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By
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Introduction

In an attempt to “crack down” on juvenile crime, society has responded by reforming its laws for prosecution of cases involving violence by juveniles, mandating tougher sentences and increasing waiver of juveniles for trial in adult courts (Kazdin, 2000). The recent shift by both policymakers and the general public in redefining the juvenile offender as someone who is “not really a child” leaves many child advocates unsure of how to best account for juveniles’ capacities in legal contexts. In particular, very little evidence is available to understand the decision-making capacities of delinquent youth (Kazdin, 2000). We need to better answer such questions as: How do young versus older children make decisions in contexts in which they are called to choose between responsible and irresponsible choices? How do children and adolescents understand their legal case and potential consequences? What capacities do juveniles bring to the courtroom, and to consultations with their lawyers? Are these capacities sufficient in guaranteeing a meaningful trial? Importantly, how can mental health professionals better evaluate youths’ capacities so that courts, prosecutors, and lawmakers can more thoroughly understand children and adolescents’ worldview and decision-making process?

The developmental journey from childhood through adolescence involves multiple transitions and influences that converge over the course of time and are likely to influence children and adolescents’ capacities in making “responsible” decisions. According to Kazdin (2000), major questions are raised concerning the ability of youth
(as compared to adults) to consider options, weigh consequences, and make choices. In the case of youth involved in the court system, this typically involves the context of engaging in illegal behaviors versus making socially responsible choices.

Today, an assumption of juvenile courts is that minors are “less responsible” and therefore have less capacity to make “good” decisions. But what does this really mean and how does this inform us about the trends that may emerge at different ages? We need not continue to make assumptions in our understanding of this area; it is time that these assumptions are investigated in more detail—so that tomorrow’s youth do not slip through the cracks of our system. It is clear that conceptual and empirical work is needed to identify the range of developmental characteristics of children and adolescents that are likely to influence their decision making (Kazdin, 2000).

In order to address this issue, the aim of this study is to investigate the decisional processes of youth who are at risk for involvement in the Juvenile Court. It is our hope that through investigating decision making from a cross section of ages within this group, the findings would help provide, in part, a foundation for a more comprehensive understanding of developmental trends in relation to youth making socially responsible choices.
Chapter I

Review of Literature

_relevant population_

Increasing number of youth involved with court do not represent a cross section of minors; as decision making is examined in this context, it is important to take into consideration the characteristics of youth who are expected to interface with Juvenile Court (Grisso, 1997). These youth are typically described as “delinquent.” Studies have consistently shown that youth who become involved with the Juvenile Justice system tend to be more frequently male; have a range of academic, intellectual, and neuropsychological deficits; more commonly have mental, emotional, and attentional disorders; and are more frequently from minority racial or ethnic backgrounds (Cocozza, 1992). Composite studies (Concozza, 1992), suggest that, in urban areas, ethnic and cultural minorities compose at least one half of serious youth offenders. Consequently, current data on the developmental capacities of youth in general are not necessarily relevant for youth who enter the justice system (Grisso, 2000).

In order to begin an investigation of youth decision-making capacities and relevant implications, it is important to first investigate the different ways in which previous researchers have theorized their understanding of this complex process and the variables that have been proposed as salient in influencing potential individual differences in both its process and outcome.
Theoretical Perspectives of Decision Making

Several applied theories have been proposed in an attempt to capture youths' decision-making capacities. The following section gives a brief overview of different perspectives or ways in which decisional capacities have been explained, both traditionally and in the current research. Specifically, three different approaches will be discussed, including: (1) informed consent framework, (2) Gordon's theory of adolescent decision making, and (3) perspectives on maturity of judgment.

Informed Consent Framework. Informed consent tests have come to serve as a proxy for competence in general adolescent decision making because the standard provides a guide for measuring competence (Scott, Reppucci, & Woodward, 1995). This framework focuses on two aspects of cognitive functioning: the capacity for understanding and the capacity for reasoning. Tests of competence under informed consent are designed to evaluate the process of decision making under a rational decision-making model without emphasis on outcome (Appelbaum, 1987). Modern informed consent constructs focus on the following elements: an understanding of relevant disclosed information, an ability to appreciate its relevance to one's own situation, and an ability to use the information in comparing options and in weighing their risks and benefits in making a choice (Appelbaum & Grisso, 1988).

It is important to point out that promotion of the informed consent framework is not without political drive or critique. Specifically, reformers who have argued for greater adolescent self-determination have focused on medical decision making, a focus that has been sharpened by the intense interest in adolescent abortion (Scott, 1992). According to Scott (1992), informed consent doctrine excludes inquiry into aspects of
judgment; an inclination to make "poor" choices does not signify incompetence under informed consent tests. Rather, decisions that promote life, welfare, and health are often described as reflecting good judgment.

Although it is understandable that features of adolescent decision making have been analyzed by the informed consent framework, current debates remain as to whether or not those who argue that no significant differences separate adolescents from adults in their capacity to make informed medical decisions have tended to be advocates of self-determination for minors. Both Gardner et al., (1989) and Scott et al. (1995) concur that self-determination advocates have overstepped the limits of science by exaggerating the robustness of findings that provided only indirect evidence, have drawn on outdated child development theory, and have utilized research that has a limited number of participants. Consequently, more research is needed that encompasses a broader and more appropriate array of components in order to capture a better picture of how youth make decisions.

_Gordon's Broad Based Model of Decision Making in Adolescence._ Gordon (1996) proposed a broad-based theory of adolescent decision making that was initially suggested for application to the problem of prevention of early pregnancy at an inner-city high school. It is noteworthy, however, that Gordon's theory was one of the first to recognize the importance of an encompassing approach in understanding adolescent decision making, rather than only considering individual components of decision making (Gordon, 1996). For example, Piagetian stage of cognitive development, social and psychological influences such as peer pressure or risk taking, or ethnic effects such as membership in a minority group have all been considered influential pieces to decisional outcomes, yet few if any of these approaches attempted to integrate factors in a way that
served to capture a more dynamic picture of the factors involved in the decision-making process. Gordon explained that, with regard to early childbearing, adolescent decision making is a complicated interplay of many variables. For instance, for the adolescent girl, the combination of low academic achievement leading to a desire to drop out of school, low socioeconomic status, and lack of available jobs may lead to pregnancy as the only reasonable alternative; such a young woman likely knows welfare will support her and more importantly, having the baby will give her purpose and meaning in her life (Gordon, 1996). Consequently, in the case just discussed, pregnancy is the desired outcome; it is not unintentional, especially as no other acceptable options may be available to her. Such scenarios call attention to the multidimensional approach posited by Gordon's (1996) theory of adolescent decision making.

Gordon (1996) divided her theory into three parts: (1) cognitive factors which pertain to the mental process of knowing, (2) social and psychological factors which operate on a small scale at the individual, family or peer level, and (3) cultural factors which operate on a large scale. Gordon's (1996) model is presented in Table 1.

Gordon (1996) claimed that a specific factor often has an effect in more than one of the three divisions. For example, both cultural and societal factors operate on the individual and on the large scale, but the difference is in the magnitude of the effects. One of the benefits of this theory is that it may be used for understanding how adolescents decision making in any domain may be generalized to any age by replacing the factors to age-appropriate ones as needed.
Table 1

*Gordon’s Theory of Adolescent Decision Making*

<table>
<thead>
<tr>
<th>Cognitive Factors:</th>
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<tr>
<td>Concrete versus Formal Reasoning,</td>
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<tr>
<td>Concrete vs. Abstract Thinking</td>
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<tr>
<td>Consideration of only some options versus all options</td>
</tr>
<tr>
<td>Present vs. Future Orientation</td>
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<tr>
<td>Knowledge</td>
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<td>Age and Grade</td>
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<th>Social and Psychological Factors:</th>
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<tr>
<td>Personality characteristics</td>
</tr>
<tr>
<td>General (such as optimistic/pessimistic, high/low self-esteem, defenses used, etc.)</td>
</tr>
<tr>
<td>Particularly significant during adolescence or for decision making</td>
</tr>
<tr>
<td>Egocentrism</td>
</tr>
<tr>
<td>Development of Identity</td>
</tr>
<tr>
<td>Development of Intimacy</td>
</tr>
<tr>
<td>Risk Taking</td>
</tr>
<tr>
<td>Internal vs. External Locus of Control</td>
</tr>
<tr>
<td>Interactions with immediate world (family, peers, significant life events)</td>
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<table>
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<th>Cultural and Societal Factors:</th>
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<td>Religious/spiritual/moral system</td>
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<td>Political System</td>
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<td>Health System</td>
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<tr>
<td>Educational System</td>
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<tr>
<td>Socio-economic/environmental influences</td>
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<tr>
<td>Ethnic/racial background</td>
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Culpability and Judgment. Questions concerning adolescent culpability are often reframed as questions about decision making and judgment (Cauffman & Steinberg, 2000a). According to Cauffman & Steinberg (2000a), the term “decision making” is used in studies of the actual choices that individuals make, whereas “judgment” refers to the underlying cognitive, emotional, and social processes involved in making these choices. The degree of complexity and sophistication of these underlying processes is referred to as “maturity of judgment.”

In response to the call for a more comprehensive model of decision making that would be applicable to legal contexts, Scott et al. (1995) claimed that the informed consent framework was an incomplete framework to use for comparing the decision-making capacities of adolescents and adults. Instead, Scott et al. (1995) proposed a judgment framework that includes not only understanding and reasoning ability but also such factors as conformity and compliance in relation to peers and parents, attitude toward and perception of risk, and temporal perspective. The authors suggested that, by focusing on these decision-making factors, comparisons between subjective factors that drive adolescent and adult choice could be made.

Like Scott et al. (1995), Cauffman and Steinberg (1996) posited a framework suggesting that mature judgments are the product of an interaction between cognitive and psychosocial factors, with competent decision making potentially undermined by deficiencies in either domain. They proposed a model that emphasizes psychosocial factors that are likely relevant to decision making. Specifically, it is suggested that, while psychosocial factors are numerous, they can be accounted for by three categories of overarching dispositions: (1) responsibility (healthy autonomy, self-reliance, clarity of
identity); (2) temperance (the ability to limit impulsivity, avoid extremes in decision making, and to evaluate a situation thoroughly before acting, including seeking advice of others when appropriate); and (3) perspective (being able to acknowledge the complexity of the situation and to frame a specific decision within a larger context). Steinberg and Cauffman (1996) have claimed that when these dispositions (behaving in a particular way under particular conditions) are considered along with the cognitive competence to reason abstractly, they comprise the attributes most often associated with mature decision making as described in the literature on adolescent psychological development (Irwin & Millstein, 1992).

