

THE EFFECT OF NURTURANCE AND VERBOSITY  
ON CHILD COMPLIANCE IN A  
PROACTIVE SITUATION

By

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## CHAPTER I

### OVERVIEW

When managing child noncompliance, parents can employ a variety of techniques ranging from ignoring the child to providing long rationales. One of the most frequently employed techniques is the use of verbal reprimands. Reprimands can vary in length from being short and firm to very lengthy verbalizations. Research regarding the effectiveness of reprimands has been disputed. Some research shows that short, firm, and immediate reprimands are more effective in gaining child compliance, whereas other researchers believe that reasoning or longer reprimands may be more effective. Numerous studies have found that reprimands with rationales were effective in gaining child compliance (Holden, 1983; Lytton & Zwirner, 1975; & Kuczynski, 1984). In these studies, reasons were given with no control over the length of reprimands and reasons. These studies confounded length with reasoning, making it difficult to determine if it is the content of the reprimands or the level of engagement created by longer verbalizations. However, few studies have controlled for length when examining the effectiveness of reprimands. Pfiffner and O'Leary (1989) was one of the first studies to control for length with reprimands being classified as being short, medium, or long. Results showed that short, immediate, and firm reprimands facilitated child compliance as compared to long, delayed and gentle. However, from this study, it is undeterminable whether immediacy of the

of the reprimands facilitated compliance, the tone facilitated compliance, the short length facilitated compliance, or some combination of these factors. In addition, most studies examining the effectiveness of reprimands have been conducted either utilizing prohibitive situations or situations which are uncontrolled. Studies consisting of controlled, proactive situations are lacking.

One parental factor which enhances the effectiveness of verbal reprimands is nurturance. Nurturance has been defined as maternal affection, interactional statements, encouragement, and statements of approval. Predominantly, nurturance consists of interactional statements coupled with praise. However, a positive correlation between praise and child compliance has been documented in a previous study (Nichols-Anderson, Sullivan, Perry, & Munn, 1997). Therefore, in this study, it is unknown if improved child compliance was due to praise alone or due to the effectiveness of the reprimands. The present paper addressed the role nurturance and length play in gaining child compliance in a controlled setting. First, literature addressing parenting techniques and child compliance is presented. This portion of the paper contains definitions used to describe compliance, the importance of developmental compliance, and an examination of numerous parenting techniques, predominantly verbal reprimands. Next, outside factors which influence the effectiveness of reprimands, such as timing and length are presented. The remainder of the paper focuses on the current investigation of the effects of nurturance and verbosity on child compliance in a proactive situation. The results of the study are presented, followed by a discussion of the implications. Lastly, the need for future research is discussed and possible directions are provided.

## CHAPTER II

### INTRODUCTION

Child compliance has been defined in many ways. Initiated compliance is defined as the presence of an observable cue, reflecting the beginning of compliance within 5 seconds of the termination of the maternal command (Davies, McMahon, Flessati, & Tiedman, 1984). Compliance can also be seen as obedience to a parental directive, reparation of misdeeds, or an attempt to regain parental affection (Chapman & Zahn-Waxler, 1982). Others have defined compliance as the termination of a misbehavior for 20 seconds immediately following a maternal response (Holden, 1983). Kochanska and Aksan (1995) categorize compliance into two types, wholehearted or situational. Wholehearted compliance occurs when the child complies due to a feeling of internal commitment, fully recognizing the maternal agenda as his or her own. Situational compliance, on the other hand, occurs when the child is cooperative and nonoppositional with the parent, but lacks a sincere commitment. The type of compliance which a child initiates indicates the child's motivational level of either wanting to accept or reject the parent's requests. It is also possible to define noncompliance in different ways. For example, a child may fail to comply with parental requests by simply ignoring the request, such as continuing to play with the toys rather than picking them up. On the other hand, a child may defy the request by saying, "No," or tantruming. These behaviors may be more



active forms of noncompliance. Thus, looking at the multiple definitions of compliance, researchers are interested in not only the amount of time it takes for a child to achieve a desired behavior, but also what techniques and situations facilitate the act of child compliance.

As part of normal development, children begin to assert their autonomy and independence from their caregivers during the toddler years. This autonomy can sometimes be seen in the form of noncompliance. Noncompliance can be defined as a coercive response maintained by a parent's unskillful management of his or her child's behavior (Patterson, 1982). Although children going through normal development display high levels of noncompliance, noncompliance is a prevalent problem for most parents, especially at the age of the "terrible twos." Studies by Lytton and Zwirner (1975) and by Minton, Kagan, and Levine (1971) found that parents will engage in disciplinary situations in the home with their toddler children at a rate of once every 3 to 9 minutes. While outside the home, parents may encounter more frequent undesirable behavior, such as once every .8 minutes in a supermarket (Holden, 1983). It appears that parents will encounter disciplinary acts with their children quite often both inside and outside the home. Thus, if continued noncompliance is partly due to unskillful parental management of child behavior, this would indicate that compliance can be achieved if a parent knows what disciplinary techniques are effective in successful management of child behavior.

As stated above, noncompliance is part of a child's normal development. However, if high levels of noncompliance are present for an extended period of time, it can have detrimental effects on the child. Noncompliance is a pervasive problem among children referred to psychological clinics (Forehand, 1977). If a parent cannot adequately

manage his/her child, this may influence not only the parent's self-esteem, but also increase the tendency the child will require more control later (Holden, 1983). The child can also experience long-term effects due to the parent's perceptions of the behavior and the disciplinary techniques used to deal with the behaviors (Fagot, 1984). Long-term effects of noncompliance on children can include coercive family interactions, poor peer relationships, and poor academic problems (Patterson, DeBaryshe, & Ramsey 1989). Thus, it seems that parents would want high levels of compliance to prevent the possibility of these long-term effects.

Research has indicated that certain parental disciplinary techniques decrease noncompliant behavior in a child whereas others enhance compliant behavior. Green, Forehand, and McMahon (1979) studied 20 mother and child dyads when the children were between the ages of 3.9 and 8.3 years. Half of the children were classified as clinically deviant, and the other half were classified as normal. During the study, the mother and child were observed in a playroom where the mother was instructed to make the child look compliant and noncompliant upon command. It was found that both deviant and normal group mothers could manipulate compliance or noncompliance in the children by changing the antecedents and consequences of the child's behavior. More specifically, if mothers wanted noncompliance, the mothers used poor commands or stop commands. Poor commands were classified as being commands in which compliance is difficult or impossible to achieve, such as making requests which the child is not able to do due to his or her age or level of development. Stop commands were commands which were intended to inhibit the behavior or prevent a behavior from occurring. When mothers wanted compliant behavior, more suggestions or questions were used to induce

obedience. Thus, it is apparent that the use of certain parental techniques may either increase or decrease the level of compliance seen in children.

In conclusion, the above findings show that noncompliance is 1) a normal developmental stage, 2) due at least partly to unskillful management of child behavior, 3) has long-term effects on the child, and 4) can be decreased by certain parental techniques. Thus, in the following section, the effectiveness of various parenting techniques in facilitating child compliance will be examined. The most widely used parenting technique of reprimands will also be examined, with a focus on the controversy over the role of length in gaining child compliance.

### Parameters of Parenting

Extensive research examining the effectiveness of different parenting techniques had found that different techniques have different effects on child compliance. Techniques such as verbal reprimands, distraction, and social construction of situations are effective ways of controlling child compliance, whereas in certain situations, ignoring a child and power assertion are not effective means of controlling child compliance.

One ineffective parental technique is the act of ignoring a child. When parents ignore children, they withhold attention in the hope that the misbehaviors will cease. This may be effective in some situations in which the misbehavior is attention-seeking or parental attention has been acting as secondary reinforcement. In other situations, however, ignoring is ineffective. In his supermarket study, Holden (1983) found that parents who ignored their children had less compliance than those who used other proactive techniques such as diverting the child's attention or engaging the child in an

alternative activity. Davies, McMahon, Flessati, and Tiedman (1984) studied the effectiveness of two behavioral techniques, verbal rationales and/or modeling, with 80 mothers and their children aged 36 to 54 months and 66 to 90 months. The dyads were observed in a laboratory playroom where the mothers issued 20 commands to their children. The mothers were also taught to ignore the children following noncompliance to the maternal command. The mothers were assigned to one of four conditions: ignore, ignore plus rationale, ignore plus rationale plus modeling, or control. In all four conditions, mothers were taught to engage their children in conversation prior to the first command. After the first command, mothers in the control group would do nothing, while mothers in the other groups would either model or ignore their children. It was found that children in the ignore category initiated compliance less than children in the other conditions of modeling and rationale. Interesting enough, no difference was found in the level of compliance between children in the ignore condition and in the control condition. This indicates that ignoring the child is not better at gaining child compliance than no technique at all. Research indicates that ignoring is an ineffective technique in trying to gain child compliance but only in situations where the misbehavior is not attention-seeking.

Power assertive techniques appear to be ineffective in controlling child misbehavior. Power assertive techniques are referred to as any negative control consisting of verbal threats, physical interventions, or the use of anger. A study by Crockenberg and Litman (1990) examined parenting both in a home and laboratory setting with 95 mothers and their 2 1/2-year-old children. They examined maternal control strategies in relation to child autonomy. This was done by measuring children's defiant, compliant, and self-

assertive behavior. It was found that power assertion in the form of negative controls such as threats, physical intervention and anger were associated with more defiance in both settings. Other studies have also found that defiant behavior was associated with highly power assertive parental control strategies such as anger, harshness, or excessive control, particularly physical intervention (Crockenberg, 1987, cited in Crockenberg & Litman, 1990; Kuczynski, 1984, Lytton, 1980, cited in Crockenberg & Litman, 1990). A study conducted by Lytton and Zwirner (1975) of 136, 2 1/2-year-old male twins and singletons was conducted in a home setting in order to examine parental antecedents of child compliance. It was found that physical control (slap, physical restraint, or restriction) and negative action (expression of criticism, threat, or displeasure) facilitated noncompliance more than compliance. Compliance was facilitated by positive action (expressions of love or approval) and neutral action (neutral speech). Lytton (1979) also found that physical control decreased the effectiveness of commands when added to simple commands. Thus, the above studies show that power assertive techniques increase child noncompliance and, when paired with commands, may decrease the effectiveness of commands.

As shown above, ignoring a child and power assertion are two techniques which inhibit child compliance. However, many other parenting techniques facilitate child compliance. One such parenting technique is divergence of attention. Holden (1983) studied 24 middle class mothers and their 2 1/2-year-old children in a naturalistic setting at the grocery store. He found that mothers who used proactive controls, such as divergence of attention or the use of alternative objects, had children who exhibited fewer undesired behaviors while in the supermarket. The most effective strategy used by mothers in the

study was the divergence of the child's attention from possible problem objects. Reid, O'Leary, and Wolff (1994) conducted a study of 20 mothers and their 17- to 39-month-old-children. The dyads were observed in a laboratory setting where the mothers used either distraction then reprimands or reprimands followed by distraction in response to the child's misbehavior. It was found that overall, distractions were not as effective in suppressing misbehavior when compared to reprimands. However, the effectiveness of distraction was enhanced following a reprimand as compared to when it preceded reprimands. Also, children displayed more negative affect when they were distracted first and then reprimanded. Thus, distraction is an effective parenting technique which achieves higher rates of compliance and less negative affect by the child.

Another effective technique which parents use is the social construction of situations with their children. The study mentioned above by Davies, et al. (1984) examined the effectiveness of two behavioral parenting techniques, verbal rationales and/or modeling. It was found that children in the modeling and rationale groups were more compliant than children in the ignoring and control groups. Also, increased maternal satisfaction was reported with these two procedures, and children understood the contingencies better in these two groups than in the other two. It appears that modeling or social construction is a successful technique. However, because no differences were found between the rationale and rationale plus modeling conditions, modeling did not improve compliance beyond the improvement brought on by the reprimand. This supports the conclusion that even though modeling improved compliance rates with reprimand, modeling alone was not enough to cause improved compliance beyond the use of a reprimand.

