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Social cognitive functioning among antisocial adolescent males

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SOCIAL COGNITIVE FUNCTIONING AMONG
ANTISOCIAL ADOLESCENT MALES

By

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Submitted in partial fulfillment of the requirements
for the Degree of Doctor of Philosophy

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GRADUATE STUDIES

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SOCIAL COGNITIVE FUNCTIONING AMONG ANTSOCIAL ADOLESCENT MALES

Abstract

by

JILL WEISSBERG-BENCHEL

The present study addressed three questions: 1) are there social cognitive differences between antisocial youths as a whole and normal control youths, 2) are there social cognitive differences among subgroups of antisocial youths, and 3) can social cognitive functioning reliably discriminate among the subgroups of antisocial youths? One hundred one adolescents (ages 12-15) participated in the study. Seventy two youths were recruited from a juvenile first offenders program. Twenty nine were recruited from recreation centers in the same catchment area. Adolescents from the first offenders program were divided into four antisocial subgroups (confrontative, nonconfrontative, versatile, and abnormal/normal) based on self and parent reports of antisocial behaviors. Three categories of social cognition were assessed: perceptions

ii
of the self, perceptions of the other, and perceptions of self-other interactions. Results support the importance of utilizing a multidimensional approach to understanding antisocial adolescent youths. Results also support the utility of employing social cognitive functioning as a means of discriminating among the subgroups of antisocial adolescent males. The importance of distinguishing between the behavioral observations of an objective researcher and the subjective interpretations of those behaviors by an individual living in the family being observed is stressed.
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<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Methods</td>
</tr>
<tr>
<td>Results</td>
</tr>
<tr>
<td>Discussion</td>
</tr>
<tr>
<td>References</td>
</tr>
<tr>
<td>Figures</td>
</tr>
<tr>
<td>Tables</td>
</tr>
<tr>
<td>Appendix A</td>
</tr>
<tr>
<td>Appendix B</td>
</tr>
<tr>
<td>Footnote</td>
</tr>
</tbody>
</table>
Among the wide range of child and adolescent behaviors observed by mental health professionals, those that fall within the antisocial category stand out as particularly puzzling and problematic. They are puzzling because the cause(s) of such behaviors are not fully understood; they are problematic because of their enormous social costs. Antisocial behaviors include such seemingly diverse acts as truancy, fighting, stealing, lying, firesetting, vandalism, and drug use. Despite their diversity, all antisocial behaviors share the unifying theme of social rule violation, in which harm or loss is inflicted on people or objects (Kazdin, 1987; Loeber, 1982).

A brief examination of some basic demographic data about child and adolescent antisocial behaviors clearly highlights the enormity and seriousness of this problem. The data include clinic referral rates, youth self-reports, social and economic costs, and recidivism rates. With respect to referral rates, children and adolescents
are referred for mental health services for a variety of reasons, including: eating disorders, fears and anxieties, antisocial behaviors, learning disabilities, and developmental delays. Despite the diverse reasons for referral, between one third and one half of all child and adolescent clinic referrals are comprised of antisocial behavior problems (Robins, 1981).

The high rate of clinic referrals is confirmed by data gathered from the youths themselves. For example, in a youth self-report survey of 400 children in St. Louis between the ages of 13 and 18, fifty percent admitted to theft, thirty-five percent to assault, and forty-five percent to property damage (Feldman, Caplinger, & Wodarski, 1983).

In addition, child and adolescent antisocial behavior is of concern because of the exorbitant social and economic costs these behaviors incur. These costs may be measured not only by damage to and loss of property and life, but also by the costs associated with repeated, long term contact with the mental health and criminal justice systems. For example, the FBI estimated that in 1985, 38% of all burglary, 41% of all arson, and 45% of all
vandalism was caused by youths under the age of 18 (FBI, 1985). Additionally, child and adolescent antisocial behaviors consume an enormous amount of time in the justice system. For example, in 1983, 43.5% of all American youths under the age of 18 were seen in court for antisocial behaviors (U.S. Department of Justice, 1987).

In addition to the tremendous social costs of antisocial behaviors, extraordinary financial costs are incurred as well. One example of the financial burden antisocial behaviors place on the taxpayer is that the cost of juvenile arson alone in 1985 was estimated to be just under $5 million (FBI, 1985).

Exorbitant as these readily documented costs are, there exists another set of social costs that are no less significant, though not as easily documented. These costs involve the loss of potentially productive members of society. This loss is due not only to the time many antisocial youths spend in detention homes and jails, but also to their lack of education and vocational training. Clearly, the costs incurred by antisocial behaviors are staggering.
The prevalence and cost estimates noted above are exacerbated by the absence of any clearly effective treatment programs. The treatment programs that do exist include parent management training, family therapy, and cognitive problem-solving skills training (see Kazdin, 1985 and Dumas, 1990 for excellent reviews of treatment approaches). Nevertheless, the fact that these youths continue to engage in antisocial behaviors even after treatment is documented by the high recidivism rates, which have been estimated to range between 37 and 63 percent (Loeber & Dishion, 1983; Mitchell & Rosa, 1981; Olweus, 1979). In sum, the widespread prevalence of child and adolescent antisocial behaviors not only strains the mental health and juvenile justice systems, but affects the larger society as well. The seriousness of the costs child and adolescent antisocial behaviors incur cannot be treated lightly. A more thorough understanding of the factors underlying the development and maintenance of such behaviors must therefore be sought.

Researchers generally have sought explanations of antisocial behaviors by employing one of three theoretical frameworks: psychoanalytic, behavioristic, and social-cognitive. In the psychodynamic approach,
observable behavior is viewed as a direct result of an individual's drives, needs, wishes, fantasies -- in short, as a direct result of intrapsychic processes (Hall, 1979). It follows directly, then, that when people behave aggressively, they do so because of high aggressive drives, needs, impulses or instincts.

In contrast, the behaviorist contends that behavior is a direct result of environmental contingencies (Skinner, 1969). Behavior is caused by the stimuli that precede it, and is shaped and controlled by the stimuli that follow it. When people behave aggressively, they do so because of their reinforcement history.

A third paradigm for explaining behavior is offered by social-cognitive theorists. According to the social-cognitive perspective, people are neither driven solely by unconscious motives, nor shaped solely by environmental reinforcements. Instead, it is the manner in which both internal and external events are attended to and understood that determines behavior (Bandura, 1986).

All three approaches offer frameworks for understanding antisocial behavior. However, it would be
fair to say that the social cognitive model has gained ascendancy in the literature. This model denies neither the existence of inner drives nor the impact of reinforcement contingencies in the individual's environment. Its unique theoretical contribution is that it gives to higher mental processes a role that the other approaches do not. Social cognitive theory acknowledges the unique ability of humans to formulate beliefs, conceptions and inferences about themselves, and about their social world (Flavell, 1985). Three basic assumptions of social cognitive theory directly follow from the above discussion. The first assumption is that the manner in which one perceives or conceptualizes the self has a major impact on how one behaves. The second assumption is that the way in which one perceives or conceptualizes other people has a major impact on how one understands their behavior. The third assumption is that the way in which one perceives and conceptualizes interactions between the self and other people has a major impact on the way in which one interacts with others (Flavell, 1985; Schantz, 1983). In sum, then, the social cognitive model postulates that cognitions directly influence behaviors. These cognitions may be about the self, about others, or about interactions between the self
and others. The utility of this model for understanding adolescent antisocial behaviors is explored in the present study.

The remainder of this introduction is divided into four sections. The first section will be devoted to a brief examination of social cognitive theory. The second will examine the literature on social cognitive differences between developmentally appropriate and antisocial youth. The third section will review the available data concerning social cognitive differences within the antisocial group. The last section will discuss the specific contributions of the present study to an understanding of the social cognitions of antisocial youths.

Social Cognitive Theory

In essence, social cognition refers to the ways in which cognitions directly influence behaviors. The cognitions relevant to this model include the ways in
which people perceive themselves, perceive others, and perceive themselves interacting with others. Flavell (1985) offers a model of social cognition that includes these three aspects of the social world, that is: the self, the other, and the self interacting with the other (see Figure 1). Let us consider each in turn. Social cognitions about the self include one's beliefs, inferences and conceptions about who one is and how one behaves. Consider, for example, that I am a therapist who is currently engaged in a therapy session with a distraught adolescent. I think about myself as a therapist, as a compassionate, empathic person, and as someone who is ethical. My behavior will be consistent with these perceptions or beliefs about who I am. For example, it would be difficult for me to scream at this client, or breach his confidentiality since that sort of behavior would be inconsistent with my cognitions about myself.

Social cognitions about the other include one's beliefs, inferences, and conceptions about who another person is, and how that person behaves. I think of my client as a confused and angry boy, who has trouble controlling his anger when provoked. My beliefs and
perceptions about this client will directly impact the way I expect him to behave. For example, it would be hard for me to think of him as behaving in a calm, rational manner if his little sister broke his favorite record album, but I could easily think of this boy locking his sister in the broom closet for her misdeed.

Social cognitions about the self interacting with others include a number of beliefs, inferences and conceptions. One must not only think of who one is and how one behaves, but one must also consider who the other person is, and how that other person behaves. Given those perceptions, one must then consider how the interaction between the self and the other will proceed. Social cognitions about such interactions occur constantly. Continuing with this therapist-client scenario: one therapeutic goal for this client is to decrease the number of fights he has at school. His perceptions of himself include believing he has been treated unfairly by the world, and believing that he is the only one who can protect himself from the hostility of others. We begin exploring his perceptions or beliefs about a particular youth in his school. My client sees this youth as hostile, aggressive, and out to hurt other people. Given my
client's belief that he needs to protect himself, and given his belief that the other youth is purposely aggressive, his picking a fight with this youth is not surprising. He is behaving in a manner that is consistent with his cognitions about himself and the youth. In sum, social cognition accounts for the ways in which one's beliefs, inferences, and conceptualizations about the social world affect how one behaves in that world. Many studies seeking to understand antisocial behaviors among children and adolescents have focused on the social cognitions of these youths. The next section of this paper reviews those studies.

Antisocial versus developmentally appropriate behaviors

This literature review will be divided into three subsections: studies that have focused on social cognitions of the self, on social cognitions of the other, and on social cognitions of self-other interactions. Measurement of both social cognitions of the self and of the other has been targeted in two ways: 1) by assessing generalizable traits. and 2) by assessing
situation-specific behaviors. The distinction between trait and behavior perceptions may, at times, seem unclear. However, for the purpose of the present study, the term trait-perception is used to refer to an enduring characteristic or dimension of a person (Mischel, 1981). Behavior-perception is used to refer to observable behaviors tied to specific and narrowly defined contexts (Mischel, 1968). The trait-perception approach to the social cognitive literature involves generalized perceptions of the self or the other that are independent of specific contexts. Traits are labels often used to describe or characterize others. For example, people may be labeled aggressive, lazy, fearful, etc. The behavior-perception approach to the social cognitive literature involves perceptions of the self or other that are directly tied to a specific context. The specific behaviors assessed may include fighting, lying, stealing, etc.

Social cognitions about the self. Research concerning antisocial youths' perceptions of themselves is scarce. In fact, there are no studies that have assessed antisocial youths' trait-perceptions, and only one study exists that assesses antisocial youths'
behavior-perceptions. In that study, Lochman (1987) investigated the differences between developmentally appropriate and antisocial boys' perceptions of their own aggressiveness and of their responsibility for aggressive acts. Based upon teacher's ratings, fourth and fifth grade boys were classified as behaving in either a developmentally appropriate or antisocial manner. Subjects were read a vignette about two boys who had accidentally bumped into each other, followed by questions concerning who caused the problem, and how the problem could have been solved. Next, the boys were paired to discuss their opinions of the story, with each boy told to try and win the discussion by convincing the other boy that his opinion was right. Following four minutes of discussion, each boy was asked to rate himself on such variables as talkativeness, aggressiveness, and strength. The results suggest that antisocial boys minimize their own aggressiveness, while developmentally appropriate boys perceived themselves as being more aggressive than they actually were. In sum, although both groups held faulty self perceptions, antisocial boys minimized the extent of their own aggressive behaviors, while maximizing the extent of their peers' aggressions.
Social cognitions about the other. Research on social cognitions about others may also be subdivided into trait-perception and behavior-perception studies. Perceptions about others' traits will be considered first. Within the antisocial behavior literature, this research has focused on empathic ability. Empathy is defined as the ability to identify and share another's emotion in a given situation (Feshbach, 1975). In a study by Kaplan and Arbuthnot (1985), antisocial and developmentally appropriate adolescents (13-15 years old) were compared on structured and unstructured empathy tasks. The structured task was a self-report measure whereby subjects rated how strongly they agreed or disagreed with various empathic statements (e.g. boys who cry are stupid). The unstructured task consisted of short stories depicting adolescent conflicts. Subjects were asked to state how the story made them feel, how they believed the main character felt, and how they would respond to the main character. Although no significant differences were found in the structured task, significant differences between the antisocial and normal groups were found on the unstructured task. One explanation for this difference may be that the structured task was a less sensitive measure of differences in
empathic responses than was the unstructured task. Another possibility is that the antisocial youths were able to determine which responses were socially appropriate on the structured task, and so responded in that manner. In other words, antisocial adolescents may be able to recognize the socially appropriate response when explicitly presented with a choice. When left on their own, however, they may be unable to generate their own empathic responses. A final explanation for the differences observed between the antisocial and normal control youths may be that the antisocial youths have poor problem solving skills.