Developmental Considerations

Because certain competencies are expected to be in place at both adjudication and transfer hearings, an accurate understanding of how and along what timetable a juvenile’s capacities develop seems crucial in determining whether or not an individual has the skills necessary to participate meaningfully in the trial process (Steinberg & Schwartz, 2000). Historically speaking, however, developmental psychology has had little or nothing to do with law making; more often than not information about development has been used post hoc to provide a rationale for laws constructed to promote a particular social aim, and this utilitarian perspective has developed age-related social policies that promote regulating young people’s behavior rather than responding to their developmental needs and changing capacities (Steinberg & Schwartz, 2000). Although current social policies may be practically and politically expedient, continuing to ignore the significance and need for developmentally sound guidelines from which laws can be made would be a major oversight.
On the other hand, clearly defined developmental guidelines have been hard to come by, due at least in part to the movement away from stage theories in current developmental perspectives on adolescent cognitive development (Byrnes, 1988; Keating, 1980). Instead, collaborative models, which include organismic and environmental components, have been proposed (Fischer & Silvern, 1985), but these transactional models do not lend themselves to establishing “cut-offs” that apply to all youth. In addition, support has been found suggesting similar skills in different task domains develop at different rates (Flavell, 1985; Seigler, 1991). In short, today, few psychologists believe that children at a given stage engage in characteristic reasoning across many tasks (Scott et al., 1995). Consequently, it is difficult to describe an individual’s capacities in terms of a single, global ensemble of skills (Gardner, Sherer, & Tester, 1989). Current perspectives pose that assessments of competence obtained from one decision may not generalize to other decisions in other contexts, and that understanding adolescents’ development and related choices may require a more detailed analysis of the composite information and processing skills required by a specific decision (Gardner et al., 1989).

Despite the suggested existence of variability among adolescents, there are many normative developmental changes that occur during the human growth process that distinguish children from adolescents, and adolescents from adults (Steinberg & Schwartz, 2000). Unfortunately, there is little empirical evidence currently available that succinctly defines the developmental process in an encompassing fashion, let alone in relation to the legal context. Consequently, the following discussion considers common
observations noted by current developmentally sensitive researchers, yet offers few empirical studies to back up the all claims and should be interpreted with this in mind.

Four distinct but interrelated domains (physical, intellectual, emotional, and social) should be noted as they relate to the treatment of young people within the juvenile system (Steinberg & Schwartz, 2000). These domains are worth elaborating on because it is likely that the juvenile’s appearance, behavior, and response style may influence the extent to which he or she makes decisions in context, and are viewed as culpable in legal settings.

The changes in physical appearance that take place during puberty transform the adolescent in dramatic ways. The most noticeable of these changes includes the development of secondary sex characteristics, muscle mass, and characteristic changes in the face (adolescents and adults move toward more angulated features, whereas children tend to maintain a more rounded face) (Herman-Giddens et al., 1997). Such changes in outward appearance have been found to influence the ways in which others respond to an individual. Researchers on puberty have even firmly discredited the age-old notion that adolescents misbehave because of “raging hormones” and instead are far more likely to attribute misbehavior in adolescence to environmental rather than biological influence (Steinberg & Schwartz, 2000).

Because individuals often differ in the timing and tempo of puberty (some beginning as early as nine and others not having completed puberty by sixteen), those who share the same chronological age may vary markedly in their outward physical appearance. Without any systematic relationship between the timing of puberty and the timing of normative social, emotional, and intellectual changes, it is dangerous to draw
inferences about juvenile’s social and psychological maturity based on physical appearance. However, because many adults do make such conclusions, early maturing juveniles are likely to be at a notable disadvantage in the courtroom—since their adultlike appearance may suggest they have a higher capacity for responsible decision making than is warranted (Steinberg & Schwartz, 2000). Furthermore, this has placed African-American youth at a special risk for misattribution of psychological maturity as they have been shown to go through puberty significantly earlier than other youths (Herman-Giddens et al., 1997). It was also noted that early maturers have a higher likelihood of truancy, school problems, and minor delinquency based on their tendency to befriend older peer groups who may have already been participating in problem behaviors (Steinberg & Schwartz, 2000).

Another salient component of development involves intellectual growth. According to Steinberg and Schwartz (2000), adolescents think in ways that are more advanced, efficient, effective, and abstract when compared with children. In fact, by the age of seventeen, individuals’ raw intellectual abilities are said to be comparable to an adult. However, despite the fact that intellectual capacities in late adolescence are not different from those observed in adulthood, Steinberg and Schwartz (2000) suggest that it is important to consider the following additional factors: (1) it is probable that intellectual functioning during early adolescence (before age sixteen) may be more childlike than adultlike, therefore, there is a need to distinguish between older teenagers and their younger counterparts when evaluating intellectual development, (2) when engaging in adultlike logical reasoning, young people likely have less life experience than their elders and therefore may lack the fund of information that is available to older
individuals, and (3) adolescent judgment may differ from adults despite comparable intellectual abilities, especially as decision making is influenced by a host of factors, of which intellectual capacity is just one. For example, in comparison to adults, young individuals may be less future-oriented, less risk-averse, more impulsive, and more susceptible to the influence of others, and such differences may influence judgment capacities at different ages (Cauffman & Steinberg, 2000).

Adolescence also marks a time of emotional growth, as it is a time of change in the way an individual views him or herself and his/her capacity to function independently (Steinberg & Schwartz, 2000). As children grow into adolescence, they mature intellectually and in turn their self-conceptions become more complex—they become more capable of interpreting their behavior from a psychological standpoint. Consequently, older adolescents become better able to explain their motivations and behaviors, while younger adolescents may struggle more with such tasks (Steinberg & Schwartz, 2000).

Contrary to the traditional views of interpreting adolescence from a deficit model—holding that all youth will be submitted to low self-esteem and that they will experience an “identity crisis” as a defining feature of emotional and social development through adolescence—most research has suggested otherwise (Steinberg & Schwartz, 2000). For example, Steinberg and Schwartz (2000) state that, although teenagers’ feelings about themselves may fluctuate, especially during early adolescence, their self-esteem remains fairly stable from about age thirteen on, and, if anything, increases over the course of middle and late adolescence (for both delinquent and non-delinquent youth).
Lastly, in addition to being a time of biological, cognitive, and emotional change, it is a well-known observation that social development during adolescence is marked by an increase in the importance of peers, the emergence of social relationships, and the onset of sexual activity (Steinberg & Schwartz, 2000). As the importance of peer groups increases (increasing as youngsters move from childhood into early adolescence and declining as individuals move into early adolescence; peaking between twelve and fifteen), so to are the changes in the individual’s susceptibility to peer influence (Steinberg & Schwartz, 2000). Because adolescent activities are typically pursued in group settings, a much higher proportion of juvenile offending than adult offending has been found to occur in groups (Zimring, 1998).

Individual Factors Influencing Decision Making and Choices by Delinquent Youth

According to Kazdin (2000), the term “decision making capacity” draws attention to abilities or characteristics within the individual. Noteworthy, core symptoms of some mental disorders, as well as relational and contextual issues, are just some of the factors considered relevant in recent discussion about individual factors influencing decision making in delinquent youth (Kazdin, 2000). Focusing on mental disorders in particular, it should be noted that maladaptive cognitive processes, deficits in self-regulation and problem solving, distortions of processing information, and other cognitive abilities that play into decision making in interpersonal settings have also been identified in diverse internalizing and externalizing disorders including Attention Deficit/Hyperactivity Disorder (ADHD), Conduct Disorder (CD), Post Traumatic Stress Disorder (PTSD), and depression (Kazdin, 2000). Although the precise role of mental disorders in the decision making of delinquent youth has been insufficiently studied to draw firm conclusions, a
discussion of what has been found along with relevant associated features with mental disorders and decision making warrant attention. This section will elaborate on the previously mentioned implications and discuss how they relate to decision making and choices made by delinquent youth.

*Mental Disorders and Problem Behavior.* Looking more specifically at mental disorders and problem behavior in relation to the culmination of delinquent acts, core symptoms of disorders would seem very likely to impair decision making. In particular, ADHD is an obvious example as the central feature to this disorder is impulsiveness, as reflected in difficulty inhibiting delay of gratification, resisting immediate temptations, or stopping an ongoing behavior. Other noteworthy symptoms that may impair decision making include symptoms resulting from exposure to trauma as they can also increase impulsiveness as well as aggressive and antisocial behavior (Barkley, 1996). In short, impulsiveness associated with or resulting from mental disorders could readily influence delinquent behavior and preempt rational decision making, as well as types of selection among alternative choices of action (Kazdin, 2000).

Additionally, substance use is related to delinquency as many delinquent acts are committed while, or immediately after, the youth has consumed illegal substances (Kazdin, 2000). It is also important to note that, if an individual is already predisposed to impulsive behavior (perhaps due to a psychiatric disorder such as ADHD), substance abuse may greatly increase the occurrence of delinquent acts (Kazdin, 2000).

*Associated Features.* Other features associated with mental disorders that are likely relevant to decision making among youth include cognitive processes, biological correlates, and contextual influences (Kazdin, 2000). Speaking to cognitive processes,
adolescents who show externalizing symptoms (disruptive behavior disorders) have been found to be impulsive in their approach to situations, deficient in interpersonal problem-solving skills (such as considering consequences of their actions, generating solutions to problems, and accurately perceiving the cues of others), hostile in their intent to others, and tend to believe that aggressive acts may lead to good outcomes such as positive feelings and peer approval (Dodge & Schwartz, 1997). It is also noteworthy that cognitive processes may play-out in more indirect ways such as in adolescents' beliefs and attributions (Kazdin, 2000). An example of this has been illustrated in a study that examined adolescents' beliefs about their strategies of coping, and concluded that those who believe their strategies are unlikely to be effective are much more likely to become involved in problem behavior (Allen, Leadbeater, & Aber, 1994).