The most effective parental technique which parents typically employ is verbal reprimands. The effectiveness of reprimands has been highly studied. The results pertaining to the effectiveness of reprimands will be explored in further detail in a later section.

### Outside Factors Which Affect Efficacy

#### Educational Levels

Even though reprimands seem to be the most effective in gaining compliance as compared to other parental techniques, other outside factors may enhance or decrease the effectiveness of reprimands. For example, educational levels of mothers have an indirect effect on the use of reprimands. A study of 90 children ages 18, 27, and 31 months were observed in both a lab setting and a home setting (Minton, Kagan, & Levine, 1971) During these times, mothers' reactions to their children's violations of their standards were recorded. It was found that a mother's education was a good predictor of the likelihood she would be intrusive and authoritarian. Children voluntarily obeyed maternal prohibitions 43% of the time and were forced to obey 18% of the time. Mothers with a high school education perceived their children's behaviors as being more noncompliant, prohibiting twice as much as mothers who had attended college. Mothers with a high school education also reprimanded more for petty annoyances, making them more intrusive into the life of the child than mothers who had attended college. Since children are fairly obedient, voluntarily obeying maternal prohibitions 43% of the time, it would appear that a mother's education level influences her perception of whether or not her

child is being compliant. Thus, less educated mothers may perceive their children's behavior as symbolizing noncompliance whereas more educated mothers may perceive their children's behavior as an assertion of autonomy which has a direct effect on the level of punishment.

### Parental Reactions

Parental reaction patterns have an indirect effect on child compliance. Fagot (1984) conducted a study of 300 children aged 18 to 27 months as they entered peer play groups. The child's behavior was observed along with the reaction of peers and caregivers. It was found that the pattern of reactions that children received from their caregivers and peers coincided with the maintenance of problem behaviors. More specifically, behaviors which are attended to are maintained, and those behaviors which are ignored tend to decrease or terminate. Knowing this, if parents attend to noncompliance more than compliance, they should expect their children to exhibit more noncompliant behavior than compliant behavior.

### Time to Comply

Another factor which parents need to consider is the amount of time given to allow the child to comply to the reprimand. Forehand, Gardner, and Roberts (1978) conducted a laboratory study of 32 nonclinic mother-child pairs. The mother was instructed to give 16 different commands to her child every 30 seconds. They found that children complied 50% of the time to the maternal commands. However, 35% of the time, the mother interrupted the child before the child could comply to the commands. When these



interruptions were removed, allowing the child time to comply, child noncompliance was at a low rate of 14%. These findings indicate that high noncompliance rates may be caused by mothers not giving their children time to comply. As previously mentioned, Minton, Kagan, and Levine's study (1971) found that mothers with a high school education prohibited twice as frequently as those who had attended college. Mothers with a high school education reprimanded their children at least once every five minutes, instead of once every six to eight minutes. From this study, it appears that a child may not be "noncompliant." Instead, the child may not have been given enough time to comply to the given wishes.

#### Level of Nurturance

The three factors discussed above can have negative effects on the effectiveness of reprimands in controlling child compliance; however, nurturance is one factor which facilitates the effectiveness of reprimands in gaining compliance. Piffner and O'Leary (1989) conducted a laboratory study of 40 mothers and their 18- to 31-month-old children. In this study, nurturance was defined as engaging the child in active play, using encouragement, showing physical affection, or issuing positive feedback. It was found that in a free play situation, children in the high nurturant conditions played a significantly greater percentage of the time than children in the low nurturant conditions where the mother was engaged in completing a questionnaire. However, there was more negative affect in the high nurturant immediate, short, firm reprimand condition as compared to high nurturant delayed, long, gentle reprimand condition. This finding may be due to the

fact that if in a nurturant condition, children may find the immediate, short, firm command to be more aversive than if they were in a low nurturant condition.

Other researchers have considered level of interaction and amount of affection as indicators of nurturance. Lytton and Zwirner's study (1975) of 136, 2 1/2-year-olds found that positive actions (hugging, smiling, playing with child) and neutral controls (neutral speech or regular maternal behaviors) facilitated compliance more than noncompliance. Also, Lytton (1979) found that positive action defined as expressions of love or approval, hugging, and smiling boosted the effects of command-prohibitions or compliance, but decreased noncompliance.

Finally, other studies defined nurturance by the level of responsiveness which parents give to their children. Stayton, Hogan, and Ainsworth (1971) conducted a study of 25, 1-year-old infants and their mothers. The pairs were observed at three-week intervals for four hours in their homes. Mothers were rated on scales of sensitivity-insensitivity, acceptance-rejection, and cooperation-interference. They found that early obedience was related to the sensitivity of maternal responsiveness to infant signals. This means that children whose mothers were more sensitive, accepting, and cooperative had greater compliance to commands than those whose mothers were insensitive, rejecting, or interfering. Parpal and Maccoby (1985) examined 39 children aged 2 to 4 years in order to see the effect of three kinds of mother-child interaction on child compliance. Mothers and children were classified into one of the following: responsive play where the mother engaged in activity with the child and complied with the child's behavior, free play where the mother was to play with the child like she did at home, and noninteractive where the mother sat at a table filling out questionnaires. They found that children in the responsive

play condition had higher child compliance than children in the other two groups. This could be due to the higher levels of warmth, nurturance, and maternal responsiveness. Therefore, nurturance in the forms of affection and interaction facilitates the effectiveness of reprimands.

### Verbal Reprimands

Reprimands can be given in the form of commands, rationales, or explanations. Many parents use commands of “do” or “don’t” in order to try to end the child’s misbehavior. Kochanska and Aksan (1995) conducted a study of 103 toddlers aged 26 to 41 months. They were observed in both a lab setting and in a home setting. “Do” statements require compliance to perform an active task, such as putting toys away. “Don’t” statements are those that require the child to refrain from a prohibited behavior such as not touching an attractive toy. They found that maternal “dos” were more challenging than “don’ts.” Children put the toys away less often when the mothers suggested the topic with a “do” statement than if the mothers started out prohibiting the child with a “don’t” statement. This suggests that more noncompliance would occur with a direct increase in maternal “dos.” Also, if both mother and child had positive affect, then it was more likely that the child would internalize the correct behavior more easily, meaning that the child would perform certain tasks without the mother present to guide the child’s behavior. Based on the findings from this study, mothers need to use more positive affect and use more “don’ts” if they want high compliance levels with their children.

As mentioned above, the study by Green et al. (1979) was conducted with 20 mother-child pairs with the children between the ages of 3.9 and 8.3 years of age. Ten of the pairs were classified as nonclinic, and ten pairs were classified as deviant. It was found that poor or vague commands intended to inhibit behavior increased noncompliance when compared to mothers who utilized suggestions or question commands which increased compliance. Pfiffner and O'Leary (1989) conducted a laboratory study of 40 children aged 19 to 31 months where they found that immediate, short, and firm reprimands were better than delayed, long, and gentle reprimands in initiating child compliance, but were associated with increased negative affect when under high nurturant conditions. Thus, the above two studies point out that short, firm, immediate reprimands are more effective as compared to poor reprimands which tend to be delayed and long; this could be caused by lack of clarity.

### Timing and Length of Verbal Reprimands

#### Timing of Reprimands

The effectiveness of reprimands can be either facilitated or inhibited indirectly by outside factors mentioned above. Even though reprimands are effective at gaining child compliance, the timing and length of these reprimands are crucial aspects in keeping a high efficacy level. Pfiffner and O'Leary (1989), in a lab study of 40 children aged 18 to 31 months found that immediate, short, firm reprimands are better than delayed, long, and gentle reprimands at controlling children's behavior. Thus, if reprimands pertaining to the situation are given directly after the misbehavior, a parent should be more successful at

controlling his/her child's behavior than if the parent had given a delayed, long reprimand. Also, a study done by Schaffer and Crook (1980) observed 24, 15- to 24-month-old children with their mothers in a directed play situation. During this time, the children were prompted by the mothers to play with all the toys. They found that maternal controls which directly followed a series of behaviors or actively involved a child in a task were more successful at changing behavior than if the control came out of the blue. This alludes to the fact that if parents want to change a behavior, they need to set up the situation, not waiting to reprimand the child at a later time. In conclusion, if parents want to effectively control their child's behavior, they need to give short, immediate reprimands rather than giving long reprimands later.

#### Amount of Reasoning

Not only is timing an important factor when issuing a reprimand, so is the amount of reasoning. Holden (1984) in his naturalistic supermarket study of 24 mothers and their 2 1/2-year-old children found that mothers most often used power assertion with reason (70% of the time). Children terminated their requests for objects or gross motor behaviors 68% of the time when mothers used reasoning compared, to 24% of the time when mothers did not respond, to 26% when mothers acknowledged the child's wish. This study suggests that reasoning or longer reprimands or power assertion with reasoning are effective in gaining compliance, especially when compared to power assertion alone, consent, or acknowledgment. Kuczynski (1984) conducted a naturalistic lab study of 64 mother-child dyads with children 4 years of age where he examined the socialization goals of the mothers. He found that mothers who wanted long-term compliance used longer

reprimands and different kinds of explanations than mothers wanting short-term behavior. Children in the long-term condition were more compliant and less negativistic than children in the short-term condition. Reasoning in the long term condition increased child compliance more effectively than techniques such as power assertions. This could be due to the fact that mothers tended to use reasoning more often in a more nurturant way to reach long-term compliance than mothers in the short-term compliance group. Davies et al. (1984) studied 40 children in two age groups, ranging from 3 to 4 1/2 years and 5 1/2 to 7 years and their mothers. They found that children who received rationales or rationales with modeling were more compliant than children being ignored or unpunished. Lytton and Zvirner (1975) found that in a naturalistic study of 46, 25- to 35-month-old children, compliance was highest with the use of suggestion and decreased with the use of commands and reasoning. Physical control (defined as physical restraints or restrictions) and negative actions (expressions of displeasure or criticism, threat, or refusal) facilitate noncompliance, unlike positive and neutral actions. Clark (1996) examined 33 mothers and their children aged 18- to 30-months in a laboratory setting in order to see the effects of reasoning and nurturance on child compliance both in the mother's presence and absence. She found that children in the reasoning condition did not differ from children in the no reasoning condition in rates of appropriate play, touch of forbidden objects, or in the amount of leaving the area. This indicates that use of reasoning as a verbal discipline strategy does not affect child compliance. Thus, some studies show that noncompliance is not related to reasoning, whereas other studies show that reasoning is an effective technique for gaining compliance if a mother wants long-term compliance. However, most studies indicate that noncompliance is facilitated by reasoning.

### Length of Reprimands

The reasoning studies described above did not control the length of the reprimands or the amount of reasoning. This makes it difficult to determine what factor is increasing child compliance. By not controlling for length, researchers cannot determine if it is content of the reasoning which inhibits compliance or the level of engagement created by longer reprimands which facilitate compliance. Few studies have controlled the length of reprimands when examining the effects of child compliance. One of the first studies to control for length was the study by Pfiffner and O'Leary (1989). They conducted a laboratory study of 40 children aged 18 to 31 months. Mothers gave reprimands which were controlled in length, ranging from short to medium to long. They found that immediate, short, firm reprimands were superior to delayed, long, gentle reprimands in not only controlling misbehavior, but also in decreasing the likelihood of transgressions. A negative consequence of using short, firm, and immediate reprimands is that these reprimands were associated with more negative affect in the child, if the mothers were engaged in highly nurturant interactions with the child. When the nurturance level was low, there was not as much negative affect, suggesting that nurturant mothers may be reinforcing their own child's negative affect. Results from this study suggest that length of reprimands plays a role on child compliance. However, it is difficult to determine whether it was the length, the immediacy, or tone of voice used which facilitated or inhibited the compliance levels.

In conclusion, the length of verbal reprimands in relation to their effectiveness is disputable. Some research suggests that longer reprimands are more effective, whereas

others suggest that short, immediate, and firm reprimands are the best. However, in most studies, length was not manipulated. Therefore, it is unknown whether it is the length of the reprimand which facilitates compliance, the content of the rationales that facilitate compliance, or the immediacy of the reprimand which facilitates compliance.