The second aspect of social cognitions about the other is behavior perception. Research concerned with antisocial youths' conceptualizations of others' behaviors has focused primarily on attributions of intentionality. In a study by Dodge (1980), 2nd, 4th, and 6th grade boys were presented with hypothetical stories in which a variety of ambiguous peer provocations occurred (i.e. a peer's lunch tray spilling on a child's back). "Deviant" or antisocial children were defined as those children who were rejected or neglected by their peers. The results revealed that antisocial boys attributed hostile intent to
the peer's behavior in the stories 50% more often than did the normal controls. Support for the hostile attributional biases of antisocial children has also been found in more recent studies by Dodge and his colleagues (Dodge, 1984; 1985; Dodge & Newman, 1981; Milich & Dodge, 1984). For example, Dodge, Murphy, and Buchsbaum (1984) studied children in Kindergarten, second and fourth grade. All children were asked to view a videotape and to determine the intent of a provoking child.

Results indicate that socially deviant children tend to erroneously attribute hostility to prosocial intentions. These findings are also supported by the Lochman (1987) study reviewed previously. In brief, boys were asked to read a vignette about two boys bumping into each other. In addition to assessing each boy's self perceptions, Lochman also assessed their perceptions of others. Subjects were asked to rate their partners on variables such as aggression following discussions about the stories. Antisocial boys attributed greater aggression to their peers than to themselves, while developmentally appropriate boys considered themselves as behaving more aggressively than their peers.
In sum, antisocial youths display aberrant social cognitions about others, both in the realm of trait-perceptions and behavior-perceptions. The causal sequence of these faulty social cognitions remains unclear, however. We do not know if it is their social cognitions that lead youths to engage in antisocial behaviors or if engaging in antisocial behaviors itself produces faulty social cognitions. Unfortunately, this question will remain a rhetorical one at the present time, as no studies have yet addressed this question.

Social cognitions about self-other interactions. Differences in conceptualizations of interpersonal relations have been studied in two ways. One method for assessing social cognitions about interpersonal interactions is to study one's ability to engage in interpersonal problem solving. The other method is to study family interaction patterns. Each will be considered in turn.

Interpersonal problem solving involves such skills as the ability to generate alternative solutions to problems, the ability to consider and anticipate the consequences of one's behaviors, and the ability to plan the means by
which to obtain specified goals. The importance of interpersonal problem solving skills in social cognition has been championed primarily through the research of Spivack and Shure (Spivack, Platt, & Shure, 1976; Spivack & Shure, 1982; Shure & Spivack, 1982).

When assessing the ability to generate alternative solutions, Spivack and Shure typically present youths with a problem situation, and ask them to list as many solutions to the problem as they can think of. When assessing the ability to consider consequences of behaviors, youths were typically presented with hypothetical stories in which the main character is faced with a temptation. Youths are then asked to finish the story, detailing the consequences that may befall the main character as a function of his actions. Means-ends thinking is typically assessed by presenting youths with stories in which they are told the beginning and the end of a story, and are asked to state what happened in the middle. Data from these studies all point to the same general conclusion: antisocial youths are less aware of factors that cause interpersonal difficulties and are less able to generate novel solutions to interpersonal
conflicts than are their developmentally appropriate peers.

The second method for assessing social cognitions about interpersonal interactions is to study family interaction patterns. The literature on family interaction patterns does not directly address the differences between developmentally appropriate and antisocial youths with respect to their perceptions of self-other interactions. It does provide, however, a context from which hypotheses may be drawn concerning such cognitions.

An overview of this literature finds that parents of antisocial youths are deficient in monitoring their child's whereabouts (Wilson, 1980); using effective discipline (West & Farrington, 1973); and reinforcing prosocial behaviors (Patterson, 1982). A representative study by Patterson and Stouthammer-Loeber (1984) examined the differences between parents of antisocial and developmentally appropriate adolescents on the following variables: 1) parental monitoring, 2) parental discipline techniques, 3) parental problem solving skills, and 4) prosocial reinforcement. Parental monitoring, discipline, and prosocial reinforcement significantly differentiated
antisocial and "normal" seventh and tenth grade youths. Parental problem solving skills did not differentiate the two groups. Further, parental monitoring was found to distinguish between moderate (1 or 2 offenses) and multiple (more than 2 offenses) juvenile offenders: 50% of the moderate offenders were poorly monitored as compared to 73% of the multiple offenders. These data demonstrate that when compared with developmentally appropriate youths, antisocial youths tend to live in families whose members engage in more deviant and isolative interaction patterns.

Other family interaction patterns, such as marital violence and discord have similarly been implicated in the development of antisocial behaviors. Hershorn and Rosenbaum (1985) asked parents who were happily married and parents who were involved in physically violent and verbally discordant marriages to complete a questionnaire about their children's behaviors. The results suggest that parents in conflictual marriages perceive their children's behaviors as more problematic than do parents from satisfying marriages. It should be recognized that this study only assessed parents' perceptions of their
childrens' behaviors. No attempt was made to validate these perceptions.

Taken together, the family literature suggests that, compared to normals, antisocial youths live in families in which the parents seem not to take an active interest in their children. Accordingly, there are few occasions or opportunities for child-adult interpersonal interactions. In addition, discipline is used in an inconsistent manner. An implicit and unstated assumption permeates this literature, namely, that the interactions that occur within the families of antisocial youths are seen by those youths as either confusing or coercive. What we know about the nature of family interactions in the homes of antisocial youths is derived from behavioral observations recorded by outside observers. It has been assumed that the perceptions of these observers and the perceptions of the participants are the same. However, the validity of that assumption, to this point, has never been assessed.

Up to this point, the findings reviewed above have compared antisocial youths as a unified group to normal controls. Although these findings are provocative, recent literature has suggested strongly that to continue to
refer to children who display antisocial behaviors as though they constituted a single, well-defined, relatively homogeneous group, is to ignore important differences among them. Indeed, many researchers have highlighted the fact that the behaviors exhibited by antisocial children and adolescents are extraordinarily heterogeneous (e.g., truancy, fighting, drug abuse, stealing, fire-setting, and running away). Phrased otherwise, any two children selected at random from the antisocial sample are likely to display a dramatically different set of behaviors. Consequently, although the studies reviewed above are informative from a descriptive standpoint, they do not provide enough useful information to begin targeting prevention and intervention programs to specific behaviors or classes of behavior. The purpose of the present study, then, is to examine differences among subgroups of antisocial youths with respect to their social cognitive functioning.

Differences among subgroups of antisocial youths.

Before discussing the current literature concerning subgroups of antisocial youths, let us first review the utility of employing a multidimensional rather than a
unidimensional perspective on such youths. As noted above, the behaviors that compose the antisocial category are extraordinarily heterogenous. Heterogeneity in any research or clinical sample leads to difficulties in one's ability to replicate or generalize findings. Effective communication about supposedly similar samples is also limited. Efforts at delineating homogeneous groups of antisocial behaviors were fueled by a recognition of these problems and by a desire to formulate a reliable and valid classification system of child behavior. Once specific sets of behaviors are identified, researchers may then begin integrating the areas of training, prevention, treatment, and epidemiology.

The earliest attempts at developing homogenous subgroups of antisocial youths were by Jenkins and his colleagues (Hewitt & Jenkins, 1946; Jenkins & Glickman, 1946). Their work examined over 3,200 youths between the ages of 6 and 17 who were referred to child guidance centers. Following a factor analysis of behavioral data, two subgroups of antisocial behavior were found: socialized delinquent and unsocialized aggressive. Socialized delinquent youths engaged in antisocial behaviors with their peers that were primarily covert in
nature (i.e. truancy and theft), whereas the unsocialized aggressive youths engaged in solitary antisocial behaviors that were primarily confrontational in nature (i.e. assault). The long term influence of this study may be seen in DSM III's subtypes of the Conduct Disorder diagnosis: Undersocialized Aggressive, Undersocialized Nonaggressive, Socialized Aggressive, and Socialized Nonaggressive. However, DSM III's use of four subtypes is not consistent with the literature on antisocial behaviors, and its diagnostic codes show poor interrater reliability (Quay, 1986).

For over fifteen years, these early studies stood unchallenged. Then, in the 1960's Quay's (1964, 1966) factor analytic studies found two antisocial subgroups, which he termed the psychopathic-unsocialized and the neurotic-disturbed. The psychopathic-unsocialized youths engaged primarily in overtly aggressive behaviors. The neurotic-disturbed youths engaged in more solitary antisocial behaviors. Similarly, Conners' (1970) factor analytic study of 316 clinic-referred and 365 non-clinic youths between the ages of 5 and 15 revealed two antisocial subtypes: the aggressive/conduct disorder and the anxious/immature. The behaviors associated with
Conners' subtypes were basically the same as those of Hewitt and Jenkins (1946) and Quay's (1964, 1966).

Since then, many other researchers have jumped on the subtyping bandwagon and employed factor analytic studies to identify homogeneous subgroups of antisocial youth (Arnold & Smeltzer, 1974; Edelbrock & Achenbach, 1980; Lessing, Williams & Gill, 1982; Loeber & Schmaling, 1985a; 1985b). To date, most studies have devised their subgroups on the basis of the kinds of antisocial behaviors exhibited by these youths. The methods of data collection have varied from study to study and include parent, self, or teacher report questionnaires, as well as behavioral observations. All have found two distinct types of antisocial behavior. Although the subtype labels have differed from study to study, the behaviors that encompass each type have remained the same.

Since different investigators have assigned different labels to the subgroups of antisocial youths, one way to bring consistency to this confusing nosology is to employ labels that reflect the fundamental behavioral differences between the subgroups. For the purpose of the present study, the first subtype will be labeled the confrontative
group. Membership in this subtype (group) is based upon the display of antisocial behaviors in face-to-face interactions with another. For example, confrontative youths engage in fighting, threatening, teasing, assaulting, and arguing with others. The second subtype will be labeled the non-confrontative group. Membership in this subtype (group) is based upon the display of antisocial behaviors outside another's direct scrutiny. For example, the non-confrontative youths engage in burglary, truancy, chemical use, firesetting, and running away. The labels, confrontative and non-confrontative, were chosen over other labels in the literature because they more accurately reflect the nature of the behaviors to which the labels are attached. There is some evidence from the empirical literature that there exists a third subgroup of youths, namely, the versatile group (Loeber, 1985). The label, versatile, was coined by Loeber (1985). This label will be used in the present study because it accurately reflects the nature of the behaviors to which the label is attached. Membership in this subtype (group) is based upon the display of antisocial behaviors that are both confrontative and non-confrontative in nature.
Studies documenting the existence of antisocial subtypes have also documented different developmental paths for each group. The prevalence rate for confrontative antisocial behaviors decreases with age, with approximately a one-third lower incidence rate at the age of 16 than at the ages of 4–5 (Loeber, 1982; 1985; Rutter, Tizard, & Whitmore, 1970). This decrease in the prevalence rate over time holds true for such relatively benign behaviors as teasing and bullying (Green, Langner, Herson, Jameson, Eisenberg, & McCarthy, 1973) to more serious behaviors such as attacking others (Achenbach & Edelbrock, 1978). Although the frequency of these confrontative behaviors decreases over time, the damage and severity of these behaviors caused by adolescents is clearly greater than the damage caused by toddlers. Studies of confrontative antisocial behaviors in the home show a similar decrease with age (Loeber & Patterson, 1981; Moore & Mukai, 1983). In addition, these findings hold true regardless of the measurement device (i.e., parent reports, self reports, or independent observers). Nonetheless, despite this change in the prevalence rate of confrontative antisocial behaviors over time, there exists a group of youths who continue to engage in these behaviors.
In contrast to confrontative behaviors, nonconfrontative behaviors peak during adolescence. In a study employing youth reports by Elliot, Dunford, and Huizinga (1983), the prevalence rate for theft and vandalism increased between the ages of 11 and 12, and then increased again between the ages of 14 and 15. Other nonconfrontative behaviors such as chemical use and truancy show a continued progression between the ages of 11 and 17. This observed increase in nonconfrontative antisocial behaviors is supported by studies employing data from youth and parent reports (Achenbach & Edelbrock, 1978; Farrington, 1973; Johnston, Bachman, & O'Malley, 1981; 1982; Loeber, 1982).

There is a third category of youths whose behaviors encompass both confrontative and nonconfrontative acts: the Versatile youths. Support for the strategy of treating these youths as a separate category is provided by the statistics which find that approximately one-half of all crime is committed by a small group of 5-10 percent of the male population (Farrington, 1983). In addition, most of these offenders do not specialize in either person-directed or victimless crimes. In other words,
members of this subgroup commit both kinds of offenses relatively equally. Although no longitudinal studies exist that could document changes in prevalence rates over time, many concurrent studies have revealed the existence of a versatile group (Langner, Gersten, Wills, & Simcha-Fagan, 1983; Loeber & Schmalling, 1985a; 1985b; McCord, 1979; Wahler & Dummas, 1986a).

