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**THE DEVELOPMENT OF EARLY CONSCIENCE AMONG A SAMPLE OF
CHILDREN EXPOSED TO DOMESTIC VIOLENCE: CHILD TEMPERAMENT AS A
MODERATOR OF MATERNAL DISCIPLINE AND MOTHER-CHILD
ATTACHMENT**

By

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ABSTRACT

THE DEVELOPMENT OF EARLY CONSCIENCE AMONG A SAMPLE OF CHILDREN EXPOSED TO DOMESTIC VIOLENCE: CHILD TEMPERAMENT AS A MODERATOR OF MATERNAL DISCIPLINE AND MOTHER-CHILD ATTACHMENT

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This study offers partial support for Kochanska's (1997) model describing the normative development of earlier conscience in a sample of preschool children ($n=103$) considered at risk via their exposure to domestic violence. Exposure to domestic violence was related to both heightened temperamental fearfulness ($R^2 = .05$, $F = 4.82$) and heightened temperamental impulsivity ($R^2 = .05$, $F = 4.92$). Heightened temperamental impulsivity was in turn related to lower scores on the more self-regulatory dimension of conscience ($R^2 = .38$, $F = 59.45$). Children with high levels of temperamental fearfulness were more influenced by power assertive discipline practices, as measured by Holden's (1996) PRCM, in developing the active moral regulation/vigilance dimension of early conscience than were more fearless peers (R^2 change = $.04$, $F = 4.26$). Children with high levels of temperamental fearfulness were more influenced by power assertive discipline practices, as measured by the Problem Situations Questionnaire, an instrument developed for use in this study, in developing the affective discomfort dimension of early conscience than were more fearless peers (R^2 change = $.04$, $F = 3.67$). Children in the sample were powerfully influenced by attachment security in the development of active moral regulation/vigilance using both the AQS Security ($R^2 = .25$, $F = 31.44$) and the Pederson-Moran Secure Base ($R^2 = .16$, $F = 18.73$) scales.

High scores on the Pederson-Moran Secure Base scale also predicted high levels of affective discomfort ($R^2 = .04$, $F = 3.76$). Contrary to Kochanska's model, more fearful children with high Pederson-Moran scores showed lower levels of active moral regulation/vigilance than their more fearless peers with similarly high Pederson-Moran scores (R^2 change = .07, $F = 8.44$). Attachment security was by far the most powerful predictor of early conscience development regardless of other factors. The study also served to validate the Problem Situations Questionnaire as a reliable research instrument (alpha for each factor analytically derived subscale ranges from .72 to .86). The measure has many of the same properties as other parent discipline measures that were utilized but has the advantage of including an additional dimension of parent discipline, response cost, which was uniquely predictive of the affective discomfort dimension of conscience. Somewhat surprisingly, post-hoc analyses conducted to examine the direct relationship between domestic violence and both parent discipline and attachment found no significant relationships. The study provides further empirical evidence for the powerful protective role that a secure attachment may play in buffering the indirect effects of exposure to domestic violence on early conscience development. The findings suggest that clinical interventions that target the mother-child attachment relationship and that assist parents in matching discipline to the child's temperament may be particularly useful in mitigating the effects of domestic violence on the development of early conscience, regardless of other factors.

In memory of Frances Cohn

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INTRODUCTION

The problem of violence among America's youth is perhaps among the most important facing our nation. One only need turn on the local news on any given evening to glimpse the scope of the problem: young perpetrators of violence are using increasingly lethal methods, with apparent disregard for the consequences of their behavior. Osofsky, Werers, Hann, and Fick (1993) underscore the striking prevalence of violence and have shown that children who witness chronic levels of community violence become emotionally desensitized and tend to treat everyday aggression with indifference. How widespread is the problem? Research by Bell and Jenkins (1993) has shown that among a sample of inner-city, African-American children, most have had first hand encounters with shootings by the time they are 5 years old.

How, then, are we to stem this increasing tide of violent behavior? Recent work has emphasized the importance of early intervention. Since the age of onset of problematic behavior has been shown to have important implications for prognosis (Patterson, DeBaryshe, & Ramsey, 1989), early intervention with preschoolers may be crucial for preventing later difficulties, especially when there are multiple factors contributing to risk (Sameroff, Seifer, & Zax, 1982). While problems of violence must ultimately be addressed via a biopsychosocial framework, one clear and important source of influence on early development is parents. Heller, Baker, Henker and Hinshaw (1996) have already established parenting style as an important predictor of later behavioral difficulty among a sample of at-risk preschoolers but the mechanisms through which these potentially protective effects occur remain unclear. One source for beginning to address this question may be found in research that has been conducted with a normative

developmental sample. The developmental literature has made some important in-roads into understanding the processes which allow the child to internalize the values of parents and of the larger society so that he or she may exhibit control over the self-gratifying and antisocial impulses, and enhance the components of empathic responding which all children possess.

The current investigation targets a group of at-risk preschool children and examines how child characteristics and the parent-child relationship lead to the development of conscience. Theoretical models presented by Hoffman (1983) and by Grusec and Goodnow (1994) have suggested the need to apply a contextualist approach to the study of the processes involved in the internalization of values governing moral behavior. More recent work by Kochanska (1993, 1997a) has pointed to child temperament, mother-child attachment, and maternal discipline style as crucial predictors of internalization among a normative sample of 4 year-old children.

The current study adapts Kochanska's model for use with children at-risk for experiencing behavioral difficulties by virtue of their exposure to domestic violence. The study empirically tests the theoretical model presented in Figure 1. Kochanska describes early conscience as a multifaceted construct involving the child's ability to engage in self-regulatory behavior, the child's concern for proper conduct, the child's experience of discomfort with the distress of another, and the child's empathic response to the distress of another. All of these behaviors take place in the absence of some external monitor and for this reason represent more than simple compliance. The current investigation offers an additional component to the normative developmental model that Kochanska and her colleagues have developed. Specifically, the study examines the ways in which witnessing domestic violence (and risk in general) may influence certain dimensions of

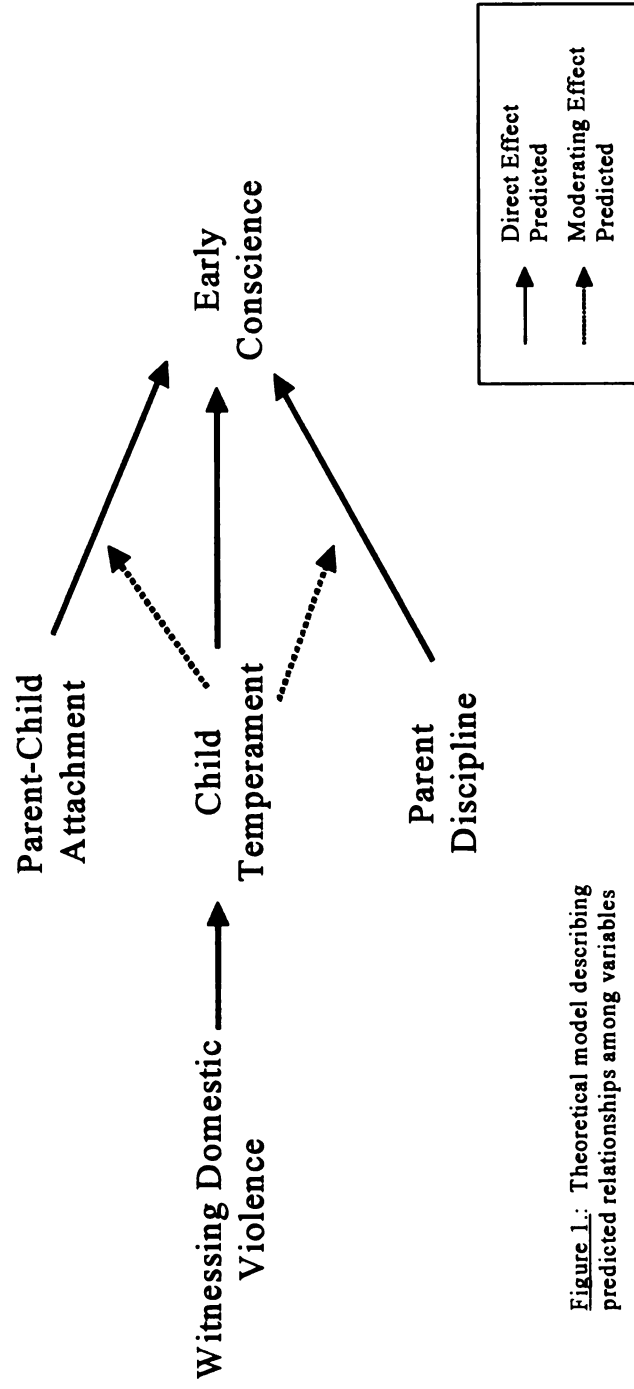


Figure 1: Theoretical model describing predicted relationships among variables

child temperament. There is virtually nothing in the literature that has examined the relationship between temperamental fearfulness and risk, particularly risk resulting from exposure to domestic violence. The study, then, furthers our understanding of the mechanisms through which early conscience develops in a population that is at heightened risk for developing the kinds of behavioral difficulties associated with inadequate conscience development. In this way we may be better able to focus the kinds of early intervention efforts that have proven to be so crucial.

Chapter 1

THEORETICAL AND EMPIRICAL MODELS OF MORAL DEVELOPMENT

Clinicians and researchers have long attempted to understand the developmental processes that lead to the development of conscience. While the nomenclature adopted by different perspectives might suggest that their frameworks are incompatible, all of the theorists seem to agree that conscience (or at the very least the precursors of conscience) develops early in childhood.

Freud (1935) was among the first to identify and label some of the structural components of conscience. He identified a structure that he termed the “super-ego” which watches, criticizes, and compares the self to what he calls the “ego-ideal.” In this way, Freud observed, the actual ego is continuously measured against the ego-ideal and the self-criticizing faculty of “conscience” emerges through this process of comparison. How then does the ego-ideal develop? Freud noted that it arises in the individual through a process of identification with parents, those who have trained the child, and through other aspects of the social environment. The ego-ideal, then, develops as the child internalizes the collective influence of parents and the social environment as a model against which his or her behavior may be compared.

Building upon the psychoanalytic tradition, Kohlberg (1969) employed what he termed a “cognitive-structuralist approach” to moral development. He identified six stages of moral development. In stage one, Kohlberg’s categorization for individuals having an obedience and punishment orientation, moral decisions are dependent upon the external power of another or upon the desire to avoid trouble. During stage two, individuals have a naively egoistic orientation and make determinations about right and

wrong based primarily on satisfying the needs of the self and occasionally the needs of others. Kohlberg classified the first two stages as making up the first level of moral development as the moral value lies in external and/or “quasiphysical needs” rather than in personal values and standards.

The third stage of development Kohlberg termed the good-boy orientation. The good-boy orientation is characterized by decision-making which is based on seeking the approval of or attempting to please others. During stage four, the authority and social-order maintaining orientation, the individual makes moral judgments based on “doing one’s duty” and maintaining the social order for its own sake. Taken together, stages three and four comprise the second level of moral development as the moral value lies in performing “good or right roles” and in maintaining the conventional order.

Stage five, according to Kohlberg, consists of a contractual legalistic orientation. Here moral duty is defined in terms of adherence to arbitrary rules or contracts, created for the sake of agreement with general attempts to avoid violating the rights of others or the welfare of the majority. In Kohlberg’s sixth and final stage, named the conscience or principal orientation, the conscience is used as a directing agent for moral decisions which are based on the principles of a universal and consistent code of conduct extending beyond simple social rules. Kohlberg’s final two stages make up the third level of moral development and are both characterized by the moral value lying in conformity by the self to “shared or shareable standards, rights, or duties” (p.179).

Both Freud and Kohlberg can be thought of as structuralists in that each believed that there are internal control mechanisms that are formed over the course of development. From Freud’s perspective, while the development of the ego-ideal may occur very early in childhood, the superego develops only as a reaction to the Oedipus

complex as a means of checking the sexual impulses directed towards the mother. He postulated that there are dramatic differences, however, in the development of superego for boys and for girls. Freud suggested that girls develop penis-envy, direct sexual impulses towards their fathers, and that there is little incentive for the Oedipus complex to ever be fully resolved. In Freud's view, then, girls never undergo superego development to the same degree as their male counterparts. Freud saw Oedipal issues as developing just prior to the latency period for both sexes, roughly between the ages of four and five. In contrast, Kohlberg viewed the capacity to experience internalized guilt as developing somewhat later, in preadolescence or late childhood.

To a large extent Kohlberg's position hinges on his connection of moral developmental theory to the cognitive theories of Piaget. Kohlberg argued that moral development is parallel to cognitive development in that both are stage theories that involve an invariant sequence of increasingly complex structural integration. He observed that the ability of the individual to take the perspective of others, to understand the logic of reciprocity, emerges at the same time as children achieve Piaget's cognitive developmental stage of concrete operational thought. Kohlberg made similar connections between a child's ability to make judgments based upon the intentions of others, rather than simply upon behavioral outcome, and higher order cognitive development.

Kohlberg's theory of moral development broke from Freudian developmental theory, then, in several important respects. Kohlberg viewed psychoanalytic theory as "maturational" in the sense that development occurs via organismically induced factors (which are, of course, subject to fixation or regression as a result of some environmental insult). In contrast, Kohlberg's theory suggests that moral development occurs through

the complex interplay of factors that are partially organismic (cognitive developmental factors) and partly environmental.

One clear source of environmental influence is, of course, the family. From Kohlberg's perspective, however, the primary contribution of the family was not the teaching of moral behavior in the traditional sense. Instead, he viewed the family as providing for the child an abundance of role-taking opportunities that are crucial to moral development. In this way, Kohlberg understood families per se as nonessential since any situation where role-taking opportunities are provided will enhance moral development. Ultimately, however, Kohlberg argued that while socialization agents such as parents may have imparting internalized moral standards on children as their goal, these standards develop as a natural trend independent of the expectations and practices of these agents.

While maintaining the view that moral behavior is the reflection of a set of internalized moral standards, Hoffman (1983) took issue with Kohlberg's de-emphasis on the importance of parenting behavior. Hoffman sees moral action as an individual's attempt to achieve an acceptable balance between egoistic and moral motives within the self. He believes that internalized norms are activated whenever an individual contemplates acting in a manner that may cause harm to another. Hoffman identified three different characteristics of an internalized norm. First, the norm has a cognitive dimension. Included in this component are an individual's understanding of the consequences which one's behavior may have on someone else, an evaluation of the rightness or wrongness of a particular act, as well as the reasons for these judgments. The second component of a norm that Hoffman identifies involves its function as a "moral motive." A norm has a moral motive when it is experienced by the individual as

having a compelling quality not based on a fear of punishment. Finally, the norm must be experienced as deriving from within oneself without the individual having any conscious awareness as to its origins.

The discipline encounter is viewed by Hoffman as the most crucial aspect of parenting behavior for fostering moral internalization. In Hoffman's view, it is only during the discipline encounter that an explicit connection is made between norms, egoistic desires, and the child's behavior. While emphasizing the importance of the discipline encounter, he was careful to distinguish it from a moral encounter where no outside intervention is necessary and an individual responds in accordance with internalized standards of conduct. While acknowledging that any particular encounter will often have multiple components, Hoffman identified three general types of parent discipline: power assertion, love withdrawal, and induction. Power assertive discipline relies heavily on physical force, deprivation of privileges, direct commands, or threats. Love withdrawal involves the utilization of nonphysical techniques such as the deprivation of affection, attention, and/or the expression of anger as a consequence for some transgression. Induction, the third general type of discipline, makes use of explanation geared toward helping the individual understand how his or her behavior caused discomfort or distress for another. Inductive techniques, then, are the most likely to arouse both empathic distress and an awareness of being the causal agent for another's difficulties. Hoffman believes that it is under these particular circumstances that an individual is likely to experience guilt.

As noted earlier, Hoffman believes that any given discipline encounter will contain power-assertive, love-withdrawal, and inductive components. He went even further to suggest that there is an optimal combination for the use of these components.

Hoffman believes that in order for a discipline encounter to be effective, it must produce both cognitive and affective responses in the target of the discipline. He described the necessity of achieving an “optimal level of arousal” so that the inductive component of the discipline encounter can be delivered effectively. Power-assertive and love-withdrawal techniques tend to produce affective arousal but discipline encounters which rely too heavily upon these techniques are likely to lead the individual to have difficulty processing the inductive component of the encounter because they are overwhelming. This type of encounter is therefore unlikely to lead to a cognitive response. Similarly, techniques that produce too little affective arousal may allow the individual to tune out or otherwise ignore the inductive component of the discipline encounter. The cognitive response is crucial for Hoffman as he sees it as the only time when the explicit connection is made between external parental or societal standards, the individual’s own desires, and how the transgression has led to a conflict between these standards and desires.

Three types of motives may therefore be aroused in discipline encounters. The first is a fear/anxiety response related to the implications for the individual for his or her deviant act. This motive is likely to be aroused by the power-assertive and love withdrawal properties of the discipline encounter. The second type of motive involves the individual’s reaction, or anticipated reaction, to the consequences for the victim of a deviant action. This reaction contains some component of empathy or of empathy-based guilt. The final type of motive that may be aroused during a discipline encounter involves the individual’s desire to maintain harmony with the disciplinarian. Hoffman identified this component as being ever present, although heightened somewhat during a discipline encounter as a result of some external expression of disapproval.