As one can see, many studies have been conducted in order to study the effectiveness of parenting techniques such as reprimands in reaching young child compliance. Length of reprimands appears to be an important factor, but more research is needed to clarify its exact role in disciplinary encounters. One other source of support for the negative effects of lengthy discipline encounters comes from a questionnaire to assess parenting. The Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993) was designed to assess dysfunctional parenting. This scale contains a verbosity factor which looks at the length of the verbal response and the parent's reliance on talking. Verbosity scale factor scores were significantly related to levels of child misbehavior as reported by mothers on the Child Behavior Checklist (Achenbach, 1992). Verbosity scores were significantly correlated with the observed maternal behaviors and disciplinary mistakes. However, verbosity scores were not found to be associated with high levels of observed child misbehavior. Thus, it is known that verbosity is related to maternal behaviors; however, it is unknown what role length of the reprimands has on child compliance.

Two previous pilot studies were designed to specifically address the role of verbosity in child compliance. One pilot study by Sullivan, Nichols-Anderson, Perry, Blundell, and Munn (1997) examined 66 mothers and their children aged 24 to 59 months in order to see the effect that maternal verbosity has on child compliance in a toy-clean-up task. In this study, maternal verbosity was regarded as any verbalizations given by the



mother to the child. Content of the verbalization was not distinguished. It was found that the observed maternal verbosity was not related to picking up the toys, toy contact, or to child noncompliance. Observed verbosity was not related to the mothers' scores on the verbosity factor of the Parenting Scale. However, verbosity was related to negative affect. Thus, this study showed that maternal verbosity was not related to child compliance. However, it cannot be determined if content of the verbalizations played a role in these findings since verbalizations contained more than just reprimands.

On the other hand, another pilot study examined the length of reprimands as self-reported on the Parenting Scale versus the observed length of the mother's reprimands in the laboratory setting. Blundell (1997) examined twenty-six mothers and their 24- to 59-month-old children in a laboratory study consisting of a toy-clean-up task. It was found that scores on the verbosity scale were significantly correlated with the average amount of words spoken per stream, the average amount of time per stream, the maximum number of words spoken, and the maximum amount of time spent speaking. The study indicated that observed maternal behavior was consistent with the mothers' self-reports on the Parenting Scale. This supports the validity of the verbosity factor. The dispute regarding length in relation to the effect of reprimands is disputable. The Verbosity Scale of the Parenting Scale suggests that length plays a role in child noncompliance, whereas observed maternal verbosity is not related to compliance. These results were obtained in prohibitive situations. Therefore, it is unknown whether or not these same inconsistencies would exist when looking at the effects of verbosity in other proactive situations.

## Current Investigation

The present study had two primary goals. The first goal was to examine the effects of nurturance on young child compliance. Participants engaged in a toy clean-up task in high versus low nurturant conditions. In past studies, nurturance was defined as engagement of the child in conversation, praise, physical affection, smiling, and other displays of positive affect of the mother to the child. Nurturance in this study included behaviors in which the mother engaged the child in conversation, used positive tone of voice, and displayed pleasant expressions. However, praise was not considered in the definition of nurturance and was held constant in this study. Nichols-Anderson, Sullivan, Perry, and Munn (1997) found a positive correlation between praise and picking up appropriately. Therefore, praise was held constant to ensure that the differences in child behavior were not due to the amount of praise, but instead due to the effects of the reprimands and other dimensions of nurturance. By manipulating nurturance, this allowed for analysis of the effect that nurturance had in regard to child compliance in a proactive task.

The second goal was to compare the effect of verbosity of verbal reprimands and directives on compliance and noncompliance (active vs. passive) in toddlers. Verbosity may have a negative effect on child compliance in prohibitive tasks. However, it is unclear if verbosity has this effect on child compliance in proactive tasks. The present study had its participants engage in a proactive toy clean-up task where they were in one of two conditions, high levels of reprimands and directives compared to low levels of reprimands and directives. This determined the effect of amount of reprimands and directives on

initiating compliance. Praise, physical prompts, and modeling were held constant across all conditions.

A 2 (high vs low nurturance) X 2 (high vs low verbosity) between-groups design was used. The independent variables were the level of nurturance (high vs low) and level of verbosity (number of reprimands/directives). The dependent variables were observed child behaviors including: picking up appropriately (compliance), toy contact (passive noncompliance), leaving the area (active noncompliance), solicitation for attention, and negative affect.

It was hypothesized that children who were in high nurturant conditions would display more compliance and less noncompliance (active and passive) than children in low nurturant conditions. The second hypothesis was that children in the high verbosity condition would display more noncompliance (active and passive) and less compliance than children in the low verbosity condition. Finally, an interaction effect was hypothesized. It is hypothesized that children who were in highly nurturant conditions with low verbosity would display more compliance and less noncompliance (active and passive) than children in low nurturant conditions with high verbosity. Children in the high nurturant condition with high verbosity would display more compliant and less noncompliance (active and passive) than children in the low nurturant condition with low verbosity.

## CHAPTER III

### METHODOLOGY

#### Participants

Fifty mothers and their children, aged 18 to 30 months, served as participants. Participants were recruited from day-care centers, newspaper advertisements, birth announcements from the local newspaper, and flyers posted on campus and in the community. Nine mothers were dropped because the mothers could not follow the cued instructions, and two mothers were dropped because the mothers did not speak English to their infants. One participant was dropped because her child became upset, not completing the protocol. This resulted in four experimental conditions, with 8, 9, 10, and 11 participants respectively.

The children in the study had a mean age of 23.34 months, with a range of 18 to 30 months. There were 17 male and 21 female children in the study with both genders being distributed as evenly as possible across the conditions. The majority of participants were Caucasian (89.5%) with 5.3% biracial, and 5.3% African American. The average Hollingshead score of the participants was 50.53, which indicates that participants were of upper class, business professionals. Children's Externalizing T-scores on the Child Behavior Checklist 2/3 (CBCL/2-3) fell within the normal range. Scores ranged from 30.0 to 60.0, with a mean score of 47.82. Parental ECBI Frequency Score fell within the

normal range. Frequency scores ranged from 48.00 to 136.00, with a mean score of 87.71. The Problem Score also fell within the normal range with scores ranging from 0.00 to 15.00, with a mean score of 3.34. Parental responses on the Parenting Scale yielded a total score ranging from 1.30 to 3.63, with a mean score of 2.54 which fell within the normal range. The mother's mean age was 29.97 years with a range of 18 to 41 years. Approximately 87 percent of the participants were married, while 11 percent were single, and 3 percent endorsed other (cohabiting or divorced).

In order to ensure that there were not pre-existing differences between groups, several analyses were conducted. One-way Analyses of Variance (ANOVAs) with group as the between-groups factor were conducted for age of child, age of mother, and child CBCL/2-3 Externalizing T-Score. The four experimental conditions did not differ on these measures. In addition, Chi Square tests were conducted for gender of child, ethnicity, family income, and marital status by experimental condition. The results indicate that all four experimental conditions were comparable in demographic characteristics; thus, there were no confounds resulting from these variables.

## Materials

### Demographic Questionnaire

For descriptive purposes, mothers completed a demographics questionnaire (Appendix F). Information regarding the participant's level of education, age, occupation, ethnic background, income, and characteristics of each family member was assessed. This questionnaire also gathered information about the development of the child.

### Child Behavior Checklist/2-3 (CBCL/2-3)

The CBCL/2-3 (Achenbach, 1992; Appendix C) is a 100-item scale, using a three-point rating to assess emotional and behavior characteristic of children between the ages of two and three. A Total Problem T-score is produced in addition to a T-score for Externalizing and Internalizing behaviors. A T-score of 67 or greater indicates that a child is functioning in the clinical range. Achenbach (1992) reported that the CBCL/2-3 has both adequate reliability and validity. The present study was restricted to a non-clinic population and excluded participants who scored 67 or greater on any of the three scales.

### Eyberg Child Behavior Inventory (ECBI)

The Eyberg Child Behavior Inventory (ECBI) (Burns & Patterson, 1990; Eyberg & Ross, 1978; Appendix D) is a 36-item scale which identifies specific behavior problems in children aged two to sixteen as reported by their parents. The ECBI yields two scores: a problem score and an intensity score. The problem score consists of the sum of 36 items based on a two-point rating scale which measure the parent's interpretation of whether or not the child's behavior is a problem. The intensity score consists of the sum of 36 items utilizing a seven-point rating scale, measuring how frequently a particular behavior occurs. The ECBI is significantly correlated with observation of parent-child interactions and with Externalizing scores on the Child Behavior Checklist/2-3 (Boggs, Eyberg, & Reynolds, 1990). The ECBI also has adequate reliability and validity for discriminating between children with and without behavior problems (Boggs et al., 1990). Information from this questionnaire was part of another study and was used for descriptive purposes only.

### Parenting Scale

The Parenting Scale is a 36-item rating scale using a seven-point rating, which assesses dysfunctional parenting strategies used with children aged eighteen months to four years (Arnold et al., 1993; Appendix E). The Parenting Scale yields a Total score and three factor scores: Laxness, Overreactivity, and Verbosity. High Total scores indicate dysfunctional discipline. Arnold et al. (1993) reported that scores on the Parenting Scale were significantly correlated with scores on the CBCL/2-3. They also found that scores on the Parenting Scale were correlated with parenting strategies coded in laboratory observations. The Parenting Scale has adequate reliability and internal consistency (Arnold et al., 1993). The Parenting Scale is a valid measure for distinguishing between clinic and nonclinic groups on laxness, overreactivity, and Total scores. Validity for verbosity factor is mixed. Information from the Parenting Scale was used for descriptive purposes only since it was part of another study.

### Apparatus

A Panasonic VHS video camera, Model #AG-1250-P, was used to record mother and child behaviors during the toy clean-up situation. Since the experimenter observed the ongoing interaction in an adjacent room, a Panasonic color monitor, Model #BTS1300N, was used. A Bug-in-the-ear™ device (Model B-312, Farrall Instruments, Inc.) which consisted of a microphone and hearing aid set-up was used in order for the experimenter to give on-going instructions to the mother regarding how to respond to her child and

what to say. Such prompting allowed for experimenter control and manipulation between conditions.

### Waiting Room

The study occurred in a 17' by 8' room with chairs, low tables, toys, and a telephone. Toys used included plastic blocks, plastic cars, and plastic figures, and were placed in a plastic bin during the toy-clean-up task.

### Observational Code

An observational code was used to record the mother and child behaviors seen in videotaped interactions in 10-second intervals. Maternal behaviors coded included the number of reprimands and directives (Dt) such as "Pick up the toys," (DI) such as "Come finish picking up the toys, (Do) such as "Sit by mommy" and praise (P) such as "I like the way you are picking up the toys." Modeling (M) was coded when the mother helped or demonstrated to the child how to pick up the toys. Interaction (I) was coded when the mother engaged in any other type of conversation with the child, and physical prompt (PP) was coded if the mother was required to use physical contact to bring the child back into the designated area or prevent the child from climbing on the furniture.

Child behaviors coded included picking up appropriately (PA) when the child picked up the toys correctly, and negative affect (NA) which was any whining, temper tantruming, or crying by the child. Toy contact (TC) was coded when the child had contact with toys with no intention of picking the toys up and placing them in the bin.



Leaving the area (LA) was coded if the child went outside the designated area. Solicitation for attention (SA) was coded if the child tried to gain his/her mother's attention.

A total of six undergraduate students enrolled in psychology research credits served as observers and were trained in the observational codes used in this study. The observers were blind to the hypotheses and independently coded the videotaped interactions in 10-second intervals. The observers were trained until they reached a criterion of 90 percent agreement on all coded behaviors. Coders independently viewed each tape twice, once to code child behaviors and again to code maternal behaviors. Intervals in which one or more disagreements existed were then marked on the coding sheets by the experimenter. The coders independently reviewed the discrepant intervals and rechecked the marked behaviors. If the coder determined an error had occurred in his or her coding, the coding was changed to be consistent with the coding definitions. If the coder determined his or her original coding was correct, the coding was left as it was marked the first time. Percent agreement (between observers) with kappa corrections were calculated for each of the measured maternal and child behaviors for 100% of the observations. These calculations are reliability measures to assess the accuracy of the coded behaviors.