In a study of 195 boys (grades 4, 7, & 10) and their families, Loeber and Schmalling (1985a) identified a group of youths who engaged in both theft (youth's admission of at least 3 in the past year) and fighting (parents' report of "frequent" fighting). Sixty percent of this group had been in contact with the police, compared to only 17 percent of the exclusive fighters and 12 percent of the exclusive stealers. In addition, over 50 percent of the children who had multiple police contacts were from the versatile group, compared to only four percent for the other groups. These findings are supported by Langner, Gersten, Wills, and Simcha-Fagan's (1983) study, which found that children with the highest arrest rates engaged in both confrontative and nonconfrontative antisocial behaviors.
In addition to behavioral differences and differences in developmental paths, social cognitive differences among the subgroups of antisocial youths have been examined in only two studies. No studies exist that address differences among subgroups with respect to social cognitions of the self. The two studies that do exist address differences among the antisocial subgroups with respect to social cognitions about the other.

**Social Cognitions about the other.** As stated previously, research on social cognitions about others may be subdivided into two categories: trait-perception and behavior-perception. Just as empathy has been the only trait-perception variable assessed with antisocial youths as a whole, it has also been the only variable assessed with respect to trait differences among subgroups of antisocial youths. In a study by Ellis (1982), empathy was measured via a self-report questionnaire administered to 331 antisocial boys and 64 "normals" between the ages of 12 and 18. Youths were subtyped based on the specific antisocial behaviors they admitted to engaging in. One subtype consisted of behaviors that were directed against persons (i.e. confrontative youths). The other subtype consisted of behaviors emitted outside the direct scrutiny
of others (i.e. nonconfrontative youths). Results indicated that the confrontative group scored significantly lower in empathy than did the non-confrontative group, who scored significantly lower than the normal control group.

Differences among antisocial youths with respect to behavior-perceptions was assessed in a study by Jurkovic and Prentice (1977). Data were collected on 48 adolescent males (mean age, 15.7 years). The ability to understand another's perspective was assessed via a role-taking task developed by Flavell, Botkin, Fry, Wright, and Jarivs (1968). Each adolescent is placed in front of a display of items on a table and given a set of photographs. The object of this task is to choose which photograph depicts the view the person sitting across from you is seeing. Confrontative youths were found to be significantly less skilled in their abilities to understand things from another person's perspective than were the non-confrontative youths. In addition, both the confrontative and non-confrontative youths showed significantly poorer perspective taking skills than did the normal control group.
Taken together, these studies suggest that confrontative youths are less able to take the role of the other or to see things from the others' perspective than are non-confrontative youths. Given that the confrontative youths aggress against others, it is unlikely that such behavior would be maintained if they were able to assume another's perspective, i.e. the victim of their aggression. In addition, Jurkovic and Prentice (1977) found that both groups of antisocial youths were less skilled on tasks involving social cognitions than were youths who engage in developmentally appropriate behaviors.

Social cognitions about self-other interactions.
Differences among subgroups of antisocial youths with respect social cognitions of self-other interactions has not been studied directly. However, a body of literature exists concerning differences among subgroups of antisocial youths with respect to their family interaction patterns. As stated previously, this literature provides a context from which hypotheses may be drawn concerning social cognitions of self-other interactions. Accordingly, this subsection will consist of a review of that literature.
The literature on family interaction patterns suggests that the confrontative, non-confrontative and versatile groups differ from each other with respect to: 1) style of family interactions, 2) frequency and intensity with which antisocial behaviors are exhibited in the home, and 3) degree to which parents monitor their child's whereabouts. The relevant research will be reviewed below.

In one of the first studies of its kind, Hewitt and Jenkins (1946) assessed interaction styles in the families of confrontative and non-confrontative youths. The researchers reviewed the case records of 500 children from a child guidance center in Michigan. Data from the case records were coded with regard to family interactions such as: the structure of authority, parental conflict, child-parent conflict, and attitudes among the family members about each other. The confrontative youths were found to live in fairly chaotic family systems. Their home life was characterized by inconsistent discipline, irregular routines, and messy physical conditions. Non-confrontative youths, on the other hand, were found to live in homes characterized by parental neglect, a finding
supported by other studies as well (McCord, 1979; Patterson, 1982; Reid & Hendricks, 1973).

The second aspect of family interaction patterns, the frequency and intensity with which antisocial behaviors are exhibited in the home, was assessed in a study by Loeber, Weissman, and Reid (1983). The purpose of the study was to determine whether patterns of family interactions differentiate among the confrontative, non-confrontative, and developmentally appropriate groups. In particular, differences in the frequency and intensity with which antisocial behaviors are exhibited in the home was assessed. Home observation data were gathered on 33 adolescent boys (11 in each group), by an experimenter who visited each of their homes for approximately three one-hour sessions. The data gathered from the home observations were coded into a single score for each family member: the Total Aversive Behavior Score. This score was determined via the rates per minute of each individual family member's specific aversive behaviors (i.e. commands, destructiveness, disapprovals, hitting, and yelling).
The results suggest that: 1) confrontative adolescents engage in more than twice the rate of aversive behaviors compared to normal controls, with no statistically significant differences between the confrontative and the non-confrontative groups, and 2) antisocial adolescents engage in significantly higher rates of aversive behaviors than do any of their other family members. Although statistically significant differences between the confrontative and non-confrontative groups were not found with respect to the rate of antisocial behaviors exhibited in the home, parental responses to these antisocial behaviors do differ between these groups. In a study utilizing structured interviews with the mothers of 700 youths, Newson and Newson (1976) found that parents of confrontative youths respond to their child's aversive behaviors by escalating the intensity of the violence. However, parents of non-confrontative youths tend to ignore their child's aversive behaviors (Reid & Hendricks, 1973; Wahler & Dumas, 1986b).

The third aspect of family interaction patterns, the degree to which parents monitor their child's whereabouts was examined in a study by Patterson and Stouthammer-Loeber (1984). Data were collected on 206
families of children in the fourth, seventh, and tenth grades. The variables measured were delinquency (via court records and self-reports) and parental management skills (via home observations and parent-reports). Poor parental monitoring was significantly related to non-confrontative antisocial child behaviors. In fact, the authors concluded that the parents in their study were "indifferent trackers of their sons' whereabouts, the kinds of companions they keep, or the types of activities in which they engage" (p.1305).

Unfortunately, almost no studies on family interactions have included the versatile group. In those that do, however, versatile youths have not only been found to display higher rates of aversive behaviors than the confrontative and non-confrontative youths (Wahler & Dumas, 1986a), but the parents of versatile youths have been found to display higher rates of antisocial behaviors in the home than do the parents of the other groups of antisocial youths (Simard, 1981, cited in Patterson, 1982). Parental monitoring similarly differentiates the versatile from the other antisocial groups (Loeber & Schmaling, 1985a; McCord, 1979). In fact, parents of the versatile youths supervise their children's whereabouts
and activities even less than parents of the non-confrontative youths.

Taken together, the literature on family interaction patterns suggests the following: 1) Confrontative youths tend to live in chaotic homes, characterized by inconsistent discipline and irregular routines. These youths engage in aversive behaviors at home, and their parents respond to these behaviors by escalating the intensity of the violence. 2) Nonconfrontative youths tend to live in homes characterized by parental neglect and poor monitoring. These youths engage in aversive behaviors at home, and their parents respond these behaviors by ignoring them. 3) Versatile youths tend to live in homes where both the youths themselves and their parents, engage in high rates of aversive behaviors. In addition, parental supervision and monitoring is practically non-existent.

**The Present Study.**

The present study addressed three questions: 1) are there social cognitive differences between antisocial youths as a whole and normal control youths, 2) are there social cognitive differences among subgroups of antisocial
youths, and 3) can social cognitive functioning reliably discriminate among the subgroups of antisocial youths? Three categories of social cognition were examined: cognitions of the self, cognitions about others, and cognitions of self-other interactions. Within the category of self cognitions, two domains were selected: a youth's perception of his own style of coping with anger (Anger Style), and a youth's perception of his own level of discomfort when placed in social situations (Social Discomfort). For the category of cognitions about others, youths' perceptions of their best friends' anger style and level of social discomfort were employed. For the category of self-other interactions, two domains were selected: perceptions of family interaction styles and perceptions of what an ideal family's interaction styles would be.

Anger style was selected based on data showing that antisocial children come from homes in which there is a substantial amount of conflictual family interaction. Accordingly, anger was assumed to be a particularly salient emotional experience in their lives. It was hypothesized, therefore, that antisocial subgroups would differ with respect to the ways in which they characteristically respond to anger-arousing situations.
Similarly, given the literature (Fiedler, Warrington, & Blaisdell, 1952; Newcomb, 1961; Patterson, 1989) stating that antisocial children choose friends who are similar to themselves, it was also hypothesized that subgroups of antisocial youths would differ with respect to the ways in which they perceive their friends' characteristically responding to anger.

Social discomfort was selected based on data showing subgroup differences in the degree to which youths are included or excluded from ongoing family interactions. Extrapolating from this finding, it was assumed that such differential experiences would similarly discriminate among the subgroups based on their perceived discomfort in social situations. This extrapolation was predicated on the assumption that children who are generally included in family interactions (even if conflictual) are provided with a framework for social interaction that children who are generally excluded would lack.

Family style and family ideal was selected based on observational studies showing subgroup differences in family interactions. Youths' perceptions of those interactions were assumed to also discriminate among the
subgroups. In addition, family ideal was assessed as a means of understanding the difference between youths' perceptions of their current family interaction styles and their perceptions of what an ideal family's style would be. The disparity between the two may provide information upon which clinical interventions may be based. The specific hypotheses for this study are presented below.

Cognitions of the Self. First, it was hypothesized that the confrontative youths would express their anger in a more direct and overt manner than would the nonconfrontative youths. The versatile youths were expected to be more direct and overt than either the confrontative or nonconfrontative youths. All three antisocial groups were hypothesized to express their anger more directly than normal controls.

The rationale for this hypothesis is based on the previously established finding that family interactional exchanges, irrespective of the particular family members involved, are more conflictual in the versatile group than in the confrontative group, whose interactions, in turn, are more conflictual than in the nonconfrontative group. It was assumed that youths who come from highly
conflictual families would tend to express their anger more directly than youths who come from families in which conflict is less frequent. This assumption is based on Bandura's (1977) modeling theory, which states that most behaviors are learned observationally through modeling. Direct and overt anger responses are modelled in homes characterized by high levels of conflict. Thus, antisocial youths would express anger using the behaviors modelled at home.

Second, it was hypothesized that nonconfrontative youths experience greater levels of social discomfort than do confrontative youths. It was further hypothesized that versatile youths experience levels of social discomfort in between those of the nonconfrontative and confrontative youths. Again, all three antisocial groups were hypothesized to experience greater levels of social discomfort than normal controls.

The rationale for this hypothesis is based on the previously noted finding that the nonconfrontative group is generally excluded from family interactions, while the confrontative group is generally included in family interactions. The versatile group falls between the other
two. Youths who are excluded from interpersonal interactions do not develop frameworks for behaving in social situations. Accordingly, when placed in social situations, these youths will probably feel uncomfortable.

Cognitions of the Other. Third, it was hypothesized that the confrontative youths would perceive their best friends as expressing anger in a more direct and overt manner than would the nonconfrontative youths. The versatile youths were expected to perceive their best friends as more overt and direct than either the confrontative or nonconfrontative youths. All three antisocial groups were expected to perceive their best friends as responding to anger in a more direct and overt manner than the normal control youths. In other words, it is hypothesized that all youths perceive their friends' as handling anger in the same way they do.

The rationale for this hypothesis is based studies by Patterson (1986; 1989) which find that antisocial youths select friends who are like themselves. Extrapolating from these sociometric data, it was assumed that youths tend to attribute to their friends a coping strategy that is similar to their own (Fiedler, Warrington, & Blaisdell,
1952; Newcomb, 1961). The same rationale underlies the fourth hypothesis.

Fourth, it was hypothesized that nonconfrontative youths perceive their best friends as expressing a greater level of discomfort in social situations than the confrontative youths. It was further hypothesized that versatile youths perceive their best friends as experiencing a level of social discomfort inbetween those of the confrontative and nonconfrontative youths. All three antisocial groups were expected to perceive their best friends as experiencing more social discomfort than the normal controls.

Cognitions of Self-Other Interactions. Fifth, it was hypothesized that confrontative youths perceive their families as engaging in more conflictual interactions than the nonconfrontative youths. Versatile youths were expected to perceive their families as engaging in more conflictual interactions than either the confrontative or nonconfrontative youths. All three antisocial groups were expected to perceive their families as engaging in more conflictual interactions than do the normal controls.
The rationale for this hypothesis is predicated on the behavioral observation literature of family interactions. Versatile youths live in more conflictual families than do the confrontative youths, who live in more conflictual families than do the nonconfrontative youths. Youths' perceptions of their family interactions were expected to be consistent with those interactions observed by the behavioral researchers.

Sixth, it was hypothesized that nonconfrontative youths perceive members of their family as avoiding interactions with each other more than versatile youths, who in turn, perceive members of their family as avoiding interactions with each other more than the confrontative youths. The rationale for this hypothesis is based on the family interaction literature which shows that families of nonconfrontative children tend to ignore their children more than do the families of the other antisocial subgroups.

