DISSERTATION

Michael Patrick Phelan

The Graduate School

University of Kentucky

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TOWARDS A DEVELOPMENTAL SOCIAL PSYCHOLOGY OF CRIME

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A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts and Science
at the University of Kentucky

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May 7, 03

I dedicate the following dissertation to my loved ones who were not able to complete the journey with me. Although they are not here in person they live on in me. To my father and best friend, Patrick Benjamin Phelan, I miss you very much and hope I can become half the man you were. To my stepson, Darren Charlie Tucker, you left too soon, but believe me I tell of our adventures in class (and we had a few of them). To my mother-in-law Betty Gwinn Earl, you were a tough woman. You tried your best to hang on for this moment, sorry I didn't finish in time. To my best man Thomas A. Oberstar, my friend, we played hard and swore we would never live to see forty. I guess we were half right. To Lt. Max Overley and Sgt. Hal Birchfield, although we were the invisible, the forgotten, I will never, ever, forget you. At least your nightmares are over. See you all soon.

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My sincere thanks to Dr. Scott Hunt for his role as chair on my committee. He encouraged me when I was down, directed me when I wandered, and motivated me to finish. He always made time for me even when there was none to spare, and for this I am extremely grateful. Many thanks also go out to Dr. William Skinner for all of his wonderful guidance and advice. A heartfelt thank you to Drs. Pamela Wilcox, Graham Ousey, and Donald Lynam for taking time to participate as members on my committee and the successful completion of my dissertation. They were always there to answer questions and make time for me. Each of my committee members provided insights that helped guide and challenge my thinking, substantially improving this finished work. I have come to respect and admire each and every one of my committee members, not only for their intellectual abilities, but for their gifts as educators and being genuine, caring, patient, human beings. What I have learned from each of these people I will carry with me the rest of my life.

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Social psychological criminology that has examined the relationship between the self and criminality has ignored aged-graded causal factors, while developmental criminology has neglected the impact the self-concept has on offending. In this study I contend that synthesizing self-concept and developmental perspectives provides a more complete and robust developmental social psychology of offending. Reflected appraisals were identified as one of the primary dimensions of self-concept. The purpose of this study was to examine the developmental changes in reflected appraisals and how they affect offending behavior over time by age and by sex. My dissertation integrates the central concepts from both perspectives to advance a developmental social psychology of crime that includes self [reflected appraisals] and age-graded explanations of offending. To complete this task, a secondary analysis of the first six waves of the National Youth Survey (NYS) was conducted. The NYS is a national probability sample of 1,725 adolescents aged 11-17 at the time of the initial interview (wave one). Theoretical models were developed as linear equations to study the predictiveness of reflected appraisals on subsequent offending by age and by sex. The

research question for this study is, "who [parents, teachers, friends] is important [selective perception], for what [reflected appraisals], when [age 13, 15, 17]. The results indicate that reflected appraisals do add to the understanding and predictability of future offending over and above what was explained by prior offending, sex, race, and parental income. The findings also revealed significant differences in the effects of reflected appraisals across both age and sex.

May 8, 2003

Introduction

Social psychological criminology that has examined the relationship between the self and criminality has ignored aged-graded causal factors (e.g., Matsueda 1992), while developmental criminology has neglected the impact the self-concept has on offending (e.g., Loeber and Le Blanc 1990; Sampson and Laub 1995). What I want to examine are the developmental changes in reflected appraisals and how they affect offending behavior over time by age and sex.

Matsueda's (1992) theoretical framework of the self and crime builds from symbolic interactionists' conception of the self as a reflection of appraisals made by significant others. Matsueda draws from Mead's analysis of the social act as well as labeling theorists notions of "dramatization of evil," deviance amplification, and secondary deviance (e.g., see Mead, 1932; Tannenbaum, 1938; Lemert, 1951). His integrated framework examines the causes and consequences of reflected appraisals and delinquent behavior. In Matsueda's research, he found that reflected appraisals of self were affected by prior delinquency and that future delinquency was affected by reflected appraisals. Missing, however, are any age-graded or developmental factors that may be influencing both reflected appraisals and selective perception of others, and any subsequent influence on offending.

Developmental criminology has been defined by Loeber and LeBlanc (1990) as "strategies that examine with-in individual changes in offending over time." The relationship between age and crime has been well documented throughout the criminological literature and everyone seems to be in agreement that there is this relationship. The debate, however,

is over whether we can discuss this relationship in terms of a general theory of crime (Gottfredson and Hirschi, 1990) or whether this relationship between age and crime is more developmental in nature (Wilcox, Land, and Hunt, 2003; Jang, 1999; Sampson and Laub, 1993; Caspi, 1993; Loeber and LeBlanc, 1990; Thornberry, 1987). Assuming that the relationship between the self-concept and crime is developmental, I test to see if there are indeed within individual changes in the relationships between reflected appraisals and offending over time.

In testing these relationships, I seek to synthesize self-concept and developmental perspectives in order to provide a more complete and robust developmental social psychology of offending. To move in this direction, I review the theoretical and empirical literatures on the social psychology of offending and to identify the key causal variables from both self-concept and developmental perspectives. I integrate the central concepts from both perspectives to advance a developmental social psychology of crime that includes self and age-graded explanations of offending. Several propositions are derived from this integrated developmental social psychology. Using data from the National Youth Survey (NYS), I examine the hypothesized relationships between reflected appraisals and offending by testing nine separate models using OLS regression. The first three models examine all cases (males and females together) at age 13, 15, and 17. The next three models examine male subjects at age 13, 15, and 17 and the last three models examine female subjects at age 13, 15, and 17. I conduct separate analyses for males and females in order to more fully explore gender dynamics.

To accomplish this agenda, my dissertation consists of five chapters. In the first

chapter, I review the theoretical and empirical literatures that examine self-concept and age-graded factors that influence offending. The main purpose of this chapter is to establish a working definition of self-concept from a symbolic interactionist perspective and to identify reflected appraisals as one of the primary dimensions of the self-concept. Chapter 2 discusses the data and methods used to construct my variables and advances nine specific hypotheses. In the third and forth chapters I present the findings from my analyses of the NYS data. The third chapter presents the findings for the dimensional aspects of reflected appraisals for all cases (male and female combined) at ages 13, 15, and 17. The forth chapter focuses on gender differences and presents the findings of the dimensional aspects of reflected appraisals for males and females separately at ages 13, 15, and 17. This was done in order to make both gender-specific, as well as, cross-gender comparisons. Finally, the dissertation concludes in chapter five with a discussion of the theoretical, empirical, and applied implications of my study.

Chapter 1

In this chapter I review the theoretical and empirical literatures that examine reflected appraisals as a dimension of self-concept, age-graded factors that influence offending, and the effects of gender. I contend that synthesizing self-concept and developmental perspectives provides a more complete and robust developmental social psychology of offending. I am concerned with what is going on in youths' self-concept as it pertains to the question, *who* is important for *what, when.* In other words, I hope to explore who [parents, teachers, friends] is important [selective perception] for what [reflected appraisals of self], when [age 13, 15, 17] and the reciprocal affects on frequency of offending. I want to know if selective perception and reflected appraisals of self (from the standpoint of parents, teachers, and friends) change over time or remains relatively stable. To establish the foundation for my study, I must first review the literature on the self-concept and reflected appraisals, outline the literature from developmental criminology, and then derive key propositions from those literatures.

Self-Concept

The self-concept has been central throughout the history of symbolic interactionism (Gecas 1982). The theoretical foundations for self-concept, are found in the work of Cooley (1902) and Mead (1934).

In the theories of Cooley (1902) and Mead (1934), the self would not exist without society. Before people can develop a "self," there must be a pre-existing society. Through social processes, the self "becomes," it develops. The "self" is not a private or personal entity, rather, it is a viewpoint that always involves other people looking upon the self from

the outside. Cooley (1902) stated that a person's self grows out of a person's commerce with others. That is, there can be no sense of "I" without a correlative sense of "you" or "he" or "they." Thus, the self is a combination of at least two viewpoints: a self who is doing the perceiving and a self who is perceived.

Self-consciousness was described by Cooley, as emerging from the interaction with groups of others. From the work of James (1890), Cooley adopted the view of self as the ability to see and recognize oneself as an object. Cooley believed that humans use the gestures of others to see themselves (a theme we will also see in the work of Mead). The images that people form of themselves are quite similar to reflections from a mirror, or what Cooley describes as a "looking glass." The images are similar to a looking glass in the sense that they are provided to the individual by the reactions of others to their behavior. So by reading the gestures of others, people can see themselves as object. Cooley (1902, p.184) describes it this way:

> As we see our face, figure, and dress in the glass, and are interested in them because they are ours ... so in imagination we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it.

Infants, on the other hand, do not have the ability to see themselves as objects in the looking glass. It is only through practice, biological maturation, and exposure to a variety of other people that they come to see themselves in the looking glass and develop a sense of self. It is not until the child learns to talk that the social world opens up on the mind of the youth with all it's "wonder and provocation," flooding their imagination to the point that all their thoughts become conversations (Cooley, 1902). The main point Cooley wants to get

across here is that these conversations are not occasional and temporary emotional expressions of the imagination, but rather, are the "naïve [at first] expression of a socialization of the mind that is to be permanent and to underlie all later thinking." With maturity, these expressions do of course become more sophisticated, but they start off rather simple and childlike. In either case, child or adult, "the mind lives in perpetual conversation." Because children must act in the environment, others will then react, and this reaction will then be perceived (Cooley, 1902 pp 137-211).

In Cooley's "looking-glass self" the mirror is considered a social thing. As one looks in the mirror they see how others see them. As such, a person's self-image can be significantly influenced by other people's opinions about him or her. This is due, in part, because individuals tend to be more influenced by what they believe others think about them (reflected appraisals), rather than what others actually think (others' actual appraisals). Thus, there are three elements to Cooley's "looking-glass self" that can be identified. First, the imagination of our appearance to the other person. Second, the imagination of the other person's judgement of that appearance. And third, an expressive response to the judgements or appraisals of others (e.g., some sort of self-feeling such as pride or mortification).

Building on Cooley's work, Mead (1934) offered a more complete theory of self and society. One of the main themes in Mead (1934) is his emphasis on how individuals construct meanings and their ability, then, to attach those meanings to things in the world. For Mead, "mind," which refers to thinking, is central to making and attaching meanings. Perhaps the most important meaning for individuals is the self. For Mead, humans do not possess "mind" at birth; rather, mind emerges from learning processes. To explain this

process he identifies two important features: gestures and significant symbols. Gestures, Mead claims, act as stimuli, things that can illicit responses. Since most of human life operates at the level of symbols, significant symbols can be shared among many people (such as a nationally shared language) or can be specific to small subgroups (such as work place jargon). One does not know what a significant symbol is until a second party is involved and shows that they understand. Human communication involves not only significant symbols, but abstract concepts, thought, reflection, and intelligent actions. For Mead, communication is understood as conversation of significant symbols. Thought or thinking, then, is the internalized conversation of significant symbols with shared specific meanings in self reflection. As described by Mead, mind is then a social process. Only by being involved in interaction can we develop a mind, for again, we are born "mind-less."

Mead (1932) also elaborates on the idea of self-consciousness. Mead (1932, p.186) describes it this way: "We appear as selves in our conduct in so far as we ourselves take the attitude that others take toward us... we assume the attitude of assent of all members in the community." We take the role of the "generalized other" and in doing so, we appear as social objects (as selves). There are two essentials steps, or stages, in attaining self consciousness. The first is identified as the "play stage." Here, the child is acquiring the roles of those who belong to their group or society. Significant others play an important part at this stage. The child is continually acting. It is a period marked as a "childish existence" and of "endless imitation." The second, is identified as the "game stage." The game stage is a much more regulated procedure, primarily because one must now incorporate rules. The child must not only take the role of the other as they did in the play stage, but now they must

assume the various roles of all the participants in the game, and be able to govern their behavior accordingly. Mead explains the play stage as such:

> If he plays first base, it is as the one to whom the ball will be thrown from the field or from the catcher. Their organized reactions to him he has imbedded in his own playing of the different positions, and his organized reaction becomes... the 'generalized other' that accompanies and controls his conduct (Mead, 1932 p.186).

It is this "generalized other" in a persons' experience that provides him or her with a self. In Mead's theory, he describes the self as consisting of the "I" and the "me." The "I" is the individual as subject and the "me" constitutes the person as object. The self as both subject and object is the essence of being social. The "I" has been described as "the free actor." Free in the sense that it is unthoughtful action, action that even surprises the actor. The "I" is that part of what we do which is nonsocial and non-controlled. No matter how much we learn to control what we do in certain situations, we are all to some extent impulsive, spontaneous, and creative in the situations we act in. The "I" is something that is never entirely calculable. The "me," on the other hand, is the self as seen as object. The "me" involves conscious responsibility and the adoption of the "generalized other." The "generalized other" is the viewpoint of society within the individual . The particular individuality of each "self" is a result of the particular combination (which is never the same for two people) of the attitudes of others that form the generalized other. Mead (1934 p. 197) describes the 'me' as a conventional, habitual individual, a socially shaped and controlled actor. The self as a whole is a compound of the stabilized reflections of the generalized other in the "me" and the incalculable spontaneity of the "I" (p. 338). For Mead, then, the "self" is a process of reflexivity which emanates from the dialectic interplay

between the "I" and the "me." The "I" is from birth. It is in the moment. The "me," however, develops over a period of social interaction allowing the self to be formed and to step back and reflect. Thus, there is a continuous shift back and forth between the two.

We as humans identify ourselves, think about ourselves, and judge ourselves. "Self" is often used to mean the "me" as object. For the interactionist, the self is an object of the actors own action. The individual self-concept is that organization of qualities that the individual attributes to him or herself. These qualities may include both attributes (such as being ambitious or intelligent) and roles (being a son or factory worker) The term self-concept is sometimes used to describe the fairly stable picture we have of ourselves. Over time, self-perception develops some stability. This stability is what allows us to develop knowledge about who we are and what we do. However, the self-concept is a process and not a fixed "entity," the picture we have of ourselves will change over time and in most situations. So in other words, because the self is social, it arises in interaction, and then changes or remains stable due to interaction.

The theory of self based on the work of Cooley and Mead attempts to explain the development of the conception that individuals have of themselves which is derived from their interactions with those around them. A self-concept enables individuals to be the object of their own actions. Concerning self-appraisal or self-assessment, Mead and Cooley have shown that the self is something that one evaluates. This is the "looking glass," which is a continual process. The self involves the emergence of a self-conception (or subtle disposition) to act toward oneself as a certain type of object. Such a stable self-conception evolves out of the accumulation of self-images and self-evaluations with reference to specific

and then increasingly generalized others.

The self-appraisal obviously requires some understanding of who one is. It is how one sees oneself. For an actor to say "I am this kind of person" or "that kind of person" is a self-appraisal, or an assessment of self. The whole idea of selfhood means that actors are able to see themselves as object as they act in situations. Both the "I" and the "me" necessarily relate to social experience. According to Mead (1934 p. 175) the "I" is the acting subject, the part that acts, and the part that can be "inborn." The "I" is the response of the organism to the attitudes of the others. The "me" on the other hand is the organized set of attitudes of others which one assumes. The "me" develops out of social processes which allow individuals to see themselves as objects[1]. In other words, these processes involve the ability to take the role of the other. In summary, the self is a process consisting of three components. The first is *"how one sees oneself,"* suggesting a self-assessment or a self-appraisal. The second component is *"others actual assessments,"* suggesting labeling processes. The third is *"one's perception of others' evaluations"* speaking to the area of reflected appraisals.

Labeling Theory and Reflected Appraisals

Labeling theory has its foundation in the works of Cooley and Mead, who, as we have seen, emphasized individual level interaction. In the "looking-glass self" Cooley argues that our understanding of ourselves is primarily a reflection of our perception of how others react to us. For Cooley (1902) the self is an outgrowth of social interaction. It is developed

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[1] The social "me" more or less reflects the laws, mores, organized codes, and expectations of the community (socialization - social bonds).

and defined in the course of our interaction with others, especially other members of one's primary group. Other people point out to the actor that he or she exists as an object. Others label and define the self to the actor, and they help the actor understand and situate him or herself in the environment. In the "looking-glass self" Cooley also states that a person's self-image can be significantly influenced by other peoples' opinions about him or her. The actual appraisal of one toward another, may, to some degree, have an effect on the other person's behavior and/or perception of themselves.

Mead (1934) then built from these ideas, focusing on the interaction between an emerging self and the perceptions of others reactions to that self. It is this dynamic interplay between the individual and others that leads to the development of a self-concept, which in turn, affects subsequent behavior. It is Tannenbaum (1938), however, who is often credited with popularizing the labeling approach by expressing the view that society can produce antisocial behavior by defining an individual as a deviant.

Tannenbaum (1936) describes how this process transforms the offender's identity from a doer of evil to an evil person. Tannenbaum (1938) focuses on both what happens after individuals are caught and identified as having violated a law and the social reaction of the audience (the "dramatization of evil"). Tannenbaum suggests that specific acts in a persons overall repertoire of behaviors are singled out and brought to public attention. From this view, we are largely what other people perceive us to be. The individual is a constantly changing being that responds to others' reactions. Actual appraisals, as used here, refers to a persons' evaluation of another on some particular scale.

From Tannenbaum's (1936) "dramatization of evil" perspective , acts are not

inherently good or evil, rather, the degree of "goodness" or "badness" is influenced by the social audience. Tannenbaum (1938 pp.17-18) states:

> There is a gradual shift from the definition of the specific act as evil to a definition of the individual as evil, so that all his acts come to be looked upon with suspicion....From the community's point of view, the individual who used to do bad and mischievous things has now become a bad and unredeemable human being. From the individual's point of view, there has taken place a similar change.... The young delinquent becomes bad because he is not believed if he is good.

Labeling theorists then picked up on these concepts of interaction and interpretation and tested them in their research. One of the more popular works was that of Lemert (1951), who distinguishes between primary and secondary deviation. Primary deviation is the occasional or situational behavior that is often excused or rationalized by the actor and/or social audience. Primary deviance consists of those deviant acts that do not help redefine the self and public image of the offender. Secondary deviance, on the other hand, is the result of a process, a process between the actor's actions and the societal response to those actions. When the response leads to a deviant label being applied to an individual, it becomes extremely difficult for the person to escape the classification. The label then becomes a main or primary identifier for others, which then leads the individual to start seeing him or herself in terms of the deviant identity (a dramatic redefinition of the self). These are the acts that redefine the offender's self and public image. Thus, acts become secondary deviance when they form a basis for self-concept. For example, a redefinition of self may occur for some people as they go from being a weekend drinker to being diagnosed and labeled as alcoholic, or from being a drug experimenter to becoming a drug addict. Self-labeling in the context of labeling theory is then the personal acceptance and acknowledgment of a negative label

and to accept the label as a personal identity. These negative labels are then said to create a "self-fulfilling prophecy" (Merton 1938), wherein if a child is reacted to negatively by parents, teachers, friends, and others, he or she will begin to view these negative labels as an accurate portrayal of his or her personality.

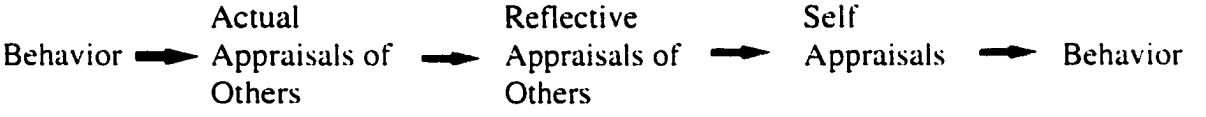
The labeling approach emphasizes that deviance is a product of societal reaction to behavior (e.g. Erikson, 1962; Kitsue, 1962; Becker, 1963). The self as object involves not only how an individual sees him or herself, but also involves how the self is influenced by others' perceptions and how an individual thinks others are perceiving him or her (i.e., reflected appraisals).

The "looking-glass self" (Cooley 1902) emphasized to a large extent, that a person's self-concept is a reflection of information provided by the persons around them. This is not to say that everyone a person encounters has an impact on their self-concept. Strangers or casual acquaintances may have very little impact on how people see themselves. Close friends, family members, and respected teachers, on the other hand, can and do influence self perceptions and evaluations.

One of the first scholars to examine reflected appraisals and offending was Kinch (1962). Kinch (1962) presents three postulates concerning the self from the work of Cooley and Mead. The first is that the individual's self-concept is based on their perception of the way others are responding to them. The second states that the individual's self-concept functions to direct their behavior. And the third suggests that the individual's perception of the responses of others toward them reflects the actual responses of others toward them. Kinch (1962) presented a theoretical model of reflected appraisals and behaviors derived

from a symbolic interactionist perspective. As seen in Figure 1.1 below Kinch's model can best be defined as a causal chain wherein past behaviors determine actual appraisals of others, which in turn lead to a person's reflected appraisals of self. These reflected appraisals will then determine self appraisals, and finally lead to future behavior.

Figure 1.1 Kinch's Model of Reflected Appraisals and Behavior



Matsueda's (1992 p.1578) research builds upon Kinch's work and attempts to specify a more refined symbolic interactionist theory of the self and delinquent behavior. Matsueda (1992 p.1578) draws on theories of labeling and reference groups to specify the broader determinants of the self and to argue that delinquency is in part determined by one's appraisal of self from the standpoint of others.