Average kappa values for the coded maternal and child behaviors were calculated. Average kappa values for the maternal behaviors ranged from .84 for interaction to 1.0 for physical prompt. Average kappa values for the coded child behaviors ranged from .89 for solicitation of attention to .99 for leaving the area. Overall, these kappa values indicate that both the maternal and child behaviors studied were accurately and reliably coded by the observers.

Data tabulation occurred after kappa-corrected reliability values were calculated. For each subject, one observer's coding sheets were randomly selected to be used in data tabulation. See Table 2 for cell means for all child behaviors.

### Procedure

The first half of the participants were randomly assigned to one of four experimental conditions: high nurturance/high verbosity, low nurturance/low verbosity, high nurturance/low verbosity, and low nurturance, high verbosity. The remainder of the participants were matched (on gender, age, and ethnicity) as closely as possible to the first half of the participants, and assigned to the condition in order to ensure equal distribution across the four conditions. Each mother-child dyad came to the laboratory for a single visit lasting approximately one hour.

### General Protocol

Each mother and child dyad met in the anteroom of the laboratory. A research assistant played with the child while the experimenter read an overview of the study from a script (Appendix G) and obtained consent (Appendix G). After obtaining consent, the experimenter gave standardized instructions for the free-play phase and demonstrated the use of the bug-in-the-ear. This introduction to the study lasted approximately 10 minutes.

### Free-Play Protocol

This phase of the study lasted approximately 10 minutes. During this phase, both the mother and the child were placed in the observation room, and the mother was

instructed to play and interact with her child as she did at home. This phase served as a “warm-up” period for both the mother and child, allowing the dyad to become comfortable with the surroundings. Other than the initial instructions no cues were given to the mothers, with the exception of praise. Because praise was held constant, mothers were cued to give a praise statement if they were not giving praise statements every two minutes to their child. The only other information that was given to the mother through the bug-in-the-ear was a statement informing the mother of the phase’s completion.

#### Break

A brief break lasting approximately 5 minutes occurred between the free-play phase and the toy clean-up phase which allowed the experimenter to get the room set up for the next phase. During this time, the mother was also given scripted instructions for the toy clean-up phase. In addition, the mother was presented with questionnaires which she completed during the toy clean-up phase.

#### Toy Clean-Up Protocol

This phase of the study lasted 10 minutes. During this phase, the mother was cued via the bug-in-the-ear exactly what to say to her child. The child engaged in a task requiring him or her to clean up the toys from the free-play phase and place them in a plastic bin. At the beginning, the mother was instructed to model the task twice for her child. After modeling twice, the mother removed herself to a chair, facing the child, to fill out the questionnaires. The mother was cued to explain to the child that she needed to fill out some forms and instructed the child to continue picking up the toys. At this point, the

mother was instructed not to interact with her child. The mother worked on the questionnaires while giving cued comments at a rate determined by the condition. Solicitations for attention were ignored. The experimenter viewed the mother and child on the monitor at all times. If the child became upset, the mother was instructed to attend to the child's needs. Finally, the mother was cued when this phase was completed. If the mother needed additional time to finish the questionnaires, the experimenter or an assistant played with the child while the mother finished the forms. Figure 1 depicts the manipulations of the independent variables.

Verbosity – The mother was cued to give a reprimand/directive once every minute if she were in the high verbosity condition. If the mother were in the low verbosity condition, she was instructed to give a reprimand or directive once every two minutes. Each directive/reprimand was held at a constant length (11 or 12 words). The reprimands/directives consisted of various statements telling the child to pick up the toys

Nurturance – Interaction statements were also given to the mother via the bug-in-the-ear. Interaction statements were statements which engaged the child in conversation with the mother. Mothers in the high nurturance condition issued statements once every one minute, whereas mothers in the low nurturance condition issued a statement once every two minutes.

Factors Held Constant – Praise was held constant across all conditions. Mothers were instructed to give praise to their children once every two minutes. Examples of praise statements were, “Good job Johnnie,” or “I like the way you are picking up the toys

so nicely.” Modeling was also held constant. At the beginning of the toy clean-up phase, all mothers modeled the appropriate behavior of picking up the toys twice for their children. Physical prompts were only used if the child left the designated area or if he or she climbed on the tables. For the first time the child left the area, the mother was instructed to physically get the child, bringing him or her into the camera’s view. This was always followed by a directive to pick up the toys. If the child climbed on the tables, the mother was cued to physically move the child to prevent possible harm. This was followed by a reprimand and a directive to pick up the toys.

### Debriefing

After completing the study, the assistant played with the child while the mother was interviewed and given the opportunity to ask questions she may have had about the study. The debriefing (Appendix G) began with a general statement, such as “At the end of the study, we like to get feedback from parents. What did you think?” In addition, the mother was asked specific questions such as “Did your child behave in his or her typical manner? Was the study realistic?” The mother was then given a packet containing the following: copy of the consent form, copy of parent letter which she could give to friends or neighbors, a list of community referral sources, and numerous coupons from local businesses. In addition, the child was given a small prize. Both mother and child were given thanks for their time and participation. At this point, their participation was complete.

### Inclusion/Exclusion Criteria

Children who scored in the clinical range of the CBCL/2-3 (T-score  $\geq 67$ ) were excluded from the study. Also, children having either physical or mental disabilities which interfered with their ability to engage in the required tasks of the study were excluded. Mothers who did not comply with the experimental conditions were excluded from the study. This included mothers in any of the conditions who gave more than 3 reprimands/directives in the free-play phase; mothers who gave more than 3 reprimands/directives without being cued during the toy clean-up phase were excluded; mothers who interacted with the child, giving 3 or more directives/reprimands without being cued; and mothers who gave 3 or more praise statements without being cued.

## CHAPTER IV

### RESULTS

#### Manipulation Checks

Maternal behaviors of reprimands/directives and interaction were tabulated for the average percentage of occurrence. Maternal behaviors of praise and physical prompt were tabulated for percentage of occurrence. The measure of compliance of the child's picking up appropriately was tabulated for percentage of occurrence. Noncompliant child behaviors of toy contact, negative affect, and leaving the area were computed for percentage of occurrence.

A series of 2 X 2 between-groups ANOVAs were conducted for each of the observed maternal behaviors in order to insure that the experimental manipulations were implemented correctly. Nurturance (high vs. low) and verbosity (high vs. low) were between-groups factors. (For means and standard deviations for these maternal behaviors, see Table 1, Appendix A).

#### Nurturance Factor

The nurturance factor involved rates of maternal interaction. Mothers in the high nurturance conditions were instructed to interact with their children twice as much as mothers in the low nurturance conditions. Thus higher rates of maternal interaction were

expected for the high nurturance conditions than for the low nurturance conditions. Differences in interaction were expected between the nurturance conditions in the toy clean-up phase. It was predicted that there would be a main effect of nurturance on percent of interaction, no main effect of verbosity on percent of interaction, and no interaction effect since rates of interaction varied with the level of nurturance.

In order to document that the nurturance manipulation was implemented correctly, a 2 (nurturance) X 2 (verbosity) between groups ANOVA was conducted with the observed maternal behavior of interaction as the dependent variable. A main effect of nurturance on percent of interaction was obtained ( $F(1,34)= 12.29, p<.001$ ), with mothers in the high nurturance condition interacting with their children more than mothers in the low nurturance condition. No main effect of verbosity on percent of interaction was obtained. Also, a nurturance X verbosity interaction was not obtained. Thus, the maternal interaction results indicate that the nurturance manipulation was implemented correctly.

#### Verbosity Factor

This factor was not manipulated during the free play phase, since this phase served as a warm-up period. The verbosity manipulation was implemented only during the toy clean-up phase and involved mothers giving their children wither high levels of directives or low levels of directives not contingent on their behavior. Thus, higher rates of directives were expected for the high verbosity conditions with a ratio of 2 to 1. A main effect of verbosity was predicted on percent of reprimands/directives, no main effect of



nurturance was predicted on percent reprimands/directives, and no interaction effect was expected on percent reprimands/directives.

To verify that the verbosity manipulation was implemented correctly, a 2 (nurturance) X 2 (verbosity) between-groups ANOVA was conducted with the observed maternal behavior of directives as the dependent variable. As expected, a main effect of verbosity on percent directives was obtained ( $F(1,34) = 135.18, p < .001$ ) with mothers in the high verbosity conditions giving more directives than mothers in the low verbosity conditions. There was no main effect of nurturance on percent directives. As predicted, no verbosity X nurturance interaction was obtained.

#### Factors Held Constant

The maternal behaviors of praise, physical prompt, and modeling were held constant across all conditions. Praise was held constant across all conditions with mothers issuing one praise statement every two minutes. Thus, it was expected that praise would be consistent across conditions. No main effect of nurturance on percent praise, no main effect of verbosity on percent praise, and no interaction effect were expected.

In order to ensure that the praise factor remained constant, a 2 (nurturance) X 2 (verbosity) between-groups ANOVA was utilized with the maternal behavior of praise as the dependent variable. A main effect of nurturance on percent praise was not obtained. No main effect of verbosity on percent praise was obtained. A nurturance x verbosity interaction was not obtained. Thus, the praise factor was implemented correctly.

The second factor which was held constant was physical prompt. Physical prompts occurred when a mother physically removed a child from a dangerous situation,

such as climbing on the table, or physically brought the child back into the designated area. Because this factor was held constant, no differences in the percentage of physical prompt were expected across the conditions. It was predicted that there would be no main effect of nurturance on the percentage of physical prompt, no main effect of verbosity on the percentage of physical prompt, and no interaction effect because this was predicted to be a low occurring behavior.

In order to ensure that physical prompts were held constant, a 2 (nurturance) X 2 (verbosity) between-groups ANOVA was utilized with the maternal behavior of percentage of physical prompt as the dependent variable. No main effect of nurturance on the percentage of physical prompt was obtained. In addition, no main effect of verbosity on the percentage of physical prompt was obtained. No interaction effect was obtained. The results indicate that the maternal behavior of physical prompt was held constant across the conditions.

The final maternal behavior held constant was modeling which was defined as any behavior in which the mother showed where or how to do something. Modeling was held constant across all conditions; therefore, no differences were expected between the conditions. It was predicted that there would be no main effect of nurturance on percentage of modeling, no main effect of verbosity on percentage of modeling, and no interaction effect because this behavior was held constant across all conditions.

In order to ensure that modeling was held constant across all conditions, a 2 (nurturance) X 2 (verbosity) between-groups ANOVA was utilized with the maternal behavior of percentage modeling serving as the dependent variable. As expected, there was no main effect of nurturance on percent of modeling, no main effect of verbosity on

percent of modeling, and no interaction effect. Thus, modeling was held constant across all conditions.

## Experimental Analyses

### Main Analyses

Separate 2 (nurturance) X 2 (verbosity) between-groups ANOVAs were conducted to examine the effects of the independent variables on child behavior. First, child compliance, or picking up appropriately, was examined. It was predicted that there would be a main effect of nurturance on percent of picking up appropriately. It was expected that children in the high nurturance condition would exhibit higher rates of picking up appropriately than those in the low nurturance condition because nurturance facilitates compliance. A main effect of verbosity on percent of picking up appropriately was also predicted. It was expected that children in the high verbosity condition would exhibit lower levels of picking up appropriately because high levels of reprimands and directives used with high power assertive techniques inhibit compliance. It was predicted that there would be a significant interaction effect on percent of picking up appropriately. It was expected that children in the high nurturance/ low verbosity condition would exhibit higher levels of picking up appropriately than children in the low nurturance/ high verbosity condition. It was expected that children in the high nurturance/ high verbosity condition and the low nurturance/ low verbosity condition would vary in rates of picking up appropriately.

