strategy since it is likely to be perceived by parents as both aversive and directly contrary to their requests. Passive noncompliance is also seen as an

unskillful strategy, but one that is less aversive than direct defiance. Simple refusal is viewed to be an intermediate form in terms of skill because it is direct but not aversive. Finally, negotiation is relatively indirect and nonaversive, and is thus viewed as a more advanced social strategy.

They found that compliance to maternal requests did not change from toddlerhood to age 5. However, oppositional strategies did change developmentally. While children's passive noncompliance and defiance decreased in frequency throughout the toddler and early preschool period, their use of simple refusal and use of negotiation increased with age. Maternal verbal strategies (e.g., explanation, bargaining) increased with age. Mothers' use of reasoning and suggestion were associated with the children's use of negotiation, whereas relatively direct maternal strategies were associated with children's defiant responses. Children who used the most direct and aversive forms of noncompliance tended to use coercive strategies when asking mothers to do something for them. In contrast, children who used relatively skillful forms of resisting maternal controls used persuasion when they attempted to influence mothers.

The studies conducted by Lampard (1986) and Kuczynski et al. (1987, 1990) seem to suggest that children's oppositional behaviors undergo a developmental change during early childhood from physical, passive and asocial

opposition to opposition characterized by its verbal, active and socially adaptive nature, and that as the child ages, maternal control strategies change from simple and nonverbal directives to more sophisticated verbal means.

Early childhood is the time when children undergo rapid transitions and advances in cognitive functioning, language sophistication and social competence. These fundamental changes may underlie the changes in children's oppositional behavior. Parents may adapt to these changes and adjust their parenting strategies accordingly. Thus, the developmental shifts summarized above may result from changes taking place on the part of children as well as their parents.

Developmental Functions of Children's Opposition

Thus far, the discussion has focused primarily on parental and children's own contributions to opposition manifested in mother-child interaction and how opposition may be related to age. An important question raised is why children oppose parental directives, in other words, what developmental functions might children's opposition serve?

Wenar (1982) argued that opposition can serve a positive function, and was one of the first to attempt to distinguish between conceptually different forms of opposition. Wenar refers to opposition during infancy as

"resistance", and considers it as a "forerunner and primitive form of opposition". "Opposition" is used to describe "intentional noncompliance". Resistance manifests itself in infancy; opposition flourishes between the second and fifth year of life. Although Wenar's classification of opposition is rather general, it is useful to follow his classification for our discussion. Opposition in Infancy

Resistance is apparent even in newborns. Infants' resistance to being put to sleep, being awakened, and being fed (by clamping the jaws, pursing lips, etc.) is repeatedly reported (Levy, 1955; Wenar, 1982). Later, children are observed to resist being separated from caregivers or social contact.

It is easy to understand that the adaptive function of compliance is the protection of the young against harm. Given how powerless infants are, compliance to maternal demands obviously is in their best interests. The major developmental task for infants is to establish a trusting relationship and to form a secure attachment with parents (Erikson, 1963). Compliance to mothers would facilitate these processes. But what purpose does the newborn's resistance serve? In the above three examples of infants' resistance, there is a common characteristic; namely, a self-defense against external disturbance of an internal state of being, or, viewed in a social context, a defense of self against others who attempt to alter this state. In this

self-defence, we can see the roots of willfulness, autonomy, and self-control, which will develop more fully as children become older. Indeed, Kopp (1982) regards those early attempts at self-defense as the first step (neurophysiological modulation) toward developing self-regulation.

Obviously resistance or opposition to external influence has its adaptive functions as well. As Levy (1955) clearly expressed,

Without this resistant character the organism's response would be determined entirely by external stimuli. The organism would then have no way of responding to inner stimuli, or, in other words, to inner needs. The capacity to resist external influence thus enables the organism to use and develop inner controls. (p. 213)

Opposition in Early Childhood

One of the important developmental tasks for children during this period is to learn to exercise will and to develop a sense of autonomy (Erikson, 1963). Children's repeated rejections of adults' help and opposition to their control have been interpreted by Wenar (1982) as a critical step in the development of autonomy and the sense of personal efficacy.

Similar to Wenar, Spitz (1957) recognized the significance of negation, describing it as "beyond doubt the most spectacular intellectual and semantic achievement during early childhood" (p. 99). He identified the acquisition of "no" as an indicator of a new level of

autonomy that accompanies the child's increasing awareness of the "other" and the "self" during the second half of the second year of life. Spitz (1957) also noted that with the child's assertion, the process of accommodation and negotiation begins. In response to the child's assertion, the mother may alter her approach or modify her demands, perhaps explaining to the child why she/he should comply, or attempting to negotiate with her child.

One of the major ways in which opposition changes with age during early childhood is from physical opposition to verbal opposition. Children's ability to use "no" clearly transforms their oppositional strategies, and marks a significant achievement in the development of autonomy. As Wenar (1982) writes, it is a shift "from action to symbolic representation of action" (p. 19). Thus children employ the symbol "at will and with considerably less energy expenditure" (p. 19). Thus, toddlers' "no" and its equivalents are more conscious and intentional than the reactive and physical resistance of infancy.

Opposition in Later Life

As children continue to develop, they become more social while at the same time becoming more individual and unique. Both socialization and individuation are essential to a person's adaptation to life. Although compliance and opposition may appear to be contradictory processes, they are more likely to complement one another, with each

contributing to the individual's successful social adaptation. As with socialization, the demands of individuation begin early and continue throughout life. Through compliance with social rules and regulations, a person maintains satisfying and productive relations with others and with society at large. Through appropriate resistance to external influence and self-regulation, a person acquires a unique identity and a feeling of control over his/her own destiny.

Apparently, as some level of compliance is an important element of young children's social competence, so also is a certain level of resistance to parental authority. Learning to say "no" should be considered as a positive sign of children's developing autonomy and assertiveness. The interplay of compliance to authority and resistance to external control, a continuing theme in social interaction, continues throughout life.

Summary and Future Directions for the Study of Parent-Child Conflict

It is clear that the study of parent-child conflict holds substantial potential for understanding social development. Opposition to parental control seems to be preadaptive. Resistance in the very early stage of life appears to be initially physiological in nature, gradually

becoming more and more social. Thus, the onset of opposition is under maturational and biological control. Its further development will depend upon further maturation as well as advances in cognitive development and social interaction. A major factor influencing opposition in the first year of life seems to be the quality of attachment. During early childhood, children's opposition changes significantly, becoming more symbolic, intentional, and skillful. Nevertheless, these various forms of oppositional behavior displayed at different developmental stages serve the same purpose, that is, to assert and preserve autonomy. Developmental changes in the nature of opposition and parent-child conflict should be interpreted in light of psychosocial cognitive changes taking place on the part of children as well as parents.

So far, some parental variables as well as children's own contributions to conflict have been documented. A preliminary developmental trend also has been suggested. In spite of producing these interesting findings and generating a number of data-collecting strategies, the existing literature has some limitations and has left an important issue to be resolved.

There appears to be a gap between theoretical formulations and empirical investigations in the study of children's oppositional behaviors. Although positive functions of oppositional behavior have been proposed by a

number of theorists (Levy, 1955; Erickson, 1963; Wenar, 1982), research has focused primarily on its negative nature.

Theorists appear to agree that in spite of its potentially destructive nature, one's opposition or resistance to external influences represents his/her effort to achieve self-regulation and autonomy. Children's resistance to parental directives marks the beginnings of their independence and autonomy in a social interaction. Reasonable and skillful opposition to parents' demands should be considered a positive sign of children's developing assertiveness and social skills.

Ironically, there is little evidence suggesting this healthy aspect of opposition. Almost everything we know about children's oppositional behavior indicates its dysfunctional nature. It has been demonstrated that children's opposition is linked to low social economic status of parents (Minton et al., 1971), maternal inconsistency (Stayton et al., 1971) and use of physical punishment (Lytton, 1977), children's difficult temperaments (Lee & Bates, 1982), poor self-regulation (Kopp, 1984), low general intelligence (Maccoby & Martin, 1983), and slow maturity (Lytton, 1977). Furthermore, excessive degrees of opposition to parental demands has been associated with aggression, antisocial behavior, poor academic performance, and family dysfunction (Patterson, 1976, 1982). Finally,

oppositional behavior is regarded as the primary concern of parents seeking the help of mental health professionals in dealing with their young children (Brehm, 1981).

An important reason for the discrepancy between theories and empirical studies on opposition is that, in most studies, various forms of opposition have not been conceptually differentiated and measured. Most researchers (e.g., Lee & Bates, 1982; Lytton, 1977; Minton et al., 1971) define opposition as a homogenous construct, thus they only employ a global measure of opposition or simply treat opposition as a default of compliance.

Although Caille proposed oppositional behavior as a multidimensional phenomenon in the 1930s, researchers have not attempted to differentiate this behavior until very recently. As reviewed earlier, Crockenberg and Litman (1990) distinguished self-assertion from defiance conceptually and empirically, and viewed the former as more competent and autonomous than the latter. Lampard (1986) found that 22-month-olds used more verbal and active opposition than did 10-month-olds. Kuczynski et al. (1987, 1990) classified oppositional strategies based on the level of social skills, and found that the use of negotiation and simple refusal in children increased with age whereas the use of defiance and ignoring decreased with age. They also found that negotiation in children was associated with maternal use of reasoning whereas the use of defiance was related to

maternal direct demand.

These preliminary results suggest that opposition may not simply be unidimensional noncompliance, but rather a multidimensional construct consisting of a set of behaviors, varying in cognitive complexity and social appropriateness, and showing different age-related changes and differences. Establishing the construct validity of opposition appears to be a critical task for the state of art in the study of opposition. Since starting in the 1920s, research on opposition has been productive. Many parental antecedents as well as children's own contributions to opposition have been identified. The negative nature of oppositional behaviors has been examined comprehensively. However, research has failed to study healthy noncompliant behaviors. In order to overcome this limitation and to advance existing research, opposition must be reconceptualized as a multicomponent construct. Its various forms must be defined and differentiated. Only after this multicomponent construct is established, and adaptive versus destructive oppositional responses are identified, can the study of healthy opposition proceed, and can further studies take place, examining influences on developmental trends in, and behavioral outcomes of both healthy and dysfunctional opposition.

One way to establish the construct validity of opposition is to examine how its various forms are related

to other variables (Anastasi, 1976). If qualitatively different oppositional behaviors do exist, they should be differently associated with such variables as maternal control acts and education, child's temperament and social cognitive development. However, what variables might best differentiate oppositional behaviors?

Shantz (1987), after reviewing the literature on peer conflict, concluded that social cognitive skills are the most important correlates of successfully settling object disputes among children. Similarly, Kuczynski et al. (1987) argued that children's strategies to resist maternal control may represent their different levels of social competence. How might various forms of noncompliance be differently related to social cognitive skills and competence?

The key aspect of social competence is the ability to "achieve one's goals without violating the integrity of the goals of the other" (Bronson, 1974, p. 280), or to obtain personal goals in a mutually satisfactory interaction (O'Malley, 1977). Eisenberg (1988) suggested some underlying key social cognitive components required to achieve a mutually satisfying interaction. These requisites include the ability to take the role of others, and possession of varied and flexible strategies so that an ineffective strategy will be replaced by one that is more appropriate to the rules governing social interactions in that situation. Given the level of mutual satisfaction, temper tantrums

appear to be an incompetent behavior that may result from the lack of ability to perspective-take and problem-solve, while negotiation seems to be a highly competent strategy which requires such social cognitive skills. Ignoring is not a mutually satisfactory response and thus is an incompetent strategy, but to a lesser extent than temper tantrums. Simple refusal appears to be a neutral response in terms of the level of mutual satisfaction, and might not be necessarily related to social cognitive competence measures.