While Hoffman was careful to distinguish the discipline encounter from the “moral encounter” what is the relationship between them? Hoffman stated that discipline encounters develop into moral encounters through changes in the individual’s memory of the discipline encounter over time. He postulated that when discipline makes heavy use of inductive processes, memories regarding the external source of the message gradually fade in such a way that the individual begins to attribute the source of the moral message to internal factors. To support this, he cited the research of Tulving (1972) and Craik (1977) that suggests that information gets coded into memory as either episodic or semantic memory and that information that is encoded undergoes different levels of processing which varies with the nature of the information. Hoffman suggested that because inductive discipline makes connections between a given behavior and the consequences of that behavior, the discipline message is coded into semantic memory and may be analyzed at a deeper level. Because of the increased amount of information processing to which inductive discipline messages are subjected, Hoffman suggested that as additional inductive discipline messages become integrated with earlier memories over time, there is an increased likelihood that the messages will become disassociated from their source. When the sources of messages are salient, they are more likely to be attributed to external agents. Memories for which the source is vague or otherwise unclear, as would be the case for a memory created via an inductive discipline message, are more likely to be attributed to having been derived internally.

Because Hoffman believes that affect is just as important as the content of the message in understanding internalization, he attempted to incorporate emotion into his model as well. As was discussed earlier, induction is likely to produce affective responses such as empathy, guilt, and anticipatory guilt. But what happens with these

emotional experiences? Hoffman suggested that emotion could be coded into memory as well. He hypothesized that content and affect are coded in memory together where they form “hot” or “emotionally-charged” cognitions. In this way future moral decision-making draws upon memories related both to the rule or norm itself as well as to the affect that has previously been associated with some normative transgression.

Hoffman’s cognitive-affective theory of moral internalization is not without its problems. He has suggested that inductive discipline messages are processed in such a way that they become incorporated more deeply into memory. The individual attributes internal origins to these more deeply processed affective and cognitive messages and acts in accordance with these memories. Much of Hoffman’s processing theory, however, relies upon a disassociation between the message and the parent as the source of the message. While Hoffman stated that information regarding the origin of the message does not get encoded in semantic memory, the evidence upon which he based this conclusion remains somewhat unclear. Just as induction may require higher level processing because of the connections that need to be drawn between a given behavior and the consequences of that behavior, can the same thing not be said for the source of the message as well? Why is it that the child does not develop a causal association between the presence of a parent and the use of discipline, especially when the discipline is likely to contain noninductive components that are particularly likely to induce affective arousal? Hoffman, ultimately, offered no explanation for why these different causal relationships would come to be processed in such different ways.

Grusec and Goodnow (1994) attempted to incorporate Hoffman’s understanding regarding the importance of cognitive and affective components and his emphasis on the vital role that parents play into their own model of internalization. Grusec and Goodnow

identified two distinct mediators of the relationship between parental discipline and internalization. They argue that the failure to internalize parental values communicated via discipline may result from either an inaccurate perception of the discipline message or, alternatively, from active rejection of the parental message. For each of these mediating links, both cognitive and affective factors may work to either facilitate or disrupt internalization. For example, cognitive factors may influence the perception of the message when an explanation is not delivered in a manner sensitive to the developmental level of the child. Grusec and Goodnow argue that the cognitive judgments that a child may make as to the appropriateness of a particular discipline encounter also work to dramatically influence the likelihood that the message will be accepted. Grusec and Goodnow also view affective factors as being crucial. They adopt Hoffman's position that certain forms of power assertive discipline, when used at low levels, may be necessary to sufficiently arouse the child to attend to the discipline message, something which is crucial for accurate perception. When high levels of power assertive discipline are utilized, there may be an increased likelihood that the child will become angry and actively reject the parental discipline message.

Grusec and Goodnow identified several variables (over and above the actual discipline technique) that need to be considered in order to evaluate the potential effectiveness of any discipline encounter. They observed that the nature of the misdeed, the content and structure of the parental discipline message, the nature of the child, and the nature of the parent are all important to consider in evaluating whether a particular message will be accurately perceived and accepted. In this way, Grusec and Goodnow underscored the importance of determining the "goodness of fit" among these four

principal variables. The better the fit, the greater the likelihood that discipline will lead to internalization.

In emphasizing the importance of a goodness of fit between the act, the discipline, child characteristics, and parent characteristics, Grusec and Goodnow have gone a long way towards helping us to understand that any discipline encounter must be understood in the context in which it occurs. “Effective parenting,” as they define it, is reflected in a good match between each of these variables. Their work may help us to explain why there may be no single “best method” of parenting for all children in all situations. One limitation of their discussion of goodness of fit is that it operates on the assumption that parental messages are intrinsically good and that children accept or reject messages for reasons that are appropriate for their developmental level. Perhaps because the sample on which they focus their discussion has undergone a “normative” developmental experience, little effort is made to apply their contextualist perspective to situations where the content of the parental message itself is at odds with the standards of the larger society or, alternatively, when the child rejects an appropriate message. For example, in the case of an angry or defiant child who has experienced maltreatment, the child may actively reject parental discipline messages for reasons that have little to do with whether the content of the message is appropriate or with whether the message is delivered in such a way as to not induce over arousal. Instead, the child may reject discipline messages because of problems in the larger context of the parent-child relationship that dramatically impact the child’s attributions concerning parental intent.

What role does the parent-child relationship play in fostering internalization? Kochanska has examined this question in great detail (Kochanska, 1995; Kochanska, Aksan, & Koenig, 1995; Kochanska, 1997a). Kochanska (1993) has developed her own

theoretical model that draws upon many of Grusec and Goodnow's propositions regarding goodness of fit. She argues that child temperament functions as a crucial moderator of the relationship between maternal socialization and internalization. Since temperamental differences are readily observed among a normative sample of children, Kochanska suggested that different kinds of parental discipline can effectively lead to internalization. For example, consistent with Hoffman (1983), children who are fearful are most likely to internalize discipline that is rather gentle since it is this type of message that should lead to optimal arousal. In contrast, Kochanska argues that children with temperaments she describes as "fearless," may never be sufficiently aroused by a parental discipline technique without the technique simultaneously being viewed by the child as overly punitive. In the case of the fearless child, Kochanska departs from Hoffman's heavy emphasis on discipline and, instead, draws upon Maccoby's (1983) theory which asserts that the child's positive motivation to please the parent will lead to the internalization of parental and societal norms and expectations regarding "proper" behavior. Maccoby argued that a mutually positive and responsive orientation between parent and child fosters both the child's eagerness and commitment to accept parental values. One might expect similar desires to please the parent on the part of the temperamentally fearful child would be an equally important contributor to internalization as parent discipline. Maccoby's understanding of how internalization occurs can be easily distinguished from the views of Hoffman and the psychoanalytic theorists that, instead, have relied heavily on guilt and anxiety (either actual or anticipatory) to explain how conscience develops.

In recent work, Kochanska (1997b) has found strong longitudinal support for the existence of multiple pathways to internalization. She assessed 103 children at 2 to 3

years of age and again at age 4 and at age 5. Both behavioral observation and maternal report measures were utilized to identify the child's temperamental characteristics. As a means of assessing Maccoby's responsiveness dimension, Kochanska administered the children's Attachment Q-set developed by Waters (1987), and coded two videotaped mother-child interaction tasks along dimensions of maternal sensitivity, acceptance, and cooperation. Mothers' discipline style was also assessed during the "clean-up" phases of the videotaped interaction tasks. Internalization was assessed via cheating games in which the child was presented with a strong incentive to "win" but was unable to do so without deviating from the rules, and via the presence of antisocial and prosocial themes in responses generated to hypothetical moral dilemmas. As predicted by her model, for fearful children, Kochanska found a strong relationship between the use of gentle maternal discipline, which de-emphasized power and internalization. Somewhat surprisingly, no significant relationship was found between the positive/responsive dimension and internalization for the fearful group. In contrast, for the temperamentally fearless group of children, attachment security was significantly correlated with time 2 measures of conscience. No relationship was found for the maternal responsiveness or for the maternal disciplinary style dimensions.

Additional analyses were conducted to test for theoretical goodness of fit between child temperament, attachment security, maternal responsiveness, and maternal discipline style. As expected, those children for which there was the best fit among the variables (e.g., fearless children with high maternal responsiveness and high attachment security) showed the highest levels of conscience development over time. Children for whom there was a poor fit among the variables (e.g., fearless children with low attachment security and low maternal responsiveness) showed low levels of internalization.

While Kochanska freely uses the term “conscience” as the dimension she is interested in studying, it seems likely that her understanding of what comprises conscience may be somewhat different from the conscience that Freud and Kohlberg describe. Psychoanalytic theorists may tend to think of what Kochanska views as “conscience” as really only its early precursor since self-generated feelings of guilt may not emerge until late childhood or early adolescence. Clearly, though, the dimension that Kochanska is testing has more of an internal component to it than simple compliance to an external demand since the children she has assessed make decisions based upon an internalized understanding of “proper” behavior utilizing internal mechanisms of self-control. Nonetheless, the young children whom she has studied may lack the more sophisticated mechanisms through which self-generated guilt and anxiety are utilized for behavioral regulation.

Kochanska’s collective work offers what is perhaps the first empirical support for a comprehensive theory of the development of early conscience. For at least a subset of children, her work offers partial support for Hoffman’s emphasis on the importance of achieving an optimal level of arousal in order for discipline to be effective. Kochanska’s work has also contributed to our understanding of the importance of contextualism as Grusec and Goodnow have suggested. Perhaps Kochanska’s most important contribution of all may be her emphasis on the crucial role which the attachment relationship may play in fostering internalization for those children who because of their “fearless” temperamental disposition seem to be less responsive to traditional discipline strategies.

Chapter 2

ATTACHMENT AND CHILD BEHAVIORAL DIFFICULTIES

Early and Contemporary Understandings of Attachment

Kochanska's research has underscored the importance of the attachment relationship, especially for temperamentally "fearless" children. While the literature has been less attentive to the mechanisms through which the attachment relationship may be involved in internalization, a large body of literature has already demonstrated that secure attachment between parent and child early in the child's life may be crucial for healthy psychological development.

Erikson (1950) was among the first to argue that the development of "basic trust" by the child towards the mother is one of the first tasks of the ego. He argued that the child must develop a pattern for dealing with the conflict between trust and mistrust of others if he or she is to successfully negotiate his or her environment. The development of feelings of basic trust towards the mother may be a crucial component of a healthy attachment relationship. Erikson operated on the assumption that in all, or nearly all, "normal" families a sufficiently strong bond develops between mother and child. He argued that those children who do experience maternal deprivation are at risk for developing severe psychopathology later on in life.

Bowlby (1958) also identified the importance of the attachment relationship for later human development. He adopted an ethological-evolutionary perspective that emerges from experimental work with nonhuman primates and with other animals. Bowlby built upon earlier animal research that had emphasized the adaptive function of mother-infant bonding behavior and applied this work to human beings. He noted that

many psychiatric disturbances seem to result from either the lack of opportunity to form affectional bonds or from repeated and/or lengthy disruptions of bonds that have been formed. At the time that Bowlby was building his initial theory, he pointed out that there were few controlled studies in place to test for the causal relationships between the disruptions that clinicians had identified and later disorder. Indeed, this work was to come some time later. Nonetheless, Bowlby was able to make use of retrospective data and his own observational skills to help form a substantial foundation for later empirical work.

Ainsworth and Bell (1970) observed the difficulty of assessing attachment behavior in a naturalistic manner given the contextual variability of such behavior. In an effort to acquire some “shortcut” for studying parent-child attachment, they developed the classic “Strange Situation” experimental manipulation. In the Strange Situation, one year-old children undergo seven separate periods of brief separation and reunification with their mothers and with confederate strangers. The child’s behavior is monitored and coded along the broad dimensions of exploratory behavior, search behavior, proximity- and contact-seeking behavior, contact-maintaining behavior, proximity- and interaction-avoiding behavior, and contact- and interaction-resisting behavior. Individual differences between children were most readily observed during the reunion episodes that followed maternal separation.

Ainsworth and Bell identified two distinct patterns of child behavior that emerged over the course of the experimental task. Most typical of the children in their White, middle-class sample was attachment characterized by the re-initiation of exploratory child behavior upon reunification with the mother. Children in this group seemed to be able to utilize their mothers as a “secure base” from which to continue their healthy

exploration of the play environment. In contrast, a sub sample of children observed during this initial study simultaneously engaged in contact-resisting and contact-maintaining behaviors. Ainsworth and Bell describe this group as ambivalent in their attachment. The children seem to want to be held and comforted while, at the same time, they angrily resist contact, perhaps as a defensive reaction to the earlier separation.

Ainsworth and Bell's results are strikingly parallel to Bowlby's original understanding of the evolutionary benefit for expressing anger following separation from a caregiver. From an ethological perspective, Bowlby understands this "punitive" behavior to be highly adaptive for maintaining proximity to the caregiver in that it may decrease the likelihood of future separations that might place the infant at risk.

Later work by Ainsworth, Blehar, Waters, and Wall (1978), established three broad classifications of attachment behavior: secure, ambivalent, and avoidant. The addition of the avoidant coping group emerged from the identification of a group of children who show no indication of distress at their mother's departure, actively explore the play environment, and are friendly to the unfamiliar adult who remains in the room. Upon the return of the mother, children in the avoidant group respond by failing to greet her, diverting attention away from her, and, initially, by moving away when their mother approaches. Main (1990) has described this avoidant behavior on the part of the infant as one in which attention is displaced onto the inanimate environment as a means of restricting the communication of anger and distress. In this way, the infant avoids cues that would otherwise increase the desire to seek comfort from a parent who is likely to be unreceptive to proximity seeking and other attachment behaviors.

Spangler and Grossman (1993) have offered empirical support for the hypothesis that avoidant children displace the emotional reaction to the mother's return. They have

found that avoidant children do not differ from securely attached children in one important way; both types of children exhibit a similar elevation in heart rate upon the return of the mother. The two groups of children differ, however, in that while securely attached children show heart rate decreases as they return to the play material, children in the avoidant attachment group do not show a comparable decline in heart rate. Spangler and Grossman conclude that in spite of the display of “indifferent” behavior upon reunion, avoidant children are just as disturbed by their mother’s absence as children in the secure group. Avoidant children, however, do not allow themselves to be comforted as a means of reducing their distress, presumably because past efforts to seek comfort from the mother have been somehow dissatisfying.

More recent work has identified a fourth “category” for classifying attachment behavior. Main and Solomon (1986) have described a subgroup of children who are “difficult to classify” via the Strange Situation paradigm. While others had experienced classification difficulties earlier (e.g., Sroufe & Waters, 1977), the presence of a difficult to classify subgroup was first formally identified by Main and Weston (1981) following efforts to replicate the Ainsworth findings in a White, middle-class, San Francisco sample. Children in this subgroup display behaviors upon reunion that they describe as “disorganized.” For example, children in the disorganized subgroup may engage in apparently contradictory behaviors such as returning to greet the mother upon reunion but at the same time averting their gaze. Other children in the disorganized subgroup may exhibit extreme avoidance upon the mother’s return in spite of having shown extreme levels of distress throughout the situation. Main and Weston have found that in many cases disorganized children could be forced into one of the three existing categories. Unfortunately, efforts to force classification have led to the mischaracterization of the

attachment relationship. Children who appear to exhibit the most disturbance in their attachment relationship may end up ultimately being mislabeled as “secure” under a system that does not make use of a disorganized category.

While estimates of the frequency of disorganized attachment behaviors in White, middle-class samples ranges from 13 percent in the Main and Weston (1981) study to as low as 10 percent in the Sroufe and Waters (1977) sample, there are indications that the frequency of this type of attachment behavior may be much higher in an “at-risk” population. For example, Egeland and Sroufe (1981) reanalyzed previously coded interactions among their sample of poor Minnesota mothers and found that many of the abused and neglected infants who had been previously classified as “secure,” in fact, exhibited a disorganized pattern of insecurity. Crittenden (1985) also reanalyzed a sub sample of interaction data involving maltreated children. Maltreated children who had previously been classified as “secure” were reassigned to a new avoidant-ambivalent category that is in many respects similar to Main and Weston’s disorganized category. Children in the avoidant-ambivalent category were observed to simultaneously display moderate to high proximity seeking, moderate to high avoidance, and moderate to high resistance.

Developmental Consequences for Disruptions in Attachment

While disruptions in the more typical secure attachment can be easily observed quite early in the child’s life, what evidence is there for the short- and long-term consequences of these developmental differences in the parent-child relationship? Maccoby and Feldman (1972) conducted one of the earliest longitudinal studies to address this question. Utilizing a sample drawn from a Stanford University-affiliated nursery school program, they attempted to replicate as precisely as possible the

experimental conditions of Ainsworth's Strange Situations paradigm. They studied children at 24, 30, and 36 months, and then again when they had entered preschool.

Maccoby and Feldman found remarkable stability in both children's fear responses to the presence of an unfamiliar stranger as well as in their proximity seeking behavior in response to this perceived threat. While there was no relationship between children's early attachment behavior and their interactions with either mothers or peers in preschool, there was a significant relationship between early attachment behavior and interactions with teachers and other adults. Children who were highly oriented toward teachers and other adults had also shown high mother-attachment and, in most cases, high stranger acceptance in the strange situation. While the occurrence of aggressive behavior towards others was too small to test in their sample, Maccoby and Feldman did observe that those children who cried readily and had high activity levels at 24 months, and who tended to remain close to strangers while avoiding more mature interaction were more frequently the targets of aggressive behavior by others in preschool. Maccoby and Feldman suggest that these children may engage in behaviors that seem to have a rather high "nuisance value" for their peers.

In a review of the literature concerning attachment and aggressive behavior problems, Lyons-Ruth (1996) has pointed to the importance of disorganized attachment patterns and, to a lesser extent, to avoidant attachment patterns as predictors of future externalizing behavioral difficulties. She observes that a variety of researchers have found relationships between avoidant attachment patterns in infancy and later difficulties in infancy, toddlerhood, and the preschool period. Lyons-Ruth indicates, however, that while a strong predictive relationship has been found between an insecure-avoidant

attachment classification and later externalizing problems, these significant results have tended to be found only in high-risk samples.