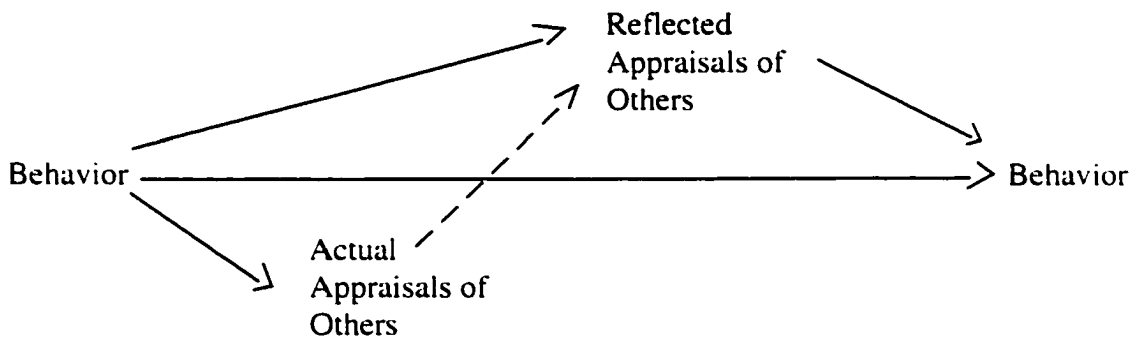
Matsueda (1992) defines reflected appraisals as one's appraisal of self from the standpoint of others and identifies reflected appraisals of self as a primary variable in explaining future behavior. The self-concept emerges primarily from information provided by other people. Without the feedback and evaluation provided by other persons, we would, in a sense, cease to have a personal identity (James 1890). Ones' self is, in part, a "reflected appraisal" of how an individual thinks significant others are assessing him or herself. Reflected appraisals are the result of selective perceptions and assumed actual appraisals.

As part of the socialization process, people categorize themselves on various

dimensions that they regard as relevant for them. Examples of these construct categories may include such things as friendly or unfriendly, competent or incompetent, conforming or non-conforming, dominant or submissive, etc. The person's view of his or her "proper category" derives from the person's interactions with others, including the person's perceptions of the impressions others form about them (reflected appraisals). A school aged child's self-concept develops as they see themselves reflected in the actions of significant others such as parents, friends, and teachers.

Matsueda's (1992) model differs form Kinch in several important ways. First of all, as presented in Figure 1.2 below, Matsueda identifies reflected appraisals of self as the main variable for explaining future behavior. He also allows past behavior to have a direct effect on future behavior, which was neglected by Kinch. And finally, Matsueda allows behavior to have a direct effect on reflected appraisals.

Figure 1.2 Matsueda's Model of Reflected Appraisals and Behavior



Matsueda (1992) found that past delinquent behavior had a direct effect on youths' reflected appraisals, especially when the appraisals centered around being a "bad kid" or a

"rule breaker."[2] It was also found that youths' reflected appraisals of themselves were strongly influenced by their parents' independent appraisals of them (Matsueda 1992, p. 1602). Then, as predicted, the "reflected appraisals as a rule violator exert a large effect on delinquent behavior and mediate much of the effect of parental appraisals as a rule violator on delinquency" (Matsueda 1992, p. 1603). The last finding was that "age, race and urban residence exert significant total effects on delinquency, most of which work indirectly through prior delinquency, and partially through the rule-violator reflected appraisal" (Matsueda 1992 p. 1603). For labeling theorists in general, the initial offending decision is relatively unimportant since all of us have offended at one time or another (Becker, 1963; Lemert, 1951). What is important is <u>why</u> an individual continues to offend. The interactionist tradition suggests that one principle reason individuals continue to offend is that they believe their social identity (driven by reflected appraisals) compels them to offend.

To observe the relationships between reflected appraisals, frequency of offending, and age I will be examining models for three different age groups (13, 15, 17). The model of reflected appraisals and behavior I am proposing is presented below in Figure 1.3. This

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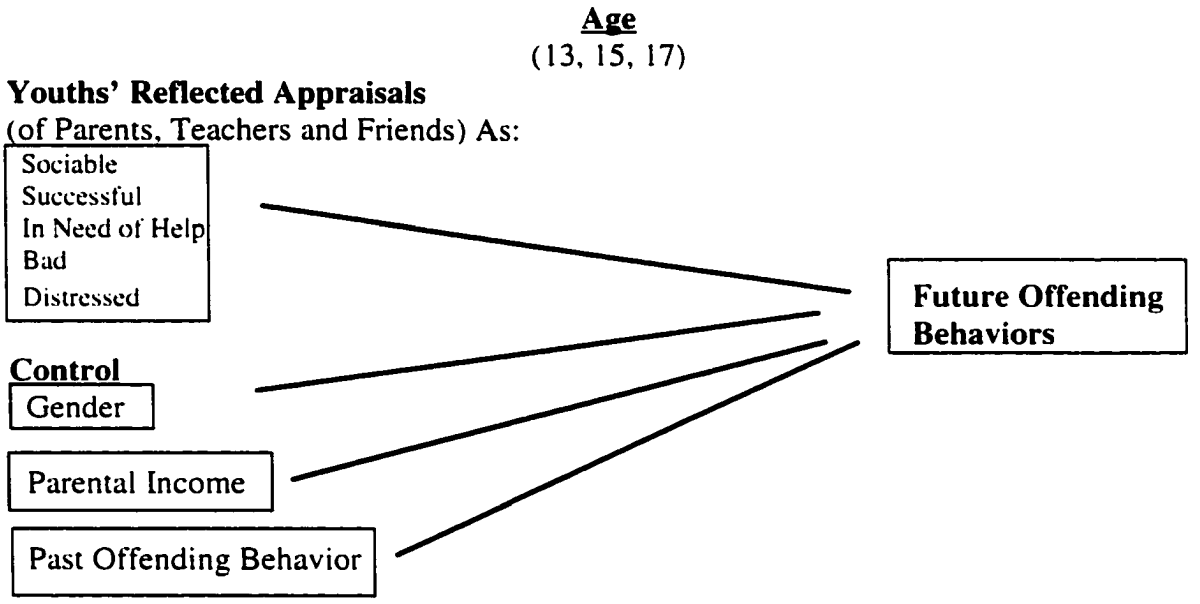
[2] For Hirschi (1969 p.18) the essence of internalization of norms, conscience, or superego, lies in the attachment of the individual to others. It is a sensitivity to the opinions of others. To the extent that an individual cares about the opinions of conventional others (e.g., parents, teachers, and friends) he or she is controlled. Since this attachment refers to the strength of ties to others, such as parents, teachers and peers , the strongly attached child is more likely to have developed not only a set of values, but to have parents "psychologically" present (Gibbons and Krohn, 1986; also see Van Voohis, 1988; Lyon et al., 1992). Van Voorhis (1988 p. 239) suggests that the strongly attached child is more likely to have "developed and internalized a set of values, or to have parents "psychologically present" which would govern a child's behavior in their absence." Partial support for the concept of "psychological presence" was found by Lyon, Henggeler, and Hall (1992 p. 444).

model emphasizes more the *who* (parent, teacher, friend) is *important* (selective perception) for *what* (reflected appraisals), *when* (13, 15, 17 years old), and the subsequent effects on offending behavior.

Figure 1.3 Modified Model of Reflected Appraisals and Behavior



This model differs from Matsueda's in several ways. Perhaps the most obvious difference is the elimination of parental appraisals. Matsueda found that prior delinquent behavior influenced reflected appraisals even when parent's actual appraisals were held constant. Following along these lines, another difference in this proposed model is the decision to use past offending behavior as a control variable. I use prior offending as a control in order to better assess the added affects of reflected appraisals on future offending. My decision to focus on youths' reflected appraisals of others will allow me to better analyze the affects of reflected appraisals on offending within specific age groups and gender. Again, although Matsueda's (1992) framework examines the causes and consequences of reflected

appraisals and delinquent behavior what is missing are any age-graded factors that may be influencing both reflected appraisals and selective perception, and any subsequent influence on offending.

A Developmental Social Psychology of Offending

The goal of the previous section was to establish a theoretical foundation for an interactionist, developmental perspective of the self-concept and offending. This was accomplished by reviewing the works of Cooley and Mead wherein the "self" was described, first and foremost, as social. The self is a process. It arises in interaction and then has the ability to either change or remain stable through further interaction. The self is something we see, judge, evaluate, like, dislike, love, or hate. It was also established that the self emerges primarily from information provided by other people, including a person's perception of the impressions others form about them (reflected appraisals). In this section, I review the literature on developmental criminology to provide a foundation that can integrate my interactionist framework. Below, I review the theoretical and empirical literatures that examine age-graded factors that influence offending. Although I dedicate the bulk of this section to outlining and defining what I mean by developmental social psychology, I conclude by addressing gender effects and show why gender is an important issue to include in my dissertation and in the study of crime in general.

General Theory vs. Developmental Theory

For the past 15 years, there has been considerable debate in the criminological literature over several topics surrounding the age-crime relationship. Among the topics addressed in this debate are whether individual-level correlates of crime vary by age.

Specifically, the debate is over whether we can discuss the crime-age relationship in terms of "stability" or a general theory of crime (Gottfredson and Hirschi, 1990) or whether this relationship between age and crime is more "dynamic" or developmental in nature (Wilcox et al. 2002; Jang, 1999; Sampson and Laub, 1993; Moffitt, 1993; Caspi, 1993; Loeber and LeBlanc, 1990; Blumstein et al., 1988; Thornberry, 1987).

In their general theory of crime, Hirschi and Gottfredson (1986 p.219) comment on the age-crime relationship. They essentially argue that the relationship between age and crime is constant. They maintain that the propensity to commit criminal acts "reaches a peak in the middle to late teens and then declines rapidly throughout life.... This distribution is characteristic of the age-crime relation regardless of sex, race, country, time, or offense" (also see Wilcox et al., 2002; Little, 1989; Wilson and Herrnstein, 1985). Even the hard-core chronic offender commits less crimes as they age. Further, Gottfredson and Hirschi (1990 p.238) claim that ordinary life events, such as getting a job, getting married, or becoming a parent, have little effect on criminal behavior because crime rates decline with age, whether or not these events ever occur. They argue for the importance of effective child rearing in producing self-control during the early formative years of development. Since self-control is posited as a stable phenomenon, sufficient for understanding patterns of crime throughout the life course, they view longitudinal studies of lives as "unnecessary" (cf. Wilcox et al., 2002 p.280; Sampson and Laub, 1993 p.2).

In this general [self-control] theory of crime, differences in offending rates for groups, such as male/female, rich/poor, that exist at any one point in their respective life cycles will be maintained throughout their lives. They assume that causal effects are constant

throughout the life course, because self-control is a stable trait. To illustrate, if 15 year old boys are four times as likely to commit crime as 15 year old girls, then 50 year old men will be four times as likely to commit crime as 50 year old women, although the actual number of crimes committed by both will constantly be declining. Their theory states that "individuals with high self-control will be substantially less likely at all periods of life to engage in criminal acts," but even those individuals with little self-control would commit fewer crimes the older they get (Gottfredson and Hirschi, 1990 p.89). Similarly, Wilson and Herrnstein (1985 p.184) summarize the results of longitudinal crime research, suggesting that longitudinal research on crime can be boiled down to the general finding that "patterns of deviant or antisocial behavior at one time of life are correlated with patterns of deviant or antisocial behavior at other times."[3]

In contrast, developmental criminology argues for a much more complex age-crime relationship across the life coarse. The life course has been defined by Elder (1985 p.17) as

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[3] According to Osgood et al. (1988), Hirschi and Goffredson (1986) articulate some wide-ranging theoretical ramifications of the concept of criminality. For Osgood, the theory proposed by Hirschi and Gottfredson, holds an image of deviant behavior as "a manifestation of general and relatively stable individual differences." So, explaining a general tendency toward deviance would therefore be sufficient in order to account for "a large group of behaviors," with the specific causes of any particular form of deviance being relatively unimportant." Osgood, et al. (1988 p.91) conclude that "involvement in one form of deviant behavior is predictive of later involvement in others, not because of mutual influences, but because each partially reflects a general tendency toward deviance." Osgood et al. also note that criminal behavior has "proved to be the type of deviance most closely linked to the general tendency, though the strength of the tie declined overtime as did the rate and variance of this behavior." They claim that although their findings indicate considerable generality and stability of deviance, it has yet to be determined whether their pattern holds across the full range of deviant behavior. They end by stating that there is still much to learn about the generality of deviance.

"pathways through the age differentiated life span." Age differentiation "is manifested in expectations and options that impinge on decision processes and the course of events that give shape to life stages, transitions, and turning points." Life-course theorists argue that events taking place over the life course influence criminal choices. In other words, the cause of crime is constantly changing as people mature. Viewed in this light there are a variety of pathways to crime. These pathways may vary across sex/gender as well (Bartusch and Matsueda, 1996). By ignoring a person's age, one would fail to provide an understanding of the sources of initial variation in both delinquency and its presumed causes.

The impact age has on crime has been well documented throughout the criminological literature, and there seems to be consensus that the phenomenon of "aging out" of crime exists (Gottfredson and Hirschi 1990). Examining age, period, and cohort affects on self reported crime and delinquency Menard and Elliott (1990) tested the maturational reform hypothesis. The maturational reform hypothesis can be described as arising from the empirical generalization that "illegal behavior increases in early adolescence, is highest in middle to late adolescence, and then declines in early adulthood" (Menard and Elliott, 1990 p. 240). In other words, the "aging out" hypothesis predicts that as people age, they tend to become less deviant and more law-abiding. It is generally believed that criminal activity usually peaks in the late teens and early twenty's, then declines. Menard and Elliott found support for the maturational reform hypothesis when it came to general delinquency, but not for serious (index) crime.

The life-course of individuals is embedded in and shaped by the historical times and places that they experience over their lifetime. The developmental impact of a succession

of life transitions or events is contingent on when they occur in a person's life. One of the problems in criminological research has been that longitudinal studies have usually not taken full advantage of studying both developmental sequences and individuals' positions within those sequences.

In responding to questions about the age-crime relationship in general, Sampson and Laub (1993) "merge a life-course perspective on age and informal social control with existing criminological literature. They believe that an adequate understanding of the age-crime relationship requires an understanding of individual **trajectories** of stability and change. Trajectories are defined as "developmental sequences- of activation, aggravation, and desistance- that span more than one developmental period of individuals' lives, such as childhood, adolescence, and adulthood" (Loeber and Le Blanc, 1990 p.405). Trajectories, for that reason, incorporate information from more than one realm of deviance, combining the temporal ordering, for example, of conduct problems with delinquency and conduct problems with substance use. Trajectories, then, might also include developmental sequences of age-normative behaviors (such as sexual acts), health threatening behaviors (such as drug use or suicide), and other forms of maladjustment (such as depression)."

Emphasizing the importance of trajectories, developmental criminology examines within-individual changes in offending over time (Loeber and Le Blanc, 1990 p.375). For example, Jang (1999) argues that within-individual analyses are more appropriate for testing developmental hypotheses derived from interactional theory than studies that use between-individual analysis. Building from the work of Thornberry (1987), Jang (1999) demonstrates the importance of developmental perspectives in the etiology of delinquency

in his study of the effects of family, school, and peers. Jang (1999) also emphasizes the fact that studies based on between-individual differences can use cross-sectional data. Within-individual differences, on the other hand, cannot be examined with cross-sectional data. In studies of within-individual differences, longitudinal panel data is necessary.

Causality, in a developmental approach, can be represented as a "developmental network" of causal factors. A network in which dependent variables become independent variables over time. Developmental criminology "recognizes continuity and change over time and focuses on life transitions as a way of understanding patterns of offending (Sampson and Laub, 1995) . Developmental criminology "quantifies dynamic concepts for capturing important ingredients of change and stability" (Loeber and Le Blanc, 1990). By distinguishing between continuity and stability, it recognizes that manifestations of deviancy in the course of offenders' lives may change, while the underlying propensity for deviancy probably remains stable. A developmental perspective considers the course of offending in other developmental contexts, such as life transitions and developmental covariates, which may mediate the course of offending. Thus, the first aim of a developmental criminology, therefore, is to document such systematic effects, especially within periods of increased change in offending, either after onset or during desistance. The second aim is to identify explicative or causal factors predating developmental change and influencing its course.

Some support exists for suspecting that the self-concept could be a key variable in a developmental criminological perspective. To elaborate, adolescence is a time of transition wherein the self, or basic personality, is undergoing a "metamorphosis" and is vulnerable to a wide variety of external influences and internal psychological changes.

Delinquents go through lifestyle changes (developmental) during their offending career. Drawing upon insights from social learning theories and neuropsychology, Moffitt (1993) suggests that the majority of youths offend for a brief time (adolescence-limited offending) and a minority persist in offending over prolonged period of time (life-course persistent offenders). Moffitt argues that life-course persistent persons "are born with or develop neuropsychological impairments" that may result in problematic interactions with parents. According to Moffitt, these interactions can then pave the way for anti-social behavior, which might then be perpetuated by later interactions in school and work. Her view of adolescence-limited delinquency is that its prevalence is so great that it is actually normative rather than abnormal. She also suggests that adolescence-limited delinquency is flexible and adaptive rather than rigid and stable. Most delinquent careers are of relatively short duration mainly because the consequences of crime, "although reinforcing for youths caught inside the maturity gap, become punishing to youths as soon as they age out of it" (Moffitt, 1993).

Another view of the self-concept being related to developmental criminology stems from Thornberry's (1987) work. Borrowing from Piaget, Thornberry contends that "as people mature, they enter into separate stages of reasoning and sophistication." For Thornberry (1987), the causal process "is a dynamic one that develops over a person's life." From this view the family is the single most important determinant of criminality in early adolescence. That is, the family is the most influential factor in bonding the youth to conventional society and reducing delinquency. As the youth matures and moves through middle adolescence, the world of friends, school, and youth culture becomes the dominant influence over behavior.

The premise of Thornberry's (1987) model is that human behavior occurs in social interaction and can therefore best be explained by models that focus on interactive processes (which is also the goal of my current dissertation). This perspective suggests that "adolescents interact with other people and institutions and that behavioral outcomes are formed by that interactive process." For example, the delinquent behavior of an adolescent would be formed in part by how he or she interacts with their parents, and how parents interact with them over time, "not simply by the childs' perceived, and presumably invariant, level of attachment to parents" (Thornberry 1987) The essential point of an interactional theory, according to Thornberry (1987), is that the causal process is "a dynamic one that develops over the person's life," and delinquent behavior "is a vital part of that process; it is clearly effected by, but also effects, the bonding and learning variables that have always played a prominent role in sociological explanations of delinquency."

Gender

As part of this study I am also interested in trying to determine if reflected appraisals can account for gender differences in offending. To identify all of the elements responsible for gender differences in crime would be far beyond the scope of this study. However, there are some details about gender differences that are important to include. For example, it has been found through previous research that gender differences tend to be smaller for self-reported than for officially recorded offenses; they tend to be smaller for personal and juvenile offenses than they are for violent and property offenses; and they are greater in urban areas than rural areas (Gibbons and Krohn, 1986). The gender related patterns of criminal behavior that are observed in official arrest data (as well as NCS data) may reflect selection

and processing practices of the authorities rather than actual behavior differences in male/female criminality. By using self-report data I will avoid many of these concerns and issues.

Steffensmeier and Allen (1991) suggest that gender norms, moral development, physical attractiveness, sexuality, crime opportunities, social control, physical strength, and aggression, all effect men and women differently in terms of willingness and ability to commit crime. For Steffensmeier and Allan (1991), traditional gender norms for females include nurturant role obligation and sexual virtue. It is the differences in gender norms that leads the way to having different goals in life as well. The idea of women as care-givers may also help to explain why many women are accomplices to crimes of their husbands and boyfriends.

Moral development is described by Steffensmeier and Allen as an "ethic of care" which presupposes nonviolence, and suggests that serious predatory crime is outside a woman's moral boundaries. We do tend to see this reflected in the types of crimes committed. Roughly 55-60% of arrests are for runaway, liquor violations, and other status offenses. Female juveniles continue to be arrested principally for minor acts of deviance which are seen as a challenge to the authority of the family, the hold of sexual double-standard over women, and the maintenance of sexual inequality (Gibbons and Krohn, 1987)

Sexual victimization may also play a part in the sex/gender-crime relationship. Females have traditionally received greater surveillance and the threat of sexual victimization then constrains mobility. Cernkovich and Giordano (1987) also note that females are the objects of greater parental control and supervision than are males, and that such control

significantly predicts delinquency. Attachment to parents and type of control may also vary by gender.

With sexuality comes stereotypes and sex roles. Law enforcement has tended to "sexualize" female delinquency and while this may be true to some extent, the "chivalry hypothesis" has often served to draw attention away from the "harsh and inequitable sanctioning of female offenders" (Gibbons and Krohn, 1987). This would suggest that females may face greater personal and social consequences if labeled delinquent. Johnson (1995) for example, found that girls in "mother only" families were disproportionately likely to be suspended from school, picked up by the police, and sent to juvenile court. Accordingly then, for males, crime may serve to enhance status and verify their masculinity, but for females on the other hand this may be far more stigmatizing. So when considering labeling theory one must keep in mind that females will be less likely to be defined as deviant and therefore less likely to behave in a deviant way, or perhaps this may mean that females are more receptive to, and effected by, the reflected appraisals of others.