On the other hand, internalizing disorders have also been found to be associated with distortions of cognitive processes, in turn likely influencing decision making (Kazdin, 2000). Considerable research on children and adults with depression has found that they tended to have negative cognitions about themselves, the environment, and the future (Hammen & Rudolf, 1996). There is also some evidence to suggest that depressed children may select more hostile problem-solving strategies to interpersonal problems (Rudolf, Hammen, & Burge, 1994). Whether cognitive processes are of the impulsive type associated with externalizing symptoms or the internalizing type associated with depression, both styles reflect vulnerability to distorted information processing and/or problem-solving strategies (Kazdin, 2000). In sum, decision making among youths with maladaptive cognitions is subject to a number of influences that could readily promote
delinquent or maladaptive behavior and interfere with rational strategies in decision-making contexts (Kazdin, 2000).

Low levels of intellectual functioning and academic deficits have also been related to externalizing behavior (Kazdin, 2000). Although it should not be assumed that all individuals with externalizing disorders or problem behavior have academic impairment or low intelligence, those whose intelligence is lower are at a greater risk for delinquency and a poor long term prognosis (Kazdin, 2000). This association has been demonstrated across a diversity of measures such as grades, achievement tests, verbal and non-verbal intelligence tests, official school records, and parent, teacher, and child/adolescent self-report measures (Kazdin, 1995; Mandel, 1997). Poor school performance has also been found to result in or lead to deficits in bonding to conventional values, in turn fostering stronger bonds with deviant peers (Kazdin, 2000). In sum, Kazdin (2000) reported that intellectual and academic functioning are pertinent to decision making through direct and indirect means.

Biological Correlates. According to Kazdin (2000), there are several biological correlates of mental illness that can relate to decision-making capacity and delinquent behavior. For example, genetic endowment, autonomic reactivity, temperament, pubertal development, various hormone levels (testosterone, cortisol, sex-hormone-binding), and low serotonin turnover have been related to problem behavior and aggression (Stoff, Breiling, & Maser, 1997). In addition, Magnusson, Klinteberg, and Stattin (1994) found that youths who showed lower levels of autonomic reactivity also had a more persistent pattern of criminal activity. It is important to keep in mind, however, that many of the previously mentioned biological correlates are often studied in combination with other
influences (particularly psychosocial influences) as it has been claimed that multiple characteristics contribute to any particular outcome (Kazdin, 2000).

Kazdin (2000) also stated that neuropsychological deficits are particularly relevant to adolescent decision making, especially as youths and delinquents with antisocial behavior have been shown to have higher rates of neuropsychological deficits (as reflected in their working memory, reading, verbal intelligence, and language). In addition, Kazdin (2000) claimed that deficits in “executive” functions are likely associated with delinquency and ADHD. Barkley (1996) describes executive functions as cognitions involving abstract reasoning, goal setting, anticipating and planning, self-monitoring and self-awareness, impulse control, and self-interruption of an ongoing sequence of behavior in order to initiate a more adaptive alternative. Having deficits in executive functioning likely inhibits effective problem-solving, selection of appropriate courses of action, and capacities of self-control, or in sum, decision making and awareness of choice alternatives (Kazdin, 2000).

Relatively recently, research on the relationship of biological characteristics such as neurotransmitters and hormones among youth has emerged in relation to broader contexts such as peer groups and antisocial behavior (Brain & Susman, 1997), specifically focusing on changes in mood, biological rhythms, and behavior. Interactions between biological and environmental influences has become particularly important, however understanding the sequence of how these influences emerge still remains uninvestigated (Kazdin, 2000). Unfortunately, further discussion on this topic is limited at present and in turn prohibits more elaboration in the current paper. On the other hand, it is important to recognize that there are reportedly significant advances in genetic and
neuroimaging studies that are currently taking place (Kazdin, 2000). Hopefully such advances will help to flesh out this topic's future review.

**At-Risk Environments and Contextual Features.** Youth are at the mercy of the living conditions made available to them by their parents and are thus vulnerable to the impact of these conditions (good or bad) (Kazdin, 2000). Research has indicated that certain conditions are often precursors or perpetuating factors on the emergence and maintenance of problem behaviors, psychiatric disorders, and delinquency in youth. For example, Kazdin (1995) and Loeber (1990) have pointed out that harsh child-rearing practices, inconsistent parenting (too harsh or lax), lack of parental supervision, limited involvement with the child, marital conflict, and parental criminal behavior place the child at risk for delinquency and other problem behavior. Furthermore, combinations of environmental features would place the child at even greater increasing risk. On the other hand, protective factors such as being a part of a two-parent family (Flewelling & Bauman, 1990), having parents who are authoritative in their parenting style (demanding and responsive) (Baumrind, 1991), and having access to a parent or caretaker who is emotionally available, maintains a close relationship with the child, and who is accepting of the child (Fisher & Feldman, 1998; Turner, Irwin, Tschann, & Millstein, 1993) have been reported to decrease adolescent involvement in substance abuse and sexual activity.

In addition to some of the seemingly more well-defined contextual factors described above, Widom (1994) pointed out that there are other family factors that are not so simple to define, yet place children at risk for delinquency in adolescence. These factors include issues of child victimizations, such as physical, sexual, and emotional abuse or neglect. Although not all individuals who experience some form of
victimization become delinquent, the likelihood of delinquency has been said to depend on a variety of factors including the severity, type and duration of victimization, adaptive relations the child has with other (nonabusing) adults, and sex of the child (Kazdin, 2000).

As has been touched upon previously in this paper, peer group influence is another strong predictor of adolescent behavior choice, especially as a high proportion of delinquent behavior is carried out with the peer group (Emler, Reicher, & Ross, 1987). Kazdin (2000) has stated that there are bi-directional influences of problem behavior of individuals and interactions with deviant peers; individuals at risk for problem behaviors seek out deviant peers and, over time, this relationship promotes and increase in further deviance. Likewise, associating with deviant peers has also been related to a disruption in the parent-child relationship, rejection of normative peers early in life, and poor bonding with the family (Patterson, 1993).

Outside of family and peer factors, Luthar (1999) has claimed that living conditions may also contribute to participation in delinquent behavior. Studies have shown that living in an impoverished high-delinquency neighborhood increases the likelihood of subsequent delinquent behavior (Luthar, 1999). In addition, recent attention has been drawn to adolescent homelessness as it relates to multiple physical and mental health consequences (Rotheram-Borus, Parra, Cantwell, Gwadz, & Murphy, 1996), especially as the rate of diagnosable psychiatric disorders has been estimated to be three times higher among homeless adolescents than among nonhomeless controls (Kazdin, 2000). Other salient mental health consequences include elevated rates of emotional and behavioral problems, as well as academic developmental dysfunction (as detailed in
previous sections of this paper). Lastly, physical well being suffers in these individuals and deficits tend to be perpetuated by poor nutrition and hygiene, ailments resulting from environmental toxins, and chronic diseases that may be unmonitored by appropriate medical professionals (U.S. Congress, 1991).

Maturity of Judgment and Psychosocial Considerations

Cauffman and Steinberg (2000b) made a theoretical distinction between decisions and the maturity of judgment that underlies them. To these authors, “judgment” refers to the process of decision making, and not any particular decision outcome, whereas “maturity of judgment” refers to the way the process of decision making changes with development. They noted that, under law, one’s culpability may depend upon the degree of maturity of the process through which the decision was made. Putting this in other words, Cauffman and Steinberg (2000b) underlined that the question of whether or not a juvenile “ought to know better” cannot be answered by looking only at the nature of his or her behavior. The authors suggested that this very question relies on an assumption that there is an underlying set of characteristics that influence one’s decision making and one’s resultant behavior. It is this “set of characteristics,” which evolves from “definitely could have known better” to “definitely should have known better,” during the course of development, that Cauffman and Steinberg (2000b) call maturity of judgment. A second point advanced within Steinberg and Cauffman’s (1996) framework is that judgment “is neither exclusively cognitive nor exclusively psychosocial; it is the byproduct of both influences” (p.743). In other words, a person can display poor judgment because of some emotional or social shortcoming, such as susceptibility to peer pressure or impulsivity; intellectual deficiency, such as ignorance to some crucial piece of information or faulty logic; or both (Scott et al., 1995).
Cauffman and Steinberg (2000b) pointed out that, having made a theoretical distinction between decisions and underlying maturity of judgment, researchers can better focus on the specific factors that differentiate someone who “ought to know better” from one who does not. Cauffman and Steinberg also argued that, to date, most of the research on adolescent judgment and decision making, and on whether adolescents’ judgment is less mature than adults, has focused on cognitive processes, more or less ignoring emotional and social influences, and has been unsuccessful in identifying cognitive factors that account for age differences in risk-taking behavior. With this in mind, a different perspective on the question of age differences in decision making has been suggested by several authors (including Cauffman and Steinberg), who have argued that there may be developmental differences between adolescents and adults in non-cognitive realms that account for age differences in behavior and have implications for assessments of culpability (Scott et al., 1995, Steinberg & Cauffman, 1996).

In a recent study that focused on the developmental changes during the adolescent years (age 13-18) in psychological characteristics relevant to determinations in culpability, Cauffman and Steinberg (2000b) investigated whether or not there are predictable patterns of change in individuals’ antisocial judgments between adolescence and adulthood, and if so, whether these patterns of change are related to changes in various components of maturity. The authors contended that the evaluation of culpability is largely a moral decision because culpability refers to the extent to which a person can be considered blameworthy or deserving of punishment for a given behavior. However, they also pointed out that “if any such moral standard is to be applied to offenders of varying levels of maturity (and subsequent determinations of culpability) it should be
grounded in an accurate understanding of the factors that influence how adolescents make decisions” (p. 742).