For example, Fagot and Kavanagh (1990) have found that among a sample of 109 boys and girls assessed via the Strange Situation at 18 months, girls classified as insecure-avoidant were observed to have more externalizing problems and more difficulty interacting with peers at age 4 than girls who had received earlier ratings as being securely attached. No similar pattern was found for the boys in the Fagot and Kavanagh sample. Matas, Arend, and Sroufe (1978) found that infants who were classified as being securely attached at 18 months showed greater enthusiasm, were more cooperative, and were generally more effective at age 2 than a group of children who were rated as being insecurely attached (15 avoidant and 10 ambivalent). In their sample of impoverished mothers, Renken, Egeland, Marvinney, Mangelsdorf, and Sroufe (1989) found that an avoidant attachment pattern in infancy predicted aggression and passive withdrawal for boys during the early school years (first through third grade). No similar relationship was found with aggressive behavior among the girls in the sample perhaps due to other influences on female socialization. Finally, in another study from this same sample, Egeland, Pianta, and O'Brien (1993) found that mothers who were rated as being highly intrusive had children who were more likely to be rated as insecure-avoidant at 12 months. By 42 months, these same children were more likely to be negative, noncompliant, avoidant, and more hyperactive than children who had received earlier classifications of secure attachment.

As Lyons-Ruth has pointed out, in spite of these positive findings, the relationship between early ratings of insecure-avoidant attachment and later aggression has not been confirmed in less vulnerable samples. Goldberg, Perrotta, Minde, and Corter (1986) and

Bates, Bayles, Bennett, Ridge, and Brown (1991) report no relationship between infant attachment classifications and later behavioral difficulties. Lewis, Feiring, McGuffog and Jaskir (1984) found only one predictive relationship. Boys in the sample with insecure-avoidant classifications exhibit more internalizing symptomatology later in development but show no differences in externalizing behavior. Taken together these results suggest that risk factors beyond the classification of an insecure-avoidant attachment style must be considered when attempting to predict externalizing behavioral difficulties.

In spite of the mixed evidence for the influence of an insecure-avoidant attachment for predicting later externalizing difficulties, much stronger evidence exists for the impact of a disorganized attachment classification. As Lyons-Ruth (1996) has noted, the disorganized attachment pattern has been found at rates of fewer than 15 percent among a two-parent, middle-class sample. This percentage increases substantially, with the introduction of risk, to a high of 82 percent among maltreating families (Lyons-Ruth, Repacholi, McLeod, & Silva, 1991). Lyons-Ruth and her colleagues have also argued that there may be subtype differences among children classified as disorganized with the middle-class disorganized children tending to be classified as “forced-secure” while maltreated disorganized children tend to be classified as “forced-avoidant.”

Not surprisingly, then, the disorganized attachment patterns seen in low-income families represents a significant risk factor for later externalizing difficulties. Lyons-Ruth, Alpern, and Repacholi (1993) found that three aspects of risk measured at 18 months were the strongest predictors of hostile and aggressive behavior toward peers in kindergarten. Security of infant attachment, maternal psychosocial difficulties, and a

hostile-intrusive maternal style all emerged as significant predictors of later child difficulty. Children classified as disorganized were six times more likely to display highly hostile behavior patterns at follow-up.

As noted earlier, children who have suffered maltreatment may be especially vulnerable to disruptions in the attachment relationship. Cicchetti and Barnett (1991) used the Strange Situation procedure to classify a sample of maltreated children and a comparison sample of “normal treated” children at 30, 36, and 48 months. Using the traditional three category classification system, they found that maltreated children were much more likely to be assigned to an insecure attachment category than those children who were not maltreated. Among those children who were classified as securely attached in the no maltreatment group, significant stability was found in their attachment classification over time. In contrast, among the small number of children in the maltreatment group who were classified as being securely attached at the initial assessment, even fewer maintained this classification over time as most all were later classified as insecure. Similar links between maltreatment and attachment insecurity and/or disorganization have been reported by Carlson, Cicchetti, Barnett, and Braunwald (1989a, 1989b). Not surprisingly, then, maltreated children are also at serious risk for the development of acting-out and aggressive behaviors later on in development (Aber & Cicchetti, 1984; Kaufman & Cicchetti, 1989).

The evidence that disturbances in the attachment relationship place children at serious risk for demonstrating high levels of aggressive behavior, especially in low socioeconomic status families, seems rather unequivocal. Kochanska’s (1997b) work conducted among relatively low-risk samples presents one possible explanation for this finding; attachment may be particularly important for the development of early

conscience in a subgroup of temperamentally fearless children. Presumably, temperamentally fearless children who, by virtue of a secure attachment relationship, have internalized the moral standards of parents and the larger society are less likely to engage in acts of aggression towards others. Inadequate conscience development, then, may function as a vital mediating link between insecure/disorganized attachment and later externalizing behavioral difficulties.

Chapter 3

TEMPERAMENT AND “GOODNESS OF FIT”

Thus far, I have reviewed two distinct pathways through which early conscience and self-regulatory behavior seems to form. In the first mechanism reviewed, inductive discipline techniques that also make use of minimal amounts of power assertion and love withdrawal attempt to achieve the optimal level of arousal needed to internalize parental discipline messages. In the second mechanism reviewed, secure attachment has been linked to better self-regulatory behavior, with disruptions in attachment leading to more frequent externalizing behavioral difficulties. But which of the pathways best explains how early conscience develops for any particular child? As Grusec and Goodnow have suggested, and Kochanska's (1997b) work has confirmed, the pathway to early conscience development depends in part, on what the child brings to the interaction. The child's temperament may have a powerful influence on his or her ability to receive, process, and react to discipline messages.

Thomas and Chess (1977) were among the first to emphasize the importance of considering the “goodness of fit” between parental expectations, parenting behavior and child temperamental qualities. In the classic New York Longitudinal Study, they contrasted the responses of parents from two different ethnic and cultural backgrounds to particular child behaviors. In comparing White, middle to upper-middle class families with working-class Puerto Rican families, Thomas and Chess conclude that symptom formation in children is largely the result of environmental influences. They argue that symptoms form (and are identified by parents) when environmental demands placed on the child are excessive given the child's temperamental disposition. For example,

children with similarly high temperamental activity levels were considered to be much more problematic for parents in the Puerto Rican sample. Thomas and Chess observed that the reason for this finding is that children in the Puerto Rican sample were much more likely to be confined to small apartments with inadequate play space while their more affluent counterparts had ample play space in their homes as well as easy access to safe playgrounds in their immediate neighborhoods. When parenting behaviors and expectations do not “fit” well with a child’s temperamental disposition, then the child is much more likely to have difficulty successfully negotiating their environment.

In reviewing the literature regarding the contribution of temperament to later behavioral difficulties, Carey (1986) underscores the importance of examining goodness of fit between child and environment over time. He observes that different components of temperament may contribute to problems as environmental expectations change. For example, a toddler with a high activity level and low task persistence may not be viewed by parents as troublesome. When this same child enters school, however, changing environmental demands of the classroom may contribute to a poor fit with the child’s temperament and lead to behavioral difficulties. In a similar way, a child who is temperamentally “fearless” during early toddlerhood may be more prone to approach new situations and more actively explore the environment. As Kochanska (1997b) has demonstrated, in the older toddler and child, this same temperamental “fearlessness” may prevent the child from becoming sufficiently aroused so as to be able to attend to inductive parental discipline messages.

Gunnar (1994) has presented biological evidence that temperamental fearfulness may contribute to differences in the way in which children process information. Gunnar examined differences in children’s responses to stress by examining activity levels in the

hypothalamic-pituitary-adrenocortical (HPA) system, one of the two major stress sensitive areas in the brain. Borrowing a procedure used by Kagan, Reznick, and Snidman (1987), children were rated as either inhibited or uninhibited on the basis of their responses to three arousing events: a live female clown, a clown robot, and a puppet show. Ratings of observed responses to these events were significantly correlated with parental reports of fearfulness. Children who were rated as uninhibited showed no significant elevation of cortisol levels in the HPA systems following exposure to the arousing events or when they were tested after having completed the Strange Situations task. In contrast, the inhibited children experienced significant elevations in HPA cortisol levels following exposure to the stressful events. Interestingly, in contrast to Kochanska's empirical findings, inhibited children who had been classified as being securely attached seemed to be better able to cope with the experienced stress, suggesting that attachment may be an important moderator for "fearful" children's adaptation.

In addition to the research which suggests that temperament influences the manner in which we respond to and process information, a large body of literature exists which has related temperamental characteristics to behavior disorders. For example, Kyrios and Prior (1990), Tschann, Kaiser, Chesney, Alkon, and Boyce (1996), and Wolfson, Fields, and Rose (1987) have all found links between "difficult" temperamental qualities and higher levels of child externalizing behaviors. In each of the studies, high levels of temperamental impulsivity and negative affect were both related to the preschooler's aggressive behavior. Unfortunately, while some of this work may demonstrate a direct link between temperament and behavioral difficulties, there may be mechanisms, left untested by the research, through which temperament may operate indirectly. For example, as has been suggested earlier, temperamental fearlessness may

influence the development of behavior problems by limiting the child's ability to attend to discipline messages. It seems likely that temperament influences behavior through both direct and indirect mechanisms.

One assumption commonly made by many researchers is that temperament has an inborn, genetically influenced, biological basis that is hard-wired and immutable (Bates, 1989). Unfortunately, as Bates, Wachs, and Emde (1994) point out, biological sources are too often thought about as operating independent of the environment in "quasi-mechanistic," unidirectional ways. Gottlieb (1992) has offered a much more complex understanding of organismic organization. According to Gottlieb, the multiple levels of gene, cell, and person are interactive with both environmental and genetic influences. As genes get turned on and off over time, they also become susceptible to environmental influence as they both direct and respond to developmental processes (Plomin et al., 1993). As Chess and Thomas (1984) have made clear, an individual's temperament can clearly change across development in transaction with the social environment. Temperament, then, may both directly and indirectly influence behavior while at the same time being shaped by experience over the course of development.

Chapter 4

DOMESTIC VIOLENCE AND TEMPERAMENT

What evidence do we have for a possible link between domestic violence and the kinds of temperamental vulnerabilities that at best, dictate possible pathways toward the development of early conscience, and at worst, directly impede the development of this early self-regulatory behavior. Unfortunately, while a great deal of recent work has examined links between domestic violence and behavioral difficulties, the mechanisms through which these difficulties emerge remain relatively unexplored. Indeed, given the fact that the effects of witnessing domestic violence has only recently been recognized as an area of study separate from the impact of abuse and neglect on children's functioning, it is, perhaps, not surprising that relatively little attention has been given to more microscopic processes.

As Kolbo, Blakely, and Engleman (1996) have observed in their review of the literature examining the impact of witnessing domestic violence on children's development, in general, positive correlations have been repeatedly found between witnessing domestic violence and impaired child development. The results of these studies, however, have been something less than unequivocal. As Kolbo et al. have observed, several studies have failed to find differences between witnesses and comparison children. Christopoulos et al. (1987), Hughes and Barad (1983), Rosenbaum and O'Leary (1981), and Wolfe, Zak, Wilson, and Jaffe (1986) all conducted well-designed studies which report no differences between child witnesses of domestic violence and comparison children on measures of aggression, hyperactivity, and conduct problems. An even larger number of studies, however, have found links between

witnessing domestic violence and behavioral difficulties. For example, Fantuzzo, DePaola, Lambert, Marino, Anderson, and Sutton (1991), Hughes (1988), Jaffe, Wolfe, Wilson, and Zak (1986a), and Jaffe, Wolfe, Wilson, and Zak (1986b) have all found significant differences between witnesses and comparison children in behavioral functioning. Both boys and girls are reported to show higher levels of internalizing symptomatology and lower self-esteem, with boys (and sometimes girls) also showing higher levels of externalizing behavioral difficulties.

Whenever well-conducted research (sometimes even by the same research group) yields seemingly contradictory findings it seems logical to examine other variables that may be of explanatory significance. It is precisely these types of inconsistencies that characterize the presence of externalizing symptomatology among child witnesses to domestic violence. One significant problem with much of the earlier research is the failure to simultaneously assess child abuse in homes where interparental violence was occurring (Fantuzzo & Lindquist, 1988). As discussed earlier, child temperament may also be an important variable to consider given the fact that it may moderate the influence of parent discipline and the parent-child relationship on the development of early conscience, the precursor to self-regulatory behavior.

The research on the effects of domestic violence on children's temperament is still in its infancy. In the only study which explicitly examines temperament among children exposed to domestic violence, Holden and Ritchie (1991) found that children in domestic violence families had higher activity levels, heightened emotional intensity, lower adaptability, and greater distractibility, all characteristics of the "difficult temperament" that Thomas and Chess (1977) first described. While no significant mean differences were found between children from violent versus nonviolent homes on a measure of

approach/ withdrawal, nonlinear relationships between witnessing domestic violence and approach/ withdrawal (one component of fearfulness) were not explored.

Other evidence may provide hints that there is some relationship between domestic violence and a “fear” component of temperament. Graham-Bermann and Levendosky (2000) found that preschoolers who witnessed domestic violence were less likely to demonstrate appropriate emotional reactions to events and expressed negative feelings more quickly than comparison children. In addition, those children who witnessed domestic violence were more likely to withdraw from others.

Clearly, domestic violence is influencing the “behavioral style” that children utilize as they interact with their environment, but in what way? One possibility is that domestic violence tends to intensify existing temperamental propensities. For example, a child who is prone to fearfulness may become hypersensitive to threatening environmental cues as a protective mechanism. Alternatively, a child who is prone to temperamental fearlessness may develop the ability to shut off threatening environmental cues. If in fact, domestic violence influences temperament in this way, we might expect to see a dramatic influence in the child’s reaction to discipline. Among the hypersensitive children, the presence of even moderate amounts of power assertive discipline might lead to overarousal and inhibit processing of any inductive component to the discipline message. Among the hyposensitive, fearless children, the parent-child relationship may take on even greater importance as a mechanism for internalizing expectations for normative behavior, as the child effectively tunes out any discipline efforts.

Qualitative work interviewing children who had been exposed to family violence by Ericksen and Henderson (1992) provides some insight into these diverse reactions to

trauma. While some of the children describe feelings associated with hypervigilance and increased fear, others tended to withdraw or disengage, seeking solitude or escaping from stress via fantasy. Indeed, these different mechanisms for coping with trauma that Ericksen and Henderson describe seems to fit quite well with the clinical experiences of many who have worked with traumatized children (Terr, 1990).

Chapter 5

HYPOTHESES

The current investigation examines the mechanisms through which early conscience develops in an at-risk population. As illustrated in Figure 1, witnessing domestic violence is examined as a specific risk factor via the influence it has on child temperament. Child temperament is hypothesized to moderate the relationship between attachment and early conscience development and between parent discipline and early conscience development. Per Baron and Kenny's (1986) criteria, a variable may be considered a moderator variable if it interacts with another main effect variable in such a way that it contributes a significant amount of additional variance to the prediction. In addition, to its potential moderating influence on parent discipline and attachment, temperament is also predicted to have a main effect on those aspects of early conscience related to inhibitory self-control. Several hypotheses have been developed for the current investigation:

Hypothesis 1

Consistent with the notion that the environment can influence temperament (e.g., Thomas & Chess, 1977), witnessing domestic violence was anticipated to have a significant relationship with child temperament. Witnessing domestic violence was predicted to be related to temperament in such a way that increased exposure to violence in their homes would be related to children's placement more toward the extremes on the combined "fear" dimension of the temperament scale.

Witnessing domestic violence was also expected to be related to the "impulsivity" dimension of temperament. As exposure to domestic violence increased, children were

expected to demonstrate higher levels of impulsivity and less inhibitory self-control, consistent with previous research linking exposure to violence with these temperamental dimensions (e.g., Fantuzzo et al., 1991).

Hypothesis 2

The impulsivity component of child temperament was predicted to directly influence certain components of early conscience. Since impulsivity seems to be a risk factor for the development of externalizing behavior problems (e.g., Wolfson, Fields, & Rose, 1987), children who are highly impulsive were expected to show lower levels of active moral regulation/ vigilance according to maternal report. No relationship was predicted between temperamental impulsivity and maternal report of affective discomfort since the fact that children may have difficulty regulating behavior does not necessarily suggest that these same children do not feel bad about their transgressions.

Hypothesis 3

Since the Problem Situations Questionnaire (PSQ) has been created specifically for this study, the hypothesis that the PSQ is a valid instrument was tested. Scores on the PSQ were expected to be correlated with scores on the Parent Responses to Child Misbehavior--Revised (PRCM-R) and with scores on the Attitudes Toward Spanking (ATS) instruments. Assuming that adequate reliability on the PSQ subscales had been established, mean scores on the Power Assertion PSQ subscale were expected to be positively correlated with scores on the ATS, and with subscale scores on the PRCM-R related to the use of physical punishment and verbal reprimands, at statistically significant levels. Similarly, scores on the Response Cost PSQ subscale were predicted to be significantly and positively correlated with scores on the PRCM-R subscales related to the removal of positive attention. Finally, scores on the Inductive Discipline

dimension of the PSQ were expected to be significantly and positively correlated with scores on the PRCM-R subscales related to the use of reasoning, diversion, and negotiation.

Hypothesis 4

Maternal ratings of child temperamental fearfulness were predicted to moderate the relationship between the use of parent discipline and internalization. In contrast to fearless children, with fearful children the use of low levels of power assertive discipline and love withdrawal and high levels of inductive discipline was hypothesized to be strongly related to maternal report measures of higher internalization. For the fearful group, then, discipline was predicted to be related to high scores on the affective discomfort and active moral regulation/ vigilance scales of My Child. No relationship was predicted between parent discipline and internalization for the group of children classified as fearless. This prediction emerged from the theoretical work of Hoffman (1983) and empirical work of Kochanska (1997b) suggesting that for children who are fearless, the level of power assertion and love withdrawal necessary to get the child to attend to discipline messages is so high, it becomes impossible to arouse the child without being overly punitive.