For social control, the greater the parental supervision and control the less objective freedom is available to engage in delinquent behavior. It was also found that those receiving greater supervision and control tended to be those more attached to parents teachers and friends, and those more attached or "bonded" commit fewer deviant acts. Real or perceived female weakness and lack of aggressiveness and risk-taking (compared to males) serve to limit female ability to engage in certain types of criminal behavior, or in gaining access to criminal subcultures, which in turn would limit opportunity.

Aggression is one of the key variables defining masculine and feminine behavior and

these differences in aggression have been found in children as young as three years old (Mischel, 1993). Boys are not only physically more aggressive, but in their self-concepts, boys see themselves as more aggressive, both directly and indirectly. Boys also show more "negativistic" behavior, (i.e., more negative attention getting and antisocial aggression). They participate in more physical quarrels in nursery school, have more aggressive contact with peers, initiate more fights and conflicts and tend to resist attack more often (Mischel, 1993). After all, as Mischel (1993) suggests, the prototypical criminal is a young male and it is his behavior that most theories have tried to explain.

Although Matsueda focused on a sample of 918 males in his 1992 study, he did mention that preliminary analyses suggested that separating males and females reveals some interesting interaction effects. Because these were beyond the scope of his article, these effects were not discussed further.

In Bartusch and Matsueda (1997) the researchers built upon Matsueda's (1992) interactional model in order to assess whether or not his interactional model can account for the gender gap in delinquent behavior. What they found was this: differences in external social control do not completely explain the gender gap in delinquency. Bartusch and Matsueda (1996) looked at identity theory with differential social control to explain gender differences in delinquency. They suggest that if we are to specify how macro-level structures impinge upon individual behavior, it is necessary to also consider gender role socialization, labeling, and self-conception. Bartush and Matsueda state that the female self-concept is heavily influenced by how she perceives others' views of her. The male self-concept, on the other hand, is said to be more autonomous of the appraisals of others. They also see gender

socialization as what causes adolescent girls to be concerned with relationships and to develop their self-esteem from reflected appraisals as a good person. Therefore, they conclude, if females are more relationship-oriented and more influenced by what others think of them, their behavior may be more susceptible to reflected appraisals. In support of this idea they cite the finding that labeling effects females more than males, females are more vulnerable to negative labels, and females are more likely to experience distress. From the above review of self-concept, reflected appraisals, and developmental criminology, several propositions have been developed. Below, I present those propositions.

General Propositions

Both a general theory of crime and developmental criminology clearly suggest that age is a key predictor of crime. A general theory of crime posits that the relationship between age and crime is one of simple maturation, and therefore age per se is not a satisfactory explanatory variable. On the other hand, developmental criminology suggests predictable age-graded changes are linked to criminal activity. Following a developmental criminology approach my dissertation examines whether one's self-concept, as captured by reflected appraisals, is a causal factor of delinquency.

From an interactionist developmental perspective, I derive six general propositions that this dissertation will examine.

Proposition 1: Past behavior effects subsequent behavior

When considering individual-level characteristics of crime, one of the best predictors of behavior has shown to be a person's past behavior (i.e. Matsueda's, 1992 model).

Proposition 2: Changes in self-concept influence changes in offending.

Matsueda (1992) found that delinquency was affected by reflected appraisals. Therefore, proposition 2 states that changes in self concept will affect subsequent offending behavior.

Proposition 3: Specific dimensions of reflected appraisals have varying relationships with delinquency.

The dimensions of reflected appraisals I will be examining in this study are: sociable, successful, distressed, in need of help, and bad kid.

Proposition 4: The relationships between the specific dimensions of reflected appraisals and delinquency will varying across age.

Proposition 5: Changes in self-concept will effect males and females differently.

Proposition 6: Gender differences will be found in both across-age and within-age.

Chapter 2

Data and Methods

Introduction

In this chapter, I discuss the data and methods used in my study. To contribute to our understanding of a developmental interactionist social psychology of offending, I conduct a secondary data analysis from the first six waves of the National Youth Survey (NYS).[4] The primary variables of interest are self-reported delinquency, age, and youth reflected appraisals of their parents, teachers, and friends. My dissertation examines the effects of reflected appraisals on offending within specific age groups. To observe these effects I construct regression models; one for those age 13, one for those age 15, and one for those age 17. I begin this chapter with an overview of the NYS and conclude by operationalizing my variables and constructing the three age-based models.

Secondary Analysis

My dissertation involves the examination of developmental changes in self-concept and its relationship to offending over time. A secondary analysis of the NYS data is well suited to meet my analytical goals. Like Matsueda (1992), in order to examine correlations between reflected appraisals and offending, I need survey data measuring perceptual or subjective social psychological concepts. Secondly, in order to examine reciprocal effects,

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[4] The data utilized in this study was obtained from the (NYS). The principal investigator of the NYS was Delbert Elliott of the Behavioral Research Institute at the University of Colorado, Boulder. A copy of the (NYS) was obtained through the Inter-university Consortium for Political and Social Research (ICPSR) P.O. Box 1248 Ann Arbor, Michigan 48106 (First ICPSR version November 1994).

and gain a better understanding of the developmental aspects of offending behavior, longitudinal data were necessary. Thirdly, a well established national survey with a random sample of youths allows for the greatest generalizability. The NYS data satisfy all of these needs. I chose to analyze the first six waves of the NYS because of the specific ages of interest for this study. Specifically, the data to be analyzed comes from the first (1976), second (1977), third (1978), fourth (1979), fifth (1980), and sixth (1983) waves of the NYS. It should be noted that this current study is broader than that of Bartusch and Matsueda (1996) who used the first three waves of the NYS, or Matsueda (1992) who focused on the first three waves of data for male respondents.

National Youth Survey

The purpose of this section is to describe the NYS. In doing so, I establish the compatibility of the NYS and my research aims as well as its usefulness in the construction of my specific variables.

The NYS was originally designed to provide information on the incidence and prevalence of drug use and delinquent behavior among American adolescents (Huizinga and Elliott 1987). To measure delinquent behavior, the NYS investigators included a delinquency inventory. This inventory was designed to represent the entire range of delinquent acts for which juveniles could be arrested.[5] The delinquency inventory has proved

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[5] The NYS Delinquency Inventory was constructed in an attempt to compensate for problems found in prior self report research. As outlined in Elliott and Ageton (1980) the problems in prior self-reported delinquency measures have included: 1) The use of too many trivial or non-serious offense items while excluding the more serious offenses. 2) The frequency of offense behavior being inflated because of overlapping items. 3) The problem of either having the response categories too ambiguous, or a problem by asking

to be a successful tool in a great deal of contemporary research (e.g., Triplett and Jarjoura 1994; Bartusch and Matsueda 1996; Matsueda 1992; Warr 1993; Paternoster 1994; Menard and Elliott 1990; Huizinga and Elliott 1986; Elliott and Ageton 1980; Elliott, Ageton and Canter 1979; Dunford and Elliott 1984). NYS data also provide information on the demographic and socioeconomic status of respondents, disruptive events for parents, neighborhood problems, employment, children, aspirations and current successes, normlessness, parental labeling, attitudes toward deviance, exposure to delinquent peers, drug and alcohol use, victimization, pregnancy, depression, use of outpatient services, spouse violence by respondent and partner, and sexual activity (Elliott, First ICPSR Version, November 1994). The NYS has also been used to assess marijuana use (Ousey and Maume 1997; Hoffmann 1994), victimization (Lauritsen, Sampson and Laub 1991; Lauritsen 1993; Lauritsen and Quinet 1995), incarceration (Huizinga and Elliott 1987), sexual behavior (Lauritsen 1994), and reflected appraisals (Bartusch and Matsueda 1996; Matsueda 1992).

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for a "full numerical estimate" which then poses problems of memory. 4) Self-report studies varied in temporal referent such as 3 months., 6 months., year, ever, and 5) was the problem that many of the studies relied on small unrepresentative samples that were not easily generalized.

Sample

The NYS initially involved a six-year panel design with a national probability sample of 1,725 adolescents aged 11-17 at the time of the initial interview (wave one) in 1976. The NYS employed a probability sample of households in the continental United States based upon a "self-weighting, multi staged, cluster sampling design" (see Huizinga and Elliott, 1986). The survey drew 2,360 eligible youths ranging in age from 11-17. Of these 2,360 eligible youths, 1,725 (73%) agreed to participate in the study and were interviewed at the first wave (1977). Table 2.1 below shows the sample characteristics of the subjects at the time of the first interview at wave one. The table shows that of the 1,725 youths interviewed at wave one, 918 (53.2%) were males and 807 (46.8%) were females.

Table 2.1 Sample Characteristics At Wave One of the National Youth Survey

		Frequency	Valid Percent	Cumulative Percent
Sex:				
	Male	918	53.2	53.2
	Female	807	46.8	100.0
Race:				
	Anglo	1361	78.9	78.9
	Black	260	15.1	94.0
	Chicano	76	4.4	98.4
	Other	28	1.7	100.0
Age:				
	11	252	14.6	14.6
	12	257	14.9	29.5
	13	269	15.6	45.1
	14	258	15.0	60.1
	15	253	14.7	74.7
	16	239	13.9	88.6
	17	197	11.4	100.0
Total:		1,725		

The sample characteristics for race and age are also provided. Approximately 79% of the youths are considered anglos (white) and 21% are considered non-anglo (Black, Chicano, other). The ages of the youths in the sample ranged from 11 to 17 at the time of the first interview. Of the 1,725 adolescents first interviewed, 1,655 participated in the re-interviews one year later in wave two. The attrition rate over the first three waves of the NYS was remarkably low: 4% in 1978 wave two and 6% in 1979 wave three (see also Matsueda 1992). Of the 1,725 youths originally interviewed face to face back in 1976, there were still 1,496 or 87% of the youths interviewed for the sixth, and last, wave of the survey in 1983 (Menard and Elliott 1990). The NYS investigators examined the nonparticipation and attrition and concluded that neither compromised the representativeness of the sample (see Elliott, Knowles and Canter 1981).

For reasons that I will explain below, my analysis is limited to the first six waves of the NYS. Table 2.2 depicts the age range across the first six waves of the NYS. Table 2.2 shows that at Wave I the sample of youths were between the ages of 11 and 17. At the time of the second wave the youths were between the ages of 12 and 18. For Wave III, the sample ranged from 13 to 19. At the forth wave the youths were between 14 and 20. For Wave V the sample ranged from 15 to 21. And at Wave VI the youths were between 16 and 22. I include this table for two reasons. The first is to emphasize that I am interested in age and not necessarily any particular wave. Secondly, I wanted to provide a visual map of the age distribution across waves. My study is interested in respondents at ages 13, 15, and 17. My sample for 13-year olds was drawn from waves I - III; my sample of 15-year olds was drawn from waves I - V; and my sample for 17-year olds was drawn from waves I - VI.

Table 2.2 Age Range Across the First Six Waves of the National Youth Survey

WAVE	AGES
I	11 - 17
II	12 - 18
III	13 - 19
IV	14 - 20
V	15 - 21
VI	16 - 22

Indicators and Variables of the Current Study

As suggested by the variety of previous studies that have used the NYS data, NYS data provide excellent indicators for the development and construction of the variables of interest in my dissertation. In this section , I describe the variables and their indicators used in my study.

Dependent Variable: Deviant Acts

As mentioned above, the NYS includes a delinquency inventory. The inventory was designed to represent the entire range of delinquent acts for which juveniles could be arrested. The NYS self-reported delinquency inventory asks respondents to report the frequency with which they engaged in each of a variety of behaviors during the past year. For each question the respondent is asked first for the absolute frequency of each behavior and then for an estimate of the rate of occurrence of the behavior on a 6-point scale. Items are scored so that the higher score reflects a greater frequency or rate of involvement in each behavior.

The resulting set of 47-items (offenses) includes all but one of the UCR Part I

offenses (homicide excluded); 75% of all Part II offenses; and a wide range of "other offenses"- primarily misdemeanors and status offenses. The vast majority of items involve a violation of criminal statutes" (Huizinga and Elliott 1987). Although these "other offenses" include some status offenses, misdemeanors, and delinquent lifestyle items, the vast majority of the items still involve some violation of criminal statutes (Elliott and Ageton 1980).[3] In discussions about the validity of the self-reported delinquency inventory, NYS investigators conclude that the inventory is a valid measure of delinquency (see Huizinga and Elliott 1986; Elliott and Ageton 1980).[4] From their view, the NYS is more representative of the full range of delinquent acts than were prior self-reported delinquency measures. Also, the NYS uses fewer overlapping items and employs a response set that provides for better discrimination at the high end of the frequency continuum, making the delinquency inventory better suited to estimate the actual number of behaviors committed (Elliott and Ageton 1980, p.100). The choice of a one-year time frame with a panel design, involving a one-year time lag was, according to the investigators, based upon both conceptual and practical concerns.

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"The self-reported delinquency (SRD) measure was constructed as a parallel measure to the UCR arrest measure. All UCR offense categories involving more than 10% of the reported juvenile arrests between 1972 and 1974 were included in the initial SRD measure. A number of additional offenses classified in other UCR reports as 'other offenses' were included as this offense class accounts for approximately 15% of juvenile arrests each year. Over the study period, additional offenses were added whenever annual UCR reports indicated an arrest rate greater than 1% for the panel aged population.

4

As a check of validity, Elliott and Ageton (1980) report that in 1979-1980 and 1984-1985 a search of police records was completed for each respondent in each location where the respondent lived and included police/sheriff jurisdictions within a 10-mile radius of where they lived. It was found that the NYS data was more consistent with official arrest data than were data from prior self-report studies.

Compared to other self-report measures, the NYS delinquency inventory involves a moderate recall period, captures seasonal variations, and permits a direct comparison with other self-report and official measures that are reported annually (Elliott and Ageton 1980 p.100).

Similarly, the concern for reliability in the NYS is mentioned several times in the literature. For example, Huizinga and Elliott (1986) provide a self-critique of the NYS in a reassessment of the reliability and validity of self-report delinquency measures. Lauritsen, Sampson, and Laub (1991) addressed reliability of the NYS by using their measures across successive waves of data. These studies suggest that the delinquency inventory is quite reliable.

Using the Delinquency Inventory, I define the variable "deviant acts" as the number of self-reported offenses that an individual commits over a specified year and for which juveniles could be arrested. There were several steps in the construction of this variable. The first step was to identify the specific items (offending behaviors) asked consistently across all six waves of data. Out of the possible 47 items making up the delinquency inventory, I found 29 items that were asked consistently over all waves of data collection. These 29-items are detailed in Appendix 2.1. Due to the extremely skewed distributions when using "frequency" of offending data,[5] the 29-items were recoded to create a categorical response

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[5] Distributions using "frequency" of offending data were extremely skewed (see also Matsueda 1992; Elliott et al. 1985). After eliminating cases exceeding three standard deviations, the indexes ranged from a minimum of 0 to a maximum of 380. Means ranged from 11.70 to 16.63 and standard deviations from 28.13 to 42.66. The skewness statistics were extreme and ranged from 3.70 to 5.19. Kurtosis statistics were between 15.36 and 32.41. The use of a categorical response set proved to be considerably less skewed.

set [0 = did not commit the offense; 1 = did commit the offense]. The 29-items were then summed to create the variable "deviant acts." Specifically, the variable "deviant acts" was created by summing the number of different offenses (0 - 29) that each youth committed over a particular year. Table 2.3 below provides the descriptive statistics for the variable "deviant acts" by age.

Table 2.3 Descriptive Statistics Of Deviant Acts By Age

Age	N	Min	Max	Mean	Std	Skew	Std Error	Kurtosis	Std. Error
13	760	.00	29	2.7	3.49	2.34	.089	8.09	.177
14	989	.00	29	3.1	3.96	2.00	.078	5.16	.155
15	1206	.00	29	3.1	3.82	2.02	.070	5.18	.141
16	1192	.00	29	3.2	3.83	1.99	.071	5.42	.142
17	1121	.00	29	2.7	3.57	2.23	.073	6.93	.146
18	838	.00	29	2.6	3.28	2.03	.084	5.27	.169

As one can see from Table 2.3 above, the number of cases range from (N = 760) for thirteen year old's to (N = 1206) for fifteen year old's. The number of offending behaviors ranges from 0 to 29. In this table, I have also provided the skewness and kurtosis statistics for each of the six variables. Although the shape of the distributions are close to normal (skewness less than 3.0) they are still skewed. This is due to the fact that approximately 30% of the cases in each age group do not report committing any of the 29 offending behaviors.

Independent Variables: Reflected Appraisals

As indicated earlier, the explanatory variable of interest is reflected appraisals. The NYS data is well suited to examine reflected appraisals because it includes questions on "labeling," where youths were asked to indicate the extent to which their parents, teachers,

and friends would agree with a set of descriptive labels as applied to them (reflected appraisals). Specifically, the youths were asked "I'd like to know how your parents, friends, and teachers, would describe you. I'll read a list of words or phrases and for each, will ask you to tell me how much you think your [parents, friends, teachers] would agree with that description of you" The list of descriptive labels included the following 11 items:

Are well liked
Need help
Are a bad kid
Are often upset
Get along well with other people
Are messed up
Break rules
Have a lot of personal problems
Get into trouble
Are likely to succeed
Do things that are against the law

The above items were scored so that a higher score reflects higher perceived agreement with the labels (5 = strongly agree; 4 = agree; 3 = neither agree or disagree; 2 = disagree; 1 = strongly disagree).

In order to answer the question "*who is important, for what, when*" I needed to create variables that identified these three focal areas: 1) **Who** [parent, teacher, friend], 2) **What** [dimensional aspects of reflected appraisals], and 3) **When** [age 13, 15, and 17].

Using varimax rotation, the 11 items were factor analyzed. The analysis (with Eigenvalues > 1) revealed five main components or factors and explained 56.8% of the total variance for age 13. For age 15 the factors explained 59.2% of the variance, and 60.2% of the variance for age 17. These five components, then, reflect the five dimensions of reflected appraisals used in my analysis. Results of the factor analysis can be seen in Tables 2.4 - 2.6

below. The five dimensions of reflected appraisals (as indicated by the factor loadings) will be referred to as being sociable [well liked, gets along well with others], being distressed [often upset, many personal problems], successful [likely to succeed], in need of help [messed up, needs help], and being a bad kid [gets into trouble, breaks rules, is a bad kid, and does things against the law]. Again, this current study differs from Bartusch and Matsueda (1996) and Matsueda (1992) in that these researchers focused on only four dimensions of reflected appraisals rather than the five used in this study. The dimensions identified by Matsueda were "sociable", "successful", "distressed", and "rule violator."