Thus, each different oppositional act should be uniquely associated with measures of social cognitive skills and competence. Put in another way, social cognitive abilities and competence should effectively and meaningfully distinguish noncompliant behaviors.

The Present Study

The present study attempts to bridge the gap between empirical findings in children's opposition and what has been proposed about this opposition (e.g., Levy, 1955; Wenar, 1982). It intends to facilitate future research efforts in the study of healthy opposition by evaluating the multidimensionality of oppositional behaviors. More specifically, the present study examines the relation between preschoolers' oppositional strategies to maternal control and their social cognitive skills and competence.

Children's oppositional behaviors were naturally observed in a semi-structured setting. Information on children's social cognitive skills and competence consisted of experimental and questionnaire data. Oppositional behavior was defined as those behaviors that are employed by the child to oppose his/her mother's directives or demands. The major oppositional categories examined were aversive opposition (e.g., temper tantrums), passive noncompliance (e.g., ignoring), simple refusal, and negotiation.

Since definitions of social competence have been so varied, sometimes including health, personal maintenance and covering the entire life span (O'Malley, 1977), the focus in this study is on social behaviors relevant to preschool children. O'Malley (1977), after reviewing the literature on social competence, formulated a definition reflecting consensus across different research perspectives. Accordingly, social competence in the current study was defined as productive and mutually satisfying interactions between a child and peers or adults in a preschool setting. In the present study, a questionnaire for day-care providers was used to measure social competence.

As Eisenberg (1987) suggested, two components of social cognitive skills, role-taking and alternative thinking, were examined. There were three measures: affective perspective-taking, cognitive perspective-taking and social problem-solving. The two perspective-taking measures indexed

different aspects of role-taking, while the problem-solving measure was an index of alternative thinking.

Hypotheses

Each oppositional strategy is hypothesized to be uniquely correlated with measures of social cognitive abilities and competence.

(1) Aversive Opposition. A child who tends to use more aversive opposition is more likely to have low scores on cognitive perspective-taking, affective perspective-taking, and social problem-solving skills, and to function poorly at a day-care.

(2) Negotiation. A negotiator tends to have higher ability on perspective-taking and alternative thinking, and to function well at the day-care.

(3) Passive Noncompliance. A passive noncompliant child is likely to have a low level of social cognitive competence overall, however to a lesser extent compared to an aversive opposition child. He/she tends to have low scores on perspective-taking and problem-solving abilities, and to function poorly at the day-care. (The exact difference between aversive opposition and passive noncompliance is not readily hypothesized.)

(4) Simple Refusal. Simple refusal might simply be an intermediate form of opposition, it therefore might not significantly relate to the measures of social cognition and competence. However, there is some evidence suggesting the

positive nature of simple refusal. Crockenberg and Litman (1990), for example, concluded that simple refusal is a competent and autonomous behavior. Kuczynski et al. (1987) also found the use of simple refusal increased with age. Thus, the relation between simple refusal and social cognitive skills and competence is not readily predicted. The current study does not make an a priori hypothesis, and instead hopes to add more evidence to clarify the nature of this behavior.

In summary, the objective of the present study is to provide evidence for the multidimensionality of oppositional behaviors. It intends to demonstrate that certain noncompliant strategies are not destructive but rather healthy and desirable. To this end, the current study examines how preschoolers's oppositional strategies are related to their social cognitive skills and behavioral competence.

CHAPTER TWO

METHOD

Participants

The participants were mother-child dyads in Greater Victoria. The children were between 3.5 and 5 years old and were currently attending day-care centers. Selection of day-care centers was largely based on the recommendation from an experienced day-care supervisor who knew which day-care centers might be interested in the study. The reason for doing this was that supervisors from the day-care centers selected initially did not show much interest in the current study. Thus, the supervisors of recommended day-care centers were initially contacted for permission to deliver a brief letter to parents which explained in very general terms the purpose and procedure of the study (please refer to Appendix 1 for details of the brief letter). The letter assured parents of anonymity and confidentiality and informed them that they had the right to refuse or withdraw from participation at any time. Those who were interested were selected as candidates. Following this, the candidates were phoned to provide more detailed information of the study. In order to eliminate possible bias, the study was described as a study on "mother-child interaction" or "communication style", rather than on "children's oppositional behaviors towards maternal demands". Again,

they were assured that the information they provided was strictly confidential, and that they would be identified by numbers on the data instead of names. Those who consented orally were selected as subjects.

Environment and Apparatus

The observation and experiments were conducted in the social interaction laboratory at the University of Victoria. The interaction room in the laboratory is equipped with remote-controlled video cameras and movable microphones suspended from the ceilings. This audio-visual equipment was controlled from an observational room hidden behind a one-way vision window, thus allowing a natural flow of interaction between the mother and her child. There were four cameras situated at each of the interaction room's four corners to make it possible to film mother-child interaction at different locations in the room. A time-date generator placed a visual time-signal on each videotape. The split screen capacity made it easy to place both images of two cameras side by side on a single monitor for videotaping. The split screen capacity was used when mother and child could not both be filmed by a single camera due to their blocking one another or due to their being at different locations in the room.

The interaction room was furnished as a typical living

room with basic household items including a coffee table, a desk, chairs, a telephone set, preschoolers' toys and books. The toys and books were selected to be appropriate to the children's age (e.g., Barbie dolls, turtles and books of "Cinderella" and "Pinocchio"). In addition, the room was equipped with such items as stickers and a loaded bubble-gum machine which would presumably be attractive, but safe to children of this age group. Using this arrangement, it was hoped that the interaction room was a place which was non-threatening to children and where enough oppositional episodes could occur.

Measures and Procedures

Children's opposition:

Upon arrival, the mother and her child were invited to a reception room. While the child was playing with toys, the mother had an opportunity to ask any questions about the study and then was asked to sign the consent form (please see Appendix 2 for the details).

Next, the mother was given a written explanation of the procedure to be followed during the session (see Appendix 3 for details of the procedure). She was shown through the monitor that there were two kinds of toys in the interaction room: free-to-play toys (all the toys in the box, they were not attractive or were appropriate only for babies);

forbidden toys (all the toys displayed on the coffee table. They were very attractive to this group of children. For example, a loaded candy machine, stickers, Barbie dolls and turtles.). The mother was told that "Your child is free to play with any thing in the box. But she/he is only allowed to look at the forbidden toys at the beginning of the experiment. Later, she/he may have a chance to play with them. It is up to you in terms of how to explain this regulation to the child. You may say to your child that 'those are university toys.' Please do not say to your child that 'Mr. Du does not want you to play with those toys', because I want you to be in charge instead of me. Try to behave as naturally as possible. There is no such thing as right or wrong regarding how to direct your child's behavior." Following this, the mother and her child were led into the interaction room. The mother took the explanation of procedure with her and could refer to it as needed.

This study sampled approximately 40 minutes of mother-child interaction in the following contexts:

(1) Arrival at "living room" (5 minutes), this phase was designed to give the mother and her child an opportunity to become familiar with the new environment. The child was free to play with everything in the box, but not allowed to play with the forbidden toys on the coffee table.

(2) The mother filled out the questionnaire concerning demographic information on herself, the child's father and

the child (see Appendix 4 for the details) while her child was playing or exploring on her or his own. The mother was instructed to keep her eye on her child, not allowing her child to touch the items on the coffee-table (10 minutes).

(3) The mother requested her child to put away the playing materials. She then invited the child to play with the puzzle chosen by the examiner in advance. Since the puzzle was intentionally selected to be a little difficult for the child's age, the mother was instructed to give assistance whenever necessary, but to encourage the child to do it by him/herself. The mother also told her child that he/she would get a treat of a piece of bubble-gum and two stickers if he/she put the puzzle together. Soon after the child began the puzzle, the experimenter in the observation room phoned the mother and engaged her in a general conversation about the child's temperament and play. The purpose here was to get the mother's attention away from her child, hoping to create a conflict situation. The mother was instructed that she should feel free to cease conversation in order to interact with her child whenever it was necessary. After the phone conversation, the mother helped her child finish the puzzle, and the child received the rewards at the end. This phase lasted approximately 15 minutes.

(4) Free-play (5 minutes). The child was free to play with all the play materials, including the previously

forbidden toys.

(5) Clean-up (5 minutes). The mother requested her child to put away all of the play materials.

The goal of this procedure was to gain sufficient conflict episodes, and at the same time to ensure that conflicts were as natural as possible. The present procedure resulted from extensive pilot data, discussion with my supervisor and other committee members, and most importantly, discussion with pilot-parents. The original version of the procedure was much less structured without "forbidden toys." The mother and her child were free to do things as they liked. They both enjoyed playing toys, reading books and having pieces of bubble-gum. As a result, the mother had little need to set limits, and her child had few things to oppose. As a mother in the pilot study put it, "Coming to the Lab is like having a treat to us."

The pilot study indicated that a more structured procedure was necessary in order to generate a relatively "real" conflict situation. It appeared that conflicts were likely to occur whenever mothers set limits which children did not like. Accordingly, the "forbidden toys" were added to the original procedure so that mothers had opportunities to demand. In addition, the free-to-play-toys were limited in their number and quality so that children had desires to oppose maternal directives.

The other revision to the original procedure was that

the experimenter, in the present procedure, engaged the mother in a telephone conversation when the child wanted her help to put the puzzle together in order to get treat. It resembled some conflict situations at home where children must wait to get help because mothers are occupied with an important call.

Upon completion of the videotaping session the mother and her child were invited into the observation room to view portions of the videotape. After she viewed the tape and was given an opportunity to ask any questions she might have, she was asked to sign a consent form with various options as to how the videotape could be used. This form included an option to destroy the tape and not use it at all (please refer to Appendix 5 for details of the consent form).

Coding

Oppositional behavior was defined as those behaviors that were employed by the child to oppose his/her mother's directives or demands. An oppositional episode was a event in which a child opposed his or her mother's control attempt, whereas a compliance episode was defined as an instance where a maternal control was met with some form of immediate obedience.

The coding system used an episodic approach for coding interactions, allowing the observers to keep intact the goal-directed maternal intervention. The beginning of a

control episode was defined by a mother's verbal or nonverbal (gestures or other body language) attempt to influence her child's behavior. Depending on the child's responses, the initial maternal control attempt had two immediate outcomes: termination, which was indicated by the child's immediate compliance; and continuation, which was indicated by the child's effort to oppose maternal control acts. In the latter case, the control episode might contain one or more interchanges between the mother and her child and ended when the initial issue of the intervention, as overtly defined by the mother's request, was resolved in some way or dropped by both partners in the interaction. The coding categories for child's responses were exhaustive and mutually exclusive, that is, there was one and only one code for each child's response.

Coding Categories

Some of the behavioral categories were initially adopted from Kuczynski's research (Kuczynski, et al, 1987), and were modified from ongoing interactions themselves, i.e., a sample of the collected videotapes. For the present study, the following measures were obtained:

(1) Total number of maternal control episodes. Mother's verbal or nonverbal (gestures or other body language) act, which clearly initiates a new goal or requirement for her child and marks the beginning of a control episode.

