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BORROWING OR STEALING: THE LANGUAGE AND MORAL
DEVELOPMENT OF CRIMINALS AND NONCRIMINALS

DISSERTATION

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The present study was undertaken (1) to compare the connotative meanings criminals attach to a sampling of concepts with those meanings attached by noncriminals, and (2) to examine the possible relationship between moral development and criminal behavior. One hundred thirty four male subjects completed the Wide Range Achievement Test-Revised (Reading Section); a personal data sheet; the Ammons Quick Test-Form I; the Criminal Semantic Inventory; the Test for Criminal Cognitions; and the Sociomoral Reflection Questionnaire. Subjects were divided into four groups (Noncriminals, Against Person Group, Against Property Group, and Against Statute Group) on the basis of history of criminal conviction.

A one-way MANOVA was conducted on each of the 16 concepts under investigation. Significant differences were found for five concepts. In addition, criminals were found to differ significantly from noncriminals on level of moral development.

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF ILLUSTRATIONS	v
CHAPTER	
I. INTRODUCTION	1
Review of the Literature	
Social-Psychological Theories	
Psychodynamic Theories	
Organic/Psychophysiologic Theories	
Cognitive Developmental Theory	
Kohlberg's Theory of Moral Development	
Critique of Kohlberg's Moral Development	
Research	
Methods for Assessing Moral Development	
A Developmental Approach to Social	
Intelligence	
Criminality and Moral Development	
Criminal Thinking Model	
Semantics	
Research Hypothesis	
II. METHOD	56
Subjects	
Instruments	
Procedure	
III. RESULTS	68
IV. DISCUSSION	75
Recommendations for Future Research	
APPENDICES	90
REFERENCES	174

LIST OF TABLES

Table		Page
L-1.	Averages of the Four Groups on the Three Dependent Measures	148
L-2.	Summary of Multivariate Analysis of Variance	159
L-3.	Summary of Univariate Analysis of Variance on Three Dependent Variables	160
L-4.	Rotated Factor Loadings for the Factor Structure of the Semantic Differential Scales	163
M-1.	Chi-Square Analysis of Part 1 and Part 2 of the TCC	173

ILLUSTRATION

Figure	Page
1. Continuum of Criminality	49

CHAPTER I

INTRODUCTION

Individuals who demonstrate a disregard for the rules and laws of society rarely seek treatment. Rather, the criminal justice system often provides the catalyst necessary which is intended to result in behavior change (Gold & Petranio, 1980). The focus of the judicial system's treatment of antisocial behavior reflects an antiquated, obsolete and inadequate approach. Research has usually shown either that the criminal justice system has been ineffective (Cleckley, 1982; Gold, 1970; Gold & Williams, 1969; West & Ferrington, 1977) or at best, neutral in changing antisocial behavior patterns (Gold & Petranio, 1980).

In the area of moral development, Kohlberg (1976) along with Gibbs and Widaman (1982) have made important contributions which have impacted research involving treatment programs in correctional settings. The outcome of a study by Gibbs (1988) has been the development of a multicomponent treatment program for incarcerated juvenile delinquents. An important aim for this program has been to investigate the impact to treatment programs in developing social skills and improving sociomoral reasoning.

Yochelson and Samenow (1976) undertook a 14-year phenomenological study with the intent to describe the patterns of thought and behavior that are characteristic of the criminal. The result of this study has been the development of a criminal thinking model. This model has undergone limited testing within a narrow scope (Diaz, 1983; Krusen, 1988) to determine empirical validity. Studies such as these are intended to improve the probability of treatment success.

The specific aim of the present study was to provide empirical support for the work of Yochelson and Samenow. Additionally, this study attempted to formulate a link between the cognitive-developmental approach to social intelligence (Gibbs & Widaman, 1982) and the Criminal Thinking Model. Ultimately, with this conceptual linkage, the overall objective of this research was to identify additional therapeutic techniques used to change antisocial behavior patterns in correctional, mental health and other settings.

Review of the Literature

Individuals who commit antisocial acts present several problems in traditional forms of therapy. They tend to be fundamentally different from individuals who usually seek clinical help. Aside from the intrinsic obdurateness found in individuals with antisocial behavior patterns, the

clinician is usually denied ordinary access to the clients as they rarely seek treatment. As these individuals do not voluntarily seek help, the therapist is able to make contact with these clients only under exceptional circumstances. Most often they are referred by a component of the criminal justice system (i.e., lawyer, judge, and/or probation or parole officer). Though mandated to seek an evaluation and/or treatment, they are often uncooperative and can, with manipulative motives, feign good behavior. In either case, these individuals convey false information, fake responses, and are generally noncompliant with treatment recommendations (Cleckley, 1982).

Contributing to treatment failure is the clinical training of psychologists. Normally, clinical training runs a standardized route with a standard type of client. This standard client is hurting emotionally, recognizes internal problems, and is willing to accept the therapist as an expert. With these characteristics, this client has historically been either a woman or child. To compound the problem, women have been socialized to have personality traits that society has deemed unhealthy and counter-productive. These traits include submissiveness, emotional dependency, repression of anger, responsibility for the welfare of others, fear of success and conformity to society's standards of behavior, appearance and beliefs

(Horner, 1972; Weissman, 1979). These are not the traits found in males who commit antisocial acts.

It is not surprising then, that psychologists have not been very successful in treating clients who demonstrate antisocial behaviors. Such individuals are the characterological antithesis of the client most clinicians have been trained to help. The vast majority of individuals with antisocial tendencies are male, have not sought treatment voluntarily, are reluctant to accept anyone, other than themselves, as an expert, believe everyone else has a problem and feel little, if any, guilt, remorse, or anxiety about their worth as persons (Yochelson & Samenow, 1976). In conclusion, the problem for clinicians is twofold: treating a client who does not believe a problem exists and treating a client with theories and training that are designed for a different clientele.

Numerous theories have been proposed in an attempt to clarify both the etiology and the personality dynamics of those individuals with antisocial behaviors who engage in illegal activity, hereinafter referred to as criminals. In general, these theories can be divided into four distinct categories: sociologic, organic, psychodynamic, and cognitive-developmental. The general focus of this research was to provide empirical support for the fourth of

these categories: the cognitive-developmental approach of explaining the etiology and personality dynamics which lead to criminal behavior.

The need for a theory which explains antisocial behavior is four-fold: first, it helps to organize the known data; second, it helps provide direction for further exploration and research; third, that aids in the planning and implementation of programs aimed at treating and preventing antisocial behavior; and fourth, it helps to account for individual differences in the way people interpret and respond to social forces. Mawson and Mawson (1977) suggest progress in theory development has been thwarted as no accurate definition and no clear distinction between the primary disorder and its secondary features is available. The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1987) has provided a definition for the antisocial personality disorder; however, antisocial behavior tends to be elusive in that it is a socially defined phenomenon closely tied to cultural values. These cultural values may be quite variable. They are often interpreted by those social agencies responsible for regulating social interaction. In certain cultures, a given behavior might be considered deviant simply due to a lowered tolerance for deviance. This section attempts to organize and categorize

psychological theories which explain antisocial behavior.

Social-Psychological Theories

In general, social psychologists have attempted to identify those social forces which influence an individual's behavior in either a social or antisocial direction. These theorists tend to link crime to environmental conditions. Typically, the highest frequency of crime is expected within the lowest socioeconomic stratum of society. The etiology of crime is placed outside the individual. Though monetary considerations are often at the heart of the sociologic controversy, other variables are considered. For example, special emphasis is often given to the individual's need for involvement in groups or "gangs" as a source of gratification. Short and Strondbek (1965) proposed that the family has not given the individual the necessary skills for dealing with the middle class educational system. The school is therefore rejected as an agent of socialization, and an organized "gang," along with its rules and values is substituted.

In contrast, Miller (1958) rejected the idea that gang membership contributed to a rejection of the majority culture. Rather, he proposed gang membership with subsequent antisocial behavior should be viewed as an attempt at conformity. Individuals in these groups gain increased amounts of satisfaction through affiliation with

the "in group." Sutherland and Cressey (1978) attributed additional importance to the peer environment. This affiliation exposes individuals to a unique set of motivations, attitudes, and techniques. These theorists suggested that increased exposure to criminal norms of gangs increases the probability of subsequent criminal behavior.

Dumpson (1952) contended that antisocial behavior is simply a result of environmental pressures. He suggested that individuals do what is necessary to "fit in." Society, in general, might consider gang activities to be antisocial; however, within the framework of the gang environment this behavior is necessary for adaptation and survival. Milgram (1963) found that direct urging increases aggressive or antisocial behavior. Gangs may represent one form of third party instigation.

Using a nondelinquent population living in a high delinquent area, Reckless, Dinitz, and Murray (1956, 1957) studied the concept of self as an "insulator" against delinquency. Their hypothesis suggested that the acquisition and maintenance of a socially acceptable or appropriate self concept is important in preventing delinquency. In another study (Reckless, Dinitz, & Kay, 1957) involving delinquent juveniles, this hypothesis was supported when these juveniles were found to have an

inappropriate concept of self and other. These authors suggested that the appropriateness or inappropriateness of these concepts influences an individual's subsequent response to environmental stimuli.

An additional factor which increases the probability of antisocial behavior is deindividuation. When people can not be identified, they are more likely to perform antisocial acts. One can expect increased expression of verbal and physical aggression when conditions preserve the anonymity of the aggressor (Cannavale, Scarr, & Pepitone, 1970; Mann, Newton, & Innes, 1982). A good example is provided by a demonstrating Ku Klux Klan member using a hood during demonstration. This deindividuation also applies to victims. Increased antisocial behavior also occurs when either the victim is unable to identify an individual perpetrator (i.e., a crowd) or the victim cannot be seen.

Gold (1963) proposed a social psychological theory which viewed the role of the father of a criminal as an important variable. An advocate of this theory would anticipate that the father (1) would not be viewed as a successful provider, (2) was not influential in family decisions, and/or (3) did not have status in the community. Cortes and Gatti (1971) tended to support the work of Gold (1963). These theorists have suggested criminal behavior

is a direct result of defective psychological development fostered within the family. If instability, absence of a male figure, marital tension, patterns of a need for immediate gratification, and ineffective child-rearing methods are present within the family of origin, they are believed to contribute to the development of impulsive, immoral, and hedonistic individuals.

An additional corollary to the role the family plays in influencing subsequent antisocial behavior attributes importance to the quality and availability of recreational facilities in a community. Gold viewed crime and delinquency to be inversely proportional to these facilities.

Becker (1968) developed a theory which is often referred to as the "economic theory." It is assumed that human behavior occurs as a result of weighing the cost of behavior against the rewards gained from that behavior. If an individual expects the reward for a behavior to outweigh its cost, then it is likely the individual will engage in that behavior. Class position is believed to influence this cost/benefit ratio. It has been suggested that, due to various class and individual traits, lower class individuals are unable to interpret correctly a cost/benefit ratio. This failure makes it difficult for the individual to

foresee potential costs or penalties; therefore, there is an increased probability of antisocial behavior.

Though social psychologists are reluctant to accept an instinctual basis for violent or antisocial behavior, many have accepted the position that aggression can be learned. In 1939 a Yale University group (Dollar, Doob, Miller, Mower, & Sears, 1939) proposed that frustration causes aggression. As an outgrowth of this study, Miller (1941) suggested that aggression is always a consequence of frustration; however, frustration can lead to consequences other than aggression. Over the years this frustration-aggression theory has been modified through research which has simply concluded that frustration and aggression are related; however, frustration is not the only cause of aggression.

Berkowitz (1965) attributed aggression to the aggressive cues in the environment and internal emotional states (Berkowitz, 1965). A theory of aggression which stresses this interaction of internal drives and external events was developed by Zillman (1979). According to his excitation-transfer theory, the expression of aggression is dependent upon learned dispositions or habits, a source of energization or arousal, and a person's interpretation of the arousal state.

The abuse of either drugs or alcohol has been identified as a facilitator for antisocial behavior. Alcohol in moderate amounts tends to lower the threshold for aggressive behavior (Taylor, Ganmon, & Capasso, 1976); marijuana, in contrast, tends to reduce aggressive behavior (Taylor & Ganmon, 1975, 1976; Taylor, Vardaris, Rastich, Gammon, Crankston, & Lubetkin, 1976). No matter the consequence of substance abuse, clearly behaviors associated with the acquisition of illicit drugs can be labeled antisocial.

In the United States, the racial nature of crime is an extremely sensitive issue. Uniform Crime Reports (FBI, 1989) data have suggested that whites are arrested for 53 percent of violent crimes and 63 percent of property crimes; blacks are arrested for 46 percent of violent crimes and 35 percent of property crimes. Today's criminologists have recognized that the data can not simply be explained by the criminal justice system's differential treatment of individuals based on race (Sampson, 1985).

Black individuals make up 12 percent of the general population (U.S. Bureau of the Census, 1989). There are many theories which attempt to explain the apparent discrepancy between arrest percentages and population make-up. One approach has been to trace the black experience in America (Comer, 1985). When thrust into a slave society,

black individuals were forced into dependency and negative self images by powerful and aggressive forces--white slave owners. Once emancipated, black individuals were shut out of the social and political mainstream. The result was frustration and anger. Forced into segregated communities, the black individual failed to develop an ability "to cope with the larger society or to identify with black and white leaders and institutional achievements. Frustration and anger is taken out on people most like self" (Comer, 1985, p. 81).

Silberman (1979) also viewed inordinate percentages of crime within the black population to be related to the black experience. He has suggested these individuals tend to be violent because of their treatment by society. These individuals were violently uprooted from Africa. Slavery was maintained by violence means. Following emancipation, the Ku Klux Klan intimidated the black individual through violence. Retaliation by the black individual led to a harsh reaction from the white controlled government. For the blacks, survival required development of their own set of norms, values, and traditions. In the 1960's, black individuals began to recognize the value of being "bad." Black individuals learned that whites could be intimidated by their very presence.

Ironically, however, violence and hostility among black individuals does not seem to have the same cathartic effect which is experienced by other races or cultures. Instead, violence rather than dissipating rage seems to evoke more aggression (Siegel, 1986). Some criminologists (Wolfgang & Ferracuti, 1967) have suggested that the black experience has contributed to a subculture of violence. Membership not only promotes violence but demands violence.

Other theories do not attribute criminal behavior and/or violence to the experience of blacks in this society. Sample and Philip (1984) attribute crime to economic differences, social disorganization, aspects of personality, and effects of physical and biological characteristics. These authors do consider subcultural adaptations, racism, and discrimination to be influential forces contributing to criminal behavior.

Several authors have studied the intra-racial versus inter-racial nature of crime. Until recently, rape (Amir, 1971), homicide (Pokorny, 1965; Wolfgang, 1961), and assault (Pittman & Handy, 1964) were considered to be crimes of an intra-racial nature. Recent researchers (Chilton & Gavin, 1985; O'Brien, 1987; Wilbanks, 1985) have suggested that improper interpretation of available data has resulted in the erroneous assumption that violent crimes are primarily intra-racial in nature.

O'Brien (1987) has suggested that the apparent intraracial nature of crime is a function of physical and social segregation of blacks from whites in the United States. When population distributions are taken into account, this author has suggested crime can be interpreted as interracial in nature.

Yochelson and Samenow (1976) summarized the limitations of sociologic approaches. Over several decades, the primary focus has been on environmental factors. This approach tends to negate individual differences in response to environmental stimuli. While crime remains high in "ghetto" areas, only a minority of the ghetto population is criminal. Sociological theories have been unable to explain these individual differences when exposure within the environment would seem to be the same. Additionally, Jeffery (1959) criticized this approach as it does not explain criminal acts which occur without prior exposure to crime, crimes of passion, or differential patterns of crime associated with age, sex, urban area, and minority group.

Yochelson and Samenow (1976) were critical of theories that rooted crime in the economic system. In recent years, the prosperity of this nation has soared and yet, with this economic prosperity, society has seen an increase in the crime rate. Increasingly, violent crimes are being

committed by individuals from affluent families.

Interestingly, Yochelson and Samenow (1976) credit criminals themselves with developing a sociologic theory which explains crime. It is not uncommon for the criminal to rationalize and excuse antisocial behavior using sociologic theoretical explanation. This explanation takes responsibility for behavior out of the hands of the perpetrator and lays blame on the victim, society.

Matza (1964), a sociologist, proposed that the overwhelming influence within a society is the direction of responsible patterns of behavior. Regardless of societal influences, individuals engage in criminal activity; as such, free will and desire to become delinquent play important roles in the commission of criminal acts. This concept was supported by Reckless and Dintz (1972) when they addressed individual patterns of response.

Psychodynamic Theories

The psychodynamic theories have focused on motivational factors, the efforts to resolve conflicts, and the unconscious forces which influence behavior. These theories address those affective elements which influence personality development in an antisocial direction. These theories suggest the antisocial act is a symptom of intrapsychic discomfort caused by conflict rather than an indication of the personality structure of the individual.

There is emphasis on understanding the source of conflict as well as motivational causes of the anxieties which lead to antisocial behavior before change is initiated (Healy & Bronner, 1936).

Early psychodynamic theorists (Johnson & Surek, 1952; Freud, 1955) focused on needs that were being gratified by acting out in antisocial ways. Drive arousal, frustration, and gratification were analyzed and related to early experiences with eating, bowel control, and sexual activity. Redl and Wineman (1952) directed attention to the nature of the need and those elements of the personality that screen, control, and direct impulses. The ego distortions and ego defects in individuals who commit antisocial acts were reported to include (a) a reduced tolerance for frustration, (b) an inability to delay gratification, (c) the inadequate functioning of guilt, and (d) the faulty evolution of self esteem. From a psychodynamic point of view, antisocial patterns of behavior are developed and serve a need for survival in an environment seen as unsatisfying and threatening.