As mentioned earlier, Steinberg and Cauffman (1996) have proposed a model of maturity that emphasizes three broad categories of psychosocial factors (responsibility, perspective, and temperance) that are likely to affect the ways in which individuals make decisions (including decisions to commit antisocial or criminal acts). Again, these categories are not mutually exclusive, nor are they without some cognitive elements (Cauffman & Steinberg, 2000b). In a recent study, Cauffman and Steinberg (2000b) have hypothesized that, because these factors are key elements of “maturity of judgment,” those individuals who are responsible, temperate, and circumspect will make better decisions. Although recognizing that maturity of judgment cannot be measured directly, the authors hypothesize that maturity of judgment depends upon certain psychosocial qualities and set out to test whether these qualities affect decisions made under various circumstances.

They administered self-report questionnaires (n = 1015) to 8th, 10th, and 12th grade students and college students in a large city. The schools were selected to yield a diverse sample in terms of ethnicity, socioeconomic status, and type of community (suburban and urban). Approximately 40% of the respondents were from ethnic minority groups and nearly one-third came from homes in which the parents did not attend school beyond the 12th grade. Participants completed assessments of their psychosocial maturity in the three domains mentioned above and responded to a series of hypothetical decision-making dilemmas about potentially risky or antisocial behavior.
They found that socially responsible decision making is significantly more common among young adults than among adolescents, but this does not increase appreciably after age 19. In addition, they found that individuals exhibiting higher levels of responsibility, perspective, and temperance displayed more mature decision making than those with lower scores on these psychosocial factors, regardless of age. On average, adolescents scored significantly worse than adults on measures of mature decision making, but individual differences in judgment within each age group were noted as considerable. This study was important because it calls into question recent arguments that adolescents and adults are equally competent and that laws and social policies should treat them as such (Cauffman & Steinberg, 2000b).

In an earlier study that evaluated adolescent decision making and related policy implications, Lewis (1981) investigated whether, during adolescence, there are developmental changes in decision-making skills which justify legal discrimination on the basis of age. Specifically, she assessed 108 adolescents at three grade levels (grades 7-8, 10, and 12) in five areas of decision making. These five areas included: risk awareness, future orientation, sources of advice for decisions, recognition of "vested interests," and revision of attitudes about adults in light of new information. Participants’ classroom teachers were asked to estimate the eventual post-high school educational achievement of the group of participating students. Participants were instructed how to use two tape recorders for the procedure of this study, one for listening and one for recording advice they might give to their peers in the given dilemma. Each participant listened to three dilemmas, all spoken by person’s of the participant’s same sex. The types of dilemmas were as follows: (1) an open-ended dilemma concerned with cosmetic
surgery, (2) a *revision dilemma* which involved an adolescent calling into question the trustworthiness of an adult, and (3) a *disagreement dilemma* where two equal-status professionals provide contradictory information (two doctors provide contradictory information about the outcome of an operation). As part of the third dilemma, each participant heard either a vested-interest (one professional stood to profit from providing certain information while the other did not) or non-vested-interest dilemma (neither professional had served to profit over the other). Following each of the first two dilemmas, participants were instructed to record their advice, but also were handed an envelope containing a series of follow-up questions that were supposedly asked by individuals who were involved in the dilemma. Follow-up questions to the first dilemma included: How should I decide whether to have the operation? What different things should I think about to help me decide? If you were me, would you talk to anyone about the decision, and if so, who? The follow-up question to the second dilemma was: Who would you trust if it were you? Results to this study revealed that, in giving advice to their "peers," adolescents' showed a significant increase, with grade level, in mentioning the potential risks and potential future consequences of decisions, greater recognition of and cautious treatment of "vested interests," and in their advice to solicit independent professional opinions. Findings also showed no significant differences in grade level with the incorporation of negative information about a trusted adult or in recommendation that peers of parents be consulted about the decision. However, the authors warned that one of the problems with this study is that it does not explain the relationship between advice giving and decision making, nor does it explain why the grade-level differences emerged. For example, do younger adolescents utilize
information about potential risks and future consequences when it is provided to them? How does firsthand experience with risks and future consequences of a decision alter decision making at various ages? And, how does the attractiveness of a decision outcome affect attention to potential risks or future consequences at various stages? (Lewis, 1981). This study was important because it was one of the first to investigate age differences in adolescent decision making in a legal context, prompting future researchers to look closer at youth.

In attempt to examine developmental differences in children and adolescents’ competency to make informed treatment decisions and, more specifically, to test the hypothesis that adolescents aged 14 do not differ from adults in their capacity to make competent decisions regarding medical and psychological treatment, Weithorn and Campbell (1982) examined 96 youth at four age levels (9, 14, 18, and 21 years). They administered a measure developed to assess competency according to 4 legal standards which included: evidence of choice (the simple expression of a preference relative to treatment alternatives); “reasonable” outcome of choice (the option selected corresponds to the choice a hypothetical reasonable person might take; “rational” reasons (the treatment preference was derived from rational and logical reasoning); and understanding (comprehension of the risks, benefits, and alternatives to treatment). The “understanding” component was broken down into both “factual understanding” of the information that had been disclosed to the patient and a more abstract “appreciation” of the implications to oneself and each of the variables and options presented. The measure of competency (MOC) to render informed treatment decisions consisted of a series of four hypothetical treatment dilemmas, each describing situations (diabetes, epilepsy,
depression, and enuresis) in which individuals were asked to choose among two or more health-care alternatives. Administration of the MOC also involved an interview schedule detailing questions and probes for each dilemma, and a scoring system designed to rate participants' responses according to each of the four tests of competency. In addition, participants were administered the Peabody Picture Vocabulary Test (PPVT) and asked questions about their direct and vicarious exposure to health problems, procedures, and treatments, while parents of minor participants completed demographic and health history questionnaires. Overall, this study found that minors aged 14 were able to demonstrate a level of competency equivalent to that of adults, according to the four standards of competency described above, and for four hypothetical dilemmas. On the other hand, minors aged nine appeared less competent than adults on the understanding and rational reasonable process, but no different than adults or adolescents on the standards of evidence of choice and reasonable outcome ratings.

This study's suggestion that 14-year-olds do not differ from adults in their competency to make informed treatment decisions served as a springboard for those in support of proving that adolescents have equivalent competency capacities as adults. However, in recent years, this assertion has been argued as unwarranted due to the limited empirical evidence to date that relates the decision-making competence of adolescents and adults, and given that Weithorn and Campbell (1982) warned that the methods and their consequent findings of their study may not accurately reflect the dynamics of real world decision-making situations.

In another classic study that investigated children's and adolescents' capacity to comprehend and protect their rights in a mental health setting (i.e., the capacities of
Belter and Grisso (1984) set out to test two hypotheses: (1) that participants informed of rights would recognize rights violations and protect their violated rights more adequately than uninformed participants, and (2) that this effect would be obtained for adolescent and adult participants more strongly than for preadolescent children (who are presumed to be at a level of concrete operational thinking). The hypotheses were tested in a hypothetical client-professional context involving a counseling relationship. Results indicated that, at age nine, the experimental effect of providing information about rights was minimal; both experimental and control subjects demonstrated low scores on measures of recognition of protection of rights and rights violation. In addition, at ages 15 and 21, experimental participants demonstrated significantly higher scores on both measures than did control participants. Lastly, because no significant differences were found in the experimental effect between 15- and 21-year-olds, the authors concluded that by age 15, the average adolescent is fully capable of comprehending and exercising his or her rights.

In an investigation of age differences in children's reasoning about the risks and benefits of psychological treatment, Kaser-Boyd, Adelman, Taylor, and Nelson (1986) assessed 75 children, ranging in age from 10-19, with varying treatment histories. Participants were interviewed with a two-part structured questionnaire. Part 1 involved a risk/benefit sorting task that was designed to assess children's capacity to accurately identify commonly recognized risks and benefits of therapy; participants were introduced to the concepts of "risk," "benefit," and "irrelevant to therapy" and "therapy" by a research assistant. Once the research assistant felt sure that the child grasped these terms, she presented participants with a piece of posterboard on which five boxes with the
labels, strong benefit, weak benefit, irrelevant, weak risk, and strong risk were mounted.

Each label also had a short definition written by it. Participants were then read each of 12 statements about therapy, given the card from which the statement was read, and then asked to place the card in the box that best described the statement. Part 2 of the interview consisted of four vignettes of hypothetical children considering engagement in therapy. Each vignette consisted of two scenes in which the combination of risks and benefits varied (e.g., information suggesting clear risk or clear benefit). Participants were asked to decide whether or not the hypothetical child should enter therapy and asked to discuss their reasons for this determination. Participant responses were recorded verbatim and scored on a four-point scale: 0 points = no response, don’t know, or response to irrelevant dimensions; 1 point = demonstration of an awareness of only one dimension of the dilemma (e.g., recognition of the risk, but no recognition of balancing the benefit); 2 points = demonstration of recognition of the benefit and the risk and an attempt to balance and weigh the factors; 3 points = a good 2-point answer that also demonstrated an ability to analyze several aspects of the situation or suggest something the client might do to enhance the benefit or modify the potential risk. Results of this study were that 64% of the children demonstrated the ability to accurately identify all but the irrelevant statements, and 25% of the children demonstrated the ability to enter or refuse therapy while taking into account the risks and benefits of the hypothetical situation. Another important finding was that no significant differences were found between children at different ages, and that low scores on both instruments were consistently associated with below-average reading comprehension. The results of this study were important because they supported the notion that, given the wide variability
among minors at different ages, reading comprehension levels, and demographic characteristics, competency to consent should be based on the capacities of the individual child (e.g., some combination of age and demonstrated ability to be able to weigh risks and benefits or to comprehend treatment issues). These data also suggest that the determination of competence to consent might be based on the individual minor's ability to meet objective minimum standard rather than an arbitrary age criterion.