(2) Total number of oppositional episodes. The child does not comply immediately to initial maternal control act, which marks the beginning of an oppositional episode.

(3) Total number of oppositional attempts. The child's total oppositional acts in the entire session regardless of the way opposition is expressed. (please note: total number of oppositional attempts is greater than total number of oppositional episodes since often there is more than one oppositional attempt in each oppositional episode.)

(4) Specific strategies of opposition.

(a) Aversive opposition: Either noncompliance by overt refusal with negative affect or unwilling compliance with negative affect and/or inappropriate behaviors (e.g., angry, whining, crying, throwing toys, temper tantrums, and other aggressive and destructive behaviors).

(b) Passive noncompliance: Child did not perform the requested behavior, but did not overtly refuse or defy; affect was not negative, e.g., ignoring. The precondition for coding this behavior was that the child demonstrated clear understanding of maternal commands.

(c) Simple refusal: Verbal refusal without negative affect (e.g., "No," "No, thank you," "I don't want to", "Uh.....Uh."). However, "no" in response to a genuine question (e.g., "Do you like that doll") was not coded.

(d) Negotiation: the child, without negative affect, attempted to reach a new mutually agreed upon maternal

directive; proposed bargains, alternate solutions or compromises, asked for or offered explanations or excuses (e.g., "Why?", "I have a better idea...", "But I will do it later", "I can not do it. It is too hard for me").

(5) Resolutions of control episodes:

(a) Child compliance of free will: The child demonstrates full compliance with a maternal control directive.

(b) Child forced comply: The child complies only after physical intervention from the mother.

(c) Mother compromises with child: The mother either abandons or modifies the initial requests.

Upon completion of interacting with his/her mother, the child performed three tasks which measured their social cognitive skills. While the child was working on the tasks, the mother remained present. She was instructed to read magazines and to offer no help for her child. This arrangement was to maintain the child's sense of security, and at the same time to minimize the extent to which the child might get cues for responding from the mother.

Although the scoring criteria for these three measurements are straightforward and scoring could be done during the experiment, children's entire performance was videotaped in order to be scored later. This decision enabled the examiner to concentrate on making the child understand the tasks. It also shortened the testing time so

that children remained alert throughout the experiment.

Social cognitive skills:

(1) Cognitive perspective-taking skill. This skill was measured by administering to each child the "hide the sticker game" which was a modified version of DeVries' procedure using hidden pennies (1970). The difference between the present procedure and DeVries's original one was that in the current study, stickers were hidden and used to reward children while in the DeVries' study, the penny was hidden and no reward was applied. This modification made the "game" more attractive to preschoolers.

In the first part of this procedure, the child was asked to guess which hand a sticker was hiding in as the experimenter's hands were repeatedly hidden behind his back and closed fists were presented to the child for a series of 4 guessing trials. On the first 3 guessing trials, the child experienced positive reinforcement as the experimenter had a sticker in each hand. On the last guessing trial, the child experienced negative reinforcement as the experimenter had a sticker in neither hand. The child was scored 1 for pass and 0 for fail on the following 4 items: (1) does not always guess the same hand; (2) changes hand guessed more than once during guessing; (3) almost always hides correctly; and (4) uses shifting strategy in guessing. In the second part of this measure, the child was invited to hide the sticker for

the experimenter to guess in a series of 4 trials. When the child acted as a hider, the experimenter attempted to guess incorrectly. The child, once again, was scored 1 for pass and 0 for fail on the following 6 items: (1) Attempts to play when asked to hide; (2) does not always hide in same hand; (3) changes sticker hand more than once during hiding; (4) hides correctly on at least one trial, that is, imitates mechanics of procedure; (5) has competitive attitude in hiding, for example, indicates disappointment when E guesses correctly, indicates pleasure when E is wrong, tells E to pick hand without any sticker or extends that hand suggestively, says E is wrong when E guesses correctly (tries to cheat), presents two empty fists when hiding, says do not want E to find the sticker or is trying to fool E, inadvertently lets E see the sticker and then rehides or indicates chagrin; and (6) uses shifting strategy in hiding.

(2) Affective perspective-taking skill. This skill was assessed using a procedure outlined by Borke (1971). The child was first shown drawings of 4 faces depicting the emotional responses of happy, sad, afraid, and angry, and was then asked to identify them. If a child had any difficulty recognizing any of the faces, the examiner would identify the emotion for him/her. Next the child was told stories in which another youngster might easily be perceived as feeling happy, sad, and afraid, or angry (e.g., eating a favorite snack, being alone in the dark, please refer to

Appendix 6 for the details). Following presentation of each story, the examiner again named the emotions represented by each of the 4 faces and asked the child to complete the story by selecting the face that best showed how the child in the story felt. The child was scored 1 for each correct face selection.

The Borke scale was selected because it is designed specifically for preschoolers who are not easy to test due to their limited communication skills. In addition, this measure has widespread use and application. After assessing the relative strength or power of various empathy scales, Hoffman (1977) concluded that the Borke scale appeared the most valid in measuring the ability of a preschooler to predict or understand another person's feelings.

(3) Social problem-solving skill. This was measured by administering the Preschool Interpersonal Problem-Solving test (Spivack & Shure 1974) to each child. The child was shown seven problem situations depicted in pictures and explained by the examiner. For instance, one story character wanted to play with a toy or use some material that another child had in his or her possession. The child's task was to tell what the central character in the story would do or say so that she/he could gain access to the toy or material. The characters in the stories was age-relevant and the same sex as the subject child. Detailed examples of stories can be seen in Appendix 7. The idea of this measure was to instruct

the child to think of as many different solutions as possible (e.g., share it, trade, and invoke authority). The number of relevant alternatives was scored (please see Appendix 8 for scoring criteria). Every time the child offered a different solution to a story, he/she was scored 1 as well as rewarded with a sticker, and a new story was introduced. If the child could not offer a different solution for three consecutive stories, the test stopped.

In this measure, there were standard means of probing for responses to questions. These means were followed so that each child tested went through a standard procedure. For example, if the child repeated in a new situation the same solution he previously had offered, the experimenter would say, "That's what Billy (name of boy in previous situation) thought of doing. Can you think of something different that Johnny can do? The idea is to think of all the different things the little boy might do to get to play with the toy".

By this point, both mother and child have completed their tasks. Once again, the mother had opportunities to ask any questions she might have. Before going home, the child was rewarded with several stickers for participation or pieces of bubble-gum if the mother permitted.

Behavioral competence

Behavioral competence was measured by the Social

Competence Scale (SCS) developed by Kohn and Roseman in 1972. This scale was completed for all child-subjects by the day-care teacher who had the most extensive contact with them and who was blind to the research hypothesis. The SCS was designed to assess the social and emotional functioning of preschoolers through the observation of classroom behavior. It contains 64 items which are rated on a 5-point scale (Please refer to Appendix 9 for the details of the items). The item scores are summed to yield two scores: interest-participation and anger-defiance. The first dimensional score reflects competence in interactions with peers and with classroom materials (an example item: the child can give ideas to other children as well as go along with their ideas). The latter score reflects competence in meeting the demands and the regulation of the classroom (an example item: how well does the child cooperate with rules and regulations).

The evidence (Kohn & Roseman, 1972, 1973; Kohn, 1988) indicates that these two dimensions have wide generality since they are significantly correlated with the corresponding factor dimensions from independently developed instruments, such as the Petterson Personality Problems Scale (1961) and the Classroom Behavior Inventory (Schaefer, 1965). For instance, the correlations between corresponding factors in the SCS and Schaefer's CBI are .80 and .83. Such high correlations provide support for the construct validity

of the SCS. As Kohn (1985) suggested in spite of labeling differences, corresponding dimensions from the three instruments developed by three independent researchers were measurements of the same two general aspects of social functioning.

The SCS has been found to correlate significantly with teachers' global ratings of the child's level of functioning in the day-care setting. The correlations between teachers' global ratings and interest-participation as well as cooperation-compliance dimensions are .41 and .63 respectively.

The SCS has also been found to be reliable with Cronbach's alphas .95 for factor 1 and .96 for factor 2 and with standard errors of measurement 4.99 for factor 1 and 4.24 for factor 2. Finally, it has a reasonable interrater reliability within pairs of teachers (.77 to .80).

The above procedure and method were not finalized until the pilot study indicated that they were appropriate to preschoolers. The pilot study showed that the children understood instructions and were enthusiastic in participation, and they were able to maintain alertness and interest during entire session. It also showed that day-care teachers had no difficulties in responding to questions in the SCS.

CHAPTER THREE

RESULTS

This chapter presents the obtained results. First, information about the reliability of the measures will be provided. A second section will describe the variables. Third, the relations between opposition variables and measures of social cognition and competence will be presented. Finally, correlations between opposition strategies and resolutions of control episodes will briefly be examined.

Reliability

(1) Mother-child Interaction Data. A second observer (a graduate student in psychology) independently coded 18 of the 49 subjects (37% of total data). These 18 cases were distributed over the age range of the subjects.

Interobserver reliability was calculated for oppositional strategies and resolution of control episodes using Kappa, which is an agreement coefficient for nominal scales, and is interpretable as the proportion of joint agreement judgments after chance agreement is excluded (Cohen, 1960).

The averaged Kappas were .76 (range .52 to 1.0) for oppositional strategies and .64 (range .46 to .82) for control resolutions. Results of analyses of variance indicated that there were no significant age effects on

interobserver reliability for both oppositional strategies ($p = .80$) and control resolutions ($p = .96$).

(2) Social Cognitive Skills and Competence Measures.

There were 4 measures of social cognition and competence: affective perspective-taking, cognitive perspective-taking, social problem-solving and competence in a day-care setting. Since the psychometric properties of the social competence questionnaire (Kohn & Roseman, 1972) were extensively discussed in Chapter Two, the following discussion will focus on the other three measures.

a. Affective perspective-taking: In this measure, there are 8 items assessing role-taking skills regarding four feelings (happy, sad, angry, and afraid). Each of the four feelings was evaluated with 2 items. Alpha was calculated to examine the interitem consistency of this measure. Alpha was low (.36), indicating heterogeneity of this perspective-taking behavior. This low Alpha was expected because this measure examines 4 feelings, which vary in difficulty for preschoolers (Borke, 1971). In order to more adequately assess the reliability, proportional agreement (agreement / agreement + disagreement) and correlation coefficient (Phi, representing chance corrected agreement) for each feeling were calculated. The averaged proportional agreement was .81 (range: .65 to .98). The averaged Phi was .54 (range: .38 to .81).

b. Cognitive perspective-taking and problem-solving:

Although the scoring criteria for these two measures appeared to be nonambiguous and objective, interobserver reliability was calculated for both measures using Kappa. A second observer (a graduate student in psychology) independently coded 5 of the 49 subjects (10% of total data). As expected, a perfect agreement was obtained (Kappa was 1.0 for both measures).

Description of the Variables

(1) General characteristics of the subjects.

Scores on a total of nine demographic variables were collected through a questionnaire completed by the mother. Variables were: age, sex, single parenting, maternal education, paternal education, family stress, only child, preterm baby, and day-care exposure (how long the child had been in a day-care setting). The descriptive statistics are presented in Table 1.