Finally, it was hypothesized that confrontative youths would prefer to live in families in which conflictual interactions were less frequent, whereas
nonconfrontative youths would prefer to live in families in which they were less frequently ignored.

The rationale for this hypothesis is based on observational studies. Since confrontative families engage in a high frequency of conflictual interactions, it was assumed that they would prefer to avoid such interactions. Similarly, since nonconfrontative families generally ignore their children, it was assumed that they would prefer to increase the frequency of their interactions with the family. No hypothesis was advanced for the versatile group because there was no information in the literature that could serve to guide the formulation of an hypothesis.
Method

Subjects

One hundred twelve black males participated in this study. The antisocial behavior sample consisted of 72 boys recruited from a juvenile first offenders' program in Baltimore (18 twelve year olds, 18 thirteen year olds, 18 fourteen year olds, and 18 fifteen year olds). The normal control sample consisted of 40 boys recruited from three recreation centers in the same catchment area as the first offenders program (10 twelve year olds, 10 thirteen year olds, 10 fourteen year olds, and 10 fifteen year olds). Adolescents recruited from the recreation centers have no juvenile record. The mean age for this sample was 13 years, 3 months (see Table 1).

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Insert Table 1 about here

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**Subgroup Classification:** Adolescents from the first offenders program were divided into subgroups (i.e. confrontative, nonconfrontative, and versatile) based upon responses to a questionnaire arranged in two parallel formats: an adolescent self-report and a parental report (completed by the primary caretaker). The questionnaires tap a wide variety of antisocial behaviors that an adolescent may have exhibited within the past 6 months. The items in both formats were developed by members of the Pittsburgh Youth Study Consortium (Loeber, Stouthammer-Loeber, Thornberry, & Huizing, 1988), and consist of 35 items from the Child Behavior Checklist and Youth Self Report (Achenbach & Edelbrock, 1983), plus 11 items specifically developed to classify subgroups of antisocial child behaviors.

This measure was originally derived from a metaanalysis of 22 studies on over 11,600 antisocial youths (Loeber & Schmalling, 1985b). Each of the 22 studies utilized either factor analytic or cluster analytic rating instruments of child behavior. Multidimensional scaling was applied to data gathered from these studies. The purpose of this statistical technique
was to determine whether specific antisocial behaviors loaded with other specific antisocial behaviors on empirically derived factors. Results from this study found one factor or dimension of antisocial behavior with two poles. One pole consisted of antisocial behaviors that were confrontative in nature (i.e. demanding, attacks people, teases, cruel). The other pole consisted of behaviors that were nonconfrontative in nature (i.e., stealing, truancy, drug use).

The 46 items that comprise this measure similarly fall into two factors: those antisocial behaviors that are confrontative and those that are non-confrontative. Each item is rated on a three-point scale, where 0 indicates that the statement is not true for the person, 1 indicates that the statement is somewhat true for that person, and a 2 indicates that the statement is very true for the person.

Both parental and youth reports were used because: 1) parents often underestimate or are unaware of their child's non-confrontative behaviors (Loeber & Schmalling, 1985a; Reid & Patterson, 1976), 2) self reports of non-confrontative behaviors have been found to be
reasonably valid (Farrington, 1973; 1983), and 3) as compared to their parents, youths often underestimate their own confrontative behaviors (Kazdin, Esveldt-Dawson, Unis & Rancurello, 1983; Patterson, 1982). In sum, parents are more reliable reporters of their child's confrontative behaviors than are the children themselves, and children are more reliable reporters of their own nonconfrontative behaviors than are their parents.

A youths' own report was therefore used to assign him to the non-confrontative group, whereas his parent's report was used to assign him to the confrontative group. Assignment to the versatile group was based on reports of non-confrontative behaviors by the youths and of confrontative behaviors by the parents. Youths who obtained scores equal to or greater than one standard deviation above the mean ($\bar{X}=5.95$, $SD=3.843$) of the normal controls on the confrontative scale was then classified as belonging to that group. Youths who obtained scores equal to or greater than one standard deviation above the mean ($\bar{X}=5.150$, $SD=3.793$) of the normal controls on the nonconfrontative scale was classified as belonging to that group. Youths who obtained scores equal to or greater than one standard deviation above the mean of the normal
controls on both scales were classified in the Versatile group.

Eleven of the forty normal controls attained scores that placed them in the antisocial category. It will be recalled that categorization into an antisocial subgroup was based on receiving a juvenile charge. Since these eleven normal control youths had not been charged with a crime, and their distribution in the group was not even, they were deleted from further analyses, leaving twenty nine normal-controls. Twenty six of the antisocial youths attained scores that placed them in the Confrontative category, 12 attained scores that placed them in the Nonconfrontative category, and 20 attained scores that placed them in the Versatile category. Fourteen antisocial youths attained scores that placed them in the normal range. A fourth antisocial category was therefore created, and labeled the Abnormal/Normals.

Measures:

Matching Variables. To control for any discrepancy within the subgroups on cognitive ability, the Test of Non-Verbal Intelligence (TONI) was administered.
Individuals must solve analogies using one of eight rules: simple matching, analogies, addition, subtraction, alteration, progressions, classification, and intersections. The adolescent must select the correct figure from among a number of alternatives to complete a set of figures in which one of them is missing. The TONI's internal consistency (coefficients range from .60 to .92), and the content validity (R² with the WISC-R Full Scale Score ranges from .63 to .95) appear to be sound (Mayo, 1985).

Demographic information was collected for each subject, and included parents' education levels, occupations, and current income. Education was rated on a 5 point scale, where 1 indicated the parent obtained less than a high school education, and 5 indicated the parent achieved beyond college. Parents' occupation was rated on a four point scale, where 1 indicated unemployment and 4 indicated the parent was a professional. Parent's income was rated on a 5 point scale where 1 indicated an income below $10,000 and 5 indicated an income above $25,000 (see Table 2).
Independent Variables: Each youth's characteristic style of coping with anger was assessed by a slightly modified version of the Anger Expression Scale (Spielberger, Johnson, Russell, Crane, Jacobs, & Worden, 1985). The revisions entailed re-wording some of the original statements to insure the vocabulary was appropriate for adolescents between the ages of 12 and 16. This 25 item questionnaire identifies five factor-analytically derived styles for coping with anger: 1) directly and overtly expressing anger: Anger-out, 2) holding anger inside: Anger-in, 3) reflecting upon the anger: Anger-reflect, 4) withdrawing from anger: Anger-withdraw, and 5) acting upon anger in front of others: Anger-action. Students must rate each statement on a scale from 0 to 3, where 0 is not true at all for that person, and 3 is very true. Two parallel forms of the anger scale were administered to each subject: cognitions of the self, and cognitions of the other. The self anger
scale assessed subjects' perceptions of their own coping styles when angry. The other anger scale assessed subjects' perceptions of their best male friends' coping styles when angry.

Social discomfort was assessed via the Sociability subscale of the California Psychological Inventory (CPI). The Sociability subscale consists of 35 statements that the individual decides are either true or false about himself. T-scores above 50 suggest that the individual is socially outgoing and comfortable in a variety of social situations. T-scores between 35 and 50 suggest that the individual is somewhat uncomfortable in social situations, especially when in a group of strangers. T-scores below 35 suggest that the individual is quite insecure and withdraws from or avoids social interactions. Parallel form reliability for the sociability scale ranges from .70 to .81 for high school students. Test-retest reliability ranges from .69 to .71 (Gough, 1987). Two parallel forms of the sociability scale were administered to each subject: cognitions of the self and cognitions of the other. The self social discomfort scale assessed subjects' perceptions of their own comfort levels when placed in social situations. The other social discomfort
scale assessed subjects' perceptions of their best male friends' comfort levels when placed in social situations.

Self-other interactions were measured via a modified version of the Family Functioning Scale developed by Bloom (1985). Bloom derived his scale by factor analyzing items from four popular family measures: The Family Environment Scale (Moos & Moos, 1976), the Family-Concept Q-Sort (Vander Veen, 1965), the Family Adaptability and Cohesion Evaluation Scales (Olson, Bell, & Portner, 1978), and the Family Assessment Measure (Skinner & Steinhauer, 1983). Via a series of factor analyses, he condensed these four measures into one by retaining those five items that loaded most highly on each of 15 factors. The result, therefore, is a single 75 item scale.

For the purposes of the present study, 8 of the 15 factors were of interest: Cohesion, Conflict, Expressiveness, Monitoring, Ignoring, Democratic Family Style, Laissez-Faire Family Style, and Authoritarian Family Style. Examination of these factors lead readily to the conclusion that the Cohesion and Conflict scales were polar opposites, as were the Monitoring and Ignoring scales. Accordingly, in order to avoid both redundancy and
excessive length, the scales that were in opposition were pitted against each other in an either/or format (See Appendix A for measure). Furthermore, since the three Family Style scales (Democratic, Laissez-Faire, and Authoritarian) represented three substantively different approaches to family interaction, these scales were also reformatted so that the respondent was obliged to select one of these alternatives. Finally, 16 items that tapped family affection and attention were taken from (and modified in the same either-or format as the other items) the Self-Report Family Instrument (Beavers, Hampson, & Hulgus, 1985). The resulting measure, therefore, consisted of 26 multiple choice items with five interaction styles: Cohesive/Confictual, Monitoring/Ignoring, Affection/Distancing, Expressive/Inhibited, and Democratic/Laissez-Faire/Authoritarian. Two parallel forms of this questionnaire were administered to each subject: Family Style and Family Ideal. The Family Style questionnaire assessed subjects' perceptions of the ways in which family members currently interact with each other. The Family Ideal questionnaire assessed subjects' perceptions of the ways in which family members would interact with each other if it were an ideal family.
Procedure:

Subjects were asked to participate in a study that looked at the ways in which they thought about themselves, their friends, and their families. Five dollars were offered as payment for their time and effort. Once an adolescent agreed to participate in the study, parents' or guardian's written permission was obtained before the assessment began.

Each adolescent participated in one sixty minute session. The measures were individually administered in either the first offenders program facility or in the recreation center. All questionnaires were read aloud by one of two female examiners to insure that each boy understood each item.

The intelligence test was administered first to avoid any problems with fatigue or loss of interest. The self-report form of the behavior questionnaire developed by Loeber et. al. (1988) was administered next, after which the adolescents were asked to respond to the anger measure based on their perceptions of how they cope with their anger. They were then asked to respond to the anger
measure based on their perceptions of how their best male friend copes with his anger. Next, the family style questionnaire was administered to all subjects in order to assess perceptions of their current family interaction style. Following completion of this questionnaire, subjects were asked to respond to the same questionnaire based upon how their family would interact if it was an ideal family. Finally, the sociability scale was administered. Adolescents were first asked to complete the sociability scale based on their perceptions of themselves. They were then asked to respond based on their perceptions of how their best male friend might respond. Any questions that arose were answered both during and after testing. Parents completed the parent report behavior measure at home and returned the questionnaire by mail. Any questions the parents had were answered by phone.
Results

The present study addressed three questions: 1) are there social cognitive differences between antisocial youths as a whole and normal control youths, 2) are there social cognitive differences among subgroups of antisocial youths, and 3) can social cognitive functioning reliably discriminate among the subgroups of antisocial youths? Three categories of social cognition were examined: cognitions of the self, cognitions about others, and cognitions about self-other interactions. Within the categories of self cognitions and cognitions of others, two domains of comparison were employed: anger style and social discomfort. Within the category of cognitions about self-other interactions, two domains of comparison were also employed: family style and family ideal.

Data are presented in three sections. The first presents data concerning social cognitive differences between antisocial youths as a unified group and normal controls. The second presents data concerning social
cognitive differences among the subgroups of antisocial adolescent males and the normal controls. The final section presents data concerning the utility of employing variables that assess social cognitive functioning as a means of discriminating among subgroups of antisocial males.

**Antisocial Versus Normal Controls**

Data comparing antisocial youths as a unified group and the normal controls are presented in five sections: demographic variables, cognitions of the self, cognitions about the other, comparisons between cognitions of the self and other, and finally, cognitions of self-other interactions.

**Demographic Variables.** Preliminary analyses of variance revealed no significant effects for age ($\bar{X}=13$ years, 6 months, SD= 1 year, 1 month, or IQ ($\bar{X}=94.6$, SD=6.16) (see Table 1).

Demographic differences between the antisocial youths as a unified group and the normal controls were examined
via chi square analyses. The demographic variables included in the analyses were parents income, occupation, and education. Significant differences were found for mother's income ($\chi^2 (4, N=101)=17.90, p>.01$), father's income ($\chi^2 (4, N=101)=17.96, p>.01$), father's education ($\chi^2 (4, N=101)=29.31, p>.001$), and father's occupation ($\chi^2 (4, N=101)=9.76, p>.05$) (see Table 3). In general, antisocial youths live in families whose parents have lower incomes and whose fathers have lower levels of education and occupation than do the normal control youths. Because some of the tables on which the chi square analyses were performed contained empty cells, the resultant chi square statistic may have been artificially inflated. Chi Square is a statistic that is very sensitive to minor deviations from statistical independence. Accordingly, a measure of the strength of the statistical relationship between the variables was computed. In particular, Goodman and Kruskal's lambda was calculated for each significant Chi Square. Lambda measures the proportional reduction in error obtained when parental information is used to predict subgroup membership. For mother's income, $\Lambda = .241$; for father's income, $\Lambda = .207$; for father's education, $\Lambda = .138$; and for father's occupation, $\Lambda = .103$. Thus, error reduction ranges from
10 to 24 percent when demographic variables are used to predict group membership.