Erickson and Erickson (1957) took these ideas a step further in his concept of the negative identity.

Negative identity is defined as the ego's effort to derive stability and structure through integrating the past, present, and future into a role against society

and its mores, a role seen by delinquents and criminals as preferable to the emptiness and helplessness experienced when one has no identity at all (identity defuseness). The reinforcement of this negative identity by significant figures in the environment serves to perpetuate the antisocial behavior. (Erickson & Erickson, 1957, p. 15)

Glover (1960) explained antisocial behavior as a projection of guilt. Individuals who exhibit antisocial behavior reject their own need to be punished by projecting feelings of guilt on others. Subsequently, the criminal takes on the role of punisher through his antisocial behavior.

Freeman and Sevastano (1970) defined antisocial behavior in terms of unresolved personal conflicts. They studied affluent white suburban adolescent males with no prior criminal contacts. These subjects demonstrated signs of anxiety from an early age. Though they came from intact families, they lacked a dependable parent and were subject to inconsistent parenting practices. These authors maintain their results support a psychodynamic approach in the treatment of unresolved personal conflicts.

The psychodynamic theories have been valuable in highlighting the elements of personality as well as the complex roots of antisocial behavior. Shah (1970) has

suggested these theorists are able to explain differences between male and female delinquent behavior, the causes of criminal behavior in affluent middle-class families, and the sudden violence in otherwise socialized individuals.

Yochelson and Samenow (1976) were critical of a psychodynamic explanation for criminal behavior. They argue that the entire system is reductionistic, adding little to descriptive psychology. Psychoanalytic theory tends to ignore the concept of individual choice and personal responsibility. Additionally, the psychodynamic approach is criticized by Yochelson and Samenow as its tenets have not and/or can not be empirically verified.

Other professionals (Schmideberg, 1960; Glasser, 1965) agreed with Yochelson and Samenow (1976). They contend that the need to understand conflict prior to treatment is unnecessary. These authors along with Yochelson and Samenow have suggested that this theoretical approach to treatment is likely to be used by criminals as an excuse for perpetrating further crimes.

Organic/Psychophysiologic Theories

Early investigations of antisocial behavior sought biological explanations. These early approaches took two forms: some were based on the genetic transmission of antisocial traits while others sought to relate criminal behavior to structural, constitutional characteristics,

such as mental capacity, neural organization, and body type. Each approach ties psychological characteristics which are common to criminals (i.e., motor orientation, inability to delay gratification, and low frustration tolerance) with biological roots.

One of the first theorists to tie body structure to criminal behavior was Lombroso (1912). Lombroso believed his theory was confirmed by histological examination of the cortex. His findings suggest inferior evolutionary status. He believed the histologic structure of the criminal was atavistic and that ideal social conditions had only a limited effect in circumventing inevitable antisocial behavior.

In 1939, Hooten reported results of a survey of 17,077 white American prisoners. Hooten believed in a constitutional inferiority and studied a variety of physical features. He viewed the criminal as a poorer and weaker specimen of mankind who thus tended to be predisposed to commit antisocial acts. Though Sheldon (1949) did not share Lombroso's or Hooten's idea of evolutionary inferiority, he did feel antisocial behavior was related to body build. It was his belief that a particular body build was in some way related to inborn psychological traits. This combination of body

characteristics contributes to an individual's antisocial response to environmental stimuli.

Freedman, Warren, Cunningham, & Blackwell (1988) worked on the premise that cosmetic deformities may represent a handicap that would limit, for some individuals, the availability of opportunities. These authors suggested this limitation could result in frustration which, in some individuals, would lead to aggression and hostility. Freedman et al. (1988) investigated the effects cosmetic surgery might have on recidivism. The recidivism rates in Texas at one year, two years, and three years post incarceration were 14 percent, 52 percent, and 36 percent, respectively. The recidivism rates of the 253 inmate post plastic surgery study population was significantly lower. These rates were 8 percent at one year, 17 percent at 2 years, and 25 percent at 3 years. The investigators suggested that "reducing deformity may lead to an additional change, helping the patient to rid himself of his focus of resentment and self pity" (p. 1114). These attitudinal changes, it was postulated, were responsible for decreased rates of recidivism and therefore more effective criminal rehabilitation.

The biological structure and mechanism underlying the criminal personality was further studied by Cleckly (1959).

He believed that the development of an antisocial personality had biological roots. Support for his view comes in many forms. A greater number of neurological disorders is found in criminals (McCord & McCord, 1956). Additionally, there is a great concern with the XYY chromosome syndrome. This syndrome is associated with hypermasculinity and poor control of aggressive impulses (Jarvik, Kloden, & Matsuyama, 1973). Jarvik and associates have provided an interesting review of this subject in which they predict that persons with an extra Y chromosome constitute a significant proportion of perpetrators of violent crimes. Nielsen and Henriksen (1972) support the work of Jarvik et al. (1973); however, they report higher rates of criminality among those with the XYY syndrome than was earlier published. Montagu (1972) agrees that genes do influence behavior; however, he suggested environmental factors can be modified so as to maintain the antisocial predisposition in a latent state.

Mischel (1961) found delinquents were less able to delay gratification. These subjects preferred immediate gratification on a smaller scale rather than delay gratification for greater reinforcement. This characteristic might help to explain the criminal's apparent disregard for future consequences when exposed to sources of immediate gratification. These results were

later supported by Unikel and Blanchard (1973). Additionally, these investigators identified a racial variable. Where white psychopaths demonstrated a decreased ability to delay gratification when compared to white normals, the relationship was reversed for black psychopaths and normals. These authors suggest a different mechanism may have been operating. They suggest lack of trust in the white experimenters or in any authority figure may have influenced the results. This lack of trust was reported to be a function of repeated reinforcement within this subculture. Miller (1964) summarized the above when he wrote "feelings of the moment rule existence; rightness and wrongness in the world are related more or less exclusively to feeling states" (p. 537).

Some theorists (McCord & McCord, 1964; Craft, 1965; Hare, 1970, 1984) have used the findings of Hebb (1955) to support the idea that events in the brain force stimulus seeking behavior. Hebb proposed an arousal pathway by which sensory excitations reach the cortex and are maintained or adjusted so as to produce optimum effect. Hebb's theory assumes that arousal level and sensory intake are dynamically related in such a way that optimal arousal is maintained. When level of arousal falls below optimum, stimulus seeking behavior increases, which serves to increase arousal. Conversely, when level of arousal rises

above an optimum level, stimulus seeking behavior slows or stops; thus, the level of arousal returns to optimum. Hare (1970) and Laylock (1968) applied Hebb's theory of low level of autonomic arousal to criminals. They suggest the psychopath has pathologically low levels of automatic and cortical arousal. He is hyporeactive when compared to normal individuals, and consequently exists in a chronic state of stimulus seeking behavior. Further, criminals tend to be underreactive to stimuli that noncriminals perceive to be stressful, exciting, or frightening. They therefore require a greater variety and intensity of sensory input in order to maintain the optimal level of arousal.

Quay (1965) agrees that psychopathy is related to a pathologically low level of arousal and/or basal reactivity, and to an extreme need for stimulation. His research has suggested that the impulsivity and lack of tolerance for sameness is the primary and distinctive feature of the antisocial personality. He describes stimulus deprivation experienced by criminals as an unpleasant state. Since this condition is unpleasant, these individuals are motivated to change by seeking stimulation. It is this seeking of added intensity or added need for variability of stimulation which frequently

results in transgressions of both the moral code and legal constraints of a society.

Similarly, Eysenck (1964, 1970) supported a theory which attributed the development of psychopathology to a pathologically low levels of arousal. In general, he described criminals as difficult to condition and lower in automatic responsivity. He suggests these individuals tend to have nervous systems which are congenitally predisposed to develop conditioned responses at a slower rate and of poorer quality; their law abiding counterparts, noncriminals, are able to develop stronger conditioned responses at a faster rate. Eysenck attributes this individual's poor innate ability to become conditioned, along with the failure of societal training, to explain the neurotic and extroverted personality of the psychopath.

Schachter (1971) described sociopaths as blunted in their automatic reactivity. He proposes that these individuals tend to react in a generalized, highly aroused and relatively indiscriminate manner. As such, they have difficulty correlating their physiological responses to specific environmental cues. When individuals are unable to make this differentiation, learning from mistakes becomes difficult.

Eysenck (1970) supported an organic hypothesis which would explain a criminal's seeming lack of impulse control

and failure to learn from experience. He felt there was an innate inability to form conditioned responses. Winkler and Kove (1962) contended that an organic lesion is responsible for aggressive responses to environmental stimuli. Other researchers have attempted to locate an exact intracranial site which contributes to criminality. Delgado (1970) found that stimulation of the amygdala results in outburst of violence. Schalling (1978) found that animals whose amygdala had been surgically removed were more readily able to reject unpleasant stimuli. He proposed that the characteristic electrodermal and cardiovascular changes found in criminals were analogous to the findings in surgically altered animals; thus, these findings support the hypothesis that certain features of the criminal's behavior can be attributed to some form of autonomic nervous system dysfunction.

Brain dysfunction is often studied through the use of electroencephalograms (EEG). Early results of EEG studies (Brown & Soloman, 1942; Hill & Watterson, 1942; Silverman, 1943) contend that abnormal brain function constitutes a significant variable which contributes to criminal behavior patterns. The analyses of EEG data by Hill and Watterson (1942) lead to their speculation that "cortical immaturity" might be a contributing factor to criminality.

The results of EEG research has been quite variable and often contradictory. Since the early 1970's, interest in this line of research seems to have diminished. Rates of EEG abnormality found in noncriminal populations generally range from 5 to 20 percent (Ellingson, 1954). The incidence of EEG abnormalities in criminal populations tends to range from 47 to 58 percent. The abnormalities were reported to be mostly of the nonspecific, diffuse, slow type. In addition, it was noted that there is a tendency toward decreasing rates of EEG abnormalities with increasing age. There was also a significant correlation between an abnormal EEG and (1) a family history of neuropsychiatric disorders and (2) personal histories of severe illness and/or injury. There was found to be no correlation between severity of psychopathy and EEG abnormality. Ehrlich and Keough (1956) studied an institutionalized population of psychopaths. Eighty percent of this population were found to have an abnormal EEG. This group, however, was found to be less deviant and more likely to seek treatment than were its physiologically more stable counterpart. This latter group came to treatment unwillingly, was sexually aloof or perverted, tended toward delinquency and alcoholism, and was socially maladjusted. In common to both groups was rebelliousness, truancy, faulty judgment, resentment and a

low frustration tolerance. In addition, these researchers along with others (Arthurs & Cahoon, 1964) noted similarities between the EEG abnormalities of psychopaths and those of impulsive children. Arthurs and Cahoon studied the psychopathic personality of a population of 20-40 year olds. They concluded that there was a disturbance in the integration of affective and cognitive development. These authors attributed pathology to a constitutional cerebral disorder and/or environmental stress from an early age. Conversely, Winkler and Kove (1967) have suggested that the correlation between the abnormal EEG and abnormal behavior should not be regarded as a cause and effect relationship. They contend that an organic brain lesion, of known or unknown origin, is the agent which causes dysfunctional or aggressive behavior in response to environmental cues.

A number of investigators (Eysenck, 1964; Lykken, 1957; Quay, 1965) have sought to relate certain features of psychopathic behavior to some form of autonomic dysfunction within the body. In most cases it has been assumed that the autonomic nervous system is hyporeactive. As a result, these individuals are deficient in those autonomic correlates necessary for functional responses to environmental cues. In an often cited study, Lykken (1957) attempted to support a psychophysiological approach using a variety of

psychometric measures. He found antisocial individuals demonstrated significantly less anxiety, less galvanic skin response (GSR) reactivity to a conditioned stimulus and less avoidance learning. Lykken's findings regarding lowered GSR reactivity were later replicated by several researchers (Borovec, 1970; Hare, 1968; Schmauk, 1970; Tong, 1959). These findings supported an original hypothesis that the antisocial individual demonstrates defective avoidance learning. In a related study, Hare (1965) monitored the skin conductance of criminals and noncriminals in an aversive conditioning experiment. The results of this study suggest the temporal gradient for fear arousal and response inhibition is higher among criminals thus criminals do not tend to learn from mistakes. This data provides a possible explanation for the recidivism rate among criminals.

Ruilman and Galo (1950) found psychopaths tend to be less stable with regard to heart rates, respiratory rates and blood pressure in response to stimuli; however, this group showed distinctly lowered reactivity of the galvanic skin reflexes. Hare found a lowered heart rate deceleration and no GSR differentiation; while Borovec (1970) indicated a lower initial heart rate change and significantly lower GSR to a tone stimulus. Goldstein (1965) found psychopaths to have a higher heart rate than normals.

Further support of altered autonomic reactivity comes from study of urinary catecholamine release under conditions of stress. Subjects high in psychopathy had conspicuously lower urinary catecholamines when compared to individuals lower in psychopathy when exposed to the same stress (Lidberg, Levenders, and Lidberg, 1978).

Mawson and Mawson (1977) reviewed psychophysiologic literature. They have suggested psychopaths do not demonstrate uniformly low or fixed levels of arousal and are not uniformly hyporeactive in all situations. They have suggested that indeed, psychopaths show a greater range of variability to autonomic functioning than their noncriminal counterparts. These authors propose a dual neuropharmacological arousal model in which psychopathy is viewed as a biochemical disturbance manifested in abnormal oscillations primarily in neurotransmitter functioning, secondarily to hormonal autonomic activity and behavior. While this theory might account for symptoms such as aggressiveness, hyperactivity, and impulsivity, the authors are quick to point out the major distinguishing features of the psychopath; namely, his lack of affect and inability to form close, personal relationships are not explained.

Cognitive Developmental Theory

From a cognitive-developmental point of view, criminal behavior might be described as stunted moral development.

Moral development is a topic which has generated considerable research interest and theory development. A formal definition of morality is a pivotal point for any investigation of moral development and amoral behavior. For example, in pre-scientific periods, philosophers and theologians debated the moral status of children at birth. One has only to look at the doctrines of modern day religions to realize this debate has continued into the twentieth century. Today people seem to be highly opinionated as to what constitutes morality and why individuals deviate from that which is clearly identified by society as legal, ethical and/or moral.

Behaviorists define morality from a conformity point of view. For example, Eysenck (1976) suggested the acquisition of a conscience is an acquired emotional valence. This emotional valence or "conditioned reflex" (p. 109) is experienced as conscience. Along those lines, Berkowitz (1964) defined moral values as "evaluations of actions believed by members of a society to be 'right'" (p. 44). Subsumed in these definitions is the concept of conformity. Should this definition be applied, one could consider the actions of the followers of the charismatic leader, Jim Jones, to be moral. The general response of society against the mass homicides and suicides committed in Jonestown in Guyana would suggest the definition of

morality goes beyond that which is simply described as socially acceptable behavior. Making the same point but in a less dramatic and more familiar manner, Coffin (1973) described an individual who has committed an immoral act. He suggested that one need not be evil, "only a nice guy who is not yet a good man" (p. 39). Coffin was referring to Nixon administration staff member Jeb Magruder when writing of Magruder's role in the Watergate scandal.

How people follow rules and how they develop morally was also studied extensively by Freud in his psychoanalytic theory. Additionally, many learning theorists (Bandura & Walters, 1963; Sears, 1957) have demonstrated a strong interest in the origins of moral reasoning. Learning theories and psychoanalytic theories have presented differing views about the nature of human development. In the area of moral development, learning and psychoanalytic theories seem to have converged as Turiel (1966) points out. To both of these theories, moral development has been achieved when behavior conforms to the rules of society. Using these theories to verify empirically the concept of moral development, the focus would be on overt responses. There would be little need to understand the meaning for the responses.

Another contributor to the topic of moral development was the cognitive-developmental theorist Piaget (1965).

Piaget's theory on moral development was generally consistent with his other theories. He viewed a child's morality as developing along several dimensions. Piaget's overall approach to moral development followed his general organismic views. Under this approach, development occurs not solely as a result of the environment's impact on the individual but also, as a result of interaction between the individual and the environment. The end product of this interaction changes qualitatively as the individual progresses through various developmental stages.

From a cognitive-developmental point of view, a response to a moral situation can be identical at different points in development while the reason and the rationale for the behavior are quite different. As Turiel (1966) argued, "an individual's response must be examined in light of how he perceives the moral situation, what the meaning of the situation is to the person responding, and the relation of his choice to the meaning: the cognitive and emotional processes in making moral judgments" (p. 95).

Kohlberg's Theory of Moral Development

In the Piagetian tradition Kohlberg (1963) presents a theory of moral development. To Kohlberg (1976) "the most essential structure of morality" is the principle of justice, and the "core of justice is the distribution of rights and duties regulated by concepts of equality and

reciprocity" (p. 4). His approach is similar to Piaget's in that (1) his is a general organismic orientation and (2) he is in opposition to psychoanalytic and learning views of moral development.