There were 20 boys and 29 girls ranging in age from 36 to 65 months. Twenty-five of the children were firstborn, 24 had one or more siblings. There were 16 children from single parent families (parents were either divorced or separated) and 33 from intact families. All children had been involved in day-care facilities for some time, ranging from 3 to 52 months. The mothers had an average of 15 years of education with a standard deviation of 2.6.

Table 1

Sample Characteristics

	Range	Mean	SD
Child Age (Months)	39-65	49.8	6.1
Maternal Education (Years)	11-22	15	2.6
Paternal Education (Years)	9-21	14.7	3.0
Day-Care Exposure (Months)	3-52	30	12.5
	Number	% of Total Sample	
Boy	20	41	
Only Child	25	51	
Preterm Baby	3	6	
Single Parent	13	27	
Family Stress	9	18	

Table 2

The Descriptive Statistics for Measures of Social Skills and Competence

	APT	CPT	SPSS	IP	AD
Mean	5.2	6.2	2.7	55.4	26.6
SD	1.6	1.7	1.2	11.6	16.9
Range	0 -- 8	2 -- 10	0 -- 5	25 -- 82	-3 -- 77

SD: Standard Deviation.

APT: Affective Perspective-taking (a higher score indicates a better ability).

CPT: Cognitive Perspective-taking (a higher score indicates a better ability).

SPSS: Social Problem-Solving Skills (a higher score indicates a better ability).

IP: Interest-Participation (a higher score indicates a higher lever of interest and participation at a day-care).

AD: Anger-Defiance (a higher score indicates more anger-defiant behaviors at a day-care).

(2) Social cognition and competence measures.

There were five variables: cognitive perspective-taking, affective perspective-taking, social problem-solving skills, interest-participation, and anger-defiance. The means and standard deviations are shown in Table 2.

These results are consistent with available data. For example, Urberg and Docherty (1975) reported a mean of 5.52 and a standard deviation of .96 for Borke's affective perspective-taking task among 4-year-old children. In the current study, the mean and standard deviation for the same task was 5.22 and 1.62 respectively. Furthermore, DeVries (1970) found a mean score of 6.40 for cognitive perspective-taking skills for four years olds, which is similar to the value of 6.16 found in the present study. Relevant data on the other two measures were not available in the literature, so that comparisons could not be made.

Intercorrelations among social cognitive skills and competence are presented in Table 3. These results indicate that affective perspective-taking is significantly related to social problem-solving skills and interest-participation is substantially associated with anger-defiance. In order to examine independent underlying dimensions of social skills and competence, all 5 measures were subjected to a principal-components analysis (PCA) with varimax rotation. The results of the PCA are presented in Table 4.

Table 3

Intercorrelations Among Social Cognitive Skills and Competence

	APT	CPT	SPSS	IP
CPT	0.14			
SPSS	0.50*	0.25		
IP	0.14	-0.18	0.37	
AD	-0.06	-0.02	-0.334	-0.64*

* $p < 0.05$.

APT: Affective Perspective-taking.

CPT: Cognitive Perspective-taking.

SPSS: Social Problem-Solving Skills.

IP: Interest-Participation.

AD: Anger-Defiance.

Table 4

Factor Loadings

	Factor (1)	Factor (2)	Factor (3)
CPT	0.06	0.11	0.97
SPSS	-0.40	0.74	-0.26
IP	-0.87	0.18	0.22
AD	0.91	-0.02	0.10
APT	0.04	0.94	0.01

APT: Affective Perspective-taking.

CPT: Cognitive Perspective-taking.

SPSS: Social Problem-Solving Skills.

IP: Interest-Participation.

AD: Anger-Defiance.

The three extracted factors explain 86% of total variance. The Factor loadings show a clear pattern in that interest-participation (-.874) and anger-defiance (.908) loaded on Factor 1; affect perspective-taking (.935) and social problem-solving skills (.757) loaded on Factor 2; and cognitive perspective-taking (.976) alone loaded on Factor 3. The interpretation for this loading pattern appears to be that Factor 1 represents low competence manifested in a day-care setting; while both Factors 2 and 3 index social cognition, Factor 2 emphasizes its social-affective aspect, Factor 3 focuses on its cognitive aspect.

(3) Measures of control/opposition.

There are a total of seven control/opposition variables: total maternal control episodes, total oppositional episodes, total oppositional attempts and four specific opposition strategies.

The mean and standard deviation of maternal control episodes were 27.88 and 12.12 respectively. The averaged oppositional episodes was 12.41 (SD = 6.81). The mean and standard deviation of oppositional attempts were 24.90 and 16.17 respectively. Correlations between these three control/opposition variables and demographic measures are presented in Table 5. The figures in the Table 5 indicated that these three control/opposition variables were negatively related to children's age and day-care exposure. The children who were older and had more day-care experience

Table 5

Correlations Between Maternal Control Episodes (MCE),
Oppositional Episodes (OE), and Oppositional Attempts (OA)
and Demographic Variables

	MCE	OE	OA
Age	-0.33*	-0.36*	-0.31*
Sex	0.13	0.22	0.09
Maternal Education	-0.18	-0.17	-0.10
Paternal Education	0.10	0.03	0.04
Single Parenting	-0.01	-0.10	-0.16
Stress	-0.03	-0.06	-0.03
Only Child	-0.03	-0.07	-0.01
Day-Care Exposure	-0.27#	-0.37*	-0.34*
Preterm Baby	0.05	0.02	-0.04

* $p < 0.05$. # $p = 0.052$.

tended to encounter less maternal control, to be less oppositional to maternal control and to have less oppositional attempts to maternal directives.

The four oppositional strategies are: proportion of aversive opposition, proportion of passive noncompliance, proportion of simple refusal, and proportion of negotiation. A proportional score for an oppositional category was derived as the raw score for that category divided by the sum of raw scores of all four categories. For example, the proportion of negotiation is the raw score of negotiation divided by the sum of raw scores of all four strategies. The reason for the use of proportional scores is that raw scores are misleading in some circumstances. For example, child A opposes his/her mother's control 4 times exclusively using a negotiation strategy, whereas child B opposes his/her mother's demands 10 times; using a negotiation strategy 5 times and other strategies 5 times. Child B would be the one using more negotiation if they are judged by raw scores. In order to avoid this distortion, proportion scores (which have been suggested by others, e.g., Kochanska et al., 1987; Kuczynski et al., 1987) were used for oppositional strategies in the following data analyses.

The means and standard deviations for opposition strategies are presented in Table 6.

It appears that negotiation was the most frequent form of opposition (55%), simple refusal (24%) and passive

Table 6

Means and Standard Deviations for Opposition Strategies

	Aversive Opposition	Passive Noncompliance	Simple Refusal	Negotiation
Mean	0.06	0.15	0.24	0.55
SD	0.11	0.15	0.16	0.21

noncompliance (14%) were also common strategies, and aversive opposition was a rare response (6%). These corresponding data in the Kuczynski et al. (1990) research with five-year olds were as follows: negotiation (21%), simple refusal (16%), passive noncompliance (16%), and defiance (similar to aversive opposition in the present study, 3%). All four categories in both studies are quite similar, with the exception of negotiation. The discrepancy in negotiation (55% in the current study versus 21% in theirs) may result from the different definitions for this category. In the present study, excuses and bargains are included in the negotiation category. However, these two behaviors were independent categories in their study.

Different from the four specific opposition strategies, the oppositional episodes and attempts measure opposition in its global form and thus represent what had been measured in some previous studies. Although the major interest in the current study is the relation between the qualitatively different opposition forms and competence measures, it is nevertheless meaningful to examine globally measured opposition. First of all, analyzing these variables makes this study methodologically comparable to previous studies, and therefore the results can be compared. Secondly, whereas opposition strategies index the qualitative aspect of opposition, the oppositional episodes and attempts appear to indicate the quantitative aspect of opposition. The question

Table 7

Correlations Between Global Measures of Control/Opposition
and Specific Forms of Opposition

	MCE	OE	OA
Aversive Opposition	0.09	0.19	0.36*
Passive Noncompliance	0.29*	0.45*	0.27
Simple Refusal	0.04	-0.08	0.09
Negotiation	-0.28	-0.36*	-0.44**

* $p < 0.05$. ** $p < 0.01$.

MCE: Maternal Control Episodes.

OE: Total Oppositional Episodes.

OA: Total Oppositional Attempts.

of how social skills and competence are related to how much children oppose maternal demands is interesting in itself. It is important to find out how the quantity of opposition (how much) relates to social cognition and competence, and whether this relation is different from the relation between the quality of opposition (how) and social skills and competence.

Correlations between global measures of opposition and specific forms of opposition are presented in Table 7.

Both global measures of opposition are negatively related to negotiation. Additionally, oppositional episodes are positively associated with passive noncompliance, and oppositional attempts are positively linked to aversive opposition.

(4) Measures of Resolutions of Control Episodes

There are three measures assessing resolutions of control episodes: child complies at will; child is forced to comply; and mother compromises. Similar to the measurement of oppositional strategies, proportional scores were used. The means and standard deviations for control resolutions are presented in Table 8.

As indicated in Table 8, preschoolers comply at will to maternal control most of the time (83%). Mothers occasionally modify or drop initial demands and rarely force their children to comply.

In the following sections of this chapter, the

relation between global opposition variables and competence measures will be analyzed initially. Following this, how opposition strategies differentially relate to competence variables will be comprehensively assessed. Finally, the relation between opposition strategies and resolutions of control episode will be briefly discussed. The basic analytic strategies to be used will be correlation and regression procedures.

The Relation Between Global Measures of Opposition and Social Cognition and Competence

(1) Correlational Analyses. Pearson correlation coefficients between social competence variables and total oppositional episodes and attempts are presented in Table 9.

The pattern of correlations between opposition variables and the measures of social skills and competence is clear and readily interpretable. Both opposition variables correlate negatively with cognitive perspective-taking, affective perspective-taking, social problem-solving skills, and interest-participate. However, they relate positively to anger-defiance.

This pattern of correlations suggests that the more a child opposes maternal demands the more likely the child has a low level of social skills and functions poorly at a day-care setting. This negative nature of global opposition is consistent with the findings from previous

Table 8

Means and Standard Deviations for Resolutions of Control
Episodes

	Willing Compliance	Maternal Compromise	Forced Compliance
Range	0.54 -- 1.0	0.0 -- 0.41	0.0 -- 0.31
Mean	0.83	0.14	0.03
Standard Dev.	0.13	0.10	0.07

Table 9

Correlations Among Oppositional Episodes (OE), and
Oppositional Attempts (OA) with 5 Social Cognition and
Competence Measures

	OE	OA
Cognitive Perspective-Taking	-0.26	-0.23
Affective Perspective-Taking	-0.25	-0.26
Social Problem-Solving	-0.41	-0.48
Interest-Participation	-0.29	-0.24
Anger-Defiance	0.36	0.35

investigations.

(2) Regression Analysis Predicting Opposition Variables from Social Skills and Competence.

Multiple regression procedures were used to examine the extent to which the oppositional variables may be "predicted" or "explained" by social skills and competence as a group. The reader should note that regression analyses are not considered tests of causal links between these two sets of variables. Oppositional measures appear as the criteria simply because they are the a priori focus of the study.

