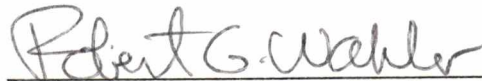


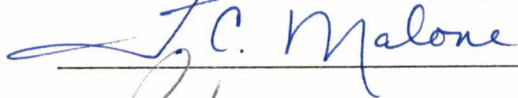
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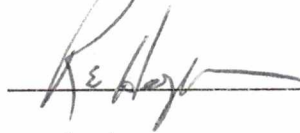
I am submitting herewith a dissertation written by Mary Elizabeth Allen Keathley entitled "The Incapacity to Be Alone in Conduct Disordered Boys." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.



Robert G. Wahler, Ph.D., Major Professor

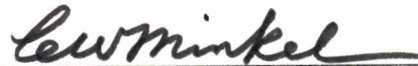
We have read this dissertation
and recommend its acceptance:







Accepted for the Council:



Associate Vice Chancellor
and Dean of The Graduate School

THE INCAPACITY TO BE ALONE IN CONDUCT DISORDERED BOYS

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Mary Elizabeth Allen Keathley

December, 1994

DEDICATION

This dissertation is dedicated to Christian Michael Keathley, and to our children.

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ABSTRACT

Research in the area of conduct disorder has recently begun to focus on the context of the conduct disordered (CD) child's aversive behavior as well as the child's internal experience which in part drives this behavior. Based on a review of the literature in the areas of CD, attachment theory, object relations theory, and loneliness, it was proposed that CD children have not developed a capacity to be alone as defined by Winnicott (1965). Approximately 10 hours of videotape of each of three conduct disordered boys on an inpatient psychiatric unit were analyzed on a 15 second interval basis. As predicted, the subjects were significantly more non-constructive when they were not in direct interaction with another person. The boys were most likely to achieve social interaction after making an appropriate social overture, but when they did not receive social interaction they came out of this solitary experience predisposed to suppress these prosocial behaviors. It appears that solitary time is a negative experience for these children and that it disrupts their fragile sense of connection with others. The findings are interpreted in light of a previous study (Wahler, Castellani, Griffith, & Keathley, 1994) which compared a group of children with conduct problems with normal counterparts and also demonstrated that solitary time was a setting event for increased noncompliance in the clinic-referred children.

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CHAPTER 1 Literature Review

Introduction

Literature in the areas of attachment and object relations theories suggests that parental behaviors influence the child's sense of security with its parents and that this level of security will be internalized by the child. Without an internal sense of the parent as available and responsive, or of the self as capable of having an impact on the world, the child is threatened with feeling alone and helpless. In the face of this, the child may act out to secure the presence of others, even if the response he receives is a negative, rejecting response.

In order to support the hypothesis that children with conduct disorders have not fully developed a capacity to be alone as defined by Winnicott (1965), I will first review the recent relevant literature on conduct disorder. This will be followed by a review of attachment theory and object relations theories, which deal directly with the translation of the child's external experiences to an internal representation of those experiences. Finally, I will review literature in the area of loneliness, which provides a window into the feelings which may underlie the conduct disordered child's aversive behaviors.

Conduct Disorder Literature

A significant portion of research in the area of conduct disorder (CD) has focused on differentiating CD from

attention deficit disorder. In one such study, Raine and Jones (1987) examined personality, arousal, and attentional variables in children with antisocial behavior disturbances and those with attentional problems. They demonstrated that conduct disorder (CD) and attention-deficit hyperactivity disorder (ADHD) are separate disorders, with conduct disorder being related to an external locus of control and attentional disorders being due to a "core structural deficit in attention" (p. 583). The researchers found lowered heart rates in CD children which they interpreted as a biological correlate of the "fearlessness" often seen in antisocial personalities. While Raine and Jones acknowledged that in some cases symptoms may overlap, and that behavioral and attentional problems are common in both disorders, they argued that the etiology of the two disorders are different. According to Raine and Jones, the behavior problems sometimes seen in ADHD children arise out of their fluctuating attentional state and the learning and socialization problems these attentional problems can cause. Noteworthy for the intent of this review was Raine and Jones' conclusion that the attentional problems sometimes seen in CD children are related to their greater sense of lack of impact on the world and to their "interpersonal alienation," which leads them to act impulsively. These two characteristics suggest depression and loneliness are common

and compelling experiences for children with conduct problems.

Conduct Disorder and Depression

Many researchers have supported a link between conduct disorder and depression. Cole and Carpentieri (1990) found CD to be highly correlated with depression and suggested that many children diagnosed as CD due to their aggressive behaviors also have an underlying affective disturbance. Kashani, Soltys, Dandoy, Vaidya, and Reid (1991) found a correlation between hopelessness and "difficult child" temperamental characteristics. Those authors highlighted the fact that hopelessness is the core element in Beck's cognitive theory of depression.

One study which illuminated this link between CD and depression in children (Field, Sandberg, Goldstein, Garcia, Vega-Lahr, Porter, & Dowling, 1987) suggested that conduct disordered and depressed children "experience similar internal states but show dissimilar behavior styles" (p. 214). They outlined three possible explanations for these differential behavioral outcomes: child temperament, parent temperament, and interactions between the parent and child. In order to explore these three factors, the researchers compared the behavior of normal, depressed, and conduct disordered children in play and task-oriented sessions, both alone and with their mothers. During solitary free play, the CD children spent more time moving around and changing

activities than did the other children. Similarly, they spent more time "off task" in the solitary puzzle play session, but expressed fewer feelings of incompetence than the depressed group. In interactive play, their mothers were less approving and more disapproving than the other mothers, and during interviews, their mothers reported more behavior problems in their children and more emotional problems themselves, including greater depression, more external locus of control, and less nurturant ability. In fact, they rated themselves as more depressed than the mothers of depressed or normal children, and they were less positive affectively in play with their children. The CD and depressed children were found to be similar in two ways: 1) their mothers tended to be less synchronously involved with their children; and 2) they were both less likely than the normals to complete an assigned task when in solitary play.

Solitary Play of Children with Conduct Problems

The inability of CD children to make use of solitary, purposive, creative play has been noted by several researchers in the area. Reiser (1978) studied a group of fifteen preschoolers with conduct problems. One of his most interesting findings was that all of these children had been relatively delayed in learning how to talk. He stated that these children apparently "do not find in playing out and talking out a substitute alternative to acting out, in

comparison to neurotic children" (p. 65). It appeared that these preschoolers with conduct problems had not developed the degree of symbolic representation expected at their age.

Gardner (1987) studied the non-aversive behaviors of CD children in order to understand the context for the conduct disordered child's aversive behavior. She observed the behavior of 20 CD preschoolers and 19 normal peers and found that CD children spent less time in positive play or conversation than the comparison group. In addition, she found differences in the solitary play of the two groups. Essentially, the CD children showed very little capacity to play constructively when alone, spending much more time than the normal children watching TV, wandering around, sitting and fiddling, making comments to themselves, or doing "nothing" (p. 291). Gardner concluded by disagreeing with Patterson's theory (1982, in Gardner, 1987) that parent-child relations (and therefore aversive behavior) take a downward spiral throughout the child's development as the child's greater aversiveness leads to greater alienation of parent and child and consequent worsening of behavior. Instead, she proposed that "there are qualitative differences (between CD and normal children) early on in parent-child interaction," and these differences "apply to both positive and negative interaction" (p. 292). This conclusion suggests to the present author the need for early intervention in these parent-child interactions.

According to recent literature on children's play, this repeated finding that children with conduct problems demonstrate an inability to use language and other symbols to solve problems, as well as an inability to play, particularly alone, does not bode well for their overall social and cognitive functioning. Rubin (1982) noted that until recently, solitary play, following from Piagetian theory of cognitive development, was considered to reflect less well-developed social competence, and social play was considered to be one of the hallmarks of psychological maturity. However, the results of his research and that of others suggest that, in fact, some forms of constructive solitary play, including parallel, non-interactive play, correlate positively with measures of social and cognitive competence.

The present author is suggesting that the CD child's inability to play alone constructively and creatively may reflect a broader incapacity to be alone, stemming from his inadequate sense that others are available to him. He must therefore focus his energies on eliciting social responses, even through aversive means, in order to insure that he does not feel isolated.

Malone (1978) demonstrated the effects of such a lack of internal structure in his study of children from disorganized families who displayed the characteristics of children at risk for later chronic acting out or impulse

disorder. Once again, these children were notable in their inability to sustain interest or to enjoy themselves or others. The disorganization in their homes had apparently left them with a significant lack of a stable internal structure from which to explore the world. Instead, they were preoccupied with "searching for reliable, satisfying contact with people, avoiding pain, and compensating for deficient inner growth" (p. 22) and were constantly oriented toward others. They had low frustration tolerance, and when under stress, they became very physically active and impulsive. Malone also noted a correlation between this constellation of impulsive behavior problems and the delayed development of the use of symbols in language and play. He found that these children used language concretely, for exhibitionistic rather than communicative purposes. He concluded that these children tended to exhibit a more concrete imitation of others rather than a more complex integrated internalization of important figures. Overall, these children often looked outwardly autonomous and independent, but in fact, due to what Malone called "insufficient inner ego growth," were quite dependent on others' constant attention for a sense of well-being (p. 34). Malone credited much of their delay in the development of internal resources to the failure of their mothers to provide consistent responses to the child's needs due to the

mothers' own deprivations and narcissistic personality organization.

Parental Psychopathology and Nonsynchronous Parenting

Current research supports this link between conduct disorder in children and the experiences that they have had with inconsistent parents who are preoccupied with their own emotional agendas. Using videotapes of home observations of conduct disordered children and their mothers, Wahler and Sansbury (1990) examined the relationship between mothers' indiscriminate reactions to their children's behavior and their deficiencies in monitoring the children's behavior. Mothers were asked to view the videotape and to code the child's positive and aversive behaviors. While mothers and independent observers agreed on child positive behaviors, the mothers tended to undercode or to inconsistently code negative behaviors. Furthermore, there was a relationship between this bias and the mothers' actual reactions to the child; i.e. the more deficient and inconsistent their monitoring of the child's aversive behaviors, the more likely they were to react indiscriminately to their children during actual child care scenarios. Interestingly, the mothers' explanations of their coding varied, depending on the valence of the child's behavior. When describing their coding of an aversive behavior, their explanations were idiosyncratic, and tended to be broad, personal, and difficult for an outside observer to understand. In

contrast, their explanations for coding positive responses were more articulate and specific, and were quite similar to the explanations offered by the observers.

Gardner (1989) added to the theories and research which link maternal inconsistency to CD, but her methodology differed in that she was interested in maternal response to an entire sequence of conflict with the child rather than to specific aversive behaviors. Gardner found that parental inconsistency and angry conflict were significantly correlated, and that mothers of preschoolers with conduct problems were more inconsistent than a control group of mothers of normal preschoolers. This inconsistency was most often caused by the mother's failure to follow through with demands she had made of the child.

Sanders, Dadds, and Bor (1989) found that the best predictor of child aversiveness is maternal aversiveness and vice versa. However, the results of their study also suggest that the context of the interchange can be an important factor, and that mothers of CD children may be more reactive to, and less flexible and able to adjust to, changes in their environment.

Deutsch and Erikson (1989) studied the early life events of 40 incarcerated male delinquents diagnosed as either aggressive/socialized or aggressive/undersocialized. These categories correspond to the DSM-III-R (American Psychiatric Association, 1987) diagnoses of Conduct

Disorder, group type and Conduct Disorder, solitary aggressive type, respectively. Throughout this review and in the research presented in forthcoming chapters, it is the undersocialized/solitary aggressive type of conduct disorder to which the present author is referring.

Deutsch and Erikson (1989) theorized that undersocialized delinquents lacked normal attachments as evidenced in their lack of close relationships and lack of capacity for guilt or empathy. These delinquents, whose age of onset of delinquency was prepubertal, were described as having a greater likelihood of antisocial behavior as adults when compared with socialized delinquents whose delinquent behavior usually began at puberty when they became involved in a peer group which committed antisocial acts. As hypothesized, the undersocialized delinquents had a history of significantly more stressful life events prior to age four than the socialized group. The delinquents were not distinguishable based on their own self-report of their attachment to their caregivers, suggesting that these children use their delinquent behavior to act out their sense of isolation, and are therefore largely unaware of it at most times. This lack of awareness may be in part what differentiates CD children from children who are more aware of their sense of hopelessness and become clinically depressed.

The hypothesis that children with CD and depression share a similar etiology, including nonsynchronous experiences with their caregivers, is confirmed by Ohye (1985). In her review of CD literature, she concluded that noncontingent parental response has a significant negative impact on a child's development of self-regulatory capacities. She applied this theory specifically to two seemingly dissimilar clinical groups: children who demonstrate dysphoric withdrawal, and acting-out (CD) children. She argued that research on family interactions of the two groups demonstrates that, in both cases, noncontingent parental response elicits the child's perception of himself as interpersonally ineffective. She concluded that both conditions are forms of a reactive depression, similar to that predicted by Seligman's "learned helplessness" theory.

Many studies support a link between the psychopathology of parents and Conduct Disorder in their children. Antisocial Personality Disorder, substance abuse, and somatization disorders in parents have all been linked with CD in offspring. Disturbances of personality, specifically MMPI scales linked with antisocial tendencies, histrionic behavior, and disturbed adjustment have been found in mothers whose 6-13 year old offspring had been diagnosed as CD. These disturbances of personality were not, however, found in the mothers whose children were diagnosed ADHD.

These findings suggest that CD is not only linked to the father's personality characteristics, but to the mother's as well (Lahey, Piacentini, McBurnett, Stone, Hartdagen, & Hynd, 1988; Lahey, Russo, Walker, & Piacentini, 1989).

Dumas, Gibson, and Albin (1989) linked maternal depression to child maladjustment, including Conduct Disorder. Their results shed light on the effects of maternal distress on children. They found that when mothers of CD children are more depressed, the children are more maladjusted in general, but are also less aversive and more compliant with their mothers. The authors suggested that CD children are "selectively maladjusted" and are very sensitive to social cues. Dumas and Gibson (1990) followed this research by further demonstrating that when the mothers of CD children are more distressed, the children tend to be "better behaved" with the mothers and more aversive and noncompliant with fathers and siblings. The present author suggests that perhaps these children, who may experience insecure attachments to their mothers, cannot risk disturbing her when she is clearly distressed.

Fendrich, Warner, and Weissman (1990) also correlated parental depression with a number of childhood disorders, including CD. In addition, "family risk factors" including marital discord, low family cohesion, affectionless control, parent-child discord, and parental divorce, were highly correlated with conduct disorder in the family's offspring.

Crowell, Feldman, and Ginsberg (1988) compared the behavior of clinically referred and non-referred preschoolers and their mothers while they were engaged in a semi-structured task. They found nonsynchronous interaction and failed communication to be characteristic of clinic-referred preschoolers and their mothers, even when the dyads were not engaged in aversive interchanges.

Anderson, Lytton, and Romney (1986) found support for what they call the "transactional effects model" for understanding the development of CD. According to the model, oppositional behavior in children is the result of cumulative interactions of aversive behavior between parent and child. In their study, they compared the reactions of mothers of CD children to mothers of normal children during interactions with their own child, a child of the same classification, and a child of a different classification. All mothers were more negative and addressed more commands to CD children and CD children were less compliant with all mothers. The authors interpret these findings as evidence that the child is the major factor in CD. Mothers of CD children were more coercive with their own children than with other CD children, which the authors believe is due to the transactional effects of accumulated experiences with their own children.

Lytton (1990) followed this research with an extensive review article identifying what he believes to be evidence

of the primary influence of child effects and transactional or reciprocal effects in CD in boys. Dodge (1990) criticized these conclusions, citing several instances in which he believed Lytton confused child and environment effects. For example, as evidence of biochemical factors, Lytton had cited the presence of psychological disorder in a parent as a marker for CD in the child. Dodge argued that the presence of a psychologically disordered parent in the home could equally be construed as an environmental factor. Dodge supported the transactional model for the development of CD.

Wahler (1990) acknowledged that Lytton made a convincing case for the genetic and biological bases of CD, but he also argued that it does not necessarily follow that child factors are the strongest contributor in the development of CD. Wahler pointed out that even Lytton has acknowledged that the genetic underpinnings of CD are only a predisposition. Whether this predisposition develops into CD behaviors depends on environmental conditions. The question then becomes which party, the parent or the child, is responsible for the coercive cycles commonly found in families where CD does develop. Wahler challenged Lytton's conclusions, arguing that an equally strong case can be made that parents of CD children "follow some personal and pathological map" which makes them nonsynchronous with their children (p. 702). Given this nonsynchrony, the child acts

out in order to get a predictable response from the parent; this predictability, in and of itself, is reinforcing.

Rexford (1978) also linked CD in children with psychopathology in parents, and specifically with the nonsynchronous relationship between parent and child. She described the fathers of antisocial children as passive-aggressive, highly dependent men with confused sexual identifications. She found the pathology of the mothers of acting out children to be more variable, but argued that they all demonstrated an inability to be attuned to the specific needs of their child, partially because they failed to see these needs as separate from their own. Rexford cited "unsolved oral conflicts" in the mothers as a predisposing factor for acting out in their male children. Based on a study of a group of mothers of acting-out boys, she concluded that because these mothers feel they did not get enough love as children themselves, they are unable to set limits with their children for fear that the children will find limits intolerable and retaliate against them. Rexford also found that antisocial children are not merely externalizers, and that most of them also have some measure of internalization of their conflicts with their parents.