To test these hypotheses, the following analysis was conducted. A 2 X 2 between-groups ANOVA with nurturance and verbosity as the between-groups factors was conducted with the observed child behavior of percent picking up appropriately as the dependent variable. Results indicate no main effect of nurturance on percent picking up appropriately, no main effect of verbosity on percent picking up appropriately, and no interaction effect on percent picking up appropriately. Thus, there was no difference on the percent of picking up appropriately across any of the conditions. See Table 2 for cell means for all child behaviors.

Second, the effects of nurturance and verbosity on passive noncompliance, or percent toy contact, was examined. It was predicted that there would be a main effect of nurturance on percent of toy contact. It was predicted that children in the low nurturance condition would exhibit higher rates of toy contact than those in the high nurturance condition because nurturance facilitates compliance. A main effect of verbosity on percent of toy contact was also predicted. It was expected that children in the low verbosity condition would exhibit lower levels of toy contact because high levels of reprimands and directives used with high power assertive techniques inhibit compliance. It was predicted that there would be a significant interaction effect on percent of toy contact. It was expected that children in the low nurturance/high verbosity condition would exhibit higher levels of toy contact than children in the high nurturance/ low verbosity condition . It was expected that children in the high nurturance/high verbosity condition and the low nurturance/low verbosity condition would vary in rates of toy contact.

In order to test these hypotheses, a 2 X 2 between-groups ANOVA with nurturance and verbosity as the between-groups factors was conducted with the observed

child behavior of toy contact. Results indicate no main effect of nurturance on percent of toy contact, no main effect of verbosity on the percent of toy contact, and no interaction effect on the percent of toy contact. Thus, percent of toy contact did not significantly vary due to the level of nurturance, level of verbosity, or combination of both nurturance and verbosity

Third, the effects of nurturance and verbosity on active noncompliance, or leaving the area, was examined. It was predicted that there would be a main effect of nurturance on percent leaving the area. It was predicted that children in the low nurturance condition would exhibit higher rates of leaving the area than those in the high nurturance condition because nurturance inhibits noncompliance. A main effect of verbosity on percent leaving the area was predicted. It was expected that children in the low verbosity condition would exhibit lower levels of leaving the area because high levels of reprimands and directives used with high power assertive techniques inhibit noncompliance. It was predicted that there would be a significant interaction effect on number of instances of leaving the area. It was expected that children in the low nurturance/ high verbosity condition would exhibit higher levels of leaving the area than children in the high nurturance/low verbosity condition. It was expected that children in the high nurturance/high verbosity condition and the low nurturance/ low verbosity condition would vary in rates of leaving the area.

In order to test these hypotheses, a 2 X 2 between-groups ANOVA was utilized with nurturance and verbosity as the between-groups factors. The child behavior of leaving the area served as the dependent variable. Analyses revealed no main effect of nurturance on percent leaving the area, no main effect of verbosity on percent leaving the area, and no interaction effect. Results indicate no significant differences in percent

leaving the area due to differences in the level of nurturance, level of verbosity, or combination of nurturance and verbosity

Exploratory analyses were conducted to determine whether nurturance and verbosity affect rates of children's negative affect. A 2 X 2 between-groups ANOVA was utilized with nurturance and verbosity as the between-groups factors. The child behavior of negative affect served as the dependent variable. Analyses revealed no main effect of nurturance on percentage of negative affect, no main effect of verbosity on percent negative affect, and no interaction effect. Results indicate no significant differences in percent negative affect due to differences in the level of nurturance, level of verbosity, or a combination of nurturance and verbosity.

Exploratory analyses were also conducted on the child behavior of solicitation for attention. Since these analyses were exploratory, no hypotheses were made. A 2 X 2 between-groups ANOVA was utilized with nurturance and verbosity as the between-groups factors. The child behavior of solicitation for attention served as the dependent variable. Analyses revealed no main effect of nurturance on percentage solicitation for attention, no main effect of verbosity on percentage of solicitation for attention, and no interaction effect. Thus, level of nurturance, level of verbosity, and a combination of nurturance and verbosity did not significantly affect the percentage of time children spent soliciting for attention.

## CHAPTER V

### DISCUSSION

The present study was designed to examine the effects of nurturance and verbosity on child behavior during a toy clean-up task. The manipulation checks analyses confirmed that the experimental controls and manipulations were appropriately implemented. The free play phase served as a nurturant warm-up period for all participants where the rates of praise were held constant across all groups. During the toy clean-up phase, the nurturance and verbosity strategy was successfully implemented between groups with all other factors (praise, modeling, physical prompt) were held constant. The results of the study can be examined in relation to the specific hypotheses proposed.

Three measures of child behavior, compliance (picking up appropriately), and noncompliance (toy contact and leaving the area) were examined. Nurturance did not affect rates of compliance in this study. Children who received high levels of nurturance did not significantly differ from children who received low levels of nurturance in their rates of picking up appropriately, engaging in toy contact, or leaving the designated area. Therefore, the hypothesis that children in the high nurturant condition would be more compliant and less noncompliant was not supported. This is in contrast to previous research which found a positive relationship between nurturance and child compliance Pfiffner and O'Leary (1989) found that encouragement, physical affection, and positive

feedback facilitated compliance (increased play time) in a free play situation. Lytton (1979) found also found that positive actions such as love, signs of approval, and smiling increased compliance.

There are several possible explanations for the discrepancy in the results. The lack of significant effect of nurturance on child compliance may be due to the way nurturance was manipulated. First, nurturance was manipulated for a shorter period of time as compared to previous studies. Nichols-Anderson, Sullivan, Perry, & Munn (1997) manipulated levels of nurturance in both the free play phase and toy clean-up phase. In the present study, nurturance was not manipulated in the free play phase. Therefore, the period of time allowed in the present study may not have been long enough to have an effect.

Secondly, the present study also manipulated nurturance differently by the way nurturance was defined. In previous studies, nurturance was defined by both praise and interaction statements. The present study defined nurturance as statements to engage the child, excluding praise. Praise was excluded since a positive correlation was found between praise and picking-up appropriately in a study conducted by Nichols-Anderson et al. (1997). Due to this positive correlation, praise was held constant in order to ensure that the effects were not due to praise, but instead due to the effects of nurturance. Because nurturance did not increase child compliance, it appears that the current nurturance manipulation may be a weaker version of the nurturance-praise manipulation.

Thirdly, there may have been too little distinction between high and low levels of nurturance. Nurturance statements were given in a ratio of 2 to 1 with children in the high nurturance condition receiving twice the number of nurturance statements than children in



the low nurturance condition. It is possible that in order to obtain an effect, the ratio should be increased in order to make a greater distinction between the two levels. Given the findings above, there are suggestions for future studies. In order to examine the relationship between child compliance and nurturance (e.g., praise), future studies could employ three conditions in order to analyze the effects of praise on child compliance. The three groups could consist of a group of children who received praise alone, another group of children should receive interaction statements only, and a third group receiving a combination of praise and interaction statements. In addition, it would be beneficial for future studies to replicate the present study, but increasing the distinction between two levels of nurturance for longer periods of time.

Three measures of child behavior, compliance (picking up appropriately), and noncompliance (toy contact and leaving the area) were examined. Verbosity did not affect rates of compliance in the present study. Children who received high numbers of directives did not significantly differ from children who received low numbers of directives. Children in the high verbosity condition did not differ from children in the low verbosity condition in the percent of time picking up toys, percent of time engaging in toy contact, or in the percent of time leaving the area. This indicates that the numbers of directives did not significantly change the level of compliance or noncompliance. Thus, the hypothesis that child compliance would differ by the amount of verbosity was not supported. This contradicts previous research which found that rationales or reasons hindered child compliance (Lytton & Zwirner, 1975; Davies, McMahon, Flessati, & Tiedemann; Kuczynski, 1984; Holden, 1983; Pfiffner & O'Leary, 1989). Other

researchers found that verbosity had no effect on child compliance in a toy clean-up task (Sullivan, Nichols-Anderson, Perry, Blundell, & Munn, 1997).

There are numerous explanations for these discrepant results. First, the effects of verbosity on child compliance may differ due to the type of task (prohibitive vs. proactive). In previous studies, researchers found that verbosity had a negative effect on child compliance in prohibitive situations where the child is told “no don’t touch” (Lytton & Zwirner, 1971; Crockenberg & Litman, 1990; Sullivan, Nichols-Anderson, Perry, Blundell, Munn, 1997). The current study utilized a predominantly proactive situation (toy clean-up) with very limited opportunity to engage in explicitly prohibitive actions (e.g., leaving the area). This suggests that there may be a unique relationship between verbosity and type of task (prohibitive vs. proactive). Secondly, verbosity did not have a facilitative effect on child compliance in the proactive situation. This is surprising because it was expected that the more the mother engaged with her child (e.g., the greater the amount of verbosity) the more compliant the child would be. However, the present study did not support this expectation. This could be due to the number of directives given as compared to the number of interactional statements given. The ratio of directives to nurturance statements was similar. By increasing the ratio of nurturance statements to directives, the level of engagement may have been too similar across verbosity conditions; therefore, compliance did not differ.

Third, verbosity may have different effects on child compliance due to the context of the situation. In prohibitive situations, much of the mother’s verbalizations are contingent upon the child behavior since the child is being told “no.” However, in proactive situations, the mother’s verbalizations are not dependent upon the child’s

behavior since the child is told "do." Therefore, it appears that if the verbalizations are contingent upon child misbehavior, verbosity plays a different role than if the verbalizations are not made contingent upon misbehavior. When verbalizations follow misbehavior, the mother is providing attention (albeit negative) contingent upon the misbehavior. In situations in which parental attention is limited, this may reinforce misbehavior/noncompliance. In proactive situations, however, the verbalizations do not follow misbehavior. The verbalizations were given at certain periods of time. Therefore, this may decrease the chances that verbalizations would increase child compliance. Although the results of verbosity on child compliance differ between this proactive study compared to previous prohibitive studies, it would be useful to conduct one study examining the effects of verbosity on both proactive tasks and prohibitive tasks in order to directly test these effects.

Child compliance was also examined in relation to the hypotheses regarding the interaction effect. Children who received high levels of nurturance/ low levels of verbosity did not significantly differ from children who received low levels of nurturance/ high levels of verbosity. Also, children who received high levels of nurturance/ high levels of verbosity did not significantly differ from children who received low levels of nurturance/ low levels of verbosity. It appears that child compliance levels are not significantly affected based on the combination of nurturance and verbosity. Therefore, the hypotheses regarding the interaction effect were not supported. This may indicate that the magnitude of difference between the high and low conditions of both verbosity and nurturance were not great enough to cause an effect when paired together. Future studies should focus on increasing the rate and number of words said in order to see if it produces an effect.

As stated earlier, hypotheses regarding the effects of nurturance and verbosity were evaluated utilizing three measures of child compliance. However, two other child behaviors of negative affect and solicitation for mother's attention were also evaluated. Since these behaviors were exploratory, no hypotheses were made. No significant differences in negative affect were found when comparing children who received high amounts of nurturance to children who received low amounts of nurturance. When examining verbosity as the independent variable, no significant differences emerged in negative affect between children who received higher numbers of directives and those children who received few directives. These findings are inconsistent. Previous research which found that short, immediate, and firm reprimands given in a highly nurturant condition increased negative affect. In the present proactive situation, it appears that the directives were not found to be more aversive to children receiving high amounts of nurturance as compared to children receiving low amounts of nurturance. There are several possible reasons for these contradictions. First, previous studies were conducted with prohibitive situations. In these situations, reprimands followed misbehavior which may have "trained" the child to exhibit negative affect in order to gain attention. The current study utilized a proactive situation in which limited negative affect is expected. Secondly, the absence of praise in the nurturance manipulation of the current study may have caused the discrepancy in results. In previous studies, praise was included in the nurturance manipulation. Therefore, when children received differing amounts of praise, they found the reprimands to be more aversive. However, because the present study did not include praise as part of the manipulation, the children may not have found the reprimands to be aversive since there was less contrast between the nurturance conditions.