Multivariate multiple regression (conventional multiple regression with multiple criteria) indicated a significant overall relationship between the two oppositional variables and the five social competence measures (Wilk's Lambda = 0.645, $p = 0.037$, multivariate $R = .539$). Separate univariate regression analyses were then conducted to assess the extent to which social competence measures are jointly associated with each of the opposition variables. The results are shown in Table 10.

Social competence measures as a group are linked significantly to total oppositional episodes, R^2 (adjusted) = .182, $p = .017$; and total oppositional attempts, R^2 (adjusted) = .206, $p = .010$.

In order to evaluate the unique relationship of each competence component to opposition behaviors, multiple

Table 10

Regression Analyses Predicting Oppositional Episodes (OE)
and Oppositional Attempts (OA) From 5 Social Skills and
Competence Variables

	R	R ²	R ² *	p		Beta	p (2 tail)
Criteria	Predictors						
OE	.517	.268	.182	.017	CPT	-0.22	0.14
					APT	-0.09	0.54
					SPSS	-0.20	0.26
					IP	-0.09	0.62
					AD	1.32	0.20
OA	.537	.288	.206	.010	CPT	-0.13	0.37
					APT	-0.05	0.72
					SPSS	-0.35	0.05
					IP	0.03	0.86
					AD	0.25	0.15

R²* : Adjusted R².

APT: Affective Perspective-taking.

CPT: Cognitive Perspective-taking.

SPSS: Social Problem-Solving Skills.

IP: Interest-Participation.

AD: Anger-Defiance.

Table 11

Regression Analyses Predicting Oppositional Episodes (OE)
and Oppositional Attempts (OA) From 3 Social Competence
Factors

Criterion: OE, Multiple R: 0.520, Squared Multiple R: 0.271,
 Adjusted Squared Multiple R: 0.222, $p = 0.002$

Predictor	Beta	p (2 Tail)
Factor (1)	0.35	0.009
Factor (2)	-0.30	0.025
Factor (3)	-0.25	0.052

Criterion: OA, Multiple R: 0.531, Squared Multiple R: 0.281,
 Adjusted Squared Multiple R: 0.234, $p = 0.002$

Predictor	Beta	p (2 Tail)
Factor (1)	0.32	0.016
Factor (2)	-0.36	0.007
Factor (3)	-0.23	0.074

Factor (1): Low behavioral competence in a day-care setting.

Factor (2): Social-affective aspect of social cognition.

Factor (3): Cognitive aspect of perspective-taking.

regression procedures were performed again using three independent factors (extracted from the principal-components analysis, they are the behavior competence at the day-care, social-affective aspect of social cognition, and cognitive perspective-taking). Multivariate multiple regression (Wilk's Lambda = 0.693, $p = 0.011$) indicates a significant overall relationship between the two opposition variables and the three social cognition and competence factors (multivariate $R = .538$). The results of subsequent univariate regression analyses are shown in Table 11.

Total oppositional episodes and oppositional attempts have a similar relation to social skills and competence factors in that they both significantly relate to low functioning in the day-care, low social-affective cognitive ability, and to a less extent, a low cognitive perspective-taking ability.

In sum, these findings indicate that preschoolers who more frequently opposed maternal demands evidenced more poorly developed social cognition and competence overall. This rather negative nature of globally measured opposition is supportive of previous findings.

The Relation between Opposition Strategies and Social Cognitive Skills and Competence

(1) Correlational Analyses.

Pearson correlation coefficients were calculated

between opposition strategies and social cognitive skills and competence. These correlations are presented in Table 12.

Table 12 shows that four oppositional strategies, with the exception of simple refusal, display clear relations to social skills and competence. Aversive opposition and passive noncompliance have a similar pattern in their relationship with social skills and competence measures. They correlate negatively with perspective-taking, social problem-solving skills, and interest-participation. However, they are positively linked to anger-defiance. In contrast, negotiation correlates positively with the three social cognitive skills and with interest-participation, but is negatively linked to anger-defiance. While simple refusal is positively related to interest-participation, it is negatively associated with both perspective-taking skills. In addition, the correlations between simple refusal and social competence measures are small in size compared to the other three oppositional behaviors.

The pattern of these correlations indicates that children who are more able to take others' perspectives, and to generate problem-solving solutions, and function better at a day-care setting tend to use more negotiation, less aversive opposition, and less passive noncompliance in their attempts to oppose their mothers' directives. Simple refusal seems to have a weak and ambiguous relation with social

Table 12

Correlations Between Opposition Strategies and Social Skills
and Competence

	AO	PN	SR	N
Cognitive Perspective-Taking	-0.02	-0.06	-0.07	0.10
Affective Perspective-Taking	-0.38	-0.004	-0.19	0.34
Social Problem-Solving	-0.42	-0.10	-0.17	0.41
Interest-Participation	-0.30	-0.39	0.18	0.29
Anger-Defiance	0.22	0.52**	-0.04	-0.45*

* $p < 0.05$; ** $p < 0.01$.

AO: Aversive Opposition.

PN: Passive Noncompliance.

SR: Simple Refusal.

N: Negotiation.

skills and competence.

(2) Regression Analyses Predicting Oppositional Strategies
From Social Cognitive Skills and Competence.

Multivariate multiple regression (Wilk's Lambda = 0.437, $p = 0.002$) indicates a significant overall relationship between these two groups of variables (multivariate $R = .563$). A series of univariate regression analyses were then performed with the social cognition and competence measures as predictors. The results are shown in Table 13.

Social cognition and competence measures as a group are significantly related to aversive opposition, R^2 (adjusted) = .154, $p = .03$; passive noncompliance, R^2 (adjusted) = .214, $p = .008$; and negotiation, R^2 (adjusted) = .242, $p = .004$; but not simple refusal, R^2 (adjusted) = .014, $p = .354$.

Examination of the Beta weights shows that out of 5 "predictors", only anger-defiance made an unique contribution to passive noncompliance (Beta = .454, $p = .011$) and negotiation (Beta = -.417, $p = .016$). This finding is not surprising because competence and social skills variables overlap in their correlations with opposition responses. Although Beta weights have been conventionally used to index the relative importance of each predictor in predicting criteria, in the circumstance where predictors are dependent on each other, an adequate index is not Beta

Table 13

Regression Analyses Predicting Oppositional Strategies From
5 Social Cognition and Competence Variables

	R	R ²	R ² *	p		Beta	p (2 Tail)
Criteria					Predictors		
AO	.492	.242	.154	.030	CPT	0.00	0.74
					APT	-0.25	0.12
					SPSS	-0.24	0.18
					IP	-0.15	0.44
					AD	0.04	0.84
PN	.544	.296	.214	.008	CPT	-0.12	0.39
					APT	-0.02	0.92
					SPSS	0.16	0.35
					IP	-0.18	0.33
					AD	0.46	0.01
SR	.342	.117	.014	.354	CPT	0.07	0.66
					APT	-0.13	0.46
					SPSS	-0.22	0.24
					IP	0.36	0.08
					AD	0.11	0.58
N	.567	.321	.242	.004	CPT	0.01	0.96
					APT	0.23	0.12
					SPSS	0.18	0.28
					IP	-0.07	0.70

AD	-0.42	0.02
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R²* : Adjusted R².

AO: Aversive Opposition.

PN: Passive Noncompliance.

SR: Simple Refusal.

N: Negotiation.

APT: Affective Perspective-taking.

CPT: Cognitive Perspective-taking.

SPSS: Social Problem-Solving Skills.

IP: Interest-Participation.

AD: Anger-Defiance.

weights, but rather structure coefficients.

(3) Structure Coefficients Between Oppositional Strategies and Social Cognition and Competence Variables

A structure coefficient is a correlation between a predictor and the linear combination of variables that best predicts some criterion. In other words, a structure coefficient is a factor loading, where the factor is defined by its relation to some criterion. For example, the structure coefficient between affective perspective-taking and negotiation is the correlation between affective perspective-taking and the predicted score of negotiation by all 5 social skills and competence variables. In contrast to Beta weights which indicate the unique prediction of a predictor to criterion when the effects of the other predictors have been partialled out, the structure coefficient represents the shared or common prediction of a predictor with a linear combination of all predictors including itself. Table 14 displays the structure coefficients between oppositional strategies and social cognitive skills and competence.

Please notice that structure coefficients between simple refusal and measures of social cognition and competence were not calculated due to a non-significant regression between them. Each of the other three opposition strategies has a differential relation with social skills and competence variables suggested by their structure

Table 14

Structure Coefficients Between Oppositional Strategies and
Social Cognitive Skills and Competence

	AO	PN	N
Cognitive Perspective-Taking	-0.06	-0.11	0.18
Affective Perspective-Taking	-0.81	0.01	0.61
Social Problem-Solving	-0.86	-0.17	0.74
Interest-Participation	-0.52	-0.70	0.53
Anger-Defiance	0.36	0.96	-0.78

AO: Aversive opposition.

PN: Passive noncompliance.

N: Negotiation.

coefficients. In terms of shared prediction with linear combination of all predictors, affective perspective-taking, social problem-solving skills and interest-participation are major correlates of aversive opposition; interest-participation and angry-defiance are primary correlates of passive noncompliance; and all five predictors except cognitive perspective-taking are important correlates of negotiation.

(4) Regression Analysis Predicting Oppositional Strategies From Factor Scores of Social Skills and Competence

In order to assess the independent relationship of cognitive skills and competence to oppositional forms, multiple regression procedures were again performed using three factors of social skills and competence to predict opposition strategies. Multivariate multiple regression (Wilk's Lambda = 0.445, $p = 0.000$) indicates a significant overall relation between the group of oppositional strategies and the group of social competence factors (multivariate $R = .648$). The results of the univariate regression analyses are shown in Table 15.

The three social competence factors in combination are significantly associated with aversive opposition, R^2 (adjusted) = .22, $p = .003$; passive noncompliance, R^2 (adjusted) = .211, $p = .003$; and negotiation, R^2 (adjusted) = .256, $p = .001$; but not simple refusal, R^2 (adjusted) = .033, $p = .197$.

Table 15

Regression Analysis Predicting Oppositional Strategies From
3 Social Skills and Competence Factor

Criterion: Aversive Opposition,

Multiple R: 0.519, Squared Multiple R: 0.269,

Adjusted Squared Multiple R: 0.220, $p = 0.003$

Predictor:	Beta	p (2 Tail)
Factor (1)	0.24	0.067
Factor (2)	-0.46	0.001
Factor (3)	0.03	0.805

Criterion: Passive Noncompliance,

Multiple R: 0.510, Squared Multiple R: 0.260,

Adjusted Squared Multiple R: 0.211, $p = 0.003$

Predictor:	Beta	p (2 Tail)
Factor (1)	0.50	0.000
Factor (2)	0.06	0.646
Factor (3)	-0.09	0.477

Criterion: Simple Refusal,

Multiple R: 0.313, Squared Multiple R: 0.098,

Adjusted Squared Multiple R: 0.038, $p = 0.197$

Predictor:	Beta	p (2 Tail)
Factor (1)	-0.14	0.32
Factor (2)	-0.27	0.061

Factor (3)	-0.06	0.689
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Criterion: Negotiation,

Multiple R: 0.552, Squared Multiple R: 0.305,

Adjusted Squared Multiple R: 0.259, $p = 0.001$

Predictor:	Beta	p (2 Tail)
Factor (1)	-0.37	0.005
Factor (2)	0.40	0.002
Factor (3)	0.09	0.469

Factor (1): Low behavioral competence in a day-care setting.