This hypothesis (and hypothesis 5) hinged on the empirical comparison of temperamental fearfulness scores in the at-risk sample of the current investigation with the scores obtained by Kochanska in her previous research. As indicated in hypothesis 1, exposure to domestic violence was predicted to relate to child placement at the extremes of the “fear” dimension of temperament. If this hypothesis is confirmed, the median score on the “fear” dimension should be similar to that obtained by Kochanska with differences seen in the standard deviations between the two samples. The median split

procedure used by Kochanska will then be utilized to classify children as fearful or fearless. If hypothesis 1 is not confirmed and the Kochanska sample and the sample in the current investigation are found to have different median scores on the fearfulness dimension, then the Kochanska median score will be utilized for classifying children as either fearful or fearless.

Hypothesis 5

Maternal ratings of child fearfulness were also predicted to moderate the relationship between parent-child attachment and internalization. This second pathway to internalization was first identified by Maccoby (1983). With higher ratings of attachment security and secure base behavior and lower ratings of dependency obtained from the Attachment Q-Set, children rated as being fearless were expected to show higher scores on the affective discomfort and active moral regulation/ vigilance scales of My Child.

While it makes sense that attachment would be the most important pathway for internalization among fearless children, it is important to note that no theoretical rationale has been offered to explain Kochanska's (1997b) finding that the attachment relationship is unimportant for internalization for relatively fearful children. As suggested by the literature reviewed earlier, attachment appears to be an important predictor of internalization (and of the absence of externalizing behavior problems) regardless of temperamental factors. Given the body of literature reviewed, it would not be surprising, then, if a strong attachment relationship also predicted internalization for children who are relatively fearful even though this prediction runs contrary to the prior empirical work which has utilized these measures.

Chapter 6

METHODS

Subjects

Subjects in the investigation consisted of 103 preschool children between 3 and 5 years of age and their mothers. The sample consisted of 46 boys and 57 girls. Mothers and children were recruited from local Head Start classrooms, from the Council Against Domestic Assault (CADA), from the local Family Independence Agency (FIA), from the Black Child and Family Institute, from the Economic Crisis Center, and via the posting of fliers advertising the study throughout the Lansing area. Recruitment was conducted in areas of the community so as to maximize the likelihood of obtaining a racially and ethnically diverse sample. Characteristics of the sample are summarized in Table 1. Families were primarily recruited from lower socioeconomic status areas so that the influence of having been raised in a home where domestic violence has occurred could be examined separately from other environmental stressors. In this way, the investigation attempts to compare low socioeconomic status families who have experienced domestic violence with those low socioeconomic status families that have not.

Procedures

The investigation was conducted as part of a larger research study examining the impact of domestic violence on preschooler's development. Mothers and preschoolers who were interested in learning more about the study were asked to contact the research lab by phone. A brief description of the study was provided to the family over the phone. If the family decided to participate, two two-hour appointments with the family were scheduled; one was conducted on the Michigan State University campus, the second in

Table 1. Demographic Characteristics of Sample

	<u>Demographic Characteristics</u>				
	n	%	mean	SD	range
Child					
Sex					
Male	46	45.7%			
Female	57	55.3%			
Age			4.4	.71	3.0-5.9
3 years	28	27.5%			
4 years	52	50.9%			
5 years	22	21.6%			
Race					
Asian	1	1.0%			
Black	44	42.7%			
Latino/Hispanic	11	10.7%			
Bi-racial	24	23.3%			
White	23	22.3%			
Mother					
Age			27.9	6.2	19-46
Race					
Asian	1	1.0%			
Black	43	41.7%			
Latino/Hispanic	10	9.7%			
Bi-racial	5	4.9%			
White	44	42.7%			
Income (monthly)			\$1329	\$964	\$0-\$6,166
Education					
Some H.S.	20	19.4%			
H.S. Degree/GED	24	23.3%			
Some college/vocational	48	46.6%			
College degree	11	10.7%			
Marital status					
Single	44	42.7%			
Living with partner	10	9.7%			
Married	25	24.3%			
Separated	10	9.7%			
Divorced	14	13.6%			

the family's home. When a family contained two children who fell within the age range of the study, one child was selected at random to participate. Prior to beginning data collection, mothers were asked to provide informed consent both for their own participation and for their preschool child. Children were asked to provide verbal assent prior to initiating data collection. As part of the larger study, mothers were asked to complete a battery of questionnaires designed to assess a variety of different areas of child behavior, parenting behavior, maternal psychological functioning, and the parent-child relationship as well as any history of domestic violence. Following the completion of data collection, mothers were paid \$50 for their participation. Children received a small gift, valued at approximately \$5.

Measures

Demographic Questionnaire. Mothers were asked to complete a brief demographic questionnaire which provided information regarding family income, religion, ethnic and racial composition, family size, marital status, and domestic violence history (including dates when violence had occurred) and whether or not the mother and child had ever sought refuge in a shelter.

Measure of exposure to domestic violence. Severity of Violence Against Women Scale (SVAWS) (Marshall, 1992) was completed by the mother as a measure of her prior or ongoing experience of domestic violence. The scale consists of 46 items that represent 9 factors including threats of violence, actual violent acts, and sexual violence. Using data gathered on a community-based sample of 208 women, the factor scales demonstrate excellent reliability with coefficient alphas ranging from .89 to .96. Severity weights for each violent act have also been assigned by Marshall who asked women to rate each act along the dimensions of seriousness, aggressiveness, abusiveness, physical harm, and

psychological/emotional harm, and then computed a mean severity score for each act based on these ratings. For this investigation, a total domestic violence severity score was computed by multiplying the reported frequency of each violent act by Marshall's computed severity score for that act and then summing the products obtained for each of the 46 items. Violence reported served as a proxy for exposure since mothers who have experienced violence may tend to minimize their child's exposure to it. There is empirical evidence to support such a procedure since, as suggested by Carlson (1984), in spite of any efforts that parents may make to limit their child's exposure to interparental violence, there remain strong links between the amount and severity of violence that the mother experiences and the child's exposure to it.

Measure of child temperament: Children's Behavior Questionnaire (CBQ)--Version I (Rothbart, 1996) was completed by the mothers regarding her preschooler to assess several different dimensions of child temperament. This unpublished instrument was adapted by the author from instruments that have previously been utilized successfully with adults (Derryberry & Rothbart, 1984) and with infants (Rothbart, 1981, 1986). For the current investigation, five subscales (discomfort, fear, shyness, impulsivity, and inhibitory control) were used.

Following a procedure used by Kochanska (1997b), scores on the discomfort, fear, and shyness subscales were combined and a median split performed to classify children in the sample as either fearful or fearless. In Kochanska's work, "temperamental fearfulness" was shown to have a moderating effect on parent discipline and attachment when predicting the development of early conscience. The mean, standard deviation, and range of the Kochanska sample ($M = 11.77$, $SD = 2.42$, $Range = 5.67-16.67$) on this

temperamental fearfulness dimension will be compared with the current at-risk sample to explore possible differences between the populations.

In addition to the “fearfulness” dimension, given the expectation that two components of difficult temperament (high levels of impulsivity and poor inhibitory control) were anticipated to place children at greater risk in the high stress families of the current sample (Hetherington, 1989; Rutter & Quinton, 1984), these dimensions were combined to form a measure of temperamental self-control. Coefficient alpha for the five subscales included in the study ranges from a low of .69 to a high of .94.

Measure of Parent-Child Attachment: The Attachment Q-Set (AQS) (Version 3.0) (Waters, 1987) was used to assess the quality of the parent-child relationship. As reported by Waters (1995), the Attachment Q-Set has been used successfully by parents to provide ratings of their own child’s attachment. The Q-Set methodology required the parent to sort 90 cards into 9 piles of 10 cards each. Parents sorted the cards into piles that ranged from being extremely characteristic of their child to extremely uncharacteristic of their child. Once the sorting was completed, the parent rating was compared with a sort consisting of optimal “secure base” behavior. In developing the Q-Set, Waters created this comparison secure base sort by asking a team of experienced clinicians to conduct a sort on a hypothetical child exhibiting optimal secure base behavior. By examining the Pearson correlation coefficients that these comparisons generated, the sort was used to provide a measure of the child’s attachment security and the child’s dependency. In addition to these more global uses of the Q-Set data, an additional subscale developed by Pederson and Moran (1995) called “secure-base” in which children were compared on the basis of the mean Q-Sort placement of a subset of Q-Set items was computed. Using data of mothers who completed the Q-Sort regarding

their own children, the scale has successfully discriminated between children who had been independently classified into one of Ainsworth's three primary attachment categories (Pederson & Moran, 1995), suggesting that it may be a valid mechanism for identifying attachment differences. For the current investigation, then, three continuous variables from the Q-Sort were calculated: correspondence scores on the security dimension, correspondence scores on the dependency dimension, and scores on the secure base subscale.

Measures of Parent Discipline. Three different measures of parent discipline were used in the proposed investigation. Parental Responses to Child Misbehavior--Revised (PRCM-R) (Holden, 1996) is a 12-item scale that was used to assess several different dimensions of parenting behavior including the use of physical punishment, threats and verbal aggression, diversion and negotiation, and withdrawal of attention or privileges. The revised instrument is virtually identical to the original (Holden & Zambarano, 1992) with the exception that an item inquiring about the frequency of "spanking or slapping" has been divided into two separate items. The scale has demonstrated adequate test-retest reliability (mean item correlations between responses gathered over a 3-week interval = .61 ($p < .0001$)). Reports of spanking have been significantly correlated with reported attitudes toward spanking ($r = .65$) and with two weeks of daily reports regarding parent disciplinary practices ($r = .68$) (Holden, Coleman, & Schmidt, 1995), suggesting adequate validity. While no procedures have been previously developed for forming individual item responses into scales, a factor analysis was conducted on the sample in the current investigation to determine the empirical factor structure. Principal components analysis of the PRCM yielded a 4 factor solution, with 2 of these factors being comprised of only a single item. The single item scales were dropped in order to yield 2 meaningful,

reliable factor scales, an Inductive Discipline/ Love Withdrawal scale ($\alpha = .66$) and a Punitive Response scale ($\alpha = .75$). Results of the factor analysis are summarized in Table 2. Total scores were computed for both of the empirically derived subscales and used in subsequent analyses.

Attitudes Toward Spanking (ATS) (Holden & Zambarano, 1992) is a 10-item scale that was used as a second discipline measure focusing exclusively on the use of maternal physical discipline. The measure demonstrates good internal consistency (Cronbach's alpha ranges from .89 to .91 in 4 different samples) and adequate test-retest reliability (mean correlation between responses gathered over a 3-week interval = .76 ($p < .001$)). In previous research, attitudes towards spanking scores have been significantly correlated with other questionnaire reports of spanking behavior ($r = .73$, $p < .001$) and with two weeks of daily reports regarding parent discipline ($r = .54$, $p < .001$) (Holden, Coleman, & Schmidt, 1995). After reverse scoring items where appropriate, the instrument yielded a total "attitudes toward spanking score" formed by summing item scores. High scores indicate greater tolerance of spanking as a discipline technique.

As a final measure of maternal discipline, the Problem Situations Questionnaire was developed specifically for use in the current study. Adapted from a free response format of a longer questionnaire developed by Stollak, Scholom, Kallman, and Saturansky (1973), the Problem Situations Questionnaire asks mothers to "imagine that they are the mother" in one of five hypothetical situations likely to evoke a discipline response. Mothers are asked to rate the likelihood that they would engage in six different discipline strategies in response to the child described in the narrative. The six discipline strategies were designed to tap three dimensions of parent discipline: power assertion, response cost (privilege or attention removal), and inductive discipline. A principal

Table 2. Results of Principal Components Analysis of PRCM-R -- Factor Loadings and Scale Reliability

	Component [#]	
	1	2
Items included in Power Assertion Factor ^a:		
PRCM 4	.717	.060
PRCM 6	.692	-.408
PRCM 6b	.718	-.170
PRCM 9	.652	-.186
PRCM 10b	.654	-.235
Items included in Positive/Withdrawal Factor ^b:		
PRCM 1	.271	.574
PRCM 2	.000	.740
PRCM 3	-.007	.560
PRCM 5	.426	.534
PRCM 8	.408	.611

^a scale reliability alpha = .75; ^b scale reliability alpha = .65

[#] Between factors Pearson r = .36 (not significant)

components analysis was conducted in order to empirically determine the factor structure of the instrument. The factor analysis yielded 3 scales: an 8-item physical punishment scale ($\alpha = .86$), a 7-item response cost scale ($\alpha = .72$), and a 4-item empathic discipline scale ($\alpha = .73$). Results of the factor analysis and items included in each scale are summarized in Table 3.

Measure of Early Conscience: My Child--Version 2 (Kochanska, 1992; Kochanska, DeVet, Goldman, Murray, & Putnam, 1994) is a 100-item maternal report instrument tapping several different dimensions of early conscience. The instrument demonstrates good reliability and has been utilized extensively by Kochanska in prior research (e.g., Kochanska, 1997a; Kochanska et al., 1994). Principal components analysis of this instrument has produced two broad components of conscience, each of which were used as outcome variables: affective discomfort (including the scales of guilt ($\alpha = .78$), apology ($\alpha = .74$), concern about good feelings with parent after wrongdoing ($\alpha = .67$), and empathy ($\alpha = .76$)) and active moral regulation / vigilance (including the confession ($\alpha = .69$), reparation ($\alpha = .76$), internalized conduct ($\alpha = .90$), and concern about others' wrongdoing ($\alpha = .82$) subscales). Total scores were computed for both the affective discomfort and active moral regulation / vigilance subscales by summing computed mean scores for each of the component subscales, reverse scoring items where appropriate.

Table 3. Results of Principal Components Analysis of PSQ -- Factor Loadings and Scale Reliability

	Component [#]		
	1	2	3
Items included in Physical Punishment Factor 1^a:			
PSQ 1B	.672	.147	.105
PSQ 1E	.647	-.065	.388
PSQ 2B	.600	-.162	.112
PSQ 2E	.701	.078	.133
PSQ 3B	.644	.110	-.164
PSQ 3E	.744	-.127	.074
PSQ 5B	.603	-.040	.070
PSQ 5E	.708	-.082	.174
Items included in Response Cost Factor 2^b:			
PSQ 1A	-.065	.559	-.114
PSQ 1D	.090	.296	-.143
PSQ 2A	-.035	.575	-.066
PSQ 2D	-.085	.607	-.216
PSQ 3A	.066	.574	-.100
PSQ 3D	.102	.576	-.208
PSQ 5A	.221	.527	.162
Items included in Empathic Discipline Factor 3^c:			
PSQ 1F	-.295	.234	.581
PSQ 2F	-.354	.213	.554
PSQ 3F	-.300	.280	.624
PSQ 5F	-.456	.282	.558

^a scale reliability alpha = .86; ^b scale reliability alpha = .72; ^c scale reliability alpha = .73

[#] Between factor Pearson correlations: Factor 1 and Factor 2: $r = .09$ (not significant)
Factor 2 and Factor 3: $r = .11$ (not significant)
Factor 1 and Factor 3: $r = -.29$ (sig. at $p < .05$)

Chapter 7

ANALYSES

Prior to conducting the main analyses that were used to test each of the hypotheses, a series of regression analyses were conducted to examine any possible relationship the demographic variables, child's age, child's sex, child's race, mother's race, mother's education, and family income, might have with each of the dependent variables. This was done in order to explore the possibility that these exogenous variables might account for any significant relationships that may be found. Significant relationships were identified between the child's race and the CBQ combined fearfulness score and between the child's age and the My Child affective discomfort scale. Where relevant, these race and age effects were statistically controlled for prior to proceeding with the remaining analyses. The relationship between each of the demographic variables and the dependent variables is summarized in Table 4.