Looking at youth decision-making capacities in a medical context, Sherer (1991) examined how minors (children and adolescents) made hypothetical medical decisions in comparison to young adults when they were influenced by various degrees of treatment decision gravity and parental influence. Vignettes featured individuals faced with making medical treatment decisions for medical problems (tonsillitis, kidney donation, and wart removal) with varying degrees of severity or gravity of consequences. Each vignette presented three treatment decision dilemmas that differed in the quality of parental attempts to influence the hypothetical patients' decision. Following each of the dilemmas, participants were asked which treatment they considered to be the best choice and then were asked to rate, on a scale from 1-10, how much confidence they had in their decision as the best choice for the hypothetical patient. Also, at the conclusion of each dilemma, participants were asked, through brief inquiry, to specify what they thought made their choice the best choice. Results indicated that adolescents were just as likely as children and young adults to change their treatment choice when faced with parental pressure to do so, and children were significantly more likely to defer to parents in comparison to adolescents or young adults. It should be noted that adolescents were more likely to defer to parents than young adults, but this finding did not reach statistical
significance. This study was important because it suggested that there is an absence of a clear and consistent developmental trend in the expression of medical decision-making autonomy across decision-making contexts and that treatment decision-making autonomy may involve a more complex psychological climate between parents and children, rather than being a consistently applied trait.

In one of the most ecologically valid studies to date investigating developmental trends in psychological and legal competence to consent to abortion, Ambuel and Rappaport (1992) assessed 75 girls and young women, ranging in age from 13-21, who sought a pregnancy test at a women's medical clinic. The purpose of the study was to: (1) examine whether minors are less competent than legal adults to consent to abortion and, (2) investigate whether decision-making competence could be predicted from individual and ecological factors in addition to age. Participants were asked to fill out a series of questionnaires that tapped background information, educational goals, knowledge about abortion, parenthood, and adoption, cognitive problem-solving skills, and positive and negative emotions related to pregnancy. In addition, they participated in an audio-taped Reasons about Pregnancy (RAP) interview that was embedded within a pregnancy counseling session. The RAP consisted of four basic questions followed by a series of structured prompts, along with an opportunity for unstructured discussion. Recorded interviews were later scored for two independent variables (decision conflict and social support) and three criteria of competence (volition, global quality, and consequences). Decision conflict was defined as the degree of conflict a participant experiences in making a decision about her suspected, unplanned pregnancy. Social support assessed whether the participant had one or more peers, parents, or mentors with
whom she felt she could consult regarding an unplanned pregnancy. Volition was
defined as the degree to which the participant’s decision-making process appears to be
voluntary and independent versus influenced by others due to coercion or acquiescence.
Rating scales for each variable consisted of multiple items, keyed in both directions, on a
5-point Likert scale. A fourth criteria (cognitive competence; richness) was also scored,
but involved a different scoring procedure. Results of this study showed that, of those
minors who considered abortion, older adolescents (ages 16-17) and young adolescents
(<15) did not differ in volition from the comparison group of adults (ages 18-21) who
considered abortion. Although age did not predict volition, psychosocial factors did.
Similarly, psychosocial factors predicted all three sub-criteria of cognitive competence.
In particular, social support was found to be the most consistent psychosocial predictor of
competence. In explaining this finding, the authors commented that perhaps social
support enhances competence by providing a forum to obtain information, receive
emotional support, and practice decision making. Regarding cognitive competence,
adolescents (<15 years-old, and 16-17 years-old) did not differ from the adult comparison
group. Of those adolescents who did not consider abortion, adolescents age 16-17 did not
differ in legal competence (cognitive competence) from those in the criterion group who
considered abortion; however, younger adolescents (<15 years-old) who did not consider
abortion were clearly less competent than the adult group. The authors concluded that
their findings challenged the presumption that minors are not competent, but they
cautioned that general conclusions about adolescent development and social policy
should not be made due to the fact that a baseline assessment of cognitive development
was absent, the study was conducted in a single setting, there was a small sample size, and a lack of random assignment to treatment groups.

Decision Making in Psycho-Legal Contexts

Garrison (1991) evaluated how children at various ages state a custodial preference in divorce situations and provide rational reasons for their choice. The study compared 144 children aged 9-14 from intact families with 22 18-year-olds. Participants’ responses were evaluated by 44 Illinois domestic relations judges. As part of the study, participants were provided with two hypothetical situations and follow-up, exploratory questions. The two situations selected reflected two of the most common themes in contested child custody court cases. Each case involved a description of the personality and lifestyle of both parents. The inquiry presented after each custody situation was based on the strategy developed by Weithorn and Campbell (1982). Follow-up questions were designed to assess the students’ ability to reason about the issues presented in the situations and to advise the hypothetical child faced with custody decision. These questions were: (a) “If Sandy/Lee were to ask for your advice, what would you tell him (or her) to do? Why?” and (b) “What are all the things you thought about when you decided what you would tell him (or her) to do? Anything else?” A scoring system was then derived from a content analysis of both pilot data and 25% of the cases from the total sample. Judges rated each choice on a 7-point scale, ranging from totally unreasonable (1) to totally reasonable (7), as they thought it applied to each of the hypothetical situations. The quality of the reasons offered by the children for their custodial preferences were evaluated by a 3-step procedure. The judges also rated the quality of each of the categories of reasons on a scale ranging from not at all (1) to totally
In response to how much they would weight the child’s custodial preference. Results of this study indicated that the 14-year-olds proved to be as competent as the 18-year-olds according to applicable legal standards (i.e., “sufficient age and capacity to reason so as to form an intelligent preference,” p. 78), and even the 9-year-olds performed as well as the 18-year-olds on one of the two criterion measures. On the other hand, significant developmental differences were found in the reasons given by children for their custodial preferences, but not in the preferences themselves.

In a study examining the development of young people’s ability to reason about legal issues involved in a plea decision in a criminal matter, Peterson-Badali and Abramovitch (1993) evaluated 48 youth (grades 5, 7, and 9) and 48 young adults via a semi-structured interview containing four vignettes. Each vignette depicted a young person who had committed a criminal offense, was charged, had retained a lawyer, and was confronted with the decision regarding plea. Similar to Weithorn and Campbell’s (1982) study of youth’s competence to make medical decisions, participants’ responses were measured against four “competence” standards: the Ability to Express a Preference, Use of Legal Criteria, Quality of Plea, and Consideration of Consequences. Participants received information regarding the charge and the prosecution’s evidence (weak in half of the vignettes and strong in the other half). Lawyers judged the reasonableness of both guilty and not guilty pleas for each of the vignettes, using a 6-point scale (1 = entirely unreasonable and 6 = entirely reasonable). It was predicted that the majority of participants at all grade levels would pass the lowest standard of competence, and Ability to Express a Preference, and that participants’ performance on the other three standards would improve with grade. It was expected that the youngest subjects would base their
plea decisions on moral rather than legal criteria, and that this practice would decrease with age. Lastly, it was predicted that participants’ performance would vary with the level of evidence in the vignettes, and that the evidence variable would interact with grade level. Results showed, contrary to the prediction, a majority of the 5th grade participants based their plea decisions on legal rather than moral criteria (explicit reference to the character’s guilt). At the same time, there were significant grade-related changes both in legal reasoning scores and in the use of guilt-based plea justifications. Lawyers’ ratings of plea decisions indicated participants’ choices were reasonable when the evidence against the story character was strong (and thus congruent with “moral” guilt) than when it was weak. The authors reported that, as participants became older, they became better able to separate moral from legal issues in their decision making. Post hoc tests showed that the mean reasonable scores of the grade 9 and young adult subjects were significantly greater than grade 5, although they did not differ from each other or the grade 7 participants.

In a more recent study investigating age-related changes in young children and adolescents’ reasoning about legal issues, Peterson-Badali, Abramovitch, and Duda (1997) interviewed 67 participants, ranging in age from 7-12, from two different settings. One group consisted of children who had been or were currently involved in a clinic program designed as an intervention for children who had had contact with the police but were “too young to be charged with criminal offense.” The second group was from an upper-middle class laboratory school. Each participant took part in a 20 minute semi-structured interview where two vignettes were presented (note: only two vignettes were selected in an attempt to accommodate for the attention and concentration level of
younger children). Each vignette depicted a series of events leading up to the arrest of the story’s protagonist (matched to the subject’s gender) who had actually committed the offense for which he or she was charged.

During the presentation of the 1st vignette, participants were asked a series of standard questions designed to assess the legal knowledge considered important in making the plea decision. Immediately after participants gave their answers, they were provided with relevant information about the concept addressed and information about the job of the defense council, issues around confidentiality, and the meaning of guilty or not guilty pleas. Therefore, when they made their decisions about whether the hypothetical story character should plead guilty or not guilty to the charges, they did so after having received information about legal issues. Participant responses were then categorized according to coding schemes designed to capture the content and sophistication of their knowledge. Coding schemes included: definition of guilty and not guilty plea, description of trial “actors,” events, concepts, and misconceptions.

Participants’ reasoning ability was assessed in three ways: (1) by evaluating the "reasonableness" of participant choices according to the judgment of experts (16 lawyers experienced in the representation of young offenders), (2) by examining the rationality reasons of those choices, and (3) by evaluating participant understanding of relevant facts, and the implications of those facts. Elaborating on the categories mentioned above, participants’ ability to give rational reasons for their plea decisions assessed their ability to relate all the available evidence to the likelihood of conviction. Participants’ understanding of relevant facts was operationalized in terms of their ability to evaluate
evidence presented in the vignettes. A 3-point scale was used to rank the quality of the response (the amount of articulation/connecting of details).

Peterson-Badali et al. (1997) found that, while most children possessed some legal knowledge, many were lacking specific information about the workings of the legal system. Specifically, many participants misunderstood important aspects of the lawyer's advocacy function (e.g., they believed the lawyer could reveal what the client says to the judge, police, and parents), almost none understood what the plea of not guilty meant, and rarely referred to the principles of jurisprudence. The authors did point out that the ignorance and misconception about some of these issues is not limited to children. In fact, Peterson-Badali and Abramovitch (1992) found that a vast majority of young adults misunderstood what not guilty means. In the current study, however, the younger students showed poorer knowledge than adolescent students. The authors also pointed out that this finding underlines the notion that children's descriptions of social relationships and social institutions during middle childhood is still very concrete—particularly when they are dealing with unfamiliar domains, such as the legal setting. Despite gaps in participants' legal knowledge and maturity, the majority of children's plea choices were found to be congruent with legal knowledge—suggesting that children may be able to use legally relevant information when it is presented in a salient manner. However, participants' ability to give legally relevant reasons for their plea choices was age-dependent. Specifically, older adolescents were able to tie evidence to the likelihood of conviction, either spontaneously or (more often) when probed, while most younger students mentioned the evidence without making this connection. Peterson-Badali et al. (1997) suggested that the failure of younger children to demonstrate an explicit legal
understanding in their reasoning raises questions about their ability to participate in a traditional client-lawyer relationship in which the client instructs counsel on the basis of information and advice received, and to negotiate the cognitive demands necessary for meaningful participation in the youth justice process.