Factor (2): Social-affective aspect of social cognition.

Factor (3): Cognitive aspect of perspective-taking.

These results are consistent with the results of the multiple regression analyses using the five social skills and competence variables. In both cases, all four strategies except simple refusal appear to be significantly related to social skills and competence. As indicated in Table 7, the unique "predictors" for aversive opposition are Factor 1 (Beta = .240; $p = .067$) and Factor 2 (Beta = -.456; $p = .001$). The unique "predictor" for passive noncompliance is Factor 1 (Beta = .498; $p = .000$). The unique "predictors" for negotiation are Factor 1 (Beta = -.368; $p = .005$) and Factor 2 (Beta = -.402; $p = .002$).

These results demonstrate that each oppositional strategy is differentially related to social cognitive skills and competence. The use of aversive opposition is associated with low functioning at the day-care, and with low social-cognitive ability. Passive noncompliance is not correlated with poor social-cognitive ability, but rather is related to low functioning at the day-care. The use of negotiation is associated with high functioning at the day-care, and with high social cognitive ability. Finally, simple refusal has a weak and unclear relation with competence measures.

It is interesting to notice that while both Factor 1 and 2 are significantly associated with oppositional behaviors, Factor 3 (cognitive perspective-taking) has little relation to oppositional strategies.

(5) Effects of Covariates on the Relation Between
Oppositional Responses and Social Skills and Competence

Thus far, the analyses have focused on the direct relation between oppositional strategies and social competence measures without taking into consideration background information. The next part of the data analyses attempts to evaluate effects of covariates on the relation between oppositional strategies and social competence measures.

As discussed earlier, there are a total of nine background variables: age, sex, single parenting, maternal education, paternal education, family stress, only child, preterm baby, and day-care exposure. Correlations among background variables, oppositional strategies and social competence measures are shown in Table 16.

Since there are only 49 cases and a substantially large number of variables in this study, it is impossible to examine all nine background variables. Therefore, only some of them were chosen for analysis. Due to their theoretical importance and their significant association (at the bivariate level) with either oppositional strategies and/or the variables of social skills and competence, age, sex, and single parenting were selected as covariates. Although the previous literature has indicated a link between maternal education and children's opposition, maternal education was not selected for analysis. This decision is based on the

Table 16

Correlations Between Opposition Strategies, Social
Competence Variables, and Background Variables

	Age	Sex	SP	ME	PE
Aversive Opposition	0.00	-0.03	0.09	-0.26	-0.17
Passive Noncompliance	-0.21	0.26	0.22	-0.09	-0.08
Simple Refusal	-0.15	-0.39*	0.03	0.04	0.10
Negotiation	0.27	0.13	-0.22	0.19	0.07
CPT	0.53*	-0.17	0.32*	-0.23	-0.24
APT	0.35*	0.07	-0.26	0.01	0.04
Social Problem-solving	0.35*	-0.18	-0.20	-0.02	0.00
Interest-Participation	0.04	-0.26	-0.40*	0.26	0.36*
Anger-Defiance	-0.03	0.20	0.30*	-0.02	-0.08
	Family Stress	Only Child	Day-Care Exposure	Preterm	
Aversive Opposition	0.18	0.03	0.00	-0.01	
Passive Noncompliance	0.11	-0.13	-0.28	-0.06	
Simple Refusal	-0.06	0.21	0.08	0.01	
Negotiation	-0.13	-0.08	0.14	0.06	
CPT	0.25	0.26	-0.01	-0.02	
APT	-0.20	0.12	0.11	-0.09	
Social Problem-solving	-0.22	0.20	0.03	-0.22	

Interest-Participation	-0.23	0.13	0.06	-0.11
Anger-Defiance	0.21	-0.09	-0.02	-0.15

* $p < 0.05$.

SP: Single Parents.

ME: Maternal Education.

PE: Paternal Education.

CPT: Cognitive Perspective-Taking.

APT: Affective Perspective-Taking.

fact that maternal education did not show much variability and was not significantly associated with any oppositional strategies and competence measures (possibly due to sample size constraints).

Multivariate multiple regression (Wilk's Lambda = 0.248, $p = 0.004$) indicates a significant overall correlation between oppositional strategies and social competence measures plus the selected covariates: age, sex, and single parenting (multivariate $R = .674$). A series of univariate regression analyses was then performed in which age, sex, and single parenting were entered into the equation on the first step, and all five competence variables were added on the second step. The results of these univariate regression analyses are shown in Table 17.

On the first step, only simple refusal ($R^2 = .22$; $p = .010$) and negotiation ($R^2 = .178$; $p = .030$) were significantly related to age, sex, and single parenting. Further bivariate regression analyses indicated that simple refusal was significantly related to sex (adjusted $R^2 = .135$, $p = .006$). That is, girls tend to use more simple refusal than boys. However, bivariate regression analyses found no significant association between negotiation and any of these three variables.

Of particular interest is the additional variance predicted by the social competence variables, after partialing out the effects of age, sex, and single

Table 17

Regression Analysis Predicting Oppositional Strategies From
5 Social Skills and Competence Measures with Age, Sex, and
Single Parent (SP) as Covariates

Criterion and Predictor	R (Squared)	p	R (Squared) Increment	(R Squared p Increment)
AO				
First entry	.011	.918		
Second entry	.294	.056	.283	< .05
PN				
First entry	.128	.10		
Second entry	.364	.013	.236	< .05
Negotiation				
First entry	.178	.030		
Second entry	.414	.004	.236	< .05
SR				
First entry	.222	.010		
Second entry	.301	.053	.079	> .05

AO: Aversive opposition.

PN: Passive noncompliance.

SR: Simple refusal.

Variables in first entry: age, sex, and single parent.

Variables in second entry: 5 social competence measures.

parenting. The additional entry of the social competence measures after the entry of covariates resulted in significant increments in R in "predicting" aversive opposition (change in $R^2 = .283$; $p < .05$), passive noncompliance (change in $R^2 = .236$; $p < .05$), and negotiation (change in $R^2 = .236$; $p < .05$). However, The prediction of simple refusal remained essentially unchanged (change in $R^2 = .079$; $p > .05$).

These results suggest that the relation between aversive opposition, passive noncompliance, and negotiation with social cognition and competence are independent of age, sex, and single parenting. Simple refusal is not associated with competence measures, but rather related to sex of children.

The Correlations Between Opposition Strategies and Resolutions of Control Episodes

Thus far, the relation between opposition variables and social cognition and competence has been comprehensively analyzed. Although the current study is not designed to evaluate how opposition strategies associate with control resolutions, exploring whether or not opposition strategies are differentially related to resolutions will provide some valuable insights for future studies.

The correlations between opposition strategies and resolutions are presented in Table 18.

Aversive opposition is negatively related to willing compliance, but associated with maternal compromise. Passive noncompliance is negatively related to willing compliance too, however, it is linked to forced compliance. Negotiation is positively linked to willing compliance and negatively associated with forced compliance. Simple refusal is not related with opposition resolution at all. These preliminary results suggest that opposition strategies have differential consequences.

Table 18

Correlations Between Opposition Strategies and Resolutions
of Control Episodes

	Willing Compliance	Maternal Compromise	Forced Compliance
Aversive Opposition	-0.43*	0.44*	0.16
Passive Noncompliance	-0.38	0.13	0.50*
Simple Refusal	-0.05	-0.05	0.16
Negotiation	0.53*	-0.29	-0.55*

* $p < 0.05$.

CHAPTER FOUR

DISCUSSION

This study investigated the relations between preschoolers' opposition to maternal control and their social cognitive skills and social competence. The primary question addressed was whether or not specific opposition strategies were differently related to social cognition and competence. The additional question examined how the global measures of opposition were linked to social cognition and competence. In this chapter, the major findings of the study will be discussed in the context of previous research on children's opposition. The discussion will begin with findings related to the global measures of opposition, and then focus on results relevant to specific oppositional strategies. Finally, limitations of the present study and as well as suggestions for future research will be presented.

The Relation Between Global Forms of Opposition and Measures of Social Skills and Competence

The present study examined two global measures of opposition: total oppositional episodes and total oppositional attempts. Although these two variables could potentially represent global opposition in different ways, their relation to social competence measures was the same.

Both measures were positively related to problems at day-care and were negatively correlated with two perspective-taking measures and problem-solving skills. This result corroborates the typical findings from previous research, and suggests that opposition is an undesirable aspect of children's behavior.

On the surface, this finding has considerable face validity. Young children who function poorly in day-care and who are less able to appreciate another person's perspective and to generate problem-solving strategies, tend also to be more oppositional towards their mothers. This relation between the frequency of opposition and social cognitive skills and competence is consistent with Kopp's work on self-regulation. She argued that self-regulatory behaviors in children relied on the development of certain social cognitive abilities such as perspective-taking, and that frequently opposing care-takers' control reflects a low level of self-control in young children (Kopp, 1984).

While the present study replicates the findings from previous research, it extends the literature by demonstrating that the quality of opposition differs from its quantity. It was found that young children who were more oppositional (indicated by either oppositional episodes or attempts), tended also to use less negotiation, more aversive opposition and more passive noncompliance in their effort to resist maternal control. It was also found that

specific forms of opposition differed from the global measures of opposition in their relation to the measures of social cognitive skills and competence.

The Relation Between Specific Forms of Opposition and Social Cognitive Skills and Competence

It was hypothesized that each opposition strategy has an unique relation to measures of social skills and competence. Specifically, negotiation would be positively correlated with a high level of social cognition and behavioral competence; both aversive opposition and passive noncompliance (to a lesser extent) would be positively linked to a low level of social cognition and competence; and simple refusal might not be associated with social skills and competence. These hypotheses have been well supported by the data.

First, correlations between oppositional strategies and measures of social skills and competence clearly display the hypothesized pattern, suggesting that aversive opposition, passive noncompliance, simple refusal, and negotiation are distinct forms of preschoolers' opposition to maternal control. Second, the results of multiple regression analyses support the zero-order correlations and suggest that each opposition strategy has an unique relation to social cognition and competence. It was found that each strategy

was uniquely associated with social skills and competence. In addition, each strategy except simple refusal had a distinct relation to social skills and competence in terms of their shared prediction indicated by the structure coefficients. Moreover, multiple regression analyses using competence factors as predictors further separated oppositional strategies through their unique associations with social competence principle components. Negotiators appear more likely to be the children who are better at affective role-taking and social problem-solving and are more competent in their peer interaction and classroom activities at the day-care setting. In contrast, aversive opposition is more likely to be seen in the children who are less able to see other's feelings and to generate problem-solving solutions, and who are less competent in the day-care setting. Passive noncompliance is more likely employed by children who do poorly at the day-care setting, however, different from aversive opposition children, these children are not necessarily deficient in social cognitive skills. Although this findings was not predicted in the current study, it nevertheless provides insights for the future study to further differ aversive opposition from passive noncompliance. Finally, simple refusal has a weak and ambiguous relation to social cognition and competence, if any at all.

Third, the covariance analysis illustrated that after

partialling out the effect of age, sex, and single parent, variance in social skills and competence still reliably accounted for variability in oppositional strategies, indicating that the relation between these two sets of variables are independent of age, sex, and single parent. This unconfounded relation is important and is clearly a strength of the current study.