Therefore, negative affect does not seem to result due to changes in the amount of nurturance or amount of directives received in a proactive situation.

Solicitation for mother's attention was an exploratory measure. This child behavior was included in the study since differences in solicitation were found in exploratory analyses of previous studies. Children solicited for mother's attention when mothers were busy (Clark, 1996; Munn, 1999). Other research indicated that there was no difference in solicitation for mother's attention due to mother's level of nurturance (Perry, 1997). Because results regarding the level of solicitation of attention varies, no hypotheses were made regarding the percentage of time children spent soliciting for mother's attention. It was found that the amount of nurturance did not significantly affect the percentage of time children spent soliciting for mother's attention. Similarly, the amount of directives received did not significantly effect the percentage of time children spent soliciting for mother's attention.

### Summary and Conclusions

Several conclusions regarding the effects of nurturance and verbosity on child compliance can be drawn from the findings of the present study. First, verbosity does not appear to have the same effects in proactive situations as it does in prohibitive situations. The amount of verbosity did not significantly affect child compliance in the proactive situation. However, it is possible that these findings would not hold true if different tasks were used. For instance, Munn (1999) found that reprimands had different effects on compliance based on whether the task were novel or familiar. If different tasks were used, such as utensil sorting, the effects of verbosity may have differed. Next, results may have

differed if different settings were used. This study was a controlled study which took place in a laboratory. However, it is unknown whether verbosity would have had the same effects if the study were uncontrolled and in the home. In addition, results may have differed with a more diverse sample. The current sample was comprised of predominantly middle class Caucasians. Children's ages ranged from 18 months to 30 months. Therefore, verbosity may have had different effects if a more diverse sample would have been utilized with older children.

Second, varying the amount of nurturance did not significantly affect child compliance. This finding may have differed if the nurturance manipulation would have included praise. Previous studies included praise as part of the interaction statement. Nurturance may have also produced different effects on child compliance if there were a greater contrast in amount of nurturance across the two conditions. The present study differed the amount of nurturance using a two to one ratio. If this ratio had been increased, different results may have emerged. The small sample size of the current study may also have limited the ability to detect a difference. Therefore, if more participants would have participated, this may have increased the likelihood of detecting an effect.

The limitations of the present study suggest several directions for future research. The children in the present study were primarily Caucasian children between the ages of 18- to 30- months. In addition, the sample size was relatively small. Since the effects of nurturance and verbosity were discrepant with previous studies, future research should replace the study with a greater number of varied age and ethnicity in order to see whether the same results are obtained with nonCaucasian children or with different ages. Secondly, since the effects of nurturance were not replicated, a more direct study of the

role of praise should be conducted. Because praise was given at a steady rate independent of the nurturance statement, the exact function that praise plays in nurturing child compliance is unknown. Next, the effects of nurturance and verbosity on child compliance appear to differ due to task type. It may be helpful to conduct a direct comparison of these two types of situations. Finally, individual child characteristics may account for the differences in results. Therefore, it may be helpful to examine temperament in relationship to verbosity and nurturance to see if differences were due to these individual differences.

In addition to the areas of research suggested by the findings of the present study described above, there are further areas to be explored. To better address the role verbosity and nurturance play on child compliance, future research should attempt to measure compliance in both the home and in the laboratory. Research examining the use of verbosity and nurturance in home settings under controlled conditions would enhance the literature. Also, the content of the directives should also be examined. Individual children may respond differently to different types of directives in proactive situations. Therefore, research is needed to examine the specific content of directive in different types of situations in different settings.

Although the present study produced results which are inconsistent with previous results, the conclusions derived from the present study were strengthened due to several factors. First, the present study is one of the first studies to examine the effects of verbosity on a proactive task. Previous studies were conducted primarily in prohibitive situations. Secondly, the present study was a highly controlled, unlike previous studies which were primarily naturalistic observations or lab tasks where length was not

controlled. Since this study was controlled, other factors which may influence the dependent variable in uncontrolled studies were eliminated. Thirdly, the present study manipulated nurturance in a different way (not including praise) which allowed an investigation of the role praise has on compliance. Finally, the present study was one of the first to manipulate verbosity.



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## APPENDIXES

APPENDIX A

TABLES

TABLE 1  
 MEAN RATES OF PERCENTAGE OF MATERNAL  
 BEHAVIOR DURING TOY CLEAN-UP  
 BY CONDITION BEHAVIOR

	Hi N/HiV	HiN/LoV	LoN/HiV	LoN/LoV
Directives				
Toys	.235	.160	.222	.153
Leaving the Area	.018	.016	.020	.021
Other	.020	.017	.011	.017
Modeling	.055	.051	.053	.053
Interaction	.241	.239	.160	.158
Praise	.105	.094	.113	.101
Prompt	.108	.081	.093	.070
Physical Prompt	.002	.000	.000	.000

Note: Abbreviations: HiV/HiN=high nurturance/high verbosity, HiV/LoN=high verbosity/low nurturance, LoV/HiN=low verbosity/high nurturance, LoN/LoV=low nurturance/low verbosity

TABLE 2  
CELL MEANS FOR PERCENTAGE OF CHILD  
BEHAVIORS DURING TOY CLEAN-UP  
BEHAVIOR

	HiV/HiN	HiV/LoN	LoV/HiN	LoV/LoN
Picking Up Appropriately	.22	.16	.09	.18
Toy Contact	.44	.29	.37	.44
Leaving the Area	.22	.21	.22	.23
Negative Affect	.14	.24	.19	.13
Solicitation for Attention	.37	.48	.38	.37

Note: Abbreviations: HiV/HiN=high nurturance/high verbosity, HiV/LoN=high verbosity/low nurturance, LoV/HiN=low verbosity/high nurturance, LoN/LoV=low nurturance/low verbosity

TABLE 3  
 MAIN EFFECTS OF CHILD BEHAVIORS  
 DURING TOY CLEAN-UP  
 BEHAVIOR

	F-Value	Significance
Picking Up Appropriately		
Verbosity	.663	.421
Nurturance	.007	.934
Interaction	1.399	.245
Toy Contact		
Verbosity	.209	.651
Nurturance	.244	.625
Interaction	1.243	.273
Leaving the Area		
Verbosity	.017	.898
Nurturance	.000	.988
Interaction	.005	.945
Negative Affect		
Verbosity	.378	.543
Nurturance	.308	.582
Interaction	.725	.400
Solicitation for Attention		
Verbosity	.424	.520
Nurturance	.659	.423
Interaction	.725	.400



APPENDIX B

FIGURE

		Free Play (10 min.)	Break (5 min.)	Toy Clean-Up (10 min.)
<b>HIGH NURTURANCE</b>	High Rep./ Dir.	Play and interact	Receive Instruction	Praise every 2 min. Interaction every 1 min. Rep./Dir. every 1 min.
	Low Rep./ Dir.	Play and interact	Receive Instruction	Praise every 2 min. Interaction every 1 min. Rep./Dir. every 2 min.
<b>LOW NURTURANCE</b>	High Rep./ Dir.	Play and interact	Receive Instruction	Praise every 2 min. Interaction every 2 min. Rep./Dir. every 1 min.
	Low Rep./ Dir.	Play and interact	Receive Instruction	Praise every 2 min. Interaction every 2 min. Rep./Dir. every 2 min.

Figure 1. Manipulations of the Independent Variables.

APPENDIX C

CHILD BEHAVIOR CHECKLIST

## CHILD BEHAVIOR CHECKLIST FOR AGES 2-3

For office use only  
ID #

CHILD'S FULL NAME			First	Middle	Last	PARENTS' USUAL TYPE OF WORK, even if not working now (Please be specific—for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.)
GENDER		AGE	ETHNIC GROUP OR RACE			
<input type="checkbox"/> Boy <input type="checkbox"/> Girl						MOTHERS TYPE OF WORK: _____
TODAY'S DATE			CHILD'S BIRTHDATE			THIS FORM FILLED OUT BY:
Mo. _____	Date _____	Yr. _____	Mo. _____	Date _____	Yr. _____	
Please fill out this form to reflect <i>your</i> view of the child's behavior even if other people might not agree. Feel free to print additional comments beside each item and in the space provided on page 2.						
<input type="checkbox"/> Mother (full name): _____ <input type="checkbox"/> Father (full name): _____ <input type="checkbox"/> Other—Specify full name & relationship to child: _____						

Below is a list of items that describe children. For each item that describes the child *now or within the past 2 months*, please circle the **2** if the item is *very true or often true* of the child. Circle the **1** if the item is *somewhat or sometimes true* of the child. If the item is *not true* of the child, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to the child.

0 = Not True (as far as you know)      1 = Somewhat or Sometimes True      2 = Very True or Often True

0	1	2	1. Aches or pains (without medical cause)	0	1	2	33. Feelings are easily hurt
0	1	2	2. Acts too young for age	0	1	2	34. Gets hurt a lot, accident-prone
0	1	2	3. Afraid to try new things	0	1	2	35. Gets in many fights
0	1	2	4. Avoids looking others in the eye	0	1	2	36. Gets into everything
0	1	2	5. Can't concentrate, can't pay attention for long	0	1	2	37. Gets too upset when separated from parents
0	1	2	6. Can't sit still or restless	0	1	2	38. Has trouble getting to sleep
0	1	2	7. Can't stand having things out of place	0	1	2	39. Headaches (without medical cause)
0	1	2	8. Can't stand waiting; wants everything now	0	1	2	40. Hits others
0	1	2	9. Chews on things that aren't edible	0	1	2	41. Holds his/her breath
0	1	2	10. Clings to adults or too dependent	0	1	2	42. Hurts animals or people without meaning to
0	1	2	11. Constantly seeks help	0	1	2	43. Looks unhappy without good reason
0	1	2	12. Constipated, doesn't move bowels	0	1	2	44. Angry moods
0	1	2	13. Cries a lot	0	1	2	45. Nausea, feels sick (without medical cause)
0	1	2	14. Cruel to animals	0	1	2	46. Nervous movements or twitching (describe): _____
0	1	2	15. Defiant				
0	1	2	16. Demands must be met immediately	0	1	2	47. Nervous, highstrung, or tense
0	1	2	17. Destroys his/her own things	0	1	2	48. Nightmares
0	1	2	18. Destroys things belonging to his/her family or other children	0	1	2	49. Overeating
0	1	2	19. Diarrhea or loose bowels when not sick	0	1	2	50. Overtired
0	1	2	20. Disobedient	0	1	2	51. Overweight
0	1	2	21. Disturbed by any change in routine	0	1	2	52. Painful bowel movements
0	1	2	22. Doesn't want to sleep alone	0	1	2	53. Physically attacks people
0	1	2	23. Doesn't answer when people talk to him/her	0	1	2	54. Picks nose, skin, or other parts of body (describe): _____
0	1	2	24. Doesn't eat well (describe): _____				
0	1	2	25. Doesn't get along with other children	0	1	2	55. Plays with own sex parts too much
0	1	2	26. Doesn't know how to have fun, acts like a little adult	0	1	2	56. Poorly coordinated or clumsy
0	1	2	27. Doesn't seem to feel guilty after misbehaving	0	1	2	57. Problems with eyes (without medical cause) (describe): _____
0	1	2	28. Doesn't want to go out of home				
0	1	2	29. Easily frustrated	0	1	2	58. Punishment doesn't change his/her behavior
0	1	2	30. Easily jealous	0	1	2	59. Quickly shifts from one activity to another
0	1	2	31. Eats or drinks things that are not food—don't include sweets (describe): _____	0	1	2	60. Rashes or other skin problems (without medical cause)
0	1	2	32. Fears certain animals, situations, or places (describe): _____	0	1	2	61. Refuses to eat
				0	1	2	62. Refuses to play active games
				0	1	2	63. Repeatedly rocks head or body
				0	1	2	64. Resists going to bed at night