Table 2.4 Rotated Component Matrix: Factor Analysis of Reflected Appraisals For Age 13

	1	2	3	4	5
(P)Well Liked	-.100	-.088	**.585**	-.102	.220
(T)Well Liked	-.095	-.145	**.768**	.039	.064
(F)Well Liked	-.113	-.044	**.759**	-.060	.035
(P)Get Along w/others	-.267	-.103	**.590**	-.148	.102
(T)Get Along w/others	-.258	-.078	**.624**	-.090	.181
(F)Get Along w/others	-.186	-.050	**.653**	-.106	.068
(P)Often Upset	.092	**.695**	-.096	.088	-.022
(T)Often Upset	.212	**.728**	-.085	.126	-.059
(F)Often Upset	.226	**.770**	-.029	.130	.022
(P)Personal Problems	.230	**.669**	-.123	.268	-.088
(T)Personal Problems	.253	**.642**	-.141	.218	-.074
(F)Personal Problems	.290	**.668**	-.080	.171	-.019
(P)Likely to Succeed	-.128	-.089	.131	-.186	**.701**
(T)Likely to Succeed	-.220	-.035	.185	-.050	**.819**
(F)Likely to Succeed	-.202	-.028	.219	-.052	**.803**
(P)Messed Up	.315	.102	-.324	**.604**	-.062
(T)Messed Up	.404	.098	-.337	**.578**	.078
(F)Messed Up	.405	.079	-.223	**.626**	-.067
(P)Need Help	.020	.310	-.020	**.630**	-.247
(T)Need Help	.033	.332	-.144	**.647**	-.110
(F)Need Help	.120	.292	-.060	**.655**	-.157
(P)Get into Trouble	**.651**	.247	-.095	.149	-.120
(T)Get into Trouble	**.759**	.268	-.159	.014	-.103
(F)Get into Trouble	**.746**	.234	-.215	.047	-.044
(P)Break Rules	**.611**	.303	-.095	.133	-.134
(T)Break Rules	**.774**	.150	-.120	.074	-.122
(F)Break Rules	**.773**	.154	-.130	.094	-.074
(P)Bad Kid	**.524**	.200	-.185	.323	-.172
(T)Bad Kid	**.662**	.166	-.124	.164	-.158
(F)Bad Kid	**.549**	.109	-.275	.326	-.129
(P)Do Things Against Law	**.250**	.037	-.136	.349	-.108
(T)Do Things Against Law	**.664**	.096	-.227	.242	-.106
(F)Do Things Against Law	**.713**	.082	-.194	.227	-.041

*(P) = Parents; (T) = Teachers; (F) = Friends

Table 2.5 Rotated Component Matrix: Factor Analysis of Reflected Appraisals For Age 15

	1	2	3	4	5
(P)Well Liked	-.063	-.031	**.647**	-.018	.070
(T)Well Liked	-.196	-.106	**.649**	.075	.164
(F)Well Liked	-.067	-.094	**.712**	-.183	.024
(P)Get Along w/others	-.150	-.090	**.679**	-.178	.097
(T)Get Along w/others	-.181	-.045	**.634**	-.069	.230
(F)Get Along w/others	-.163	-.083	**.689**	-.097	-.018
(P)Often Upset	.106	**.687**	-.059	.123	-.145
(T)Often Upset	.223	**.763**	-.151	.085	-.072
(F)Often Upset	.083	**.793**	-.091	.042	-.021
(P)Personal Problems	.194	**.735**	-.031	.289	-.038
(T)Personal Problems	.240	**.705**	-.109	.265	-.109
(F)Personal Problems	.114	**.771**	-.127	.198	-.086
(P)Likely to Succeed	-.132	-.077	.149	-.133	**.730**
(T)Likely to Succeed	-.183	-.123	.237	-.156	**.810**
(F)Likely to Succeed	-.181	-.122	.183	-.155	**.820**
(P)Messed Up	.398	.204	-.158	**.541**	-.110
(T)Messed Up	.457	.169	-.261	**.520**	.034
(F)Messed Up	.513	.187	-.239	**.510**	-.101
(P)Need Help	.117	.220	-.074	**.726**	-.223
(T)Need Help	.193	.238	-.134	**.694**	-.099
(F)Need Help	.259	.253	-.175	**.652**	-.118
(P)Get into Trouble	**.704**	.201	-.108	.187	-.088
(T)Get into Trouble	**.822**	.127	-.101	.102	-.112
(F)Get into Trouble	**.811**	.110	-.088	.076	-.058
(P)Break Rules	**.688**	.222	-.067	.186	-.116
(T)Break Rules	**.811**	.112	-.078	.079	-.106
(F)Break Rules	**.820**	.105	-.111	.050	-.072
(P)Bad Kid	**.520**	.120	-.159	.402	-.118
(T)Bad Kid	**.708**	.133	-.104	.231	-.191
(F)Bad Kid	**.589**	.084	-.200	.249	-.067
(P)Do Things Against Law	**.322**	.017	-.081	.201	-.193
(T)Do Things Against Law	**.705**	.137	-.211	.175	-.137
(F)Do Things Against Law	**.759**	.088	-.150	.095	-.025

*(P) = Parents; (T) = Teachers; (F) = Friends

Table 2.6 Rotated Component Matrix: Factor Analysis of Reflected Appraisals For Age 17

	1	2	3	4	5
(P)Well Liked	-.048	-.018	**.676**	-.260	-.039
(T)Well Liked	-.167	-.138	**.669**	.025	.152
(F)Well Liked	-.055	-.061	**.780**	-.089	.013
(P)Get Along w/others	-.107	-.078	**.738**	-.125	.156
(T)Get Along w/others	-.235	-.037	**.605**	-.026	.215
(F)Get Along w/others	-.081	-.106	**.762**	-.094	.102
(P)Often Upset	.057	**.754**	-.039	.115	-.069
(T)Often Upset	.216	**.709**	-.077	.143	-.097
(F)Often Upset	.079	**.800**	-.048	.120	-.012
(P)Personal Problems	.200	**.708**	-.137	.342	.018
(T)Personal Problems	.238	**.673**	-.107	.236	-.137
(F)Personal Problems	.195	**.756**	-.114	.255	-.044
(P)Likely to Succeed	-.058	-.083	.161	-.346	**.601**
(T)Likely to Succeed	-.332	-.146	.230	-.041	**.764**
(F)Likely to Succeed	-.267	-.169	.318	-.129	**.716**
(P)Messed Up	.338	.197	-.111	**.635**	-.196
(T)Messed Up	.382	.268	-.266	**.482**	.088
(F)Messed Up	.399	.266	-.145	**.560**	-.142
(P)Need Help	.082	.297	-.023	**.719**	-.031
(T)Need Help	.232	.277	-.152	**.635**	.011
(F)Need Help	.170	.365	-.141	**.563**	-.126
(P)Get into Trouble	**.739**	.139	-.076	.238	-.038
(T)Get into Trouble	**.809**	.117	-.054	.120	-.214
(F)Get into Trouble	**.771**	.141	-.090	.126	-.064
(P)Break Rules	**.657**	.218	-.074	.211	-.053
(T)Break Rules	**.792**	.139	-.076	.132	-.136
(F)Break Rules	**.804**	.149	-.108	.107	-.015
(P)Bad Kid	**.488**	.049	-.132	.531	-.167
(T)Bad Kid	**.646**	.113	-.157	.341	-.241
(F)Bad Kid	**.582**	.051	-.210	.360	-.074
(P)Do Things Against Law	**.322**	.221	-.030	.036	.310
(T)Do Things Against Law	**.784**	.126	-.169	.092	-.147
(F)Do Things Against Law	**.821**	.108	-.116	.096	.037

*(P) = Parents; (T) = Teachers; (F) = Friends

To address the first area, "who is important," I constructed three groups of variables using the eleven items of reflected appraisals for 1) parents, 2) teachers, and 3) friends. The purpose was to focus on suspected differences between reflected appraisals and specific others within age and across age groups. This effort was shown to be in vain. The results of the above factor analyses (Tables 2.4 - 2.6) show that specific others do not remain separate, individual sources, but rather coalesced into one under the five separate dimensions, and this was true at all three ages. This is very similar to what Matsueda (1992) described in his research. Although I discuss these findings in detail in chapter three. These initial indicators had important implications for how the dimensional aspects of reflected appraisals were constructed.

The next focal area was the "what" (or the specific dimensions of reflected appraisals). Since reflected appraisals were not source specific, it did not make sense to create dimensional variables by specific others. Instead, dimensional measures of reflected appraisals were constructed by summing the sources (parent, teacher, and friend) for each of the five dimensions by age. The descriptive statistics for these variables can be seen in Tables 2.7 - 2.9 below. Table 2.7 provides the descriptive statistics of the variables to be used to measure the dimensions of reflected appraisals of 13 year olds. Table 2.8 provides the descriptive statistics of 15 year olds. Table 2.9 provides the descriptive statistics for 17 year olds.

Table 2.7 Descriptive Statistics for Dimensions of Reflected Appraisals of Others at Age 13

	N	Min	Max	Mean	Sdev	Skew	Std error	Kurt	Std error
Bad	748	12	52	24.90	6.94	.556	.089	-.924	.179
Distressed	748	6	27	14.06	4.23	.633	.089	-.277	.179
Need Help	747	6	25	12.29	3.52	.496	.089	.641	.179
Sociable	754	8	30	24.73	2.51	-.420	.089	3.23	.178
Successful	744	5	15	11.08	1.84	-1.030	.090	1.92	.179

Table 2.8 Descriptive Statistics for Dimensions of Reflected Appraisals of Others at Age 15

	N	Min	Max	Mean	Sdev	Skew	Std error	Kurt	Std error
Bad	735	12	54	26.14	7.72	.548	.090	.584	.180
Distressed	735	6	30	13.95	4.17	.674	.090	.539	.180
Need Help	733	6	30	12.21	3.55	.594	.090	1.65	.180
Sociable	736	15	30	24.69	2.44	.145	.090	1.10	.180
Successful	733	3	15	11.59	1.94	-1.03	.090	1.93	.180

Table 2.9 Descriptive Statistics for Dimensions of Reflected Appraisals of Others at Age 17

	N	Min	Max	Mean	Sdev	Skew	Std error	Kurt	Std error
Bad	625	12	53	25.66	7.25	.548	.098	.984	.195
Distressed	623	6	28	13.83	4.00	.687	.098	.743	.195
Need Help	625	6	27	12.05	3.41	.715	.098	1.62	.195
Sociable	620	14	30	24.85	2.46	-.060	.098	1.61	.196
Successful	618	4	15	11.90	1.71	-.920	.098	2.18	.196

Wanting to make sure I constructed a valid and reliable measure of reflected appraisals I ran reliability analyses of my scales. The results of the analyses can be seen in Tables 2.10 - 2.12 below. Reported in these tables are the five specific dimensions of reflected appraisals, the number of items summed to create the variable, and the reliability scale (alpha). In all three of the tables, the scales are shown to be statistically reliable measures of reflected appraisals, with alphas being greater than (.70). Table 2.10 reports alphas were between (.79) for the dimension "successful" and (.90) for the dimension "bad kid." For Table 2.11, the reliability alphas ranged from (.79) for the dimension "sociable" to (.92) for the dimension "bad kid." Table 2.12 indicates alphas were between (.77) for the dimension "success" and (.91) for the dimension "bad kid."

Table 2.10 Reliability analyses Age 13

Dimension	Num. Of Items	Alpha
Successful	3	.787
Sociable	6	.800
Distressed	6	.853
Needs Help	6	.809
Bad Kid	12	.897

Table 2.11 Reliability analyses Age 15

Dimension	Num. Of Items	Alpha
Successful	3	.820
Sociable	6	.789
Distressed	6	.872
Needs Help	6	.844
Bad Kid	12	.915

Table 2.12 Reliability analyses Age 17

Dimension	Num. Of Items	Alpha
Successful	3	.774
Sociable	6	.826
Distressed	6	.878
Needs Help	6	.836
Bad Kid	12	.910

Thus far I have described the 11-items used to measure reflected appraisals of specific others. I have shown that when these 11-items are factor analyzed they can be reduced to five main components or dimensions. Through the data reduction analyses it was discovered that the source, or specific other, was not a relevant factor. Since the dimensions were not source specific, they were simply summed to create general measures of five dimensions of reflected appraisals. Accordingly, reliability analyses indicates that these five dimensions they are reliable indicators of reflected appraisals.

Control Variables: Sex, Race, and Parental Income

The control variables for my study include the youths' sex, race, prior offending, and parents income. The variable sex is coded as (1 = male; 0 = female). Race of the youth was re-coded to where (1 = white; 0 = non-white). Prior offending is measured by summing the number of different offenses that a youth committed over a period of a year and ranges from 0 to 29. For parental income I use data that was collected during the initial interview at wave one. Parents were asked to report their annual income which was then recorded on a 10 point scale. The higher the number the larger the income.

Summary and Introduction of Models

With these variables, I will analyze nine different models using OLS regression. The models focus on the dimensions of reflected appraisals and the predicted effects on offending.

Each model can be summarized as follows. Model 1 (13-year olds): Controlling for offending that occurred from age 12 to13, parental income at Wave I, as well as the respondent's race and sex, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable, and successful as measured at age 13) have on offending that occurred from age 13 to 14. Model 2 (15-year olds): Controlling for offending that occurred from age 14 to 15, parental income at Wave I, as well as the respondent's race and sex, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable, and successful as measured at age 15) have on offending that occurred from age 15 to 16. Model 3 (17-year olds): Controlling for offending that occurred from age 16 to 17, parental income at Wave I, as well as the respondent's race and sex, I will examine the effects the dimensions of reflected appraisals (bad kid distressed needs help, sociable, and successful as measured at age 17) have an offending that occurred from age 17 to 18.

Using these three models as a base, I conduct gender specific analyses in Chapter 5, with the intention of trying to determine if reflected appraisals can account for gender differences in offending across time. These gender specific models can be summarized as follows. Model 4 (13-year old males): Controlling for offending that occurred from age 12 to 13, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and

successful as measured at age 13) have on offending that occurred from age 13 to 14. Model 5 (15-year old males): Controlling for offending that occurred from age 14 to 15, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and successful as measured at age 15) have on offending that occurred from age 15 to 16. Model 6 (17-year old males): Controlling for offending that occurred from age 16 to 17, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and successful as measured at age 17) have on offending that occurred from age 17 to 18. Model 7 (13-year old females): Controlling for offending that occurred from age 12 to 13, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and successful as measured at age 13) have on offending that occurred from age 13 to 14. Model 8 (15-year old females): Controlling for offending that occurred from age 14 to 15, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and successful as measured at age 15) have on offending that occurred from age 15 to 16. Model 9 (17-year old females): Controlling for offending that occurred from age 16 to 17, parental income at Wave I, as well as the respondents race, I will examine the effects the dimensions of reflected appraisals (bad kid, distressed, needs help, sociable and successful as measured at age 17) have on offending that occurred from age 17 to 18.

Hypotheses

In pursuing a better understanding of reflected appraisals and offending behavior, my general research question has been, "Who (parents, teachers, friends) is important (selective perception) for what (reflected appraisals), when (age13, 15, 17). This same format will be used to present my hypotheses.

The first aspect to consider is the "*Who is important?*" In this study I am suggesting that changes in offending may come about, at least in part, from changes in a person's self-concept (which may or may not be influenced by significant others). It was initially believed that the impact of specific others would change over time. However, the dimensions of reflected appraisals were not found to be distinguishable by any particular sources as originally predicted. Therefore, this line of inquiry has not been pursued further.

The second aspect of the question examines the "*What*" (the five dimensions of reflected appraisals). Matsueda (1992) suggests that specific dimensions of reflected appraisals have varying relationships with delinquency. In order to answer the question "what" my dissertation examines the specific dimensions of those appraisals. The literature suggests the following hypotheses.

Hypothesis Set 1: **For all ages, the dimension of "bad kid" will have a direct positive effect on future delinquency.**

Hypothesis Set 2: **For all ages, the dimension of "distressed" will have a direct positive effect on future delinquency.**

Hypothesis Set 3: **For all ages, the dimension of "sociable" will have a direct negative effect on future delinquency.**

Hypothesis Set 4: **For all ages, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.**

Hypothesis Set 5: **For all ages, the dimension of "needs help" will have a direct negative effect on future delinquency.** It should be noted here that a positive relationship is predicted because the term "needs help" suggests more of a medical, rather than criminal, interpretation.

By focusing on the "when," that is, the three specific age groups– youths at age 13, 15, and 17, I can better assess the importance and/or significance of the developmental issues that are suspected to be involved. In emphasizing the importance of trajectories, developmental criminology examines within-individual changes in offending over time (Loeber and Le Blanc, 1990 p.375). I examine with-in individual changes in offending by examining changes in self-concept at different ages. I seek to examine the varying relationships between delinquency and specific dimensions of reflected appraisals across time. I want to know if a longitudinal (developmental) design, like the one here, provides any insights into the workings of reflected appraisals and offending that are not offered through a cross-sectional type design. However, there is not clear guidance in the literature on exactly how these relationships would change. Therefore, I will treat this portion of my dissertation as exploratory, examining and reporting on how (if at all) these relationships change over time. Therefore, I hypothesize change across time without hypothesizing the exact nature of that change.

Hypothesis Set 6: **The strength and significance of the five dimensions of reflected appraisals on future offending will change over time.**

Besides answering the question "who is important for what, when?" using the stated hypotheses above, there are three other issues to address at this point: 1) suspected gender differences; 2) the effect of past offending on future offending; and 3) the effects of prior offending on reflected appraisals.

Bartusch and Matsueda (1996) extend Matsueda's (1992) earlier work, exploring gender differences in reflected appraisals and offending. Again, however, any developmental aspects of reflected appraisals and offending were missing. Therefore in this study I also test for gender differences, both across-age and within-age. The following hypotheses were generated to be used in this line of inquiry.

Hypothesis Set 7: **The strength and significance of the five dimensions of reflected appraisals on future offending will be different between males and females within the same age group.**

Hypothesis Set 8: **The strength and significance of the five dimensions of reflected appraisals on future offending will be different for males across the three age groups.**

Hypothesis Set 9: **The strength and significance of the five dimensions of reflected appraisals on future offending will be different for females across the three age groups.**

Matsueda (1992) found that prior delinquent behavior affects subsequent delinquency, even when holding both parental and reflected appraisals constant. Therefore,

I anticipate (without formally hypothesizing about or testing for) that for all ages, prior delinquency will show positive effects upon future delinquency.

Prior delinquent behavior was also found to influence reflected appraisals even when parental appraisals were held constant (Matsueda 1992). Therefore, I again anticipate, without formally hypothesizing about or testing for, that for all ages, prior delinquency will effect youths' reflected appraisals.

Analytic Strategy

In this section, I describe the procedure for testing the above stated hypotheses in four steps. In the first step, I test hypotheses 1 - 6, using three models for all subjects at age 13, 15, and 17. In the second step, I test hypotheses 7 - 9 for the three models first for males and then females at age 13, 15, and 17. Both standardized and unstandardized betas will be used to compare any within model and between model differences. In order to compare results across models, I will conduct T-tests using unstandardized beta coefficients in the following formula. This test of difference assumes independent (i.e., non-overlaping) samples. The

$$t = \frac{b_1 - b_2}{se(b_1)^2 + se(b_2)^2}$$

two particular subsamples in question do share subjects- i.e., they are not completely independent. In fact there are about 778 individuals who are in both the 13 -year-old and 15-year-old samples (approximately 60%); about 526 individuals who are in both 15 and 17-year-old samples (approximately 35%); and about 269 individuals who are in both the 13-year-old and 17-year-old samples (approximately 18%). Although the use of this test violates the assumption of independent samples, it provides a rather conservative test of

difference. This is so because co-variance between the samples remains in the formula and thereby decreases the chances to find difference. At this point I will present the models of reflected appraisals and the hypotheses to be tested with them.

Step One: All cases

Model 1: Youth reflected appraisals at age 13

Hypothesis 1: At age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 13, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

Model 2: Youth reflected appraisals at age 15

Hypothesis 1: At age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 15, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 15, the dimension of "needs help" will have a direct negative effect on future delinquency.

Model 3: Youth reflected appraisals at age 17

Hypothesis 1: At age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 17, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

Step Two: Males

Model 4: Youth reflected appraisals for males at age 13

Hypothesis 1: At age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 13, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

Model 5: Youth reflected appraisals for <u>males</u> at age 15

Hypothesis 1: At age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 15, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 15, the dimension of "needs help" will have a direct negative effect on future delinquency

Model 6: Youth reflected appraisals for <u>males</u> at age 17

Hypothesis 1: At age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 17, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

<u>Females</u>

Model 7: Youth reflected appraisals for <u>females</u> at age 13

Hypothesis 1: At age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 13, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

Model 8: Youth reflected appraisals for <u>females</u> at age 15

Hypothesis 1: At age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 15, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 15, the dimension of "needs help" will have a direct negative effect on future delinquency

Model 9: Youth reflected appraisals for <u>females</u> at age 17

Hypothesis 1: At age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

Hypothesis 2: At age 17, the dimension of "distressed" will have a direct positive effect on future delinquency.

Hypothesis 3: At age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

Hypothesis 4: At age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Hypothesis 5: At age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

Developmental Hypothesis

Hypothesis Set 6: The strength and significance of the five dimensions of reflected appraisals on future offending will change over time.

[Across] Gender Hypotheses

Hypothesis Set 7: The strength and significance of the five dimensions of reflected appraisals on future offending will be different between males and females within the same age group.

[Within] Gender Hypothesis

Hypothesis Set 8: The strength and significance of the five dimensions of reflected appraisals on future offending will be different for males across the three age groups.

Hypothesis Set 9: The strength and significance of the five dimensions of reflected appraisals on future offending will be different for females across the three age groups.

Chapter 3

Analysis Part 1: All Cases

In this chapter I present the analyses for the dimensional models of reflected appraisals for all cases (male and female together) at age 13, 15, and 17. I begin by presenting correlation coefficient tables of the variables for the three age groups [See Tables 3.1 - 3.3]. The purpose of the correlation coefficients (r) tables was to test the strength of the linear relationships between the variables used in the three age-based models. Using OLS regression in a multi-variate analysis the models were then tested for strength and significance. Table 3.4 provides a summary of the statistical results for the models. The three models are then presented individually, and the within-group effects are analyzed. This was done by analyzing the partial regression coefficients (standardized betas) where all variables are expressed in standardized (z score) form. The results for each of the age-based models are presented in Tables 3.5 - 3.7. To conclude this chapter, I compare across models, by age (e.g. comparing ages 13 and 15, 13 and 17, and 15 and 17) and then test for differences in variable effects using the unstandardized beta coefficients outlined previously in chapter two.

Correlation Coefficients: Age 13

The first step of the analysis was to analyze the strength of the linear associations between the dependent, independent, and control variables. Table 3.1 below, shows the correlation coefficients of the variables in the model for 13 year old's. As seen in Table 3.1 all of the dimensions of reflected appraisals, along with the control variables "sex"

Table 3.1 Correlation Coefficients For All Cases At Age 13

	Offend14	Offend13	Suc	Soc	Dist	Help	Bad	Sex	Ethnic	Income
Offend14	1.00									
Offend13	.634**	1.00								
Suc	-.179**	-.157**	1.00							
Soc	-.108**	-.120**	.400**	1.00						
Dist	.199**	.239**	-.230**	-.310**	1.00					
Help	.104**	.147**	-.334**	-.417**	.554**	1.00				
Bad	.392**	.469**	-.372**	-.477**	.551**	.574**	1.00			
Sex	.202**	.198**	- .054	-.106**	.004	.091*	.187*	1.00		
Ethnic	.035	.064	.077*	.020	-.124**	-.192**	-.077*	-.029	1.00	
Income	-.023	-.057	.105**	.042	-.169**	-.157**	-.141**	.040	-.369**	1.00

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

and "prior offending" were statistically significant ($p < .001$). Of these variables the strongest association was the positive relationship between the dependent variable "offend14" and prior offending "offend13" ($r = .634$, $p < .001$). This relationship suggests that youth's who have participated in offending behaviors in the past are more likely to continue offending in the future. There was also a moderate positive relationship calculated between the variables "Bad Kid" and "offend14" ($r = .392$, $p < .001$) as was the control variable "sex" ($r = .202$, $p < .001$). This finding shows that at age 13, males are more likely to offend than females, but for both, as reflected appraisals of being a "bad kid" increases so does the level of subsequent offending behaviors. These findings were followed by the modest relationships between the dependent variable "offend14" and the dimensions of reflected appraisals "distressed" ($r = .199$, $p < .001$), "successful" ($r = -.179$, $p < .001$), "sociable" ($r = -.108$, $p < .001$), and "needs help" ($r = .104$, $p < .001$). These findings show that as the reflected appraisals of being successful and sociable increase, subsequent offending decrease. It also indicates that as appraisals of being distressed and in need of help increases, subsequent offending increases.