Finally, opposition strategies were found to be differentially related to resolutions of control episodes. Although the finding is preliminary and more work is needed, it provides additional evidence suggesting these opposition strategies are qualitatively different.

In summary, the unique associations between oppositional strategies and social cognition and competence remain regardless of how the data were analyzed. This study provides preliminary empirical evidence for the multidimensionality of oppositional behaviors. It suggests that opposition is not a homogeneous construct, but rather consists of a number of qualitatively different behaviors. Although further differentiation of oppositional behaviors is desirable and needed, the current study presents the first step to establish the construct validity of opposition.

The findings of the current study, by and large, correspond with the existing literature and also contribute new information in order to clarify the nature of simple

refusal. For example, Kuczynski et al. (1987) viewed negotiation as an advanced strategy, defiance (similar to aversive opposition in the current study) and passive noncompliance as unskillful strategies. Their classification is supported by the findings of the current investigation. However, the current study indicates that simple refusal is a neutral behavior in response to maternal control, which is not consistent with available evidence. For example, although Kuczynski et al. (1987) classified simple refusal as an intermediate form, their data showed that simple refusal increased with age, suggesting a positive nature to this behavior. Similarly, Crochenberg and Litman (1990) argued that simple refusal was a competent and adaptive strategy because simple refusal and other maternal and child's positive behaviors loaded on the same factor. This discrepancy with respect to the nature of simple refusal may be attributable to different ages of children being studied. The children were 1 1/2 to 5 years old in Kuczynski's study and were 2 years old in Crochenberg and Litman's study, whereas preschoolers (3 1/2 to 5 years old) took part in the current study. It is likely that saying "no" to maternal control is not functionally equivalent for children at different ages. For toddlers, "no" may be an appropriate oppositional strategy considering their limited mental ability and behavioral repertoires. For preschoolers, however, "no" may no longer be appropriate, because at this

age they should be able to use more effective, and skillful strategies given their increased mental ability. Thus, the nature of simple refusal may depend on children's developmental stage. It could be that simple refusal is a positive behavior only when children are in the early stage of developing their autonomy. It becomes a neutral behavior when children have learned more skillful ways of expressing resistance, like negotiation. Nevertheless, it cannot be ruled out that simple refusal is simply only a neutral behavior with no relation to children's age.

The present investigation illustrates several issues in the area of social development. First, it shed lights on the healthy aspect of opposition. The findings support the idea that children's opposition to maternal control does not necessarily have a dysfunctional nature, instead it can be positive if the way of expressing opposition is appropriate (e.g., negotiation). It is interesting to notice that whereas frequency of global opposition is linked to a low level of social cognition and competence, negotiation, a specific type of opposition, is related to a high level of social skills and competence. These results suggest that not only is compliance a positive sign of children's self-regulation (Kopp, 1984), but so also is skillfully resisting external control. The current finding supports the notion that compliance and healthy resistance are really opposite sides of the same coin. Adequate development

derives from balancing well these two kinds of behaviors. Negotiation in young children should be encouraged and facilitated in their social interaction.

The current study is also potentially relevant to intervention for parent-child conflict, aggressive, and aversive opposition behaviors in young children. The finding that the ability to see others' feelings and generate problem-solving strategies is related to the quality and quantity of opposition provides insights for treatment strategies. Although direct evidence for a causal link between opposition and social competence did not motivate the current study, in fact to the extent that causality can be inferred, it is probably reciprocal in nature. It is nonetheless conceivable to manipulate social cognitive skills, thereby control oppositional behavior. In other words, it is important for parents, teachers and others who work with young children to understand that unskillful opposition behaviors may reflect an inability to see others' point of view and to generate alternative problem-solving solutions. Thus, social cognitive skill training emphasizing these two aspects may prove to be effective. Although the literature has suggested a link between behavioral problems and lack of social skills, that research has primarily focused on school age children and adolescents. The current study has extended this link to a much younger age group of children.

Another finding worth mentioning is that affective perspective-taking skills were more related to opposition strategies than cognitive perspective-taking skills were. This result corroborates the finding that affective role-taking skills but not cognitive role-taking skills were correlated to the social play in preschoolers (Connolly & Doyle, 1984). In light of these findings, it may be that maturity in affective role-taking is of more importance to developing interpersonal competence such as skillful opposition strategies than maturity in cognitive role-taking. Alternatively, cognitive perspective-taking may be related to opposition but only indirectly through affective perspective-taking.

Finally, the fact that opposition strategies are differently associated with social skills and competence suggests that how preschoolers oppose their mothers' control may be used to index their social competence in the family context. While Kohn's social competence questionnaire used in the current study measures day-care related competence, how young children resist maternal directives at home represents another important aspect of their overall level of competence. However, this dimension of competence has been ignored in the literature simply because opposition as a whole has been viewed rather negatively. Therefore, competence manifested in family interaction should be examined in order to adequately study social development in

children. With necessary modification, the opposition classification in the current study may be used to index preschoolers' competence when interacting with their mothers at home. Moreover, this conceptualization and possible measurement of home-related versus school-related social competence make it possible to study the origins of social competence. More specifically, what is the impact of families as well as day-cares on the development of social competence, and how do these two major socializing agents interact with each other in the process of social development in young children?

Limitations

The findings of the current investigation should be considered in light of some limitations of the data. First, the study focused on a sample of preschoolers and their mothers who were primarily from white middle class families. The average education for mothers was 15 years with little variation. The results might differ for mother-child dyads with a broader range of social economic status.

There are also limitations regarding the external validity for the measurement of children's opposition. Although special efforts had been made in order to measure mother-child interaction as naturally as possible, the mothers might have behaved in a socially desirable way

since they knew they were videotaped. The modified maternal control behaviors might have led different responses from their children. In addition, some conflict situations in real life might not have been measured in the current study. Thus, the results may be open to situational bias. A more complete and accurate assessment of children oppositional behaviors can be attained by naturalistic observation in a real life situation.

Directions for Future Research

The present investigation has a number of implications for future research. First, in order to advance the research on children's opposition, this behavior should be conceptualized as a multidimensional construct. Its various components should be measured and examined. Continuing efforts to further differentiate oppositional behaviors is needed. For example, the current study found that passive noncompliance was not related to perspective-taking and problem-solving skills. The next logical step is to examine what social cognitive variables influence the development of passive noncompliance. Moreover, negotiation in the current study is a broad category including such behaviors as bargains and excuses. It is likely that negotiation undergoes further differentiation during later childhood. Thus, one plausible direction for future investigations is

to study the development of these differentiated negotiation strategies.

Second, while it is logical that social cognitive skills influence how preschoolers oppose maternal control, the correlations between opposition strategies and social cognitive skills do not imply causality. It is important to delineate the causal relations between these two sets of variables using a longitudinal design and to delineate the role of social cognitive mediators (e.g., affective perspective-taking skills and social problem-solving skills) in promoting the development of opposition strategies.

Another area of research that needs to be addressed is the role parents play in shaping the development of children's opposition strategies. While the current study indicates a link between opposition strategies and social skills and competence, maternal behaviors (e.g., control strategies, mood, stress level) might have a unique association with children's opposition strategies. Furthermore, parental understanding and support of children's growing need for autonomy seems to have an important impact on parental control behaviors and on how children develop cognitive skills and healthy opposition strategies. The other plausible direction for future research then is to investigate how parental behaviors, especially their attitudes toward children's autonomy, is related to their own control behaviors as well as their

children's social skills and opposition.

Compliance and opposition are complementary processes. These two seemingly opposite functions go hand in hand during development. Research is needed to examine how development in one function assists development in the other, and to elucidate the common social cognitive mediators to their development. Moreover, there is no developmental model to account for the ontogeny of oppositional behaviors, although there is evidence suggesting that opposition manifests in different forms at different developmental stages. Kopp's developmental model of self-regulation (1982) may give some insights into generating a model which explains the development of opposition.

Finally, it has been suggested that there is a close, interactive relation between social and cognitive development, and between interpersonal and intrapersonal processes. At issue is the role of parent-child conflict in the psychological development of parents and children. For example, how does conflict promote the development of social cognition and positive peer interaction in children, and how does children's opposition contribute to "socializing" parenting skills?

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APPENDIX 1

Dear Parent(s):

Studies of early childhood development are going on at the University of Victoria. The study we are currently conducting is about mother-child interaction. The goal of the study is to examine what factors (e.g., children's verbal level, temperament, and relationships with peers) may relate to children's ways of communicating with their parents. To this end, we are currently investigating mother-child interaction in children aged approximately from 3.5 to 5 years old. If you think that you may be interested in this study please send us the enclosed card. If your child is the right age for the study there is a good chance that we will be contacting you to tell you more details about the study. Only after we have explained the study to you in detail and answered any questions that you may have will we ask as to whether or not you wish to take part.

We thank you for taking the time to read this letter and hope that you and your child will want to take part in this research.

If you have any question, please feel free to call John Du at 721-8595 (Office) or 477-6976 (Home).

Sincerely,

Zhan (John) Du

Doctoral Candidate

Michael A. Hunter, Ph.D.

Associate Professor

APPENDIX 2

INFORMED CONSENT FORM

This is to certify that I, _____,
hereby agree to participate with my child as volunteers in a
scientific study as an authorized part of the educational
research program of the University of Victoria under the
supervision of John Du.

The study and my part in it have been defined and fully
explained to me by the investigator and I understand his
explanation. The procedures of this study have been
discussed in detail with me.

I have been given an opportunity to ask whatever
questions I may have had and all such questions and
inquiries have been answered to my satisfaction.

I agree to give permission for the teachers of the
day-care where my child is attending to provide the
information relevant to this research.

I understand that any data or answers to questions will
remain confidential with regard to my identity or that of my
child.

I certify that to the best of my knowledge and belief,
myself and my child have no physical illnesses or other
problems that would increase the risk to us of participation
in this study.

I FURTHER UNDERSTAND THAT I AM FREE TO WITHDRAW MY

CONSENT AND TERMINATE PARTICIPATION AT ANY TIME.

Date: _____ Signature: _____

I, the undersigned, have defined and fully explained the above to the signing parent in detail, and to my best knowledge and belief it was understood.

Date: _____ Signature: _____

APPENDIX 3

Here are the steps we would like you to follow. You will be instructed by phone about when and how to carry out these steps.

1. When arrival at the Lab, the child is free to play with toys except the forbidden items.
2. You fill out a questionnaire while your child is playing on his/her own. But, keep your eyes on the child.
3. You enlist your child's help in putting away all of the playing materials. And then, you invite your child to play a puzzle. Tell your child that a bubble gum and 2 stickers will be rewarded if he/she can put the puzzle together. Try to encourage the child to do it on his/her own, give assistance when necessary.
4. The researcher talks to you over the phone. Please feel free to cease conversation in order to interact with your child whenever necessary.
5. The child is free to play with playing materials including the previously forbidden items.
6. You enlist your child's help in putting away all of the playing materials.

Please feel free to call me at if you have any questions.

APPENDIX 4

General Information

The following information is required in order for us to be able to provide descriptive information about the characteristics of the individuals who took part in the study. This information will only be used to generate group averages; at NO TIME will you be identified individually. All information will be kept strictly confidential.