0 = Not True (as far as you know)			1 = Somewhat or Sometimes True			2 = Very True or Often True		
0	1	2	65. Resists toilet training (describe): _____	0	1	2	82. Sudden changes in mood or feelings	
0	1	2	66. Screams a lot	0	1	2	83. Sulks a lot	
0	1	2	67. Seems unresponsive to affection	0	1	2	84. Talks or cries out in sleep	
0	1	2	68. Self-conscious or easily embarrassed	0	1	2	85. Temper tantrums or hot temper	
0	1	2	69. Selfish or won't share	0	1	2	86. Too concerned with neatness or cleanliness	
0	1	2	70. Shows little affection toward people	0	1	2	87. Too fearful or anxious	
0	1	2	71. Shows little interest in things around him/her	0	1	2	88. Uncooperative	
0	1	2	72. Shows too little fear of getting hurt	0	1	2	89. Underactive, slow moving, or lacks energy	
0	1	2	73. Too shy or timid	0	1	2	90. Unhappy, sad, or depressed	
0	1	2	74. Sleeps less than most children during day and/or night (describe): _____	0	1	2	91. Unusually loud	
0	1	2	75. Smears or plays with bowel movements	0	1	2	92. Upset by new people or situations (describe): _____	
0	1	2	76. Speech problem (describe): _____	0	1	2	93. Vomiting, throwing up (without medical cause)	
0	1	2	77. Stares into space or seems preoccupied	0	1	2	94. Wakes up often at night	
0	1	2	78. Stomachaches or cramps (without medical cause)	0	1	2	95. Wanders away from home	
0	1	2	79. Stores up many things he/she doesn't need (describe): _____	0	1	2	96. Wants a lot of attention	
0	1	2	80. Strange behavior (describe): _____	0	1	2	97. Whining	
0	1	2	81. Stubborn, sullen, or irritable	0	1	2	98. Withdrawn, doesn't get involved with others	
				0	1	2	99. Worries	
				0	1	2	100. Please write in any problems your child has that were not listed above.	
				0	1	2	_____	
				0	1	2	_____	
				0	1	2	_____	

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS.

UNDERLINE ANY YOU ARE CONCERNED ABOUT

Does the child have any illness or disability (either physical or mental)?

 No  Yes—Please describe:

What concerns you most about the child?

Please describe the best things about the child:

APPENDIX D

EYBERG CHILD BEHAVIOR INVENTORY

ID# \_\_\_\_\_

**Instructions:** Below are a series of phrases that describe children's behavior. Please (1) circle the number describing how often the behavior currently occurs with your child, and (2) circle "yes" or "no" to indicate whether the behavior is currently a problem for you.

	How often does this occur with your child?							Is this a problem for you?	
	<u>Never</u>	<u>Seldom</u>	<u>Sometimes</u>	<u>Often</u>	<u>Always</u>				
1. Dawdles in getting dressed	1	2	3	4	5	6	7	yes	no
2. Dawdles or lingers at mealtimes	1	2	3	4	5	6	7	yes	no
3. Has poor table manners	1	2	3	4	5	6	7	yes	no
4. Refuses to eat food presented	1	2	3	4	5	6	7	yes	no
5. Refuses to do chores when asked	1	2	3	4	5	6	7	yes	no
6. Slow in getting ready for bed	1	2	3	4	5	6	7	yes	no
7. Refuses to go to bed on time	1	2	3	4	5	6	7	yes	no
8. Does not obey house rules on own	1	2	3	4	5	6	7	yes	no
9. Refuses to obey until threatened with punishment	1	2	3	4	5	6	7	yes	no
10. Acts defiant when told to do something	1	2	3	4	5	6	7	yes	no
11. Argues with parents about rules	1	2	3	4	5	6	7	yes	no
12. Gets angry when doesn't get his/her own way	1	2	3	4	5	6	7	yes	no

	How often does this occur with your child?							Is this a problem for you?	
	<u>Never</u>	<u>Seldom</u>	<u>Sometimes</u>	<u>Often</u>	<u>Always</u>			yes	no
13. Has temper tantrums	1	2	3	4	5	6	7	yes	no
14. Sasses adults	1	2	3	4	5	6	7	yes	no
15. Whines	1	2	3	4	5	6	7	yes	no
16. Cries easily	1	2	3	4	5	6	7	yes	no
17. Yells or screams	1	2	3	4	5	6	7	yes	no
18. Hits parents	1	2	3	4	5	6	7	yes	no
19. Destroys toys and other objects	1	2	3	4	5	6	7	yes	no
20. Is careless with toys and other objects	1	2	3	4	5	6	7	yes	no
21. Steals	1	2	3	4	5	6	7	yes	no
22. Lies	1	2	3	4	5	6	7	yes	no
23. Teases or provokes other children	1	2	3	4	5	6	7	yes	no
24. Verbally fights with friends his/her own age	1	2	3	4	5	6	7	yes	no
25. Verbally fights with sisters and brothers	1	2	3	4	5	6	7	yes	no



	How often does this occur with your child?							Is this a problem for you?	
	<u>Never</u>	<u>Seldom</u>	<u>Sometimes</u>	<u>Often</u>	<u>Always</u>				
26. Physically fights with friends his/her own age	1	2	3	4	5	6	7	yes	no
27. Physically fights with sisters and brothers	1	2	3	4	5	6	7	yes	no
28. Constantly seeks attention	1	2	3	4	5	6	7	yes	no
29. Interrupts	1	2	3	4	5	6	7	yes	no
30. Is easily distracted	1	2	3	4	5	6	7	yes	no
31. Has short attention span	1	2	3	4	5	6	7	yes	no
32. Fails to finish tasks or projects	1	2	3	4	5	6	7	yes	no
33. Has difficulty entertaining himself/herself alone	1	2	3	4	5	6	7	yes	no
34. Has difficulty concentrating on one thing	1	2	3	4	5	6	7	yes	no
35. Is overactive or restless	1	2	3	4	5	6	7	yes	no
36. Wets the bed	1	2	3	4	5	6	7	yes	no

APPENDIX E

PARENTING SCALE

## Parenting Scale

Child's Name: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Sex: Boy \_\_\_\_\_ Girl \_\_\_\_\_ Child's Birthdate: \_\_\_\_\_

*At one time or another, all children misbehave or do things that could be harmful, that are "wrong", or that parents don't like. Examples include:*

<i>hitting someone</i>	<i>whining</i>	<i>throwing food</i>
<i>forgetting homework</i>	<i>not picking up toys</i>	<i>lying</i>
<i>having a tantrum</i>	<i>refusing to go to bed</i>	<i>wanting a cookie before dinner</i>
<i>running into the street</i>	<i>arguing back</i>	<i>coming home late</i>

*Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting.*

**For each item, fill in the circle that best describes your style of parenting during the past two months with the child indicated above.**

### SAMPLE ITEM

At meal time . . .

I let my child decide how much to eat.	0--0-- <input checked="" type="radio"/> --0--0--0--0--0	I decide how much my child eats.
--	---	----------------------------------

1. When my child misbehaves . . .

I do something right away.	0--0--0--0--0--0--0--0	I do something about it later.
----------------------------	------------------------	--------------------------------

2. Before I do something about a problem . . .

I give my child several reminders or warnings.	0--0--0--0--0--0--0--0	I use only one reminder or warning.
--	------------------------	-------------------------------------

3. When I'm upset or under stress . . .

I am picky and on my child's back.	0--0--0--0--0--0--0--0	I am no more picky than usual.
------------------------------------	------------------------	--------------------------------

4. When I tell my child not to do something . . .

I say very little.	0--0--0--0--0--0--0--0	I say alot.
--------------------	------------------------	-------------

5. **When my child pesters me . . .**  
 I can ignore the the pestering. 0--0--0--0--0--0--0 I can't ignore the pestering.
6. **When my child misbehaves . . .**  
 I usually get into a long argument with my child. 0--0--0--0--0--0--0 I don't get into an argument.
7. **I threaten to do things that . . .**  
 I am sure I can carry out. 0--0--0--0--0--0--0 I know I won't actually do.
8. **I am the kind of parent that . . .**  
 sets limits on what my child is allowed to do. 0--0--0--0--0--0--0 lets my child do whatever he or she wants.
9. **When my child misbehaves . . .**  
 I give my child a long lecture. 0--0--0--0--0--0--0 I keep my talks short and to the point.
10. **When my child misbehaves . . .**  
 I raise my voice or yell. 0--0--0--0--0--0--0 I speak to my child calmly.
11. **If saying no doesn't work right away . . .**  
 I take some other kind of action. 0--0--0--0--0--0--0 I keep talking and try to get through to my child.
12. **When I want my child to stop doing something . . .**  
 I firmly tell my child to stop. 0--0--0--0--0--0--0 I coax or beg my child to stop.
13. **When my child is out of my sight . . .**  
 I often don't know what my child is doing. 0--0--0--0--0--0--0 I always have a good idea of what my child is doing.
14. **After there's been a problem with my child . . .**  
 I often hold a grudge. 0--0--0--0--0--0--0 things get back to normal quickly.

15. **When we're not at home . . .**  
 I handle my child the way I do at home. 0--0--0--0--0--0--0 I let my child get away with alot more.
16. **When my child does something I don't like . . .**  
 I do something about it every time it happens. 0--0--0--0--0--0--0 I often let it go.
17. **When there's a problem with my child . . .**  
 things build up and I do things I don't mean to do. 0--0--0--0--0--0--0 things don't get out of hand.
18. **When my child misbehaves, I spank, slap, grab, or hit my child . . .**  
 never or rarely. 0--0--0--0--0--0--0 most of the time.
19. **When my child doesn't do what I ask . . .**  
 I often let it go or end up doing it myself. 0--0--0--0--0--0--0 I take some other action.
20. **When I give a fair threat or warning . . .**  
 I often don't carry it out. 0--0--0--0--0--0--0 I always do what I said.
21. **If saying no doesn't work . . .**  
 I take some other kind of action. 0--0--0--0--0--0--0 I offer my child something nice so he/she will behave.
22. **When my child misbehaves . . .**  
 I handle it without getting upset. 0--0--0--0--0--0--0 I get so frustrated or angry that my child can see I'm upset.
23. **When my child misbehaves . . .**  
 I make my child tell me why he/she did it. 0--0--0--0--0--0--0 I say "No" or take some other action.
24. **If my child misbehaves and then acts sorry . . .**  
 I handle the problem like I usually would. 0--0--0--0--0--0--0 I let it go that time.

25. **When my child misbehaves . . .**  
 I rarely use bad language or curse.      0--0--0--0--0--0--0      I almost always use bad language.
26. **When I say my child can't do something . . .**  
 I let my child do it anyway.      0--0--0--0--0--0--0      I stick to what I said.
27. **When I have to handle a problem . . .**  
 I tell my child I'm sorry about it.      0--0--0--0--0--0--0      I don't say I'm sorry.
28. **When my child does something I don't like, I insult my child, say mean things, or call my child names . . .**  
 never or rarely.      0--0--0--0--0--0--0      most of the time.
29. **If my child talks back or complains when I handle a problem . . .**  
 I ignore the complaining and stick to what I said.      0--0--0--0--0--0--0      I give my child a talk about not complaining.
30. **If my child gets upset when I say "No", . . .**  
 I back down and give in to my child.      0--0--0--0--0--0--0      I stick to what I said.

APPENDIX F

DEMOGRAPHICS QUESTIONNAIRE

Subj # \_\_\_\_\_

## Demographic Questionnaire

Please complete this confidential questionnaire. An answer to every question is requested.