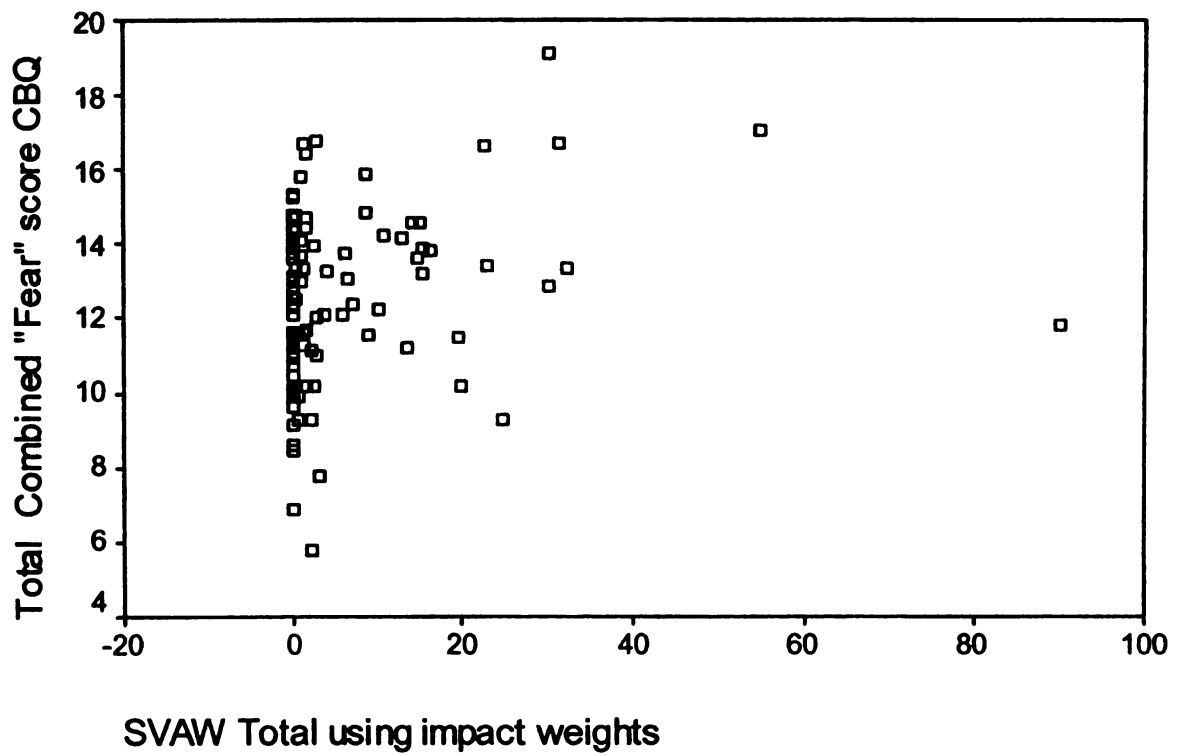
Hypothesis number one predicted that witnessing domestic violence will push children to the extremes on the temperamental fear dimension. To test this hypothesis, scores on the SVAWS were entered into a regression equation predicting temperamental fear on the Child Behavior Questionnaire. Exposure to domestic violence was found to have a significant impact on temperamental fearfulness, however, not in the manner that had been predicted. Rather than pushing children to both extremes of temperamental fearfulness, weighted severity scores from the SVAWS were found to significantly predict more fearfulness, i.e. more severe violence lead to more child fearfulness ($R^2 = .05$, $p = .031$). The scatterplot of the relationship may be seen in Figure 2. The use of

Table 4. Regression Analyses Examining Relationships Between Demographic Variables and Dependent Variables

	CBQ Impulsivity		CBQ Inhibitory Control		My Child Affective Discomfort		My Child Active Moral Regulation/Vigilance		CBQ Combined Fear Score	
	R ²	F	R ²	F	R ²	F	R ²	F	R ²	F
Child's Sex	.001	.06	.006	.62	.011	1.10	.008	.84	.010	1.03
Child's Age	.020	.98	.002	.23	.067	6.97**	.017	1.67	.010	.98
Child's Race	.028	.80	.019	.85	.005	.46	.004	.44	.053	5.46*
Mother's Education	.009	.87	.000	.03	.000	.00	.001	.10	.027	2.68
Mother/Family Income	.001	.13	.010	.92	.002	.20	.011	1.07	.002	.20
Mother's Race	.019	.93	.007	.65	.001	.09	.000	.04	.026	2.62

* p<.05 ** p<.01

Figure 2. Scatterplot of CBQ Fearfulness
Distribution x Severity of Violence



lifetime, dummy coded violence exposure scores to predict temperamental fearfulness was not significant.

Hypothesis number one also predicted a relationship between exposure to domestic violence and temperamental impulsivity/inhibitory control. Weighted severity scores from the SVAWS were entered into a regression equation predicted scores on the impulsivity scale on the CBQ. In addition, SVAWS scores were again dummy coded to indicate whether the child's mother had been in an abusive relationship during the child's lifetime. These scores were also used to predict temperamental impulsivity/inhibitory control. While no relationship was found between exposure to violence and child temperamental impulsivity as measured by the CBQ using the weighted SVAWS severity scores, when the dummy coded lifetime exposure scores were used to predict temperamental impulsivity/inhibitory control, a significant relationship emerged ($R^2 = .05$, $p = .029$). A summary of the results of these analyses may be found in Table 5.

Hypothesis number two predicted a direct negative relationship between temperamental impulsivity and certain dimensions of early conscience. In order to test this hypothesis, the CBQ temperamental impulsivity was entered into separate regression equations to predict scores on the affective discomfort and active moral regulation/vigilance scales of the My Child maternal report instrument. As indicated in Table 6., the results supported the predicted connection between temperamental impulsivity and early conscience development as assessed by the My Child instrument. High temperamental impulsivity significantly predicted low scores on the active moral regulation/vigilance cluster ($R^2 = .38$, $p < .001$). Again, as had been predicted, no relationship was found between scores on the temperamental impulsivity/inhibitory control dimension of the CBQ and the affective discomfort cluster of My Child.

Table 5. Exposure to Domestic Violence Variables Predicting Temperamental Fear and Impulsivity

Predictor Variable	Dimension of CBQ Temperament			
	Fearfulness		Impulsivity	
	R ²	F	R ²	F
SVAWS Weighted Severity Score	.05	4.82*	.00	0.04
SVAWS Lifetime Presence or Absence of Violence	.01	0.65	.05	4.92*

* significant at $p < .05$ level

Table 6. Temperamental Impulsivity Variable Predicting Dimensions of Early Conscience Development

Predictor Variable	Dimension of My Child Conscience			
	Active Moral Regulation/ Vigilance		Affective Discomfort	
	R ²	F	R ²	F
CBQ Impulsivity/ Inhibitory Control	.38	59.45***	.02	1.79

*** significant at p< .001 level

As described in hypothesis number three, the assessment of the convergent validity of the Problem Situations Questionnaire was conducted by examining any significant correlations between selected subscales of the PSQ and the corresponding subscales from the PRCM-R and ATS. As expected and as indicated in Table 7., the PSQ empathic discipline factor was significantly, negatively correlated with both the PRCM Power Assertion factor ($r = -.39, p < .001$) and with the ATS total score ($r = -.32, p < .001$). The PSQ physical punishment factor was significantly, positively correlated with both the PRCM Power Assertion factor ($r = .63, p < .001$) and with the ATS total score ($r = .64, p < .001$). No significant correlations were found between the PSQ Response Cost factor and any of the PRCM-R or ATS scales. In addition to assessing convergent validity, discriminative validity of the PSQ will be assessed via hypothesis number four when the instrument is used to predict early conscience development.

Hypothesis number four predicted a significant relationship between the use of high levels of inductive discipline, low levels of power assertion and love withdrawal, and the development of early conscience (most powerfully in the temperamentally fearful subgroup). Scores from each of the discipline scales were first entered into a regression equation predicting early conscience development. The results of these analyses are summarized in Table 8. The PRCM Positive/Withdrawal scale was not significantly related to either the Active Moral Regulation/Vigilance dimension or the Affective Discomfort dimension of conscience as measured by the My Child instrument. Low scores on the PRCM Power Assertion scale significantly predicted high scores on the Active Moral Regulation/Vigilance dimension of My Child ($R^2 = .06, p < .01$) but no relationship was found with the Affective Discomfort dimension. Low scores on the ATS were also significantly related to high scores on the Active Moral Regulation/Vigilance

Table 7. Pearson Correlations Between Problems Situations Questionnaire Scales and Revised Parent Response To Child Misbehavior Scales and Attitudes Toward Spanking Scale

	Problem Situation Questionnaire Scale		
	Empathic Discipline	Physical Punishment	Response Cost
Attitude Toward Spanking Total Score	-.32***	.64***	-.03
PRCM Positive/Withdrawal Factor	.12	-.21*	.18 ⁺
PRCM Power Assertion Factor	-.39***	.63***	-.05

⁺ significant at $p < .10$ level; * significant at $p < .05$ level; *** significant at $p < .001$ level

Table 8. Parent Discipline Variables Predicting Early Conscience Development

Predictor Variable	Dimension of Early Conscience			
	Active Moral Regulation/Vigilance		Affective Discomfort	
	R ²	F	R ²	F
PRCM Positive/Withdrawal	.03	2.64 ⁺	.01	0.66
PRCM Power Assertion	.06	6.34**	.00	0.10
ATS Total	.05	4.82*	.00	0.31
PSQ Empathic Discipline	.01	1.10	.00	0.11
PSQ Physical Punishment	.04	3.93*	.00	0.23
PSQ Response Cost	.00	0.11	.07	7.38**

⁺ significant at p< .10 level; * significant at p< .05 level; ** significant at p< .01 level

dimension of My Child ($R^2 = .05$, $p < .05$) but again no relationship was found with the Affective Discomfort dimension. On the PSQ, the Empathic Discipline scale was unrelated to either dimension of early conscience on My Child. Low scores on the PSQ Physical Punishment scale significantly predicted high scores on the Active Moral Regulation/Vigilance dimension of My Child ($R^2 = .04$, $p < .05$) but again no relationship was found with the Affective Discomfort dimension. Finally, scores on the PSQ Response Cost Dimension were unrelated to the Active Moral Regulation/Vigilance dimension of My Child but were significantly and positively associated with scores on the Affective Discomfort dimension ($R^2 = .07$, $p < .01$).

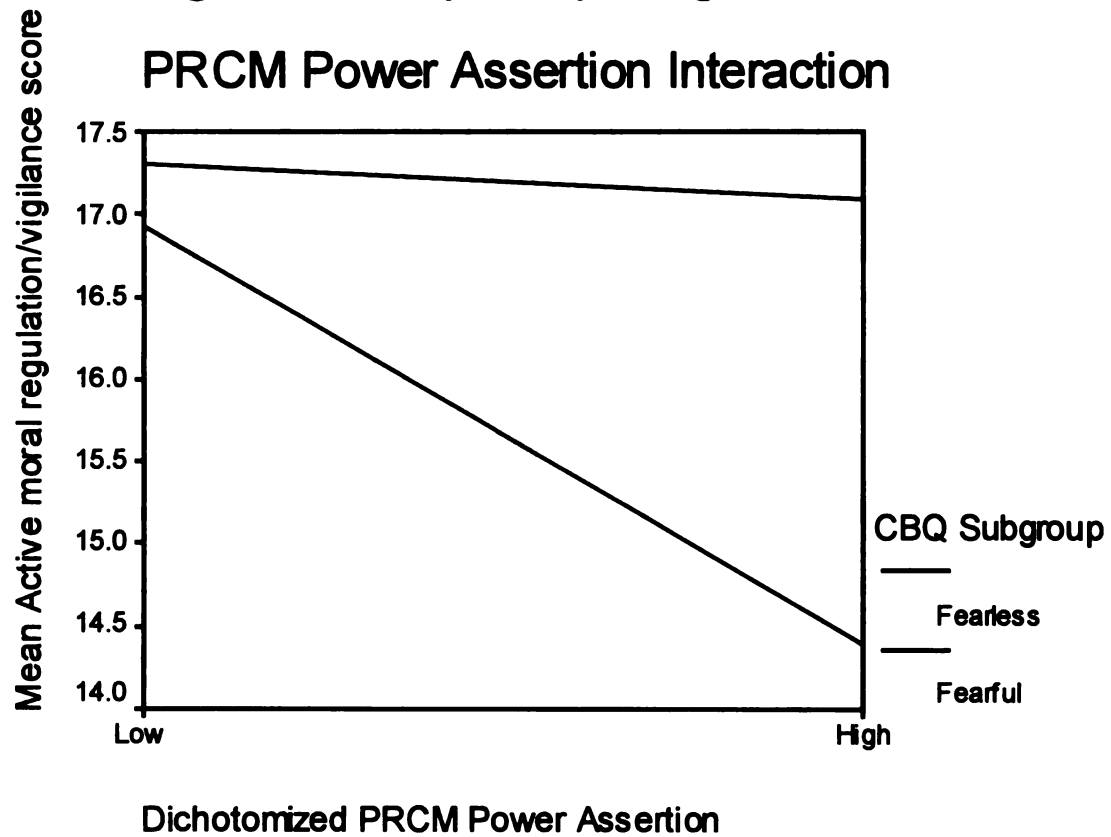
In the next series of analyses, each variable from the relevant discipline scale was entered with a dichotomous temperamental fear variable as the first step of the regression equation. In the next step of the regression, the discipline by temperament product term was entered into the equation to explore whether or not the interaction term explained significant amounts of additional variance. The results of these analyses are summarized in Table 9. Significant interactions were found between the PRCM Power Assertion Scale and the CBQ Fearfulness Subgroup in the prediction of My Child Active Moral Regulation/Vigilance (R^2 change = $.04$, $p < .05$). High levels of power assertion was found to more negatively impact the development of Active Moral Regulation/Vigilance for those children in the temperamentally fearful subgroup than those in the more temperamentally fearless grouping. The interpretation of this interaction and those that follow were made possible by first dichotomizing the relevant discipline scale. The high and low discipline scale scores were then plotted on the x-axis with the conscience scale score on the y-axis separately for each of the two levels of the already dichotomized temperamental fearfulness score (see Figure 3). When the other interactions were

Table 9. Hierarchical Regression Analyses Examining Discipline x Fear Interaction Effects on Early Conscience Development

Variables entered at each step	Dimension of Early Conscience			
	Active Moral Regulation/Vigilance		Affective Discomfort	
	R ² change for step	F change for step	R ² change for step	F change for step
1. PRCM Positive/Withdrawal CBQ Fearful Subgroup	.07	3.76*	.01	0.34
2. PRCM PW x Fearful	.00	0.11	.01	0.77
1. PRCM Power Assertion CBQ Fearful Subgroup	.10	5.02**	.00	0.05
2. PRCM PA x Fearful	.04	4.26*	.03	3.09 ⁺
1. ATS Total CBQ Fearful Subgroup	.08	4.34*	.00	0.16
2. ATS x Fearful	.00	0.01	.01	0.89
1. PSQ Empathic Discipline CBQ Fearful Subgroup	.05	2.35 ⁺	.00	0.06
2. PSQ ED x Fearful	.02	1.59	.01	0.98
1. PSQ Physical Punishment CBQ Fearful Subgroup	.07	3.36*	.00	0.13
2. PSQ PP x Fearful	.00	0.31	.04	3.67*
1. PSQ Response Cost CBQ Fearful Subgroup	.04	2.09	.07	3.69*
2. PSQ RC x Fearful	.01	0.62	.00	0.04

⁺ significant at p< .10 level; * significant at p< .05 level; ** significant at p< .01 level

Figure 3. Graph Depicting CBQ Fearfulness x PRCM Power Assertion Interaction

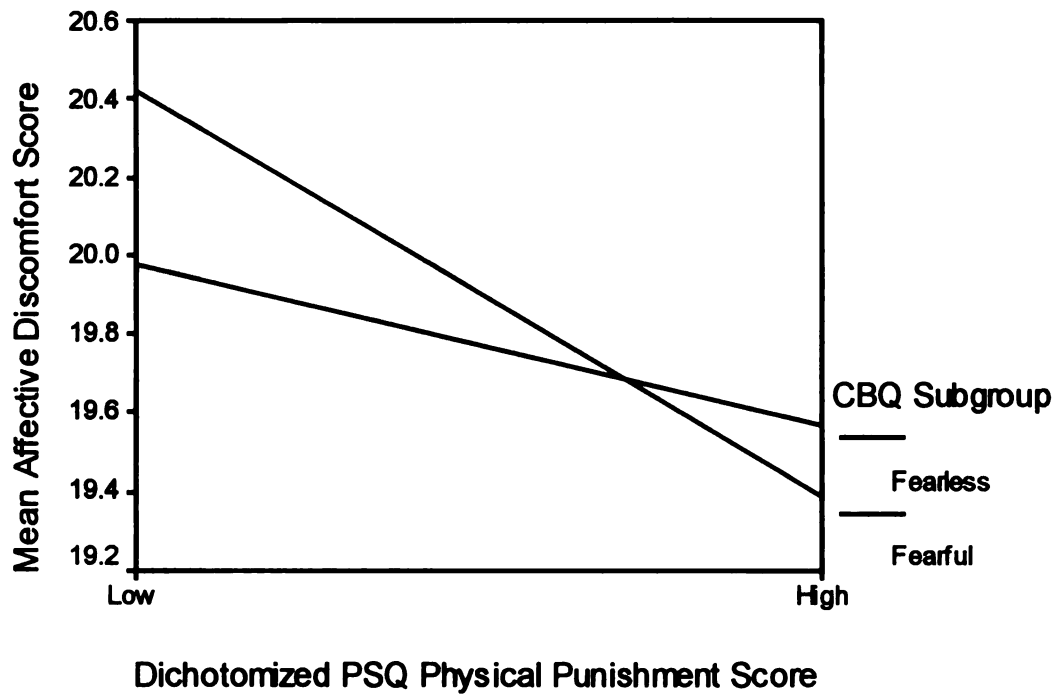


examined, a trend was found between the PRCM Power Assertion Scale and the CBQ Fearfulness Subgroup in the prediction of My Child Affective Discomfort (R^2 change = .03, $p < .10$). Again, high levels of Power Assertion was found to more negatively impact the development of Affective Discomfort for those children in the temperamentally fearful subgroup than for more fearless children. Finally, a significant interaction was found between the PSQ Physical Punishment Scale and CBQ Fearfulness in the prediction of Affective Discomfort (R^2 change = .04, $p < .05$). As indicated in Figure 4, those children described as being more fearful in temperament were more negatively impacted by high levels of physical punishment in the development of affective discomfort than were those children who were described as being more fearless.

In order to test hypothesis number five, which predicted that temperamental fear would also moderate the relationship between attachment and early conscience development, a final series of regression analyses were conducted. As described by Waters (1995), the security and dependency scores from the Attachment Q-set were obtained for each child in the sample by computing a correlation coefficient between the mother's Q-sort for her child and the Q-sort of the hypothetical ideal child that the authors of the instrument created by combining the sorts of expert raters. A Fisher's r -to- z transformation (Teti, Nakagawa, Das, & Wirth, 1991) was then conducted for each of the computed scales so that children in the sample could be more readily compared with each other. The Pederson-Moran Secure Base scale was calculated by summing pile placements of the relevant items (reverse scoring items where appropriate).

A separate set of regression analyses was conducted for each of the three attachment scales computed. First, the main effects of each of the attachment variables on the development of early conscience were tested in a series of regression analyses.