Insert Table 3 about here

Cognitions of the Self

To assess differences between antisocial and normal youths on cognitions of the self, a multivariate analysis of variance (MANOVA) was performed on the five anger variables (anger-out, anger-in, anger reflect, anger-withdraw, and anger-action) and the one social discomfort variable. (see Tables 4 & 5).

Insert Tables 4 and 5 about here
Anger Style. No significant main effects were found for the five anger variables. The antisocial youths did not differ from the normal controls on their perceptions of how they handle anger.

Social Discomfort. No significant differences were found on the social discomfort measure. The overall mean T-score was 41. All youths perceived themselves as feeling somewhat uncomfortable in social situations.

Cognitions of the Other

To assess differences between antisocial and normal youths on cognitions of the other, a MANOVA was performed on the five anger variables and the social discomfort variable.

Anger Style. No significant differences between the two groups were found. Antisocial and normal youths perceived their best friends' responses to anger in the same manner.

Social Discomfort. No significant differences between the two groups were found. The overall mean T- Score was
39. Both antisocial and normal youths perceived their best friends' as feeling somewhat uncomfortable in social situations.

Cognitions of Self vs. Other

In order to determine whether youths perceive themselves in the same way that they perceive their friends, repeated measures ANOVAs were performed on each of the five anger-styles and the social discomfort measure. Perceptions of the self vs. perceptions of the other served as the repeated measure for each scale.

Anger Style. Repeated measures analyses revealed no significant main effects. Both antisocial and normal youths perceived themselves as coping with anger in the same manner as they perceived their friends.

Social Discomfort. Repeated measures analyses revealed no significant main effects. Both antisocial and normal youths perceived themselves as experiencing the same level of social discomfort as their friends.
Cognitions of Self-Other Interactions

Several analyses were conducted for data concerning cognitions of self-other interactions. First, Chi Square analyses were employed to assess differences between the antisocial and normal groups in each of the five family style dimensions (cohesive/conflictual, monitoring/ignoring, affection/distancing, expressive/inhibited, and democratic/laissez-faire/authoritarian. Next, Chi Square analyses were employed to assess differences in family ideal between the antisocial and normal groups within each of the five dimensions. The Bonferroni procedure was applied to each analysis in order to reduce the probability of Type I errors. This procedure simply involves dividing the acceptable p-value of .05 by the number of analyses you employ. Finally, the McNemar test was used to assess within group differences on perceptions of family style versus family ideal.

Family Style. Chi Square tests performed on the Family Style questionnaire revealed no significant differences between groups. The antisocial and normal groups perceived their families' interaction styles in the same manner.
**Family Ideal.** Chi Square tests performed on the Family Ideal questionnaire revealed significant differences along the monitoring/ignoring dimension, $\chi^2 (1, N=101)=4.454$, $p>.05$ (see Table 6). Youths in the normal control group perceive members of their ideal family as monitoring each others whereabouts, while the antisocial youths show no preference for family members either monitoring or ignoring each other.

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*Insert Table 6 about here*

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**Family Style vs. Family Ideal.** To determine whether youths perceptions of their family style are the same as their perceptions of their family ideal, the McNemar test was performed. Perceptions of family style was compared to perceptions of family ideal for each of the five family variables. The McNemar test revealed no significant differences between the antisocial and normal youths on their perceptions of their family style versus family ideal. In general, all youths preferred living in families
whose interactional styles were similar to the style of interaction their family currently engages in.

Differences Among the Subgroups

In response to the present study's second question (are there social cognitive differences among subgroups of antisocial adolescent youths?), the antisocial youths were divided into subgroups based upon their responses to the Loeber et. al. questionnaires. It will be recalled that four antisocial subgroups were found: confrontative, nonconfrontative, versatile, and abnormal/normal.

To determine whether the particular juvenile charges earned by each youth differed among the subgroups, the specific charges were coded into one of two categories; crimes that were confrontative (i.e. assault, robbery) and crimes that were nonconfrontative (i.e. vandalism, drug use). Differences among the subgroups of antisocial youth with respect to juvenile charge was assessed via a chi square analysis. No significant differences among the subgroups were found (see Table 7). In other words, youths' and parents' perceptions of confrontative or
nonconfrontative general behavioral styles were independent of whether the juvenile charge recorded for a particular youth was confrontative or nonconfrontative.

Insert Table 7 about here

Data assessing differences among the antisocial subgroups and normal controls are presented in five sections: demographic variables, cognitions of the self, cognitions of the other, comparisons between cognitions of the self and other, and finally, cognitions of self-other interactions.

**Demographic Variables.** Demographic differences among the subgroups were examined via chi square analyses. The demographic variables included in the analyses were parents income, education, and occupation. Significant differences were found for mother's income \((\chi^2(20, N=101)=25.47, p>.05)\), father's income \((\chi^2(20, \ldots)\).
N=101)=28.40, p>.05), and father's education (χ² (20, N=101 )=35.83, p>.01). (See Table 8).

Insert Table 8 about here

As previously discussed, chi square is a statistic that is very sensitive to minor deviations from statistical independence. Accordingly, Goodman and Kruskal's lambda was calculated for each significant Chi Square. For mother's income, Lambda=.069; for Father's income, Lambda = .056; and for father's education, Lambda=.222. Thus, the only demographic variable that appears to provide a substantive reduction in error in predicting group membership is father's education. A 22 percent reduction in error is obtained when father's education is used to predict group membership.

Moreover, inspection of the subgroup differences for father's education reveals that there are little, if any differences among the antisocial subgroups. In fact, the
difference appears to be due to fathers of normal youths obtaining higher levels of education than fathers of the antisocial youths. In sum, antisocial youths live in families with a lower socioeconomic status than do the normal control youths.

**Cognitions of the Self**

To assess differences among the antisocial subgroups and the normal controls on cognitions of the self, a MANOVA was performed on the five anger variables (anger-out, anger-in, anger-reflect, anger-withdraw, and anger-action) and the one social discomfort variable. Separate univariate analyses were performed on all significant main effects. (See Tables 9 & 10).

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Insert Tables 9 and 10 about here

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**Anger Style.** Significant main effects were found for the subgroups $F(24,318)=1.94, p>.01$. Separate univariate analyses using the duncan procedure yielded significant
subgroup effects for Anger-Out, $F(4,96)=3.06, p>.05$. The versatile and nonconfrontative youths perceived themselves as expressing their anger in a more overt and direct manner than did the confrontative, abnormal/normal, or normal youths. No differences were found between the versatile and nonconfrontative youths. Similarly, no differences were found between the confrontative, abnormal/normal or normal control youths (see Figure 2).

Insert Figure 2 about here

Univariate analyses using the duncan procedure similarly found a significant subgroup effect for Anger-Reflect, $F(4,96)=4.02, p>.01$. The nonconfrontative and abnormal/normal youths perceived themselves as reflecting upon their anger more than did the confrontative, versatile, and normal youths. No differences were found between the nonconfrontative and abnormal/normal youths. Similarly, no differences were found between the confrontative, versatile, and normal youths (see Figure 3).
Finally, the duncan procedure found significant subgroup effects for Anger-action $F(4,96)=3.37$, $p>.01$. The versatile, nonconfrontative, and abnormal/normal youths perceived themselves as interacting with others when angry more than did the confrontative or normal youths. No differences were found between the versatile, nonconfrontative, and abnormal/normal youths. Similarly, no differences were found between the confrontative or normal youths. (see Figure 4).

**Social Discomfort.** No significant differences were found for social discomfort. The overall mean T-score was
41. All youths perceived themselves as feeling somewhat uncomfortable in social situations.

Cognitions of the Other

To assess differences among subgroups of antisocial youths and the normal controls on cognitions of the other, a MANOVA was performed on the five anger variables and the social discomfort variable.

Anger Style. No significant differences were found for anger style. Youths' perceptions of the ways in which their best friends respond to anger did not discriminate among the subgroups.

Social Discomfort. No significant differences among the subgroups were found. The overall mean T-score was 39. All groups perceived their best friends as feeling somewhat uncomfortable in social situations.

Cognitions of Self vs. Other

In order to determine whether youths perceive themselves in the same way that they perceive their
friends, repeated measures ANOVAS were performed on each of the five anger-styles and the one social discomfort measure. Perceptions of the self vs. perceptions of the other served as the repeated measure for each scale.

**Anger Style.** Repeated measures analyses revealed no significant main effects, although two significant interactions were found (see Figures 5 & 6). First, a group by anger-out interaction occurred, $F(4,27)=2.47$, $p>.05$. The significant interaction was then followed up with a paired t-test for each subgroup. None of the t-tests achieved significance. In other words, the interaction shows that the difference between perception of self and perception of other for one subgroup is not the same as that difference for another subgroup. However, the lack of a significant main effect or significant paired t-tests show that all youths generally perceive both themselves and their friends as engaging in anger-out with the same frequency.

Insert Figure 5 about here
The second significant interaction was found for anger-reflect $F(4,18)=2.52$, $p>.05$. The significant interaction was then followed up with a paired t-test for each subgroup. The t-test for the abnormal/normal youths achieved significance $t(13)=2.30$, $p>.05$. The Abnormal/Normal youths perceived themselves as being significantly less reflective when angry than their friends. No other differences were found, thus, all other subgroups perceive themselves and their friends as engaging in anger-reflect with the same frequency. their anger more than their friends. The Confrontative group, however, perceives themselves as being less reflective than their friends.

Insert Figure 6 about here
Social Discomfort. Repeated measures analyses revealed no significant main effects. All youths perceived themselves as experiencing the same level of social discomfort as their friends.

Cognitions of Self-Other Interactions

Several analyses were conducted for data concerning cognitions of self-other interactions. First, Chi Square analyses were employed to assess differences among the subgroups in each of the five family style dimensions (cohesive/conflictual, monitoring/ignoring, affection/distancing, expressive/inhibited, and democratic/laissez-faire/authoritarian. Next, Chi Square analyses were employed to assess differences among the subgroups in each of the five family ideal dimensions. The Bonferroni procedure was applied to each analysis in order to reduce the probability of Type I errors. Finally, the McNemar test was used to assess within subgroup differences on perceptions of family style versus family ideal.

Family Style. Chi Square tests performed on the Family Style questionnaire revealed significant group differences along the cohesive/conflictual dimension $\chi^2$
(4, N=101)=13.93, p>.01 and the affection/distancing dimension \( \chi^2 \) (4, 101)=13.05, p>.01 (see Table 11). Confrontative, Abnormal/Normal and Normal youths perceive their family interaction styles as being more cohesive and more attentive than do the Covert or Versatile youths.

**Family Ideal.** Chi Square tests performed on the Family Ideal questionnaire revealed significant group differences along the monitoring/ignoring dimension \( \chi^2 \) (4, N=101) =14.44, p>.01 and the affection/distancing dimension \( \chi^2 \) (4, N=101) =12.65, p>.01 (see Table 12). Confrontative and Normal youths prefer families whose members monitor each others whereabouts more than do the Nonconfrontative, Versatile, or Abnormal/Normal youths. In addition, youths in the Versatile group express no preference for living in families that are either affectionate or ignoring, while all other groups prefer to live in families that are affectionate.

**Family Style vs. Family Ideal.** The McNemar test revealed no significant differences within the subgroups when comparing family style vs. family ideal. In general, all youths preferred living in families whose interactions
were similar to the style of interaction their family currently engages in.

**Discriminating Among the Subgroups**

To assess the utility of employing social cognitive functioning as a means of discriminating among the subgroups, three discriminant function analyses were performed. The first utilized the three antisocial subgroups traditionally found in the literature (confrontative, nonconfrontative, and versatile). Because the present study uncovered a fourth antisocial group (abnormal(normals)), a second discriminant function analysis was performed that included all four antisocial youths. This analysis would determine whether this fourth antisocial subgroup can be discriminated from the three traditional subgroups. Finally, the four antisocial subgroups and the normal control group were included in a discriminant function analysis. This analysis would determine whether the normal controls from the present study could be discriminated from the four antisocial subgroups.
Discriminating among three antisocial subgroups. A discriminant analysis was computed using all social cognitive variables to determine if the three antisocial subgroups generally found in the literature can be distinguished from each other. A forced entry procedure was used. Seven variables contributed to the discrimination. Two involved cognitions of the self: Anger-out $F(2,55) = 4.83, p>.05$ and Anger-action $F(2,55) = 5.58, p>.01$. One involved cognitions of the other: Anger-out $F(2,55) = 4.24, p>.05$. Two involved family style: Cohesive/Conflictual $F(2,55) = 7.25, p>.01$, and Affection/Distancing $F(2,55) = 6.49, p>.01$. Finally, two involved family ideal: Monitoring/Ignoring $F(2,55) = 4.56, p>.05$ and Affection/Distancing $F(2,55) = 6.81, p>.01$. The overall predictive model was significant ($\chi^2 (44, N=58) = 61.857, p>.05$). The model correctly classified 92 percent of the Confrontative youths, 83 percent of the Nonconfrontative youths, and 75 percent of the Versatile youths. The overall correct classification rate was 84.48 percent.