Kohlberg (1969) believes that as an individual matures, so too, does his moral development. He believes that moral development is based upon moral reasoning. The theory which Kohlberg espouses is based upon 20 years of interviewing children, adolescents and adults. Using the Moral Judgment Interview, a series of stories depicting varying moral dilemmas were presented to a subject. The subject was then asked questions about each dilemma. Based on the responses to the various moral dilemmas, Kohlberg was able to identify six stages of moral reasoning (see Appendix A). Kohlberg proposed that each of these six stages forms a universally invariant sequence. These six stages could then be grouped into three different levels of moral development.

At the first level, the preconventional level, the individual demonstrates no internalization of moral values. Rather, he or she responds to either punishment (stage one) or rewards (stage two) both of which are a consequence of behavior. At the second level, the conventional level, the individual has an intermediate internalization of moral values. He or she selectively abides by either the

standards of other people, such as parents (stage three) or the rules of society (stage four). At the conventional level, it is important to note, the individual is selective in the internalization of the standards by which he or she chooses to abide. At the third level, the post-conventional level, moral values are completely internalized and not dependent upon the standards of others. The individual recognizes a variety of moral options and from these develops a moral code of his own. This code may be the same as that generally accepted by the community (stage five) or it may be more individualized (stage six).

Critique of Kohlberg's Moral Development Research

Various aspects of Kohlberg's theory of moral development have been criticized. First, his view has been described as placing too much emphasis on moral thought and too little emphasis on what should be done from a moral point of view (Gibbs & Schnell, 1985). Gibbs and Schnell stress that one's actions should be considered as well as one's ability to reason through a moral dilemma. Simpson (1976) has suggested Kohlberg's view is too cognitive, disregarding emotion.

A second criticism focuses on the manner in which Kohlberg's data on moral development were gathered. Kohlberg's moral dilemma stories focus on the issues of

family and authority. When Yussen (1977) had adolescents write their own moral dilemmas, a much broader viewpoint was generated. In Yussen's study, adolescents were allowed spontaneously to formulate their own moral dilemmas; the moral issue which generated the most concern was interpersonal relationships rather than authority or family.

Third, Gilligan (1982) suggests that Kohlberg's theory and research relied solely on his longitudinal sample of males to develop his description of moral development (Walker, 1984) and were heavily sex-biased. Gilligan argues that females present unique concerns and perspectives which should be considered in research involving moral development. Gilligan also believes that Kohlberg grossly underestimated the role of interpersonal relationships and care in the development of moral reasoning. However, with regard to sex-bias, Walker (1984) found no significant difference between the sexes in his review of the available research. Similarly, Gibbs, Arnold and Burkhart (1984) found no sex difference in stage level. However, they did report several usage differences in mode of moral judgment expression. Greater use of empathetic role-taking and intrapersonal approval or disapproval justifications by women were reported. These differences did not seem to represent inadequate moral development status for females. Kohlberg (1982) has pointed out that

the lack of stage disparity between sexes does not preclude a difference between men and women. Analysis of content within a stage (e.g., reliance on a particular norm) will be required to determine sex differences.

A fourth criticism of Kohlberg's theory relates to the assumption of universal application. Research (Garbarino & Bronferbrenner, 1976) suggests Kohlberg's work might be more cultural specific than was originally suggested.

A final criticism comes from Rest (1976, 1983) who disagrees with the way Kohlberg assesses the levels of moral development. Rest argues that (a) more than one method should be used to assess moral development and that (b) the dilemmas in Kohlberg's Moral Judgment Interview were not set up with scoring characteristics in mind, making them difficult to quantify and impractical for measuring moral development. In an attempt to remedy these problems, Rest (1970) devised his own measure of moral development, the Defining Issue Test.

Methods for Assessing Moral Development

Contrary to Rest's assessments (1976, 1983), the Moral Judgment Interview and the Standard Issue Scoring version of the Moral Judgment Interview have proven to be highly acceptable research instruments. Nonetheless, as Rest points out, both versions require considerable investments of time, effort, and money in order to yield effective data

collection. Individual administration by trained interviewers is required for most subject populations. Data interpretation requires an expertise gained through workshops given by the Kohlberg group.

Because extensive training is required to use the Moral Judgment Interview, it is a tool of limited practical value; a number of alternative tests which measure moral judgment have appeared in the literature. The most prominent of these is the Defining Issues Test (Rest, Cooper, Coder, Mananz, & Anderson, 1974) which is based on a recognition task. As Rest et al. (1974) point out, the concurrent validity level of this test is not high enough to consider it an equal to the Moral Judgment Interview. This point was reaffirmed by Davidson and Robbins (1978) when only modest correlations were found between the Defining Issues Test and the Moral Judgment Interview.

Gibbs, Widaman, and Colby (1982) pointed out that the low correlation between the Moral Judgment Interview and Defining Issues Test was not surprising as the referent for moral judgment differs for the two tests. Whereas Kohlberg's Moral Judgment Interview elicits reasoning or justificatory judgment to moral situations, Rest's Defining Issues Test assesses the subject's ability to make comparative judgments with respect to a specific moral problem.

The inherent limitations of both the Moral Judgment Interview and the Defining Issues Test gave rise to the design and construction of a simplified group-administrable equivalent of the Moral Judgment Interview (Gibbs, Widaman, & Colby, 1982). The Sociomoral Reflection Questionnaire assesses reflective or justificatory moral judgment. The term sociomoral refers to a method of defining what is morally right or good through an investigation of social interactions. The term reflection, as used to define this test, pertains to the thoughtful judgment required in decision making. Gibbs and Widaman (1982) identified eight norms to which sociomoral reflection are addressed. These norms are affiliation (marriage and friendship), life, laws and property, legal justice, conscience, family affiliation, and contract and property. Norms can be thought of as sociomoral truisms. In general, it is believed that one should save life and obey the law. When, however, two sociomoral truisms are placed in conflict, as is true of situations represented in the Sociomoral Reflection Questionnaire, one is forced into significant reflection, thoughtful consideration of reasons for decision making. It is through the conflict produced by the dilemma that Gibbs, Widaman and Colby (1982) was able to develop a group-administrable, psychometric instrument for measuring levels of moral development.

These authors (1982) refer to moral development as reflective sociomoral thought.

A Developmental Approach to Social Intelligence

From Gibbs' and Widaman's (1982) point of view, sociomoral reflection represents a specific form of social intelligence. This form of social intelligence goes through an evolutionary process from childhood to maturity. The Sociomoral Reflection Questionnaire is presumed to measure the four standard stages through which an individual is capable of progressing (see Appendix B). A sociomoral stage is based upon the understanding of personal relationships, interactions between individuals, and motivating forces common for coordinating actions at difference levels of sociomoral development. Each of the four stages is made up of a group of aspects. An aspect "is a feature of reflective or justificatory sociomoral thought which is functionally integral to a broader structure of thought, i.e., a stage" (Gibbs & Widaman, 1982, p. 26).

At the first of the four stages, human relations are viewed as unilateral interactions among people. Justifications for human behavior tend to be rather simplistic, incomplete, and unqualified. There is an external and authority-oriented character to this first level of development. Five aspects have been identified

which can further describe stage one. Aspect one, unilateral authority, is a simple appeal to authority. The authority is usually assumed and unelaborated. Aspect two, status, provides justification for behavior based on an appeal for a more salient role or status. Aspect three, rules, justifies behavior which is based upon maxim-like rules, prescriptions, or proscriptions. Aspect four, labels, consists of the justificatory use of labels and affective terms. The final aspect of this stage, punitive consequences, is the anticipation of punishment when evaluating the importance of a normative value.

In contrast to stage one, stage two of sociomoral development is characterized by an understanding that human relations can be "two-way." At this stage, sociomoral justification is an outgrowth of the individual's interactions with others. Stage two, like stage one, is a socially primitive stage, as sociomoral motivation at this level can be described as enlightened self interest. The individual functioning at this level recognizes not only immediate but, also, potential future consequences of behavior. Six aspects have been identified to further describe stage two. Aspect one, exchanges, justifies behavior on a "tit-for-tat" exchange or deal-making basis. Aspect two, equalities, represents an emphatically egalitarian response to decision making. Stage two, aspect

three, freedoms, provides for justification based on one's right to unconstrained freedom. Aspect four, preferences, allows one to justify behaviors based on wishes, desires, or inclinations. Aspect five, needs, assumes that needs are necessities. Finally, aspect six, advantages, consists of appeals to the benefits or liabilities inherent in behavior.

In both stage one and stage two a lack of reflective identity is evident. For both stages the individual is at one level or another relating his own perspective to that of another. It is at stage three that Gibbs and Widaman (1982) suggest sociomoral reflective identity first emerges. At this level, the individual is able to transcend one-way and two-way relations and begin to view an all encompassing perspective, in which, mutualities and expectations are manifested through feeling, caring, and conduct. Six aspects of this third stage have been identified. Aspect one, relationships, justifies behaviors based upon judgments made with an understanding of the interaction among people. Aspect two, empathetic role taking, becomes part of sociomoral thought when the individual considers another's welfare. Normative expectations, aspect three, refers to the consequences of behaviors which result when an individual violates expected role-conduct or sentiment. Aspect four, prosocial intentions, represents underlying

motivational features of the personality and is not simply unqualified labels found at stage one. Aspect five, generalized caring, represents those justifications which are expressions going beyond the context of a relationship. Finally, aspect six, intrapersonal approval, is reflected in judgments which make reference to the conscience, self-esteem, or self-disapproval.

Stage three of sociomoral reflection is characterized by a dyadic relationship. At stage four there is an expanded referent which encompasses a more complex network than interpersonal relationships. Seven aspects have been identified which can further describe stage four. Aspect one, societal requirement, includes those judgments which are required in the maintenance of society or the social institution. Aspect two, basic rights/values, allows justification of behaviors based on the rights or values universally recognized by a society. Responsibility, aspect three, is deemed an obligation or commitment to a normative value. Aspect four, character, is reflected in normative judgments based on integrity. Normative justifications for behavior are viewed to be consistent practices in aspect five, whereas arbitrary and subjective actions are unacceptable. Aspect six, procedure equality, complements aspect five. The individual now recognizes not only his debt to society but also society's or the

institution's debt to him. Finally, aspect seven, standards of conscience, is a justification based on appeals to the standards of an individual or personal conscience. Appendix C summarizes the four stages and representative aspects of reflective sociomoral thought.

Criminality and Moral Development

Kohlberg (1976) has argued that conduct cannot be inferred from the stage of moral development. Conduct is modulated by one's moral reasoning and his or her "set of abilities that may be labeled ego controls (i.e., distractability, impulsiveness)" (Bush, Alterman, Power, & Connolly, 1981, p. 269). Bush et al. compared alcoholics, addicts, and socioeconomically matched controls in a study to assess the relationship between moral reasoning and substance abuse. Kohlberg's moral maturity scores were not significantly different for the three groups. These results do not support the common image that alcoholics and drug addicts are less morally developed than other people.

A number of studies (Campagna & Harter, 1975; Emler, Heather, & Winton, 1978; Fodor, 1972; Hudgins & Prentice, 1973; Jurkovic & Prentice, 1974, 1977; Tsujimoto & Nardi, 1978) have investigated the relationship between moral development and criminal behavior. The consensual finding of these studies has been that known delinquents tend to use less advanced forms of moral reasoning than do control subjects.

With the exception of one study (Tsujimoto & Nardi, 1978) all others assumed moral stage related equivalently to all forms of criminal development. This assumption does not seem compatible with Kohlberg's cognitive-developmental approach. Kohlberg (1963) argues that individuals do not differ by incremental degrees in a commitment toward moral norms but in the type of committed morality. It is the intensity of their commitment to moral issues that undergoes a transformation as the individual's understanding of moral issues, and ability to take the role of the other, increases" (Thornton & Reid, 1982, p. 231).

Thornton and Reid (1982) proposed that pre-conventional reasoning would be associated with certain forms of crime, whereas conventional and post-conventional reasoning would elicit crimes of another nature. Their study found a strong association between prudent offending (i.e., robbery, burglary, theft or fraud) and pre-conventional moral reasoning. However, no association could be made between imprudent offending (i.e., murder or rape) and type of moral reasoning. The study tends to reject the hypothesis that moral stage relates equivalently to all forms of criminal behavior.

Recidivism among criminals is high. With this knowledge, the criminal justice system makes decisions daily regarding the release, from correctional facilities, of offenders. Decisions regarding the future management of

offenders is often based on observed behaviors which, clearly, may not represent the actual behavior occurring outside the scope of observation. Spellacy and Brown (1984) attempted to identify those factors which would be of value in predicting recidivism. Using young Canadian offenders, ages 13-17 years, background variables such as race, socioeconomic status, family status, and previous criminal charges were not found to relate significantly to the presence or absence of antisocial behaviors in the year following institutionalization. Rather, tests of academic achievement and mental control proved to be better predictors of recidivism.

Similar studies reported in the United States (e.g., Wolfgang, Figlio, & Sillin, 1972; Petersilla, Greenwood, & Laving, 1977; Wolfgang, 1977; Hindelang, 1978) cite social and demographic variables as contributing factors to recidivism. Yochelson and Samenow (1976) are quick to point out that criminal thinking is a cross cultural phenomenon.

Gibbs, Arnold, Ahlborn, and Cheesman (1984) proposed a treatment program for incarcerated juvenile delinquents designed to raise the level of sociomoral reasoning. It was assumed that by raising sociomoral reasoning, one could reduce recidivism. J. C. Gibbs (personal communication, October 24, 1988) stated that a single component approach such as this was clearly not an appropriate method for

reducing recidivism. Moral-cognitive growth (Gibbs, Arnold, Ahlborn, and Cheesman, 1984) must be supported by social-environmental change if behavioral change is to be sustained.

Cognitive-developmental theorists such as Piaget, Kohlberg, and Gibbs have attempted to develop a theory to explain moral development. An interesting corollary to a developmental theory is how that theory translates into actual behavior patterns. The theory of moral development unfortunately provides little insight into the actual personality make-up of individuals with varying levels of integration of moral values. As demonstrated by their behavior, criminals would seem to have little or no internalization of moral values.

Criminal Thinking Model

Yochelson and Samenow (1976) undertook a 14 year study intended to provide a description of criminal thinking patterns and behavior. The work of Yochelson and Samenow, though extensive, is a phenomenological study and not an empirical one. The conclusions of this study were based upon the authors' interviews with a total of 247 criminals and their families. The population primarily consisted of male offenders incarcerated at Saint Elizabeth's Hospital in Washington, D.C. The subject pool originally consisted of 13 individuals who had been hospitalized after having been adjudicated not guilty, by reason of insanity.

Observations for the study were made on both hospitalized individuals who were arrested and awaiting a psychiatric evaluation and nonhospitalized individuals such as parolees, probationers, nonarrested street criminals, college drop-outs, students with poor academic performance, and persons from a community clinic that demonstrated antisocial behaviors.

The subjects from the Yochelson and Samenow (1976) study came from "a wide range of backgrounds, with respect to socioeconomic status, religious preference, and domestic stability" (p. 4). They were of average intelligence, more often black than white, and ranged in age from 15 to 55 years. Included among the study population were substance abusers and nonsubstance abusers.

In conducting the study, participants were given a guarantee of privileged communication and knowledge that the authors maintained no administrative authority over their case. Every effort was made to foster a therapeutic environment which would encourage honest self-disclosure by the participants.

An exhaustive personal history was obtained from each participant. The history focused on a study of the immediate environment, each family member through the criminal's perspective, school patterns, job patterns, social patterns, sex and marriage, religious life, physical health, and antisocial patterns. In exchange for

participation in the study, the subject was to receive psychotherapeutic treatment during five sessions per week for approximately 20 weeks.

Yochelson and Samenow (1976) state the primary objective for this study was to obtain a comprehensive understanding of the criminal mind. The results of the 14 year study (1961-1975) are summarized in Chapter 3 of The Criminal Personality.

Yochelson and Samenow (1976) list a total of 46 thinking errors characteristic of the criminal. Sixteen of these errors represent criminal thinking patterns, 16 errors represent automatic errors of thinking and 14 errors represent errors which are manifested in the execution of criminal acts. The 16 criminal thinking patterns reported by Yochelson and Samenow (1976) were energy, fear, zero state, anger, pride, power trust, sentimentality, religion, concrete thinking, fragmentation, uniqueness, perfectionism, suggestability, loner, sexuality, and lying. The 16 automatic thinking errors were the "closed channel," the "I can't" stance, victim stance, lack of time perspective, failure to put oneself in another's position, failure to consider injury to others, failure to assume obligation, failure to assume responsible initiative, ownership, fear of fear, lack of trust, refusal to be dependent, lack of interest in responsible performance, pretentiousness, failure to make an effort or endure

adversity, and poor decision-making for responsible living. For an elaboration of the thinking errors characteristic of the criminal see Appendix D.

Thinking errors outlined by the authors are pervasive throughout all aspects of the criminal's life. They represent irresponsible patterns of behavior which the criminal interprets as constituting the very fabric of his existence and inherent rights as an individual. By identifying the irresponsible behavior patterns of the criminal, Yochelson and Samenow developed a conceptual framework which can be made operational and from which a treatment plan for change might be developed.

Though the study focused on individuals who had been convicted of a crime, the concept of responsible patterns of behavior is one which can be applied to all members of a society. Within our society there exists a continuum of responsible or irresponsible patterns of behavior in which any individual can be placed (see Figure 1).

Responsible		Irresponsible
Nonarrestable	Arrestable Criminal	Extreme Criminal

Figure 1--Continuum of Criminality (Yochelson & Samenow, 1976).