1. Marital Status: _____
2. If married/common-law; indicate the number of years that you have been living with your spouse: _____
3. Age of a) self: _____
b) child's father: _____
4. Years of education: a) self: _____
b) child's father: _____
5. Occupation (includes homemaker, primary caretaker of your children, etc.): a) self: _____
b) child's father: _____
6. Sex and age of your child's siblings: _____
7. General health of your child (list any health problems past or present): _____
Was he/she a term or pre-term baby? _____
8. Since what age has your child been involved in a day-care program of any sort? _____
9. Which day-care is your child currently attending?
_____ and give approximate

amount of time that your child spends there (e.g., 3 hrs., 3 days/week): _____ and how long has he/she been there? _____

10. Has you or your child experienced significant stress recently? ____ If yes, What was the nature of this stress?

How has your child reacted to the stress?

11. Your child's first name: _____

12. Today's date: _____

APPENDIX 5

VIDEOTAPE CONSENT FORM

Now that you have completed the study, please indicate below the way(s) in which we may use the videotape made during this study. The experimenter will explain in detail what each might consist of.

Your tape would be identified only by number. The sheet that connects your name with this number will be kept separately in a secure place. Obviously, however, videotapes are not anonymous to anyone who knows you.

I, _____, hereby give my consent to have the videotape made during this study used in the following way(s):

- _____ only for analysis by the research team (John Du, Dr. M.A. Hunter and research assistants).
- _____ for viewing by professional audiences (e.g., at psychological colloquiums, conferences, etc.).
- _____ for general demonstration purposes (e.g., at talks given to parent groups, undergraduate psychology students, etc.).
- _____ for use in future research projects where individuals like yourself would view the tapes in order to obtain their impression of the meaning of different behaviors.
- _____ all of the above.
- _____ none of the above; please erase the tape.

Signature: _____

Date: _____

APPENDIX 6

Test of Affective Perspective-taking Skill

Instruction:

1. Examiner places pictures showing child of same sex as subject in following order. Happy, Sad, Afraid and Mad.

"These are pictures of Nancy (Johnny). Can you tell me how Nancy (Johnny) feels in each picture? How does Nancy (Johnny) feel in this picture?" (Examiner points to first picture.) Examiner then circles faces child names correctly:

Happy	Sad	Afraid	Mad	None
-------	-----	--------	-----	------

2. Illustration: Examiner picks up faces and shuffles them making sure the "happy" face is not on top. Examiner lays out the faces in the new order and then places the picture for the first illustration story in front of the subject. "Show me how Nancy (Johnny) would feel if she were eating the food she liked best. Would she feel (examiner names the emotions according to the new sequence of faces). Examiner circles the face selected by the subject:

Happy	Sad	Afraid	Mad	None
-------	-----	--------	-----	------

If the subject does not select a face, the examiner places the "Happy" face on the picture saying: "Nancy (Johnny) would probably feel happy if she were eating the food she liked best."

If the subject does select a face, regardless of which one, the examiner says "Very good, why do you think Nancy (Johnny) would feel _____ if she were eating the food she

liked best ?"

"Now I am going to tell you some more stories about Nancy (Johnny) and I want you to show me how Nancy (Johnny) feels in each story. There are no right or wrong answers. All I want to know is how you think Nancy (Johnny) feels in each story."

Note: Examiner reshuffles pictures before each story and circles child's response. Instructions and procedures are the same for all stories as the following:

"Show me how Nancy (Johnny) would feel if _____. Would she feel (examiner names emotions according to sequence). Pick up the face you think and put it on the picture. Why do you think Nancy (Johnny) would feel _____?"

Stories:

1. Her mother was going to take her some place she liked to go.
2. Her mother forced her to eat something she did not like.
3. She dreamed that a tiger was chasing her.
4. She fell and hurt herself.
5. Her sister or her brother took her toys away from her.
6. She was alone in the dark.
7. Someone she liked very much had to go away.
8. She got a new toy as a gift.

Appendix 7

Examples of the Stories Regarding the Social Problem-Solving Skills

"Here is (child A in the picture) and here is (child B). A is playing with this truck and he or she has been playing with it for a long time. Now B wants a chance to play with the truck but A keeps on playing with it. What can B do or say so he or she can have a chance to play with the truck?"

Instructions for all stories are the same except for the toys child A is playing.

In addition to the truck, child A is playing a different toy in each story, such as a ball, a drum, a shovel, a balloon, a bicycle and the swing.

APPENDIX 8

Typical peer problem solutions include:

- share it or take turns;
- ask or beg;
- say please;
- wait for it;
- trade ("If you give me it, I will give you my candy.");
- loan ("I will give it right back, I will keep it for a
little while.");
- invoke authority ("tell the teacher.")

Appendix 9

Kohn Social Competence Scale

- | | | | | | |
|---|---|---|---|---|---|
| 1. Child can communicate his/her needs to the teacher. | 1 | 2 | 3 | 4 | 5 |
| 2. Child seeks adult attention by crying. | 1 | 2 | 3 | 4 | 5 |
| 3. Child seeks adult aid for each step of activity | 1 | 2 | 3 | 4 | 5 |
| 4. Child is responsible in carrying out requests and directions. | 1 | 2 | 3 | 4 | 5 |
| 5. Child seeks physical contact with teacher. | 1 | 2 | 3 | 4 | 5 |
| 6. Child adds freely (verbally) or nonverbally) to teacher's suggestions. | 1 | 2 | 3 | 4 | 5 |
| 7. Child expresses open defiance of authority. | 1 | 2 | 3 | 4 | 5 |
| 8. Child shies away and withdraws when approached by other children. | 1 | 2 | 3 | 4 | 5 |
| 9. Child responds with immediate compliance to teacher's direction. | 1 | 2 | 3 | 4 | 5 |
| 10. Child can be independent of adult in forming ideas about or planning activities. | 1 | 2 | 3 | 4 | 5 |
| 11. Child frowns, shrugs shoulder, pouts, or stamps foot when teacher makes a suggestion. | 1 | 2 | 3 | 4 | 5 |
| 12. Child can be independent of adult in | | | | | |

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| overcoming difficulties with other children or activities. | 1 | 2 | 3 | 4 | 5 |
| 13. Excessive praise and encouragement from teacher is required for child to participate in activities. | 1 | 2 | 3 | 4 | 5 |
| 14. Other children seem unwilling to play with this child. | 1 | 2 | 3 | 4 | 5 |
| 15. Child is unwilling to carry out reasonable suggestions from teacher even when having difficulty. | 1 | 2 | 3 | 4 | 5 |
| 16. Child feels comfortable enough with other children to be able to express his/her own desires or opinions. | 1 | 2 | 3 | 4 | 5 |
| 17. Child hits teacher. | 1 | 2 | 3 | 4 | 5 |
| 18. Child is fearful in approaching other children. | 1 | 2 | 3 | 4 | 5 |
| 19. Child can accept teacher's ideas and suggestions for play or ways of playing. | 1 | 2 | 3 | 4 | 5 |
| 20. Child gets willing cooperation from most other children. | 1 | 2 | 3 | 4 | 5 |
| 21. Child gives the appearance of complying with teacher's suggestion but does not do activity. | 1 | 2 | 3 | 4 | 5 |
| 22. Child is bossed and dominated by other children. | 1 | 2 | 3 | 4 | 5 |

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| 23. Child's ideas have impact on many children in the classroom. | 1 | 2 | 3 | 4 | 5 |
| 24. Child rebels physically, for example, hits or kicks. | 1 | 2 | 3 | 4 | 5 |
| 25. Child easily gets attention of other children. | 1 | 2 | 3 | 4 | 5 |
| 26. Child has difficulty defending his/her own rights with other children. | 1 | 2 | 3 | 4 | 5 |
| 27. Child cooperates with rules and regulations. | 1 | 2 | 3 | 4 | 5 |
| 28. Child dawdles when required to do something. | 1 | 2 | 3 | 4 | 5 |
| 29. In play with other children, child can shift between leading and following depending on situation. | 1 | 2 | 3 | 4 | 5 |
| 30. Child reacts negatively to teacher's ideas and suggestion for play or activities. | 1 | 2 | 3 | 4 | 5 |
| 31. Child is unable to occupy himself/herself without other children directing his/her activities. | 1 | 2 | 3 | 4 | 5 |
| 32. Child is willing to turn to other children for help and assistance. | 1 | 2 | 3 | 4 | 5 |
| 33. Child actively defies the teacher's rules and regulations. | 1 | 2 | 3 | 4 | 5 |
| 34. Child can give ideas to other | | | | | |

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| children as well as accept their ideas. | 1 | 2 | 3 | 4 | 5 |
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35. When changing from one activity to another, child resists entering the new activity.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
36. Child seems to enjoy playing both with others and by himself/herself.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
37. Child easily makes the change from one activity to the next.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
38. Child appears at a loss in unstructured, free-play activities.
- | | | | | | |
|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
39. Child is hostile or aggressive with other children, for example, pushes, taunts, or bullies.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
40. Other children copy this child's ideas for play.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
41. Child has to be a leader to participate in activities with other children.
- | | | | | | |
|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
42. Child participates in a half-hearted way.
- | | | | | | |
|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
43. Child takes possession of other children's equipment without their permission.
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|--|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
44. Child demonstrates little interest in materials, objects, or activities.
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| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
45. Child is open to the ideas and

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|--|---|---|---|---|---|
| suggestions of other children. | 1 | 2 | 3 | 4 | 5 |
| 46. Child is responsible in following
through on routines, for example,
washing hands, cleaning up, or
putting toys away. | 1 | 2 | 3 | 4 | 5 |
| 47. Child is quarrelsome. | 1 | 2 | 3 | 4 | 5 |
| 48. Child seems eager to try new things. | 1 | 2 | 3 | 4 | 5 |
| 49. Child is bossy and dominating with
other children. | 1 | 2 | 3 | 4 | 5 |
| 50. Child spends time sitting, looking, or
wandering aimlessly around. | 1 | 2 | 3 | 4 | 5 |
| 51. Child can remain alert and interested in
an activities. | 1 | 2 | 3 | 4 | 5 |
| 52. Child prevents other children from
carrying out routines. | 1 | 2 | 3 | 4 | 5 |
| 53. Child succeeds in getting others
interested in what he/she is doing. | 1 | 2 | 3 | 4 | 5 |
| 54. Child puts things away carefully. | 1 | 2 | 3 | 4 | 5 |
| 55. Child shows interest in only a few
types of things. | 1 | 2 | 3 | 4 | 5 |
| 56. Child is unwilling to play with other
children except on his/her own terms. | 1 | 2 | 3 | 4 | 5 |
| 57. Child responds will when the activity is
planned or directed by the teacher. | 1 | 2 | 3 | 4 | 5 |
| 58. Child disrupts activities of others. | 1 | 2 | 3 | 4 | 5 |
| 59. Child easily loses interest and flits | | | | | |

from one activity to another.	1	2	3	4	5
60. Child can participate actively in structured activities as well as free-play activities.	1	2	3	4	5
61. Child easily gives up when confronted with a difficulty.	1	2	3	4	5
62. Child shows enthusiasm about work or play.	1	2	3	4	5
63. Child has trouble keeping to the rules of the game.	1	2	3	4	5
64. Child resists going along with the ideas of other children.	1	2	3	4	5

1: Hardly Ever/never.

2: Seldom.

3: Sometimes.

4: often.

5: Very often/Always.