Summary

Until recently, the majority of the research with CD children has focused on their externalizing behaviors, although research has begun to demonstrate that these

children do also internalize the experiences that they have with inconsistent, nonsynchronous parents (Crowell et al., 1988; Field et al., 1978; Gardner (1989); Ohye, 1985); Wahler & Sansbury, 1990). In order to better understand how this parenting style leads to the depression, aversive behavior, social problems, and incapacity for solitary, purposive play seen in conduct disordered children, we now turn to the theories and research of attachment theory and object relations theories.

Attachment Theory

John Bowlby

John Bowlby (1982) postulated what he called a control systems theory of attachment behavior. According to Bowlby, attachment behaviors including crying, smiling, following, clinging, sucking, and calling are a class of behaviors or behavioral systems all of which serve to keep the infant in close contact with the parent, and which are activated by the departure of the parent or by situations which the infant experiences as dangerous. Attachment behaviors are terminated by contact with the parent. Bowlby did not consider these behaviors to be the result of a specific need or drive, but neither did he characterize them as resulting secondarily from more "basic" drives such as feeding or warmth.

Bowlby's theory represents a rebuttal of secondary drive theories including those of Freud and the learning

theorists, which argued that the primary drive is for food or need satisfaction, and that attachment to the caregiver is based on its association with having these primary needs met. Bowlby argued that secondary drive theories were based on assumption, not empirical evidence, and that the empirical evidence with animals and humans that did exist did not support these theories (Bowlby, 1982).

Research with animals.

According to Bowlby, research with animals suggests that all species demonstrate a tendency in the young to maintain proximity to a parent figure. While the parents obviously play an important part in these behaviors, significant research suggests that the young are predisposed to seek proximity with a specific figure. The first well-known study which supported this theory was Lorenz's (1935) work on the imprinting behaviors of ducklings, who after birth would follow any moving object and eventually came to prefer that object.

Probably the most famous evidence supporting Bowlby's theory came from the work of Harry Harlow and his associates. In his APA presidential address, Harlow (1958) reviewed his and his colleagues' research which supported his proposal that secondary drive theories are inadequate to account for the need to be with others of the same species, and more specifically, to account for the bond that develops between parents and infants. The discovery that monkey

neonates clung to cloth pads or anything tactilely similar in their cages, and that, in the first few days of life, survival rate was poor if the infants were not allowed such stimulation, led these researchers to begin investigations of the importance of what they termed "contact comfort" in the socialization of monkeys. The now-famous study followed in which infant monkeys were raised with a wire mesh surrogate and a terry cloth surrogate which radiated heat. This study demonstrated that "contact comfort" was a far more important variable in determining the infant monkey's attraction to the artificial "mother" than was her association with feeding, and this trend only became stronger with the infant's increasing age and experience.

Later studies investigated the infant monkey's behavior when presented with a fear stimulus or when placed in a "strange situation." These studies demonstrated that the young monkeys preferred the cloth surrogate when alarmed, and could even use it as a "secure base" from which to explore the new environment. In comparison, when infant monkeys were faced with these frightening stimuli alone or in the presence of the wire surrogate, their behavior was strikingly frantic: they ran around the cage screaming and clutching themselves (Harlow, 1958).

Harlow and his associates then studied the "affectional retention" of the monkeys following separation from the surrogates. Using various methods, they demonstrated

repeatedly that the affectional behavior of the infants to the cloth mothers did not extinguish as a result of separation, and in fact separation often increased the post-separation clinging behavior of the infants. The researchers also demonstrated that early experience with the cloth surrogate was an important variable. Control monkeys who had not been raised with a surrogate but who were introduced to one later in development did develop some of the same responsiveness as the cloth mother-raised neonates, but not with the same surety and strength of the latter (Harlow, 1958).

Griffin and Harlow (1966) later compared the behavior of rhesus monkey infants who had been either totally or partially isolated for the first three months of life. Contrary to their expectations, total isolation had drastic effects on these animals. The total isolates were described as "severely depressed" when removed from their cages, and one subject actually died of starvation. Others were forced to avoid further loss. Total isolates also exhibited more self-directed orality, and were more passive and less explorative of the environment than the partial isolates.

Attachment behavior in humans.

Bowlby also cited evidence with humans that suggests that the secondary drive theory is insufficient to account for attachment behaviors. Schaffer and Emerson (1964, in Bowlby, 1982) found that among a group of attachment

figures, one fifth did not participate in feeding and other caregiving behaviors at all, yet their infants were quite strongly attached to them. These figures did interact with the children and were very responsive to the child's social overtures. Many studies suggest that performance can be improved simply by giving the child some positive social response. For example, Bower (1966, in Bowlby 1982) used operant-conditioning techniques in which the sole reinforcement was an adult who played peek-a-boo with the infant.

Bowlby (1982) suggested that attachment behavior in humans, while similar to that of animals in many respects, is different possibly as a result of different caretaking practices, and almost certainly as a result of the relatively less developed state in which the human infant is born. At three months, the human infant distinguishes its parents from others. At six months, attachment behavior is clearly evident. Between 6 and 12 months, attachment behaviors increase in frequency and intensity. At around 11 months, attachment behaviors will be elicited by the sensed impending departure of the attachment figure. The increase in attachment behaviors reaches a threshold around age three, at which time the child can be secure with "subordinate attachment figures" as long as the child is healthy and not alarmed, the substitute is familiar, and the child knows that the primary figure will return. The

decreasing attachment behavior after age three is probably also a result of increasing curiosity and exploration (Harlow, 1961 in Bowlby, 1982). In adolescence, primary ties expand to include non-family members. Finally, Bowlby posited that attachment behavior persists into adulthood and that an increase in attachment behavior is normal and not regressive when an adult is feeling vulnerable, whether physically or psychologically (Bowlby, 1982).

The changes in attachment behaviors during childhood are paralleled by the child's developing capacity to take others' goals and desires into account. This capacity is significantly determined by the caregiver's ability to take the child's viewpoint when considering his actions (Light, 1979, in Bowlby, 1982). In other words, the child's internal world reflects experiences with caregivers which will in turn determine the child's own behaviors (Bowlby, 1982).

Inner working models.

Many consider the most important aspect of Bowlby's theory to be his hypotheses about the formation of working models of the attachment figure and the self. According to Bowlby, the child develops inner working models of the presence or availability of his caretakers over time. He defined the presence or availability of caretakers as their propensity to be accessible and responsive to the infant. He proposed that if an individual can be confident that his

attachment figure is available, he will build a working model that is much less fearful than if he is uncertain of the figure's availability. In addition, Bowlby stated clearly that he believes that these expectations are based more or less on actual experiences during the sensitive period from infancy to adolescence rather than on fantasies or irrational fears (Bowlby, 1982).

Bowlby (1982) suggested that inner working models of attachment become more stable over time. Within the first eighteen months there can be significant lability in attachment patterns, particularly in disadvantaged, multistressed families in which the caregiver's approach tends to be less consistent (Vaughn et al., 1979). From the second year on, attachment patterns correlate with predictable patterns of play and social behavior with peers and other adults. As the internal world develops, the child brings this world to its interactions with others and these patterns are no longer dependent on the mother's presence. Continuity between the pattern of attachment in infancy and later play and social behavior has been demonstrated up to age seven (Sroufe, 1979 in Bowlby, 1982). After adolescence, expectations of the availability or unavailability of others are expected to remain relatively unchanged through adulthood.

According to the theory, working models of attachment figures and of the self are related. Attachment figures are

experienced as available or unavailable, and the self is consequently experienced as lovable or unlovable. Within this process, there is a tendency toward overgeneralization: if one feels unwanted by his attachment figure, he will assume that he would not be wanted by anyone. Finally, Bowlby suggested that it is not unusual for people to operate with multiple models of attachment figure and of the self. There is often a primitive, unconscious model developed early in life which is to some extent covered over by a more sophisticated, conscious model developed later. Bowlby argued that most people consciously believe their more conscious models to be dominant, but in fact, the more primitive, unconscious models may be more influential in determining how people perceive the world and how they behave (Bowlby, 1973).

Fear of Being Alone.

Bowlby criticized the assumption often made, particularly by psychoanalysts, that the only things which should "rationally" produce fear are actual dangerous situations or the presence of dangerous stimuli, and that all other fears are neurotic or regressive. Bowlby argued that there are two problems with this assumption. First of all, many situations that are not actually dangerous are indirectly related to actual dangers (i.e., being alone, in a strange place, or in the dark). In addition, he argued that traditionally we have only considered the presence of

dangerous stimuli as sufficient to produce fear, but the absence of other stimuli which reduce fear may be just as crucial. He stated that the actual or threatened separation from or loss of an attachment figure is a primary cause of anxiety and fear throughout the lifespan. Arguing from an evolutionary perspective, he proposed that being alone and unprotected is a "naturally occurring clue" to danger, just as strangeness and darkness are. He argued that one of the functions of attachment behavior is protection from predators, and he noted that an isolated animal is, in fact, more likely to be attacked (Bowlby, 1973). Rowell and Hinde (1963, in Bowlby, 1973) found that isolated animals reacted with far greater intensity to stress-producing situations than non-isolated animals. Similar results have been obtained using young chimpanzees and dogs (Mason, 1965, Lynch, 1970 in Bowlby, 1973).

Bowlby argued that it is not necessary to turn back to evolutionary roots or rely on ethological research to understand "aleness" as a natural clue of increased danger. Being alone is still statistically more dangerous in modern Western society. He cited statistics of traffic accidents involving children in London and in Sweden which concluded that between 44 and 66 per cent of traffic accidents harming children occur when the children are alone or only with a same age peer. Interestingly, further research suggested that these children were more likely to

have been alone because they were unwanted or had parents who were preoccupied with other stressors (Bowlby, 1973).

Bowlby (1973) hypothesized that because being alone carries an increased risk of danger, especially for children, the fear response to the inaccessibility of the caregiver is a basic adaptive response that, during the course of evolution, has become a part of the human behavioral repertoire because of its contribution to survival. Bowlby did not rule out associative learning as contributing to the fear of being alone, and he further hypothesized that because of the caregiver's ability to soothe fearful situations, the infant comes to associate comfort with the mother's presence and distress with her absence. Bowlby also suggested that because infants are naturally more distressed in fear-producing situations when their mother is not present than when she is, the infant may come to further associate the distress with her absence, and ultimately the absence itself may produce fear. He flatly rejected Freud's hypothesis that the infant associates the mother's presence with "reduction of excessive stimulation." He argued that this hypothesis is based in a scientific paradigm which is outdated and not empirically supported by ethological research.

Bowlby (1973) suggested that many of the "irrational" fears seen in children and adults are based on actual experiences, for example, actual punishments or threats of

abandonment by parents. Newson and Newson (1968, in Bowlby, 1973) found that the fears of separation in a group of four-year-olds who were labeled overdependent were based on actual separations. Tizard and Tizard (1971, in Bowlby, 1973) compared two-year-old children reared without a permanent mother figure with two-year-olds raised in normal families. The children being raised in residential nurseries were cognitively inferior, their attachment behavior was found to be diffuse and more anxious, and they were more frightened of strangers than their counterparts. Fagin (1966, in Bowlby, 1973) studied 60 children during a brief stay in the hospital. Those children whose mothers did not stay with them while they were hospitalized were later found to be more disturbed and more dependent after their stay than those whose mothers stayed with them. For those children in the unaccompanied group whose mothers were judged to be "irritable," the effects of being alone in the hospital were even more extreme. According to Bowlby, "parent-child relations, both before and after the event, play a very large part in accounting for the differential outcome of a separation" (1973, p. 220). Similar results were obtained by Moore (1969, in Bowlby, 1973) who found that even brief separations (one or two weeks) from parents were stressful for children under age three, but the ultimate impact of temporary separation depended on the overall stability of the home and on parental attitudes.

Many of the children in this study who did not fare well after separations became quite aggressive and more dependent on their mothers. Bowlby pointed out that this tendency to become aggressive in children whose parents have been unpredictable and/or unresponsive is greater in boys.

Bowlby (1973) also suggested that in addition to the effects of actual experiences, threats of abandonment or suicide play a much greater role in anxious attachment than widely known due to the parents failure to report such threats. Often parents are so ashamed about the threats they have made that they will later deny to the child that they made the threats, and the child has no opportunity to talk about his feelings about the threats. Bowlby believed that the family context which has left a child feeling alone or threatened with abandonment is often omitted, suppressed or falsified by parents, children, researchers, and clinicians.

Insecure attachment.

Bowlby concluded that it is more appropriate to use terms such as "anxious attachment" or "insecure attachment" than terms like "dependent" or "overdependent" as "it reflects the person's natural desire for a close relationship with an attachment figure, and recognizes that he is apprehensive lest the relationship be ended" (1973, p. 213). He argued that disturbances of attachment behavior in Western societies are often due to too little caregiving and

too much pressure on children to be independent, rather than on the "spoiling" of children. Bowlby theorized that what may have misled Freud and others was the "show of affection and over-protection that is so frequently present either as an over-compensation for a parent's unconscious hostility to a child or as part of the parent's own desire to cling to the child" (p. 243), which is an inversion of the parent-child relationship due to the parent's own unmet attachment needs.

Stendler (1954, in Bowlby, 1973) found that children who tend to turn to their parents to do everything for them had mothers who were overprotective and discouraged autonomy. Children who were better categorized as "anxiously attached" had very unsettled, unpredictable home lives. McCord et al. (1962, in Bowlby, 1973) found that "overdependent" boys were more likely to be rejected by one or both parents, and conflict in the home was common. Sears, Maccoby, and Levin (1957, in Bowlby, 1973) found that the more irritable, scolding, and impatient a mother was when her five year old child was seeking attention, the more dependent he was, especially if the mother was initially rejecting but later gave in. Those authors also found a strong correlation between dependency in children and the use of abandonment threats or withdrawal of love as disciplinary measures.

Separation and anger.

Bowlby (1973) proposed that anger is a predictable response to separation or threats of separation from parents. He reported several studies which provided evidence that children behaved more aggressively to parents or parent figures during and after separations. Stott (1950, in Bowlby, 1973) studied 15- to 18-year-old delinquents and concluded that they were extremely insecure and that their aggressive acts were acts of false bravado. In the majority of the cases, the mother had used threats of abandonment as a major form of discipline. Stott pointed out that the child is in a bind in which they are angered by these threats but are afraid to express this anger, lest they are carried out. Therefore, the anger often becomes directed at other targets.

Hansburg (1972 in Bowlby, 1973) gave a group of 10- to 15-year-old children a test comprised of a group of pictures of parents separating from children and asked them how they would feel if this happened to them. Interestingly, the children from stable families demonstrated substantially more concern and distress rather than anger in their responses while the more disturbed children from less stable, more rejecting families were as likely to respond with anger as with distress. In addition, children from unstable homes often gave pseudo-optimistic responses suggesting that the child would be happier as a result of

the separation, while children from stable homes rarely made such statements. Bowlby correlated this denial of the pain of separation with Winnicott's theory of the development of a pseudo-autonomous "false self." The present author notes that it is this kind of false bravado which is often seen in conduct disordered boys.

Bowlby's general theory is that separation elicits anxiety and anger. The child fears losing the object and uses reproach and coercion to insure reunion or prevent such an event from repeating itself. The anger becomes dysfunctional when, instead of preventing further separation, it causes rejection and separation, leading to continued anxiety and anger, and so on (Bowlby, 1973). This theory certainly fits with the descriptions of the nonsynchronous parenting of children with conduct disorder, and the characteristically coercive behavior with which these children respond.

Mary Ainsworth

Much of the empirical support for Bowlby's attachment theory comes from the work of Mary Ainsworth. In 1967, Ainsworth studied 28 mother-child dyads in Uganda and found that separation distress, fear of strangers, and use of the mother as a "secure base" from which to explore was common among the infants. Infants whom Ainsworth classified as "anxiously attached" clung to the mother when the

investigator was present and rarely explored the environment (in Ainsworth, Blehar, Waters, and Wall, 1978).

The "strange situation" procedure was developed as a standardized laboratory procedure in order to activate or intensify attachment behavior in human infants which had been noted in longitudinal observational studies of American children in Baltimore. The method was designed to measure the infant's exploratory behavior in the presence and absence of mother, response to a stranger in the presence and absence of mother, response to mother's absence alone and with a stranger, and response to reunion with mother after separation. The infant's response to reunion turned out to be more important than response to separation in classifying pattern of attachment (Ainsworth et al., 1978).

In general, when the child and mother were introduced to the playroom, most were interested and not alarmed. The child's exploration behavior was typically high and attachment behavior was low. When the stranger entered the playroom, the child's behavior became focused on the stranger, and this attention varied from wary to friendly. When the mother left the room, the infant's exploratory behavior decreased, and many of them cried. This distress could not be comforted by the stranger. When the mother returned after a few minutes, the majority of infants greeted her. Half of them sought contact, while the other half avoided her or did not seek contact. The second time

the mother left the room, the child was left alone. The distress during the second separation was greater and exploratory behavior was even lower than during the first separation. When the stranger entered the room again, her presence did not reassure the infants nor did it distress them much more than it did during the first separation from the mother. Finally, the mother returned again. During the second reunion, attachment behavior was greater than the first reunion, and the majority of the infants sought contact with the mother (Ainsworth et al., 1978).

Those factors which activated attachment behavior in the infants were, in order of intensity: 1) separation from mother; 2) presence of stranger; and 3) the unfamiliar environment. Once activated, termination of attachment behavior required close bodily contact with the attachment figure for a period of time. If the mother terminated this contact too soon, the child usually protested.