The basic responsible person is conscientious in occupational, domestic, and social affairs. He or she is productive and contributes to the good of others without infringing on their rights or property. As an individual becomes more irresponsible, a pattern of behavior evolves which is not necessarily a violation of the law. This pattern of behavior would fit those individuals labeled as the liars, the defaulters, and the excuse-offerers. This behavior does represent irresponsible patterns of behavior but does not necessarily represent arrestable patterns of behavior. Progressing further along the continuum, the arrestable criminal has all the thinking patterns of the hard-core criminal; however, his crime pattern is less extensive or serious. At the far end of the continuum of criminality is the extreme criminal.

The results of this research study hope to support the basic tenets found in using a continuum approach to criminality. As such, one might expect to see every personality characteristic of the criminal in the noncriminal individual. What separates the criminal from the noncriminal is the criminal's combination of irresponsible thinking patterns and methods used to cope with these thought patterns. This view should translate into different stages of moral development when one compares criminals to noncriminals.

The Yochelson Samenow Criminal Thinking Model is based on the premise that a criminal has a different view of life than the noncriminal. Therefore, the thinking processes of both should also differ. In order to change the criminal's behavior patterns, the change-agent must have a thorough knowledge of the criminal's thinking patterns. A good example of the difference in criminal and noncriminal frames of reference is demonstrated by examining patterns of communication.

Semantics

Communication is "a process in which information is transmitted from a source, the sender, to a goal, the receiver" (Crane, Yeager, & Whitman, 1981, p. 3). There are three primary modes of human communication: speech, writing, and gesture. Linguistics is the study of language; whereas, semantics is the study of the meaning of words used in a language. Semantics helps one understand that communication of an idea can be altered in its transmission from a sender to a receiver.

The meanings of words are assumed to be "uniquely and infinitely variable" (Osgood & Suci, 1969, p. 4). Words have not only denotative meanings, definitions, but also connotative meanings, the meanings which are shaded by personal feelings and judgments. Whereas two terms may share the same denotative meaning (i.e., gal and woman), they clearly may have different connotative meanings.

Osgood (1964), using the semantics differential technique made a comparative study of the languages of different cultures. His cross cultural study was supportive of earlier works (Osgood, 1952, 1953; Osgood, Snider & Osgood, 1969; Suci, & Tannenbaum, 1957). This work supports the existence of three universal dimensions of factors which make up the connotative meaning of a concept: activity (active-passive), potency (weak-strong), and evaluation (good-bad). The relative weight of these factors has been consistent across studies. The evaluative factor tends to account for more than twice the amount of variance due to either potency or activity. There does remain a percentage of total variance unaccounted for which is presumed to represent a variety of additional factors that individually account for only a small portion of the total variance.

Historically, there has been a concern with spoken language and the anthropological, psychological and sociological ramifications. Interest has been not only in the diversities of a language, but also in sociological differences. These differences include socioeconomic status, age, and race (Crane, Yeager, & Whitman, 1981).

The semantics of criminals has been of interest for centuries. As early as the writings of Petronius and later Martin Luther it was believed that the criminal subculture had its own distinctive argot or vocabulary (Maurer, 1962).

Dictionaries of the underworld slang date to the fifteenth century. A more modern version, The Dictionary of American Underworld Lingo (Goldin, O'Leary, & Lipsius, 1950) was compiled by two long-term convicts and a prison chaplain. In this phenomenological study the authors explain that through the use of language the reader can gain an insight into the criminal's typical attitudes, philosophy of life, social relations and private morality. The authors are quick to point out that the criminal lingo is not used indiscriminately. Language, for criminals, serves a two-fold purpose: "to conceal one's intentions from a potential victim, or to impress an audience with one's own criminal sophistication" (p. 5).

Labor (1966) is credited with the discovery that language varies according to socioeconomic class, age, sex, ethnic group, speech context, and attention paid one's own speech. An example of language variations across sub-cultures is presented by Fiddle (1969). Fiddle attempted to look at the language of the addict. He argued that "language reflected the pressures on that group" (p. 198). The language was also cited as a source of protection for the addict. Fiddle points out that the transformation of a language as it passes from one sub-culture to the next poses problems when individuals with different frames of reference interact.

Yochelson and Samenow (1976) agree that dialogues may be at cross-purposes when a criminal and a noncriminal converse. This places one at a disadvantage when working with criminals. "The way a person uses words can be a key to his personality" (Yochelson & Samenow, 1976, p. 522). In order to be effective in dealing with any population, a change-agent must have a thorough understanding of the language used. The criminal assumes and expects ignorance on the part of the noncriminal. Therefore, the criminal respects and is impressed when he is confronted by a noncriminal with real knowledge of his or her language and patterns of thought. Yochelson and Samenow identified terms which the criminal defines differently than do individuals of the general population of noncriminals (e.g., see Appendix E).

Research Hypotheses

The Yochelson Samenow Criminal Thinking Model facilitates an understanding of criminal thinking using a cognitive-developmental approach. The present study will attempt to integrate the Criminal Thinking Model of Yochelson and Samenow with the Stage Theory of Moral Development as adapted from Kohlberg by Gibbs and Widaman (1982) using criminal and noncriminal subjects. This integration will be achieved if the following hypotheses are substantiated.

1. Criminal subjects will attach significantly different connotative meanings to a sampling of concepts identified by Yochelson and Samenow (1976) than will a comparison group drawn from a general population.

2. Criminals will tend to use less advanced forms of moral reasoning than a comparison group of noncriminals.

3. One's level of criminality is related to his or her level of moral reasoning.

4. Concepts defined by criminal subjects occupy a different position in Osgood's semantic space than do the same concepts when defined by noncriminal subjects.

CHAPTER II

METHOD

Subjects

The present study consisted of 134 subjects divided into four groups. Inclusion in one of the first three groups required that the individual had committed at least one crime and been judged or pleaded guilty. The first of these groups consisted of criminals with at least one conviction for a crime against persons (i.e., murder, rape, incest). The second group consisted of criminals with at least one conviction for a crime against property (i.e., burglary of a building, unauthorized use of a motor vehicle) without a known higher level of conviction. The third group consisted of criminals with at least one conviction for a crime against statute (i.e., driving while intoxicated, possession of a controlled substance) without a known higher level of conviction. The fourth group, a noncriminal group, consisted of individuals with no reported history of a conviction for illegal activity. This last group of individuals represented the Noncriminal group. The criminal groups will be referred to as the Against Person group, the Against Property group and the Against Statute group.

All subjects were either white or black males between the ages of 18 and 62 years, inclusive. There were no significant differences between groups with regard to race. The Against Person group consisted of 71 percent white male, while the Against Property group, Against Statute group, and Noncriminal groups were comprised of 69 percent, 68 percent, and 77 percent white males, respectively. According to the U.S. Bureau of the Census (1989), white individuals make up 84 percent of the total population. Within criminal populations, 64 percent of the persons arrested for Against Person and Against Property crimes are white, while 77 percent of persons arrested for Against Statute crimes are white (FBI, 1989).

Analysis of variance was conducted on the four groups. The results of the one way analysis of variance are shown in Table F-1. Significant differences were found between these groups with regard to age, education in years, and age at time of first arrest. Additional differences, between groups were detected when comparisons were made with regard to occupation and educational degree attainment (Table F-2). Numerical values assigned to demographic characteristics are located in Table F-3. These numerical assignments were used in electronic data processing.

Analysis of the data revealed Noncriminals were significantly younger than individuals in the Against Person

and Against Property groups. Additionally, the Noncriminals and the Against Statute groups had significantly more years of education. The Against Person group members tended to have no degree. Interestingly, the Against Property group members tended to have more frequently completed a GED while the reverse was true for the Noncriminal group. This group had more frequently completed high school. Generally, the Against Person and Against Property group members tended to describe their occupation as skilled labor; the members of the Noncriminal group and the Against Statute group described their occupation to be more like that of clerical, salesworkers, and technicians. Noncriminals and Against Statute group members in this population were middle class while members in the Against Person and Against Property group members were lower middle class (see Table F-4).

Statistical comparisons of the intelligence level and reading ability for the four groups were conducted. The results of the analysis of variance are shown in Appendix J. The groups were found to differ significantly with regard to level of intelligence. The Against Statute group tended to be more like the Noncriminal group than like either of the other criminal groups. Additionally, both the Against Statute group and the Noncriminal group tended to be brighter than either of the other groups. The mean

estimated intelligence level for all group members was between 96 and 102 (see Table F-5). This range represented statistical differences between groups; however, realistically, there is no difference between groups with regard to intelligence level.

All criminals came from two sources: the Dallas County Community Corrections Department or participants in a sex offender group. Noncriminal subjects were chosen from two sources: college students and residents of an apartment complex. Participants in this study denied a history of and were without obvious signs of psychosis. Subjects were excluded if they had less than 7 or more than 16 years of formal education. Additionally, a sixth grade reading level was required. The Wide Range Achievement Test-Revised (Reading Section) was used to determine reading ability. Individuals with a lower than average intelligence level (80 IQ or less) as measured by the Ammons Quick Test, were excluded. The IQ, reading level, and education requirements were utilized in order to control for confounding variables such as intelligence, educational background, or reading ability.

Instruments

The test battery consisted of the following psychological instruments: the Wide Range Achievement Test-Revised (Reading Section, sixth grade level); a personal

data sheet with demographic and assessment items (see Appendix G); the Ammons Quick Test-Form I; Criminal Semantic Inventory (see Appendix H); Test for Criminal Cognitions, Parts 1 and 2; and Sociomoral Reflection Questionnaire (see Appendix I). A total of five test instruments were presented to each subject.

The Wide Range Achievement Test-Revised (WRAT-R), published by Jastak Assessment Systems, was designed to provide valid, reliable, and useful information of individual achievement in the basic educational skills of reading, spelling, and arithmetic. Although administration of the entire test is recommended, using only one part is permissible. The WRAT Reading Test was used to provide a quick screening of a subject's ability to read. The sixth grade reading level was chosen as all tests utilized required a sixth grade minimum reading level. Additionally, as Gavaghan, Arnold, and Gibbs (1983) have pointed out, verbal fluency is a factor which should be controlled when using production measures of moral reasoning.

The Ammon's Quick Test, published by Psychological Test Specialists, is an intelligence test developed as a screening device in both clinical and academic settings. Although the Quick Test is predominately a vocabulary comprehension test, scores on the test have been found to be highly correlated with the intelligence scores obtained

using the WAIS-R (Husband & DeCato, 1982). This instrument was chosen to screen for individuals who might score either below or above average on the WAIS-R.

The Sociomoral Reflection Questionnaire, developed by Gibbs, Widaman, and Colby (1982), was designed to be a group administerable version of Kohlberg's Moral Judgment Interview. The Sociomoral Reflection Questionnaire has been shown to have concurrent validity with the Moral Judgment Interview as well as high levels of construct validity and test-retest and parallel form reliability. With regard to construct validity the Sociomoral Reflection Questionnaire has been shown to distinguish delinquents from nondelinquents (Gibbs & Widaman, 1982).

The Test of Criminal Cognitions (Krusen, 1988) is based on the Criminal Thinking Model of Yochelson and Samenow. Part one consists of four incomplete stories with four possible endings for each of the incomplete stories. The subject is asked to select an ending from the four possible alternatives; that choice is to represent how the individual would like the story to end. Part two represents four pictures which depict a completed story. The subject is to create a story using the sequence of four pictures. After giving an initial version of what occurred in the story, the individual is asked to provide possible alternative versions of the story. The subtest consists of three separate sets

of four pictures depicting a story. Research on this instrument indicates that criminal subjects tend to choose more antisocial related endings to the stories and are able to give significantly fewer alternative versions of the stories on part two than are noncriminal subjects. This data suggests less cognitive flexibility among criminal than noncriminal subjects.

The Criminal Semantic Differential Inventory is a newly formulated test based on the Criminal Thinking Model of Yochelson and Semanow. The test represents a semantic differential. This is a method of measuring the connotative meaning of concepts (Osgood, 1953; Osgood, Suci, & Tannenbaum, 1957). This technique has also been useful in analysis of personality characteristics and attitudes (White & Porter, 1970).

Viewing language as containing a variety of connotative or affective elements, investigators (Osgood, May, & Miron, 1975; Plutchik, 1980; Russell & Mehrabian, 1977) have argued that three universal dimensions, evaluation, potency, and activity can describe the emotional response of an individual to all types of stimuli. The semantic differential (Osgood, Suci, & Tannenbaum, 1957) was therefore selected to access the affective or connotative meaning held by criminals and noncriminals.

The semantic differential consisted of 12 bipolar pairs rated on a 7 point scale. Of the 12, 9 were selected to represent the three commonly elicited factors of evaluation (good/bad, kind/cruel, fair/unfair), potency (strong/weak, hard/soft, rugged/delicate) and activity (active/passive, calm/excitable, fast/slow). Three bipolar pairs were added (born yesterday/nobody's fool, interesting/boring, and valuable/ worthless).

The order of supposed factors was balanced, and the polarity of the scales was randomized, although order and polarity effects have been shown to have little influence on response to the semantic differential (Warr & Knapper, 1965).

There are several studies (Elliott & Tannenbaum, 1963; Friedmand & Gladden, 1964; DeVesta & Dick, 1966; Kagan & Lemkin, 1960) in the literature which suggest a relative invariance of the dimensions discovered by Osgood and Suci (1955). Heaps (1972) has suggested caution be used in analysis of semantic differential research data. He has suggested that the specific content, factor loadings and order of extracted roots may be expected to vary depending on the combination of scales, concepts being considered, and subjects used. Brinton (1961) has suggested that the meaning and evaluative strengths of adjective pairs can change from one concept to another. It was anticipated that

this test would lend empirical support to the work of Yochelson and Samenow which suggests the criminal attaches connotative meaning to concepts in line with his or her own frame of reference.

The instructions for the Criminal Semantic Differential Inventory required the subject define terms according to a personal standard. It was anticipated that the criminal subject would select a different set of connotative definitions when compared to the noncriminal. Additionally, a pattern of cognitive inflexibility in ability to define terms was anticipated among the criminal groups.

Procedure

Each of the subjects was first given an explanation of the purpose of the study (see Appendix J) along with a brief description of the test procedure. The subject was then informed that, if requested, feedback on the test results would be supplied after the study was completed. Each subject was then informed that confidentiality would be assured through the use of code numbers. The subject was then asked to sign an Informed Consent Form (see Appendix K) and to fill out a personal data sheet.

The experimenter or her assistant then administered the following tests: Wide Range Achievement Test-Revised (Reading Section), Ammon's Quick Test, Tests for Criminal

Cognitions, Criminal Semantic Differential Inventory, and Sociomoral Reflection Questionnaire. All psychological tests were administered as outlined in the standard instructions of the tests.

The Criminal Semantic Differential Inventory and the Sociomoral Reflection measure were self-administered to each subject. The experimenter and/or her assistant remained available to each subject in order to answer any questions the subject may have, keep the subject on task, and check that no items had been inadvertently omitted.

After completing the tests, each subject was given a phone number he could call (after approximately two weeks) if feedback was desired on the test results. The feedback given to the subjects was based on the results of the WRAT (Reading Section), Ammon's Quick Test, and Sociomoral Reflection Questionnaire.

Subjects were disqualified from the study for a variety of reasons. Among these were the following: inability to read the WRAT words at or above the sixth grade level, having an estimated intelligence level below 80, not meeting the age criteria, having less than seven years or more than 16 years of formal education, tearing up the test materials, refusing to complete the assessment, and inadvertent noncompletion of tests. Additionally, three individuals were disqualified after completing the test battery when

what appeared to be coding errors were detected on statistical analyses.

Data obtained from the four groups on the Criminal Semantic Differential Inventory were analyzed using a one-way multivariate analysis of variance. The points on the semantic differential scale were given numerical values from 1 to 7, inclusive. The mean score for each of the three bipolar pairs from the three Osgood dimensions were used in order to derive a concept score. This method has been recommended by Bynner and Romney (1972) in order to overcome the problem of concept-scale interaction in semantic differential research. This value was the score used in the one-way MANOVA. Differences in connotative meaning would then be detected through data analysis. When a difference was found, data from the MANOVA was analyzed to determine how the connotative meaning differed between groups.

Additionally, data obtained from the four groups on the Criminal Semantic Differential Inventory was analyzed through factor analysis to determine if the factor structure of the selected concepts is the same as that defined by Osgood's (1953) semantic space. Responses on all 16 scales on the semantic differential were factor analyzed by the principle components methods of factor analysis and rotated by the Kaiser's varimax procedure. Loadings equal to or exceeding $\pm .30$ were considered significant.

All Sociomoral Reflection Questionnaire protocols were scored by a trained rater. This tool yields two primary types of overall protocol ratings: (1) the modal stage rating, which is simply the stage most frequently used by subjects in their protocol responses (Stage 1, 2, 3, or 4); and (2) the sociomoral reflection maturity score, a psychometrically more differentiated rating that ranges from 100 to 400. The stage and content features of the subjects' Sociomoral Reflection Questionnaire protocols were comparatively examined by means of chi-square analysis and a one-way analysis of variance.

The data for the subject groups on Part 1 of the TCC was analyzed using a chi-square test of independence for each of the four separate stories. The ending choices given by each subject was then assigned a numerical value from 1 to 4 depending upon the assessed criminality of the choice, with 1 representing the least criminal and 4 the most criminal.

The number of stories given by each of the subjects on Part 2 of the Test of Criminal Cognitions served as a dependent measure. The data for each of the three separate stories were analyzed by means of a chi-square analysis.