As an aside, although the groups were not directly compared on measures of SES, cognitive ability or social functioning, many of the clinic children did come from low-income homes, social disadvantage, and relative intellectual impoverishment. With this in mind, the authors found it noteworthy that the clinic sample was generally similar to the school participants in terms of their plea choices and plea justifications—suggesting that the reasoning process of the two groups as similar.

A few studies have examined decision making in the context of youth’s competence to stand trial (CST). McKee (1998) compared the CST of 108 juveniles, ages 7 to 16-years-old, with 145 adults, ages 17 and older, undergoing pretrial court-ordered forensic evaluations. He found that adults were superior on both global and specific competency abilities, although older juveniles (ages 15 and 16) did not differ from adults on some specific competency abilities including their knowledge of detention as a possible consequence, the importance of proper conduct in court, the difference between a plea of guilty and not guilty, and their wish for a positive, self-serving outcome to their case. For younger participants, both early (<13 years-old, 13- and 14-years-old) and mid-adolescents (15-16 year-olds) differed from each other and from adults. Specifically, when CST was measured as a ratio of competency abilities to deficits, preteens were 16 times more likely than adults, 13- and 14-year-olds 8 times more likely than adults, and 15- and 16-year-olds 3.5 times more likely than adults to be
incompetent to stand trial. Also, 15- and 16-year-olds differed from adults in their knowledge of the basic elements of plea bargaining in comparison to the adults. The author pointed out that this deficit in plea bargaining is particularly critical, especially with mid-adolescents whose transfer to adult court for prosecution of their felony charges might be one of the options they must consider in a plea agreement. Mid-adolescents were more likely than younger adolescents to have the factual understanding and rational ability to work productively with counsel. Overall, when clustering the younger adolescents by age, preteens accused of crimes failed to meet the *Dusky v. United States* (1960) standard and 13- and 14-year-olds displayed an equal mix of abilities and deficits.

In another study comparing the characteristics of competent and incompetent juveniles with CST in family court, McKee and Shea (1999) investigated a sample of 122 pretrial juvenile defendants undergoing court-ordered CST evaluations. While 14 percent of the sample was judged incompetent to stand trial, 55% were considered to have one or more examiner-cited competency deficits that might lead to a court finding of incompetence. Results showed that there were significantly high rates of mental illness, emotional disturbance, low intelligence, sexual victimization, educational disruption, poverty, institutional placement, family mental illness, and parental marital instability among the sample. However, of all the variables examined in the study, only three (age, intelligence, and prior juvenile arrest) were significantly related to clinical opinions of the juveniles' competency to stand trial. The authors also noted that CST is more likely to be found in older adolescents of at least low average intelligence who have previous experience in family court. Higher intelligence was felt to facilitate defendants' abilities to make reasoned judgments about legal decisions over which they have sole, ultimate
authority (e.g., what plea to enter, whether to be one’s own lawyer, whether to appeal the court’s verdict, and whether to waive a jury trial).

In closing, policymakers, practitioners and mental health professionals need to be familiar with the developmental changes that occur during childhood and adolescence. The capabilities and characteristics that are relevant to competence, culpability, and amenability vary across a variety of contexts. In every-day decisions as well as domain-specific legal or medico-legal contexts, major questions are raised concerning the abilities of children and adolescents to consider options, weigh consequences and make choices. Youth may be vulnerable to slipping through the cracks of our legal system if we neglect to systematically investigate and develop a better understanding of their decisional processes. Furthermore, legislators need this information to make age-related laws and statutes that are developmentally appropriate and scientifically reasonable (Steinberg & Schwartz, 2000). Unfortunately, very little research currently exists that attends to younger-aged children’s and adolescents’ decision-making capacities in psycho-legal contexts.

The present study will explore developmental differences and relationships across cognitive and psychosocial factors as they relate to the decision-making capacities of youth, particularly those who are at risk for involvement in Juvenile Court. The purpose of this investigation is to help provide a more comprehensive understanding of the developmental trends in both children and adolescents’ capacity to make socially responsible choices.
Chapter II
Rationale and Hypotheses

Currently, there is a paucity of empirical research that attends to both children’s and adolescents’ decisional capacities and processes in psycho-legal contexts. Only a handful of studies have evaluated or compared decision making by adults and adolescents in legal contexts (Ambuel & Rappaport, 1992; Cauffman & Steinberg, 2000; Garrison, 1991; Scherer, 1991; Weithorn & Campbell, 1982), but these studies neglect to include younger-aged children. Furthermore, a few studies investigate differences between adults’ and minors’ comprehension in legal settings (Belter & Grisso, 1984) and understanding of treatment issues (Kaser-Boyd, Adelman, Taylor, & Nelson, 1986), but they do not focus on the decisional process per se.

Looking at developmental trends, several studies have found differences between older and younger adolescents (Ambuel & Rappaport, 1991; Belter & Grisso, 1984; Garrison, 1991; Lewis, 1981; Scherer, 1991) across several different contexts, but only a few studies have investigated age differences in young children’s reasoning ability in legal contexts (Peterson-Badali, 1993; Peterson-Badali, Abramovitch, Duda, 1997). Of the studies mentioned, however, participants have been for the most part Caucasian, thus ethnic representation has been quite limited. According to Scott et al. (1995), demographic and cultural characteristics may differentiate adolescent decision-making depending on the context; it is also likely that the same holds true for children. Therefore, in addition to recognizing developmental trends of decision-making process in
legal contexts, there is a need for more empirical data concerning the decisional capacities of children and adolescents from different demographic backgrounds.

According to Cauffman and Steinberg (2000), equating “good” decision-making with socially responsible behavior is consistent with everyday practice in the courts. The purpose of this study is to explore developmental differences and relationships across cognitive and psychosocial factors as they relate to decision making in situations relevant to juvenile delinquency (i.e., one’s capacity to make socially responsible versus antisocial choices).

The following hypotheses will be tested:

H I: There are statistically significant differences across age groups (8-10, 11-13, 14-16) in the understanding of future consequences (time perspective), as measured by the Revised Consideration of Future Consequences Scale (CFC).

H II: There is a statistically significant positive correlation between cognitive/language ability as measured by the Peabody Picture Vocabulary Test (PPVT-R) and understanding future consequences (time perspective) as measured by the CFC.

H III: There are statistically significant correlations among age, cognitive/language ability (as measured by the PPVT-R score), understanding of future consequences (as measured by the CFC score); self-efficacy (as measured by the total self-efficacy score), and decision making (as measured by the Youth Decision Making Questionnaire (YDMQ) score).

H IV: One or more of the following demographic factors (i.e., age, sex, parent educational level) is significantly correlated with understanding of future consequences
(CFC score), cognitive/ language ability (PPVT-R score), and/or a more integrated decision-making process in situations relevant to legal concerns.

HV: Better decision makers (determined by the YDMQ score) will report socially responsible behavioral choices under both conditions of self-regulation as well as under conditions of external regulation when presented with hypothetical scenarios.

An additional research question to be evaluated qualitatively regarding the decision making process (as measured by the YDMQ). Participants’ responses will be evaluated to establish a picture of both children and adolescents’ views of this component of the study. In attempt to prevent bias, no predictions about the potential themes or trends across participants have been made.
Chapter III

Method

Power Analysis

The examiners in the current study did not identify any studies that were comparable to this study that would allow them to conduct a power analysis. However, the number of participants selected for the present study was determined based on the length of time necessary to evaluate each participant and an estimation that we would at least 10-15 participants per age group would be needed in order to show variation.

Participants

Participants will include 30 (15 female, 15 male) children and adolescents from a local school district in Cincinnati, Ohio. Participants will be stratified by age, with an equal number of participants in each group (10 per age group; 5 female, 5 male). Age groups will include: 8-10, 11-13, 14-16 year-olds.

Measures

Demographics and Background Information. Participants will be asked to complete questions including their age, sex, grade level in school, and other demographic information provided by participating schools.

Decision Making. The Youth Decision Making Questionnaire (YDMQ) (Ford, Wentzel, Wood, Stevens, & Seisfeld, 1990) will be used to assess participants' tendency toward antisocial decision-making (i.e., the extent to which individuals are making
socially sanctioned choices) (see Appendix A). The YDMQ presents participants with a set of hypothetical situations that involve choosing between antisocial and socially accepted courses of action. For each hypothetical situation, participants are asked to indicate, on a four-point scale ranging from definitely choosing the responsible action to definitely choosing the irresponsible action, how they would behave if they were confronted with such a dilemma.

The measure to be used in the present study was modified from Ford et al.’s (1990) original instrument in three ways. First, in order to satisfy time constraints and to provide the most clear-cut choices between antisocial and socially accepted behavior among children, only three of Ford’s original nine scenarios were selected for inclusion in the present study. We chose the scenarios with the most clear-cut choices between right and wrong, specifically: (1) smoking marijuana; (2) shoplifting; and (3) cheating on a test. Second, a new scenario was constructed: the “abandon house/construction site.” This was felt to be a situation children are more likely to encounter than others in the original Ford instrument. Third, the scenarios were written or revised to capture experiences that would be encountered by both children and adolescents (e.g., smoking cigarettes vs. marijuana; shoplifting candy vs. clothing; copying someone else’s homework vs. borrowing a friend’s test questions in attempt to cheat on a test).

In order to protect participants from examiner influence (e.g., voice inflection), each scenario will be presented to participants through a pre-recorded audio-tape. After each scenario is heard, each participant will then be presented with two possible choices. First, “Suppose nothing bad would happen to you (such as getting in trouble with the police) if you [made the antisocial choice]. Would you still choose [the socially
responsible choice] or would you [engage in the antisocial behavior]?” The next question asks the participant to imagine that something bad \textit{would} happen. In other words, each choice has a given “enforcement condition” (self-regulation vs. external regulation). Participants will be asked to indicate, on a four-point scale, how they would behave if they were confronted in each of the two enforcement conditions for each of the scenarios presented. Non-committal responses are not permitted.