This study also provided evidence for the cumulative effects of stress. Once attachment behavior was activated, it did not go back to base level and was activated more readily in the second separation. Ainsworth and her associates concluded that this was either due to the fact that it was the second separation or due to the fact that the children were completely alone during the second separation. Unfortunately, this was not experimentally manipulated. The authors suggested that in the first

separation, the infants were more afraid of separation than of the stranger. Based on the stranger's inability to ease the child's distress, the researchers assumed that it was the separation from mother that distressed the infants, not being alone (Ainsworth et al., 1978). The present author disagrees that this is the only conclusion to draw. Another way to think of this is that in this strange situation, with no one familiar nearby, these infants are alone. In fact, to assume that a stranger would bring comfort to a distressed one-year-old who does not yet have a solidified sense of the caretaker internally seems to be contradictory to attachment theory.

Based on their responses in the strange situation procedure, Ainsworth et al. (1978) classified the infants into one of three patterns of attachment. The majority of the infants were classified as Pattern B: "securely attached." These infants were active in play and exploration. When distressed or after separation, they tended to seek contact with the mother, were comforted, and returned to play. Approximately 20 per cent of the infants were classified as Pattern A: "anxiously attached and avoidant." These infants tended to avoid the mother following absence, especially after repeated absences. They often greeted the stranger more positively than their caregiver. They tended to be more angry than the other two groups, but this anger was rarely directed at their

caregiver. The remaining ten per cent of the infants were classified Pattern C: "anxiously attached and resistant." These infants alternated between clinging to and resisting the caregiver. They were passive, non-exploratory, and became resistant and angry if the mother tried to get them to play without her (Ainsworth et al., 1978).

Confirmation of Ainsworth's "secure base" theory was provided by the finding that when the mother was present in the strange situation, exploratory behavior increased and attachment behavior decreased and that the opposite occurred when the mother was absent. For most infants, the mother's presence and the opportunity to communicate with her verbally and non-verbally provided the children with a foundation from which to explore the novel situation. However, for C infants, the mother's presence did not seem to be enough to lower their attachment behavior, and it is probable that these infants do not experience their mothers as a secure base. In addition, Ainsworth and her colleagues found that the infants also used the mother as a "secure haven" when alarmed by the stranger's entrance into the lab. If the alarm was dissipated as a result of proximity to the mother, the infant was able to go back to using the mother as a secure base and would resume exploration (Ainsworth et al., 1978).

Having classified the infants, the researchers examined the relationship between the infants' behavior in the

strange situation and at home by comparing their behavior at home during the first and fourth quarters of their first year. During the first quarter, significant differences were obtained between Group B and Groups A and C combined. A and C infants cried longer and more frequently. Group B infants responded more positively to being held and less negatively to being put down and were more differentially responsive to attachment versus non-attachment figures than the A and C infants. Groups A and C, however, were not very distinguishable at home during the first quarter (Ainsworth et al., 1978).

During the fourth quarter, Group B infants cried less, showed less separation distress, made more positive greetings upon reunion, sought more frequent bodily contact, responded more positively to beginning and ending contact, had better developed communication skills, were more compliant with their mothers, and were less angry than A and C infants. Groups A and C were more distinguishable by the end of the first year. The behavioral differences between A and C infants suggest that, for C infants, there is a discrepancy between what they want and what they expect to receive. In contrast, A infants' difficulties stem from a more basic conflict between the kind of comfort they want and are prompted to seek, and a fear and avoidance of doing so (Ainsworth et al., 1978).

Ainsworth and her colleagues were then interested in the maternal behaviors which would correlate with the positive outcome for group B infants and the negative outcome for A and C infants. They also wanted to gain some insight into the growing differences between A and C infants as the first year progressed. In their examination of maternal behavior at home during the first quarter, they found that babies who differed in attachment at the end of the first year had mothers whose behaviors differed at the beginning of the year. Group B mothers were more responsive to crying, handled babies more tenderly and carefully, and paced interactions with the baby's responses and signals. (Bell and Ainsworth, 1972 also found that mothers who respond promptly early on have babies who cry less later.) A and C mothers lacked emotional expression when dealing with their babies and tended to be rigid and perfectionistic. This was particularly true of A mothers, who had similar frequencies of contact with their infants but seemed to have an aversion to this contact. This rejection of their infants during bodily contact, the authors posited, stemmed from submerged anger, typically defended against with a compulsive adjustment (Ainsworth et al., 1978).

In their examination of maternal behavior at home during the fourth quarter, they found that B mothers were more sensitive, accepting, cooperative, and psychologically

accessible than A or C mothers. Group A mothers were especially rejecting, were more likely to pick the infants up in an abrupt and interfering manner, and were rarely affectionate while holding their infants; therefore, Group A babies were more likely to have unpleasant associations with bodily contact. Mothers of C infants were not as rejecting, but were slow to respond to the infants' crying and tended to be task-oriented during bodily contact with their infants (Ainsworth et al., 1978).

Criticism of Attachment Theory: Trait vs. Organizational Construct

Lamb, Thompson, Gardner, Charnov, and Estes (1984) wrote a critical review of research using Ainsworth's Strange Situation procedure. They found the empirical evidence in support of antecedents of Strange Situation behavior (i.e., certain caregiving practices) to be very weak. Although they admit that there is some evidence linking socially-accepted methods of caregiving in the West with "secure" behavior in the Strange Situation, there are no specific behaviors which have been found to be especially predictive. Furthermore, they point to the failure to find distinct and replicable antecedents that distinguish the A and C patterns of insecure attachment. The authors criticized the suggestion that Strange Situation behavior reflects enduring patterns of attachment. They pointed to the research which suggests that changes in the life

situations of the mothers and babies changes Strange Situation behavior, and they concluded that the measure may reflect the current pattern of mother-infant interaction.

Lamb et al. (1984) also called into question the predictive validity of the Strange Situation procedure. While the data does support later differences in children originally categorized as B and non-B babies, this temporal continuity holds true only when the environment remains stable. Based on this finding, the authors concluded that "there is no support for claims regarding the long-term effect of experiences during an early sensitive period" (p. 142).

Lamb et al. (1984) further criticized the interpretation of Strange Situation behavior. They pointed out that there is no reason to assume that B behavior is necessarily more adaptive than non-B behavior. They suggested that there is not necessarily one healthy or adaptive pattern, and that there is more likely a number of possible patterns from which to select depending on the child's environment and their own characteristics.

Lewis and Feiring (1991) criticized the traditional paradigm of Ainsworth and Bowlby which they claim assumes a trait model of attachment. They presented longitudinal research which looked at attachment behavior and environment during the first year, and psychopathology and environment during the sixth year of life. They found that environment

during the sixth year was as predictive as the early attachment pattern for resulting psychopathology in males. They suggested that a model which combines the effects of attachment as an internal, stable trait and the effects of the current environment is the most accurate model. The vulnerable/invulnerable child models are two examples of models which provide such an integration. Lewis and Feiring suggested that early attachment experiences may determine how much effect later environmental stressors will have on a child. Their research provided support for such a model for predicting psychopathology in boys but not in girls. The authors did not offer an explanation for this difference.

According to Sroufe and Waters (1977), attachment is better considered an organizational construct rather than a trait construct. Critics of attachment theory can point to considerable evidence that many of the "index behaviors" of attachment do not intercorrelate highly, are not stable over time, and are highly influenced by context. Sroufe and Waters argued that this criticism of attachment as a construct is only valid if one is applying the view of attachment as a trait construct borrowed from social learning theory of dependency. From the Bowlby/Ainsworth model, attachment is not considered a trait, but more an intervening variable or organizational construct. Sroufe and Waters challenged the idea that the complex affective bond between parent and child could be captured in studies

which only measure discrete behaviors. According to the authors, attachment can only be measured by studying patterns of behaviors, within a context, over time. Attachment, according to Sroufe and Waters, is not equivalent to attachment behaviors; it can only be inferred from these behaviors. They noted that if attachment is measured simply by counting attachment behaviors, infants would appear less attached at 24 months than at 12, and an infant who is constantly clinging to the parent would seem "more" attached. Clearly, this way of thinking is a carryover from dependency theory, which Bowlby has already taken to task. Sroufe and Waters concluded that the results of their own research support their proposition that the quality of the attachment relationship, not specific behaviors, is stable over time.

Haith (1982) also reviewed the research on attachment and found a discrepancy between single-factor measures of attachment and the more complex systems which are theorized. He argued that in the effort to establish the validity of the attachment construct, researchers have placed too great an emphasis on the stability of attachment and that more attention needs to be paid to the plasticity of attachment as it develops over time.

Gaensbauer and Harmon (1982) studied the attachment behavior in the Strange Situation of abused/neglected and premature infants. They concluded that the Strange

Situation procedure is a valid measure of the caregiver-infant relationship, and that attachment is still a useful construct. However, they warn against two potential pitfalls in using this construct. First, thinking of attachment in dichotomous terms such as "secure" versus "insecure," or "well-attached" versus "not well attached," is a gross oversimplification of a complex relationship. Second, the use of proximity-seeking behaviors as the operational definition of attachment is quite limited and does not follow from Bowlby and Ainsworth's original concept of attachment as an "affective bond". Overall, Gaensbauer and Harmon concluded that the role of emotion has been largely ignored in attachment research.

Connell and Goldsmith (1982) supported the use of attachment as an organizational construct as defined by Ainsworth, Bowlby, and Sroufe and Waters, but they too found the ABC classification system to be limited in empirically testing this construct. They proposed a structural modeling approach which represented an attempt to take a multi-dimensional rather than typological approach to the analysis of attachment behavior. By using this approach, they hoped to explore some of the factors ignored by the traditional approach: context, infant temperament, and the infant's affective reactions.

Finally, Hess and Petrovich (1991) criticized followers of Bowlby and Ainsworth who claim that attachment theory is

ethologically-based. They stated that while Bowlby's theory was based on the ethological theory of the 1950's, it has not kept pace with ethology in the last forty years.

Bowlby's theory is based on attachment as avoidance of predation, but this is considered by ethologists today to be only one aspect of parental investment. In contrast, they stated that contemporary ethologists would understand attachment as necessary to "increase the inclusive fitness of the individual whose mode of reproduction is characterized by intricate patterns of parental investment" (Petrovich and Gewirtz, 1991, p. 84).

Inge Bretherton's Internal Working Models

Bretherton (1987) proposed a shift in emphasis from the biological function of attachment which was characteristic of the early years of research. She suggested that current research needs to focus on the impact that the capacity to construct and share internal representations or "working models" has on the development of attachment. She correlated secure attachment with open communication between infant and attachment figure, theorizing that this open communication will lead to the infant's development of adequate working models of the attachment figure.

Bretherton disagreed with Bowlby's suggestion that the attachment system is activated by danger and deactivated by a sense of safety. She suggested that the attachment system is always active; it is attachment behaviors that are

activated or terminated. Like Gaensbauer and Harmon, she also cautioned researchers to bear in mind that the infant does not experience her attachment as a "homeostatic system," but as an affective bond to the caregiver who is experienced as a secure base. She noted that, by the end of the first year of life, the infant's own internal working models of self, caregiver, and the world are having an impact on its relationships.

Bretherton (1987) explained the intergenerational transmission of caregiving patterns based on her theory of open communication and internal working models. She theorized that infants are born expecting appropriate caregiving behavior. If the caregiver's internal working model does not fit this requirement, the caregiver will give confusing feedback to the infant and will not meet the child's needs for consistent, sensitive responding. The infant will feel dissatisfied in this relationship, and the internal working models which he develops will reflect this disturbance. These inadequate working models will then actually elicit certain responses from the parent and eventually others in the world, serving to complete the cycle of unhealthy attachment patterns. The internal working model, and hence these patterns, will not change as long as the working model causes the defensive exclusion of material that would provide error-correcting feedback.

Bretherton theorized that in secure dyads, both partners will construct and reconstruct internal working models of the other as the child's conceptual and communicative abilities become more sophisticated. When defensive exclusion predominates, language can be a confusing form of miscommunication. What the child experiences in the relationship differs from what he is told he experiences. In turn, children learn to communicate only certain aspects of their experience through language, while the remainder of their defensively excluded experience can only be seen in behavior and play (Bretherton, 1987).

Citing research in which disturbed mothers could not increase caregiving abilities simply by being told how and why they should change, Bretherton noted that to stop the intergenerational cycle of insecure attachment and inadequate parenting, these mothers had to be given the opportunity to experience defensively-excluded material concerning their own histories of abandonment, abuse, and neglect. Only then were they be able to update their inadequate working models of self and others without defensively excluding material which did not fit their inadequate models (Fraiberg, Adelson, & Shapiro, in Bretherton, 1987). The present author suggests that in treating conduct disordered children and their caregivers, it will be necessary to understand their subjective experiences, inferred through behavior as well as language,

so that we can begin to provide a setting in which they can share defensively excluded material and accommodate their inadequate working models.

Main and Hesse (1990) conducted a study which provided support for the hypothesis of intergenerational transmission of attachment patterns. They developed an interview which classified adults' descriptions of their attachment history into one of three categories: secure-autonomous, dismissing, or preoccupied by past attachments. In this and other studies, they found that secure parents tend to have secure infants, dismissing parents tend to have avoidant infants, and those parents preoccupied by past attachments, unresolved trauma, or loss of attachment figures fit a fourth category of infants called "unclassifiable" by Ainsworth, but labeled "disorganized/disoriented" by Main and Hesse. They concluded that the adult's state of fear, and frightened and/or frightening behavior, pose a paradox for the infant. The parent is both the source of fear and the source of solace. They noted that "unclassifiable" infants displayed undirected, disorganized behaviors, often called "conflict behaviors" by ethologists, toward a parent during infancy. However, by the age of six, these children tended to behave in a controlling manner (either punitive or caregiving) with the same parent (Strange and Main, 1985 in Main & Hesse, 1991). This research might suggest that the controlling behavior typical of conduct disordered children

is the result of coping with a parent preoccupied by his or her own unresolved attachment needs.

Summary

Inge Bretherton's expansion of the Bowlby/Ainsworth model of attachment emphasizes the influence of failures in communication with nonsynchronous parents on the child's developing internal working models of these attachment figures. Object relations theories, arising out of psychoanalytic theory, take as their focus the internal world of the infant as it develops out of the infant's relationship with its caretakers.

Object Relations Theories

Sigmund Freud

Guntrip (1971) traced early object relations theory to Freud's turning of his attention in the 1920's to an emphasis on the ego, superego, Oedipus complex, and use of transference in treatment. Each of these aspects of his theory assumes that a person's early object relations are influential in developing his personality organization, and that these relationships are somehow internalized and remain into adulthood, where they will continue to be played out. Clearly Freud was talking about the process of internalization when he stated, "'Identification is a substitute for a lost human relationship' or indeed for one that was urgently needed and unobtainable" (Guntrip, p.10).

According to Greenberg and Mitchell (1983), Freud's theory of transference led the way to a concept of internal objects which is based only in part on actual others. A person's "account of an experience with other people is decisively shaped by a pattern of relationships that includes a template of the other and, in everyday language, is 'carried around in his head'" (p.11).

Guntrip (1971) suggested that Freud, and therefore his theory, was a paradox: he was a physical scientist of the 19th century who based his drive theory on the physics of the times; but he was also a sharply intuitive and insightful man: the creator of a new science, psychodynamics, a much more personal theory of the human psyche which was based more directly on his keen clinical observations. According to Guntrip, as long as psychoanalysis remained tied to instinct theory, it was threatened with extinction, but "the truly psychological essence of it has emerged in the 'Object-Relations Theory'" (p.13).

Harry Stack Sullivan

Sullivan was an American psychiatrist who rejected instinct as the basic concept and placed emphasis instead on interpersonal relations. In fact, Sullivan went so far as to say that personality could not be separated from interpersonal relations. Guntrip (1971) credited Sullivan with this first breakthrough for object relations theory.

Sullivan and other key figures in the interpersonal movement (Erich Fromm, Karen Horney, Clara Thompson, and Frieda Fromm-Reichmann) "all portray the human experience as fraught with deep, intense passions. The content of these passions and conflicts, however, is not understood to derive from drive pressure and regulation, but from shifting and competing configurations composed of relations between the self and others, real and imagined" (Greenberg & Mitchell, 1983, p. 80).

People, Sullivan argued, are motivated not by drives, as Freud suggested, but by interpersonal "needs," especially the needs for satisfaction and security. Security, for Sullivan, meant freedom from anxiety. According to Sullivan, anxiety is "caught" by infants from their caretakers through a process of "empathic linkage." An infant becomes distressed by the anxiety she senses in her caretaker, even if that anxiety is not directed toward the infant herself. The anxious caretaker's subsequent attempts to calm the infant will likely only make the infant more anxious, thus continuing the cycle of distress. The infant's anxious experiences with all significant others are grouped together into a composite, global "bad mother," as distinguished from non-anxious, tender experiences personified as "good mother." The infant organizes experiences of itself similarly. Behaviors and areas of experience which make the mother less anxious and more

tender, and therefore make the child less anxious, are the aspects of the personality that Sullivan terms "good me"; aspects of experience and behavior which make mother and child more anxious are termed "bad me." Finally, those areas of experience which evoke such intense anxiety as to produce amnesia for these events remain unintegrated in an area of the personality Sullivan termed "not me" (Greenberg & Mitchell, 1983).