CHAPTER III

RESULTS

Integration of the Criminal Thinking Model developed by Yochelson and Samenow (1982) with the Stage Theory of Moral Development as adapted from Kohlberg by Gibbs and Widaman (1982) was supported by the results of the current study. The first hypothesis was that criminal subjects attach significantly different connotative meanings to a sampling of concepts identified by Yochelson and Samenow (1976) than did a comparison group drawn from a general population. The first hypothesis was only partially supported by statistical results. Sixteen concepts were selected from a group of concepts identified by Yochelson and Samenow (1976). These authors had reported that criminals attach a significantly different connotative meaning to a specified group of concepts than do noncriminals. In the current study, the 16 concepts were studied by use of the semantic differential technique introduced by Osgood and Suci (1955). It was expected that if indeed criminals had a different connotative meaning for the identified concepts this difference would be detected through use of a one way multivariate analysis of variance (MANOVA).

A one way MANOVA was conducted on each of the 16 concepts under investigation. Table L-1 depicts the mean score and standard deviation of the 16 concepts for the four study groups. Of the 16 concepts studied, the concepts of "excitement," "pleasure," "con," and "murder" were significant at the .05 level using the Wilk's lambda test criteria. The concept of "rape" was significant at the .01 level using the same criteria. A summary of the individual MANOVA test criteria and converted F ratio is found in Table L-2. A summary of the univariate analysis of variance on the three dependent variables for each of the 16 concepts is found in Table L-3.

In order to address the second hypothesis of the present study, the data from each of the 16 identified concepts were factor analyzed. It was hypothesized that concepts defined by criminal subjects would have a different factor structure and thus occupy a different position in Osgood's semantic space than could be predicted from Osgood's original work.

The rotated factor loadings are reported in Table L-4. The data generated were quite variable. Three factors were extracted for each concept. The criminal population generated factor variations different from the original semantic differential factors discovered by Osgood and Suci (1955).

Analysis of the data from the concepts of "succeed" and "excitement" provide useful examples. The basic contents for the first factor of each of these concepts was made up not only from Osgood's Evaluative dimension but also from his Potency and Activity dimensions. The contents of the first factor for the concept of "succeed" was good-bad (.88), strong-weak (.80), and active-passive (.30). Similar to the first factor, the contents of the second factor came from not only the Potency dimension but also from the Activity dimension.

Consider the concept of "excitement," the adjective pairs which made up the first factor were good-bad (.84), strong-weak (.81), and active-passive (.39) the adjective pairs which made up the second factor of the concept "excitement" were kind-cruel (.70), fair-unfair (-.45), and rugged-delicate (.81). The third factor for both concepts was composed of adjective pairs which are directly comparable to Osgood's Activity dimension. The adjective pair which made up the third factor for the concept of "succeed" was calm-excitabile (.75) while the adjective pairs which made up this factor for the concept of "excitement" were calm-excitabile (.34), fast-slow (.49), and hard-soft (.80). The latter of these adjective pairs Osgood identified as a component of his Potency dimension.

The concepts considered above had factor loadings quite different from the original semantic differential factors discovered by Osgood and Suci (1955). There were factor structures in the present study, which were characteristically similar to the original three dimensions of Osgood and Suci.

The pattern of the factor structure of the concepts of "manhood" and "ordinary" were similar to those studied by Osgood and Suci. Analysis of these concepts revealed structures similar to those reported by Osgood and Suci with differences which mimic the previously presented concepts from the present study. In each case, all adjective pairs (good-bad, kind-cruel, and fair-unfair) which represent Osgood's Evaluative factor contribute to the first factor. However, as was the case with "succeed" and "excitement," the first factor, which appeared to be primarily Evaluative, was also made up of one adjective pair (strong-weak) which was previously identified by Osgood to load on the Potency dimension. The basic contents of factor one for the concept of "manhood" included one additional adjective pair (fast-slow) from Osgood's Activity dimension.

The second and third factors for the concepts of "ordinary" and "manhood" were directly comparable to Osgood's Potency and Activity dimensions with one

exception. One adjective pair, fast-slow, was originally reported by Osgood to contribute to the Activity dimension. In the present study, this adjective pair contributed to the second factor of the concept "ordinary" and to the first factor of the concept "manhood."

Two concepts of particular interest to this study and yet identified by Yochelson and Samenow (1976) but included in this study were "rape" and "murder." For both concepts, the first factor loaded with adjective pairs from Osgood's Evaluative (good-bad, kind-cruel, and fair-unfair) and Potency (hard-soft) dimensions. Whereas the rugged-delicate adjective pair also contributed to the first factor for the concept of "rape," the strong-weak adjective pair contributed to the concept of "murder." The second factor for both concepts was comparable to Osgood's Activity factor. The three adjective pairs with the highest loading on this factor were active-passive, calm-excitabile, and fast-slow. For both concepts the final factor is made up of an adjective pair previously reported to be from the Potency dimension. The adjective pair good-bad (.95) also contributed to the meaning of the concept of "rape."

The third and fourth hypotheses tended to integrate the Criminal Thinking Model developed by Yochelson and Samenow (1976) with the Stage Theory of Moral Development

as adapted from Kohlberg by Gibbs and Widaman (1982). These hypotheses suggested criminals tend to use less advanced forms of moral reasoning than would a comparison group of noncriminals. If this were true, one would see more level three and four reasoning among noncriminals than criminals.

As recommended by Gibbs and Widaman (1982), analysis of variance was used to detect differences between groups when evaluating the Sociomoral Reflection Maturity Scores (SRMS). Chi-square analysis was used in evaluating modal stage differences.

The third hypothesis was supported by statistical results. Scores obtained from the Social Reflection Questionnaire (SRM) correlated significantly with criminal group membership. For the purpose of this comparison, all criminal groups were combined so as to compare criminals to noncriminals. The mean modal stage rating score and the SRMS related significantly ($p < .05$) with criminal group membership. The criminal group mean SRMS was 260; whereas the noncriminal SRMS was 292. The mean modal stage score for the criminal group was 2.57 while it was 3.10 for the noncriminal group.

Research findings partially supported the fourth hypothesis which suggested the level of criminality was related to the level of moral reasoning. Level of criminality was determined by group membership. The

Against Person group was, for the purpose of this study, considered to have attained the highest level of criminality or to be the most criminal of all groups. The remaining groups were ranked in order of descending level of criminality: Against Property group, Against Statute group, and finally, the Noncriminal group.

The mean SRMS score was significantly different among these groups ($p < .05$). Post hoc analysis of this data using the Tukey Studentized Range method found the within-group significance could be attributed to differences between the Against Person group and the Noncriminal group. Interestingly, there was an inverse relationship between the SRMS and the level of criminality. The Against Person group mean SRMS was 250, the Against Property group mean SRMS was 256, the Against Statute group mean SRMS was 274, and finally, the Noncriminal group mean was 293.

Analysis of the data from the Test for Criminal Cognition was conducted. No significant test findings were obtained (see Table M-1).

CHAPTER IV

DISCUSSION

Individuals who have demonstrated a disregard for the rules and laws of society are frequently pressed into treatment by the criminal justice system. Despite the initiation into treatment, the prognosis is poor, as the judicial system's reliance on practitioners schooled in traditional modes of treatment for antisocial behavior reflects an antiquated, obsolete, and inadequate approach. The present research study was designed to facilitate an understanding, through empirical data, of how the criminal mind operates. With this knowledge, the practitioner can develop a treatment program aimed at changing the unique thought patterns and behaviors of this very difficult population.

Differences in stage level were found when comparing criminals as a total group to noncriminals when using both the Sociomoral Reflection Maturity Score (SRMS) and the modal stage score. The data supported the hypothesis that noncriminals tend to develop a higher moral judgment stage level and attained a higher SRMS than did noncriminals. When separated into distinct criminal group categories, there were no significant differences between criminal

groups with regard to modal stage score; however, the groups were significantly different with regard to the SRMS.

These results lend support to the Yochelson and Samenow Criminal Thinking Model (1976). There was an inverse relationship between degree of criminality and the SRMS. The Against Person group contained individuals who were most representative of criminals as Yochelson and Samenow (1976) defined them. As expected, the Against Person group scored significantly lower on the SRMS, a production measure of moral development, than did the Noncriminal group. Although the significant difference in the SRMS was between the Against Person group and the Noncriminal group, there was a trend which suggested an inverse relationship between level of criminality and level of moral development.

Yochelson and Samenow (1976) derived their concepts and explanations of criminal behavior through a phenomenologic approach in which they state "the criminal has revealed the workings of his mind to us over many thousands of hours" (p. 251). During that time, the authors gained an understanding based on interactions which had been taken outside the "accountability situation" (p. 251). They clearly defined the term "criminal"; however, their definition does not equate with the legal definition.

The term criminal, when used in the context of the Yochelson Samenow Model, refers to an individual whose entire spectrum of thinking is quite different from that of the basically responsible individual. The emphasis of this model is on thinking processes. These thinking processes are manifest, to some degree, in all individuals. The basically responsible individual will experience thinking errors characteristic of the criminal mind; however, he or she is capable of distinguishing right from wrong and generally complies with the rules and laws of society. The responsible individual may, on rare occasions, fail to report his income tax correctly. He does not, however, make cheating an integral part of his life. The criminal, on the other hand, makes lying, cheating, stealing, and manipulation a part of his regular everyday routine.

Yochelson and Samenow (1976) have suggested that criminal thinking patterns develop as early as the age of four or five years in all individuals, criminal and noncriminal. It has been reported that around the age of 8 or 10, developmental changes occur in all of us. These changes affect our ability to modulate criminal thinking later in life. At this age, the basically responsible individual begins accepting rules and regulations. In contrast, at about this age, the criminal develops an increased need for thrill. He begins to actively seek the

forbidden. His need for thrill and excitement far exceeds his need to follow rules or regulations. Yochelson and Samenow (1976) have suggested these children eventually mature and will commit crime. An unspecified number become hard core criminals. The fact that the Sociomoral Reflection Questionnaire can distinguish delinquents from nondelinquents and adult criminals from noncriminals is highly suggestive that the Criminal Thinking Model describes behavior predicted by cognitive developmental theory.

Many authors (Fiddle, 1969; Goldin, O'Leary, & Lipsius, 1950; Yochelson & Samenow, 1976) have suggested that although individuals who commit crime share a common language with individuals who do not commit crime, these two populations (criminal and noncriminal) attach very different connotative meanings to identical words. Yochelson and Samenow (1976) presented a collection of words to which they have determined that criminals attach significantly different meaning than do noncriminals. From their group of identified words, 14 were selected for use in the present study. The results of the current study found that 3 of the 14 were defined differently by the criminal populations than by the noncriminal population. In addition to the words identified by Yochelson and Samenow, the concepts of "rape" and "murder" were analyzed

and found to have different connotative meanings for the criminal populations.

Yochelson and Samenow (1976) have suggested criminals define the word "excitement" as "a 'charge', usually from pursuit and conquest, exercise of power or control, doing the forbidden, quick triumph, or conquest" (p. 525). The Against Person group and the Noncriminal group had significantly different connotative definitions for this concept as well as the concepts of "murder" and "rape." For the concept of "rape" the Against Statute group also differed significantly from the Noncriminal group.

Definitional differences within the Osgood's Potency dimension contributed to the significance found in both the concept of "excitement" and "rape." This data provides support for the Criminal Thinking Model (Yochelson & Samenow, 1976). The model sets forth a number of thinking errors characteristic of the criminal. One involves his quest for power, power which can be derived through excitement. The criminal's greatest excitement comes from doing the forbidden and getting away with it.

Significant differences were also found for the word "con." Yochelson and Samenow (1976) have suggested criminals define the word "con" as "persuasion (including nondeceptive control) and eventual control of another person" (p. 525). The Against Statute group defined this

concept significantly different than did the Noncriminal group; no other group contributed to the differences detected. Interestingly, this is the one group whose primary offense can be described as a "con."

A trend was detected when the data were analyzed. This trend suggested the Against Statute group attached a different meaning to the concept "con" in both the Evaluative and Potency dimensions. As with the previously discussed concept, the power thrust is central to the criminal's sense of well being. For the criminal the "con," or crime, is a powerful instrument used (1) to accentuate self-importance, (2) to build self-esteem by doing that which no other would do and/or (3) to obtain pleasure by inflicting pain or suffering. As Yochelson and Samenow (1976) have pointed out "the search for power is shown in the criminal's interests and in what he aspires to be" (p. 277). As he thrusts for power, the criminal is able to see himself as "an extraordinary and prestigious individual" (Yochelson & Samenow, 1976, p. 276).

As stated previously, the two criminal concepts, "murder" and "rape" were selected for investigation. While neither concept was identified by Yochelson and Samenow (1976) in their compendium of words, it is clear that the definition of these terms held by those who

commit crime is very different from that held by those who do not commit crime.

Criminals have an almost limitless availability of energy. These individuals have an ability to channel mental as well as physical energy in the direction of those activities necessary to maintain their own need state. In addition to differences in the Potency dimension, for the concept of "rape" definitional differences within the Activity dimension were detected for both the concept of "rape" and "murder." The criminal may appear lazy, tired, or simply bored when participating in mundane everyday activity such as work, housekeeping, or child care. Even during these times, Yochelson and Samenow have suggested the criminal's mind tends to be racing, preoccupied with criminal thinking. These individuals tend to have a tremendous capacity for mental as well as physical energy. Complaints of fatigue by criminals usually represent boredom or a lack of freedom to do what they want to do.

The Activity dimension contributed to differences between groups for the concepts of "clever" and "excitement." Definitional differences within the Activity dimension contributed to concept differences for "ordinary" and "pleasure" also. "Pleasure" as defined by Yochelson and Samenow (1976) involves "high voltage excitement, usually through doing the forbidden" (p. 527).

Contributing to the definitional difference in the Activity dimension is the criminal's superoptimism. His energies are constantly funneled into new crime. In his superoptimistic state the criminal demonstrates not only confidence, but a sense of possessiveness. His own experiences suggest to him that he has unique abilities which enable him to go unpunished for many of his numerous offenses.

The Test of Criminal Cognitions (TCC), developed by Krusen (1988) was designed to (1) measure cognitive flexibility, and (2) identify criminal thinking errors as defined in the Yochelson and Samenow (1976) Criminal Thinking Model. The results for part one of the TCC indicated no significant findings in the present study. This is not surprising as Gavaghan et al. (1983) have suggested that production, but not recognition measures distinguish criminals from noncriminals. This may be a factor which influenced the results of the current study.

As Vygotsky (1962) has pointed out, individuals differ dramatically as to their ability to recognize new concepts and their ability to articulate or behaviorally apply concepts. The results of the current study seem to support Krusen's (1988) findings which suggested that part one of the TCC assesses the criminal's ability to recognize simple social interactions rather than cognitive

flexibility. This data supports Yochelson and Samenow (1976) who have suggested that criminals are aware of societal norms and are able to comply with these norms as long as the adherence to these norms provides them with gratification. Criminals, like actors, behave in a manner that tends to meet their immediate needs. They automatically engages in thinking processes, irresponsible or responsible, and reacts with behaviors, criminal or noncriminal, which most readily accomplish his intended goal.

The above appears to describe cognitive flexibility. Close scrutiny reveals that the criminal's ability to utilize cognitive flexibility is tied to his need for gratification. When immediate gratification is involved, the criminal is capable of a higher degree of cognitive flexibility than is otherwise possible. However, his capacity for cognitive flexibility is far below that which is expected from noncriminal populations.

It is possible that the solutions to the part one stories may have been so transparent that the criminal as well as the noncriminal was able to discriminate between socially appropriate and clearly antisocial endings. In that context, the criminal, who as Yochelson and Samenow (1976) have pointed out, would be expected to select the most socially acceptable ending. He would then have his

own needs met when he presents himself in a more favorable light to the examiner, through his attempt to fake good.

Whereas, Krusen (1988) found differences between his Criminal and Noncriminal groups on part two of the TCC, the current study found no differences between the groups. Krusen originally suggested this test measured cognitive flexibility; however, he was unable to correlate these findings with other measures of cognitive flexibility. He later suggested that part two of the TCC may actually measure creativity rather than cognitive flexibility.

The research design of the present study was quite different from that of Krusen (1988). Unlike the Krusen study which investigated only white males, the present study did not control for the variable of race. Furthermore, Krusen studied the criminal population as a whole. The present study separated the criminal population into three distinct criminal groups. Consequently, one explanation for study differences may be differences in research design.

Yochelson and Samenow (1976) developed a continuum approach to criminal thinking, and treated the criminal population as a singular group. They may not have endorsed the distinct criminal categories as defined by this study and used as an integral part of the research design. The assumption that the criminal, as well as the noncriminal,

was truthful in representing their criminal background may be viewed as a limiting factor of the present study. As Yochelson and Samenow have pointed out, there is some degree of criminal thinking in all of us. These authors have suggested that, once a criminal act is committed, all aspects of criminal behavior are possible. Should Yochelson and Samenow have divided their study group, it is anticipated the groups would have been labeled the Responsible group, the Irresponsible, but Nonarrestable group, and the Arrestable group.

Recommendations for Further Research

One must assume that individuals, both criminal and noncriminal, were less than honest in reporting criminal convictions. The groups in this research design were established based on self-report of criminal convictions. For future studies, it is suggested that complete criminal histories be obtained. A tool should be developed which would accurately assess the degree of criminal thinking in both identified criminals as well as noncriminals. This tool would gather historical background information which should include an individual's (1) number of arrests as well as convictions, (2) severity and type of arrest as well as convictions, (3) violations undetected by the criminal justice system, and (4) patterns of irresponsible, but legal behaviors, such as defaulting, lying, and excuse

giving. It is possible that a tool such as the one described above would be useful in studying a continuum of responsible/irresponsible patterns of behavior in future research.