Lastly, for each of the four questionnaire scenarios, participants will be asked to respond to two open-ended questions (one after each choice response; two follow-up questions per scenario) about the process by which they came to make the choices they did (e.g., “Why did you choose that?”). Participant responses will be audio-taped and then later recorded verbatim by the examiners.

Outside of the above modifications, instrument scoring remains the same. Composite Social Responsibility (SR) scores will be computed by adding responses across the four scenarios. Scores will range from a minimum of 8 points to a maximum of 32 points. Participants who score from 8 to 15 points will be considered as individuals who make less socially responsible choices while those scoring from 16 to 32 points will be considered as individuals who make more socially responsible choices. These cut-off scores are similar to those used by M. Ford (personal communication, January 28, 2003).

\textit{Understanding Future Consequences (Time Perspective).} The Consideration of Future Consequences Scale (CFC) (Strathman, Gleicher, Boninger, & Edwards, 1994) will be used to measure participants’ ability to see short- and long-term consequences. The CFC consists of 12 items on a Likert scale ranging from 1 (extremely uncharacteristic) to 5 (extremely characteristic). For each of the statements (e.g., “I
often do things that don’t pay off right away but will help in the long run”), participants are asked to indicate how characteristic the statement is for them. According to Cauffman and Steinberg (2000b), the CFC is highly correlated with other measures of future orientation, such as the Stanford Time Perspective Inventory (Zimbardo, 1990). It should be noted that the original version of the CFC was designed for use with college students, and that Cauffman and Steinberg (2000b) simplified the scale for their study so that participants ranging in age from early adolescents to young adulthood could complete the scale. However, for the present study, the scale has been further revised to simplify the wording of several items so that child participants (under the age of ten) would be able to complete the scale (see Appendix B). For consistency, the revised simplified version will be used for all participants, regardless of age.

CFC scores will be converted to standard units. The resultant perspective score will be scaled to range from 1 (low perspective) to 5 (high perspective); the total score ranges from 12 to 60.

Cognitive Ability/Receptive Vocabulary. The Peabody Picture Vocabulary Test (PPVT-R) (Dunn & Dunn, 1981) will be used to estimate participants’ cognitive ability. Sattler (1992) describes the PPVT-R as a nonverbal, multiple-choice test designed to evaluate the receptive knowledge of vocabulary of children and adults. It can be used with individuals from ages 2½ years through adulthood. The test is untimed and requires no reading ability. The physical abilities required of examinees are adequate hearing and the ability to indicate yes or no in some manner; neither a pointing nor an oral response is essential. Testing time is typically between 10 and 15 minutes. Raw scores will be
converted into standard scores, with a mean of 100 and a standard deviation of 15. The standard scores range from 40 to 160.

According to Sattler (1992), numerous studies have correlated the PPVT-R with intelligence and achievement measures and, in turn, have established the concurrent validity of the PPVT-R as a measure of cognitive ability. However, overall, PPVT-R scores are “not interchangeable with IQ scores obtained on individually administered intelligence tests for any group of children” (p. 350). Still, the PPVT-R has been used in research to estimate overall cognitive ability.

**Self-Efficacy**. In order to assess participants’ context specific self-efficacy, they will be asked to respond whether or not they feel capable of making socially responsible decisions in the particular scenario presented. Specifically, each scenario will contain one self-efficacy questions, following the “enforcement condition” questions (see Appendix A). Questions selected for inclusion in the present study have been used or modeled after Bandura’s Children’s Self-Efficacy Scale (Self-Regulatory Efficacy subscale) as presented in Bandura’s Guide For Constructing Self-Efficacy Scales (Revised March, 2001). Total scores will be tallied across all four scenarios. A 7-point Likert scale format will be used for each question; total scores will range from 4 to 28, with 4 to 13 indicating low self-efficacy and 14 to 28 indicating high self-regulatory self-efficacy.

*Procedure*

The Institutional Review Board at Xavier University will review this study prior to data collection. Participants will be recruited from urban elementary, middle, and high schools in the Cincinnati area. After obtaining permission from each school, subsequent
permission from each school’s principal to contact parents and their children will be obtained. A letter explaining the general purpose and procedures of the study will be sent to parents of all children in grades 4-11 who attend each of the given schools (see Appendix C). A follow-up phone call will be made to each parent within one week of distributing the letters. All participants will be informed that their participation in the study will be voluntary and that they can withdraw from the study at any time.

Participant responses will be kept confidential, meaning that the questionnaires will be number coded to protect from name identification and stored securely in a locked storage space at the examiner’s home.

All measures will be completed by participants in individual sessions lasting approximately 45 minutes. After participants have reviewed the Assent Form (see Appendix C), the PPVT, CFC, and YDMQ will be administered in counter-balanced order.
Chapter IV

Proposed Analysis

The present study will employ an exploratory design to investigate developmental differences and relationships across cognitive and psychosocial factors as they relate to socially responsible decision making.

Hypothesis I states that there are statistically significant differences across age groups (8-10, 11-13, 14-16) in the understanding of future consequences (time perspective). A one-way Analysis of Variance (ANOVA) will be conducted across age groups, with the total score of the Future Consequences scale serving as the dependant measure.

Hypothesis II states that there is a statistically significant (positive) correlation between cognitive/language ability and understanding of future consequences (time perspective). A Pearson product-moment correlation coefficient will be computed to measure this relationship.

Hypothesis III states that there is a statistically significant relationship among age, cognitive/language ability, understanding of future consequences, self-efficacy, and decision making. A Pearson product-moment correlation coefficient will be computed.

Hypothesis IV states that demographic factors (i.e., age, sex, parent educational level) are significantly correlated with understanding of future consequences, and cognitive/language ability. A Pearson product-moment correlation coefficient will be computed.
Hypothesis V states that better decision-makers will report socially responsible behavioral choices under both conditions of self-regulation as well as under conditions of external regulation when presented with hypothetical scenarios. Specifically, "good" decision makers are defined as those individuals' whose scores fall between 16 and 32, while "bad" decision makers are defined as those individuals' whose scores fall between 4 and 15 on the Revised Youth Decision Making Questionnaire. The difference in the mean scores of these two groups will be evaluated using a t-test.

The research question that examines the decision making process, per se, will be managed qualitatively. Participants' responses to questions following the scenarios will be transcribed and evaluated by the researcher to identify themes of importance to the participants.
References


Appendix A

Youth Decision Making Questionnaire (Revised)

1. You and your friends are out playing and find a house that is being built with dirt piles around the property. It looks like a fun place to ride bikes or play, but there are also signs on the property that say "Keep Off" and "No Trespassing." At the same time, there are no adults around or anyone to notice you are there. Would you go and play on the property or in the house under construction or find another place to play that you know would be allowed?

A. Suppose NOTHING bad will happen to you (such as getting in trouble or hurt) if you don’t let your friend copy your homework. Would you go play in the construction area or would you find another place to play that you know would be allowed?

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<tr>
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<th>2</th>
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<th>4</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Definitely go on property</td>
<td>Probably go on property</td>
<td>Probably find another place to play</td>
<td>Definitely find another place to play</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you if you did play on the construction site or in the house. Would you go play there anyway or would you find another place to play that would be allowed?

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<tbody>
<tr>
<td></td>
<td>Definitely go on property</td>
<td>Probably go on property</td>
<td>Probably find another place to play</td>
<td>Definitely find another place to play</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you follow laws when no one is watching?

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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
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</tr>
</tbody>
</table>
2. You go to your friend's house to play/hang-out one day when his or her parents are not home. While you are there your friend asks you if you want to try smoking a cigarette. All your friend want to try it, but you know your parents have told you they don't want you to smoke. Would you choose to smoke the cigarette or tell your friend you did not want to?

A. Suppose NOTHING bad will happen to you (such as getting caught by your parents) if you smoke the cigarette with your friends. Would you choose to smoke the cigarette or refuse?

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<th>1</th>
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<tbody>
<tr>
<td>Definitely smoke</td>
<td>Probably smoke</td>
<td>Probably refuse to smoke</td>
<td>Definitely refuse to smoke</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with your parents) if you smoke the cigarette with your friends. Would you choose to smoke the cigarette or refuse?

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<th>1</th>
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<th>4</th>
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<tbody>
<tr>
<td>Definitely smoke</td>
<td>Probably smoke</td>
<td>Probably refuse to smoke</td>
<td>Definitely refuse to smoke</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you resist peer pressure to smoke cigarettes?

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<th>5</th>
<th>6</th>
<th>7</th>
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<tbody>
<tr>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
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</tr>
</tbody>
</table>
3. You are out shopping with some of your best friends and they decide to take some candy without paying for it. You don’t think it’s a good idea, but they say you should take something too. Would you take the candy or would you refuse to shoplift?

A. Suppose NOTHING bad will happen to you (such as getting caught by the police) if you took the candy without paying. Would you steal the candy or not?

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<tbody>
<tr>
<td></td>
<td>Definitely take the candy</td>
<td>Probably take the candy</td>
<td>Probably refuse to take the candy</td>
<td>Definitely refuse to take the candy</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with the police) if you stole the candy. Would take the candy or not?

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<th>1</th>
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<tbody>
<tr>
<td></td>
<td>Definitely take the candy</td>
<td>Probably take the candy</td>
<td>Probably refuse to take the candy</td>
<td>Definitely refuse to take the candy</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you resist peer pressure to do things that are against the law?

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<tbody>
<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
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</tbody>
</table>
4. You and your friend have the same homework assignment. You have already completed your assignment before class and your friend did not do his or her homework and asks to copy yours. You realize that your friend has a really good reason for not finishing his or her homework, but you know it is against school rules to let others copy your homework. Would you choose to let your friend copy your homework or follow the school rules?

A. Suppose NOTHING bad will happen to you (such as getting caught by the teacher) if you let your friend copy your homework. Would you let your friend copy your homework or follow the school rule no to let others copy your homework?