According to Sullivan, later in life, people avoid interaction with anything which they associate with "bad me" or "not me." One of the "security operations" used for protection when a person is anxious is the projection onto new situations or experiences of old, illusory patterns borrowed from past integrations of experiences with others in which some measure of security or control was experienced. In avoiding contact with these negative aspects of the self, a person cannot successfully integrate them. To the extent to which security operations dominate life, actual relatedness in the present is either distorted or completely obscured. In sum, Sullivan theorized that avoidance of anxiety leads to the perpetuation of old, safe (albeit potentially pathological) patterns of experience which preclude the integration of new, possibly more healthy experiences. If, ultimately, interpersonal needs are not satisfied, the result is what Sullivan described as "the

most painful of human experiences": loneliness (Greenberg & Mitchell, 1983, p. 93).

Erich Fromm

Fromm argued that Freud's initial clinical observations concerning interpersonal and social relations were flawed by a "misplaced emphasis on content as opposed to the structure of self-deception" (Greenberg & Mitchell, 1983, p. 107). In other words, Fromm believed that Freud's important discovery was not what Victorian men and women repressed but, more importantly, that people will repress or deny whatever aspects of themselves they feel will result in their being socially ostracized (Greenberg & Mitchell, 1983).

Fromm believed that the essential characteristic of the human condition is that each individual is fundamentally alone. Fromm anticipated Mahler by suggesting that, in order to deal with this frightening reality, an individual attempts to "reestablish the attachments and involvements with others which were once his by virtue of his embeddedness within his mother's body and nurturing care" (Greenberg & Mitchell, 1983, p. 108). There are two ways to deal with this essential aloneness according to Fromm. First is what he called "productive orientation," in which the individual progressively acknowledges and accepts the fact of separateness, and relationships with others are characterized by "intimate yet differentiated involvements" (Greenberg & Mitchell, 1983, p. 108). If the reality of

separateness is denied, the individual will be forced to rely on one of many "regressive" solutions, all of which have in common a use of illusions and fantasies to maintain a sense of embeddedness or merger with others. Fromm fails, however, to account for why an individual would choose a regressive rather than productive solution to the experience of isolation (Greenberg & Mitchell, 1983), although it is perhaps reasonable to assume that a parent who is incapable of mature, differentiated involvement would be unable to elicit a productive orientation in a child. Perhaps conduct disordered children act out in order to maintain the illusion of control over others in an attempt to avoid the fact of their aloneness, which they so emphatically deny.

Melanie Klein

Whereas Freud's theory of development was based on retrospective work with adults, Klein's was based more on the application of psychoanalytic practice to children (Cashdan, 1988; Greenberg & Mitchell, 1983). However, as Greenberg and Mitchell point out, even Klein's theories were somewhat retrospective: although she hypothesized the internal worlds of pre-Oedipal children, these hypotheses were based on play therapy with children over the age of three, within the Oedipal range.

Unlike Sullivan, Klein -- the "unwitting originator" of object relational thinking from within the psychoanalytic movement (Guntrip, 1971) -- treated the child's actual

environment and relations as secondary to the child's internal experiences: a dynamic struggle between "life and death instincts" which the child projects outward and then reintrojects. Klein's theory of development posited two relational positions. First is the paranoid/schizoid position, which extends from birth to three or four months of age, in which the infant projects his own destructive feelings out onto the world, and then experiences himself as being attacked by them. In response to this attack, the child splits his internal world into good and bad objects in order to protect the good from the bad.

For the remainder of the first year of life, the infant struggles with reversing this splitting in what Klein called the depressive position. As the child discovers that good and bad are parts of the same object, he begins to worry that his destructive impulses toward the bad object will also consequently destroy the good. While the negative result of this shift is guilt or depressive anxiety, this is also a turning point in the development of the child's capacity for empathy and reparation within relationships, and it leads to more secure feelings about the good object, and to less fear of persecution (Cashdan, 1988). Following from Klein, it would appear that conduct disordered children have not completed the transition from the paranoid/schizoid to the depressive position. This would fit with observations of their splitting of their world into good and

bad, their sense of persecution, and their lack of empathy and guilt.

Late in her career, Klein noted a "particularly malignant and disastrous form of innate aggression, envy" (Greenberg & Mitchell, 1983, p. 128). Envy, according to Klein, is hatred directed toward good objects. This hatred is based on the child's lack of control over the dispersal of nurturance. Although Klein derives envy from the child's own aggression, Greenberg and Mitchell point out that it can be more "economically derived from... the condition of intense needfulness and dependency on an anxious and inconsistent caretaker" (p. 129). This is reminiscent of the conduct disordered child's tendency to "spoil" the nurturance he does receive because of his anger that he cannot control the timing nor the quantity of this gratification. This type of anger may be due, as Greenberg and Mitchell pointed out, to the inconsistency these children experience in early caregiving.

While many authors find much of Klein's theory confused and mystical, she is credited with the shift of emphasis to the child's internal struggle with its ambivalent feelings towards the people in its life (Cashdan, 1988; Guntrip, 1971). She is also credited by Guntrip with the shift from father-dominated Freudian theory to a greater exploration of the mother's role in the child's development. "If Freud is

the father of psychoanalysis," Cashdan wrote, "Melanie Klein is the mother of object relations" (p.8).

Heinz Hartmann

Hartmann accommodated drive theory to place greater emphasis on the role of the ego and reality, hoping to develop Freud's theory of psychopathology into a more broad theory of general psychology. For Hartmann, defense mechanisms were not solely considered a response to conflict: they were also ways of orienting and adapting to reality. Adaptation in order to survive was a major motivational force in Hartmann's theory. In keeping with Freud's primacy of biological bases of behavior, human relationships remained secondary to adaptation. However, Hartmann expanded psychoanalytic theory with his suggestion that the ego has its own motives which are directed to the real world. He described primary autonomous functions of the ego that are fueled by "primary ego energy" which is present at birth and accounts for functions which he believed are outside of the conflict-driven arena: perception, memory, motility, and association. Secondarily autonomous functions, according to Hartmann, are those functions that were originated in conflict, but which have come to have their own motivation and operate with neutralized energy (Greenberg & Mitchell, 1983).

Hartmann proposed three types of adaptation: changing oneself (autoplastic), changing the environment

(alloplastic), and looking for a new environment. He suggested that pathological behavior may be the result of adapting to a less than "average expectable" environment. One of his most interesting, and for the purpose of this review, most relevant observations was that the unconscious attitude of a depriving parent may be what elicits aggression in their child, rather than the actual deprivation itself (Greenberg & Mitchell, 1983).

Guntrip (1971) carried this point further, basing his criticism of Hartmann's system-ego on the fact that what Hartmann called adaptation may not be healthy at all, but may instead be the equivalent of Winnicott's "false self," based on conformity. He argued that the system-ego of Hartmann is still too firmly entrenched in the impersonal instinct theory and suggested that a person-ego must necessarily replace all such theories.

W.R.D. Fairbairn

In Fairbairn's rethinking of Freud, "libido is primarily object seeking" and has direction, and erotogenic zones are merely channels for the object-seeking aims of the ego. He replaced Freud's theory of psycho-sexual development with a theory of ego development based on the internalization of early relational experiences, particularly experiences of frustration and deprivation. Fairbairn outlined three broad phases of development, each a mode of relating to the primary figures in one's life:

infantile dependence, a transitional phase, and mature dependence. Psychopathology, according to Fairbairn, is the failure to make the transition from one-way dependence on others to a more mature, differentiated interdependence (Cashdan, 1988; Fairbairn, 1952; Greenberg & Mitchell, 1983; Guntrip, 1971).

As a result of the child's attempts to deal with the mother's behavior, which he can neither escape from nor control, the child internalizes the bad aspects of the mother and then represses this experience. Unlike Klein, however, Fairbairn believed that this splitting is the result of actual experiences of frustrating and rejecting aspects of the parent (and not projections of the child's innate aggressive and libidinal impulses). This conclusion was based on Fairbairn's observations of children who had been sexually assaulted or who came from "unsatisfactory homes" (Fairbairn, 1952).

In Fairbairn's theory, the bad aspects of the mother are internalized and further split into two bad internal objects. The "exciting object" is the child's internalization of experiences of the mother as frustrating or tantalizing, exciting the child's needs without satisfying them. The "rejecting object" is the child's internalization of experiences of the mother as hostile or withdrawing, actively denying satisfaction of the child's needs. The "ideal object" is the child's internalization of

comforting and gratifying aspects of the mother. This splitting of internal objects corresponds to three parallel ego states. The "infantile libidinal ego" is related to the exciting object and feels perpetually frustrated, deprived, hungry. The "anti-libidinal ego," or "internal saboteur," is the part of the ego which identifies with the parent who frustrates the child's needs. Its aggression is directed at the libidinal ego for its expression of neediness, which the anti-libidinal ego defensively denies. The "central ego" is connected with the ideal object and results in conforming behavior after the splitting off of the disturbing aspects of both ego and object. Because the frustrating experiences are repressed, they are not under conscious control, and appear in behavior only under perceived threat of separation in either extreme forms of neediness or rage. According to Fairbairn, aggression is not a primary motivational factor, but is a reaction to frustration (Cashdan, 1988; Fairbairn, 1952; Greenberg & Mitchell, 1983; Guntrip, 1971).

It has been noted that CD children, in addition to their aversiveness, are also quite immature and socially dependent. The present author suggests that when threatened with separation, which they find intolerable, they act aversively in order to force the other to remain with them without openly acknowledging their neediness, which they would find equally intolerable.

Harry Guntrip

Guntrip (1971) addressed himself to what he called the "schizoid problem," a basic, underlying sense of isolation and unreality of the self. He believed that this core problem underlies any number of neurotic, borderline, and psychotic states. He proposed a final split in the tripartite ego theorized by Fairbairn: the regressed ego which has, in fear, ultimately fled from contact with others. The cause of this withdrawal is the "experience of isolation resulting from the loss of mental rapport with the mother, at a time when the mother is the baby's sole environment and whole world, so that he has no alternative defense" (1971, p. 162).

For Guntrip, the ultimate human struggle and source of motivation is against this regressive pull to feelings of disconnectedness, unreality, and emptiness. Greenberg and Mitchell (1983) pointed out that this is not a mere amendment or addition to Fairbairn's theory. In fact, they say that this "turns Fairbairn on his head" by proposing that the ultimate motivation is objectlessness rather than object-relatedness. They stressed that Fairbairn proposed that the attachments to internal objects are created and maintained specifically because the child cannot do without objects. As opposed to Fairbairn, who had given people the responsibility for continuing unhealthy patterns by their compulsive hanging on to early and immature internal

objects, Greenberg and Mitchell criticized Guntrip for portraying people as passive victims of parental deficiencies who have gone into hiding. These criticisms notwithstanding, Guntrip does capture in his writing a fear of isolation and a sense of aloneness that the present author proposes may be at the core of the conduct-disordered child's inappropriate behaviors.

Otto Kernberg

Kernberg applied object relations theory to severe character disordered patients, including borderline and narcissistic personalities. Kernberg theorized that, unlike normal people, whose early object relations have been "digested," character disordered people have rapidly fluctuating experiences of themselves and of others, and they tend to use primitive defense mechanisms, especially splitting. Because of a lack of cohesion and structure, these patients are unable to have insight into what they act out. They are fixated at a stage when the ego is still very weak and unable to integrate good and bad experiences (Cashdan, 1988; Greenberg & Mitchell, 1983).

According to Kernberg, each early relational experience is captured in a tripartite configuration of an image of the self, an image of the other, and the affective coloring of the interaction. These relational configurations make up the internalization system which changes as the child's cognitive capacities mature. The earliest internalization

system, introjection, is characterized by a lack of differentiation between self and object images and extremely labile, unmodulated affect. As the child comes to differentiate himself from others, this is reflected in the next level of internalization, identification, characterized by more modulated affect. Finally, these more primitive internalization processes are organized and integrated at a more mature level, ego identity, composed of consistent and synthesized concepts of the self and object world as both good and bad. This consolidation makes possible higher level defensive operations used by normal and neurotic people, such as the repression of rejected or unacceptable self-object-affect configurations (Cashdan, 1988; Greenberg & Mitchell, 1983). According to Kernberg, borderline psychopathology is due to an excess of negative introjections which he believed may be the result of either a frustrating early environment or a constitutional excess of aggressive drive (Greenberg & Mitchell, 1983).

As noted above (Wahler, 1990), these are essentially the two hypotheses which have been used to explain the aggressive behavior of conduct disordered children, although at this point some interaction between these factors seems likely. In addition, conduct disordered children do tend to have very global and highly reactive attitudes toward others.

Heinz Kohut

Kohut's "self psychology" is based on his work with narcissistic personality disorders. He believed that these disorders, and ultimately all psychopathology, are disturbances of the self, caused by the empathic failures of parents. For Kohut, relatedness with others is necessary for the psychological survival of the weak and amorphous infantile self. The infant depends on the empathic responsiveness of its caretakers to provide it with a sense of cohesion and resilience. Kohut referred to the real external others who the infant depends on for this vital service as "selfobjects" to connote the early lack of differentiation between the infant and its caretakers. Through these selfobjects, the infant ideally will meet two basic narcissistic needs: the need to be admired and, later, the need to feel a part of an idealized other. These are considered normal needs for a healthy sense of omnipotence and connectedness. Through a process of "transmuted internalizations," these external relational configurations come to be represented in the internal world. Normal and expected failures in empathy on the part of the selfobjects will broaden and strengthen the person's internal representations (Cashdan, 1988; Greenberg & Mitchell, 1983).

Pathology, on the other hand, results from the experience of a chronic failure in empathy, which Kohut attributed to the character pathology of the parents.

Specific traumatic events (sexual or physical abuse, for example) are only destructive in as much as they reflect this chronic lack of empathy. Kohut noted that in the face of empathic failure, the child's search for selfobjects will become focused on sexuality or destructive aggression, depending on the particular pathological preoccupations of the parents. According to Kohut's theory, psychotherapy offers a "developmental second chance" to have basic narcissistic needs met in an empathic relationship. Ultimately, this allows the patient to grow out of her fixation on these narcissistic needs and to broaden her ways of relating to others (Cashdan, 1988; Greenberg & Mitchell, 1983).

This author suggests that Kohut might interpret the destructive aggressiveness seen in conduct-disordered children as signs of a pathological breakdown in the development in the self, resulting from the empathic failures of the child's caretakers. Certainly, character pathology is not infrequent in the parents of these children. Consequently, these children require the constant attention and coercion of others in order to shore up their weak sense of self and to gain a sense of connectedness with others.

Margaret Mahler

Mahler's psychoanalytic developmental theory built on the framework outlined by Hartmann, but emphasized the

personal aspects of adapting to the human environment (Greenberg & Mitchell, 1983). Her emphasis on the development of the infant from its embeddedness with the mother to a stable identity of its own was captured in the title of her book, The Psychological Birth of the Human Infant (Mahler, Pine, & Bergman, 1975).

Her developmental theory, based on her work with autistic, normal, and psychotic infants, traced the process of "separation-individuation" in the first two years of life. According to Mahler, during the first six weeks of life, the infant is in what she called the "normal autistic phase." During this period, the infant's stimulus barrier keeps out much external stimuli, and sleep states are greater than arousal states. Physiological functions are primary and the goal is to maintain physiological homeostasis. Following Freud, she believed that the child is in a state of "absolute primary narcissism" and is initially unaware of his caretaker; this stage is essentially objectless. However, Mahler et al. pointed out that this does not mean that the child is completely unresponsive to the environment, particularly during states of "alert inactivity" (Wolff, 1959, in Mahler, et al., 1975).

During the second month of life, the infant's "autistic shell begins to crack" and he has a dim awareness of the caretaker, marking the beginning of the "symbiotic phase,"

which Mahler characterized as "preobjectal." Social smiling is one of the hallmarks of this stage. The infant is in a state of undifferentiation or fusion, and behaves as if he and mother are a symbiotic unity. Ideally, the mother is not dependent on the child in the same way and will be able to act as what Spitz (1965, in Mahler, et al., 1975) called the "infant's auxiliary ego," organizing the infant's inner sensations for the infant, who is not yet capable of doing so for himself. Normal autism and symbiosis were considered the foundations for the upcoming separation and individuation (Mahler et al., 1975).

Separation and individuation were described by Mahler as two parallel developmental tracks. Individuation is the development of independent autonomous functioning and includes cognition, perception, memory, and reality testing. Separation is the awareness of bodily separation and disengagement from the mother. The two tracks are intertwined according to Mahler, but it is possible that they may not always develop at the same rate for every infant (Mahler et al., 1975).

At four to five months of age, symbiosis peaks, initiating the first subphase of separation-individuation: differentiation. The social smile is differentiated for the caretaker, and the process of "hatching," the infant's differentiating himself physically from the caretaker, begins. Both delayed and premature "hatching" can both be

problematic. According to the theory, delayed hatching is related to maternal depression or indifference; premature hatching may be related to maternal unpredictability (Mahler et al., 1975).

"Practicing," the second subphase of separation-individuation, begins at about ten or eleven months and extends from the first attempts to move away from the mother by crawling through to the development of walking. The mother's reaction to the infant's distancing from her plays a role in the child's development. During this phase the toddler needs to maintain close enough proximity to return to mother for "emotional refeeling," much as Ainsworth described in her "secure base" concept. Mahler observed that during this stage the child becomes "low-keyed" if the mother is absent, and that if the child's state is noticed by another who then tries to comfort the child, the child bursts into tears, as if it had been maintaining an image of the mother through this state, but was interrupted (Mahler et al., 1975).