Correlation Coefficients: Age 15

Table 3.2 below displays the correlation coefficients for all youths at age 15. As was found with 13 year old's, all of the dimensions of reflected appraisals had a statistically significant relationship with the dependent variable "offend16" as did the control variables for prior offending "offend15" and "sex." The strongest association was found between the dependent variable "offend16" and the variable "offend15"($r = .662$, $p < .001$). There was also a moderate positive relationship between the dependent

Table 3.2 Correlation Coefficients For All Cases At Age 15

	Offend16	Offend15	Suc	Soc	Dist	Help	Bad	Sex	Ethnic	Income
Offend16	1.00									
Offend15	.662**	1.00								
Suc	-.181**	-.187**	1.00							
Soc	-.177**	-.162**	.406**	1.00						
Dist	.157**	.224**	-.296**	-.288**	1.00					
Help	.226**	.285**	-.435**	-.455**	.558**	1.00				
Bad	.492**	.553**	-.361**	-.403**	.418**	.641**	1.00			
Sex	.283**	.254**	-.190**	-.183**	.040	.122**	.274*	1.00		
Ethnic	.028	.043	.078*	.011	-.114**	-.157**	-.038*	-.029	1.00	
Income	-.002	-.014	.151**	.066	-.129**	-.130**	-.067	.040	-.369**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

variable "offend16" and the variables "bad kid" (r= .492, p< .001) and "sex" (r= .283, p< .001). These findings were again followed by modest (yet stronger) relationships between the dependent variable "offend14" and dimensions of reflected appraisals "needs help" (r= .226, p< .001), "successful" (r= -.181, p< .001), "sociable" (r= -.177, p< .001), and "distressed" (r= .157, p< .001). These findings show that as the reflected appraisals of being successful and sociable increase, subsequent offending decreases. It also indicates that as appraisals of being distressed and in need of help increases, subsequent offending increases.

Correlation Coefficients: Age 17

Table 3.3 below, shows the correlation coefficients of the variables in the model for 17 year old's. Although most of the variables for 17 year old's indicate similar relationships with the dependent variable, there are some important differences. For one, the dimension "sociable" no longer maintains a statistically significant relationship with subsequent offending. As outlined in Table 3.3 all of the dimensions of reflected appraisals (with the exception of sociable) as well as the control variables "sex" and "prior offending" were statistically significant (p< .001). Of these variables the strongest association was again the fairly strong positive relationship between the dependent variable "offend18" and prior offending "offend17" (r = .563, p<.001). This relationship suggests that youth's who have participated in offending behaviors in the past are still more likely to continue offending in the future. There was also a moderate positive relationship calculated between the variables "bad kid" and "offend18" (r= .470, p< .001) and control variable "sex" (r= .329, p< .001). As with the younger age groups this finding shows that at age 17, males are still more likely to offend than females, and for males and females, as reflected appraisals of being a "bad

kid" increases so does the level of subsequent offending behaviors. These findings were followed by the modest relationships between the dependent variable "offend18" and the dimensions of reflected appraisals "needs help" ($r = .209$, $p < .001$), "distressed" ($r = .182$, $p < .001$), and "successful" ($r = -.129$, $p < .001$). These findings show that as the reflected appraisals of being successful increases, subsequent offending decreases. It also indicates that as appraisals of being distressed and in need of help increases, subsequent offending increases.

Summary of Correlation Coefficients: All Cases

For all three age groups the association between prior offending and subsequent offending was the strongest ($r_{13} = .634$, $r_{15} = .662$, and $r_{17} = .563$) The reflected appraisal that had the strongest effect on subsequent offending for all ages was the dimension "bad kid" ($r_{13} = .392$, $r_{15} = .492$, and $r_{17} = .470$). The dimensions of "distressed" and "needs help" showed modest positive relationships with subsequent offending across age and the dimensions "successful" and "sociable" maintained modest negative relationships with subsequent offending for ages 13 and 15. However, by age 17 the dimension "sociable" was no longer statistically significant. It is also noted that the strength of the association between past offending and dimensions of reflected appraisals is somewhat stronger than the association between reflected appraisals and future offending. Also important was the fact that the variable "sex" was shown to have a moderate association with subsequent offending. The effects of being male and female will be presented in the next chapter.

Table 3.3 Correlation Coefficients For All Cases At Age 17

	Offend18	Offend17	Suc	Soc	Dist	Help	Bad	Sex	Ethnic	Income
Offend18	1.00									
Offend17	.563**	1.00								
Suc	-.129**	-.217**	1.00							
Soc	-.053	-.093*	.461**	1.00						
Dist	.182**	.240**	-.330**	-.270**	1.00					
Help	.209**	.258**	-.439**	-.361**	.620**	1.00				
Bad	.470**	.509**	-.440**	-.320**	.425**	.579**	1.00			
Sex	.324**	.306**	-.134**	-.125**	-.016	.136**	.272*	1.00		
Ethnic	.039	-.007	.155**	.086*	-.146**	-.141**	-.050*	-.029	1.00	
Income	-.019	-.058	.183**	.063	-.135**	-.167**	-.091*	.040	-.369**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

The next step in the analysis was to test the variables in the three models using OLS regression. Multiple regression is a multivariate technique that breaks down the separate effects of the independent variables on the dependent variable. By using OLS regression it allowed me to examine the bivariate relationships between particular independent variables and the dependent variable while controlling for all the other independent variables in the equation.

In Table 3.4 below I provide a summary of the results for the regression models for all youths (male and female) at age13, 15, and 17. All three models were statistically significant (P<.000) with multiple R-squares of (.438) for 13 year old's, (.485) for 15 year old's, and (.417) for 17 year old's.

Table 3.4 Summary of (OLS) Regression Models for Ages 13, 15, and 17.

Model	Age	Cases	df	f	sig	R	R-Square	Std. Error of the Estimate
1	13	672	9, 662	57.358	p< .000	.662	.438	2.7642
2	15	660	9, 650	68.113	p< .000	.697	.485	2.8764
3	17	534	9, 524	41.623	p< .000	.646	.417	2.5648

The Durbin-Watson test for autocorrelated residuals was performed for each model. One of the assumptions of regression analysis is that the residuals for consecutive observations are uncorrelated. Assuming this is true, the expected value of the statistic is 2. Values of less than 2 indicate positive autocorrelation and values of more than 2 indicate

negative autocorrelation. The Durbin-Watson test statistic for the above models are as follows: at age 13 (1.89), at age 15 it was (1.69), and at age 17 it was (2). These statistics were deemed to be within acceptable limits.

Regression Analysis: Age 13

Having established the viability of the models and their significance overall, I now focus on each of the models individually. In Table 3.5 below I present the results of the OLS regression analysis for all youths at age 13. With (n= 672) number of cases the model was statistically significant with (f= 57.358 p<.000) and (r^2 = .438).

To compare the with-in model effects of the variables, standardized beta's were analyzed. As was indicated in the literature review and correlation tables, prior offending was the best predictor of subsequent offending (*b*= .574). That is, controlling for the other variables in the equation, prior offending (offend13) was a statistically significant factor (t= 16.548 p= .000).

Hypothesis Set 1: For age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted by hypothesis one, the dimension "bad kid" was found to have a direct positive effect on subsequent offending (*b*= .119) significant at (t= 2.641 p<.05) controlling for the other variables.

Hypothesis Set 2: For age13, the dimension of "distressed" will have a direct positive effect on future delinquency.

Although the direction was correct, there was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the

Table 3.5 Results of OLS Regression Analysis For All Cases Age 13

Independent Variables	Unstandardized Coefficients B	SE of B	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.062**	**.024**	**.119**	**2.641**	**.008**
Distressed	.035	.032	.041	1.098	.273
Sociable	.044	.050	.031	.877	.381
Successful	**-.177**	**.064**	**-.091**	**-2.751**	**.006**
Needs Help	**-.091**	**.042**	**-.088**	**-2.192**	**.029**
Control Variables					
Offend13	**.634**	**.038**	**.574**	**16.548**	**.000**
Sex: Male/Female	.326	.220	.045	1.483	.138
Ethnicity	.058	.284	.007	.208	.836
Family Income	.048	.053	.029	.916	.360
Constant	1.594	1.739		.917	.360

*Dependent Variable: Offend14

null hypothesis.

Hypothesis Set 3: For age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

Again, the direction was correct, but there was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was support for hypothesis four which predicted a direct negative effect between subsequent offending and the dimension "successful"(b= -.091). Controlling for the other variables "successful" was significant at (t= -2.751 p<.01). As one's reflected appraisal of being successful increased, subsequent offending decreased.

Hypothesis Set 5: For age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

Controlling for the other variables "needs help" was significant at (t= -2.192 p<.05). Hypothesis five predicted that the dimension "needs help" would have a negative effect on future offending. Support for this hypothesis was found (b= -.088) suggesting that, as one's reflected appraisal of needing help increases, subsequent offending decreases.

Regression Analysis: Age 15

Table 3.6 below details the results of the OLS regression analysis for 15 year old's. With (n= 660) number of cases the model was statistically significant with (f= 68.113 p<.000) and multiple (r^2 = .485). At age 15, prior offending was again the best predictor

Table 3.6 [Model 2] Regression Analysis For All Cases Age 15

Independent Variables	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.105**	**.023**	**.202**	**4.581**	**.000**
Distressed	-.022	.033	-.024	-.687	.493
Sociable	-.056	.055	-.035	-1.028	.305
Successful	-.017	.067	-.009	-.267	.786
Needs Help	**-.101**	**.048**	**-.090**	**-2.099**	**.036**
Control Variables					
Offend15	**.558**	**.036**	**.546**	**15.502**	**.000**
Sex: Male/Female	**.847**	**.247**	**.106**	**3.424**	**.001**
Ethnicity	-.167	.302	-.017	-.553	.580
Family Income	.033	.053	.002	.063	.950
Constant	2.883	1.789		1.612	.108

*Dependent variable: Offend16

of subsequent offending (b= .546). That is, controlling for the other variables in the equation, prior offending (offend15) was a statistically significant factor (t= 15.502 p< .05) in predicting subsequent offending. Sex was another of the variables that was found to be of significance (t= 3.424 p< .05). Sex differences as a factor between reflected appraisals and offending will be examined in detail in chapter 4.

Hypothesis Set 1: For age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted by hypothesis one, after controlling for the other variables, the dimension "bad kid" was found to have a direct positive effect on subsequent offending (b= .202) significant at (t= 4.581 p<.05).

Hypothesis Set 2: For age15, the dimension of "distressed" will have a direct positive effect on future delinquency.

Although the direction was predicted correctly, there was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

The predicted direction was correct, but there was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Again, although the predicted direction was correct, there was no statistically significant effect found between the dimension "successful" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 5: For age 15, the dimension of "needs help" will have a direct negative effect on future delinquency

Controlling for the other variables "needs help" was significant at (t= -2.099 p<.05). Hypothesis five predicted that the dimension "needs help" would have a negative effect on future offending. Support for this hypothesis was found (*b*= -.090). As one's reflected appraisal of needing help increased, subsequent offending decreased.

Regression Analysis: Age 17

In Table 3.7 below I present the results of the OLS regression analysis for 17 year old's. With (n= 534) number of cases the model was statistically significant with (f= 41.623 p<.000) and multiple (r^2 = .417). Again, at age 17, prior offending was the best predictor of subsequent offending (*b*= .405). That is, controlling for the other variables in the equation, prior offending (offend17) was a statistically significant factor (t= 10.181 p< .05) in predicting subsequent offending. As was found in the model for 15 year old's the variable "sex" was significant at (t= 3.424 p< .05).

Hypothesis Set 1: For age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted the dimension "bad kid" was found to have a direct positive effect on subsequent offending (*b*= .301) significant at (t= 6.221 p<.05) after controlling for the other variables.

Table 3.7 [Model 3] Regression Analysis For All Cases Age 17

Independent Variables	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.138**	**.022**	**.301**	**6.221**	**.000**
Distressed	.020	.037	.025	.559	.576
Sociable	.078	.052	.058	1.503	.134
Successful	**.181**	**.080**	**.094**	**2.255**	**.025**
Needs Help	-.016	.049	-.017	-.332	.740
Control Variables					
Offend17	**.406**	**.040**	**.405**	**10.181**	**.000**
Sex: Male/Female	**-1.038**	**.241**	**-.155**	**-4.301**	**.000**
Ethnicity	-.174	.323	-.019	-.539	.590
Family Income	.092	.051	.066	1.817	.070
Constant	-4.867	1.778		-2.738	.006

*Dependent Variable: Offend18

Hypothesis Set 2: For age17, the dimension of "distressed" will have a direct positive effect on future delinquency.

Although the analysis indicated the predicted direction of the relationship, there was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

Although the predicted direction was confirmed, there was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Partial support for this hypothesis was found for age 17. The hypothesis predicted a direct negative effect between subsequent offending and the dimension "successful" but what was found was a positive effect (b= .094). Controlling for the other variables "successful" was significant at (t= 2.255 $p<.05$). However, unlike age 13, at age 17 as one's reflected appraisal of being successful increased, subsequent offending increased .

Hypothesis Set 5: For age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "distressed" and subsequent offending even though the direction was correct, therefore I fail to reject the null hypothesis.

Across-Model Comparisons

Hypothesis Set 6: The strength and significance of the five dimensions of reflected appraisals on future offending will change over time.

To conclude this chapter of the analysis I compare across models, by age (e.g. across models for age13 and 15, 13 and 17, and 15 and 17) and test for differences in variable effects using the unstandardized beta coefficients in the statistical formula below.

$$t = \frac{b_1 - b_2}{\sqrt{se(b_1)^2 + se(b_2)^2}}$$

Results of the model comparisons are outlined in Table 3.8 below. I first compare the models for 13 and 15 year old's, then 13 and 17 year old's, and lastly, 15 and 17 year old's. Presented in Table 3.8 are the nine variables for each of the three comparisons (i.e. the five independent variables of reflected appraisals and four control variables). For each variable the unstandardized betas were analyzed. Since no predictions were made concerning the direction of the relationships in the across-model comparisons, only the t-statistics that were statistically significant in a two-tailed test are reported with **emphasis** (t-critical= 1.96 $p<.025$), and three were reported which would have been significant in a one-tailed test (t-critical = 1.65 $p= .05$). All others are designated as non-significant (NS).

Looking first at differences across ages 13 and 15, the analysis revealed only one significant difference between variables. The difference was in the dimension "distressed" which was significantly different at ($t= 6.24$ $p<.05$). I include the dimension "success" here as well which would have been significant in a one-tailed test if predictions had been

made (t= -1.72 p< .05) and will be discussed in the conclusions section.

Comparing across ages 13 and 17 (with no subject overlap and a longer span of time) there are several more significant differences to note. The first difference involved the dimension "success" (t= -3.49 p< .05). Second, there was a significant difference in the dimension of "bad kid" (t= -2.33 p< .05). Another significant difference was found between prior offending at age 13 and prior offending at age 17 (t= 4.13 p< .05).

The last difference to note between 13 and 17 year old's is the variable "sex." The effects of being male or female were significantly different between ages 13 and 17 (t= 2.18 p< .05).

The last models to compare are 15 and 17 year old's. In this comparison the only difference noted was in prior offending (t= 2.82 p< .05). The dimensions "success"(t= -1.91 p< .05) and "sociable" (t= -1.78 p< .05) would have been significant in a one-tailed test.

Table 3.8 Comparison of Models by Age For All Cases: Unstandardized beta coefficients (Two-tailed t-test).

Ages 13 & 15		Significance
Success*	-1.7163635	p< .05
Sociable	NS	
Distressed*	**6.2423095**	**p< .05**
Needs Help	NS	
Bad Kid	NS	
Offend	NS	
Sex	NS	
Ethnicity	NS	
Income	NS	

Age 13 & 17		Significance
Success*	**-3.4943909**	**p< .05**
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid*	**-2.3284886**	**p< .05**
Offend*	**4.1325010**	**p< .05**
Sex*	**2.1819461**	**p< .05**
Ethnicity	NS	
Income	NS	

Age 15 & 17		Significance
Success*	-1.9067506	p< .05
Sociable*	-1.7821353	p< .05
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend*	**2.8245228**	**p< .05**
Sex	NS	
Ethnicity	NS	
Income	NS	

Summary

In the bivariate correlation tables (r) it was found, that for all ages, prior offending was the best predictor of subsequent offending. Of the reflected appraisals, it was the appraisal "bad kid" that shared the strongest relationship with subsequent offending. The dimensions "distressed" and "needs help" also indicated statistically significant positive relationships and the dimensions "successful" and "sociable" were found to have a negative association with offending. Another important finding was that the effects of being male or female mattered, but not until age 15.

The OLS regression analyses revealed that all three age-based models were statistically significant. The independent and control variables accounted for .417 to .485 percent of the variance in predicting subsequent offending. Controlling for the other variables, at age 13 it was prior offending that was the best predictor of subsequent offending, and the reflected appraisals of others as being successful, needing help, and bad kid, were also statistically significant. For age 15, prior offending was again the strongest predictor of subsequent offending. The effect of being male or female also became a significant factor at age 15. The dimensions needs help and bad kid continued to be factors, but the dimension successful was no longer significant. At age 17, the effect of being male or female remained significant and prior offending remained the best predictor of subsequent offending. The dimension "successful" which was a significant factor at age 13 but not at 15 became a factor again, as was the dimension "bad kid."

In the next chapter I will analyze the data for males and females separately and then test for differences across both age and sex of the youth.

Chapter 4

Analysis Part II: Male and Female

In this chapter I present the analyses for the dimensional models of reflected appraisals for males at age 13, 15, and 17 and for females at age 13, 15, and 17. I begin by presenting correlation coefficient tables of the variables for the three age groups of males [See Tables 4.1 - 4.3] and then the three age groups of females [See Tables 4.4 - 4.6]. The purpose of the correlation coefficients (r) tables was to test the strength of the linear relationships between the variables used in the three age-based models. Using OLS regression in a multi-variate analysis the models for males and the models for females were then tested for strength and significance. In Table 4.7 I provide a summary of the statistical results for the models. The six models are then presented individually, and the within-group effects are analyzed. This was done by analyzing the partial regression coefficients (standardized betas) where all variables are expressed in standardized (z score) form. The results of the age-based models for males are presented in Tables 4.8 - 4.10 and for females in Tables 4.11 - 4.13. To conclude this chapter of the analysis I compare across the sex-specific models, by age (e.g. between males and females at age13, 15, and 17) and test for differences in variable effects using the unstandardized beta coefficients outlined previously in chapters two and three.

Correlation Coefficients: Male - Age 13

The first step of the analysis was to analyze the strength of the linear associations between the dependent, independent, and control variables. Table 4.1 below, shows the correlation coefficients of the variables for 13 year old male subjects. As displayed in

Table 4.1 Correlation Coefficients For Males At Age 13

	Offend14	Offend13	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend14	1.00								
Offend13	.641**	1.00							
Suc	-.173**	-.156**	1.00						
Soc	-.074	-.135**	.288**	1.00					
Dist	.168**	.212**	-.258**	-.371**	1.00				
Help	.067	.118**	-.335**	-.446**	.637**	1.00			
Bad	.404**	.556**	-.345**	-.435**	.573**	.535**	1.00		
Ethnic	-.011	-.116*	-.100**	-.032	.165**	.172*	.028	1.00	
Income	.000	-.062	.130*	.036	-.253**	-.148**	-.150**	-.378**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

Table 4.1 the strongest correlation with the dependent variable (offend14) was prior offending (r= .641 p< .001). For 13 year old males, those who have offended in the past were more likely to offend in the future. The dimensions of reflected appraisals that had a statistically significant relationship with future offending was the positive association with "bad kid" (r= .404 p< .001), and being "distressed" (r= .168 p<.001). This finding shows that as the appraisals of being a bad kid and distressed increased so did the level of subsequent offending behaviors. The variable "successful" was also significant (r= -.173 p<.001) which indicated a negative relationship with the dependent variable. In other words, as the appraisal of being or becoming successful increased, subsequent offending decreased.