Discriminating among the antisocial subgroups. A discriminant analysis was computed using all social
cognitive variables to determine if the antisocial subgroups can be distinguished from each other. A forced entry procedure was used. Six variables contributed to the discrimination. Two involved cognitions of the self: Anger-out $F(3, 68) = 3.97, p > .05$ and Anger-action $F(3, 68) = 3.07, p > .05$. Two involved family style: Cohesive/Conflictual $F(3, 68) = 5.21, p > .01$, and Affection/Distancing $F(3, 68) = 4.15, p > .01$. Finally, two involved family ideal: Monitoring/Ignoring $F(3, 68) = 3.43, p > .05$ and Affection/Distancing $F(3, 68) = 4.15, p > .01$. The overall predictive model was significant ($X^2 (66, N=72) = 91.794, p > .05$). The model correctly classified 85 percent of the Confrontative youths, 58 percent of the Nonconfrontative youths, 70 percent of the Versatile youths, and 71 percent of the Abnormal/Normal youths. The overall correct classification rate was 73.61 percent.

Discriminating among all of the subgroups. A discriminant analysis was computed using all social cognitive variables to determine if the subgroups can be distinguished from each other. A forced entry procedure was used. Eight variables contributed to the discrimination. Three involved cognitions of the self: Anger-out $F(4, 96) = 3.064, p > .05$, Anger-reflect $F(4, 96) =$
4.024, p>.01, Anger-action $F(4, 96) = 3.370, p>.05$. One involved cognitions of the other: Anger-out $F(4,96) = 2.480, p>.05$. Two involved family style: Cohesive/ Conflictual $F(4,96) = 3.841, p>.01$ and Affection/ Distancing $F(4,96) = 3.56, p>.01$. Finally, two involved family ideal: Monitoring/Ignoring $F(4,96)=4.01, p>.01$ and Affection/Distancing $F(4,96)=3.44, p>.01$. The overall predictive model was significant ($\chi^2 (88, N=101)=123.462, p>.01$). The model correctly classified 65 percent of the Confrontative youths, 50 percent of the Nonconfrontative youths, 65 percent of the Versatile youths, 57 percent of the Abnormal/Normal youths, and 55 percent of the Normal controls. The overall correct classification rate was 59.41 percent.

In sum, social cognitive variables discriminate among the three antisocial subgroups traditionally found in the literature with over 84% accuracy. When the abnormal/normal subgroup found in the present study is included in the analysis, prediction drops to just over 73% accuracy. Finally, when all four antisocial subgroups and the present normal control group are included, prediction based on social cognitive variables is capable with approximately 59% accuracy.
Discussion

The present study addressed three questions: 1) are there social cognitive differences between antisocial youths as a whole and normal control youths, 2) are there social cognitive differences among subgroups of antisocial youths, and 3) can social cognitive functioning reliably discriminate among the subgroups of antisocial youths? Results from the present study will be discussed by addressing these three questions.

Before discussing the current findings, it is important to note that the current study focused exclusively on perceptions. Except for the specific juvenile charges each youth incurred, reality for this particular sample is unknown. The specific charge recorded for each youth may or may not be representative of their characteristic behavioral style; it simply may be the act for which they got caught. Accordingly, data from this study cannot address the question of the correspondence between reality and the youths' perceptions of reality.
Antisocial versus Normal-Control Youths

When differences between antisocial youths as a whole (i.e. collapsing across subgroups) and the normal control group were analyzed, only one comparison regarding social cognition achieved statistical significance. When asked to imagine an ideal family, the antisocial youths were equally likely to choose living in a family whose members monitored each others whereabouts as they were to choose living in a family whose members ignored each other. In contrast, the normal controls preferred to live in a family whose members monitored each others whereabouts.

Given the existing literature on antisocial youths, it is surprising that the present study only found one difference between the antisocial and normal-control youths. Perhaps the normal control sample used in this study is not "normal" after all. That is, perhaps the only difference between the two samples is that the normal control youths have not been caught engaging in antisocial acts. Another explanation for the lack of differences between the groups may be that black, inner-city, adolescent males all hold similar social cognitions. A third explanation for the lack of differences between the
antisocial and normal control groups is that measures chosen for the present study may not be sensitive enough to the social cognitive differences that do exist.

Despite the lack of social cognitive differences between the groups, demographic differences between the antisocial and normal-control youths did emerge. Fathers of the normal control group obtained higher levels of education, occupation, and income than did fathers of the antisocial youths. In addition, mothers of the normal youths obtained higher incomes than mothers of the antisocial youths. That is, normal control youths live in families with a higher socioeconomic status than the antisocial youths. This difference emerged despite the fact that all subjects lived in the same catchment area.

Differences Among Subgroups

In contrast to the one social cognitive difference found when the antisocial youths were treated as a unified group, when subgroups were used (Confrontative, Nonconfrontative, Versatile, and Abnormal/Normal), a number of statistically significant differences emerged. Each subgroup will be considered in turn.
Confrontative Youths. The confrontative youths responses to the questionnaires were contrary to expectations. With regard to anger style, they did not perceive themselves as expressing their anger in an overt or direct manner. In fact, they perceived themselves as engaging in a relatively narrow array of responses when angered, with no one anger style predominating. The confrontative youths' perception of not behaving in a direct or overt manner when angered is surprising for two reasons. First, their antisocial behaviors are direct and overt in nature. Second, data from observational studies consistently find confrontative youths living in homes where aggression and fighting is a frequent part of everyday life; direct and overt expressions of anger are modelled in the home.

The confrontative youths perceptions of their family style and family ideal were also contrary to expectations. They perceived their families' interaction styles as predominantly cohesive and affectionate. In addition, they perceived their ideal family as one characterized by high levels of affection and monitoring. These findings are particularly provocative given the data from observational studies which consistently find confrontative youths
living in homes where aggression and fighting is a frequent part of every day life, and where monitoring is inconsistent. Clearly, the current data point to the necessity of maintaining a distinction between the behavioral observations of an objective researcher and the subjective interpretations of those behaviors by an individual living in that family. Contrary to observers reports, confrontative youths do not report their families as engaging in conflictual interactions. Instead, they claim that family members get along well with each other and express affection for one another.

**Nonconfrontative Youths.** The nonconfrontative youths perceived themselves as engaging in a wide array of responses when angered, regardless of the social desireability of that response. They reported themselves as engaging in direct and overt responses when angered in addition to reflecting upon their anger. Their perceptions of themselves as engaging in direct and overt responses when angered is surprising for two reasons. First, their antisocial behaviors are covert or "sneaky" in nature, not direct. Second, the existing literature finds nonconfrontative youths living in families where direct or overt interactions are either rare or nonexistent. That
is, they do not have models for direct or overt expressions of affect in the home.

In contrast to the confrontative youths who see their families as primarily cohesive, the nonconfrontative youths perceived their families interaction styles as neither primarily conflictual nor primarily cohesive. The nonconfrontative youths perceive their current family style as affectionate, as do the confrontative youths. This finding is surprising given data from observational studies which find, consistently, that the nonconfrontative youths live in families characterized by neglect. Again the distinction between the observations of researchers and the subjective interpretations of individuals living in the family must be recognized.

Nonconfrontative youths perceive the ideal family as affectionate, however, they do appear to be mixed in their preference for family members to either monitor or ignore their behavior. The lack of importance they place on being monitored is consistent with the type of antisocial behavior the noneconfrontative youths engage in, namely, those emitted outside the direct scrutiny of others. Accordingly, whether or not they are monitored is probably
not a particularly relevant concern; they will find a way to engage in their type of antisocial behaviors regardless of the degree of parental monitoring.

Versatile Youths. With respect to anger style, the versatile youths perceived themselves as expressing their anger in a more overt and action-oriented manner than did the other subgroups. They also perceived themselves as less likely (than other subgroups) to express anger using socially appropriate strategies. This finding is consistent with expectations and with the existing literature. Given that the versatile youths engage in the largest repertoire of antisocial behaviors and come from families who engage in the most deviant interaction styles, it follows that they would perceive themselves as engaging in the most deviant responses to anger (i.e., they would be more likely to fight when angry, and less likely to talk with someone about their anger).

Youths in the versatile group did not indicate any family style as dominant, nor did they indicate preference for an ideal family's interaction styles. Nevertheless, the observational literature describes the versatile youths as living in families characterized by high levels
of coercive behaviors, little, if any supervision, and poor parenting skills. Given these findings, the current data is, again, contrary to expectations.

*Abnormal/Normal Youths.* The abnormal/normal youths perceived themselves as primarily engaging in socially appropriate responses to anger. They even perceived themselves as engaging in more socially appropriate responses to anger than their best friends. Their families' interaction styles were perceived as cohesive and affectionate. Their ideal families' interaction style was neither predominantly monitoring nor ignoring. Given that this subgroup was created from the data in the present study, there are no available studies from which comparisons can be made. However, the social cognition literature concerning the impact of self perception on behavior may provide an explanation for this finding. According to the present data, youths in this subgroup deny behavior problems. They also perceive their anger responses and their families interaction styles in the most socially appropriate manner. That is, the data suggest they perceive themselves as essentially "normal". Nevertheless, their juvenile charge is a clear indication that they have violated social norms.
How can one address this seeming contradiction? Perhaps this group of youths are involved with a deviant peer group. It may be that they engaged in antisocial behaviors with their friends, but that they have not fully accepted their peer groups mores. Another interpretation may be that these youths are denying or ignoring the impact of their charge. Perhaps they are refusing to accept the label of deviant that they earned with their antisocial behavior and subsequent juvenile charge. In other words, their cognitions of themselves are not consistent with their behavior. This inconsistency may bode well for this group of youths if their self perceptions as essentially normal inhibit them from engaging in future antisocial acts. Future studies will need to address this possibility by assessing the recidivism rate among these youths.

**Normal Control Youths.** The normal-controls' perceive themselves as having a smaller repertoire of anger responses than do the Nonconfrontative, Versatile or Abnormal/Normal youths. One can not tell, from these data, whether this is because the normals have less to be angry about, and therefore engage in fewer overall anger-coping
responses, or because they have found that the responses they do have are sufficient to reduce their anger.

They perceive their current families as cohesive and affectionate, and their ideal families would be affectionate and would monitor each others whereabouts. These findings are consistent with expectations, and suggest that the normal controls live in families characterized by positive interactions.

In sum, compared to analyses that ignore subgroup differences in social cognitive functioning, analyses that utilize those differences produced substantially more statistically significant findings. It should be noted that comparisons between the antisocial group as a whole and the normal controls were based on sample sizes of 72 and 29, respectively. On the other hand, comparisons among the subgroups of antisocial youths were based on a sample sized of 26 for the Confrontative youths, 12 for the Nonconfrontative youths, 20 for the Versatile youths, and 14 for the Abnormal/Normal youths. It should also be noted that statistically significant differences are less likely with smaller sample sizes than they are with larger ones. The current findings, therefore, strongly suggest that
important differences among the subgroups are masked when antisocial youths are treated as a unified group.

**Discriminating Among Subgroups**

In further support of the utility of employing a multidimensional approach to understanding antisocial adolescent behaviors, membership in an antisocial subgroup was predicted with almost 74 percent accuracy when the social cognitive variables were used as predictors. Moreover, when prediction was based on only the three antisocial subgroups commonly discussed in the literature (confrontative, nonconfrontative and versatile), accuracy was improved to over 84 percent. However, when prediction was based on the four antisocial subgroups and the normal control group, accuracy decreased to only 59 percent. One reason for this drop in predictive accuracy is that the normal control youths may, in fact, not be normal at all. It is possible that the only difference between the antisocial and normal youths is that the normals have not been caught committing a crime.

In sum, results from the present study offer a significant contribution to the current field. It highlights the primary importance of exploring
adolescents' perceptions of their social world and of not relying on insights gained solely through observational data. An unacknowledged and unstated assumption has permeated the literature on antisocial youths, namely that the youths' interpretations or perceptions of the meaning or nature of their family's interaction patterns coincides with those of outside observers. The hypotheses originally offered for the present study were based on these observations. However, the current results demonstrate the egocentric nature of that assumption. Youths' perceptions of their family interactions do not coincide with the interactions coded by outside observers. For example, observational studies show that Confrontative youths live in families in which conflict is frequent. In the present study, however, these youths do not perceive their families as engaging in conflictual interactions. In fact, they perceive them as cohesive and affectionate.

Another interpretation for the disparity between the current data concerning youths' perceptions and the data from observational studies is that these differences are an artifact of the procedure employed in placing the youths into the confrontative and nonconfrontative categories. It will be recalled that youths were
categorized as confrontative based on parent reports, and as nonconfrontative based on self reports. Such a procedure, while supported by prior research (Farrington, 1973; 1983; Kazdin, Esveldt-Dawson, Unis, & Rancurello, 1983; Loeber & Schmalling, 1985a; Patterson, 1982; Reid & Patterson, 1976), leaves open the possibility that the youths categorized as confrontative do not perceive themselves as such. In fact, as previous studies would predict, a disparity between the youth and parent reports does exist. Therefore, it may not be surprising that the confrontative youths' reported social cognitions did not coincide with expectations.