The third subphase of separation-individuation, "rapprochement," extends from 15 months to 24 months and beyond. During this stage, the child becomes more aware of separateness from mother and is more easily frustrated. Instead of the "emotional refeeling" seen in the previous phase, the child now keeps close tabs on the mother by "shadowing" her with his gaze as she goes about her

activities and engaging her in verbal and non-verbal play, including the well-known game of darting away from her in order to be swept up in her arms. In this way, the toddler can play out both the wish and fear of being "reengulfed" by the mother and losing his newfound autonomy. Mahler and her colleagues noted that the dramatic fights between toddler and mother so common at around 18 to 20 months mark a crossroads they called the "rapprochement crisis," when the child must give up the delusions of grandeur that were the hallmark of the preceding stage. They stressed that the mother's behavior and emotional adjustment are especially important in this subphase, as the child needs her to be "quietly available," ready to let the child separate from her gradually. The less emotionally available the mother is, the more the child will direct its attention to maintaining a connection with her at the expense of its own development (Mahler et al., 1975). This observation supports the thesis that conduct disordered children expend the greatest amount of their psychic (and often physical) energy attempting to maintain a connection with a mother that they experience as unpredictably available.

Near the end of this stage, from 21 to 24 months, the rapprochement struggle seems to subside and the child finds its individual "optimal distance" from the mother. Mahler and her colleagues stated that, at the end of the rapprochement subphase, development of language, the

internalization process, and the increased use of symbolic play for mastery account for the child's increasing ability to function autonomously at a greater distance, and even without her presence entirely, for longer periods of time. Mahler noted that the excessive coercion and splitting of the object world often found in toddlers having greater than usual difficulty in the rapprochement crisis are also characteristic of the adult borderline personality (Mahler et al., 1975).

It has been noted above that children with conduct problems have demonstrated delayed development of symbolic play and language development. In addition, the characteristics of the borderline personality Mahler describes are also common in CD children.

In the fourth subphase, "libidinal object constancy," covering the third year of life, individuality is consolidated, and the young child attains the beginnings of object constancy. Both of these achievements depend on the child's gradual internalizations of her experience with her parents. The development of the self is in part dependent on the internalization of parental demands, and the development of emotional object constancy requires the internalization of a positive (i.e., emotionally available and predictable mother) figure. Ideally, by the end of this year, the internal sense of connection with this mother figure "persists regardless of the child's emotional

equilibrium during the object's temporary absences" (Mahler, et al., 1975, p. 117). It is proposed that CD children have not fully developed this internal sense of connection. They may therefore be easily disrupted by temporary absences of social interaction.

Daniel Stern

Based solidly in developmental theory and research on temperament, motivational systems, affect regulation, and relationship patterns in infants as well as psychoanalytic theory, Stern's theory is markedly different from most other object relations theories. He concluded that there is never a stage of self-other fusion or lack of differentiation, no "normal autistic phase." In fact, his theory does not include phases that are replaced by successive phases. Each sense of self continues to exist as others are added to it, and no special process such as "regression" is necessary to move from one domain of experience to another. Each domain is elaborated as the person progresses through childhood, adolescence, and adulthood. Therefore, Stern believed that different types of psychopathology cannot be traced to specific developmental periods, but rather to particular domains of self experience (Stern, 1985).

Stern rejected psychoanalytic theory's location of defensive processes or wish-fulfilling fantasies -- such as delusions of merger or fusion, paranoid fantasies, and splitting -- in the first two years of life, pointing out

that these cannot exist before the infant is capable of symbolic representation. He argued that psychoanalytic theory, in its reliance on defenses and symbolic representation, is better at describing childhood than infancy, and he criticized psychoanalytic theory for not keeping up with developmental theory. Stern supported attachment theory for what he perceived as its making "the achievement of a basic sense of human connectedness the end point, not the starting point, of a long, active developmental course involving the interplay of predesigned and acquired behaviors" (Stern, 1985, p. 241). He believed that Bowlby's concept of internal working models was the most promising aspect of Bowlby's theory because it attempted to capture the infant's subjective experience rather than the outside observer's experience of the infant in comparison to more mature children or adults. Stern's interest in the infant's subjective experience was reflected in his theory of the developing domains of the self (Stern, 1985).

Stern (1985) described the sense of self as "coming into being" during the first two months of life. Stern proposed that infants experience a sense of "emergent self" from birth and are hard-wired to begin self-organization and to attend to external stimuli from birth. He disagreed with Mahler in that he does not believe that there is a period of

normal autism or total lack of differentiation early in infancy or at any point in life.

Between two and six months, according to Stern, infants consolidate a sense of "core self," separate from the external world. This core self has its own sense of agency, and its own history of experience, as well as the feelings tied to those experiences. In contrast to Mahler, he proposed that the "union" of this period is not a passive symbiotic state waiting for the child to awaken to its separateness. Rather, the child's further knowledge and consolidation of a sense of self allows the child to actively seek and organize "self-with-other" experiences. In other words, union is only possible when the child has a concept of self and other (Stern, 1985).

The "subjective self" begins to develop between seven and nine months. In addition to Mahler's emphasis on autonomy and individuation during this age period, Stern posited that the child is also seeking "intersubjective union" with another. This is possible because in addition to a sense of self as a physically and affectually separate entity, the infant can now include her sense of the subjective states of self and other. She can attune to these states in herself and in others and respond to them at a non-verbal level. The child also gains a sense that her subjective feelings can be shared with another and delights in learning how to do so (Stern, 1985).

The "verbal self" begins to develop between 15 and 18 months. At this time, the infant's personal knowledge and experience can be objectified through shared symbols. This is possible because of the infant's developing ability to think of the self reflectively, even as an object, and his developing ability to understand and use language. Stern noted, however, that language is a "double-edged sword." At the same time that it presents the opportunity to share experience in a new way, it also "drives a wedge between two simultaneous forms of interpersonal experience: as it is lived and as it is verbally represented" (Stern, 1985, p. 162).

Building on Bowlby's theory, Stern suggested that intersubjectivity has survival value, as does the actual physical presence of others. Being able to understand and be understood, and being able to "read" another, are as essential as attachment behaviors which simply keep others physically near. Stern described "aloneness" as one end of a continuum of "human-group-psychic-membership": aloneness, isolation, and alienation are at one end, and complete psychic transparency, the feeling that no potentially shareable experience is private, is at the other. Both extremes define different psychotic states. Infants, according to Stern, are healthy rather than pathomorphic from the start, functioning in between these two extremes (Stern, 1985). The present author suggests that CD children are

functioning at the former end of the extreme, experiencing intense aloneness and alienation.

D.W. Winnicott

In his 1958 paper, "The Capacity to Be Alone," Winnicott stated that "this capacity is one of the most important signs of maturity in emotional development" (1965, p. 29). He compared this very healthy capacity to the more negative withdrawal from social relationships based on an expectation of persecution. He differentiated between the physical actuality of being alone and the psychological capacity to be alone, stating that, "A person may be in solitary confinement, and yet not be able to be alone. How greatly he must suffer is beyond imagination." Still others may value solitude as "a most precious possession" (1965, p. 30).

According to Winnicott, this capacity to be alone develops out of the early experience of "being alone... in the presence of the mother... who is reliably present" (p. 30). In this state, which Winnicott termed ego-relatedness, the dyad shares a solitude wherein one or perhaps both are alone, yet are aware of the other's presence and not withdrawn from each other. During this state, the infant is able to be unintegrated, neither acting nor reacting, simply waiting for its own personal impulse. With frequent such experiences, the infant internalizes this ego-support from the mother, and eventually develops the capacity to be alone

without the presence of the mother or symbols of her. These experiences are also responsible for the development of a sense of a personal, differentiated self as separate from the mother. According to Winnicott, the infant originally relies on the mother's "primary maternal preoccupation" to furnish the empathy from which she will respond to his needs. If the mother provides this in the earliest weeks of the infant's life, the child develops a sense of omnipotent control over the external world which will later be the basis of a sense of purpose and mastery. Gradually, the mother fails to respond to the baby's needs before he expresses them, and waits instead for his signal. As a result of this process, a healthy self develops out of its state of total dependence on the mother (Winnicott, 1965).

Maternal failure according to Winnicott is the cause of all psychopathology. While he believed that all infants enter the world with an inherited potential, what develops out of this potential is determined by maternal care. The caretaker's job is to provide a "holding environment" in which environmental impingements are kept to a minimum so that the infant can experience a "continuity of being" out of which the self will emerge. If the mother fails to provide this environment by either not meeting the child's needs or by impinging on the child herself, the child will be forced to react to these impingements, and at that point "reacting interrupts being and annihilates" (1965, p. 47).

To avoid annihilation of what Winnicott called the "true self," the true self "goes into hiding," and a false self is developed to manage these impingements. The false self is characterized by either a rigid conformity to or rebellion against the failures of the environment: tameness or criminality. Each of these patterns is aimed at preserving the true self, but does so at the expense of spontaneous, creative living (Guntrip, 1971).

Clearly, the conduct disordered child has developed along the lines of rebellion against the failures of the environment. Winnicott (1975) suggested that extremes of aggression can be caused by reaction to impingement which becomes activated by persecution. In this kind of development, the child feels real only when reacting to this persecution, and even welcomes it. However, the child will then require continued persecution in order to feel alive and real. Winnicott stated that this kind of aggression is not so much determined by biological predisposition as by environmental impingements which are related to the mother's own emotional state. In his 1956 paper, "The Antisocial Tendency" (in Winnicott, 1975), Winnicott posited that antisocial behaviors such as stealing, lying, and destroying property (trademark behaviors for conduct disordered boys) are all signs of hope in a deprived child who is attempting to regain something that he has lost. According to Winnicott, the antisocial child "compels the environment to

be important" (p. 309). In another paper, he stated clearly that "intolerable loneliness and emptiness" dating from separation from the mother is at the root of this problem (Winnicott, 1965, p. 28). He further argued that psychoanalysis, if it is to be of any help at all in these cases, must involve a management or change of the environment which has ultimately failed the child, "a going to meet and match the moment of hope" (1975, p. 309). Ideally, he wrote, this tendency should be dealt with when it first emerges in early childhood, before the child begins to identify with his antisocial behavior and is reinforced by the considerable secondary gain of such behavior (Winnicott, 1975).

Summarizing Winnicott's contribution to our understanding of conduct problems in children, it appears that he anticipated what empirical research in the area would later suggest. Conduct disordered boys may not have developed a capacity to be alone as described by Winnicott. Winnicott suggested that nonresponsive (e.g. overly intrusive or neglectful) parenting is responsible for this developmental failure and for the consequent acting out behavior of the child who is trying to compel his environment to respond in a predictable manner.

Without a fully developed capacity to be alone as defined by Winnicott, the conduct disordered child may experience intense loneliness, even when surrounded by a crowd of adults or peers. To better understand his

experience, we turn now to the literature in the area of loneliness.

Loneliness Literature

Psychoanalytic theorists have long been interested in the experience of loneliness. Harry Stack Sullivan described loneliness as a "driving force" (1953, in Weiss, 1973), and both he and Frieda Fromm-Reichman (1959, in Weiss, 1973) noted that people often have difficulty recalling times of loneliness. Fromm-Reichman believed that this was an actual rejection of the memory of loneliness because it was a very painful and frightening experience.

Current thinking and research on loneliness began about twenty years ago with the research and writing of Robert Weiss. His thoughts and observations gleaned from his work with two groups of lonely persons, a Parents Without Partners group and a group of newcomers to Boston, were impressive and provided the framework for much of the research to follow. He provided an experiential description of loneliness that is often lacking in later empirical writings and which serves as rich soil for hypotheses about loneliness. Weiss (1973) noted that in his research on loneliness, he found that even when people can recall being lonely, they dissociate themselves from the experience, making statements such as, "'I wasn't myself then'" (p. 10). Weiss concluded that "the self associated with the absence

of loneliness is a different one from the self associated with loneliness" (p. 10).

Weiss emphasized the common knowledge that loneliness is not the result of merely being alone: it is related to being without "some definite needed relationship or set of relationships...a close, indeed intimate, attachment" (Weiss, 1973, p. 17). His comments on the impatience and irritability with relationships that "seem to impede access to the desired relationship" remind one of the anger and negativity characteristic of the conduct disordered child's relationships.

Weiss distinguished two forms of loneliness, each of which he associated with a childhood state. The first, which he called the loneliness of emotional isolation, can only be assuaged by the integration of a close, intimate attachment. He related this state to the distress a child experiences when she feels abandoned by her parents. The second, the loneliness of social isolation, is caused by the absence of a social network or sense of community. This state he associated with the feeling a child has when not invited to a party or when she has to move away from all of her friends (Weiss, 1973).

The symptoms associated with emotional isolation shed the most light on the understanding of conduct disorder. Weiss described the "pervasive apprehensiveness," the "nameless fear," which prevents concentration and fuels

motor activity and impulsiveness. In addition, people in this state report a hypervigilance to threat. They feel themselves to be utterly alone, and this feeling is unrelated to the actual availability of others. They often describe the world as "desolate, barren, or devoid of others" and describe their inner world as "empty, dead, or hollow" (Weiss, 1973, p. 21). These feelings seem to illustrate the "inadequate internal working models" of attachment theory or the "internal self and object representations" of object relations theory, both described above, in that, as Weiss noted, they often cause people to be oversensitive and even to misinterpret the intentions of others. The symptoms of social isolation are more often described as feelings of boredom or aimlessness, or feelings of marginality (Weiss, 1973). These too characterize some of the common complaints of CD children, and it may well be that these children have also become socially isolated as a result of their aversive behaviors.

In their research on the relationship between childhood attachment experience and adult loneliness, Shaver and Rubenstein (1980) provided empirical support for Weiss' distinction of the two types of loneliness. This was particularly impressive in that they had not had Weiss' categories in mind when they composed their survey, yet two of the strongest factors were loaded on items that matched Weiss' descriptions quite accurately. They also found that

childhood experiences such as divorce of parents were related to vulnerability to loneliness in adulthood.

Peplau and Perlman (1982) outlined three theoretical approaches to loneliness. The first, which included the tradition of Sullivan, Fromm-Reichmann, and Weiss, emphasizes human needs for intimacy which are inherent and universal. The second approach, which included Peplau and Perlman, takes a cognitive approach, emphasizing the lonely person's perception and evaluation of their social relationships as important factors. The third approach, the social needs approach, including Young (1982 in Peplau & Perlman, 1982), emphasized social relations as one class of reinforcement. Advocates of this approach have also suggested that people may experience loneliness without consciously defining themselves as lonely or without using those terms to describe their experience. Their loneliness can only be inferred, then, from their defensive behavior. This may be the case with conduct disordered boys who cover up their loneliness with a false bravado and pseudo-independence, yet act in such a way as to insure the close proximity of others. The social needs and intimacy approaches tend to be associated with the psychodynamic tradition and are based primarily on case studies with clinical populations, while the cognitive approach is associated with cognitive psychology, particularly

attribution theory, and is based on survey research with normal populations (Peplau and Perlman, 1982).

Warren Jones has recently gathered much of the empirical data in the area of loneliness. In a series of four studies, Jones, Freemon, and Goswick (1981) compared lonely and non-lonely college students and found that the lonely group rated themselves and others more negatively and expected others to rate them negatively. In general, however, they were not rated more negatively by other students who interacted with them in a group setting. The results suggested that the negative self- and other-perceptions of the lonely are a major factor in their continued feelings of isolation and alienation.

In a study of how characteristics of the individual contribute to their social relationships, Jones (1984) measured a number of qualities which together formed what he called a measure of "relational competence." This measure included positively loaded variables of empathy, sociability, and self-esteem, and two negatively loaded variables, shyness and anxiety. He then measured relational competence, loneliness, and social support in 289 college students. He found that relational competence has more to do with satisfaction with one's relationships than either the number of relationships or the specific interpersonal exchanges with members of one's support network. Jones also concluded that personality characteristics as summarized by

the relational competence measure do predict both loneliness and social support. Finally, he determined that loneliness and lack of social support are not interchangeable constructs.

In another study, Jones (1981) gave 60 college students the UCLA Loneliness Scale and monitored their conversations for four days. He concluded that "the experience of loneliness has less to do with the objective characteristics of the lonely person's social milieu than with the process by which loneliness affects how people perceive, evaluate, and respond to interpersonal reality" (p. 296). Among other findings, males in the study who were rated as more lonely were more likely to interact with a large number of people and a diverse group of people, but were also more likely to rate these interactions as emotionally negative.

Jones, Hobbs, and Hockenbury (1982) examined the relationship between loneliness and social skills deficits in a series of two studies. In the first study, they found that high-lonely college students tended to give significantly less attention to their partners in dyadic interaction than low-lonely college students. In the second study, they instructed a group of high-lonely males in the use of partner attention and found that this significantly increased their ratings of loneliness. The authors concluded that, at least in cases of chronic loneliness, social skills deficits are a causal factor. These deficits

may be in part due to the fact that lonely persons are less accurate at encoding expressive, nonverbal communications (Gerson & Perlman, 1979, in Jones et al., 1982).

Jones (1990) commended the social exclusion theory of Baumeister and Tice (1990, in Jones, 1990) for its empirical basis and for its emphasis on the human "need to belong" as a primary motive for a variety of human behavior and experience. Jones stated that a supportive social network "is the first and often the most effective line of defense in the battle against anxiety and emotional breakdown" (p. 216). Based on his review of the research on loneliness and social support, however, Jones criticized social exclusion theory for failing to recognize the importance of internal psychological processes which are the intervening variables between actual external interpersonal environment and the experience of loneliness.