Correlation Coefficients: Male - Age 15

Table 4.2 below displays the correlation coefficients for male youths at age 15. Unlike what was found with 13 year old's, at age 15 all of the dimensions of reflected appraisals had a statistically significant relationship with the dependent variable, "offend16," as did the control variables for prior offending "offend15" and "ethnicity." The strongest association was found between the dependent variable "offend16" and the variable "offend15"(r= .662, p< .001). There was also a moderate positive relationship between "offend16" and the variable "bad kid" (r= .517, p< .001). These findings were followed by the modest relationships between the dependent variable "offend14" and dimensions of reflected appraisals "needs help" (r= .236, p< .001), "successful" (r= -.145, p< .001), "sociable" (r= -.132, p< .001), and "distressed" (r= .212, p< .001). These findings show that as the reflected appraisals of being successful and sociable increase, subsequent offending decreases. It also indicates that as appraisals of being distressed and in need of

Table 4.2 Correlation Coefficients For Males At Age 15

	Offend16	Offend15	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend16	1.00								
Offend15	.662**	1.00							
Suc	-.145**	-.118*	1.00						
Soc	-.132*	-.116*	.362**	1.00					
Dist	.212**	.272**	-.251**	-.333**	1.00				
Help	.236**	.309**	-.334**	-.383**	.575**	1.00			
Bad	.517**	.575**	-.255**	-.297**	.450**	.595**	1.00		
Ethnic	-.089*	-.069	-.077	.020	.101*	.098	-.025	1.00	
Income	-.026	.022	.161**	.033	-.125*	-.069	-.037	-.378**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

help increases, subsequent offending increases. As mentioned, ethnicity was also found to be a significant factor at age 15 ($r = -.089$, $p < .05$).

Correlation Coefficients: Males - Age 17

Table 4.3 below, shows the correlation coefficients of variables in the model for 17 year old males. The strength and significance of the associations between variables for 17 year old males indicate some important differences. For one, the dimensions "sociable" and "successful" no longer maintain a statistically significant relationship with subsequent offending. Second, the variable "ethnicity" was no longer significant. It appears that one's ethnicity was only a factor at age 15 but not at age 13 or 17. Also in Table 4.3 the dimensions of reflected appraisals as being a "bad kid," "distressed," and "needs help" as well as prior offending were statistically significant ($p < .001$). Of these variables the strongest association was again the positive relationship between future offending "offend18" and prior offending "offend17" ($r = .495$, $p < .001$). As with the other ages, youth's who have participated in offending behaviors in the past are still more likely to continue offending in the future. There was also a moderate positive relationship found between the variables "bad kid" and "offend18" ($r = .472$, $p < .001$). Again, as reflected appraisals of being a "bad kid" increases so does the level of subsequent offending behaviors. These increases, subsequent offending decreases. It also indicates that as appraisals of being distressed and in need of help increases, subsequent offending increases.

Table 4.3 Correlation Coefficients For Males At Age 17

	Offend18	Offend17	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend18	1.00								
Offend17	.495**	1.00							
Suc	-.033	-.137*	1.00						
Soc	.017	-.072	.367**	1.00					
Dist	.228**	.280**	-.229**	-.174**	1.00				
Help	.181**	.241**	-.322**	-.216**	.622**	1.00			
Bad	.472**	.495**	-.330**	-.189**	.437**	.461**	1.00		
Ethnic	-.087*	-.033	-.115*	.048	.156*	.116*	-.007	1.00	
Income	-.037	-.052	.190**	.023	-.130*	-.152**	-.066	-.378**	1.00

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

Summary of Correlation Coefficients: Males

For all three age groups of male subjects, the association between prior offending and subsequent offending was the strongest (r_{13}= .641, r_{15}= .662, and r_{17} = .495) The reflected appraisal that had the strongest effect on subsequent offending for all ages was the dimension "bad kid" (r_{13}= .404, r_{15}= .517, and r_{17}= .472). The dimensions of "distressed" and "needs help" showed modest positive relationships with subsequent offending across age and the dimensions "successful" and "sociable" maintained modest negative relationships with subsequent offending for ages 13 and 15. However, by age 17 these two dimensions were no longer statistically significant. It is also noted that the strength of the association between past offending and dimensions of reflected appraisals is somewhat stronger than the association between reflected appraisals and future offending.

Regression Analysis: Males

The next step in the analysis was to test the variables in the three age-based models for males using OLS regression. Again, this multivariate technique was used in order to break down the separate effects of the independent variables on the dependent variable. By using OLS regression it allowed me to examine the bivariate relationships between particular independent variables and the dependent variable while controlling for all the other independent variables in the equation.

Table 4.4 below provides a summary of the results for the regression models for male youths at age13, 15, and 17. All three models were statistically significant (P<.000) with multiple R-squares of (.438) for 13 year old's, (.485) for 15, and (.417) for 17 year old's.

Table 4.4 Summary of (OLS) Regression Models for Males: Ages 13, 15, and 17.

Model	Age	Cases	df	f	sig	R	R-Square	Std. Error of the Estimate
1	13	332	8, 323	25.129	p< .000	.619	.384	3.1425
2	15	350	8, 341	38.928	p< .000	.691	.477	3.3464
3	17	289	8, 280	21.923	p< .000	.621	.385	3.0177

The Durbin-Watson test for autocorrelated residuals was performed for each model. The Durbin-Watson test statistic for the above models of male subjects are as follows: at age 13 (1.87), at age 15 it was (1.85), and at age 17 it was (1.88). These test statistics were deemed to be within acceptable limits.

Regression Analysis: Males Age 13

Having established the viability of the models and their significance overall, I now focus on each of the models individually. In Table 4.5 below I present the results of the OLS regression analysis for male youths at age 13. With (n= 332) number of male cases the model was statistically significant with (f= 25.129 p<.000) and (r^2 = .384).

To compare the with-in model effects of the variables, standardized beta's were analyzed. As was indicated in the literature review and correlation tables, prior offending was the best predictor of subsequent offending (*b*= .574). That is, controlling for the other variables in the equation, prior offending (offend13) was a statistically significant factor (t= 16.548 p= .000).

Table 4.5 Results of OLS Regression Analysis For Males Age 13

	Unstandardized Coefficients		Standardized Coefficients		
Independent Variables	B	SE of B	Beta	t	Sig.
Bad Kid	.069	.039	.123	1.779	.076
Distressed	.062	.061	.064	1.027	.305
Sociable	.068	.083	.042	.828	.408
Successful	**-.213**	**.101**	**-.102**	**-2.113**	**.035**
Needs Help	-.135	.071	-.119	-1.887	.060
Control Variables					
Offend13	**.573**	**.059**	**.528**	**9.670**	**.000**
Ethnicity	.200	.475	.021	.421	.674
Family Income	.105	.089	.057	1.182	.238
Constant	.714	2.969		.240	.810

*Dependent Variable: Offend14

Hypothesis Set 1: For males age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "Bad kid" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 2: For age13, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was support for hypothesis four which predicted a direct negative effect between subsequent offending and the dimension "successful"(b= -.102). Controlling for the other variables "successful" was significant at (t= -2.113 $p<.05$). As one's reflected appraisal of being successful increased, subsequent offending decreased.

Hypothesis Set 5: For age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "needs help" and subsequent offending therefore I fail to reject the null hypothesis.

Regression Analysis: Males Age 15

Table 4.6 below details the results of the OLS regression analysis for 15 year old males. With (n= 350) number of cases the model was statistically significant with (f= 38.928 p<.000) and multiple (r^2 = .477). At age 15, prior offending was again the best predictor of subsequent offending (*b*= .552). That is, controlling for the other variables in the equation, prior offending (offend15) was a statistically significant factor (t= 11.376 p< .05) in predicting subsequent offending.

Hypothesis Set 1: For males age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted by hypothesis one, after controlling for the other variables, the dimension "bad kid" was found to have a direct positive effect on subsequent offending (*b*= .240) significant at (t= 4.111 p<.05).

Hypothesis Set 2: For age15, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Table 4.6 Regression Analysis For Males Age 15

Independent Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.144**	**.035**	**.240**	**4.111**	**.000**
Distressed	-.029	.057	-.026	-.522	.602
Sociable	-.042	.090	-.021	-.471	.638
Successful	-.081	.102	-.035	-.797	.426
Needs Help	-.115	.077	-.084	-1.503	.134
Control Variables					
Offend15	**.565**	**.050**	**.552**	**11.376**	**.000**
Ethnicity	-.413	.473	-.038	-.874	.383
Family Income	.024	.088	.012	.276	.782
Constant	2.197	2.197		.791	.430

*Dependent variable: Offend16

Hypothesis Set 4: For age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "successful" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 5: For age 15, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "needs help" and subsequent offending therefore I fail to reject the null hypothesis.

Regression Analysis: Males Age 17

In Table 4.7 below I present the results of the OLS regression analysis for 17 year old males. With (n= 289) number of cases the model was statistically significant with (f= 21.923 p<.000) and multiple (r^2 = .385). Again, at age 17, prior offending was the best predictor of subsequent offending (*b*= .377). That is, controlling for the other variables in the equation, prior offending (offend17) was a statistically significant factor (t= 6.977 p< .05) in predicting subsequent offending.

Hypothesis Set 1: For males age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted the dimension "bad kid" was found to have a direct positive effect on subsequent offending (*b*= .356) significant at (t= 5.698 p<.05) after controlling for the other variables. The dimensions "distressed," "sociable," and "Needs help" were not statistically significant so there was no support for hypotheses two, three, and five.

Table 4.7 Regression Analysis For Maies Age 17

Independent Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Successful	**.288**	**.119**	**.131**	**2.419**	**.016**
Sociable	.157	.085	.093	1.852	065
Distressed	.001	.065	.002	.027	.978
Needs Help	.027	.083	.022	.326	.745
Bad Kid	**.199**	**.035**	**.356**	**5.698**	**.000**
Control Variables					
Offend17	**.379**	**.054**	**.377**	**6.977**	**.000**
Ethnicity	-.517	.490	-.053	-1.055	.292
Family Income	.052	.081	.033	.651	.515
Constant	-10.34	2.682		-3.858	.000

*Dependent Variable: Offend18

Hypothesis Set 2: For age17, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

Partial support for hypothesis four was found for age 17. The hypothesis predicted a direct negative effect between subsequent offending and the dimension "successful" but what was found was a positive effect (b= .131) significant at (t= 2.419 $p<.05$).

Hypothesis Set 5: For age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Across-Model Comparisons: Males

Hypothesis Set 6: The strength and significance of the five dimensions of reflected appraisals on future offending will change over time.

To conclude this part of the analysis I compare across the age-based male models (e.g. across models for ages13 and 15, 13 and 17, and 15 and 17) and test for differences in variable effects using the unstandardized beta coefficients in the statistical formula below.

$$t = \frac{b_1 - b_2}{\sqrt{se(b_1)^2 + se(b_2)^2}}$$

Results of the model comparisons for males are outlined in Table 4.8 below. I first compare the models for 13 and 15 year old's, then 13 and 17 year old's, and lastly, 15 and 17 year old's. Presented in Table 4.8 are the nine variables for each of the three comparisons (i.e. the five independent variables of reflected appraisals and four control variables). For each variable the unstandardized betas were analyzed. Only the t-statistics that were statistically significant in a two-tailed test are reported with **emphasis** (t-critical= 1.96 p<.025), and three were reported which would have been significant in a one-tailed test (t-critical = 1.65 p= .05). All others are designated as non-significant (NS).

Looking first at differences across ages 13 and 15, the analysis did not reveal any significant difference between variables.

Comparing across ages 13 and 17 (with no subject overlap and a longer span of time) there are several significant differences to note. The first difference involved the dimension "success" (t= -3.20 p< .05). Second, there was a significant difference in the dimension of "bad kid" (t= -2.47 p< .05). Another significant difference was found between prior offending at age 13 and prior offending at age 17 (t= 2.42 p< .05). The last models to compare are 15 and 17 year old's. In this comparison the only differences noted were in prior offending (t= 2.52 p< .05) and the reflected appraisal "success" (t= -2.35 p< .05).

Table 4.8 Comparison of Models by Age For Males: Unstandardized beta coefficients (Two-tailed t-test).

Age 13 & 15		Significance
Success*	NS	
Sociable	NS	
Distressed*	NS	
Needs Help	NS	
Bad Kid	NS	
Offend	NS	
Ethnicity	NS	
Income	NS	

Age 13 & 17		Significance
Success*	**-3.2098245**	**p< .05**
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid*	**-2.4701253**	**p< .05**
Offend*	**2.42557**	**p< .05**
Ethnicity	NS	
Income	NS	

Age 15 & 17		Significance
Success*	**-2.3575883**	**p< .05**
Sociable*	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend*	**2.5274006**	**p< .05**
Ethnicity	NS	
Income	NS	

Summary For Males

In the bivariate correlation tables (r) it was found, that for males at all ages, prior offending was the best predictor of subsequent offending. Of the reflected appraisals, it was again the appraisal "bad kid" that shared the strongest relationship with subsequent offending. The dimension "distressed" also indicated a statistically significant positive relationship as did "needs help," but only at ages 15 and 17. The dimensions "successful"at age 13 and 15, and "sociable" at age 15 were found to have a negative association with offending.

The OLS regression analyses revealed that all three age-based models were statistically significant. The independent and control variables accounted for .384 to .477 percent of the variance in predicting subsequent offending. Controlling for the other variables, at age 13 it was prior offending that was the best predictor of subsequent offending, and the reflected appraisals of others as being successful was also statistically significant. For age 15, prior offending was again the strongest predictor of subsequent offending followed by the dimension "bad kid." At age 17, prior offending remained the best predictor of subsequent offending followed by "bad kid." The dimension "successful," which was a significant factor at age 13 but not at 15, became a significant factor again at age 17. Having completed the analysis of male youths I continue in the next section by analyzing the data for females and testing for differences within age and across age.

Correlation Coefficients: Female - Age 13

Following the established format, the first step of this analysis is to analyze the strength of the linear associations between the dependent, independent, and control variables.

Table 4.9 below, shows the correlation coefficients of the variables for 13 year old female subjects. As displayed in Table 4.9 the strongest correlation with the dependent variable (offend14) was prior offending (r= .588 p< .001). For 13 year old females, those who have offended in the past were more likely to offend in the future. All five dimensions of reflected appraisals were statistically significant. The strongest relationship with future offending was the positive associations with the dimension "bad kid" (r= .333 p< .001), followed by "distressed" (r= .242 p<.001), and "needs help." These findings show that as the appraisals of being a bad kid, distressed, and needs help increase, the level of subsequent offending behaviors decreases. The variables "successful" (r= -.176 p<.001), and "sociable" (r= -.118 p< .05) indicate a negative relationship with the dependent variable. In other words, as the appraisal of being, or becoming successful and sociable increases, subsequent offending decreases.

Correlation Coefficients: Female - Age 15

Table 4.10 below displays the correlation coefficients for female youths at age 15. At age 15, all of the dimensions of reflected appraisals except for "success" had a statistically significant relationship with the dependent variable (offend16). The control variable for prior offending (offend15) was found to have the strongest association with the dependent variable "offend16" (r= .553, p< .001). There was also a moderate positive relationship between "offend16" and the variable "bad kid" (r= .290, p< .001).

Table 4.9 Correlation Coefficients For Females At Age 13

	Offend14	Offend13	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend14	1.00								
Offend13	.588**	1.00							
Suc	-.176**	-.143**	1.00						
Soc	-.118*	-.067	.498**	1.00					
Dist	.242**	.292**	-.205**	-.261**	1.00				
Help	.114*	.149**	-.327**	-.382**	.487**	1.00			
Bad	.333**	.319**	-.393**	-.503**	.547**	.603**	1.00		
Ethnic	-.077	-.002	-.055	-.010	.088	.213**	.132*	1.00	
Income	-.051	-.058	.081	.052	-.096	-.169**	-.139**	-.358**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

Table 4.10 Correlation Coefficients For Females At Age 15

	Offend16	Offend15	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend16	1.00								
Offend15	.553**	1.00							
Suc	-.105	-.184**	1.00						
Soc	-.137*	-.116*	.409**	1.00					
Dist	.149**	.251**	-.371**	-.271**	1.00				
Help	.149**	.211**	-.522**	-.498**	.560**	1.00			
Bad	.290**	.410**	-.419**	-.460**	.442**	.687**	1.00		
Ethnic	-.041	-.023	-.067	-.033	.132*	.216**	.107*	1.00	
Income	-.015	-.034	.113*	.070	-.139*	-.174**	-.058	-.358**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

These findings were followed by the modest relationships between "offend14" and the dimensions of "needs help" (r= .149, p< .001), "sociable" (r= -.137, p< .05), and "distressed" (r= .149, p< .001). What these findings suggest is that as reflected appraisals of being sociable increases, subsequent offending decreases. The findings also indicate that as reflected appraisals of being a bad kid, in need of help, and distressed increased, subsequent offending also increased.

Correlation Coefficients: Females - Age 17

Table 4.11 below, shows the correlation coefficients of variables in the model for 17 year old females. As indicated in Table 4.11 the dimensions of reflected appraisals as being a "bad kid," "distressed," "successful," "needs help" and prior offending were statistically significant (p< .05). The dimension "sociable" was not a significant factor for 17 year old females. Of these variables the strongest association was again the positive relationship between future offending "offend18" and prior offending "offend17" (r = .596, p<.001). As with the other ages, youth's who have participated in offending behaviors in the past are still more likely to continue offending in the future. There was also a moderate positive relationship found between the variables "bad kid"and "offend18" (r= .364, p< .001). Again, as reflected appraisals of being a "bad kid" increases so does the level of subsequent offending behaviors. These findings were followed by the modest relationships between the dependent variable "offend18" and the dimensions of reflected appraisals "needs help" (r= .196, p< .001), "distressed" (r= .183, p< .001), and "successful" (r= -.230, p<.001). These findings show that as the reflected appraisals of being successful increases, subsequent offending decreases. It also shows that as reflected appraisals of being a "bad

Table 4.11 Correlation Coefficients For Females At Age 17

	Offend18	Offend17	Suc	Soc	Dist	Help	Bad	Ethnic	Income
Offend18	1.00								
Offend17	.596**	1.00							
Suc	-.230**	-.301**	1.00						
Soc	-.066	-.039	.548**	1.00					
Dist	.183**	.254**	-.449**	-.360**	1.00				
Help	.196**	.244**	-.543**	-.467**	.632**	1.00			
Bad	.364**	.453**	-.535**	-.411**	.458**	.675**	1.00		
Ethnic	-.033	.044	-.196**	-.228**	.139*	.159**	.099*	1.00	
Income	.064	-.020	.157*	.083	-.145*	-.166**	-.081	-.358**	1.00

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

kid," "in need of help,"and "being distressed" increases, subsequent offending also increases

Summary of Correlation Coefficients: Females

For all three age groups of female subjects, the association between prior offending and subsequent offending was the strongest (r_{13} = .588, r_{15} = .553, and r_{17} = .596) The reflected appraisal that had the strongest effect on subsequent offending for all ages was the dimension "bad kid" (r_{13}= .333, r_{15}= .290, and r_{17}= .364). The dimensions of "distressed" and "needs help" showed modest positive relationships with subsequent offending across all age groups and the dimensions "successful" and "sociable" maintained modest negative relationships with subsequent offending. "Successful" was significant at ages 13 and 17, and the dimension "sociable" was significant at ages 13 and 15, but by age 17 the relationship was no longer statistically significant. For females, it is also noted that the strength of the association between past offending and dimensions of reflected appraisals is again somewhat stronger than the association between reflected appraisals and future offending.

The next step in the analysis is to test the variables in the three age-based models for females using OLS regression. Again, this multivariate technique was used in order to break down the separate effects of the independent variables on the dependent variable. By using OLS regression it allowed me to examine the bivariate relationships between particular independent variables and the dependent variable while controlling for all the other independent variables in the equation.

Table 4.4 below provides a summary of the results for the regression models for female youths at age13, 15, and 17. All three models were statistically significant (P<.000) with multiple R-squares of (.491) for 13 year old's, (.247) for 15, and (.327) for 17 year

old's. The Durbin-Watson test for autocorrelated residuals was performed for each model. The Durbin-Watson test statistic for the above models of female subjects was as follows: at age 13 (1.95), at age 15 it was (1.95), and at age 17 it was (1.93). Again, these statistics are well within acceptable limits.

Table 4.12 Summary of (OLS) Regression Models for Females: Ages 13, 15, and 17.

Model	Age	Cases	df	f	sig	R	R-Square	Std. Error of the Estimate
1	13	340	8, 331	39.960	p< .000	.701	.491	2.3384
2	15	310	8, 301	14.202	p< .000	.532	.274	2.1523
3	17	245	8, 236	14.315	p< .000	.572	.327	1.8009

Regression Analysis: Females Age 13

Having established the viability of the models and their significance overall, I now focus on each of the models individually. In Table 4.13 below I present the results of the OLS regression analysis for female youths at age 13. With (n= 340) number of female cases the model was statistically significant with (f= 39.960 p<.000) and (r^2 = .491).

To compare the with-in model effects of the variables, standardized beta's were analyzed. As was indicated in the literature review and correlation tables, prior offending was the best predictor of subsequent offending (*b*= .636). That is, controlling for the other variables in the equation, prior offending (offend13) was a statistically significant factor (t= 14.693 p= .000).

Table 4.13 Results of OLS Regression Analysis For Females Age 13

Independent Variables	Unstandardized Coefficients B	SE of B	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.063**	**.028**	**.133**	**2.266**	**.024**
Distressed	.093	.035	.013	.263	.793
Sociable	.017	.061	.015	.296	.767
Successful	-.129	.080	-.074	-1.602	.110
Needs Help	-.064	.049	-.070	-1.333	.184
Control Variables					
Offend13	**.734**	**.050**	**.636**	**14.693**	**.000**
Ethnicity	-.314	.328	-.041	-.956	.340
Family Income	.006	.061	.004	.100	.920
Constant	1.323	1.905		.695	.488

*Dependent Variable: Offend14

Hypothesis Set 1: For females age 13, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted the dimension "bad kid" was found to have a direct positive effect on subsequent offending (b= .133) significant at (t= 2.266 p< .05) after controlling for the other variables.