**Figure 4. Graph Depicting CBQ Fearfulness
x PSQ Physical Punishment Interaction**



The results of these analyses are summarized in Table 10. The AQS Security Score powerfully predicted scores on the My Child Active Moral Regulation/Vigilance subscale ($R^2 = .25$, $p < .001$) while only a trend existed for the prediction of Affective Discomfort ($R^2 = .03$, $p < .10$). In each case, higher security scores contributed to higher scores on the My Child subscale. High scores on the Pederson-Moran Secure Base scale predicted higher scores on both the Active Moral Regulation/Vigilance ($R^2 = .16$, $p < .001$) and Affective Discomfort subscales (R^2 change = $.04$, $p < .05$). Only a trend was found between scores on the AQS Dependency Scale and the Active Moral Regulation/Vigilance Dimension of early conscience ($R^2 = .03$, $p < .10$).

In the next round of analyses, the scores for the attachment scale to be tested were entered with the dichotomous temperamental fear variable as the first step into separate regression equations predicting each of the early conscience outcome variables. In the subsequent block, the attachment scale score by temperamental fear product term was entered into the regression equation to assess whether or not the interaction term explained significant additional variance. The results of these analyses are summarized in Table 11. Temperamental fear significantly moderated the effect of attachment on early conscience development only when the Pederson-Moran scale was used to predict Active Moral Regulation/Vigilance (R^2 change = $.07$, $p < .01$). As indicated in Figure 5, more fearless children with low secure base scores showed higher scores on the Active Moral Regulation/Vigilance subscale in comparison to fearful children with low secure base scores. Higher secure base scores predicted higher scores on the Active Moral Regulation/Vigilance subscale for both groups but more powerfully for those children rated as being more fearful.

Table 10. Attachment Variables Predicting Early Conscience Development

Predictor Variable	Dimension of Early Conscience			
	Active Moral Regulation/Vigilance		Affective Discomfort	
	R ²	F	R ²	F
AQS Security	.25	31.44***	.03	3.18 ⁺
AQS Dependency	.03	2.80	.01	1.08
Pederson-Moran Secure Base	.16	18.73***	.04	3.76*

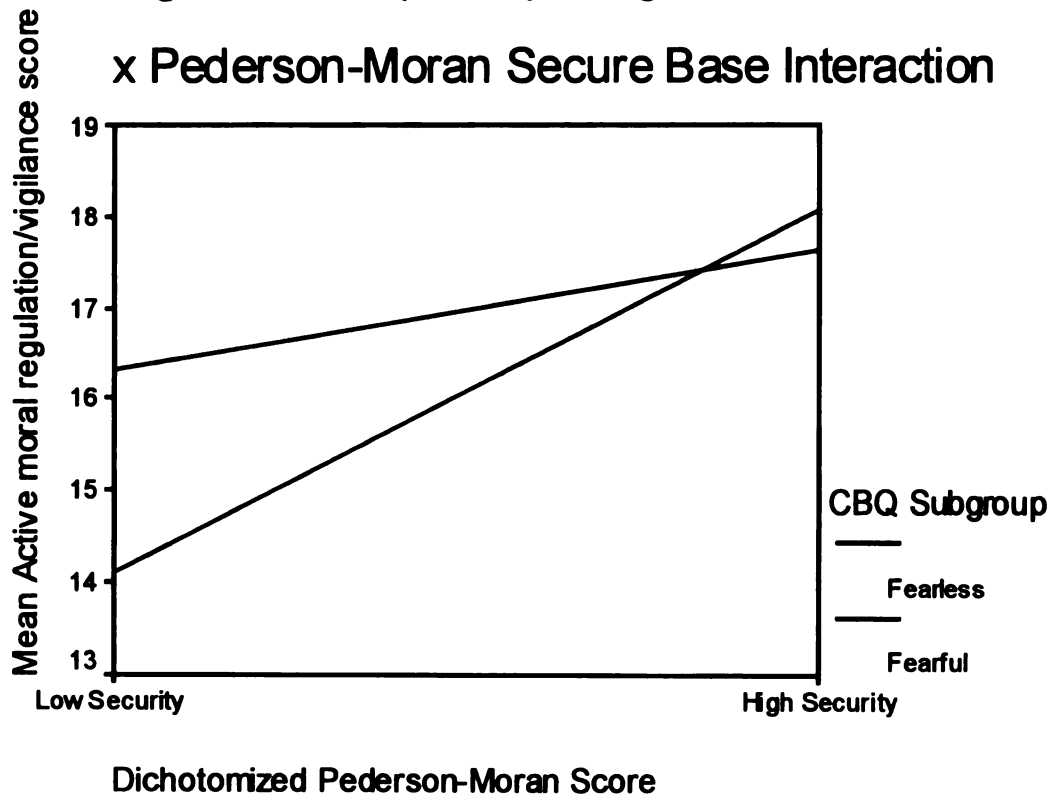
⁺ significant at p< .10 level; * significant at p< .05 level; *** significant at p< .001 level

Table 11. Hierarchical Regression Analyses Examining Attachment x Fearfulness Interaction Effects on Early Conscience Development

Variables entered at each step	Dimension of Early Conscience			
	Active Moral Regulation/Vigilance		Affective Discomfort	
	R ² change for step	F change for step	R ² change for step	F change for step
1. AQS Security CBQ Fearful Subgroup	.26	16.52***	.03	1.66
2. AQS Security x Fearful	.02	2.98 ⁺	.01	0.01
1. AQS Dependence CBQ Fearful Subgroup	.05	2.73 ⁺	.01	0.64
2. AQS Dependency x Fearful	.02	1.62	.00	0.28
1. Pederson-Moran Secure Base CBQ Fearful Subgroup	.19	10.98***	.04	1.90
2. Pederson-Moran Secure x Fearful	.07	8.44**	.00	0.23

⁺ significant at p< .10 level; ** significant at p< .01 level; *** significant at p< .001 level

Figure 5. Graph Depicting CBQ Fearfulness
x Pederson-Moran Secure Base Interaction



Chapter 8

DISCUSSION

Results of this study offered partial confirmation for the hypothesized model predicting early conscience development in a sample of preschool-age children exposed to domestic violence. The study offered several powerful and, in some cases, surprising findings.

Contrary to the hypothesis that predicted that children in the sample would have a tendency to be pushed to the extremes of temperamental fearfulness, that is, with more significant exposure to domestic violence children would become either more fearful or more fearless, exposure to increasingly severe amounts of violence was related to more fearfulness across the sample. While other research has provided evidence of a diverse set of reactions to experienced trauma (e.g., McCloskey et al., 1995), children in the current sample tend to respond with heightened anxiety via more severe exposure. As much of the previous research has tended to focus on an older child sample, the current investigation suggests that younger children, because of their relative vulnerability, may be more constricted in the way they respond to trauma.

Severity of exposure to domestic violence did not relate to heightened temperamental impulsivity / poor inhibitory control. When children were divided into exposed versus nonexposed groups, however, the exposed children did demonstrate higher scores in this temperamental dimension. This finding suggests that the extent of exposure to domestic violence is less important than is the mere fact of any exposure in predicting greater temperamental impulsivity.

Temperamental impulsivity was found to powerfully predict scores on the active moral regulation dimension of the My Child conscience measure. This finding was consistent with what had been hypothesized. Children in the sample who respond in more impulsive ways clearly have greater difficulty utilizing internal control mechanisms when confronted with temptation. Again, as expected, temperamental impulsivity did not seem to be related to heightened affective discomfort in response to moral transgressions. This makes sense in that the mere fact that a child may act impulsively to gratify some desire does not necessarily suggest that the child would not feel bad about such behavior after the fact.

One important result that emerged from the current investigation was the establishment of the Problem Situations Questionnaire (PSQ) as a valid and reliable measure of parent discipline practices. Both the empathic discipline and the physical punishment scales of the PSQ were significantly correlated in the expected direction with scores on the ATS scale and on the PRCM-R Power Assertion factor. In addition, the physical punishment scale of the PSQ showed similar predictive validity as these two established scales when predicting the active moral regulation/vigilance dimension of conscience. Not unexpectedly, the Response Cost dimension of the PSQ was unrelated to both the ATS scale and the PRCM-R Power Assertion factor, and only a trend was revealed in relation to the PRCM-R Positive/Withdrawal factor. The Response Cost dimension of the PSQ was developed to tap a somewhat different type of parenting behavior than is assessed by the other established measures. The PSQ Response Cost scale was the only discipline scale that significantly predicted scores on the affective discomfort dimension of early conscience development. Taken together, these results

suggest that the use of different types of parent discipline strategies may selectively influence particular aspects of early conscience development.

The results of the temperamental fearfulness and discipline interactions provided partial support for Hoffman's (1983) assertions regarding the relative inefficacy of high levels of power assertive discipline strategies, particularly with temperamentally fearful children, in the development of early conscience. The temperament x discipline interaction was significant only when the PRCM Power Assertion scale was utilized to predict scores on the active-moral regulation vigilance scale. The PSQ physical punishment scale significantly interacted with temperamental fearfulness to predict scores on the affective discomfort scale. A trend was detected when the PRCM Power Assertion scale interaction with temperamental fearfulness was used to predict score on the affective discomfort scale. The latter two results were also consistent with Hoffman's prediction that temperamentally fearless children will be less influenced by power assertive strategies in comparison to more fearful children when the development of affective discomfort is at stake. The findings fit well with Hoffman's notion that more fearful children, in particular, will experience high levels of power assertive discipline so negatively that they have difficulty processing discipline messages and are less likely to show evidence of early conscience development. In contrast, when this same fearful group is exposed to low levels of physical punishment, children are able to achieve Hoffman's optimal level of arousal and are better able to process discipline messages than their temperamentally fearless cohorts.

Perhaps the most striking result of the current study was the powerful influence of a child's reported attachment security (as assessed via both the AQS Security correspondence score and the Pederson-Moran Secure Base scale) on the development of

the active moral regulation/vigilance dimension of conscience. A less powerful, albeit significant, relationship was also detected between the Pederson-Moran scale and the affective discomfort dimension of conscience. A trend between the AQS Security score and the affective discomfort dimension of conscience was also detected.

When the interaction of the attachment variables with temperamental fearfulness was examined, the results were somewhat different than what was predicted via Kochanska's model. Children falling in the temperamentally fearless group with high Pederson-Moran secure base scale scores had similarly high scores on the active moral regulation vigilance scale as those in the temperamentally fearful subgroup with high Pederson-Moran secure base scores. Temperamentally fearful children with low security scores were less likely to show high levels of active moral regulation/ vigilance in comparison to their temperamentally fearless peers with similarly low security scores. Taken together, these results suggest that high attachment security may be more important for temperamentally fearful children in developing early conscience than for fearless peers, the opposite of what Kochanska's data had suggested. One possible explanation for this finding is that fearful children who are also insecurely attached may be particularly vulnerable in that they may be less motivated to please the parent and are easily overwhelmed by power assertive discipline. Apart from this possible three-way interaction, however, as was discussed earlier, it is unclear why temperamental fearlessness would interact with attachment security in the development of early conscience in either Kochanska's model or in the current study.

Post-hoc analyses were conducted to examine the direct relationship between domestic violence and both parent discipline and attachment. Somewhat surprisingly, but consistent with the model depicted in Figure 1., no significant relationships were found.

This finding provides further empirical evidence for the powerful protective role that a secure attachment may play in buffering the indirect effects of exposure to domestic violence on early conscience development via the influence of domestic violence on child temperament.

While this study has provided some interesting clues regarding emotional-developmental processes in preschool age children, the interpretation of these results are limited in several ways. First, the current investigation relied entirely upon maternal report data. While responses to each of the questionnaires showed sufficient variability, suggesting that there was at least not complete positive response bias, the use of any self-report measure presents limitations. This may be particularly true when mothers are asked to report on matters as sensitive as their own experience of domestic violence and on their child's moral development. Future research with this population would benefit from the use of some of Kochanska's empirical techniques to reduce potential bias.

Yet another limitation of the study relates to the developmental sensitivity of the questionnaires. While one might expect to find differences between a 3 year old and a five year old on a scale such as the Active Moral Regulation/Vigilance scale, for example, with the lone exception of the Affective Discomfort scale the study revealed no age effects. Kochanska's research has yielded a similar absence of age effects across the age range in the current study. It is difficult to know, however, whether the absence of age effects is indicative of a measurement failure or whether it is evidence of the relative stability of many of the variables in the study over the three year window which was investigated.

One final limitation of this study is that attempts to draw conclusions about subtle developmental processes through the use of data that is not longitudinal. Even the most

powerful relationship in this study, that between attachment and early conscience development, can be interpreted as a bi-directional effect. The study then can not definitively conclude that attachment security leads to early conscience development, as the reverse conclusion is also plausible. For example, it is possible to argue that higher levels of active moral regulation/vigilance in the child might facilitate the development of healthy attachment behavior. Further research must make use of longitudinal data if causal relationships are to be accurately evaluated.

The results of the study provide some important information for those working with children who have been exposed to domestic violence. The study suggests that among the ways that children may be at increased risk for inadequate conscience development as a result of exposure to domestic violence is via the impact of domestic violence on temperamental impulsivity and fearfulness. Indeed, the link between exposure to violence and temperamental impulsivity may be evidence of an early risk factor for the intergenerational transmission of violence as adults with poor impulse control are more likely to act violently in response to feelings of anger. How then can we help these at risk children? The absence of a connection between domestic violence and either parent discipline practices or the attachment relationship, while somewhat surprising, provides a wonderful opportunity for intervention.

Because children exposed to domestic violence, regardless of the severity, tended to be more fearful, these same children remain particularly vulnerable to high levels of power assertive discipline. Parents and teachers working with children exposed to domestic violence should be careful to match the level of power assertive discipline that they utilize to the child's temperament. In the case of children who have been exposed to domestic violence, because they are more fearful, low levels of power assertive discipline

may be all that is needed in order to get children to attend to discipline messages. The use of higher levels of power assertive discipline will only tend to induce in these exposed children a level of arousal where they tune out discipline messages. Clinicians working with parents of children who have been exposed to domestic violence would do well to focus their energy on helping parents to maintain a relatively calm disciplinary stance as such a discipline style may be even more crucial for this at risk group.

Just as steering parents toward non-power assertive forms of discipline may help move children toward more healthy early conscience development, the results of the study suggest that the attachment relationship may be an extremely important area for intervention. Regardless of the child's temperamental disposition, the ability of the parent and child to develop a secure attachment relationship may be the single most important factor in helping young children to move toward more healthy early conscience development. Many of the mothers in the study were able to develop and maintain a secure attachment relationship with their preschool child, even in the midst of a violent household. The parent-child relationship becomes a crucial area for intervention, even in situations where there may be ongoing violence. Interventions which help parents to be more highly attuned to the emotional needs of their child and thereby foster more healthy attachment relationships will go a long way toward protecting children from some of potentially deleterious effects of exposure to violence.

The results of this study are cause for optimism as they suggest that exposure to domestic violence, while a risk factor for poor early conscience development, does not produce an unbreakable chain of maladaptive behavior. Parents and other significant adult figures, via carefully chosen discipline strategies and via preserving and strengthening attachment bonds, have incredibly powerful mechanisms via which

negative effects of exposure may be buffered. Interventions that target and build upon these protective mechanisms will go a long way toward preventing another generation of violent, antisocial adults from taking root in our society.

Appendix
MEASURES

Severity of Violence Against Women Scale
Child Behavior Questionnaire (selected subscales)
Attachment Q-Set items
Parental Responses to Child Misbehavior--Revised
Attitudes Toward Spanking
Problems Situations Questionnaire
My Child--Version II

SVAWS

During the past year, you and your partner have probably experienced anger or conflict. Below is a list of behaviors your partner may have done during the past 12 months. Describe how often your partner has done each behavior by writing a number from the following scale.

1	2	3	4
never	once	a few times	many times

Also, mark an X next to those items which your preschooler who is in the study witnessed, either by seeing or hearing it.

How often has your partner:

- | | |
|--|--|
| <p>_____ Hit or kicked a wall, door or furniture</p> <p>_____ Threw, smashed or broke an object</p> <p>_____ Driven dangerously with you in the car</p> <p>_____ Threw an object at you</p> <p>_____ Shook a finger at you</p> <p>_____ Made threatening gestures or faces at you</p> <p>_____ Shook a fist at you</p> <p>_____ Acted like a bully toward you</p> <p>_____ Destroyed something belonging to you</p> <p>_____ Threatened to harm or damage things you care about</p> <p>_____ Threatened to destroy property</p> <p>_____ Threatened someone you care about</p> <p>_____ Threatened to hurt you</p> <p>_____ Threatened to kill himself</p> <p>_____ Threatened you with a club-like object</p> <p>_____ Threatened you with a knife or gun</p> <p>_____ Threatened to kill you</p> <p>_____ Threatened you with a weapon</p> <p>_____ Acted like he wanted to kill you</p> <p>_____ Held you down, pinning you in place</p> <p>_____ Pushed or shoved you</p> <p>_____ Shook or roughly handled you</p> <p>_____ Scratched you</p> <p>_____ Pulled your hair</p> <p>_____ Twisted your arm</p> <p>_____ Spanked you</p> <p>_____ Bit you</p> | <p>_____ Slapped you with the palm of his/her hand</p> <p>_____ Slapped you with the back of his/her hand</p> <p>_____ Slapped you around your face and head</p> <p>_____ Kicked you</p> <p>_____ Hit you with an object</p> <p>_____ Stomped on you</p> <p>_____ Choked you</p> <p>_____ Punched you</p> <p>_____ Burned you with something</p> <p>_____ Used a club-like object on you</p> <p>_____ Beat you up</p> <p>_____ Used a knife or gun on you</p> <p>_____ Demanded sex whether you wanted to or not</p> <p>_____ Made you have oral sex against your will</p> <p>_____ Made you have sexual intercourse against your will</p> <p>_____ Physically forced you to have sex</p> <p>_____ Made you have anal sex against your will</p> <p>_____ Used an object on you in a sexual way</p> <p>_____ Grabbed you suddenly or forcefully</p> |
|--|--|

Have you ever had a previous partner who abused you? _____. If yes, please complete this scale again, indicating the years in which you were with this partner (scale on next page).