In a very interesting study of the experience of solitary time, Larson, Csikszentmihalyi, and Graef (1982) had adolescents and adults carry pagers for one week. When each was paged, he was to stop and record his self-descriptions of his activities and subjective feelings. The authors analyzed 9000 of these descriptions, comparing those recorded when the individuals were alone versus with others. They found that most subjects reported positive effects on cognitive state when alone. They reported increased concentration and decreased self-consciousness. In

contrast, the effects on mood were negative: most subjects reported greater sadness, irritability, boredom, and loneliness when alone, regardless of the activity they were engaged in, their environment, or their prior mood. The authors suggested that these two aspects of being alone, heightened cognitive state and depressed emotional state, are simultaneous aspects of the same experience. Following time alone, most subjects reported a "renewing" effect: they felt more cheerful and more alert than normal. The authors noted that laboratory research has demonstrated an increase in social buoyancy after time alone (Oleson & Zubek, 1970, in Larson et al., 1982). They also found that time alone was often less voluntary for adults than for adolescents. They attributed this to the fact that adolescents are in a transitional stage and could use the solitude, the increase in concentration and decrease in self-consciousness, most productively. This hypothesis is further supported by research which suggests that adolescents who spend more time alone are more purposive and demonstrate greater personal direction in their lives (McCormack, 1982, in Larson, et al., 1982). Finally, those people who feel better when alone and do not experience the drop in mood typically associated with solitude tended to have lowered moods elsewhere, i.e., they felt worse when they were with others. These people did not show better overall well-being than people who felt a slight drop in mood when alone. The

authors concluded that time alone involves both renewal and loneliness. The loneliness must be faced and tolerated in order to reap the rewards of solitude.

Perhaps conduct disordered children, who in fact are quite lonely and find this loneliness intolerable, deny this pain when alone. Unfortunately, this may mean that they will not only fail to benefit from solitude, but their overall moods and relationships when they return to interactions with others will also suffer.

Loneliness in Children

In one of the few studies to examine children's subjective, self-reported experience of loneliness, Asher, Hymel, and Renshaw (1984) found that more than 10% of the 506 third- through sixth-grade children they surveyed reported feelings of loneliness and dissatisfaction. They found a correlation between self-reported loneliness and low sociometric status. However, this relationship was far from perfect: 41% of unpopular children denied any feeling of loneliness. The authors noted that a limitation of their study was that they did not distinguish between rejected lonely and neglected lonely children, a common distinction in the sociometric research. They predicted that the rejected lonely children, who are more likely to be aggressive and disruptive, would have been more likely to report loneliness and dissatisfaction.

The present author questions this conclusion. It could easily be argued that the opposite is true, that these children, given their more externalizing style, would be more likely to blame others for their unpopularity rather than admit to feelings of loneliness. Also, these children may find feelings of loneliness especially intolerable, as they have little in the way of self-regulatory control of their feelings.

Social Skills Training for Rejected Children

Since poor peer relations are characteristic of conduct disordered children, many clinicians and researchers have been interested in the use of social skills training to help children to decrease the negative behaviors which are a part of the continuing cycle of CD. In one such case study, a 7.5 year old boy diagnosed as CD and ADHD was given social skills training including instruction, coaching, modeling, feedback, and reinforcement. Following this regimen, the child did demonstrate more appropriate interactions with peers and less time in social isolation. These effects were maintained at 1- and 12-month follow-ups (Van Hasselt, Griest, Kazdin, Esveltd-Dawson, & Unis, 1984).

Not all research supports the efficacy of social skills training. Coie and Koepl (1990) noted that social skills training for children with low sociometric status has traditionally emphasized positive play skills and given insufficient attention to reducing aversive behaviors of

aggressive and disruptive rejected children. In their review of the positive play skills training, they found ample evidence that this approach is limited in its effectiveness. Many of the studies concluded that while the children seemed to learn the skills, they did not employ them in actual peer interactions, and there was no change in sociometric status as a result of the training (Oden & Asher, 1977, Gresham & Nagle, 1980, Ladd, 1981, LaGreca and Santagrossi, 1980, Bierman & Furman, 1984, in Coie & Koeppl, 1990). Coie and Koeppl argued that the limited success of social skills training thus far is due to the failure to address the aggressive behaviors common among rejected children, particularly boys.

Coie and Koeppl (1990) suggested that aggression in children is of two types. Instrumental aggression, defined as aggression that has been reinforced, has been the focus of the work of Patterson (1982, in Coie & Koeppl, 1990) and Wahler (1990). They have targeted the coercive cycles of parent-child dyads as mutually reinforcing for both parties. Interventions at this level involve changing the environment so that the child's aggressive behavior is no longer reinforced. A second approach focuses on what Coie and Koeppl called hostile aggression, which they defined as aggression that is a response to perceived frustration by or threat from another. Interventions at this level involve training children to utilize greater self-control so as not

to respond with such intensity to perceived frustration or provocation. Research in this area has focused on substituting disruptive behavior with task-focused, achievement-oriented behavior by altering classroom reinforcement contingencies. This is based on the theory that these children are rejected not because of their lack of prosocial skills but because of their disruption of classroom activities.

Kupersmidt, Coie, and Dodge (1990) also cautioned against too much focus on making aggressive children well-liked as an answer to their problems. They noted that peer rejection of aggressive children is a marker for delinquency and later criminal behavior, not a causal variable. The same behaviors which make their peers reject them in school will, if continued in an extreme degree, lead to delinquency.

Finally, Putallaz and Heflin (1990) took up the issue of parental influence on children's social status. Their review of the literature strongly supports Bretherton's theory of open communication and working models in that they demonstrated a clear connection between parent factors such as parental listening skills, responsiveness, and discipline, and the social skills and social status of their children.

Conclusion

Despite their seemingly tough exteriors, conduct disordered children are socially dependent, possibly as a result of the inadequate working models or primitive internal self and object representations that they developed in their early relationships with nonsynchronous caregivers. Underneath their false bravado, these children are quite depressed and lonely, feeling that they cannot count on others to be reliably available to them. In response to their deep sense of isolation, these children may act aversively, in order to guarantee the predictable response of others. Unfortunately, their behavior often elicits the very rejecting behavior from others which they so dread, further solidifying their unhealthy view of the world.

CHAPTER 2

Statement of Problem

As reviewed in Chapter 1, a growing body of research suggests that conduct disordered children, in addition to their aversive behavior, are also depressed and socially incompetent (e.g. Cole and Carpentieri, 1990). Despite their apparent bravado and independence, they are in fact quite socially dependent, requiring the constant attention of others. When these children are alone they tend to try to distract themselves with stimulating but non-purposive activities (e.g. Field, Sandberg, Goldstein, Garcia, Vega-Lehr, Porter, & Dowling, 1987; Gardner, 1987). As Rubin (1982) has noted, this inability to engage in constructive solitary play is correlated with poor social and cognitive competence.

Based on empirical research and theory in the areas of attachment, object relations, and loneliness, I have argued that parental behaviors influence the child's sense of security with its parents and that this level of security is internalized by the child. Many researchers have demonstrated that the parents of CD children tend to be nonsynchronous in their responses to their children, possibly because of their preoccupation with their own emotional problems, especially their own depression (e.g. Lahey, Russo, Walker, & Piacentini, 1989; Wahler & Sansbury, 1990).

Attachment theory, as developed by John Bowlby (1982), and more recently expanded upon by Sroufe, Ainsworth, Waters, and Bretherton, suggests that early experiences with caregivers determine the child's sense of security (Ainsworth, Blehar, Waters, & Wall, 1978; Bretherton, 1987; Sroufe and Waters, 1977). However, one of the criticisms noted by Lamb, Thompson, Gardner, Charnov, and Estes (1984) must be kept in mind when considering the impact of early attachment experiences. Temporal continuity of attachment classifications in children generally only hold true when the environment remains stable. The most recent authors in this area suggest that attachment should not be thought of as a trait developed early in life and left relatively unchanged after that point, but as an organizational construct; i. e., a set of expectations which is developed out of the child's interactions with its caregiver and which is maintained by the current environment (e.g. Lewis and Feiring, 1991).

Bretherton (1987) relates the development of what she calls "inadequate working models" to the failure of open communication between troubled mother-child dyads. Empirical research has demonstrated that failed communications characterize the relationships of clinic-referred preschoolers and their mothers, even during non-aversive interchanges (Crowell, Feldman, and Ginsberg, 1988). Bretherton suggests that the nonsynchronous behavior

of parents leads to the development of inadequate working models in their children. The hallmark of inadequate working models is that, unlike more healthy models, they do not change and become more sophisticated as the child develops. Inadequate working models develop because the child is defensively excluding much of his own experience and is therefore not benefiting from error-correcting feedback that he gets from the world. The child's behaviors are based on his inadequate model or construct of the world. These behaviors, in turn, will usually elicit the types of caregiving responses that fit this model. Bretherton argues that until the defensively excluded material is shared, the child's working model cannot benefit from error-correcting feedback, and he cannot develop more realistic expectations.

Bretherton's conclusion is similar to that reached by many object relations theorists who contend that people who act out their problems impulsively often have very immature and underdeveloped "internal representations" which color their actual experiences with others. Typically, these representations remain dichotomized into good and bad experiences of the self and other, and these people have difficulty integrating these two extremes (Cashdan, 1988; Greenberg & Mitchell, 1983; Guntrip, 1971).

Following from Winnicott's (1965) concept of the capacity to be alone, which develops from the child's experiences of the unobtrusive availability of the

caregiver, it is proposed that conduct disordered children demonstrate an incapacity to be alone because, when alone, they cannot rely on the internal representation of an available caregiver. Even when they are with others, their aversive behaviors may be an attempt to assure the consistent response of others, as they do not have an expectation that others will be consistently responsive to them.

Without an internal sense of the parent as available and responsive, or of the self as capable of having an impact on the world, the conduct disordered child may be threatened with feeling alone and helpless. In the face of this, the child may act out to secure the presence of others, even if the response he receives is a negative, rejecting response. Many researchers are beginning to look beyond the externalizing behaviors of conduct disordered children and note that these children have also internalized their conflicts with their parents (e.g. Rexford, 1978). Despite their seemingly tough exteriors, conduct disordered children are socially dependent, possibly as a result of the inadequate working models or primitive internal self and object representations that they developed in their early relationships with nonsynchronous caregivers. Underneath their false bravado, these children are quite depressed and lonely, feeling that they cannot count on others to be reliably available to them. It is proposed that, in

response to their deep sense of isolation, these children act aversively in order to guarantee the consistent response of others. Unfortunately, this behavior often elicits the very rejecting behavior from others which they so dread, and this rejection may further serve to solidify their unhealthy view of the world.

The hypothesis that solitary time is a negative experience for conduct disordered children was first examined in a study (Wahler, Castellani, Griffith, & Keathley, 1994) comparing a group of children with conduct problems with their normal peers. In that study, each of the children was observed at home with his or her mother. The dyads were observed during and after social exchanges and during and after the child's solitary play. The children with conduct problems were found to have decreased aversiveness following both solitary play and social exchanges, while their normal counterparts demonstrated decreased aversiveness only after social exchanges. The children with conduct problems also demonstrated increased noncompliance after solitary play while their peers showed no such change after solitary experience. In addition, the mothers of children with conduct problems were more likely than the mothers of the behaviorally normal children to ignore or avoid their children during and after the child's solitary play.

These findings provided some significant support for the hypothesis that conduct disordered children have not developed an adequate capacity to be alone. Solitary time appeared to be a negative experience and was a setting event for increased noncompliance for the children with conduct problems as compared with their normal counterparts. In addition, it is interesting that the mothers of children with conduct problems tended to avoid their children during and after solitary time. Winnicott (1965) proposed that in order for a child to develop a capacity to be alone, the child have consistent experience with a nonintrusive but available caregiver during periods of solitary play. He stated that a parent who was overly neglectful or overly intrusive during the child's solitary experience could interfere with the development of the child's developing capacity to be alone. While one could argue that the mothers of the children in this study have learned to avoid their children when they are engaged in or coming out of solitary play, as this is when the children tend to be noncompliant, it is also possible that it is the mothers' avoidance of their children that makes their children's solitary experience more anxiety-provoking.

The current study further addressed the hypothesis that conduct disordered boys have not developed a capacity to be alone as defined by Winnicott (1965). In this study, the author took a closer look at the behaviors of the conduct

disordered child which precede and accompany social interactions and solitary time, as well as the child's behaviors when he did not gain social interaction. Three intensive case studies of conduct disordered boys who were being treated on the inpatient psychiatric unit of East Tennessee Children's Hospital were conducted. Each of these case studies represented a single subject study which involved the repeated intrasubject replication of two naturally occurring experiences of the subject, social and solitary experience.

Most observational studies of the interactions of conduct disordered boys, including Wahler et al. (1994), focus equally on the behavior of the child and peers or family members. In this study, social experience is given a more limited and potentially more child-centered definition. An interval was defined as social if at some point in the 15-second interval the child was interacting with another person or another person was attempting to interact with him. Solitary experiences were defined as the absence of any such interaction or attempt at interaction. In other words, the child may have been in the room with others, but if those people were not interacting with him, he was considered to be in solitary. This definition of solitary and social fits best with the hypothesis that children with conduct problems have not developed an internal

representation of a responsive other which would enable them to tolerate a brief absence of actual social interaction.

If the hypothesis that conduct disordered boys have an incapacity to be alone is viable, predictable behavioral and emotional valence outcomes should be correlated with these experiences. Specifically, there are eight hypotheses about the videotaped observations: 1) It is predicted that the child will engage in more non-constructive behaviors in solitary versus social. 2) It is predicted that the child will engage in more self destructive behaviors in solitary as compared with social. 3) The child is expected to engage in more constructive behaviors during social experiences as compared with solitary experiences. 4)-6) It is predicted that any effects found in the analyses of hypotheses 1)-3) will increase with increased durations of solitary and social experiences. 7) It is hypothesized that the child will be more likely to obtain social interaction following inappropriate behaviors as compared with appropriate social overtures or other appropriate behaviors. 8) If the appropriate social overture, other appropriate behavior, or inappropriate behavior is not followed by social interaction in the next interval, it is hypothesized that the child will deteriorate into more inappropriate behaviors either in an attempt to forcefully elicit the response of others, or merely as an expression of anxiety and frustration.

CHAPTER 3 Method

Subjects

Three subjects were selected from a population of children being treated on an inpatient psychiatric unit at East Tennessee Children's Hospital in Knoxville Tennessee. Selection criteria were as follows. The children were males between the ages of seven and twelve who, on admission to the unit, had been given a primary diagnosis of Conduct Disorder, Solitary Aggressive Type, as defined in the Diagnostic and Statistical Manual of Mental Disorders, Edition III-Revised (DSM III-R). These diagnoses were made by the chief psychologist and consulting psychiatrist on the unit. In addition, a minimum of a two-week stay in the hospital must have been anticipated at the time of the child's admission.

Written informed consent was obtained from the parent or guardian at the time of admission. The study was explained to the child and his assent was obtained prior to collection of any data. (See copies of parental consent and child assent forms, Appendices 1 and 2.) The therapeutic treatment of the subjects was not altered in any way by their participation in this study. The subjects and their parents or guardians received no payments or incentives for participating in the study.

Description of subjects

The following is a summary of the psychological evaluation of each of the three subjects, including intellectual and emotional assessment. Each child was administered a Wechsler-Intelligence Scale for Children-Revised (WISC-R), and the Rorschach Inkblot test. Additional testing was performed as necessary given the referral question. These evaluations were administered as part of each child's admission to the unit.

Subject 1.

Subject 1 was an eight year old boy who was referred for extreme oppositionality and aggression in his home and at school. Presenting symptomatology included aggression toward his younger siblings and cruelty to animals. His family had a long history of involvement with DHS for alleged abuse and neglect of the subject and his siblings.

Subject 1's intellectual abilities were in the Low Average range overall. His Full Scale IQ on the WISC-R was 80. His ability to function in school was impaired by his considerable anxiety and depression which interfered with his ability to concentrate. His reality testing was impaired by his tendency to process his perceptions in an extremely idiosyncratic and pessimistic manner. He tried to defend against what he experienced as a harsh world by denying his fears and sadness. He often acted falsely cheerful and positive when he was in fact in considerable

distress. When this denial broke down, however, he tended to act out aggressively.

Subject 1 demonstrated considerable boundary problems, and had difficulty differentiating himself and his needs from others. His own sense of identity suffered from this lack of differentiation. His mother had raised him as a "twin" of his older sister. He blurred both generational and gender distinctions, and also had no expectation that body boundaries (his or others') should be respected.

Given his poor differentiation from others and his overly personalized view of the world, Subject 1 had the potential to become acutely psychotic when under stress. This prediction was substantiated by observations of Subject 1 on the unit.

Subject 2.

Subject 2 was a nine year old boy whose presenting symptomatology included a full range of conduct disorder symptoms. In contrast to Subject 1, Subject 2's behaviors had characteristically been covert in nature.

Subject 2's intellectual abilities were in the average to above average range. He demonstrated an above average capacity for abstract thinking, but had not acquired the necessary vocabulary and knowledge about the world that would allow him to fulfill his potential in this area. He had a very action-oriented style of problem-solving and was hyperattuned to the environment. He was particularly

vigilant to possible intrusions of his personal boundaries.

Subject 2's reality testing about himself and the world could be poor at times. He had an overestimated self image which he strived hard to maintain. He did appear to have some sense that this image was overblown, and he chronically denied a state of depression about his disappointment in himself and in others.