Nevertheless, the nonconfrontative category was based on youth reports. Despite the fact that they do perceive themselves as nonconfrontative, their reported social cognitions did not coincide with expectations either. Thus, the necessity of distinguishing between a participants perceptions and observers judgements must again be highlighted.

Finally, the possibility exists that the youths' responses to the questionnaires were either an effort at wish fulfillment or a denial of the reality of their
current family interaction style. Further studies are necessary to address these possibilities.

Limitations of the present study:

Four limitations of the present study are readily defined. First, data were collected via self-report measures. It is therefore important to acknowledge the possibility that subjects responded to the questions in the manner they assumed was socially desirable. This seems unlikely, however, since differences among subtypes were found. It is not likely that social desirability would differentially affect the subgroups. Second, because data were collected in the inner-city of Baltimore, the current findings may not be generalizable outside of a black, inner-city environment. Third, the normal control youths in the current study may not be different from the antisocial youths. That is, the only difference between the normal and antisocial youths may be that the normal controls have not been caught. Finally, causality can not be determined from the data presented, as the design was essentially correlational in nature. It is not clear, therefore, whether social cognitions are causally implicated in the particular antisocial behavior youths engage in, or whether the particular behaviors are
causally implicated in the development of social cognitions. It may also be, that both social cognitions and antisocial behaviors are caused by some third, unassessed factor.

Future Directions

The present study highlights the importance of recognizing adolescents' perceptions of their families' styles of interaction. A logical next step, therefore, is to assess parents' perceptions of those interactions. In addition, intervention studies utilizing differential methods based upon subgroup membership should also become an area of active study. Moreover, the present study found a fourth antisocial subgroup that had not previously been discussed in the literature. Future studies should assess the validity of this subgroup and explore other differences that may exist between those youths and the other antisocial subgroups. Finally, during data collection, two perceptions held by the antisocial youths became clear. First, they seem to perceive the world as unfair. Second, they do not perceive themselves as having any ability to control their environment or the outcome of their lives. Future studies should address these belief systems and determine whether they also discriminate among subgroups of antisocial youths.
References


95


FIGURE 1. A representation of social cognition.

from: Flavell, 1985

S represents the Self
O represents the Other

$$\rightarrow$$ represents a person's beliefs, inferences, and conceptualizations about the inner psychological processes or attributes of humans.

$$\longrightarrow$$ represents a person's overt social acts.
FIGURE 4

Sell - Anger - Action
FIGURE 6

Anger - Reflect

108
Table 1

Means and Standard Deviations of Age and IQ

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**Table 2**

Demographic Variables
### Table 3

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### Table 4
Social Cognition: Antisocial vs. Normal Controls

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<th>Normal (n=29)</th>
</tr>
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<tr>
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<td>M</td>
<td>SD</td>
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</tr>
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</tr>
<tr>
<td>Anger-action</td>
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<td>2.37</td>
</tr>
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<td>Family Ideal</td>
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<tr>
<td>----------------------</td>
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<td>--------------</td>
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<td></td>
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<td>Normal</td>
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<td>Cohesive</td>
<td>68.1%</td>
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</tr>
<tr>
<td>Conflictual</td>
<td>31.9%</td>
<td>27.6%</td>
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<tr>
<td>Monitoring</td>
<td>58.3%</td>
<td>31.0%</td>
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<tr>
<td>Ignoring</td>
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<tr>
<td>Affection</td>
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</tr>
<tr>
<td>Distancing</td>
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<tr>
<td>Expressive</td>
<td>59.7%</td>
<td>79.3%</td>
</tr>
<tr>
<td>Inhibited</td>
<td>40.3%</td>
<td>20.7%</td>
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<td>Democratic</td>
<td>45.8%</td>
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<td>Laissez-Faire</td>
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<tr>
<td>Authoritarian</td>
<td>33.3%</td>
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### Table 6

**Family Ideal**

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Ignoring</td>
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<td>20.7%</td>
</tr>
<tr>
<td>Monitoring</td>
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<td>79.3%</td>
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Table 7
Juvenile Offenses*

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1 Handgun Violation</td>
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</tr>
<tr>
<td>3 Assault</td>
<td>1 Auto Theft</td>
</tr>
<tr>
<td>5 Auto Theft</td>
<td>2 Breaking and Entering</td>
</tr>
<tr>
<td>1 Breaking and Entering</td>
<td>1 Vandalism</td>
</tr>
<tr>
<td>3 Vandalism</td>
<td>2 Larceny</td>
</tr>
<tr>
<td>1 Firesetting</td>
<td>2 Disruptive School Behavior</td>
</tr>
<tr>
<td>2 Theft</td>
<td>2 Truancy</td>
</tr>
<tr>
<td>2 Larceny</td>
<td></td>
</tr>
<tr>
<td>1 Shoplifting</td>
<td></td>
</tr>
<tr>
<td>3 Disruptive School Behavior</td>
<td></td>
</tr>
<tr>
<td>1 Truancy</td>
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<td>1 Drug Possession</td>
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</table>

<table>
<thead>
<tr>
<th>Versatile</th>
<th>Abnormal/Normal</th>
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</thead>
<tbody>
<tr>
<td>6 Assault</td>
<td>1 Handgun Violation</td>
</tr>
<tr>
<td>3 Auto Theft</td>
<td>1 Assault</td>
</tr>
<tr>
<td>3 Breaking and Entering</td>
<td>2 Auto Theft</td>
</tr>
<tr>
<td>4 Vandalism</td>
<td>3 Breaking and Entering</td>
</tr>
<tr>
<td>1 Firesetting</td>
<td>2 Vandalism</td>
</tr>
<tr>
<td>3 Theft</td>
<td>1 Larceny</td>
</tr>
<tr>
<td>1 Larceny</td>
<td>1 Shoplifting</td>
</tr>
<tr>
<td>2 Shoplifting</td>
<td>2 Disruptive School Behavior</td>
</tr>
<tr>
<td>1 Trespassing</td>
<td>1 Drug Possession</td>
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</table>

*Note: The number of offenses may not equal the number of youths in the group because some youths received more than one charge.
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<thead>
<tr>
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<td>5.50</td>
<td>6.00</td>
<td>6.50</td>
<td>7.00</td>
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<tr>
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<td>4.50</td>
<td>5.00</td>
<td>5.50</td>
<td>6.00</td>
<td>6.50</td>
<td>7.00</td>
<td>7.50</td>
<td>8.00</td>
</tr>
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<td>5.50</td>
<td>6.00</td>
<td>6.50</td>
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<td>7.50</td>
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<td>8.50</td>
<td>9.00</td>
</tr>
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<td>6.50</td>
<td>7.00</td>
<td>7.50</td>
<td>8.00</td>
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<td>9.00</td>
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Table 9
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</tr>
<tr>
<td>Nonconfrontable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Versatile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Montoring</th>
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</tr>
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<tbody>
<tr>
<td>Confrontable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonconfrontable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Versatile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ignoring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Confrontable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonconfrontable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Versatile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Family Ideal

Table 12
Appendix A

Students described themselves when they felt angry or furious. Read each statement and then circle the answer to show how often you feel or act in the way described when you are angry or furious.

There are no right or wrong answers. Do not spend much time on any one statement. For each item, circle the answer that best describes how you generally act or feel when you are angry.

<table>
<thead>
<tr>
<th></th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I am angry, I express my anger</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>2. When I am angry, I keep things in</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>3. When I am angry, I try to be calm and think about whatever angered me</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>4. When I am angry, I pout or sulk</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>5. When I am angry, I withdraw from people</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>6. When I am angry, I say mean or hurtful things to people</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>7. When I am angry, I try to control my temper so I can handle the problem</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>8. When I am angry, I do things like slam the door</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>9. When I am angry, I boil inside but don't show it</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>10. When I am angry, I argue with others</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d</td>
</tr>
<tr>
<td>11. When I am angry, I usually hold in bad feelings about people, but I don't tell anyone about it</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>12. When I am angry, I try to relax and think why am I angry</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>13. When I am angry, I hurt or damage whatever makes me very angry</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>14. When I am angry, I secretly criticize other people</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d</td>
</tr>
<tr>
<td>15. I am angrier than I'm willing to admit</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d</td>
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</tbody>
</table>

121
<table>
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<th></th>
<th></th>
<th>Almost Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. When I am angry, I keep my head cool to figure out how I can handle the problem.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>17. When I am angry, I talk to the person who angered me at a later time.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>18. When I am angry, I do things without thinking more than people realize I do.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>19. When I am angry, I instantly try to think about what got me angry.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>20. When I am angry, I lose my temper.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>21. When I am angry, I will usually tell others how I feel.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>22. When I am angry, I try to get calm even though I was treated unfairly.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>23. When I am angry, I say nasty things.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>24. When I am angry, I feel hurt and stay silent to the person who angered me.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>25. When I am angry, I may yell but I try to figure out what the problem is.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>26. When I am angry, I get into a fight.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
<tr>
<td>27. When I am angry, I get back at the person who made me mad.</td>
<td></td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
<td>d.</td>
</tr>
</tbody>
</table>
Now think of your best male friend when he is either angry or furious. Read each statement and then circle the answer to show how often your best friend feels or acts in the way described when he is angry or furious.

There are no right or wrong answers. Do not spend much time on any one statement. For each item, circle the answer that best describes how your best friend generally acts or feels when he is angry.

1. When my best friend is angry, he expresses his anger........................................... a. b. c. d.
2. When my best friend is angry, he keeps things in.... a. b. c. d.
3. When my best friend is angry, he tries to be calm and think about whatever angered him............. a. b. c. d.
4. When my best friend is angry, he pouts or sulks..... a. b. c. d.
5. When my best friend is angry, he withdraws from people........................................... a. b. c. d.
6. When my best friend is angry, he says mean or hurtful things to people.................................. a. b. c. d.
7. When my best friend is angry, he tries to control his temper so he can handle the problem............. a. b. c. d.
8. When my best friend is angry, he does things like slam the door....................................... a. b. c. d.
9. When my best friend is angry, he boils inside but doesn't show it........................................ a. b. c. d.
10. When my best friend is angry, he argues with others. a. b. c. d.
11. When my best friend is angry, he usually holds in bad feelings about people, but doesn't tell anyone about it......................................................... a. b. c. d.
12. When my best friend is angry, he tries to relax and think about why he is angry....................... a. b. c. d.
13. When my best friend is angry, he hurts or damages whatever makes him very angry............................ a. b. c. d.
14. When my best friend is angry, he secretly criticizes other people................................. a. b. c. d.
<table>
<thead>
<tr>
<th></th>
<th>Almost</th>
<th>Some</th>
<th>Often</th>
<th>Almost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>times</td>
<td></td>
<td>Always</td>
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<tr>
<td>15.</td>
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<td>16.</td>
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<tr>
<td>27.</td>
<td>When my best friend is angry, he gets back at the person who made him mad.</td>
<td>a.</td>
<td>b.</td>
<td>c.</td>
</tr>
</tbody>
</table>
Now we want you to think about your family. Choose the answer that best fits the way your family is now.

1. In our family:
   a. There are few rules in our family.
   b. It is hard to know what the rules are in our family, because they always change.
   c. Family members make the rules together.

2. In our family:
   a. Family members are not punished or reprimanded for doing something wrong.
   b. Family members are severely punished for anything they do wrong.
   c. Parents and children discuss together the type of punishment someone will get.

3. In our family:
   a. There is strict punishment for breaking rules.
   b. Family members decide together what will happen when rules are broken.
   c. It is not clear what will happen when rules are broken.

4. In our family:
   a. Parents check with the children before making important decisions.
   b. Parents made all of the important decisions.
   c. People made their own decisions without getting approval from the others.

5. In our family:
   a. It is hard to get away from each other.
   b. It was difficult to keep track of what everyone else was doing.

6. In our family:
   a. We never know where any of the family members are.
   b. It seems like there is never any place to be alone.

7. In our family:
   a. Family members are extremely independent.
   b. Family members feel guilty if they want to spend some time alone.

8. In our family:
   a. It is difficult for anyone to take time away from the family.
   b. We are almost never expected to spend time together as a whole family.

9. In our family:
   a. Family members are expected to have the approval of others before making decisions.
   b. We do not check with each other when making decisions.
10. In our family:
   a. We really get along well with each other.
   b. Family members often lose their tempers at each other.

11. In our family:
   a. We fight a lot.
   b. There is a feeling of togetherness.

12. In our family:
   a. Family members really help and support one another.
   b. We often criticize each other.

13. In our family:
   a. Family members would sometimes get so angry, they would throw things or hit each other.
   b. Family members hardly ever get so angry that they would throw things or hit each other.

14. In our family:
   a. We seem to avoid contact with each other whenever we are at home.
   b. We do a lot of things together when we are at home.

15. In our family:
   a. We never tell each other what is on our minds.
   b. We feel free to say what is on our minds.

16. In our family:
   a. We do not discuss our problems.
   b. We discuss our problems with each other.

17. In our family:
   a. We discuss problems and usually feel good about the solutions.
   b. We rarely come up with good solutions to handle our problems.