Should one continue to investigate criminal behavior utilizing the approach outlined in this study, care should be taken when defining and refining specific criminal groups. For example, within the Against Statute group, this researcher found there to be a variety of subgroups which might partially account for research findings. Furthermore, there may be other distinct groups which may prove to be interesting for future study. For example, among the Against Statute group were individuals with a single DWI conviction related to excess on social occasions. The Against Statute group also consisted of the intractable alcoholic with more than ten alcohol related convictions as well as one time offenders. While both individuals were convicted of solely statute related crimes, it is doubtful whether the prognosis for treatment and subsequent recidivism is the same for these two subgroups. Similarly, the conviction of an individual for possession of marijuana for personal/recreational use may be quite different from the conviction of an individual for the sale of a controlled substance. Though the later example in the above two cases is considered an Against

Statute crime, there are Against Person components which could be considered. An interesting study would compare the moral development of social drug/alcohol users convicted of a statute crime with the moral development of the chronic, hard core, drug/alcohol addict habitually involved with the criminal justice system.

An additional against statute group worthy of study would consist of individuals whose crime was committed as a result of one's principles. Examples would include the animal rights activists and pro-life proponents.

In the current study, the Against Statute group looked statistically more like the Noncriminal group than either of the other two criminal groups. This would tend to support the original hypothesis that this group, as it was constructed, represented a lower level of criminality than did either of the other two criminal groups. One possible explanation for this finding would be that this group was made up of primarily social/recreational users rather than the more hard core addict.

The only group in this study which had a high probability to have been pure (as intended by the criteria for this study) was the Against Person group. However, after reviewing convictions within this group one can see apparent if not real subgroups within the Against Person group. Analysis of the type, severity and number of

convictions for individuals within this group suggests it is made up of a variety of subgroups which lie along the criminal continuum. Future research should address the subgroups as well as the continuum of criminal thinking leading to multiple criminal acts.

Future research should also focus on the relationship of treatment effects and subsequent criminal behavior. The Sociomoral Reflection Questionnaire could be administered as a pre- and post-test to a treatment program. The program though based on the Criminal Thinking Model of Yochelson and Samenow (1976) would be multidimensional. Simply changing moral development or criminal thinking may not adequately provide the criminal with the tools necessary to become an effective member of society. Additionally, addressing issues of aggression management, substance abuse, and codependency should prove fruitful areas of research for understanding criminal populations.

The efficacy of cognitive/behavioral/reality therapies versus insight oriented supportive therapy for treating criminal behavior is in need of further study. Yochelson and Samenow (1976) have suggested that if a person convicted of a crime is placed in a supportive, insight oriented, treatment program, at best, one can expect no change in behavior will occur. However, it is possible

that supportive, insight-oriented therapy might prove to be a valuable tool which helps the criminal to become more effective in committing crime.

Finally, identifying uses for the Sociomoral Reflection Questionnaire in juvenile, as well as younger populations, should be investigated further. Such research should prove to be of value in the identification and referral for treatment of high risk groups. For example, investigations of gang member recruitment and gang membership is in need of further research. This research should include assessment of moral development.

APPENDIX A
KOHLBERG'S THREE LEVELS AND SIX STAGES
OF MORAL DEVELOPMENT

Kohlberg's Three Levels and Six Stages
of Moral Development

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
<u>Level 1--Preconventional</u>			
Stage 1: Heteronomous morality	To avoid breaking rules backed by punishment, obedience for its own sake, and avoiding physical damage to persons and property.	Avoidance of punishment, and the superior power of authorities.	Egocentric point of view. Doesn't consider the interest of others or recognize that they differ from the actor's; doesn't related to points of view. Actions are considered physically rather than in terms of psychological interests of others. Confusion of authority's perspective with one's own.

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
Stage 2: Individualism, instrumental purpose, and exchange	Following rules only when it is to someone's immediate interest; acting to meet one's own interests and needs and letting others do the same. Right is also what's fair, what's an equal exchange, a deal, an agreement.	To serve as one's needs or interests in a world where you have to recognize that other people have their interests too.	Concrete individualistic perspective. Aware that everybody has his or her own interests to pursue and that these interests conflict, so that right is relative (in the concrete individualistic sense).

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
<u>Level 1: Conventional</u>			
Stage 3: Mutual interpersonal expectations, relationships, and interpersonal conformity.	<p>Living up to what is expected by people close to you or what people generally expect of your role as son, brother, friend, etc. "Being good" is important and men's having good motives, showing concern about others. It also means keeping mutual relationships, such as trust, loyalty, respect, and gratitude.</p>	<p>The need to be a good person in your own eyes and those of others. Belief in the Golden Rule. Desire to Maintain rules and authority which support stereotypical good behavior.</p>	<p>Perspective of the individual in relationships with other individuals. Aware of shared feelings, agreements, and expectations, which take primacy over individual interests. Relates points of view through the concrete. Golden Rule, putting oneself in the other guy's shoes. Does not yet consider generalized system</p>

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
Stage 4: Social System and conscience	<p>Fulfilling the actual duties to which you have agreed. Laws are to be upheld except in extreme cases where they conflict with other fixed social duties. Right is also contributing to society, the group, or institution.</p>	<p>To keep the institution going as a whole, to avoid the breakdown in the system "if everyone did it," or the imperative of conscience to meet one's defined obligations (easily confused with stage 3 belief in rules and authority).</p>	<p>Differentiates societal point of view from interpersonal agreement or motive. Takes the point of view of the system that defines roles and rules. Considers individual relations in terms of place in the system.</p>

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
<u>Level III: Postconventional, or Principled</u>			
Stage 5: Social contract or utility and individual rights.	<p>Being aware that people hold a variety of values and opinions that most values and rules are relative to your group. These relative rules should usually be upheld, however, in the interest of impartiality and because they are the social contract. Some non-relative values and rights like life and liberty, however, must be upheld in any society and regardless of majority opinion.</p>	<p>A sense of obligation to law because of one's social contract to make and abide by laws for the welfare of all and for the protection of all people's rights. A feeling of contractual commitment, freely entered upon, to family, friendship, trust, and work obligations. Concern that laws and duties be based on rational calculation of overall utility, "the greatest good for the greatest number."</p>	<p>Prior-to-society perspective. Perspective of a rational individual aware of values and rights prior to social attachments and contracts. Integrates perspectives by formal mechanisms of agreement, contract, objective impartiality and due process. Considers moral and legal points of view; recognizes that they sometimes conflict and finds it difficult to integrate them.</p>

Level and Stage	What is Right	Reasons for Doing Right	Social Perspective of Stage
Stage 6: Universal ethical principles.	<p>Following self-chosen ethical principles.</p> <p>Particular laws or social agreements are usually valid because they rest on such principles, one acts in accordance with the principle. Principles are universal principles of justice; the equality of human rights and respect for the dignity of human beings as individual persons.</p>	<p>The belief as a rational person in the validity of universal moral principles, and a sense of personal commitment to them.</p>	<p>Perspective of a moral point of view from which social arrangements derive. Perspective is that of any rational individual recognizing the nature of morality or the fact that persons are ends in themselves and must be treated as such.</p>

Source: Kohlberg, L. (1976). Moral stages and moralization. In T. Lickona (Ed.), Moral development and behavior (pp. 34-35). New York: Holt, Rinehart, and Winston.

APPENDIX B
REFLECTIVE SOCIOMORAL THOUGHT: A VIEW
OF HUMAN RELATIONS

Reflective Sociomoral Thought: A View of Human Relations

Stage	View of Human Relations	Justifications for Human Behavior
I. Unilateral and Simplistic *(Punishment and Obedience)	Absolute; one-way interactions; of one person "upon" another.	Stark unqualified; no coordination of alternative perspective; external and authority oriented; derived from edicts, rules, or consequences external to oneself.
II. Exchanging and Instrumental *(Naive Instrumental Hedonism)	Two-way interactions; lack of relative identity; one relates another's perspective to one's own.	Autonomous morality; derived directly from the perspectives which arise from one's interactions with others.
III. Mutual and Social *(Maintaining Good Relations, Approval of Others)	"Third person" perspective; one constructs and experiences genuine mutualities	Derived from the caring for the "we-ness" in a relationship; persons may act out of caring for other persons and relationships as values in their own right.
IV. Systemic and Standard *(Social Order and Authority)	An expanded application of the "third person;" includes complex social systems.	Acceptance of the basic rights, responsibilities, and standards or procedural practices; behavior may be structured by standards which do not totally accommodate interpersonal sentiments.

*Kohlberg Stage Equivalent

APPENDIX C
THE FOUR STAGES AND REPRESENTATIVE ASPECTS
OF REFLECTIVE SOCIOMORAL THOUGHT

The Four Stages and Representative Aspects of Reflective Sociomoral Thought

Stage	Aspect	Reason for Justification	Illustrative Justifactory Phrases
I. Unilateral and Simplistic	Unilateral Authority	Appeal to authority	"The law is there to be followed."
	Status	Appeal to a role or status	"They are your parents."
	Rules	Assertions based on absolutes with a maxim like ring to them	"You should always keep your promises."
	Labels	Appeal to an undifferentiated label or affective term	"You shouldn't be a tattletale."
	Punitive Consequences	Appeal to the anticipation of punitive consequences	"You're going to be sent to jail."
II. Exchanging and Instrumental	Exchanges	Appeal to a "tit-for-tat" exchange	"The stranger you save may return the favor."
	Equalities	Appeal is emphatically egalitarian	"If adults don't keep their promises, why should children."
	Freedoms	Appeal to unfettered or unconstrained freedom as a basic right	"You shouldn't butt in when it's someone else's problem."
	Preferences	Prescription to a norm is based on one's given wishes, desires, or inclinations	"You won't like yourself."

Stage	Aspect	Reason for Justification	Illustrative Justifactory Phrases
III. Mutual and Prosocial	Needs	Appeal to assumed or probable needs or necessities	"If you needed to, you could steal it."
	Advantages	Appeal to anticipated benefits or liabilities	"She might return the favor."
	Relationships	Appeal to mutualistic and emotionally interpenetrative sentiments	"You <u>would</u> hope a friend would help you."
	Empathetic Role-Taking	Consideration for another's welfare	"She may feel crushed or unloved."
	Normative Expectations	Appeal to normally expected role conduct and sentiment or to the consequences if violated	"That's what friends are for."
	Prosocial Intentions	Prosocial prescriptions or judgments reflect underlying motivational features of the personality	"It is important to show your love."
	Generalized Caring	Appeal which goes beyond the context of particular relationships or roles	"You should care for everyone."
	Intrapersonal Approval	Normative values are supported by referral to conscious, self esteem, or self disapproval	"It makes you feel good inside."

Stage	Aspect	Reason for Justification	Illustrative Justifactory Phrases
IV. Systemic and Standard	Societal Requirement	Appeal supported as a requirement or priority for society or a social institution	"Law is justified as it makes possible order in society."
	Basic Rights/Values	Appeal to the universally applicable right or values of a norm	"Everyone has a right to have promises kept."
	Responsibility	Appeal to the responsibility, obligation, or commitment to a normative value	"It's a matter of honor between two persons."
	Character	Appeal to consideration of responsible character or integrity	"He provides a model of integrity, honor, or character."
	Consistent Practices	Appeal to consistency as opposed to arbitrary and subjective	"There must be a common standard or rule for judging acts of conscience."
	Procedural Equality	Appeal to what society or societal institutions owe the individual	"Parents should not abuse their authority."
	Standards of Conscience	Appeal to standards of individual personal conscience	"It would compromise his integrity."

APPENDIX D
THINKING ERRORS CHARACTERISTIC OF THE CRIMINAL

Thinking Errors Characteristic of the Criminal

Concept/Term	Characteristic of Thinking Error
<u>Criminal Thinking Pattern</u>	
Energy	Shortened attention span, motor and mental hyperkinesia, easily bored
Fear	Widespread, persistent, and intense throughout life most frequently fears apprehension, injury or death, and put down
Zero-state	Self esteem is at rock bottom; a sense of worthlessness, hopelessness and futility
Anger	A chronic problem; exacerbated by boredom and used to achieve control
Pride	"An extremely and inflexibly high evaluation of one's self" (p. 274); major expression is in his ideas of manhood and sexual acquisitiveness; preserves himself as a self created image of power
Power thrust	Need to be number one in everything; pursuit of power for the sake of power
Sentimentality	An act which often legitimizes criminal behavior in his own mind; the "soft side" of the "cold-blooded" criminal
Religion	Genuine belief and sentiment as a tool with self-serving value; prayer not to forgive but to forget; allows the criminal a cloak of respectability
Concrete thinking	Failure to discern similarities between situations; does not benefit from experience; search for excitement, triumph and conquest takes precedence over right and wrong

Concept/Term	Characteristic of Thinking Error
Fragmentation	Frustration in mental state and contradictariness are standard patterns of behavior
Uniqueness	The criminal is his own best authority
Perfectionism	A search for the perfect crime; an inordinate fear of failure therefore in order to avoid it the criminal will often not even bother to try
Suggestability	Quite high when related to criminal behavior, low when related to overall behavior change
Loner	A secretive life style; a group member only as a front for achieving a criminal objective
Sexuality	Gratification lies not in the sex act but in the conquest and control
Lying	A part of life even when unnecessary; promotes self adulation; more frequently of omission rather than commission
<u>Automatic Thinking Errors</u>	
Closed channel	Failure to disclose; lack of receptivity; lack of self criticism
I can't	An excuse for behaviors which are not done; won't
Victim stance	Failure to take responsibility for behavior
Lack of time perspective	A failure to deal with gratification; inability to learn from experience
Ownership	If the criminal wants, the item is his or the person will do as desires

Concept/Term	Characteristic of Thinking Error
Failure to put oneself in another's position	Lacks consideration for others, rules, customs, or lives; considers others only in how their reaction might facilitate the crime
Failure to consider injury to others	An outcome of his failure to put himself in another's position; view of injury limited, usually refers to bodily harm
Failure to assume obligation	Obligation is a position of weakness and vulnerability; the criminal considers himself above others
Failure to assume responsible initiations	There is viewed to be no power in responsibility; is extremely energetic and resourceful in pursuit of criminal behavior
Lack of trust	Trust is a weakness; jeopardizes and makes him dependent
Refusal to be dependent	Does not view himself as dependent; dependence means weakness and vulnerability
Lack of interest in responsible performance	Desires status but refuses to expend effort to acquire skill, knowledge, or talent needed
Pretentiousness	A component of power and control; a belief in one's superiority; one can do anything
Failure to make an effort or endure adversity	The criminal does what he wants to do; a refusal to endure pain; physical or mental
Poor decision-making for responsible living	As a decision-maker in crime he does reasonably well as proven by the infrequency with which he is apprehended

APPENDIX E
CRIMINAL SEMANTICS

Criminal Semantics

<u>Term</u>	<u>Common Usage</u>	<u>Criminal Usage</u>
Borrow	Receive something that belongs to someone else with an intention to return or repay	Receive something that belongs to someone else with no intention to return or repay or with unsustained intention to return or to repay
Clever	Resourceful, ingenious	Holding or stating a position foreign to that of the criminal and contradictory to his thinking
Companionship	Fellowship, Comradeship	Refers to a conquest, person to exploit; frequently a sexual conquest
Con	A conscious deception for the purpose of attaining something	Persuasion (including non-deceptive) and eventual control of another person
Excitement	A "charge" from something out of the routine; a new experience; an extraordinary performance	A "charge," usually from pursuit and conquest, exercise of power or control, doing the forbidden, quick triumph, or conquest
Friend	A person for whom one has affection and regard; a person with whom one shares	Used in several ways (1) A person who will do as the criminal wants (2) Someone who will not jeopardize him

<u>Term</u>	<u>Common Usage</u>	<u>Criminal Usage</u>
		(3) An acquaintance with whom the criminal has had a brief, casual contact
Manhood	Refers to such qualities as bravery, courage, independence; also to sexual potency	Refers to conquering, outwitting, overpowering usually with respect to sex or fighting
Ordinary	Average, common, unexceptional	Being a "slave," a "sucker," "lame," "weak," a "sissy," in short, a zero
Pleasure	Satisfaction, gratification, joy	High-voltage usually through doing the forbidden
Police	A law-enforcement officer	Any person who checks up on the criminal and holds him accountable; could be a parent, teacher, etc.
Problem	An unsettled issue; an unresolved dilemma in living emanating from either external or internal factors	A jam in which the criminal has been apprehended and held accountable or a situation in which he is barred from a criminal objective
Stupid	Dull-witted; lacking in intelligence; sometimes synonymous with "foolish"	Refers to failure of plans to work, so that the criminal was caught and held accountable

<u>Term</u>	<u>Common Usage</u>	<u>Criminal Usage</u>
Succeed	To turn out well, to achieve an objective, however modest	Refers to conquest; making a big splash, having a huge impact
Truth	Veracity, full presentation of facts	Relating of enough of what happened to satisfy another person while leaving most unsaid

APPENDIX F

DEMOGRAPHIC CHARACTERISTICS

Table F-1

One-way Analysis of Variance for Significant Demographic Variables

Source	SS	df	ms	F	p ^a
Age	401.37	3	401.37	5.23	.01
	76.81	129	76.81		
Education (years)	218.08	3	72.70	15.56	.0001
	607.41	130	4.67		
Age at first arrest	5689.84	3	1896.61	31.93	.0001
	7663.08	129	59.40		

N - 134

^aApproximate probability of a smaller F statistic.