Subject 2 was very distrustful of the environment and very cautious of relationships. He could only tolerate relationships when they were in his control. He tended to gain control in relationships by either provoking the other to react in a way that he could predict or by outright exploiting and manipulating the other. Subject 2's acting out behaviors tended to be covert and planned. They functioned as a way for him to feel in control, thereby providing a defense against his sense of depression and vulnerability.

Subject 3.

Subject 3's presenting symptomatology included extreme aggression to himself and others. Subject 3 had a number of nervous twitches and mannerisms and had trouble remaining in his seat for long. There was no evidence in the testing, however, to support a diagnosis of Attention Deficit Disorder. In fact, Subject 3's attentional functioning was well above average and was equal to or significantly above other areas of his cognitive functioning.

Subject 3 was a ten year old boy whose intellectual abilities were in the average to superior range. He received a Full Scale IQ of 114, with a Performance score of 121. He performed best on those tasks which allow him to use his action-oriented, trial-and-error problem solving style in a highly structured situation in which he had a sense of control.

Subject 3 was extremely needy and was unable to implement his considerable intellectual potential to find appropriate ways to get his needs met. He had little tolerance for the complexity of interpersonal relationships or for the sad feelings which were elicited in him by these relationships. With the slightest stress, he became disorganized, and his judgement and reality testing suffered. His problems with reality testing, combined with his action-oriented style, made Subject 3 vulnerable to a loss of control. He was extremely impulsive. While his behaviors were not necessarily directed at people, the thoughts directing them were so irrational that he had an extremely high potential to be dangerous to himself and others.

Summary of Subjects' Psychological Profiles.

The three subjects demonstrated striking differences and similarities in their psychological profiles upon admission to the unit. Subjects 2 and 3 were clearly more intellectually endowed than Subject 1, and Subject 3 had

particularly high intellectual potential for non-verbal tasks. Subject 2 was more covert and less impulsive in his coercive behaviors as compared with Subjects 1 and 3.

Despite these differences, the three subjects also appeared to have significant similarities. All three subjects demonstrated problems with reality testing. They all appeared to be defending against some level of depression. Their defenses, while slightly different, had in common their tendency to be rigid and limited, and these defenses gave way easily under stress. Each of the boys had significant problems relating to other people and found social interactions to be problematic and frustrating.

Procedure

The boys were videotaped on the hospital unit as they participated in normal tasks and activities such as school, mealtimes, structured and unstructured play, and quiet time in their rooms. They were never videotaped during group or individual therapy. Each of the children was videotaped for a total of ten hours distributed across the typically two-to four-week period that they were patients on the unit.

A portion of the data for each subject was not used because the subject was either inaudible or out of view of the camera for more than 30 seconds. In those instances, the coding was stopped and was not resumed until the subject was once again visible and audible. In addition, some of the data was not used for analyses because the child was in

time out or restriction. His behavioral choices were limited during these times and these data were therefore determined to be inappropriate for inclusion in the study. After these deletions, there remained 2075, 1956, and 2287 intervals of data for subjects one, two, and three, respectively.

The videotapes were coded by the author and a research assistant, a graduate student in psychology. 30% of the videotapes of subject 1 and 20% of the videotapes of subjects 2 and 3 were coded by both observers in order to estimate interobserver reliability.

The videotapes were coded on a 15-second interval basis. The coding system was in part derived from two other coding systems, the Standardized Observation Codes, 3rd Revision (SOC-III) system (Cerezo, Keesler, Dunn, & Wahler, 1986) and the system used in Frances Gardner's research (Gardner, 1987).

As in the SOC-III system, each code was comprised of a constellation of a participant code, an activity code, and an emotional valence code. Within a 15 second interval of tape, the observers attempted to code all of the behaviors of the child and of any other person who attempted to interact with the child or with whom the child attempted to interact. Ideas about specific categories which would capture important aspects of the child's quality of play and interaction, especially the non-constructive behaviors, were

taken from Gardner's system. Finally, additional codes were added to this system as they held the potential to capture aspects of the child's experience relevant to the hypotheses of this study. A full description of the codes can be found in Appendix 3. A brief description of the codes are as follows. Participants included child (C), peer (P), staff (S), and researcher (R). Emotional valence codes included Positive (+), Sad (-), Angry (X), and Neutral (O). Activity codes included the following:

"A" Approach: Any interaction or attempt at interaction not defined as instruction, physical or verbal aggression, or clowning. Approaches may be verbal or non-verbal.

"U" Unresponsive: Coded when the child's social overture of some kind has been made and the other party ignores or is unresponsive to the overture.

"W" Work: A constructive activity that is not play, e.g. schoolwork, chore, following instructions.

"P" Play: Constructive, creative, coherent activity not defined as work, e.g. playing a game, constructing a building with bricks, coloring a picture.

"N" Non-constructive activity: fiddling, wandering, or stereotyped play.

"M" Maintenance: Essential Activities, e.g. eating, dressing, toilet.

"I" Instruction: Tells another to do something.

"F" Physical Aggression: Aggressive to a person or property.

"S" Self-injurious behavior: Physically aggressive toward self, e.g. hitting head against the wall, poking arm with pencil, pinching face.

"V" Verbal Aggression: Shouting, stating obscenities, saying bad things to self or another person.

"C" Clowning: Calling attention to himself by making faces, telling jokes, acting inappropriately silly for his age.

"Z" Nothing: Engaged in no activity, staring into space.

"T" Time Out: Child is serving time out.

"R" Restriction: Child is serving restriction.

"G" Child Gone: Child leaves room, or is out of camera view.

"L" Talking to self: Verbalizations that are clearly not directed toward another person.

The unit of data for the analyses are categories comprised of related codes. The following categories were used for the analyses because they were found to be most reliable and best addressed the hypotheses. A "!" denotes that all four emotional valences were acceptable for inclusion in the category. Otherwise, specific emotional valences are listed.

Social was defined as any interval that included Staff Instruction (SI!), Staff Approach (SA!), Staff Work (SW!), Staff Play (SP!), Peer Instruction (PI!), Peer Approach (PA!), Peer Physical Aggression (PF!), Peer Verbal Aggression (PV!), Peer Work (PW!), Peer Clowning (PC!), Peer

Play (PP!), Researcher Approach (RA!), Researcher Instruction (RI!).

Solitary was defined as any interval that did not include one of the above codes.

Non-constructive was defined as any interval that included Child Nothing (CZ!), Child Non-Constructive (CN!), and Child Talking to Self (CL!).

Self Destructive was defined as any interval which included the code for Child Self-Destructive (CS!).

Constructive was defined as any interval which included Child Work (CW!) or Child Play (CP!).

Child's appropriate overture was defined as any interval that included Child Approaches or Instructions with a positive or neutral valence (CA+, CAO, CI+, CIO)

Child's other appropriate behavior was defined as any interval which included Child Work, Play, or Maintenance with a positive or neutral valence (CW+, CWO, CP+, CPO, CM+, CMO).

Child's inappropriate behavior was defined as any interval which included Child Approaches or Instructions with Angry or Sad valences (CAX, CA-, CIX, CI-), Child Physical or Verbal Aggression (CF!, CV!), Clowning (CC!), Self Destructive (CS!), Talking to self (CL!), Nothing (CZ!) and Non-constructive (CN!).

Analyses

Once the data were coded, the following analyses were conducted for each of the three subjects.

Effective percent agreement was used to assess the reliability of the above categories. This figure was found by averaging the percentage of times that Coder 1 found an occurrence of the category and Coder 2 agreed and the percentage of times that Coder 2 found an occurrence of the category in an interval and Coder 1 agreed.

Chi-square analyses were used to test hypotheses 1-3, that there would be more non-constructive activity in solitary intervals as compared with social intervals, that there would be more self-destructive activity in solitary as compared with social intervals, and that there would be more constructive activity in social intervals as compared with solitary intervals. Chi-square analyses were selected to test these hypotheses because the data are dichotomous; either one of the behaviors in the category occurred or did not occur during the interval.

Chi-squares were also used to address hypotheses 4-6, that any effects found in hypotheses 1-3 would be stronger given longer durations of solitary or social intervals. Chi-squares for each of the three hypotheses were obtained comparing 30-second, 45-second, 60-second, 75-second, and 90-second intervals of solitary and social.

Conditional probabilities were used to address the last two hypotheses, as they required the consideration of a sequence of events from one interval to the next. For hypothesis 7, Bakeman's (1985) ELAG: Lagged Event Analyzer Version 4.0 system was used to obtain the conditional probabilities of social occurring following three different categories: child's appropriate overture (CAP), child's other appropriate behavior (CAB), child's inappropriate behavior (CIB). The presence of social interaction in the 15-second interval following each of these three categories was analysed by comparing it to the probability that social would have occurred by chance during that interval.

Bakeman's ELAG was also used to assess hypothesis 8, which addressed the child's behavior when he did NOT receive social interaction following the above three categories. Conditional probabilities for each of the three categories were obtained for the 15-second interval following a series of two intervals in which one of the three categories occurred in the first interval and was NOT followed by social in the second interval.

CHAPTER 4 Results

Observer Reliability

Interobserver agreement of the categories of codes was examined by comparing the coding of the two observers on an interval-by-interval basis for each subject. Effective percent agreement for each of the seven categories was obtained for each of the three subjects. As seen in Table 1, the reliability for most of the categories was fair to good (70% or better) with two exceptions. The reliability for the category "Non-Constructive" was low for Subject 1. Subject 1 was the first subject coded by both coders, and the low interobserver agreement may reflect less developed coding skills.

The reliability for the category "Self-Destructive" was poor for all three subjects. Self-Destructive behaviors were difficult for the coders to differentiate from Physical Aggression. For example, if a child hit his fist against the wall, it was unclear whether the child was hurting his hand or the wall. The data analyses for hypotheses 2 and 5, that the boys would be more self-destructive in solitary versus social and that this effect would become stronger given longer durations of solitary and social, were not performed due to the poor reliability of this category.

Table 1. Reliability data for the seven categories of codes. Effective percent agreement is reported for each of the three subjects.

Category	Subject		
	1	2	3
Social/Solitary	.90	.89	.89
Non-Constructive	.57	.77	.72
Self-Destructive	.59	.00	.49
Constructive	.91	.83	.92
CAP	.78	.80	.85
CAB	.86	.88	.92
CIB	.72	.75	.71

Comparisons of behavior in Solitary versus Social

As predicted in hypothesis 1, all three subjects were significantly more non-constructive in solitary intervals as compared with social intervals. The percentage of intervals in which each subject was non-constructive is reported in Table 2.

Hypothesis 3, that the subjects would be more constructive in social as compared with solitary intervals, was found to be true for subjects 1 and 2, but not for subject 3. The results of the chi-square analyses of hypothesis 3 are found in Table 2.

Additional chi-square analyses were performed to address hypotheses 4 and 6, that any effects found in hypotheses 1 and 3 would increase given longer durations of solitary and social. The results for hypothesis 4, that there would be a greater likelihood of non-constructive given longer intervals of solitary versus social, can be found in Table 3. The results for subject 1 were in the opposite direction of that predicted. He became slightly **less** likely to engage in a non-constructive behavior given longer durations of solitary. The results for subject 2 were, in general, also in the opposite direction of that predicted. Subject 3 remained equally likely to engage in non-constructive behavior given longer durations of solitary and maintained highly significant differences between solitary and social for non-constructive behavior.

Table 2. Chi-square analysis of hypotheses 1 and 3.
 Percentage of non-constructive and constructive
 intervals that were solitary versus social.

Category	Subject		
	1	2	3
Non-Constructive			
% in Social	35.4	40.6	28.9
% in Solitary	64.6	59.4	71.1
$X^2 =$	62.33a	26.61b	135.79c
significance	.00000	.00000	.00000
Constructive			
% in Social	56.6	59.5	43.6
% in Solitary	43.4	40.5	56.7
$X^2 =$	38.64a	60.62b	11.08c
significance	.00000	.00000	.00087

a: df=1, n=2075

b: df=1, n=1956

c: df=1, n=2287

Table 3. Chi-square analyses of hypothesis 4. Percentages of non-constructive intervals that were solitary versus social for six different interval durations.

		Duration of Interval (in seconds)					
		15	30	45	60	75	90
Subject 1:							
Soc	35.4	37.5	41.5	40.0	44.4	44.6	
Sol	64.6	62.5	58.5	60.0	55.6	55.4	
X ² =	62.33a	27.20b	9.20c	6.23d	4.29e	3.79f	
SL=	.00000	.00000	.00241	.01255	.03839	.05152	

Subject 2:							
Soc	40.6	46.5	47.6	49.2	50.0	47.3	
Sol	59.4	53.5	52.4	50.8	50.0	52.7	
X ² =	26.61g	3.87h	0.83i	0.21j	0.00k	0.08l	
SL =	.00000	.04926	.36104	.64544	1.000	.78094	

Subject 3:							
Soc	28.9	31.0	29.2	28.9	26.2	29.4	
Sol	71.1	69.0	70.8	71.1	73.8	70.6	
X ² =	135.79m	73.20n	59.50o	38.07p	36.44q	24.53r	
SL=	.00000	.00000	.00000	.00000	.00000	.00000	

Degrees of freedom for all chi-square analyses = 1; N are as follows:

a: <u>N</u> =2075	g: <u>N</u> =1956	m: <u>N</u> =2287
b: <u>N</u> =879	h: <u>N</u> =827	n: <u>N</u> =950
c: <u>N</u> =514	i: <u>N</u> =484	o: <u>N</u> =554
d: <u>N</u> =344	j: <u>N</u> =317	p: <u>N</u> =355
e: <u>N</u> =246	k: <u>N</u> =220	q: <u>N</u> =259
f: <u>N</u> =181	l: <u>N</u> =167	r: <u>N</u> =194

The results of chi-square analyses of hypothesis 6 can be found in Table 4. Hypothesis 6, that the subject would become more likely to engage in constructive behaviors given longer durations of social experience was found to be true only for Subject 2. Subject 1's likelihood of engaging in constructive behavior remained essentially constant across interval durations, significant at the $p < .05$ level, but slightly less significant at longer durations. Subject 3 remained more constructive in solitary than social across interval durations.

Sequential analyses

The results of hypothesis 7, that the subjects would be more likely to elicit social interaction by more inappropriate behaviors (CIB) as compared with appropriate overtures (CAP) or other appropriate behaviors (CAB), can be found in Table 5. For all three subjects, the hypothesis was not confirmed. All three subjects were most likely to elicit social interaction following an appropriate overture (CAP).

The results of hypothesis 8 can be found in Table 6. Hypothesis 8 followed up hypothesis 7 by exploring what would happen next in the sequence if the child had tried an appropriate overture (CAP), other appropriate behavior (CAB), or inappropriate behavior (CIB) and failed to receive social interaction in the next interval. The prediction that the subjects would most likely resort to an

Table 4. Chi-square analyses of hypothesis 6. Percentages of constructive intervals that were solitary versus social for six different interval durations.

Duration of Interval (in seconds)						
	15	30	45	60	75	90
Subject 1:						
Soc	56.6	57.8	57.7	56.6	60.3	59.8
Sol	43.4	42.2	42.3	43.4	39.7	40.2
X ² =	38.64a	31.20b	23.17c	19.87d	16.48e	13.52f
SL=	.00000	.00000	.00000	.00001	.00005	.00024

Subject 2:						
Soc	59.5	62.6	64.2	64.9	64.9	66.0
Sol	40.5	37.4	35.8	35.1	35.1	34.0
X ² =	60.62g	52.22h	51.28i	38.40j	30.54k	33.02l
SL=	.00000	.00000	.00000	.00000	.00000	.00000

Subject 3:						
Soc	43.6	45.1	45.3	43.5	42.2	42.1
Sol	56.7	54.9	54.7	56.5	57.8	57.9
X ² =	11.08m	1.53n	0.02o	0.01p	0.00q	0.01r
SL=	.00087	.21680	.90201	.93499	.96399	.93788

Degrees of freedom for all chi-square analyses = 1; N are as follows:

a: <u>N</u> =2075	g: <u>N</u> =1956	m: <u>N</u> =2287
b: <u>N</u> =879	h: <u>N</u> =827	n: <u>N</u> =950
c: <u>N</u> =514	i: <u>N</u> =484	o: <u>N</u> =554
d: <u>N</u> =344	j: <u>N</u> =317	p: <u>N</u> =355
e: <u>N</u> =246	k: <u>N</u> =220	q: <u>N</u> =259
f: <u>N</u> =181	l: <u>N</u> =167	r: <u>N</u> =194

Table 5. Z-scores as reported by Bakeman's ELAG program for hypothesis 7.

Given	Target = Social		
	Subject 1	Subject 2	Subject 3
CAP	4.03*	1.34	2.00*
CAB	-7.32*	-11.99*	-16.02*
CIB	-6.13*	-3.71*	-6.23*

CAP=Child appropriate overture
 CAB=Child other appropriate behavior
 CIB=Child inappropriate behavior
 *indicates a significantly greater than chance probability.

Table 6. Z-scores as reported by Bakeman's ELAG program for hypothesis 8.