18. In our family:
   a. It is important for everyone to express their opinion.
   b. No one expresses their opinions.

19. In our family:
   a. We do not tell each other about our personal problems.
   b. We often talk to each other about our personal problems.

20. In our family:
   a. We pay attention to each other's feelings.
   b. We ignore each other's feelings.

21. In our family:
   a. We touch and hug each other.
   b. We rarely touch and hug each other.

22. In our family:
   a. Even when we feel close, we are embarrassed to admit it.
   b. We feel comfortable telling each other that we feel close.
23. In our family:
   a. We are proud of being close.
   b. We do not feel close.

24. In our family:
   a. We easily express warmth and caring towards each other.
   b. It is difficult for us to express warmth and caring towards each other.

25. In our family:
   a. We pay attention to each other and listen to what is said.
   b. We usually ignore each other.

26. In our family:
   a. We worry about hurting each other's feelings.
   b. We usually don't worry about each other's feelings.
Now think about the way your family would be if it were an ideal family. Choose the answer that best fits the way an ideal family would be.

1. In the ideal family:
   a. There would be few rules to follow.
   b. It would be hard to know what the rules were because they would always change.
   c. Family members would make the rules together.

2. In the ideal family:
   a. Family members would not be punished or reprimanded for doing something wrong.
   b. Family members would be severely punished for anything they did wrong.
   c. Parents and children would discuss together the type of punishment someone would get.

3. In the ideal family:
   a. There would be strict punishment for breaking rules.
   b. Family members would decide together what would happen when rules were broken.
   c. No one would know what would happen when rules are broken.

4. In the ideal family:
   a. Parents would check with the children before making important decisions.
   b. Parents would make all of the important decisions.
   c. Family members would make their own decisions without getting approval from the others.

5. In the ideal family:
   a. It would be hard to get away from each other.
   b. It would be difficult to keep track of what everyone else was doing.

6. In the ideal family:
   a. We would never know where any of the family members were.
   b. There would never be any place to be alone.

7. In the ideal family:
   a. Family members would be extremely independent.
   b. Family members would feel guilty if they wanted to spend some time alone.

8. In the ideal family:
   a. It would be difficult for anyone to take time away from the family.
   b. Family members would almost never be expected to spend time together as a whole family.

9. In the ideal family:
   a. Family members would be expected to have the approval of others before making decisions.
   b. Family members would not check with each other when making decisions.
10. In the ideal family:
   a. Family members would really get along well with each other.
   b. Family members would often lose their tempers at each other.

11. In the ideal family:
   a. Family members would fight alot.
   b. There would be a feeling of togetherness.

12. In the ideal family:
   a. Family members would really help and support one another.
   b. Family members would often criticize each other.

13. In the ideal family:
   a. Family members would sometimes get so angry, they would throw things or hit each other.
   b. Family members would never get so angry that they would throw things or hit each other.

14. In the ideal family:
   a. Family members would avoid contact with each other whenever they were at home.
   b. Family members would do alot of things together when they were at home.

15. In the ideal family:
   a. Family members would never tell each other what is on their minds.
   b. Family members would feel free to say what is on their minds.

16. In the ideal family:
   a. Family members would not discuss their problems.
   b. Family members would discuss their problems with each other.

17. In the ideal family:
   a. Family members would discuss problems and usually feel good about the solutions.
   b. Family members would rarely come up with good solutions to handle others’ problems.

18. In the ideal family:
   a. It would be important for everyone to express their opinion.
   b. No one would express their opinions.

19. In the ideal family:
   a. Family members would not tell each other about their personal problems.
   b. Family members would often talk to each other about their personal problems.

20. In the ideal family:
   a. Family members would pay attention to each other’s feelings.
   b. Family members would ignore each other’s feelings.

21. In the ideal family:
   a. Family members would touch and hug each other.
   b. Family members would rarely touch and hug each other.
22. in the ideal family:
   a. Family members would never admit to feeling close with each other.
   b. Family members would feel comfortable telling each other that
      they felt close to each other.

23. In the ideal family:
   a. Family members would feel proud of being close.
   b. Family members would not feel close.

24. In the ideal family:
   a. Family members would easily express warmth and caring towards each other.
   b. It would be difficult for family members to express warmth and caring
      towards each other.

25. In the ideal family:
   a. Family members would pay attention to each other and listen
      to what is said.
   b. Family members would usually ignore each other.

26. In the ideal family:
   a. Family members would worry about hurting each other's feelings.
   b. Family members would not worry about each other's feelings.
Now we would like to ask you some questions about how you feel about various situations you might encounter in daily life. Read each sentence and decide if that sentence is either TRUE for you or FALSE for you. Then circle the answer that is best for you.

1. I enjoy social gatherings. True False
2. A person needs to "show off" a little now and then. True False
3. When in a group of people, I usually do what the others want rather than making suggestions. True False
4. As a little child, I used to be able to go to my parents with my problems. True False
5. I seem to be about as capable and smart as most others around me. True False
6. I like school. True False
7. It is very hard for me to tell anyone about myself. True False
8. I usually feel nervous and ill at ease at a formal dance or party. True False
9. I have at one time or another in my life tried my hand at writing poetry. True False
10. I like to be the center of attention. True False
11. I can be friendly with people who do things which I consider wrong. True False
12. I have no fear of going into a room by myself where other people have already gathered and are talking. True False
13. When in a group of people, I have trouble thinking of the right things to talk about. True False
14. I am a slow learner in school. True False
15. I am likely not to speak to people until they speak to me. True False
16. It makes me uncomfortable to show off at a party even when others are doing the same sort of thing. True False
17. I have a tendency to give up easily when I meet difficult problems. True False
18. I would like to wear expensive clothes. True False
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<tr>
<td>19. I like parties and socials.</td>
<td>True False</td>
</tr>
<tr>
<td>20. I would like to belong to several clubs or lodges.</td>
<td>True False</td>
</tr>
<tr>
<td>21. I am quite often not in on the gossip and t'k of the group I belong to.</td>
<td>True False</td>
</tr>
<tr>
<td>22. Once in a while I laugh at a dirty joke.</td>
<td>True False</td>
</tr>
<tr>
<td>23. If given the chance, I would make a good leader of people.</td>
<td>True False</td>
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<tr>
<td>24. At times, I have worn myself out by undertaking too much.</td>
<td>True False</td>
</tr>
<tr>
<td>25. I love to go to dances.</td>
<td>True False</td>
</tr>
<tr>
<td>26. People pretend to care more about one another than they really do.</td>
<td>True False</td>
</tr>
<tr>
<td>27. I like to read about history.</td>
<td>True False</td>
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<td>28. I am a good mixer.</td>
<td>True False</td>
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<tr>
<td>29. In school I find it very hard to talk in front of a class.</td>
<td>True False</td>
</tr>
<tr>
<td>30. I am bothered by people outside, on buses, in stores, etc., watching me.</td>
<td>True False</td>
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<tr>
<td>31. I have no fear of water.</td>
<td>True False</td>
</tr>
<tr>
<td>32. It is hard for me to act natural when I am with new people.</td>
<td>True False</td>
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</tbody>
</table>
Now think about how your BEST FRIEND would feel about various situations he might encounter in daily life. Read each sentence and decide if that sentence is either TRUE for him or FALSE for him. Then circle the answer that is best for him.

1. My best friend enjoys social gatherings.  
   True False

2. My best friend needs to "show off" a little now and then.  
   True False

3. When in a group of people, my best friend usually does what the others want rather than making suggestions.  
   True False

4. As a little child, my best friend used to be able to go to his parents with his problems.  
   True False

5. My best friend seems to be about as capable and smart as most others around him.  
   True False

   True False

7. It is very hard for my best friend to tell anyone about himself.  
   True False

8. My best friend usually feels nervous and ill at ease at a formal dance or party.  
   True False

9. My best friend has at one time or another tried his hand at writing poetry.  
   True False

10. My best friend likes to be the center of attention.  
    True False

11. My best friend can be friendly with people who do things which he considers wrong.  
    True False

12. My best friend has no fear of going into a room by himself where other people have already gathered and are talking.  
    True False

13. When in a group of people, my best friend has trouble thinking of the right things to talk about.  
    True False

14. My best friend is a slow learner in school.  
    True False

15. My best friend is not likely to speak to people until they speak to him.  
    True False

16. It makes my best friend uncomfortable to show off at a party even when others are doing the same sort of thing.  
    True False

17. My best friend has a tendency to give up easily when he meets difficult problems.  
    True False

18. My best friend would like to wear expensive clothes.  
    True False
19. My best friend likes parties and socials. True False
20. My best friend would like to belong to several clubs or lodges. True False
21. My best friend is not usually in on the gossip and talk of the group he belong to. True False
22. Once in a while my best friend laughs at a dirty joke. True False
23. If given the chance, my best friend would make a good leader of people. True False
24. At times, my best friend has worn himself out by undertaking too much. True False
25. My best friend loves to go to dances. True False
26. People pretend to care more about one another than they really do. True False
27. My best friend likes to read about history. True False
28. My best friend is a good listener. True False
29. In school my best friend finds it very hard to talk in front of a class. True False
30. My best friend is bothered by people outside, on busses, in stores, etc...watching him. True False
31. My best friend is not afraid of water. True False
32. It is hard for my best friend to act natural when he is with new people. True False
Appendix B

Implications for clinical intervention may be derived from the current data concerning social cognitive differences among the subgroups. The current findings suggest that in planning differential means of intervention, one may utilize each subgroup's perception of the ideal family as a reference point. In this way, one may utilize their ideal as a means of engaging them and of meeting their stated needs. The need to plan interventions according to antisocial subgroup was highlighted in a recent article by Dumas (1990).

When planning therapeutic interventions with the Confrontative youths, leverage may be gained by utilizing the fact that they place great importance on family cohesiveness and affection. Consequently, parent training techniques that emphasize communication skills and positive attention would seem to be the most effective method of intervention. Communication training should focus on three main goals. First, parents should learn to give their children specific, concrete, behaviorally
oriented requests. For example, instead of saying "be good" or "stay out of trouble", parents could say: "come home right after school", or "put the clothes that are under your bed into the laundry basket". Second, communication training should teach parents how to word statements in a more positive frame. For example, instead of saying "you're a rotten kid, you always get into trouble", parent might instead say: "I worry and care about you and I get angry when you do things that get you into trouble." Finally, learning effective means of negotiating family rules in a manner other than through conflict and aggression need to be taught. Once families learn how to solve problems without using coercive behaviors, the use of confrontative antisocial behaviors may decrease. For more information on parenting programs that focus on the above, the reader is referred books by Patterson and Forgatch (Forgatch & Patterson, 1989; Patterson & Forgatch, 1987).

Interventions for the Nonconfrontative youths should be planned with appropriate sensitivity to the differences between their perceptions of their family style as primarily negative and their desire for family interactions to be more affectionate. The fact that they
do not see parental monitoring as important should be considered in conjunction with the fact that their parents are poor monitors.

Again, parent training interventions may work well with these families, although the interventions would need to be more intensive than for the confrontative families. In addition to the training discussed above, parent-training for the nonconfrontative families would need to include three additional steps. First, parents need to be persuaded that monitoring their child's whereabouts is necessary regardless of their child's attitudes about being monitored. Their child's disinterest in being monitored may be in response to their belief that they can do what they want regardless of monitoring. This belief system must be proven wrong if parents hope to prevent their children from becoming recidivists. Second, parents need to be taught how to effectively monitor their children.

Finally, parents would also need to learn how to improve the quality of time they spend with their adolescent by instituting such ideas as "special time" (Patterson & Forgatch, 1987). In brief, special time
Involves setting a circumscribed amount of time aside per day to do things with your child that are enjoyable. Special time can be effective for children and for adolescents. For example, parents of the nonconfrontative youths may set aside 20 minutes a day, after dinner, to play nintendo, talk about school, or watch TV together. The point is to create a time, each day, where the parent and child enjoy an activity together. This time may not be used to discuss misdeeds or punishments.

Intervention for the Versatile youths is clearly the most challenging. Not only are the parents seemingly uninterested in their children, but the children are clearly not invested in their families. In other words, each member of the family has written the other members off. For intervention to be successful, therefore, an attempt must be made to help the child attach to some type of family, be it via foster care, a group home, or residential treatment. Interestingly, they seem to be the group of antisocial children that would most benefit from residential treatment. However, since the Confrontative youths are most likely to get caught they are also most likely to get sent to residential treatment facilities.
Parents of the Abnormal/normal youths do not perceive their children as engaging in problematic behaviors. The children perceive themselves as nonproblematic as well. Nevertheless, they have engaged in antisocial behaviors. The therapeutic task, therefore, is to mobilize the family into increasing the level of monitoring they engage in. It is also important to help the parents recognize the seriousness and potential danger of their child's behaviors.
Footnote

For each subgroup, separate correlation coefficients were calculated between the youths' perceptions of their confrontative and nonconfrontative behaviors and their parents' perceptions of those behaviors. For the confrontative, nonconfrontative and abnormal/normal youths, none of the correlations were significantly different from zero (range .17 to .24). For the versatile youths, the Pearson correlation between youth and parent reports for confrontative behaviors was significant ($r=.600$, $p<.01$).