Hypothesis Set 2: For age13, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 13, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 13, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "success" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 5: For age 13, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "needs help" and subsequent offending therefore I fail to reject the null hypothesis.

Regression Analysis: Females Age 15

Table 4.14 below details the results of the OLS regression analysis for 15 year old females. With (n= 310) number of cases the model was statistically significant with (f= 14.202 p<.000) and multiple (r^2 = .274). At age 15, prior offending was again the best predictor of subsequent offending (*b*= .431). That is, controlling for the other variables in the equation, prior offending (offend15) was a statistically significant factor (t= 7.851 p< .05) in predicting subsequent offending.

Hypothesis Set 1: For males age 15, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted by hypothesis one, after controlling for the other variables, the dimension "bad kid" was found to have a direct positive effect on subsequent offending (*b*= .158) significant at (t= 2.146 p<.05).

Hypothesis Set 2: For age15, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 15, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Table 4.14 Regression Analysis For Females Age 15

Independent Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.057**	**.027**	**.158**	**2.146**	**.033**
Distressed	-.005	.033	-.010	-.178	.859
Sociable	-.097	.059	-.102	-1.657	.099
Successful	.019	.080	.015	.248	.804
Needs Help	-.094	.055	-.139	-1.729	.085
Control Variables					
Offend15	**.428**	**.055**	**.431**	**7.851**	**.000**
Ethnicity	**.988**	**.341**	**.157**	**2.895**	**.004**
Family Income	.010	.056	.010	.192	.848
Constant	1.832	2.056		.891	.374

*Dependent variable: Offend16

Hypothesis Set 4: For age 15, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "successful" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 5: For age 15, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "needs help" and subsequent offending therefore I fail to reject the null hypothesis.

The control variable "ethnicity" was also found to be statistically significant for females at age 15 (b= .157 p< .05). It should be noted that this was the only time ethnicity appeared to be a factor in the probability of future offending.

Regression Analysis: Females Age 17

In Table 4.15 below I present the results of the OLS regression analysis for 17 year old females. With (n= 245) number of cases the model was statistically significant with (f= 14.315 p<.000) and multiple (r^2 = .327). Again, at age 17, prior offending was the best predictor of subsequent offending (b= .443). That is, controlling for the other variables in the equation, prior offending (offend17) was a statistically significant factor (t= 7.005 p< .05) in predicting subsequent offending.

Hypothesis Set 1: For age 17, the dimension of "bad kid" will have a direct positive effect on future delinquency.

As predicted the dimension "bad kid" was found to have a direct positive effect on subsequent offending (b= .194) significant at (t= 2.391 p<.05) after controlling for the

Table 4.15 Regression Analysis For females Age 17

Independent Variables	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
Bad Kid	**.057**	**.024**	**.194**	**2.391**	**.018**
Distressed	.012	.036	.025	.336	.737
Sociable	-.008	.056	-.010	-.144	.885
Successful	-.011	.095	-.009	-.120	.904
Needs Help	-.027	.050	-.049	-.552	.582
Control Variables					
Offend17	**.421**	**.060**	**.443**	**7.005**	**.000**
Ethnicity	.206	.366	.033	.564	.573
Family Income	**.138**	**.053**	**.152**	**2.584**	**.010**
Constant	-.955	1.978		-.483	.630

*Dependent Variable: Offend18

other variables.

Hypothesis Set 2: For age17, the dimension of "distressed" will have a direct positive effect on future delinquency.

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 3: For age 17, the dimension of "sociable" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "sociable" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 4: For age 17, the dimension of "likely to succeed" will have a direct negative effect on future delinquency.

There was no statistically significant effect found between the dimension "success" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 5: For age 17, the dimension of "needs help" will have a direct negative effect on future delinquency

There was no statistically significant effect found between the dimension "distressed" and subsequent offending therefore I fail to reject the null hypothesis.

Hypothesis Set 6: The strength and significance of the five dimensions of reflected appraisals on future offending will change over time.

The control variable "parental income" was also found to be statistically significant for females at age 17 (b= .138 $p< .05$). It should be noted that this was the only time that parental income appeared to be a factor in the likelihood of future offending.

Across-Model Comparisons: Females

To conclude this part of the analysis I compare across the age-based female models (e.g. across models for age13 and 15, 13 and 17, and 15 and 17) and test for differences in variable effects using the unstandardized beta coefficients in the statistical formula below.

$$t = \frac{b_1 - b_2}{se(b_1)^2 + se(b_2)^2}$$

Results of the model comparisons for females are outlined in Table 4.16 below. I first compare the models for 13 and 15 year old's, then 13 and 17 year old's, and lastly, 15 and 17 year old's. Presented in Table 4.16 are the nine variables for each of the three comparisons (i.e. the five independent variables of reflected appraisals and four control variables). For each variable the unstandardized betas were analyzed. Only the t-statistics that were statistically significant in a two-tailed test are reported with **emphasis** (t-critical= 1.96 p<.025), and one was reported which would have been significant in a one-tailed test (t-critical = 1.65 p= .05). All others are designated as non-significant (NS). Looking first at differences across ages 13 and 15, the analysis revealed two significant difference between variables. The first difference was with the variable "offending" (t= 4.11 p< .05). The second difference noted was with the control variable "ethnicity" (t= 2.75 p< .05). Comparing across ages 13 and 17 (with no subject overlap and a longer span of time) there was one significant difference to note. This major difference involved the variable "offending" (t= 4.00 p< .05) which indicates a difference between prior offending at age 13 and prior offending at age 17.

Table 4.16 Comparison of Models by Age For Females: Unstandardized beta coefficients (Two-tailed t-test).

Age 13 & 15		**Significance**
Success	NS	
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend	**4.1167599**	**p< .05**
Ethnicity	**2.7518067**	**p< .05**
Income	NS	

Age 13 & 17		**Significance**
Success	NS	
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend*	**4.0075593**	**p< .05**
Ethnicity	NS	
Income	NS	

Age 15 & 17		**Significance**
Success	NS	
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend	NS	
Ethnicity	NS	
Income	-1.6492054	p< .05

The last models to compare are 15 and 17 year old's. In this comparison the only difference noted was that involving parental income (t= -1.649 p< .05) which would have been statistically significant in a one-tailed test.

Summary of Analyses: Females

In the bivariate correlation tables (r) it was found, that for females at all ages, prior offending was the best predictor of subsequent offending (the same was found for males). Of the reflected appraisals, it was again the dimension "bad kid" that shared the strongest relationship with subsequent offending. The dimensions "needs help" and "distressed" indicated positive relationships to future offending and were statistically significant at each age group. The dimensions "successful" and "sociable" had a negative effect on subsequent offending. For the dimension "successful" it was significant at ages 13 and 17 and "sociable" at ages 13 and 15.

The OLS regression analyses revealed that all three age-based models for females were statistically significant. The independent and control variables accounted for (.491) percent of the variance in predicting subsequent offending at age 13, (.274) percent at age 15, and (.327) at age 17. Controlling for the other variables, at age 13 it was prior offending that was the best predictor of subsequent offending, and the reflected appraisal of being a "bad kid" was also significant. At age 15 there was no change, prior offending was again the strongest predictor of subsequent offending followed by the dimension "bad kid." At age 17, prior offending remained the best predictor of subsequent offending followed by "bad kid." The dimension "successful," which had not been a significant factor in the younger ages, became a significant factor at age 17.

Across-Model Comparison: Male and Female

Having completed the analysis of female youths I continue in the next section by analyzing the data to uncover any differences across male and female models. Below, I compare the models for males and females at ages13,15, and 17 testing for differences in variable effects using the same unstandardized beta coefficient outlined below.

$$t = \frac{b_1 - b_2}{\sqrt{se(b_1)^2 + se(b_2)^2}}$$

Results of the model comparisons between the male and female models are outlined in Table 4.17 below. I first compare the models for 13 year old's, then 15 year old's and finally 17 year old's. Presented in Table 4.16 are the nine variables for each of the three comparisons (i.e. the five independent variables of reflected appraisals and four control variables). For each variable the unstandardized betas were analyzed. Only the t-statistics that were statistically significant in a two-tailed test are reported with **emphasis** (t-critical= 1.96 p<.05), and one was reported which would have been significant in a one-tailed test (t-critical = 1.65 p= .05). All others are designated as non-significant (NS).

Looking first at differences across male and female models at age 13, the analysis revealed only one significant difference between variables. This difference was with the variable "offending" (t= -2.0818 p< .05). This would suggest that the only significant difference between males and females at age 13 is in past offending. Comparing across male and female models at age 15 there was one significant difference to note. This difference involved the variable "bad kid" (t= 1.9588 p< .05). This finding suggests that reflected appraisals as a "bad kid" effect males and females differently when it come to predicting

Table 4.17 Comparison of Models by Sex At Ages 13, 15 and 17: Unstandardized beta coefficients (Two-tailed t-test).

Age 13 [male]	Age 13 [female]	Significance
Success	NS	
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid	NS	
Offend	**-2.0818**	**p< .025**
Ethnicity	NS	
Income	NS	

Age 15 [male]	Age 15 [female]	Significance
Success	NS	
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid*	**1.9588725**	**p< .025**
Offend*	1.8431245	p< .05
Ethnicity	NS	
Income	NS	

Age 17 [male]	Age 17 [female]	Significance
Success*	**1.966579**	**p< .025**
Sociable	NS	
Distressed	NS	
Needs Help	NS	
Bad Kid*	**3.3333255**	**p< .025**
Offend	NS	
Ethnicity	NS	
Income	NS	

offending behaviors. It should also be noted that the variable "offending"was different and would have been significant had I made a prediction to the fact. The last models to compare are between males and females at age17. In this comparison there were two significant differences to highlight. They involve the variables "bad kid" (t= 3.33 p< .05) and "success" (t= 1.96 p< .05). At age 17, there is a difference in the effects of reflected appraisals in the area of being a bad kid, and being, or becoming, a successful person.

Summary

In this section I have analyzed the age-based models of reflected appraisals for males and females. I begin by presenting correlation coefficient tables for the three age groups of males and then the three age groups of females. OLS regression was used to test the strength and significance of the variables. The six models were presented individually, and the within-group effects are analyzed. This was done by analyzing the partial regression coefficients (standardized betas). To conclude this chapter I compared across the sex-specific models, by age (e.g. between males and females at age13, 15, and 17) and tested for differences in variable effects using the unstandardized beta coefficients outlined previously in chapters two and three. In the next chapter I provide my thoughts, conclusions, and suggestions for further research.

Chapter 5

Conclusions:

Theoretical and Empirical Implications

In this chapter I discuss the theoretical and empirical implications of my study. The purpose of this study was to examine developmental changes in reflected appraisals and how they affect offending behavior over time by age and by sex. I begin this section by discussing the general research question, propositions, and empirical findings and conclude with thoughts and implications for future study in the areas of identity and developmental social psychology.

In chapter one, I reviewed the theoretical and empirical literatures on the social psychology of offending and identified key causal variables from both self-concept and developmental perspectives. The literature described the self as a process. The self arises in interaction and then has the ability to either change or remain stable through further interaction. Reflected appraisals were then identified as one of the primary dimensions of self-concept. Following a developmental criminology approach I examine whether one's self-concept, as captured by reflected appraisals, is a predating causal factor of delinquency. The general research question has been: "Who [parents, teachers, friends] is important [selective perception], for what [reflected appraisals], when [ages 13, 15, 17]?"

Source Specific Reflected Appraisals

It was initially believed that certain people would be more influential in a person's life than others. Because an individuals' "self" is, in part, a reflected appraisal of how others are assessing him or her, it was believed that the "who is important" in a youngsters' life, and

the perceived opinions and appraisals of that person would vary in strength and change in source over time. One of the first findings, however, was that reflected appraisals, as measured in this study, were not source specific as believed. That is, parent, teacher, and peer reflected appraisals were indistinguishable empirically. While reflected appraisals were not source specific, they were multi-dimensional, revolving around being sociable, successful, distressed, in need of help, and bad kid).

The failure to identify source specific reflected appraisals was disappointing. However, Mead (1934 p. 138) did state that "the individual experiences himself, not directly, but indirectly, from the particular standpoints of other individual members of the same group, **or** from the **generalized** standpoint of the social group **as a whole** to which he belongs" (emphasis added). This study's failure to support the notion that reflected appraisals emerge from the "particular standpoints" of specific others raises an important theoretical question. Are reflected appraisals best conceptualized as an individual's perceptions of a generalized other's attributions? Personally, I do not believe that this is a reasonable conceptualization, nor does my study conclusively support this view.

Research and theory suggest that perceived perceptions of specific others matters in the formulation of a self-concept. To illustrate, an individual may believe others in general hold him or her in high esteem, while at the same time believing a specific other (e.g. his or her father) does not. Further, the perceived negative assessment by one specific other might overshadow the perceived positive assessment for others in general.

Not only does reason suggest that it is unwarrented to conclude that reflected appraisals are only a matter of perceptions of a generalized other but my study does not

support such a conclusion empirically. More specifically, the data from the NYS does not allow for an assessment of reflective appraisals of specific others. The NYS's operationalization and measurement of reflected appraisals almost assures an inability to find source-specific variation in reflected appraisals. For instance, the instrument asks respondents to report on their perceptions of their parents assessments generally. A more satisfactory way to tap source specific assessments would be to ask about perceptions of mother's, father's, step-mother's, and step-father's assessments. It is also true that the NYS does not examine the influence of non-parental guardians such as grandmothers, grandfathers, aunts, uncles, etc. This is important because of the presence of various types of family structure in today's U.S. society. Furthermore, the NYS asks respondents about teachers generally, not specific individual teachers or even favorite teacher. Also, the NYS queries respondents about friends' assessments not particular individuals or even "closest friend." In sum, the NYS leads respondents to think about reflected appraisals in a most general way, not a source specific manner.

The NYS's inability to tap source specific reflected appraisals suggests a shortcoming. In particular, it offers no means to analyze the salience and centrality of reflected appraisals. Stryker and his colleagues (1980, 1977) Have developed a symbolic interactionist identity theory that emphasizes issues of salience and centrality. To elaborate, Stryker and his colleagues argue that individuals posses multiple identities. Furthermore, individuals arrange these identities cognitively in an identity hierarchy. They say that this suggests that some identities have greater salience than others, i.e., some identities have greater importance. Also, they argue that some identities are more dominant, influencing the

definition of other identities. That is, some identities have greater centrality. The NYS instrument completely ignores issues of salience and centrality in regard to reflected appraisals. It is not possible to determine whether a parental reflected appraisal, for instance, matters more than a peers. In fact, there is no way to determine if a parental reflected appraisal matters at all to the subject. In other words, it is not possible to determine the salience or centrality of a reflected appraisal. It is not possible to determine precisely whose assessments are important or the relative importance of reflected appraisals.

These shortcomings in the NYS data are significant and are at the heart of my study's primary contribution to the literature. Basically, what researchers know about reflected appraisals and delinquency is primarily derived from this data source, particularly in the work of Matsueda and his colleagues (Matsueda, 1992; Bartusch and Matsueda, 1996). Without a doubt, this body of work based on the NYS has provided many useful insights. However, my analysis suggests that the NYS data only offers a partial explanation of the relationships between identity and delinquency, especially the role of reflected appraisals.

An Assessment of My Study's Results

The limits of the NYS data notwithstanding, my study yielded some interesting findings. The first proposition stated that past behavior effects subsequent behavior. This came from the line of thought that the best predictor of future behavior is a person's past behavior. Prior offending behavior remained the best predictor of subsequent offending and this was true for both males and females at all ages. In this study I chose to use prior offending behavior as a control variable to better assess the added effects of the dimensions of reflected appraisals. In other words, does youths' reflected appraisals add anything more

to the understanding and predictability of future offending. The results of this study indicate that this is indeed true and that the overall effects of reflected appraisals became stronger with age. That is, by including reflected appraisals more of the variance in offending could be explained. This finding is further discussed in proposition two.

The second proposition stated that changes in self-concept influence changes in offending. Looking at the models in general I found that reflected appraisals do add to the understanding and predictability of future offending and that this is over and above what is explained by prior offending, sex, race, and parental income. Now granted this was not a huge increase in the explanatory power of these models, but it was a significant increase. For example, in the model for 13 year old's, reflected appraisals only accounted for a 1.8% increase in the explained variance of future offending. For 15 year old's the increase was only 2%. It was not until the older age group, age 17, that a substantial increase was found. For 17 year old's there was a 5.6% increase in explained variance of future offending. From these results it would appear that one's reflected appraisals become a more significant factor in offending as the person ages and matures.

Proposition three stated that specific dimensions of reflected appraisals will have varying relationships with offending. In Table 5.1, I provide a general overview of which variables were significant at what age. I also provide sequence (line) graphs to help visually understand the impact and direction of these variables. Figures 5.1 through 5.7 are the result of charting the unstandardized beta coefficients for the dimensions of reflected appraisals and the variables ethnicity and parental income. Directing attention back to Table 5.1, the reflected appraisal "bad kid" was a significant factor for all age groups. After prior

Table 5.1 General Overview of Reflected Appraisals and Prior offending by Age (significance = yes/no)

	All Cases		
Age	13	15	17
Bad Kid	**Yes**	**Yes**	**Yes**
Distressed	No	No	No
Sociable	No	No	No
Succeed	**Yes (-)**	No	**Yes (+)**
Needs Help	**Yes**	**Yes**	No
Prior offending	**Yes**	**Yes**	**Yes**
Parental Income	No	No	No
Ethnicity	No	No	No
Sex	No	**Yes**	**Yes**

	Males		
Age	13	15	17
Bad Kid	**Yes**	**Yes**	**Yes**
Distressed	No	No	No
Sociable	No	No	No
Succeed	**Yes (-)**	No	**Yes (+)**
Needs Help	No	No	No
Prior offending	**Yes**	**Yes**	**Yes**
Parental Income	No	No	No
Ethnicity	No	No	No

	Females		
Age	13	15	17
Bad Kid	**Yes**	**Yes**	**Yes**
Distressed	No	No	No
Sociable	No	No	No
Succeed	No	No	No
Needs Help	No	No	No
Prior offending	**Yes**	**Yes**	**Yes**
Parental Income	No	No	**Yes**
Ethnicity	No	**Yes**	No

offending, the dimension "bad kid" was consistently the strongest predictor of the five dimensions [also see Figure 5.1 below]. For models of all cases the reflected appraisals "distressed" and "sociable" were not significant factors [see Figures 5.2 and 5.3].