Table F-2

Chi Square Analysis of Occupation and Education

Variable	Chi Square	p ^a
Occupation	42.619	.0001
Education (degree attained)	42.120	.0001

N = 134; Degrees of Freedom = 18

^aApproximate probability of a smaller Chi Square.

Table F-3

Demographic Characteristics and Assigned Values

Variable	Numerical Value	Description
Education (degree attained)	1	No degree
	2	High School Graduate
	3	GED
	4	Associate degree
	5	College graduate
Occupation	1	Executives
	2	Managers and Proprietors of medium concerns and minor professionals
	3	Administrators of large concerns, owners of small independent business and semi-professionals
	4	Clerical, salesworkers, technicians
	5	Skilled workers
	6	Semi-skilled workers
	7	Unskilled workers
SES ^a	11-20	Upper class
	21-30	Lower upper class
	31-40	Upper middle class
	41-50	Middle class
	51-60	Lower middle class
	61-70	Upper lower class
	71-80	Lower class
Intelligence level	40	96
	41	98
	42	100
	43	102
Reading level	59	10E
	60-61	11B
	62	11E
	63	12B
	64	12E
	65-89	Above 12

N = 134

^aCalculated by the formula (Educational level category X 4) + (Occupational level category X 7) = Hollingshead Two Factor Index of Social Position (Myers & Bean, 1968).

Table F-4

Demographic Means According to Group

	Age	Education (years)	Education (degree attained)	Age (first arrested) Mean/Mode	Occupation	SES
M	36	11	1.27	19/17	5.81	59.07
B	31	12	1.74	18/17	5.49	55.20
D	35	14	1.61	21/17	4.28	44.14
Non- criminals	28	14	1.66	0/0	4.47	43.27

N = 134.

Table F-5

One-Way Analysis of Variance for Significant Intelligence
and Reading Ability Variables

Variable	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p^a</u>
IQ	G	185.63	3	61.88	4.27	.001
		1900.11	131	14.51		
Reading Level	G	959.29	3	319.76	2.04	
		20540.45	131	156.80		

Note. N = 134

^aApproximate probability of a smaller F value.

APPENDIX G
PERSONAL DATA

Personal Data

Code: _____

- 1) Age: _____ 2) Sex: _____ 3) Ethnicity/Race: _____
- 4) Occupation: _____
- 5) Yearly Earnings: \$ _____
- 6) Education (number of years completed)
- a) 1 - 6 years _____
 - b) 7 - 9 years _____
 - c) 10 - 12 years _____
 - d) 1 - 2 years college _____
 - e) 3 - 4 years college _____
- 7) Degree received
- a) High School Diploma _____
 - b) GED _____
 - c) College graduate (specify degree) _____
 - d) Other (specify) _____
- 8) Legal History
- a) Age at first arrest _____
 - b) Convictions

 - c) Crimes plead guilty to other than above

APPENDIX H
CRIMINAL SEMANTIC INVENTORY

Criminal Semantic Inventory

The purpose of this task is to measure the meaning of certain words by having you judge the word against a series of descriptive scales. In making these decisions, please judge the word on the basis of what it means to you. On each page you will find two different words to be judged and beneath it a set of scales. You are to rate the word on all the scales. Here is an example:

SPIDER

Safe ____:____:____:____:____:____:____ Dangerous

If you feel the concept at the top of the page is very closely related to one end of the scale, you should place a checkmark as follows:

Safe ____:____:____:____:____:____:___X___ Dangerous

or

Safe ___X___:____:____:____:____:____:____ Dangerous

If you feel the concept is quite closely related on one or the other end of the scale (but not highly related) then check as follows:

Safe ____:___X___:____:____:____:____:____ Dangerous

or

Safe ____:____:____:____:____:___X___:____ Dangerous

The directions you choose, of course, depends on which of the two ends of the scale seem most characteristic of the thing you are judging.

If you consider the concept to be neutral on the scale, or completely unrelated to the concept then you should place your mark in the middle space:

Safe ____:____:____:___X___:____:____:____ Dangerous

Be sure to place your mark in the middle of the spaces, not on the boundaries. Check every scale for each concept and only make one mark per scale. There is no time limit so work at your own speed. However, do not worry over individual items, your first impression about the item is usually the best choice to use.

1. CLEVER

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

2. STUPID

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

3. SUCCEED

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

4. FRIEND

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

5. CON

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

6. PROBLEM

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

7. BORROW

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

8. EXCITEMENT

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

9. ORDINARY

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

10. MANHOOD

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

11. PLEASURE

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

12. POLICE

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

13. COMPANIONSHIP

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

14. TRUTH

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

15. RAPE

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

16. MURDER

Weak	___:___:___:___:___:___:___	Strong
Bad	___:___:___:___:___:___:___	Good
Valuable	___:___:___:___:___:___:___	Worthless
Passive	___:___:___:___:___:___:___	Active
Hard	___:___:___:___:___:___:___	Soft
Fair	___:___:___:___:___:___:___	Unfair
Born Yesterday	___:___:___:___:___:___:___	Nobody's Fool
Calm	___:___:___:___:___:___:___	Excitable
Rugged	___:___:___:___:___:___:___	Delicate
Cruel	___:___:___:___:___:___:___	Kind
Interesting	___:___:___:___:___:___:___	Boring
Fast	___:___:___:___:___:___:___	Slow

APPENDIX I
SOCIAL REFLECTION QUESTIONNAIRE

Code: _____

Social Reflection Questionnaire

Instructions

In this booklet are two social problems with questions for you to answer. We are asking the questions not just to find out your opinions about what should be done in the problems, but also to understand why you have those opinions. Feel free to use the space in the margins to finish writing your answers if you need more space.

Problem One

In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist wanted people to pay ten times what the drug cost him to make.

The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about half of what the druggist wanted. Heinz told the druggist that his wife was dying, and asked him to sell it cheaper or to let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So the only way Heinz could get the drug would be to break into the druggist's store and steal it.

Heinz has a problem. He should help his wife and save her life. But on the other hand, the only way he could get the drug she needs would be to break the law by stealing the drug.

What should Heinz do?

Circle one: should steal should not steal can't decide

Why?

Let's change things about the problem and see if you still have the opinion you circled above (should steal, should not steal, or can't decide). Also, we want to find out about the things you think are important in this and other problems, especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINION--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that helps us even more. Please answer all the questions below, especially the "why" questions.

1. What if Heinz's wife asks him to steal the drug for her? Should Heinz:

Circle one: steal not steal can't decide

- 1a. How important is it for a husband to do what his wife asks, to save her by stealing, even when he isn't sure whether that's the best thing to do?

Circle one: very important important not important

- 1b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

2. What if Heinz doesn't love his wife? Should Heinz

Circle One: steal not steal can't decide

2a. How important is it for a husband to steal to save his wife, even if he doesn't love her?

Circle one: very important important not important

2b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

3. What if the person dying isn't Heinz's wife but instead a friend (and the friend can get no one else to help)? Should Heinz?

Circle one: steal not steal can't decide

3a. How important is it to do everything you can, even break the law, to save the life of a friend?

Circle one: very important important not important

3b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

- 4a. What about for a stranger? How important is it to do everything you can, even break the law, to save the life of a stranger?

Circle one: very important important not important

- 4b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

5. What if the druggist just wants Heinz to pay what the drug cost to make, and Heinz can't even pay that? Should Heinz?

Circle one: steal not steal can't decide

- 5a. How important is it for the people not to take things that belong to other people?

Circle one: very important important not important

- 5b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

- 6a. How important is it for people to obey the law?

Circle one: very important important not important

6b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

7. What if Heinz does steal the drug? His wife does get better, but in the meantime, the police take Heinz and bring him to court. Should the Judge?
Circle one: jail Heinz let Heinz go free can't decide

7a. How important is it for judges to go easy on people like Heinz?
Circle one: very important important not important

7b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

8. What if Heinz tells the judge that he only did what his conscience told him to do? Should the judge?
Circle one: jail Heinz let Heinz go free can't decide

8a. How important is it for judges to go easy on people who have acted out of conscience?
Circle one: very important important not important

8b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

9. What if Heinz's wife never had cancer? What if she was only a little sick, and Heinz stole the drug to help her get well a little sooner? Should the judge? Circle one: jail Heinz let Heinz go free can't decide

9a. How important is it for judges to send people who break the law to jail?

Circle one: very important important not important

9b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

Problem Two

Joe is a fourteen-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the \$40 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of the father's friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money Joe had saved from the paper route. Joe didn't want to give up going to camp, so he thinks of refusing to give his father the money.

Joe has a problem. Joe's father promised Joe he could go to camp if he earned and saved up the money. But, on the other hand, the only way Joe could go would be by disobeying and not helping his father. What should Joe do? Circle one: should refuse should not refuse can't decide

Why?

Let's change things about the problem and see if you still have the opinion you circled above (should refuse, should not refuse, can't decide). Also, we want to find out about the things you think are important in this and

other problems, and especially why you think those things are important. Please try to help us understand your thinking by WRITING AS MUCH AS YOU CAN TO EXPLAIN YOUR OPINIONS--EVEN IF YOU HAVE TO WRITE OUT YOUR EXPLANATIONS MORE THAN ONCE. Don't just write "same as before." If you can explain better or use different words to show what you mean, that's even better. Please answer all the questions below, especially the "why" questions.

1. What if Joe hadn't earned the money? What if the father had simply given the money to Joe and promised Joe could use it to go to camp--but now the father wants the money back for the fishing trip? Should Joe?

Circle one: refuse not refuse can't decide

- 1a. How important is it for parents to keep their promises about letting their children keep money--even when their children never earned the money?

Circle one: very important important not important

- 1b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?

- 2a. What about keeping a promise to a friend? How important is it to keep a promise, if you can, to a friend?

Circle one: very important important not important

- 2b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?
-
-
-

3. What about to anyone? How important is it to keep a promise, if you can, even to someone you hardly know?

Circle one: very important important not important

- 3b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT (whichever one you circled)?
-
-
-

4. What if Joe's father hadn't told Joe to give him the money, but had just asked Joe if he would lend the money? Should Joe?

Circle one: refuse not refuse can't decide

- 4a How important is it for children to help their parents, even when their parents have broken a promise?

Circle one: very important important not important

- 4b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?
-
-
-

5. What if Joe did earn the money but Joe's father did not promise that Joe could keep the money? Should Joe?
Circle one: refuse not refuse can't decide

5a. How important is it for parents to let their children keep earned money--even when the parents did not promise their children that they could keep the money?
Circle one: very important important not important

- 5b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?
-
-
-

6. What if the father needs the money not to go on a fishing trip, but instead to pay for food for the family? Should Joe?
Circle one: refuse not refuse can't decide

6a. How important is it for children to help their parents--even when it means that the children won't get to do something they want to do?
Circle one: very important important not important

6b. WHY IS THAT VERY IMPORTANT/IMPORTANT/NOT IMPORTANT
(whichever one you circled)?

Protocol Stage Rating

Code # _____ Modal: _____
 Form: A/B (circle one) SRMS: _____
 Rater: _____ GLOBAL: _____

Problem	Norm (question)	Question Referent	Aspect Citation	Level	Comments
One	1: Affil. (1b, 2b, 3b)	_____	_____	_____	_____
	2: Life (4b)	_____	_____	_____	_____
	3: LwPrp. (5b 6b)	_____	_____	_____	_____
	4: Legal Justice (7b, 9b,	_____	_____	_____	_____
	5: Conscience (8b)	_____	_____	_____	_____
Two	6: Fam. Affil. (1b, 4b, 6b)	_____	_____	_____	_____
	7: Contract (2b, 3b)	_____	_____	_____	_____
	8: Property (5b)	_____	_____	_____	_____

Stage: Weightings
 1: _____
 2: _____
 3: _____
 4: _____
 Total: _____
 TR: _____ A: _____
 TP: _____ B: _____

Computational Space

APPENDIX J
PURPOSE OF THE STUDY

Purpose of the Study

The purpose of this study is to examine your responses to a variety of psychological measures in order to determine how you define your world. You will be taking a total of four tests plus completing a personal data sheet. You will be assigned a code number that will be written on the top of your tests. This number is how your responses will be identified and in that way, will assure that your answers are kept confidential. If you are interested in receiving individual feedback on your performance, write down your code number and this phone number (214) 324-3857 which you can call in two weeks to reach the examiner, Linda Haynes. If you have any questions about this procedure, feel free to ask now.

APPENDIX K
CONSENT FORM

Consent Form

I, _____, do hereby consent to participate in an investigation of individual thought patterns conducted by Linda Haynes or her representative. I understand that I will be asked to fill out a personal data sheet and to take four psychological tests.

I understand that my name will not be used on any of the findings or reports from this study and that the test materials will remain confidential. I also understand that there is no risk involved during my participation in this investigation.

I understand that the procedure to be performed is research in nature and that I have the option of withdrawing my consent at any time. I understand that my participation or withdrawal will not affect the services offered me.

I have heard a clear explanation and understand the nature and purpose of this study. With my understanding of this information, I voluntarily consent to the procedure as stated.

Signed

Date

Witness

Witness

APPENDIX L

STATISTICAL ANALYSIS OF THE
CRIMINAL SEMANTIC INVENTORY

Table L-1

Averages of the Four Groups on the Three Dependent Measures

Group	Dimension	<u>M</u>	<u>SD</u>
<u>Clever</u>			
M	Evaluation	4.40	0.95
	Potency	4.50	1.01
	Activity	4.53	1.23
B	Evaluation	4.62	0.78
	Potency	4.92	1.01
	Activity	5.14	1.13
D	Evaluation	4.56	0.77
	Potency	4.51	0.72
	Activity	4.71	0.90
NC	Evaluation	4.65	0.54
	Potency	4.69	0.63
	Activity	4.93	0.68
<u>Stupid</u>			
M	Evaluation	3.41	0.90
	Potency	3.69	0.97
	Activity	3.19	0.96

Group ^a	Dimension	<u>M</u>	<u>SD</u>
B	Evaluation	3.31	0.67
	Potency	3.46	1.26
	Activity	3.40	1.35
D	Evaluation	3.41	0.60
	Potency	3.54	0.68
	Activity	3.27	1.15
NC	Evaluation	3.51	0.85
	Potency	3.43	0.94
	Activity	3.20	0.85
	<u>Succeed</u>		
M	Evaluation	4.94	0.08
	Potency	5.15	1.04
	Activity	5.18	1.09
B	Evaluation	5.59	0.78
	Potency	5.59	0.98
	Activity	5.56	0.90
D	Evaluation	4.90	0.65
	Potency	5.25	0.82
	Activity	5.08	0.19

Group ^a	Dimension	<u>M</u>	<u>SD</u>
NC	Evaluation	5.04	0.61
	Potency	5.18	0.68
	Activity	5.14	0.75
<u>Friend</u>			
M	Evaluation	4.81	0.73
	Potency	4.39	0.90
	Activity	4.78	1.12
B	Evaluation	4.76	0.64
	Potency	4.64	1.16
	Activity	4.99	1.26
D	Evaluation	4.90	0.57
	Potency	4.37	0.84
	Activity	4.46	0.79
NC	Evaluation	4.86	0.61
	Potency	4.67	0.70
	Activity	4.61	0.62
<u>Con</u>			
M	Evaluation	3.27	1.07
	Potency	4.73	1.18
	Activity	4.29	1.59
B	Evaluation	3.79	0.95
	Potency	4.98	1.16
	Activity	4.48	1.15

Group ^a	Dimension	<u>M</u>	<u>SD</u>
D	Evaluation	3.51	0.65
	Potency	4.78	1.09
	Activity	4.81	0.97
NC	Evaluation	3.33	0.66
	Potency	4.27	1.07
	Activity	4.78	0.94
<u>Problem</u>			
M	Evaluation	3.80	0.87
	Potency	4.70	1.09
	Activity	4.04	1.14
B	Evaluation	3.75	0.69
	Potency	4.83	1.19
	Activity	4.51	1.07
D	Evaluation	4.00	0.78
	Potency	4.64	0.90
	Activity	4.38	0.90
NC	Evaluation	3.81	0.60
	Potency	4.61	0.75
	Activity	4.54	0.81

Group ^a	Dimension	<u>M</u>	<u>SD</u>
	<u>Borrow</u>		
M	Evaluation	3.63	0.86
	Potency	3.88	1.05
	Activity	3.82	0.74
B	Evaluation	3.85	0.84
	Potency	3.75	0.85
	Activity	4.07	1.04
D	Evaluation	3.84	0.69
	Potency	3.67	0.81
	Activity	3.81	0.91
NC	Evaluation	3.79	0.50
	Potency	3.76	0.70
	Activity	4.19	0.98
	<u>Excitement</u>		
M	Evaluation	4.72	0.84
	Potency	4.40	0.91
	Activity	5.37	1.23
B	Evaluation	4.84	0.83
	Potency	4.84	1.04
	Activity	5.84	0.94