Please complete the scale again even if it's the same partner but greater than 12 months since these things have happened.

Use the following scale:

1	2	3	4
never	once	a few times	many times

During your previous relationship, how often did your partner do the following? Again please check any items that your preschooler witnessed to the right of the item.

<input type="checkbox"/> Hit or kicked a wall, door or furniture
<input type="checkbox"/> Threw, smashed or broke an object
<input type="checkbox"/> Driven dangerously with you in the car
<input type="checkbox"/> Threw an object at you
<input type="checkbox"/> Shook a finger at you
<input type="checkbox"/> Made threatening gestures or faces at you
<input type="checkbox"/> Shook a fist at you
<input type="checkbox"/> Acted like a bully toward you
<input type="checkbox"/> Destroyed something belonging to you
<input type="checkbox"/> Threatened to harm or damage things you care about
<input type="checkbox"/> Threatened to destroy property
<input type="checkbox"/> Threatened someone you care about
<input type="checkbox"/> Threatened to hurt you
<input type="checkbox"/> Threatened to kill himself
<input type="checkbox"/> Threatened you with a club-like object
<input type="checkbox"/> Threatened you with a knife or gun
<input type="checkbox"/> Threatened to kill you
<input type="checkbox"/> Threatened you with a weapon
<input type="checkbox"/> Acted like he/she wanted to kill you
<input type="checkbox"/> Held you down, pinning you in place
<input type="checkbox"/> Pushed or shoved you
<input type="checkbox"/> Shook or roughly handled you
<input type="checkbox"/> Scratched you

<input type="checkbox"/> Pulled your hair
<input type="checkbox"/> Twisted your arm
<input type="checkbox"/> Spanked you
<input type="checkbox"/> Bit you
<input type="checkbox"/> Slapped you with the palm of his/her hand
<input type="checkbox"/> Slapped you with the back of his/her hand
<input type="checkbox"/> Slapped you around your face and head
<input type="checkbox"/> Kicked you
<input type="checkbox"/> Hit you with an object
<input type="checkbox"/> Stomped on you
<input type="checkbox"/> Choked you
<input type="checkbox"/> Punched you
<input type="checkbox"/> Burned you with something
<input type="checkbox"/> Used a club-like object on you
<input type="checkbox"/> Beat you up
<input type="checkbox"/> Used a knife or gun on you
<input type="checkbox"/> Demanded sex whether you wanted to or not
<input type="checkbox"/> Made you have oral sex against your will
<input type="checkbox"/> Made you have sexual intercourse against your will
<input type="checkbox"/> Physically forced you to have sex
<input type="checkbox"/> Made you have anal sex against your will
<input type="checkbox"/> Used an object on you in a sexual way
<input type="checkbox"/> Grabbed you suddenly or forcefully

Children's Behavior Questionnaire

Instructions: Please read carefully before starting:

On the next pages you will see a set of statements that describe children's reactions to a number of situations. We would like you to tell us what your child's reaction is likely to be in those situations. There are of course no "correct" ways of reacting; children differ widely in their reactions, and it is these differences we are trying to learn about. Please read each Statement and decide whether it is a "true" or "untrue" description of your child's reaction within the past six months. Use the following scale to indicate how well a statement describes your child:

- | Circle # | If the statement is: |
|----------|--------------------------------------|
| 1 | extremely untrue of your child |
| 2 | quite untrue of your child |
| 3 | slightly untrue of your child |
| 4 | neither true or untrue of your child |
| 5 | slightly true of your child |
| 6 | quite true of your child |
| 7 | extremely true of your child |

If you cannot answer one of the items because you have never seen the child in that situation, for

example, if the statement is about the child's reaction to your singing and you have never sung to your child, the circle NA (not applicable).

Please be sure to circle a number or NA for every item.

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

1. Is not very bothered by pain.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

2. Is not afraid of large dogs and/or other animals.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

3. Usually rushes into an activity without thinking about it.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

4. Can lower his/her voice when asked to do so.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

5. Sometimes prefers to watch rather than join other children playing.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

6. Becomes quite uncomfortable when cold and/or wet.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

7. Is afraid of burglars or the "boogie man."

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

8. Sometimes interrupts others when they are speaking.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

9. Is good at games like "Simon Says," "Mother, May I?" and "Red Light, Green Light."

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

10. Is comfortable in situations where s/he will be meeting others.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

11. Is quite upset by a little cut or bruise.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

12. Is afraid of loud noises.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

13. Decides what s/he wants very quickly and goes after it.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

14. Has a hard time following instructions.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

15. Seems to be at ease with almost any person.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

16. Is bothered by light or color that is too bright.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

17. Doesn't worry about injections by the doctor.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

18. Often rushes into new situations.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

19. Prepares for trips and outings by planning things s/he will need.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

20. Gets embarrassed when strangers pay a lot of attention to her/him.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

21. Finds rough materials uncomfortable, such as wool against his/her skin.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

22. Is not afraid of the dark.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

23. Takes a long time in approaching new situations.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

24. Can wait before entering into new activities if s/he is asked to.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

25. Acts very friendly and outgoing with new children.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

26. Is not very upset at minor cuts or bruises.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

27. Is afraid of fire.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

28. Usually stops and thinks things over before deciding to do something.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

29. Has difficulty waiting in line for something.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

30. Joins others quickly and comfortably, even when they are strangers.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

31. Is bothered by bathwater that is too hot or too cold.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

32. Is very frightened by nightmares.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

33. Is slow and unhurried in deciding what to do next.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

34. Has trouble sitting still when s/he is told to (at movies, church, etc.).

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

35. Is sometimes shy even around people s/he has known a long time.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

36. Is likely to cry when even a little bit hurt.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

37. Is afraid of the dark.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

38. Tends to say the first thing that comes to mind, without stopping to think about it.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

39. Is able to resist laughing or smiling when it isn't appropriate.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

40. Sometimes seems nervous when talking to adults s/he has just met.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

41. Becomes distressed when hair is combed.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

42. Is rarely frightened by "monsters" seen on TV or at movies.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

43. When eager to go outside, sometimes rushes out without putting on the right clothes.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

44. Is good at following instructions.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

45. Acts shy around new people.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

46. Cries when given an injection.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

47. Is not afraid of heights.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

48. Approaches slowly places where s/he might hurt her/himself.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

49. Approaches places s/he has been told are dangerous slowly and cautiously.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1 extremely untrue	2 quite untrue	3 slightly untrue	4 neither true or untrue	5 slightly true	6 quite true	7 extremely true	NA not applicable
--------------------------	----------------------	-------------------------	-----------------------------------	-----------------------	--------------------	------------------------	-------------------------

50. Is comfortable asking other children to play.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

51. Is bothered by loud or scratchy sounds.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

52. Is rarely afraid of sleeping alone in a room.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

53. When s/he sees a toy or game s/he wants, is eager to have it right then.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

54. Is not very careful and cautious in crossing streets.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

55. Talks easily to new people.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

56. Hardly ever complains when ill with a cold.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

57. Gets nervous about going to the dentist.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

58. Is among the last children to try out a new activity.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

59. Can easily stop an activity when s/he is told "no."

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true or untrue	slightly true	quite true	extremely true	not applicable

60. Sometimes turns away shyly from new acquaintances.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

61. Dislikes having splinters removed or other painful procedures.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

62. Is afraid of getting lost.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

63. Is "slow to warm up" to others.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

64. Is usually able to resist temptation when s/he is not supposed to do something.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

65. Seems completely at ease with almost any group.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

Attachment Q-Set

1. Child readily shares with mother or lets her hold things if she ask to.
Low: Refuses.
2. When child returns to mother after playing, he is sometimes fussy for no clear reason.
Low: Child is happy or affectionate when he returns to mother between or after playtimes.
3. When he is upset or injured, child will accept comforting from adults other than mother.
Low: Mother is the only one he allows to comfort him.
4. Child is careful and gentle with toys and pets.
5. Child is more interested in people than in things.
Low: More interested in things than people.
6. When child is near mother and sees something he wants to play with, he fusses or tries to drag mother over to it.
Low: Goes to what he wants without fussing or dragging mother along.
7. Child laughs and smiles easily with a lot of different people.
Low: Mother can get him to smile or laugh more easily than anyone else.
8. When child cries, he cries hard.
Low: Weeps, sops, doesn't cry hard, or hard crying never lasts very long.
9. Child is lighthearted and playful most of the time.
Low: Child tends to be serious, sad, or annoyed a good deal of the time.
10. Child often cries or resists when mother takes him to bed for naps or at night.
11. Child often hugs or cuddles against mother without her asking or inviting him to do so.
Low: Child doesn't hug or cuddle much, unless mother hugs him first or asks him to give her a hug.
12. Child quickly gets used to people or things that initially made him shy or frightened him.
Middle: Never shy or afraid.
13. When the child is upset by mother's leaving, he continues to cry or even gets angry after she is gone.
Middle: Not upset by mom leaving.
Low: Crying stops right after mom leaves.

14. When child finds something new to play with, he carries it to mother or shows it to her from across the room.
Low: Plays with the new object quietly, or goes where he won't be interrupted.
15. Child is willing to talk to new people, show them toys, or show them what he can do if mother asks him to.
16. Child prefers toys that are modeled after living things (e.g. dolls, stuffed animals).
Low: Prefers balls, blocks, pots and pans, etc.
17. Child quickly loses interest in new adults if they do anything that annoys him.
18. Child follows mother's suggestions readily, even when they are clearly suggestions rather than orders.
Low: Ignores or refuses unless ordered.
19. When mother tells child to bring or give her something, he obeys. (Do not count refusals that are playful or part of a game unless they clearly become disobedient.)
Low: Mother has to take the object or raise her voice to get it away from him.
20. Child ignores most bumps, falls, or startles.
Low: Cries after minor bumps, falls, or startles.
21. Child keeps track of mother's location when he plays around the house. Calls to her now and then; notices her go from room to room. Notices if she changes activities.
Middle: Child isn't allowed or doesn't have room to play away from mom.
Low: Doesn't keep track.
22. Child acts like an affectionate parent toward dolls, pets, or infants.
Middle: Child doesn't play with or have dolls, pets, or infants around.
Low: Plays with them in other ways.
23. When mother sits with other family members or is affectionate with them, child tries to get mom's affection for himself.
Low: Lets her be affectionate with others. May join in, but not in a jealous way.
24. When mother speaks firmly or raises her voice at him, child becomes upset, sorry, or ashamed about displeasing her. (Do not score high if child is simply upset by the raised voice or afraid of getting punished.)

25. Child is easy for mother to lost track of when he is playing out of her sight.
Middle: Never plays out of sight.
Low: Talks and calls when out of sight. Easy to find; easy to keep track of what he is playing with.
26. Child cries when mother leaves him at home with baby-sitter, father, or grandparent.
Low: Doesn't cry with any of these.
27. Child laughs when mother teases him.
Medium: Mother never teases child during play or conversations.
Low: Annoyed when mother teases him.
28. Child enjoys relaxing in mother's lap.
Middle: Child never sits still.
Low: Prefers to relax on the floor or on furniture.
29. At times, child attends so deeply to something that he doesn't seem to hear when people speak to him.
Low: Even when deeply involved in play, child notices when people speak to him.
30. Child easily becomes angry with toys.
31. Child wants to be the center of mother's attention. If mom is busy or talking to someone, he interrupts.
Low: Doesn't notice or doesn't mind not being the center of mother's attention.
32. When mother says "no" or punishes him, child stops misbehaving (at least at that time). Doesn't have to be told twice.
33. Child sometimes signals mother (or gives the impression) that he wants to be put down and then fusses or wants to be picked right back up.
Low: Always ready to go play by the time he signals mother to put him down.
34. When child is upset about mother leaving him, he sits right where he is and cries. Doesn't go after her.
Middle: Never upset by her leaving.
Low: Actively goes after her if he is upset or crying.
35. Child is independent with mother. Prefers to play on his own; leaves mother easily when he wants to play.
Middle: Not allowed or not enough room to play away from mother.
Low: Prefers playing with or near mother.

36. Child clearly shows a pattern of using mother as a base from which to explore. Moves out to play; returns or plays near her; moves out to play again, etc.
Low: Always away unless retrieved, or always stays near.
37. Child is very active. Always moving around. Prefers active games to quiet ones.
38. Child is demanding and impatient with mother. Fusses and persists, unless she does what he wants right away.
39. Child is often serious and businesslike when playing away from mother or alone with his toys.
Low: Often silly or laughing when playing away from mother or alone with his toys.
40. Child examines new objects or toys in great detail. Tries to use them in different ways or take them apart.
Low: First look at new objects or toys is usually brief. (May return to them later, however).
41. When mother says to follow her, child does so. (Do not count refusals or delays that are playful or part of a game unless they clearly become disobedient.)
42. Child recognizes when mother is upset. Becomes quiet or upset himself. Tries to comfort her; asks what is wrong, etc.
Low: Doesn't recognize; continues to play, behaves toward her as if she were ok.
43. Child stays closer to mother or returns to her more often than the simple task of keeping track of her requires.
Low: Doesn't keep close track of mother's behavior or activities.
44. Child asks for mother and enjoys having her hold, hug, and cuddle him.
Low: Not especially eager for this. Tolerates it, but doesn't seek it; or wiggles to be put down.
45. Child enjoys dancing or singing along with music.
Low: Neither likes or dislikes music.
46. Child walks and runs around without bumping, dropping, or stumbling.
Low: Bumps, drops, or stumbles happen throughout the day (even though no injuries result).
47. Child will accept and enjoy loud sounds or being bounced around in play if mother indicates the sound or activity is safe or fun.
Low: Child gets upset, even if mother indicates the sound or activity is safe or fun.

48. Child readily lets new adults hold or share things he has, if they ask to.
49. Runs to mother with a shy smile when new people visit the home.
Middle: Child doesn't run to mother at all when visitors arrive.
Low: Even if he eventually warms up to visitors, child initially runs to mother with a fret or cry.
50. Child's initial reaction when people visit the home is to ignore or avoid them, even if he eventually warms up to them.
51. Child enjoys climbing all over visitors when he plays with them
Middle: He won't play with visitors.
Low: Doesn't seek close contact with visitors when he plays with them.
52. Child has trouble handling small objects or putting small things together.
Low: Very skillful with small objects, pencils, etc.
53. Child puts his arms around mother or puts his hand on her shoulder when she picks him up.
Low: Accepts being picked up, but doesn't especially help or hold on.
54. Child acts like he expects mothers to interfere with his activities when she is simply trying to help him with something.
Low: Accepts mother's help readily, unless she is in fact interfering.
55. Child copies a number of behaviors or ways of doing things from watching mother's behavior.
Low: Doesn't noticeably copy mother's behavior.
56. Child becomes shy or loses interest when an activity looks like it might be difficult.
Low: Thinks he can do difficult tasks.
57. Child is fearless.
Low: Child is cautious or fearful.
58. Child largely ignores adults who visit the home. Finds his own activities more interesting.
Low: Finds visitors quite interesting, even if he is a bit shy at first.
59. When child finishes with an activity or toy, he generally finds something else to do without returning to mother between activities.
Low: When finished with an activity or toy, he returns to mother for play, affection, or help finding more to do.

60. If mother reassures him by saying, "It's OK," or "It won't hurt you," child will approach or play with things that initially made him cautious or afraid.
Middle: Never cautious or afraid.
61. Plays roughly with mother. Bumps, scratches, or bites during active play. (Does not necessarily mean to hurt mom.)
Middle: Play is never very active.
Low: Plays active games without injuring mother.
62. When child is in happy mood, he is likely to stay that way all day.
Low: Happy moods are very changeable.
63. Even before trying things himself, child tries to get someone to help him.
64. Child enjoys climbing all over mother when they play.
Low: Doesn't especially want a lot of close contact when they play.
65. Child easily upset when mother makes him change from one activity to another. (Even if the new activity is something the child often enjoys.)
66. Child easily grows fond of adults who visits his home and are friendly of him.
Low: Doesn't grow fond of new people very easily
67. When the family has visitors, child wants them to pay a lot of attention to him.
68. On the average, child is more active type person than mother.
Low: On the average, child is less active type person than mother.
69. Rarely asks mother for help.
Middle: Child is too young to ask.
Low: Often asks mother for help.
70. Child quickly greets his mother with a big smile when she enters the room. (shows her a toy, gestures, or says, "Hi, Mommy.")
Low: Doesn't greet mother unless she greets him first.
71. If held in mother's arms, child stops crying and quickly recovers after being frightened or upset.
Low: Not easily comforted.
72. If visitors laugh at or approve of something the child does, he repeats it again and again.
Low: Visitors' reactions don't influence child this way.
73. Child has a cuddly toy or security blanket that he carries around, takes to bed, or holds when upset. (Do not include bottle or pacifier if child is under 2 years old.)
Low: Can take such things or leave them, or has none at all

74. When mother doesn't do what child wants right away, he behaves as if mom were not going to do it at all. (Fusses, gets angry, walks off to other activities, etc.)
Low: Waits a reasonable time, as if he expects other will shortly do what he asked.
75. At home, child gets upset or cries when mother walks out of the room. (May or may not follow her.)
Low: Notices her leaving; may follow, but doesn't get upset.
76. When given a choice, child would rather play with toys than with adults.
Low: Would rather play with adults than toys.
77. When mother asks child to do something, he readily understands what she wants.
Middle: Child is too young to understand
Low: Sometimes puzzled or slow to understand what mother wants.
78. Child enjoys being hugged or held by people other than his parents and/or grandparents.
79. Child easily becomes angry at mother.
Low: Doesn't become angry with mother unless she is very intrusive or he is very tired.
80. Child uses mother's facial expressions as a good source of information when something looks risky or threatening.
Low: Makes up his own mind without checking mother's expression first.
81. Child cries as a way of getting mother to do what he wants.
Low: Mainly cries because of genuine discomfort (tired, sad, afraid, etc.).
82. Child spends most of his playtime with just a few favorite toys or activities.
83. When child is bored, he goes to mother looking something to do.
Low: Wanders around, or just does nothing for while, until something comes up.
84. Child makes at least some effort to be clean and tidy around the house.
Low: Spills and smears things on himself and on floors all the time.
85. Child is strongly attracted to new activities and new toys.
Low: New things do not attract him away from familiar toys or activities.
86. Child tries to get mother to imitate him or quickly notices and enjoys it when mom imitates him on her own.