Given	Target		
	CAP	CAB	CIB
Subject 1:			
CAP followed by Sol	0.01	2.34*	-4.59*
CAB followed by Sol	-13.30*	-1.30	-11.02*
CIB followed by Sol	-6.69*	-9.57*	-4.65*

Subject 2:			
CAP followed by Sol	-0.73	-3.17*	2.81*
CAB followed by Sol	-8.10*	-4.05*	-10.04*
CIB followed by Sol	-4.37*	-13.00*	3.42*

Subject 3:			
CAP followed by Sol	-1.25	-1.10	1.59
CAB followed by Sol	-13.30*	-10.06*	-6.03*
CIB followed by Sol	-8.18*	-9.93*	1.06

CAP=Child appropriate overture
 CAB=Child other appropriate behavior
 CIB=Child inappropriate behavior
 Sol=Solitary
 *indicates a significantly greater than chance probability.

inappropriate behavior (CIB) after failing to receive social interaction was not consistently supported. In all three cases, most of the z-scores were significant but in the negative direction, indicating that the behaviors were less likely than chance to occur. Subject 2 was significantly more likely than chance to engage in an inappropriate behavior (CIB) after his appropriate overtures (CAP) and inappropriate behaviors (CIB) were not followed by social interaction. The results for Subject 3 were in a similar pattern, but were not significant. Subject 1 was significantly more likely than chance to engage in an other appropriate behavior (CAB) after his attempts at an appropriate social overture (CAP) were not followed by social interaction.

CHAPTER 5

Discussion

In recent years, research in the area of conduct disorder has become more broadly focused on understanding the context of conduct problems and on understanding the child's own experience of himself. This study represented an attempt to better understand the child's internal experience which, in addition to his genetic predispositions and his environment, may be an important mediating factor in his behavior.

Following from research and theory in the areas of conduct disorder, attachment, object relations, and loneliness, it was proposed that these children have not developed an adequate internal structure which would allow them to feel secure in the expectation that they will be responded to consistently and predictably. Without this structure, they may feel anxious, vulnerable, or lonely when they are not engaged in some form of social interaction. Winnicott (1958) called attention to the need for each person to develop what he called a capacity to be alone, referring to the ability to make use of time alone (either physically alone or in the presence of others) in a productive, anxiety-free manner. He linked a failure in the development of this important capacity to failures in parenting, i.e. overly neglectful or overly impinging parenting. Wahler (1994) has found such nonsynchronous

parenting to be an important factor in the development of conduct disorder in children.

The overall hypothesis of this study was that conduct disordered children have not developed this capacity to be alone to the extent that would be expected at their age. Other studies have demonstrated that children with conduct problems, when compared with their normal counterparts, have not developed a capacity for creative solitary play, and that they tend to get off task often when asked to play or work by themselves (Field, Sandberg, Goldstein, Garcia, Vega-Lahr, Proter, & Dowling, 1987; Gardner, 1987; Reiser, 1987). This study took this research one step further by defining "alone" as that time when the child was not in direct interaction with another person, regardless of the activity in which he was engaged. This definition is more in keeping with Winnicott's notion of the capacity to be alone in an emotional rather than a physical sense.

An evaluation of the hypothesis that these conduct disordered boys have not developed a capacity to be alone can best be understood by first examining the boys' attempts to attain social interaction within the community of an inpatient setting. Next, their behavior during solitary time should be considered to determine if it is qualitatively different than their behavior during social interaction. Finally, their behavior following solitary time should be considered, to determine if solitary

experience is a setting event for problematic behaviors on the part of these children.

Social Overtures in the Inpatient Setting

The sequential analyses did not confirm the hypothesis that the boys would be most likely to achieve social interaction following an inappropriate behavior. Contrary to expectations, all three of the boys were most likely to receive social interaction following an appropriate social overture. They were all less likely than chance to receive social interaction following other appropriate behaviors or inappropriate behaviors. This finding does not fit with the research in this area which suggests that these children are socially incompetent. Thus, these children were able to successfully achieve social interaction through the sorts of behaviors that are contrary to those defining conduct disorder. This finding suggests that the community or environment may be a very important factor in determining the social adjustment of these children.

Solitary versus Social Behavior

The results strongly supported the hypothesis that the three conduct disordered boys would be more non-constructive in solitary versus social. All three of the boys exhibited more fiddling, wandering, stereotyped play, talking to themselves, and staring into space when they were not receiving social interaction. Many of these "solitary" intervals actually occurred when the child was surrounded by

others at the dining table, in school, or in his room. Despite this apparent company, these boys clearly experienced these intervals of time as qualitatively different than those intervals in which they were receiving some kind of feedback from their environment.

Given the strength of the first finding, it was somewhat surprising that the hypothesis that the boys would also be more constructive in social as compared with solitary only bore out in two out of the three subjects. Apparently, Subject 3 was both more constructive and more non-constructive in solitary as compared with social. It can be inferred from the non-constructive behaviors the subjects demonstrated when they were in solitary, that the experience of being alone, without any social interaction, may make these children anxious, depressed, and distracted. The findings do not fully support the hypothesis that, in addition, they will not be able to make creative, purposive use of the time. This finding is counter to the results of previous studies in which children with conduct problems did demonstrate more difficulty than their normal counterparts accomplishing a task in solitary (Field et al., 1987; Gardner, 1987).

The results did not support the hypothesis that the boys would be more likely to engage in non-constructive behaviors given longer durations of solitary, or that they would be more likely to engage in constructive behaviors

given longer durations of social. One explanation for this finding might be that it is the **transition** into solitary that is difficult for these children, and that as they spend more time in solitary, they become habituated to the experience and some of the non-constructive behaviors drop out. This is a hypothesis that could be explored in future research.

Solitary Time as a Setting Event

The final step in the sequential analyses was to examine the child's behavior after he had **failed** to receive social following appropriate social overtures, other appropriate behaviors, and inappropriate behaviors. The most striking result of these analyses was that all three of the boys appeared to suppress appropriate social overtures following a solitary interval. In addition, two of the three subjects had their highest levels of inappropriate behavior in the third interval following a two-interval sequence in which they had engaged in an appropriate overture or an inappropriate behavior and had not received social interaction in the second interval. In general, when the expectation for a social response was not met, the children did not attempt another social overture and often deteriorated to more negative acting out or withdrawn behaviors. Apparently, solitary play takes these children out of the stream of continuity of social connectedness. Solitary time appears to disrupt their sense of connection

with others and is a setting event for less prosocial behaviors.

Conclusions

The author was involved in a larger group study (Wahler, Castellani, Griffith, & Keathley, 1994) designed to examine the effect of solitary behavior in children with conduct problems as compared with their normal peers. This study also demonstrated that, in contrast to their normal counterparts, children with conduct problems appeared to experience solitary time as qualitatively different than social time. Solitary time was a setting event for increased noncompliance and decreased aversiveness for the children with conduct problems and for increased avoidance of the children by their mothers. Solitary time appeared to be a negative experience for the children with conduct problems. These children may not have developed an adequate internal structure which would allow them to enjoy solitary time. They come out of this time seeking social contact, but resort to noncompliance rather than prosocial behaviors to elicit such contact. Their mothers did, in fact, tend to ignore them more during solitary time and immediately after solitary time, increasing the children's likely perception that their mothers were unavailable to them and raising their anxiety further.

Given the results of the present study, it appears that these children also come out of solitary experience with a

lowered propensity to seek social contact appropriately. It is as if they have a very fragile sense of connection or expectation of relationship with others, and this connection is easily disrupted by solitary time. They do not appear to have the internal structure necessary to maintain a continuous sense of connection through even brief periods of solitary experience. They likely come out of this experience in need of a social connection, but are so disrupted that they are unable to draw on their abilities to achieve this connection through appropriate social overtures. The results of the group study (Wahler et al., 1994) would suggest that it is then that they regress to noncompliant behaviors to elicit social contact.

Overall, the findings of these case studies provide support for the theory that conduct disordered children have not fully developed a capacity to be alone as defined by Winnicott (1958). The subjects consistently demonstrated more non-constructive behaviors when they were not in direct interaction with another person, suggesting that these children may experience more anxiety, depression, and loneliness when they are not receiving some feedback from the world.

The findings do not support a simplistic notion that these children have learned exclusively to use inappropriate behaviors to "get attention." In an inpatient setting, which is designed to be more synchronous with the child's

behaviors and needs, these children were in fact most likely to receive social interaction following appropriate social overtures.

Instead, the findings suggest that the experience of solitary time may be particularly difficult for these children. It appears to be a setting event for the suppression of the very prosocial overtures that the boys demonstrated that they can use successfully in the controlled and predictable environment of the inpatient setting. This study confirms the findings of the earlier study (Wahler et al., 1994) in which solitary appeared to be a setting event for the non-compliance of children with conduct problems as compared with their behaviorally normal peers. Further research is needed to explore the question of the effect of transition from solitary, and possibly transitions in general, for these children.

The generalizability of this study is limited, of course, by the small number of subjects and the lack of a control group of normal peers. Other research with more subjects has already demonstrated that children with conduct problems differ from their normal counterparts in solitary play, but this study attempted to expand the definition of solitary to include being alone in the presence of others. Given that the definition of solitary used in this study proved useful, it is recommended that further research be done using this definition to replicate the findings with a

larger group of subjects and to compare the subjects with normal peers.

Should the results of these case studies be confirmed in a larger group comparison study clinical implications for the treatment of children with conduct disorder would follow. If conduct disordered children demonstrate a less developed capacity to be alone than non-referred children, this developmental deficit should be addressed in the treatment of children with conduct problems. Behavioral techniques aimed at simply training these children to act appropriately, such as social skills training, would not be predicted to be successful in treating these children. The results of the case studies suggested that the children can quickly learn to use appropriate social overtures when in a highly structured setting, but these skills were easily disrupted by even a brief period of time in which the children did not receive social interaction.

The ability to tolerate time alone or time alone in the presence of others could be addressed in a treatment setting by attempting to replicate, at an age appropriate level, the experience that such children may have missed with their caregivers. In the treatment, the child could be asked to engage in tasks alone, while receiving consistent and predictable feedback from the therapist. Gradually, the duration of these periods of solitary activity could be

increased as the child demonstrated increasing mastery and comfort.

The findings of this study also suggest that children with fully developed conduct disorder will function best in those environments which provide frequent opportunities for social interaction. This is often not the case in most public schools, where students are expected to remain in their seats, working independently, for significant portions of the school day. Such a setting will likely only set the stage for conduct problems.

Finally, the results of this study suggest that the non-synchronous interactions of these children and their caregivers need to be addressed as early as possible in the child's development. These non-synchronous interactions may be partially responsible for the conduct disordered child's delayed development of the capacity to be alone, an essential capacity for a child's emotional, social and intellectual development.

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APPENDIX

Appendix 1

Parental Consent Form
Consent for Child's Participation in Research
East Tennessee Children's Hospital
Children's Hospital Intensive Psychiatric Services
(C.H.I.P.S.)

- 1. Purpose of the Study:** You are being asked to consent to your child's participation in a study. The purpose of the study is to evaluate how boys with behavioral problems act and feel when they are alone as compared with how they act and feel when they are with others.
- 2. Procedures to be Followed:** If you agree to your child's participation in this study, your child will be videotaped during his normal activities on the C.H.I.P.S. unit at East Tennessee Children's Hospital. He will be videotaped for a total of ten hours during his stay at the hospital. In addition, approximately once a day he will be asked to guess how long he has been doing a particular activity.
- 3. Potential Risks and Discomforts:** The only risk or discomfort for your child is the stress of being videotaped more often than the rest of the children on the unit and being asked to estimate a length of time once a day.
- 4. Potential Benefits:** There are no additional benefits for you or your child for being a participant in this study. There may be benefits for future patients on the CHIPS unit who have the same kinds of behavioral problems that your child has, as this study may help clinicians to understand these children better.
- 5. Alternative Therapy:** The kind of treatment your child receives at CHIPS will not be affected by his participation in this study.
- 6. Confidentiality:** Your name and your child's name will not be on any of the tapes or forms used in this study. Your child will be assigned a subject number, and the data will be identified by that number only, never his name. The videotapes will be kept in the C.H.I.P.S. office for a period of three years after the study is completed. During that three years, the videotapes may be used for additional research by C.H.I.P.S. staff or University of Tennessee psychology graduate students. Your child's name would never be associated with this research. After three years, the tapes will be erased by magnetic erasure method.
- 7. Compensation:** You and your child will not receive any payment for participation in this study, nor will you be

given free or reduced rate treatment for your participation in this study.

8. Questions about the Study: You may ask any questions that you want to about the study. Any questions should be addressed to the director of the study, Elizabeth A. Keathley, M.A. She can be reached at the C.H.I.P.S. office, phone number 541-8497.

9. Patient Rights: Should you have any questions about your child's rights as a patient at East Tennessee Children's Hospital, you can contact Caroline Graber at 541-8138.

10. Voluntary Participation and Option to Withdraw: Participation in this study is completely voluntary. There will be no penalty for you or your child for choosing not to participate. You may choose to withdraw from the study at any time, simply by calling the director of the study. His treatment will not be affected in any way should you choose not to have your child participate or to stop your child's participation in the study once it has started.

11. Authorization: I have read the above description of this study and its risks and benefits. I agree to my child's participation in this study. I know that I can decide to withdraw from the study at any time, and my child's treatment will not be affected in any way by this decision.

The parent/guardian signature below indicates that the parent acknowledges the information given above, and agrees to his/her child's consent to participate in this study. The parent/guardian will receive a copy of this consent form.

Parent/Guardian Name

Parent/Guardian Signature

Date

Appendix 2

Child Assent Form

You are being asked to be in a study about boys like you. If you are in this study, someone will videotape you sometimes while you are here at CHIPS. They might videotape you when you are at school, in an activity, playing in your room, taking a time out, or eating dinner. They would not videotape you when you are with your therapist or during group therapy. Also, sometimes you would be asked to make a guess about how long you have been doing something. You do not have to be in this study if you don't want to. And if you decide to be in it and then later you decide that you don't like it, you can ask not to be in it anymore. If you want to know anything else about this study, you can ask Beth Keathley.

If you agree to be in this study, sign your name here:

Child's Assent

Date

Witness

Appendix 3

Definition of Variables to be Coded from Videotaped Observations**I. Participant Codes:**

"C" Child

"P" Peer

"S" Staff

"R" Researcher

Note: Always code other's response or lack of response if the target child's behavior was directed towards that person.

(Examples: Approach, Instruction, Physical and Verbal Aggression, and Clowning will often be followed by a peer, staff, or researcher coding).

II. Activity codes:

"A" Approach: Any interaction or attempt at interaction that is not defined as instruction, physical or verbal aggression, or clowning. Approaches may be verbal or non-verbal. Includes nonverbal approaches such as walking toward a group of children who are playing or looking toward someone. If any other coding can be coded, such as work, play, instruction, physical aggression, or verbal aggression, these codes always supersede approach. (Coded for all four participants)

"U" Unresponsive: Code this when the child's social overture of some kind has been made and the other party ignores or is unresponsive to the overture. This would include approach and instruction, or physical aggression, verbal aggression, work or play if they were directed toward another party. (Coded only for peer, staff, researcher)

"W" Work: A constructive activity that is not play. Doing a chore or schoolwork. Includes following instructions to go from one place to another. (Coded only for child, staff, and peer)

- "P" Play: Constructive, creative, coherent activity not defined as work (e.g. playing a game, constructing a building with bricks, coloring a picture.) (Coded only for staff, child, and peer)
- "N" Non-constructive activity: fiddling, wandering, or stereotyped play. Watch for this during play, work, and maintenance, as the child may slip into this during these activities. (Coded only for child)
- "M" Maintenance: Essential Activities, e.g. eating, dressing, toilet. (Coded only for child)
- "I" Instruction: Tells another to do something. (Coded for all four participants)
- "F" Physical Aggression: Aggressive to a person or property. Watch for this during play. Throwing a ball toward a peer in a game of catch is play; throwing a ball **at** a peer in order to hit him is physical aggression, no matter how playful. Physical aggression supersedes play. (Coded only for child, peer)
- "S" Self-injurious behavior: Physically aggressive toward self (e.g. hitting head against the wall, poking arm with pencil, pinching face.) Watch for this during play, maintenance, and non-constructive activity. (Coded only for child)
- "V" Verbal Aggression: Shouting, stating obscenities, saying bad things to self or another person. (Coded only for child, peer)
- "C" Clowning: Calling attention to himself by making faces, telling jokes, acting inappropriately silly for his age. (Coded only for child)
- "Z" Nothing: Engaged in no activity, staring into space. (Coded only for child)
- "T" Time Out: Child is serving time out. (Coded only for child)
- "R" Restriction: Child is serving restriction. (Coded only for child)
- "G" Child Gone: Child leaves room, or is out of camera view and it is impossible to determine what he is doing. If more than two full intervals can be coded CG, stop coding and start a new "part" with the next full interval in which the child is visible. (Coded only for child)

"L" Talking to self: Verbalizations that are clearly not directed toward another person. (Coded only for child)

III. Emotional Valence Codes:

"+" Positive: Smiling, laughing, approaching another in a positive manner (e.g. offers to share a toy in a positive voice.)

"X" Angry: Scowling, speaking in a sharp voice, threatening, etc.

"-" Sad: Frowning, looking at the floor, crying, etc.

"O" Neutral: Not displaying clearly positive or negative affect.

Vita

Elizabeth Allen Keathley was born in Fort Myers, Florida on November 14, 1964. She graduated from the University of Florida with a B.S. in psychology in May 1986. The following September she began graduate studies at the University of Tennessee, Knoxville. She graduated with an M.A. in psychology in 1989. She taught at Santa Fe Community College in Gainesville, Florida from 1989 to 1991. She returned to the University of Tennessee in 1991 to complete her graduate studies. She completed her internship at La Rabida Children's Hospital and Research Center in Chicago, Illinois in June 1994. She graduated with a Ph.D. in psychology in December 1994. She is currently employed as a mental health consultant for Head Start in Chicago, Illinois.