Figure 5.1 Coefficients for Bad Kid

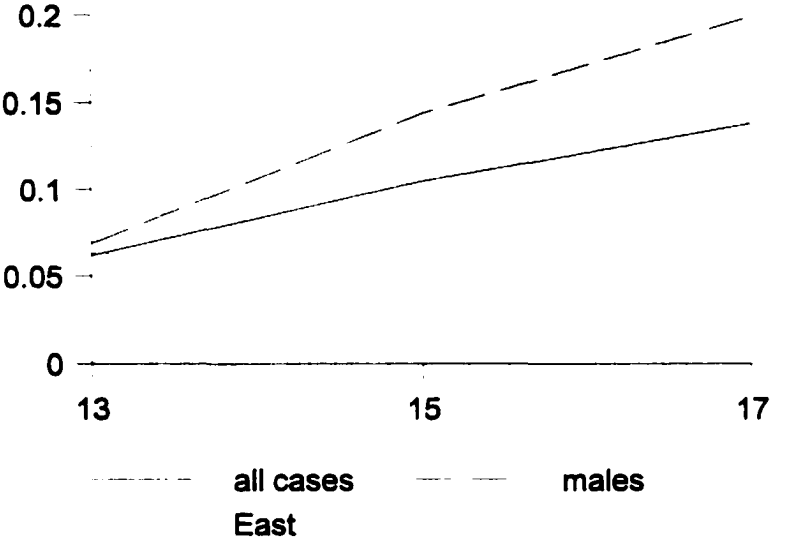
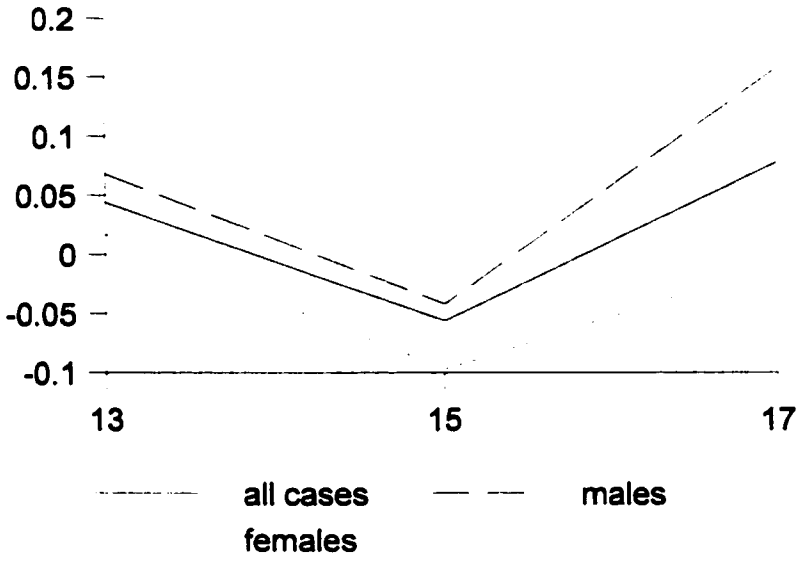


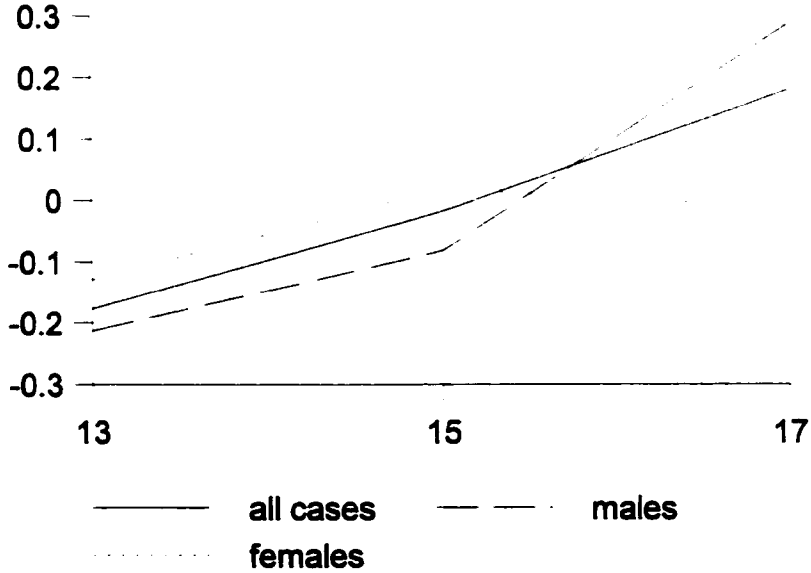
Figure 5.2 Coefficients for Distressed

Figure 5.3 Coefficients for Sociable



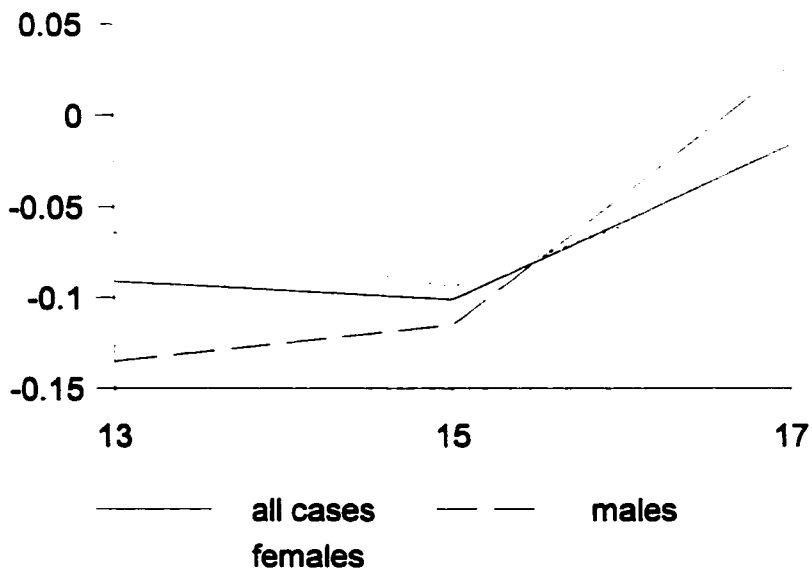
The dimension "successful" was predicted to have a negative relationship with future offending. In other words, if a youth believes others see him or her as being successful or likely to succeed, there would be a reduction in future offending [see Figure 5.4].

Figure 5.4 Coefficients for Successful



This was true at age 13, was not significant at 15, and then showed a positive relationship with subsequent offending at age 17 This was an interesting finding. It would appear that although the reflected appraisal of others as being "likely to succeed" has a deterring effect on future offending at age 13 the relationship changes completely by age 17. One possible explanation for this finding might be that the definition of success changes as one gets older (particularly for males) to include, perhaps, options or activities that are not necessarily legitimate. Finally, the dimension "needs help" showed the predicted negative relationship with offending at ages 13 and 15, but was not a significant factor at age 17 [also see Figure 5.5 below]. As noted previously, the reflected appraisal "needs help" can be associated with

Figure 5.5 Coefficients for Needs Help



either medical or criminal circumstances. Therefore, it would appear that "needing help" is associated more with a medical understanding than a criminal one (because of the negative relationship with future offending) and this was true for both the youth, and speculatively,

the youths' significant others.

Proposition four stated that the relationship between specific dimensions of reflected appraisals and delinquency would vary across age. We have already seen some support for this proposition. In Table 5.1 we see that for all cases at age 13 the dimensions "bad kid," "successful," and "needs help" were all statistically significant. At age 15 sex becomes a factor. At age 15 the dimension "success" is no longer significant, but the appraisals of "bad kid" and "needs help" are significant at that age. At age 17 the most significant factor was "bad kid." Interestingly the dimension "success"once again became a significant factor, but the dimension "needs help" was no longer significant.

To provide some insight into the question "can reflected appraisals account for gender differences in offending," I will address propositions 5 and 6 together. Proposition five stated that changes in self-concept will effect males and females differently. Heimer (1995 p.140) argues that "structural gender inequality affects the meaning that actors give to themselves, situations, and behaviors such as delinquency." The gender gap in delinquency emerges in part because inequality teaches girls to express themselves differently than boys. Heimer suggests that it is the meaning of behavior that varies across gender. Proposition six states that gender differences will be seen in both within-age and across-age comparisons.

Addressing first the within-age comparisons, models were run for all cases as well as separately for males and females at age 13, 15, and 17. Prior offending and the dimension "bad kid" were statistically significant factors for both males and females, at all ages (13, 15, and 17). In the model for 13 year old males the reflected appraisal "success" was the

significant factor; for females the only dimension that was significant at that age was "bad kid." For 15 year old males the significant variable was the dimension "bad kid." The dimension "bad kid" was also significant for 15 year old females as was ethnicity. Turning the focus to 17 year old's, for males the significant factors were the dimensions "bad kid" and "success." For females the dimension "bad kid" and the control variable family income were significant factors.

Turning now to across-age comparisons, my study had some interesting results. The main difference between ages 13 and 15 for all cases was the variable "distressed." Between the ages 13 and 17 the significant differences were with the variables "success," "bad kid," "prior offending," and "sex." The only difference between ages 15 and 17 was in prior offending. In looking at the various analyses and the predictive abilities of the variables, the model for all cases at age 15 would be the strongest with (R^2= .485). Across-age comparisons of males revealed no differences between the ages of 13 and 15. Significant differences were found for males between the ages of 13 and 17 in the areas of "success," "bad kid," and prior offending. The differences between the ages of 15 and 17 were with the dimension "success" and in prior offending. If focusing only on youthful males the best model would also be age 15 (R^2=.477).

For females, however, the model for 13 year old's explained more of the variance (R^2= .491). Across-age comparisons of females revealed differences in prior offending and ethnicity between ages 13 and 15 [see Figure 5.6]. The only difference between the ages of 13 and 17 was in prior offending. There was no difference indicated between the models for age 15 and 17 except for parental income which would have been significant if I had made

predictions [also see Figure 5.7 below].

Figure 5.6 Coefficients for Ethnicity

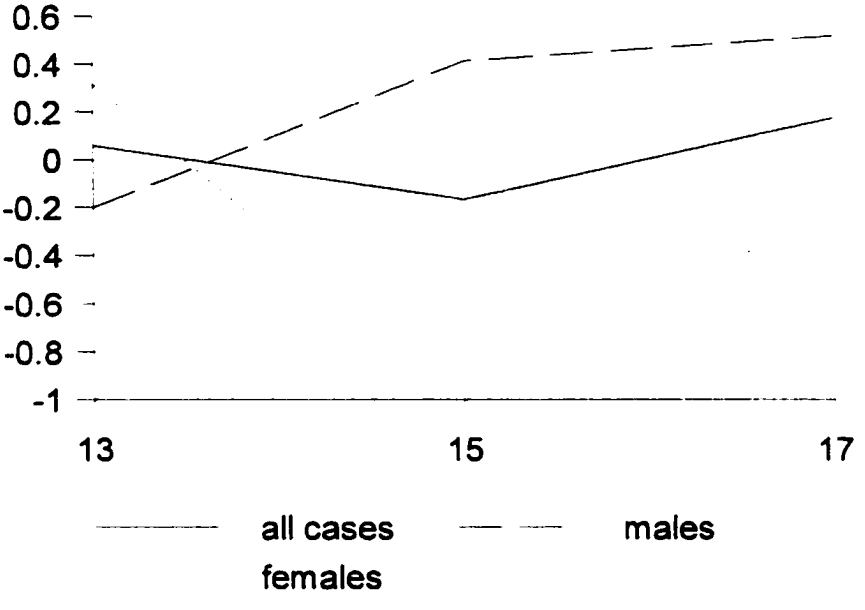


Figure 5.7 Coefficients for Parental Income

Comparing across gender by age also revealed some significant differences. The difference between males and females at age 13 was limited to prior offending. Across-gender comparison of 15 year old males and females found differences in the dimension "bad kid," [see Figure 5.1] and prior offending ($p < .05$). The differences between 17 year old males and females involved the dimensions "success" [Figure 5.4] and "bad kid" [Figure 5.1].

Conclusion

In sum, this study cannot definitively support or refute the adequacy and/or need for a developmental identity theory of offending. What is needed is longitudinal data with better measures of reflected appraisals and offending behaviors. The NYS is the best data set available to answer my questions, but it is not completely satisfactory.

Concerning future research I believe a broader conceptualization of identity is in order. There are five particular dimensions of "self-concept" that one could focus on. These dimensions of "self" involve first of all **actual appraisals**, that is, how others actually see another person (e.g. what my mother thinks of me if she were asked). Accordingly then, following the assumptions of labeling theory, one would want to investigate what affects, if any, does her appraisals of me have on my behavior.

A second aspect, and the focus of this study was **reflected appraisals**, ones' appraisal of self from the perceived standpoint of others. For example if I were asked how I thought my mother saw me, or how my professors saw me, or my friends.

A third aspect is **self -appraisals**, how a person sees themselves (a self-assessment). This dimension of self includes the "I am" statements. For example, I am a "good" person, or I am a "bad" person.

The fourth dimension involves **self control**, which refers to the internalization of social control. As such, the focus is on the internal self-control which has been shaped by the forces of ones' social groups. For example, I may not steal a candy bar that I want because every time I even think about it I can mentally see my father pointing his finger at me in disappointment. Because I am attached to my father what he thinks of me means a great deal This suggests an important connection between self-concept and Hirschi's (1993) dimensions of social bonding.

The last dimension is the **temporal self**, referring to the part of the self that defines "present" situations by "past" experience and "future" aspirations and expectations. What I mean by this is how "past" decisions and actions influence not only how I see myself and behave in the "present," but also, who I want to become in the "future." This suggests a need to incorporate Markus and her colleagues notion of future selves. The past enters into action as we recall it in the present and apply it to the present situation at hand. For example, Matsueda (1992 p.1602) found that previous delinquent behavior influenced reflected appraisals of self. The past, then, provides us with the tools to make sense out of the present. What we do in the present also depends in part on our conception of the future. The self-concept we possess at any given time is actually only a "working self-concept." As a working self-concept, it is open to change as we encounter new experiences and receive an unending array of feedback and other forms of information about ourselves (Markus and Nurius, 1986).

In symbolic interaction the self is seen as an organizer of behavior and is always anticipating and oriented to the future and has the ability to rehearse possible courses of

action. Self-definitions are construed primarily as goals or ideals and are described as conceptions of the self having a readiness to engage in certain classes of behavior (Markus and Nurius 1986; Gollwitzer and Wicklund, 1985). Markus and Nurius (1986, p.957) describe the self-concept as:

> A continually active, shifting array of available self-knowledge. The array changes as individuals experience variation in internal states and social circumstances. The content of the working self-concept depends on what self conceptions have been active just before, on what has been elicited or made dominant by the particular social environment, and on what has been more purposefully invoked by the individual in response to a given experience, event, or situation.

Possible selves can be represented in the same way as the present self and can be viewed as cognitive bridges between the present and future, specifying how individuals may change from how they are now to what they will become (p. 961). Possible selves serve as incentives while providing an evaluative and interpretive context for the now self.

In conclusion, "developmental criminology is the study, first, of the development and dynamics of problem behaviors and offending with age." (Loeber and le Blanc, 1990 p. 377). A second focus of developmental criminology "is the identification of explanatory or causal factors that predate, or co-occur with, the behavioral development and have an impact on its course." A developmental perspective can be especially fruitful in periods of greatest behavior change, particularly in the juvenile years when there also may be changes in youngsters' social environments (Loeber and le Blanc, p. 377). Lastly, is the goal to increase

the options for differentiating between correlates or risk factors and causal factors. In this light crime could then be conceived of as a type of social event that takes on different meanings at different times in a person's life. As such, the goal of this study was to integrate the central concepts from both self-concept and developmental perspectives to help advance a more complete and robust developmental social psychology of crime. While clearly suggesting much work needs to be done to advance a developmental identity theory of crime, my study provides enough evidence to suggest such an endeavor is worthwhile.

APPENDIX I

Delinquent Acts [29-item index]

How many times in the last year have you....

-Purposely damaged or destroyed property belonging to your parents or other family members
-Purposely damaged or destroyed property belonging to a school, college, or university
-Purposely damaged or destroyed other property that did not belong to you, not counting family, school, or work property.
-Stolen or tried to steal a motor vehicle such as a car or motorcycle
-Stolen or tried to steal things worth more than $50
-Carried a hidden weapon other than a plain pocket knife
-Stolen or tried to steal things worth $5 or less
-Attacked someone with the idea of seriously hurting or killing him or her
-Been involved in gang fights
-Sold marijuana or hashish
-Stolen money or other things from your parents or other members of your family
-Had or tried to have sexual relations with someone against their will
-Hit or threatened to hit a teacher, professor or other school staff
-Hit or threatened to hit one of your parents
-Hit or threatened to hit other students
-Been loud, rowdy, or unruly in a public place (disorderly conduct)
-Sold hard drugs such as heroin, cocaine, and LSD
-Taken a vehicle for a drive without the owner's permission
-Bought or provided liquor for a minor
-Used force or strong arm methods to get money or things from other students
-Used force or strong arm methods to get money or things from people not including other students
-Avoided paying for such things as movies, bus or subway rides, and food
-Stolen or tried to steal something at school, or on campus
-Broken or tried to break into a building or vehicle to steal something or just look around
-Begged for money or things from strangers
-Failed to return extra change that a cashier gave you by mistake
-Made obscene telephone calls
-Thrown objects
-Run away

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Publications

Phelan, Michael P. And Scott A. Hunt. 1998. "Prison Gang Members' Tattoos As Identity Work: The Visual Communication of Moral Careers." Symbolic Interaction. 21(3):277-298.

Abstract: The purpose of this article is to demonstrate how symbolic self-completion and moral careers are identity work by examining prison gang tattoos. Data were derived from one authors six-year full-member participation as a correctional officer in the California prison system. We examine tattoos specific to members of the Nuestra Familia, a California-based prison gang. Tattoos make an individual's self-definition more complete by visually communicating gang membership, status, rank, and personal accomplishments; they reflect a person's past career accomplishments and possible future career objectives. To analyze the moral careers communicated by these tattoos, we identify and elaborate upon five distinct phases in a prison gang moral career: pre-initiate, initiate, member, veteran, and superior. The article concludes with discussion of the importance of incorporating symbolic self-completion into an identity work perspective and consideration of some implications for further research on gang tattoos in particular and identity construction more generally

Book Chapters

Phelan, Michael P. And Scott A. Hunt. 2002. "The Meaning Of Prison Gang Tattoos." pps. 121-128 In Alarid, Leanne Fiftal and Paul F. Cromwell Correctional Perspectives: Views from Academics, Practitioners, and Prisoners. Los Angeles: Roxbury Publishing Company.

Papers Presented

Phelan, Michael P. 1998. "Extending The Interactionist Theory Of Deviance: Perceived Family Quality, Labeling, And "Future Selves." Paper presented to the Midwest Sociological Society's Annual Conference. Kansas City, MO. April 2-5 1998.

Phelan, Michael P. 1997. "Tattoos As Identity Work." Paper Presented to the Midwest Sociological Society's Annual Conference. Des Moines, IA. April 3, 1997.

Dissertation Topic

Phelan, Michael P. 2003. "Towards a Developmental Social Psychology of Crime."

Abstract: Social psychological criminology that has examined the relationship between the self and criminality has ignored aged-graded causal factors, while developmental criminology has neglected the impact the self-concept has on offending. I contend that synthesizing self-concept and developmental perspectives provides a more complete and robust developmental social psychology of offending. My goal is to integrate the central concepts from both perspectives to advance a developmental social psychology of crime that includes self and age-graded explanations of offending.

MasterThesis

Phelan, Michael P. 1996. "A Study In Deviance And Delinquency: Goal Frustration. Family Quality And Perception." Unpublished Masters Thesis. Mankato State University.

Abstract: The purpose of this study was to test theoretical paradigms using multiple regression. The theoretical models were developed as linear equations to study the prediction of deviant acts. This study focused on three research questions: 1) Will strain and control theory show the inverse relationship necessary for integration 2) Can strain and control theory be integrated into a single model that would account for a greater percent of the variance in a prediction model 3) Does perception play a role in the study of deviance and delinquency. A secondary analysis of data from the National Youth Survey was selected for use in this study. The Findings give support to the possibility of integration and model construction, but did not support the idea of being predictable of deviant acts.

Works In Progress

Phelan, Michael P. 2001. "Rhetoric From The Front: Medical Marijuana, Cannabis Buyers Clubs, And Marijuana Man."

Abstract: A participant observation study incorporating content/historical and secondary analyses. The purpose of this investigation is to gain an insiders view of the medical marijuana issue and the formation and operation of the cannabis buyers clubs in California.

Phelan, Michael P. 2001. "Within a Standard Deviation or Two: Constructing Criminals in the Classroom."

Abstract: For this study students were/are asked to create a criminal of their own making, describing both lifestyle, environment, crime, and circumstance. They were then asked to change the one thing in their story that would have prevented the crime from occurring. Results from these stories will then be analyzed with the goal of identifying the various temporal and spacial elements affecting how we define crime and criminality.

Professional Participation

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***Richard A. McGee Correctional Officer Academy**. 3/84 - 4/84
Galt, California. Delta Company, Class 4/84. Badge # 11854

*Letter of Commendation	Special Search Unit	10/85
*Letter of Commendation	Inmate Work Strike	10/86

Volunteer Work

Andover Community Church	Minister of Adult Education Teaching and planning	6/01 - present
Hope Center	Homeless shelter for adult males Serve breakfast (Tue. and Thur.)	1/99 - present
Habitat For Humanity	Construction/Labor United Methodist Men Lexington, Ky	9/97 - present
Nathaniel Mission	General volunteer work: Collection and distribution of food Fund Raising activities. Lexington, Ky. (Irish Town)	12/97 - present
Educational - Opportunities	Tour Host (Israel, Jordan, Egypt) Kentucky	2/00 - present
Emmaus Community	Team member Leadership Training Lexington, Ky	3/98 - present
Project FINE	Minnesota Extension Service- University of Minnesota Worked with Hmong community. Winona, Mn.	1/94 - 6/94

Teaching Experience

Primary area: **Criminology/Deviance**
Secondary area: **Social Psychology**

Teaching Areas:

-Modern Social Problems	**-Social Psychology**	**-Criminology/Deviance**
-Intro to Sociology	**-Self and Identity**	**-Corrections / Penology**

Full-Time Instructor

Class	Section	Institution	Term
Juvenile Delinquency	Soc. (438)	University of Kentucky	Spring 2003
Sociology of Deviance	Soc. (436)	University of Kentucky	Spring 2003
Modern Social Problems	Soc. (152)	University of Kentucky	Spring 2003
Intro to Sociology	Soc. (101)	University of Kentucky	Spring 2003
Sociology of Deviance	Soc. (436)	University of Kentucky	Fall 2002
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 2002
Intro to Sociology	Soc. (101)	University of Kentucky	Fall 2002
Intro to Sociology	Soc. (101)	University of Kentucky	Fall 2002
Sociology of Deviance	Soc. (436)	University of Kentucky	Summer 2002

Part-Time Instructor

Class	Section	Institution	Term
Sociology of Deviance	Soc. (436)	University of Kentucky	Fall 2001
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 2001
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 2001
Sociology of Deviance	Soc. (436)	University of Kentucky	Summer 2001
Sociology of Deviance	Soc. (436)	University of Kentucky	Spring 2001
Modern Social Problems	Soc. (152)	University of Kentucky	Spring 2001
Modern Social Problems	Soc. (152)	University of Kentucky	Spring 2001
Sociology of Deviance	Soc. (436)	University of Kentucky	Fall 2000
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 2000
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 2000
Modern Social Problems	Soc. (152)	University of Kentucky	Summer 2000
Sociology of Deviance	Soc. (436)	University of Kentucky	Spring 2000
Sociology of Deviance	Soc. (436)	University of Kentucky	Fall 1999
Modern Social Problems	Soc. (152)	University of Kentucky	Summer 1999
Modern Social Problems	Soc. (152)	University of Kentucky	Spring 1999
Modern Social Problems	Soc. (152)	University of Kentucky	Fall 1998