87. If mother laughs at or approves of something the child has done, he repeats it again and again.
Low: Child is not particularly influenced this way.
88. When something upsets the child, he stays where he is and cries.
Low: Goes to mother when he cries. Doesn't wait for mom to come to him.
89. Child's facial expressions are strong and clear when he is pl

Parental Responses to Child Misbehavior-Revised

We are interested in learning the types of responses that parents use in reaction to common child misbehaviors. Please indicate how frequently you have used each of the following responses with your _____ year old in an average week, over the past month.

Number of times used as a response in an average week:

	Never A	Less than once a week B	1-2 C	3-4 D	5-6 E	7-8 F	9+ G
Reason--explain about rules or consequences of behavior	A	B	C	D	E	F	G
Diversion --divert to acceptable activity	A	B	C	D	E	F	G
Negotiate	A	B	C	D	E	F	G
Threaten	A	B	C	D	E	F	G
Time Out--social or physical isolation (e.g. send child to room)	A	B	C	D	E	F	G
Spank (with hand) (with object, e.g. belt)	A A	B B	C C	D D	E E	F F	G G
Ignore -- give no reaction to misbehavior	A	B	C	D	E	F	G
Withdraw Privileges	A	B	C	D	E	F	G
Yell in anger	A	B	C	D	E	F	G
Slap (Face) (Hand)	A A	B B	C C	D D	E E	F F	G G

Attitudes toward spanking my child

Using the rating scale below, rate how much you currently agree or disagree with each statement about spanking your child(ren).

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Moderately Agree	Strongly Agree

- ____ 1. Spanking is a normal part of my parenting.
- ____ 2. Sometimes a spank is the best way to get my child to listen.
- ____ 3. A spank is not an effective way to change my child's behavior for the long term.
- ____ 4. Spanking is never necessary to instill proper moral or social conduct in my child.
- ____ 5. Sometimes, the only way to get my child to behave is with a spank.
- ____ 6. One of the best ways for my child to learn "no" is to spank him/her after disobedience.
- ____ 7. If my child is spanked for a misbehavior, he or she should always be spanked for that misbehavior.
- ____ 8. When all is said and done, spanking is harmful for my child.
- ____ 9. I believe it is the parents' right to spank their children if they think it is necessary.
- ____ 10. Overall, I believe spanking is a bad disciplinary technique.

PROBLEM SITUATIONS QUESTIONNAIRE

Instructions:

Below you will find a series of situations which many parents face when raising children. You are to pretend or imagine that you are the parent of the child being described and indicate how you would respond if you were the parent in that situation. Most parents typically utilize more than one kind of response. Except as noted, all of the children in the situations described below are to be considered to be between 3 and 5 years old. For each situation described, please indicate how likely you would be to utilize each of the responses using the following scale:

1	2	3	4	5	6	7
Extremely Unlikely	Somewhat Unlikely	Slightly Unlikely	Not Sure	Slightly Likely	Somewhat Likely	Extremely Likely

Situation #1

Your son, David, admired a miniature car at the store. He did not have money to buy it nor did he ask you to buy it for him. After returning home, you see him take it out of his coat pocket and begin playing with it. How likely would you be to:

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1a. send the child to his room (time-out)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1b. yell at the child for behaving inappropriately? | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1c. discuss with the child the consequences of the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1d. take away some privilege (e.g. no T.V., can't go outside)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1e. spank or slap the child on the bottom so they learn that the behavior is wrong? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1f. tell the child that you understand the feelings that led up to the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

1	2	3	4	5	6	7
Extremely Unlikely	Somewhat Unlikely	Slightly Unlikely	Not Sure	Slightly Likely	Somewhat Likely	Extremely Likely

Situation #2

After hearing some screaming in the family room, you go there and find your daughter, Tiffany, hitting Anne, her 18 month-old sister. How likely would you be to:

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2a. send the child to her room (time-out)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2b. yell at the child for behaving inappropriately? | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2c. discuss with the child the consequences of the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2d. take away some privilege (e.g. no T.V., can't go outside)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2e. spank or slap the child on the bottom so they learn that the behavior is wrong? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2f. tell the child that you understand the feelings that led up to the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Situation #3

Your son, Christopher, and his friend are playing in your living room and you have asked them two times to play somewhere else because you are expecting a visitor and you want the living room to look nice. As you are coming back the third time to ask the children to leave, you hear a crash and find the children on the floor looking surprised with a knocked over lamp near them. How likely would you be to:

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3a. send the child to his room (time-out)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3b. yell at the child for behaving inappropriately? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3c. discuss with the child the consequences of the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3d. take away some privilege (e.g. no T.V., can't go outside)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3e. spank or slap the child on the bottom so they learn that the behavior is wrong? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3f. tell the child that you understand the feelings that led up to the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

1	2	3	4	5	6	7
Extremely Unlikely	Somewhat Unlikely	Slightly Unlikely	Not Sure	Slightly Likely	Somewhat Likely	Extremely Likely

Your son, William, comes running into the kitchen yelling, "I won! I won!" He bumps into you and knocks over a glass of juice you had in your hand, the glass shattering on the floor and the juice spilling over your clothes. How likely would you be to:

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4a. send the child to his room (time-out)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 4b. yell at the child for behaving inappropriately? | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4c. discuss with the child the consequences of the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 4d. take away some privilege (e.g. no T.V., can't go outside)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 4e. spank or slap the child on the bottom so they learn that the behavior is wrong? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 4f. tell the child that you understand the feelings that led up to the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Situation #5

You walk into the playroom to find that your daughter, Jackie, has drawn all over the walls, even though you had just bought her a brand new pad of blank paper. How likely would you be to:

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5a. send the child to her room (time-out)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 5b. yell at the child for behaving inappropriately? | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5c. discuss with the child the consequences of the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 5d. take away some privilege (e.g. no T.V., can't go outside)? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 5e. spank or slap the child on the bottom so they learn that the behavior is wrong? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 5f. tell the child that you understand the feelings that led up to the behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

MY CHILD

Version 2, April 1992

Grazyna Kochanska, University of Iowa

Child's Name _____ Child's Sex M F Date of Birth _____

Today's Date _____ Child's Age _____ years _____ months

PLEASE READ THIS PAGE BEFORE STARTING

You will see descriptions of young children's behaviors in typical daily situations. Many refer to children's reactions when they get into mischief, and are very common for toddlers and preschoolers.

Please tell us how true each description is for your child.

Circle #

If the statement is:

- 1 **Extremely untrue** of your child; s/he would be extremely unlikely to react in this way in this situation; not at all characteristic of him/her
- 2 **Quite untrue** of your child; s/he would be very unlikely to react in this way in this situation
- 3 **Slightly untrue** of your child; s/he would be rather unlikely to react in this way in this situation
- 4 **May be true, may be untrue**; neither true or untrue of your child's reaction in this situation; maybe
- 5 **Slightly true** of your child; s/he would be rather likely to react in this way in this situation
- 6 **Quite true** of your child; s/he would be very likely to react in this way in this situation
- 7 **Extremely true** of your child; s/he would be extremely likely to react in this way in this situation; very characteristic of him/her

All answers are OK; all behaviors described here are normal and common. Young children differ very much in how they respond to different situations. Also, children of different ages behave very differently. For example, most 2-year-olds get into trouble or mischief when unsupervised. These individual and age differences are exactly what we are studying.

Please circle NA **only if you cannot remember your child ever being in this situation**; for example, if the description says "Rarely cries or looks upset when watching a sad TV show", and your child never watches TV. However, most situations are typical for all young children; most parents will rarely need to circle NA.

PLEASE BE SURE TO READ EACH ITEM VERY CAREFULLY

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	

1. Will try to comfort or reassure another in distress.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

2. Is likely to scold another child who violates a household rule.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

3. Not particularly concerned or worried when s/he has broken a valuable object.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

4. Likely to offer toys or candy to a crying playmate even without parental suggestion.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

5. Likely to try a prohibited but attractive activity when alone.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

6. Will spontaneously clean up toys, even without being asked.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

7. May "freeze" in place when caught doing something bad.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

8. Will spontaneously say "sorry" after having done something wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

9. May deny that s/he did something wrong even if confronted with the evidence.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	

10. If asked to do something tedious (for example, clean up his/her toys), s/he is likely to complete the task without further supervision.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

11. May occasionally tease a pet if unsupervised.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

12. When s/he does something naughty, this subject of wrongdoing is likely to come up during his/her play.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

13. Feels good when good things happen to movie characters.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

14. During "pretend" play with peers, may re-enact themes of wrongdoing or mischief.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

15. Remembers for a long time past mishaps or instances when s/he did something wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

16. Unless specifically asked to do so, s/he is not likely to apologize on his/her own.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

17. Acts upset when s/he sees a hurt animal.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

18. Likely to feel responsible whenever anything goes wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

19. Likely to look remorseful or guilty when caught in the middle of a forbidden activity.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

20. After doing something naughty, may replay that situation with toys.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

21. Does not seem upset when s/he breaks a new toy.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

22. Has to be reminded to say "sorry" when s/he has done something wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

23. When s/he has hurt a playmate, will try to make up for it by offering toys or prized possession to the other child.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

24. Likely to become quiet and subdued after doing something wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

25. Feels bad when reminded about past mischief or wrong doing.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

26. Shows concern or makes a comment when comes to a torn page in a book.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

27. May have trouble sleeping or poor appetite after having done something wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

28. During play, will introduce themes of wrongdoing or rules (for example, scold a teddy bear for being naughty).

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

29. Rarely cries or looks upset when watching a sad TV show.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

30. It is easy to bring him/her to tears when discussing something that s/he has done wrong.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

31. Even attractively wrapped presents can be left within his/her reach because s/he is not likely to tamper with them.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

32. Rarely repeats previously prohibited behavior even if adult is not present.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	

33. Likely to show spontaneous nurturing and care-giving behavior towards an animal.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

34. Seems relieved when given an opportunity to repair a damage s/he has caused.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

35. It is enough to prohibit something once and s/he will probably not do it even when alone.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

36. May confess to doing something naughty even if unlikely to be found out.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

37. After having been naughty, seems to want reassurance that parent is no longer angry with him/her.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

38. Is upset by criticism.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

39. Shows interest when TV or story characters act naughty.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

40. His/her feelings are not easily hurt by criticism.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

41. Will try to stop another child from getting into trouble.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

42. Can tell at just a glance how others are feeling.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

43. Not likely to react when a visiting friend breaks a household rule.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

44. If left alone with another child, will not try to keep them both out of trouble.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

45. When watching TV or listening to a story, seems particularly interested in issues of responsibility, wrongdoing, etc.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

46. Shows concern when a toy is broken.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

47. May continue to feel bad even if forgiven for a mishap or blunder.

1	2	3	4	5	6	7	NA
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48. Not particularly likely to offer to clean up if s/he has caused a mess (for example, a spill).

1	2	3	4	5	6	7	NA
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1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

49. On his/her own, is likely to promise not to do it again after doing something wrong.

1	2	3	4	5	6	7	NA
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50. After having done something naughty, asks to be forgiven.

1	2	3	4	5	6	7	NA
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51. Does not need to be reminded to say "sorry" when s/he does something bad.

1	2	3	4	5	6	7	NA
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52. If out of parent's sight, may ignore a household rule.

1	2	3	4	5	6	7	NA
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53. If asked to do a chore (for example, help set the table), s/he does not need to be reminded about it.

1	2	3	4	5	6	7	NA
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54. Can stop her/himself in the middle of doing something forbidden without any intervention from an adult.

1	2	3	4	5	6	7	NA
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55. Gets upset when a guest breaks a household rule.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

56. After being scolded for some mischief, seems particularly happy when parent praises him/her for some accomplishment.

1	2	3	4	5	6	7	NA
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1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

57. Is not overly concerned about being forgiven after having done something naughty.

1	2	3	4	5	6	7	NA
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58. Likely to ask "what's wrong?" when seeing someone in distress.

1	2	3	4	5	6	7	NA
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59. Will spontaneously say "sorry" to a playmate or sibling when necessary.

1	2	3	4	5	6	7	NA
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60. If not supervised, may get sloppy about his/her chores.

1	2	3	4	5	6	7	NA
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61. It is not easy to make him/her feel bad after s/he has done something wrong.

1	2	3	4	5	6	7	NA
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62. On his/her own, will rarely pick up things that are out of place.

1	2	3	4	5	6	7	NA
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63. Seems happy after doing a good job with a task or chore, even before others comment.

1	2	3	4	5	6	7	NA
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64. When s/he does something wrong, seems to feel relieved when forgiven.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

65. Gets angry at aggressor, "Bad Guy", who hurts a TV character.

1	2	3	4	5	6	7	NA
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66. Not likely to pay attention to or comment on dirty or torn clothing.

1	2	3	4	5	6	7	NA
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67. Will spontaneously admit fault or wrongdoing, either verbally or nonverbally.

1	2	3	4	5	6	7	NA
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68. Tries his/her best when doing chores.

1	2	3	4	5	6	7	NA
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69. If asked to do something, may not finish if not reminded.

1	2	3	4	5	6	7	NA
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70. Not too upset by mishaps or accidents s/he has caused (for example, spilling or breaking something).

1	2	3	4	5	6	7	NA
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71. Eager to make amends for doing something naughty.

1	2	3	4	5	6	7	NA
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72. May draw parent's attention to mishap or damage s/he has caused (for example, "Mark done it" or "broke").

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

73. On his/her own, will share household rules with a playmate at our home (for example, what is not allowed in the house).

1	2	3	4	5	6	7	NA
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74. After breaking something, doesn't seem particularly concerned about fixing the damage.

1	2	3	4	5	6	7	NA
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75. Is upset by stories in which characters are hurt or die.

1	2	3	4	5	6	7	NA
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76. Presents have to be well hidden because s/he will tamper with them if left alone.

1	2	3	4	5	6	7	NA
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77. Clearly hesitates before doing something forbidden, even when alone.

1	2	3	4	5	6	7	NA
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78. Seems relieved after s/he has confessed to a wrongdoing.

1	2	3	4	5	6	7	NA
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79. After doing something s/he is not supposed to do, may later check with parent to see if s/he is "good now".

1	2	3	4	5	6	7	NA
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80. May become extra nice toward the parent after being caught doing something wrong.

1	2	3	4	5	6	7	NA
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81. When s/he has caused some damage (for example, dropped or broken an object), will try to put the pieces together, clean up, etc.

1	2	3	4	5	6	7	NA
---	---	---	---	---	---	---	----

1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

82. When s/he breaks a toy during play, simply moves to another activity or other toys.

1	2	3	4	5	6	7	NA
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83. Seems compelled to tell parents when s/he does something wrong.

1	2	3	4	5	6	7	NA
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84. Shows interest when other people's wrongdoing is discussed.

1	2	3	4	5	6	7	NA
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85. In play, may scold a doll or stuffed toy for imaginary wrongdoing.

1	2	3	4	5	6	7	NA
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86. May not tell parents when s/he has broken something.

1	2	3	4	5	6	7	NA
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87. Likely to get into mischief when no adult is present.

1	2	3	4	5	6	7	NA
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88. Will feel sorry for other people who are hurt, sick, or unhappy.

1	2	3	4	5	6	7	NA
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89. Will not complete a tedious task (for example, cleaning up his/her room), unless reminded.

1	2	3	4	5	6	7	NA
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1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

90. When unsupervised, is likely to stop him/herself on his/her own when just about to do something wrong.

1	2	3	4	5	6	7	NA
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91. Likely to blush when caught doing something wrong.

1	2	3	4	5	6	7	NA
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92. Can be left alone even with his favorite dessert and will not touch it if asked to wait until the guests arrive.

1	2	3	4	5	6	7	NA
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93. When having a friend over, is not likely to enforce family rules on his/her own.

1	2	3	4	5	6	7	NA
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94. Wants to stay physically closer to parent after being scolded for doing something wrong.

1	2	3	4	5	6	7	NA
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95. Pays attention to objects that are broken, do not work, or are out of order (for example, missing buttons., broken toys, stained clothes, etc.).

1	2	3	4	5	6	7	NA
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96. Avoids eye contact if s/he has done something naughty.

1	2	3	4	5	6	7	NA
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97. Is not likely to become upset if a playmate cries.

1	2	3	4	5	6	7	NA
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1	2	3	4	5	6	7	NA
extremely	quite	slightly	neither	slightly	quite	extremely	
untrue	untrue	untrue	true nor	true	true	true	
			untrue				

98. Is casual about spills or damages that s/he has caused (for example, may suggest that the spill will dry by itself).

1	2	3	4	5	6	7	NA
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99. May hang his/her head and look down after being naughty.

1	2	3	4	5	6	7	NA
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100. Likely to get upset if s/he does something wrong in public.

1	2	3	4	5	6	7	NA
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