1. Your relationship to the child: Mother \_\_\_\_\_  
 Father \_\_\_\_\_  
 Other \_\_\_\_\_
2. Your sex: Female \_\_\_\_\_ Male \_\_\_\_\_
3. Your age: \_\_\_\_\_
4. Your race: \_\_\_\_\_
5. Highest level of education completed (circle year):  
 1 2 3 4 5 6 7 8 (Grade school)  
 9 10 11 12 (High school)  
 13 14 15 16 (College)  
 17 and over (Graduate School)
6. Your occupation: \_\_\_\_\_  
 Spouse occupation: \_\_\_\_\_
7. Marital status: Single \_\_\_\_\_ Married \_\_\_\_\_ Divorced \_\_\_\_\_  
 Separated \_\_\_\_\_ Other \_\_\_\_\_
8. Total family income per month:  
 Less than \$800 \_\_\_\_\_ \$800-\$1000 \_\_\_\_\_ \$1001-\$1500 \_\_\_\_\_  
 \$1501-\$2000 \_\_\_\_\_ \$2001-\$2500 \_\_\_\_\_ over \$2500 \_\_\_\_\_
9. If married, please provide the following information about your spouse:
- a. his/her relationship to the child: \_\_\_\_\_
- b. his/her age: \_\_\_\_\_
- c. his/her race: \_\_\_\_\_
- d. his/her highest level of education completed (circle year)  
 1 2 3 4 5 6 7 8 (Grade school)  
 9 10 11 12 (High school)  
 13 14 15 16 (College)  
 17 and over (Graduate school)



10. Does the child have siblings? Sex \_\_\_\_\_ Age \_\_\_\_\_  
Sex \_\_\_\_\_ Age \_\_\_\_\_  
Sex \_\_\_\_\_ Age \_\_\_\_\_

11. Please provide the following information about your child:

a. sex: female \_\_\_\_\_ male \_\_\_\_\_

b. race: \_\_\_\_\_

12. Developmental milestones:

At what age did your child:

a. sit independently \_\_\_\_\_

b. crawl \_\_\_\_\_

c. walk independently \_\_\_\_\_

13. Has your child attended daycare? Yes \_\_\_\_\_ No \_\_\_\_\_

If your child has attended daycare, please provide the following information:

a. How many days out of a month did your child attend daycare? \_\_\_\_\_

b. For how long? \_\_\_\_\_

c. Was the daycare at an institution or in a home? \_\_\_\_\_

d. Is your child currently attending daycare? Yes \_\_\_\_\_ No \_\_\_\_\_

e. How many days out of a month does your child currently attend daycare? \_\_\_\_\_

APPENDIX G

FORMS

## INFORMED CONSENT STATEMENT

**Project Title:** The Effects of Nurturance and Verbosity on Child Compliance in a Proactive Situation

**Investigators:** Maureen Sullivan, Ph.D., Melissa Blundell, B.A.

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A. **Purpose:** This study will examine the effects of different parenting strategies on children's behavior. This study will also gather information on the frequency and severity of behavior problems in young children.

B. **Procedures:** I, (print name) \_\_\_\_\_ hereby authorize the above named researchers or assistants of their choosing to direct my participation in the following procedures:

1. Completion of four questionnaires. One questionnaire will ask for demographic information such as number and age of household family members, income, occupation, etc. One questionnaire will ask about typical parenting strategies you use with your child. Two questionnaires will assess your child's typical behaviors and behavior problems.

2. You will participate in a videotaped procedure in which you and your child will engage in activities such as playing with toys, cleaning up toys, and placing toys in a plastic bin. You will be asked to give your child directions regarding cleaning up toys, praise for appropriate behaviors, and reprimands, such as "no-no don't touch."

C. **Duration of participation:** Your participation is completely voluntary and may be ended at any point. This study is designed to last approximately 1 hour.

D. **Confidentiality:** All information about you and your child will be kept confidential and will not be released. Questionnaires and videotapes will have subject numbers, rather than names on them. All information will be kept in a secure place that is open only to the researchers and their assistants. This information will be saved as long as it is scientifically useful; typically, such information is kept for five years after publication of the results. Results from this study may be presented at professional meetings or in publications. You and your child will not be identified individually; we will be looking at the group as a whole.

E. **Benefits of participation:** For participating in the study, your child will receive a toy. You will receive coupons from various local businesses and extra credit in a psychology course of your choice. In addition, if you are interested, we will send you a copy of the results of the study when it is finished.

F. **Risks of participation:** The risks to you and your child are minimal. It is possible that some children may become upset during the procedure. If this happens, we will try to

make your child more comfortable with the situation. Similarly, some mothers may become uncomfortable with the situation. If either you or your child become uncomfortable or too upset, you will be given the opportunity to stop the procedure at that point with absolutely no penalty. You may also choose to stop at any time, even without our asking you. In completing the questionnaires, some mothers may become aware that their child's behavior is not typical for his or her age. You will be offered several names and phone numbers of agencies that work with parents and children should you desire psychological services to assess or treat developmental or behavioral problems.

---

I have been fully informed about the procedures listed here. I am aware of what my child and I will be asked to do and of the benefits of my participation. I also understand the following statement:

I affirm that I am 18 years of age or older.

I understand that I may contact any of the researchers at the following addresses and phone numbers, should I desire to discuss my participation in the study and/or request information about the results of the study: Maureen Sullivan, Ph.D., 215 North Murray Hall, Dept. of Psychology, Oklahoma State University, Stillwater, OK 74078-0250, (405) 744-6027. I may also contact Gay Clarkson, Institutional Review Board, 203 Whitehurst, OSU, (405) 744-5700. I have read and fully understand this consent form. I sign it freely and voluntarily. A copy of this form will be given to me. I hereby give permission for my child's and my participation in this study.

\_\_\_\_\_  
Signature of Parent/Legal Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Date

I certify that I have personally explained this document before requesting that the participant sign it.

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

### Protocol for Nurturance and Verbosity Study

1. Set up anteroom toys, chairs.
2. Check bug in ear and sterilize.
3. Set up camera, check monitor, set timer to zero, check readability of numbers.
4. Label the videotape with subject number, insert tape and record subject number, date, and study title. If not a brand new tape, check last subject, let play 10 more seconds before recording subject number. Record subject number for full 10 seconds since tape will back up.
5. Set up clipboards with consent form, demographic, CBCL, ECBI, Parenting Scale, and pens.
6. Set up "waiting room" with toys for free play.
7. Place sign on outside of door.
8. Turn off monitor.

#### Subject Arrives

(may meet mom in parking lot with parking sticker)

1. Bring mother and child into anteroom.
2. Introduce self, ask mother to have a seat. Child is directed to toys on the floor.
3. Explanatory statement:  
 "The purpose of the study is to learn about how different parenting strategies affect children's behavior. There will be two phases in our study with specific instructions for each one. In both phases, you and your child will be together in the same room filled with toys. We will be videotaping the interaction for study later. As stated earlier, the purpose of the study is to learn about how different parenting strategies affect children's behavior, not to evaluate your child or yourself. Please don't feel upset if your child misbehaves, we have designed the study with the expectation that he/she will. In other words, his/her behavior is needed to determine which parenting strategies are effective. Everything is confidential, and your name will not be attached to the videotapes or questionnaires. Are you willing to participate?"
4. Give the mother the consent form to read and sign, answer questions, and tell her she will get a copy.

5. Demonstrate the bug-in-the-ear as means of communication while she is in the next room. Tell mother about the constant white noise which may be distracting or annoying. Show her the volume control.

Phase 1: free play

“We want to observe you and your child actively playing together. You will go in and sit on the floor to play. Suggest things to play with (e.g. let’s build something with the blocks) but do not force \_\_\_\_\_ to play with any particular toy. If \_\_\_\_\_ picks the activities, do as he/she wishes. Give lots of praise and positive comments (e.g. that’s outstanding), affection (hugs, pats, smiling, use sweet sing-song voice), and encouragement (you’re doing great). I may also cue you with periodic praise statements. Don’t correct, give negative statements, or get on to the child at any time. If \_\_\_\_\_ tries to leave the room, use distraction in a neutral/positive tone of voice and go get him/her. This phase will last ten minutes.”

2. Direct mother and child into the room, giving instructions to have the pair sit on the floor and play.
3. Turn on monitor, start camera, reset timer, and shut door.
4. Test bug-in-ear.
5. If the mother is not sitting on the floor, cue mother to sit on the floor by the toys and play with the toys with her child.
6. When time is up (10 min.), tell the mother the phase is over and they can come out now. Go in open door. Pause video camera. Give her instructions for the next task.

\* put toys into place from free play phase. Make sure the toys are scattered enough, and that there are not any toys outside the area.

Phase 2: toy clean-up

“The purpose of this phase is to see how children behave when their mothers are busy. We want to see how children behave on their own. This phase is going to be a little different from what you just did for a couple of reasons. First, during this phase I will be telling you from the bug as to exactly what to say. **Don’t say anything unless I tell you**. Your child will be engaging in a task which will require him/her to clean up the toys from the free-play phase and place them in a pink bin. In the beginning, I will tell you how to instruct \_\_\_\_\_ in the task and get him/her started. Again, it is important that you repeat exactly what I say and not say anything else. After a period of time, I will tell you to remove yourself, telling \_\_\_\_\_ you have to fill out some forms. You will then sit in the chair facing \_\_\_\_\_. If \_\_\_\_\_ tries to get your attention, I will tell you to briefly tell \_\_\_\_\_ to pick up the toys and put them into the bin. After this, you are to ignore

your child. During this time, there is to be as little interaction between the two of you as possible. I will also continue to give you praise statements. This phase will last for 10 minutes or until the last toy is picked up.”

2. Check that the mother is wearing the bug-in-the-ear. Direct mother and child in the room.

3. Start camera/reset timer, shut door.

4. Test bug-in-ear.

5. Cue mother to sit on the floor by the toys and deliver instructions for the task:  
 “\_\_\_\_\_, come here and sit by mommy. See all the toys. We need to pick up all the toys and place them in the blue bin. Watch me. I pick up a toy and put it in the bin...I pick up this toy and put it in the bin. (wait for compliance, repeat if necessary, praise with “very good, what else can you pick up?”). Continue this for 2 instances of compliance before moving on.

6. Deliver praise/reprimands/directives for 10 minutes.

7. After modeling twice, cue mother to disengage herself, say “Mommy has to go fill out some forms”, go sit in the chair facing your child. **During this phase you’ll need to reassure the mother of what her child is doing as she will not be paying attention to him/her.**

8. After 10 minutes, tell mother this phase is complete.

**\*\*After both phases have been conducted, conduct the debriefing interview with the mother. Give incentives. Ask if she knows anyone who would be interested in participating. If yes, give her a flyer to give to the individual.**

**\*\*\*after debriefing, be sure to remove the sign from the door\*\*\***

## DEBRIEFING

At the end of the study, we like to get feedback from the mothers about the study. What was it like being in the study? What did you think about it?

How realistic did the waiting room situation seem?

1	2	3	4	5
not at all		somewhat		very

How typical was your child's behavior?

1	2	3	4	5
not at all		somewhat		very

Overall, how typical was your behavior?

1	2	3	4	5
not at all		somewhat		very

Compared to the amount of praise you were cued to give, how often do you typically praise your child?

1	2	3	4	5
not as much		about the same		more

Compared to the length of reprimands you were cued to give, how long are your reprimands/directives that you give to your child?

1	2	3	4	5
not as long		about the same		longer

Was there any part of the study that was especially difficult?

Having experienced the study, would you be willing to participate again?

Any other comments?



APPENDIX H

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD  
HUMAN SUBJECTS REVIEW

**Date:** 09-17-98

**IRB #:** AS-99-004

**Proposal Title:** THE EFFECTS OF NURTURANCE AND VERBOSITY ON  
YOUNG CHILD COMPLIANCE

**Principal Investigator(s):** Maureen A. Sullivan, Melissa Blundell

**Reviewed and Processed as:** Expedited with Special Population

**Approval Status Recommended by Reviewer(s):** Approved

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Signature:



Date: September 17, 1998

\_\_\_\_\_  
Director of University Research Compliance  
cc: Melissa Blundell

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Melissa Anne Blundell

Candidate for the Degree of

Master of Science

Thesis: THE EFFECTS OF NURTURANCE AND VERBOSITY ON CHILD  
COMPLIANCE IN A PROACTIVE SITUATION

Major Field: Psychology

Biographical:

Personal Data: Born in Fairview, Oklahoma, on May 22, 1975, the daughter of David and Connie Blundell.

Education. Received Bachelor of Arts degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in May 1997. Completed the requirements for the Master of Science degree with a major in Psychology at Oklahoma State University in May 2000.