Group ^a	Dimension	<u>M</u>	<u>SD</u>
D	Evaluation	4.58	0.58
	Potency	4.84	0.85
	Activity	5.72	1.09
NC	Evaluation	4.62	0.49
	Potency	5.08	1.01
	Activity	6.00	0.99
<u>Ordinary</u>			
M	Evaluation	4.36	0.87
	Potency	3.98	0.88
	Activity	3.83	1.17
B	Evaluation	4.21	0.78
	Potency	3.94	1.08
	Activity	3.75	1.15
D	Evaluation	4.26	0.54
	Potency	3.76	0.64
	Activity	3.91	1.00
NC	Evaluation	4.04	0.64
	Potency	3.58	0.76
	Activity	3.19	0.90
<u>Manhood</u>			
M	Evaluation	4.85	0.73
	Potency	5.49	1.11
	Activity	4.67	1.25

Group ^a	Dimension	<u>M</u>	<u>SD</u>
B	Evaluation	4.86	0.64
	Potency	5.51	1.18
	Activity	5.05	1.05
D	Evaluation	4.86	0.78
	Potency	5.31	0.93
	Activity	4.61	0.91
NC	Evaluation	4.69	0.50
	Potency	5.40	0.95
	Activity	4.84	0.74
<u>Pleasure</u>			
M	Evaluation	4.79	0.60
	Potency	3.94	1.03
	Activity	4.29	1.49
B	Evaluation	4.88	0.62
	Potency	4.35	1.08
	Activity	5.31	1.11
D	Evaluation	4.54	0.52
	Potency	4.25	0.91
	Activity	4.89	1.32

Group ^a	Dimension	<u>M</u>	<u>SD</u>
NC	Evaluation	4.67	0.57
	Potency	4.17	0.83
	Activity	4.73	1.06
<u>Police</u>			
M	Evaluation	4.76	0.86
	Potency	5.29	1.16
	Activity	4.85	2.25
B	Evaluation	4.52	0.93
	Potency	5.07	1.00
	Activity	4.91	1.01
D	Evaluation	4.44	0.82
	Potency	5.43	1.02
	Activity	5.04	1.16
NC	Evaluation	4.94	0.80
	Potency	5.59	0.90
	Activity	4.96	0.91
<u>Companionship</u>			
M	Evaluation	4.60	0.62
	Potency	4.13	0.99
	Activity	4.56	1.24

Group ^a	Dimension	<u>M</u>	<u>SD</u>
B	Evaluation	4.84	0.61
	Potency	4.07	1.02
	Activity	4.91	1.16
D	Evaluation	4.77	0.61
	Potency	4.10	0.94
	Activity	4.58	1.02
NC	Evaluation	4.69	0.40
	Potency	4.52	0.53
	Activity	4.69	0.59
<u>Truth</u>			
M	Evaluation	5.33	0.64
	Potency	4.80	0.97
	Activity	4.98	1.17
B	Evaluation	5.04	0.72
	Potency	4.92	1.22
	Activity	5.05	1.15
D	Evaluation	5.37	0.73
	Potency	5.20	0.99
	Activity	4.47	1.19
NC	Evaluation	5.12	0.82
	Potency	5.11	0.79
	Activity	4.59	1.02

Group ^a	Dimension	<u>M</u>	<u>SD</u>
	<u>Rape</u>		
M	Evaluation	2.93	0.67
	Potency	4.36	1.20
	Activity	4.14	1.49
B	Evaluation	3.11	0.34
	Potency	4.42	1.11
	Activity	4.31	1.53
D	Evaluation	3.06	0.57
	Potency	4.79	0.97
	Activity	5.24	1.33
NC	Evaluation	3.16	0.73
	Potency	5.00	1.30
	Activity	5.29	1.30
	<u>Murder</u>		
M	Evaluation	2.94	0.55
	Potency	5.00	1.26
	Activity	4.37	1.43
B	Evaluation	3.28	0.50
	Potency	4.78	0.78
	Activity	4.54	1.49
D	Evaluation	3.15	0.52
	Potency	4.94	0.70
	Activity	5.18	1.27

Group ^a	Dimension	<u>M</u>	<u>SD</u>
NC	Evaluation	3.12	0.58
	Potency	5.24	1.27
	Activity	5.20	1.21

Note. N = 135.

Table L-2

Summary of Multivariate Analysis of Variance

Variable	Wilk's Lambda	F	df	p ^a
Clever	0.914	1.32	9, 314	0.22
Stupid	0.968	0.47	9, 314	0.89
Succeed	0.927	1.11	9, 314	0.35
Friend	0.927	1.11	9, 314	0.36
Con	0.858	2.27	9, 314	0.02*
Problem	0.927	1.10	9, 314	0.36
Borrow	0.933	1.01	9, 314	0.43
Excitement	0.861	2.22	9, 314	0.02*
Ordinary	0.912	1.34	9, 314	0.21
Manhood	0.954	0.68	9, 314	0.73
Pleasure	0.863	2.18	9, 314	0.02*
Police	0.918	1.25	9, 314	0.26
Companionship	0.911	1.36	9, 314	0.21
Truth	0.888	1.75	9, 314	0.08
Rape	0.848	2.45	9, 314	0.01*
Murder	0.855	2.33	9, 314	0.02*

Note. N = 135.

^aapproximate probability of a smaller F statistic.

Table L-3

Summary of Univariate Analysis of Variance on Three
Dependent Variables

Variable	Dimension	F	df	p ^a
Clever	Evaluation	0.58	3, 131	0.63
	Potency	1.75	3, 131	0.15
	Activity	2.64	3, 131	0.05*
Stupid	Evaluation	0.35	3, 131	0.79
	Potency	0.51	3, 131	0.68
	Activity	0.31	3, 131	0.82
Succeed	Evaluation	0.31	3, 131	0.83
	Potency	1.75	3, 131	0.16
	Activity	1.75	3, 131	0.16
Friend	Evaluation	0.26	3, 131	0.85
	Potency	1.00	3, 131	0.39
	Activity	1.66	3, 131	0.18
Con	Evaluation	2.54	3, 131	0.06
	Potency	2.24	3, 131	0.09
	Activity	1.27	3, 131	0.29
Problem	Evaluation	0.65	3, 131	0.58
	Potency	0.29	3, 131	0.83
	Activity	1.97	3, 131	0.12
Borrow	Evaluation	0.66	3, 131	0.58
	Potency	0.35	3, 131	0.79
	Activity	1.33	3, 131	0.27

Variable	Dimension	<u>F</u>	<u>df</u>	<u>p</u> ^a
Excitement	Evaluation	0.86	3, 131	0.47
	Potency	3.13	3, 131	0.03*
	Activity	2.21	3, 131	0.09
Ordinary	Evaluation	1.08	3, 131	0.36
	Potency	1.49	3, 131	0.22
	Activity	2.83	3, 131	0.04*
Manhood	Evaluation	0.49	3, 131	0.69
	Potency	0.24	3, 131	0.87
	Activity	1.25	3, 131	0.30
Pleasure	Evaluation	2.14	3, 131	0.10
	Potency	1.12	3, 131	0.31
	Activity	4.07	3, 131	0.008
Police	Evaluation	2.25	3, 131	0.09
	Potency	1.48	3, 131	0.22
	Activity	0.15	3, 131	0.93
Companionship	Evaluation	1.19	3, 131	0.32
	Potency	1.71	3, 131	0.17
	Activity	0.84	3, 131	0.47
Truth	Evaluation	1.62	3, 131	0.19
	Potency	1.10	3, 131	0.35
	Activity	2.00	3, 131	0.12
Rape	Evaluation	1.03	3, 131	0.38
	Potency	2.36	3, 131	0.08
	Activity	6.09	3, 131	0.001*

Variable	Dimension	<u>F</u>	<u>df</u>	<u>p</u> ^a
Murder	Evaluation	2.63	3, 131	0.05*
	Potency	1.07	3, 131	0.36
	Activity	3.40	3, 131	0.02*

Note. N = 135.

^aApproximate probability of a smaller F statistic.

Table L-4

Rotated Factor Loadings for the Factor Structure of the
Semantic Differential Scales

Scale	Factors			h ²
	I	II	III	
	<u>Clever</u>			
Good-bad	.75	-.18	.17	.62
Kind-cruel	-.26	.72	-.08	.59
Fair-unfair	.81	-.23	-.05	.71
Strong-weak	.49	-.31	.36	.47
Hard-soft	-.01	.35	.01	.12
Rugged-delicate	-.05	.58	.24	.40
Active-passive	.42	-.10	.40	.34
Calm-excitabile	-.04	.10	.00	.01
Fast-slow	.06	.04	.53	.29
Cumulative Proportion of Variance	.55	.81	.91	
	<u>Stupid</u>			
Good-bad	.71	.03	.01	.51
Kind-cruel	-.80	.33	.14	.77
Fair-unfair	.68	-.10	.05	.47
Strong-weak	.58	.11	-.13	.37
Hard-soft	-.17	.36	.03	.28
Rugged-delicate	-.28	.00	.66	.52
Active-passive	.34	.79	.02	.74

Scale	Factors			h ²
	I	II	III	
Calm-excitable	-.17	.30	.49	.12
Fast-slow	.23	.10	.44	.25
Cumulative Proportion of Variance	.53	.77	.91	
	<u>Succeed</u>			
Good-bad	.88	-.14	.00	.80
Kind-cruel	-.18	.48	-.05	.26
Fair-unfair	.14	-.46	.04	.23
Strong-weak	.80	-.08	-.14	.66
Hard-soft	.17	.33	.09	.15
Rugged-delicate	-.05	.52	-.08	.27
Active-passive	.30	-.07	.11	.10
Calm-excitable	.14	.00	.75	.58
Fast-slow	.17	.05	-.21	.07
Cumulative Proportion of Variance	.50	.72	.90	
	<u>Friend</u>			
Good-bad	.83	-.34	.23	.85
Kind-cruel	-.43	.31	-.11	.29
Fair-unfair	.50	-.11	-.06	.37
Strong-weak	.77	-.20	.13	.65
Hard-soft	-.12	.41	.01	.18
Rugged-delicate	-.14	.76	.46	.81

Scale	Factors			
	I	II	III	h^2
Active-passive	.53	.05	-.23	.34
Calm-excitabile	-.02	-.04	-.28	.08
Fast-slow	.41	.03	-.23	.33
Cumulative Proportion of Variance	.60	.81	.91	
	<u>Con</u>			
Good-bad	.86	.08	-.20	.79
Kind-cruel	-.40	.01	.62	.55
Fair-unfair	.67	.01	-.28	.53
Strong-weak	.38	.44	.03	.34
Hard-soft	-.14	.19	.50	.30
Rugged-delicate	-.12	.05	.60	.37
Active-passive	.05	.77	-.03	.59
Calm-excitabile	-.01	.24	.22	.11
Fast-slow	-.01	.70	.28	.57
Cumulative Proportion of Variance	.48	.83	.93	
	<u>Problem</u>			
Good-bad	.68	.31	-.08	.56
Kind-cruel	-.76	.07	.31	.68
Fair-unfair	.70	.05	.03	.49
Strong-weak	.31	.68	.03	.56
Hard-soft	-.09	.19	.62	.42

Scale	Factors			h ²
	I	II	III	
Rugged-delicate	-.03	-.11	.48	.24
Active-passive	.20	.30	-.11	.14
Calm-excitabile	-.09	.23	.27	.13
Fast-slow	-.08	.53	.18	.32
Cumulative Proportion of Variance	.49	.79	.91	
	<u>Borrow</u>			
Good-bad	.79	-.20	.02	.67
Kind-cruel	-.33	.80	-.33	.85
Fair-unfair	.54	-.23	.40	.50
Strong-weak	.83	-.06	.05	.71
Hard-soft	-.10	.36	.09	.15
Rugged-delicate	-.18	.64	.10	.46
Active-passive	.03	-.03	.25	.07
Calm-excitabile	.20	.43	-.32	.33
Fast-slow	.15	.04	.76	.79
Cumulative Proportion of Variance	.50	.76	.93	
	<u>Excitement</u>			
Good-bad	.84	-.26	.13	.79
Kind-cruel	-.17	.70	.11	.53
Fair-unfair	.17	-.45	.40	.39
Strong-weak	.81	-.31	.10	.76

Scale	Factors			h ²
	I	II	III	
Hard-soft	-.11	.22	.80	.70
Rugged-delicate	-.01	.81	.24	.71
Active-passive	.39	.05	.07	.16
Calm-excitabile	.22	-.02	.34	.17
Fast-slow	.15	.07	.49	.26
Cumulative Proportion of Variance	.49	.81	.95	
	<u>Ordinary</u>			
Good-bad	.91	-.05	.12	.85
Kind-cruel	-.41	.18	-.30	.29
Fair-unfair	.72	-.05	.09	.53
Strong-weak	.79	.10	.13	.66
Hard-soft	-.18	.58	.16	.39
Rugged-delicate	-.10	.43	-.28	.28
Active-passive	.34	-.01	.37	.25
Calm-excitabile	.09	.20	.70	.54
Fast-slow	.27	.69	.16	.57
Cumulative Proportion of Variance	.56	.81	.94	
	<u>Manhood</u>			
Good-bad	.70	.02	.14	.51
Kind-cruel	-.56	.33	.04	.43
Fair-unfair	.62	.05	.06	.40

Scale	Factors			h ²
	I	II	III	
Strong-weak	.75	.22	.06	.61
Hard-soft	.11	.62	.08	.40
Rugged-delicate	-.69	.64	-.30	.50
Active-passive	.20	.07	.21	.09
Calm-excitable	.12	-.09	.61	.38
Fast-slow	.28	.24	.11	.15
Cumulative Proportion of Variance	.52	.80	.92	
<u>Pleasure</u>				
Good-bad	-.35	.61	-.03	.49
Kind-cruel	.81	-.14	.17	.71
Fair-unfair	-.63	.24	-.01	.45
Strong-weak	-.50	-.69	.06	.73
Hard-soft	.10	-.07	.78	.62
Rugged-delicate	.50	-.08	.50	.51
Active-passive	-.11	.50	-.04	.26
Calm-excitable	.00	.46	.14	.23
Fast-slow	.02	.24	.57	.37
Cumulative Proportion of Variance	.55	.84	.94	
<u>Police</u>				
Good-bad	.76	-.22	.01	.62
Kind-cruel	-.62	.41	-.27	.63

Scale	Factors			h ²
	I	II	III	
Fair-unfair	.73	-.20	.13	.58
Strong-weak	.67	.04	-.04	.45
Hard-soft	.02	.66	.09	.44
Rugged-delicate	-.11	.66	.07	.45
Active-passive	.32	.11	.46	.33
Calm-excitabile	-.09	.06	.65	.43
Fast-slow	.56	.23	.01	.36
Cumulative Proportion of Variance	.55	.79	.93	
<u>Companionship</u>				
Good-bad	.84	-.32	.02	.80
Kind-cruel	-.27	.72	-.19	.63
Fair-unfair	.33	-.39	.21	.31
Strong-weak	.91	-.32	.05	.93
Hard-soft	-.22	.56	.29	.44
Rugged-delicate	.14	.72	.09	.55
Active-passive	.47	.09	-.19	.26
Calm-excitabile	.39	-.02	-.05	.16
Fast-slow	-.10	.03	.72	.53
Cumulative Proportion of Variance	.57	.78	.93	

Scale	Factors			h ²
	I	II	III	
	<u>Truth</u>			
Good-bad	.94	-.14	-.04	.90
Kind-cruel	-.33	.65	-.08	.54
Fair-unfair	.50	-.29	.25	.39
Strong-weak	.80	-.17	.07	.67
Hard-soft	.00	.42	.61	.55
Rugged-delicate	-.09	.48	.14	.26
Active-passive	.07	.06	.38	.15
Calm-excitable	-.08	.08	.43	.19
Fast-slow	.13	.01	.31	.11
Cumulative Proportion of Variance	.57	.83	.95	
	<u>Rape</u>			
Good-bad	-.21	-.17	.95	.99
Kind-cruel	.67	-.04	-.23	.51
Fair-unfair	.45	.10	.26	.28
Strong-weak	-.10	.16	.40	.20
Hard-soft	.45	.20	-.09	.25
Rugged-delicate	.55	.21	.04	.35
Active-passive	.05	.42	.08	.19
Calm-excitable	-.01	.74	-.06	.55
Fast-slow	.18	.60	.04	.39
Cumulative Proportion of Variance	.47	.76	.93	

Scale	Factors			
	I	II	III	h^2
	<u>Murder</u>			
Good-bad	.66	.04	-.23	.49
Kind-cruel	-.55	.10	.36	.44
Fair-unfair	.68	-.01	-.01	.47
Strong-weak	.34	.31	-.12	.22
Hard-soft	-.59	.12	.22	.42
Rugged-delicate	-.36	.16	.71	.66
Active-passive	.15	.63	.11	.43
Calm-excitable	-.19	.59	-.05	.38
Fast-slow	-.07	.42	.18	.22
Cumulative Proportion of Variance	.57	.84	.93	

APPENDIX M

CHI SQUARE ANALYSIS FOR PARTS 1 AND 2 OF
THE TEST OF CRIMINAL COGNITIONS

Table M-1

Chi Square Analysis of Part 1 and Part 2 of TCC

Variable	Chi Square ^a	p ^b
<u>Part 1</u>		
TCC Card 1	10.22	.33
TCC Card 2	2.13	.99
TCC Card 3	11.56	.24
TCC Card 4	9.15	.42
<u>Part 2</u>		
TCC Card 1	11.77	.23
TCC Card 2	11.32	.25
TCC Card 3	7.35	.60

N = 134

^aDegrees of freedom = 9

^bApproximate probability of a smaller chi square.

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