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<tbody>
<tr>
<td></td>
<td>Definitely let friend copy</td>
<td>Probably let friend copy</td>
<td>Probably refuse</td>
<td>Definitely refuse to let friend copy</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with your teacher) if you let your friend copy your homework. Would you let your friend copy your homework or refuse (following the school rule)?

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Definitely let friend copy</td>
<td>Probably let friend copy</td>
<td>Probably refuse</td>
<td>Definitely refuse to let friend</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you resist peer pressure to do things in school that can get you into trouble?

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<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
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</table>
Appendix B

Consideration of Future Consequences Scale (Revised)

Read each of these sentences. Then circle the number that tells how well each sentence describes you.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Does not Describe Me at all</th>
<th>Does not Describe me very well</th>
<th>Uncertain</th>
<th>Describes me somewhat</th>
<th>Describes me very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think about how things might be when I am older, and I try to act in ways that affect them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I do things that don't help me right now, but that will make things better later.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I only worry about problems that are happening right now, because everything will work out later.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I decide whether or not to do something based on what will happen to me right away.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I think about what is easier for me when I do things and make decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I will give up my happiness now if it will make me happier when I am older.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. It is important to think about the bad things that might happen if I do something, even if the bad things might not happen for a long time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. It is more important to do things that will cause big changes later than to do things that will only cause little changes right now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I don't worry about big problems that might happen when I am older because these problems will be fixed before they become too bad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>10. It isn't important to give things up now to avoid bad things later because problems can be handled later.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I do things that make me happy right away because I know that I can take care of future problems later.</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Things that I do everyday are more important to me than things that won't matter for a long time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>
Appendix C

Permission Form
Decision-Making Study

I am giving permission for my child, ___________________, to take part in a study conducted by the Xavier University, Dept. of Psychology. This study is about understanding age differences in youth’s ability to make socially responsible decisions.

The people doing the study are Kathleen J. Hart, Ph.D. of Xavier University, Nancy Henein, M.Ed., M.A, and Heather Bensman (research assistant). Dr. Hart can be reached at 745-3278 if I have any questions about the project.

If I agree, I will be giving permission for the study staff to ask my child if he or she wants to take part in an interview about socially responsible decision making, complete some tests to measure intellectual ability and the youth’s ability to consider future consequences, as well as respond to some brief questions about their demographic background (i.e., age, sex, grade, ethnicity). It will take about 1 ½ hours to do the interview and the tests. If my child does not want to be interviewed, then he/she will not have to do it.

If I agree and my child agrees to be interviewed, none of my child’s answers or scores will be given to me or my child’s teachers, principal, or anyone outside the bounds of this project. The answers are kept confidential, meaning that they are stored without my child’s name on them. To help record my child’s answers, some interviews may be tape recorded. If this is done, the child’s name will not be on the recording, only the study ID number. When the researchers use the information the children give, they look at the answers of groups of children. Only general results of the study will appear in professional journals or at professional meetings; nothing that might be presented will be only about my child.

Interviews will be done during free time. My child will not miss school or other required activities because of this interview.

I or my child can stop the interview at any time without anything bad happening (i.e., no academic penalty).

I understand if I and my child agree to be in the study, we will not get anything special by doing it, but we will help the doctors learn more about children in these situations.

Signed:

_________________________  __________________________
Signature  name printed

_________________________  __________________________
Witness signature  date

This is the form we read to you by phone the other day. Please keep this form for your records. There is no need to return anything to us. If you have any questions, you can reach us at the number above.

THANK YOU FOR YOUR HELP!
Child Permission Form
Decision-Making Study

I agree to take part in a study conducted through the Xavier University, Department of Psychology. This study is about understanding age differences in youth's ability to make socially responsible decisions.

The people doing the study are Kathleen J. Hart, Ph.D. of Xavier University, Nancy Henein, M.Ed., M.A., and Heather Bensman (research assistant). Dr. Hart can be reached at 745-3278 if I have any questions about the project.

I understand that if I sign below, I am agreeing to be interviewed and take a few tests. It will take about 1½ hours to do all of this. If I do not want to be interviewed, then I do not have to do it.

None of my answers or scores from the tests will be given to me or my teachers or principal. The answers are kept confidential, meaning that they are stored without my name on them. To help record my answers, some interviews may be tape recorded. If this is done, my name will not be on the recording, only a number. When the researchers use the information that I give, they look at the answers of groups of children. Only general results of the study will appear in professional journals or at professional meetings; nothing that might be presented will be only about me.

Interviews will be done during free time. I will not have to miss school or other required activities because of this interview.

I understand that doing this interview is voluntary. That means that I don't have to do it, and I can stop it at any time. If I say no or stop the interview, nothing bad will happen (i.e., I will not be in trouble with the school or with my teachers).

I understand if I agree to be in the study, I will not get anything special by doing it, but I will be helping the doctors learn more about kids like me. I can have a copy of the study results by giving the tester my address, and they will send me a copy of the published study.

Signed:

________________________  ______________________
Signature                     name printed

________________________  ______________________
Witness signature            date
Chapter V

Dissertation:

Abstract

The present study involved an exploration of the decision-making processes of 36 children and adolescents from urban public schools. The study examined both cognitive and psychosocial factors (future orientation, self-efficacy, external influence) across three age groups (8-10, 11-13, and 14-17 year olds). Participants completed several measures that assessed their ability to make socially responsible choices when presented with hypothetical scenarios. In general, results suggested a significant negative relationship between age and self-efficacy, and age and socially responsible decision making performance. In addition, several other variables, including self-efficacy and decision making quality were found to be positively correlated across the age groups examined. Significant differences were found between age groups on self-efficacy and decision making quality. Contrary to expectation, 8- to 10 and 11- to 13-year-olds showed significantly better decision making scores in comparison to 14- to 17-year-olds. Qualitatively, it appeared the younger children applied more morally rigid standards/rules as a basis for their decisions in comparison to the older age groups. Fear of authority was also a dominant theme reported across all four scenarios in children’s and adolescents’ reasoning of their decisions.
Psycho-Legal Decision Making Among Children and Adolescents:
A Developmental Perspective

In an attempt to "crack down" on juvenile crime, society has responded by reforming its laws for prosecution of cases involving violence by juveniles, mandating tougher sentences and increasing waiver of juveniles for trial in adult courts (Grisso & Schwartz, 2000). The recent shift by both policymakers and the general public in redefining the juvenile offender as someone who is "not really a child" leaves many child advocates unsure of how to best account for juveniles' capacities in legal contexts. In particular, very little evidence is available to understand the decision-making capacities of delinquent youth (Kazdin, 2000). Importantly, how can mental health professionals better evaluate youths' capacities so that courts, prosecutors, and lawmakers can more thoroughly understand children and adolescents' worldview and decision-making process?

The developmental journey from childhood through adolescence involves multiple transitions and influences that are likely to impact children's and adolescents' capacities to make "responsible" decisions. According to Kazdin (2000), major questions are raised concerning the ability of youth (as compared to adults) to consider options, weigh consequences, and make choices. In the case of youth involved in the court system, this typically involves the context of engaging in illegal behaviors versus making socially responsible choices.

Examining current theoretical perspectives on decision making, Cauffman and Steinberg (1996) posited a framework suggesting that mature judgments are the product of an interaction between cognitive and psychosocial factors, with competent decision
making potentially undermined by deficiencies in either domain. Specifically, their model suggested that, while psychosocial factors are numerous, they can be accounted for by three categories of overarching dispositions: (1) responsibility (healthy autonomy, self-reliance, clarity of identity); (2) temperance (the ability to limit impulsivity, avoid extremes in decision making, and to evaluate a situation thoroughly before acting, including seeking advice of others when appropriate); and (3) perspective (being able to acknowledge the complexity of the situation and to frame a specific decision within a larger context). Steinberg and Cauffman have claimed that when these dispositions are considered along with the cognitive competence to reason abstractly, they comprise the attributes most often associated with mature decision making.

Elaborating on their earlier framework, Cauffman and Steinberg (2000b) made a theoretical distinction between decisions and the maturity of judgment that underlies them. To these authors, “judgment” refers to the process of decision making, and not any particular decision outcome, whereas “maturity of judgment” refers to the way the process of decision making changes with development. They noted that, under law, one’s culpability may depend upon the degree of maturity of the process through which the decision was made. Putting this in other words, Cauffman and Steinberg underlined that the question of whether or not a juvenile “ought to know better” cannot be answered by looking only at the nature of his or her behavior. The authors suggested that this very question relies on an assumption that there is an underlying set of characteristics that influence one's decision making and one’s resultant behavior. It is this “set of characteristics,” which evolves from “definitely could have known better” to “definitely should have known better,” during the course of development, that Cauffman and
Steinberg call maturity of judgment. A second point advanced within Steinberg and Cauffman’s (1996) framework is that judgment “is neither exclusively cognitive nor exclusively psychosocial; it is the byproduct of both influences” (p.743). In other words, a person can display poor judgment because of some emotional or social shortcoming, such as susceptibility to peer pressure or impulsivity; intellectual deficiency, such as ignorance to some crucial piece of information or faulty logic; or both (Scott et al., 1995).

In a recent study, Cauffman and Steinberg (2000b) investigated whether or not there are predictable patterns of change in antisocial judgments during adolescence (age 13-18), and if so, whether these patterns of change are related to changes in various components of maturity. The authors contended that the evaluation of culpability is largely a moral decision because culpability refers to the extent to which a person can be considered blameworthy or deserving of punishment for a given behavior. However, they also pointed out that “if any such moral standard is to be applied to offenders of varying levels of maturity (and subsequent determinations of culpability) it should be grounded in an accurate understanding of the factors that influence how adolescents make decisions” (p. 742). The authors hypothesized that, because these factors are key elements of “maturity of judgment,” those individuals who are responsible, temperate, and circumspect will make better decisions. They found that socially responsible decision making is significantly more common among young adults than among adolescents, but this does not increase appreciably after age 19. In addition, they found that individuals exhibiting higher levels of responsibility, perspective, and temperance displayed more mature decision making than those with lower scores on these psychosocial factors, regardless of age. On average, adolescents scored significantly
worse than adults on measures of mature decision making, but individual differences in
judgment within each age group were noted as considerable. Cauffman and Steinberg
concluded that these findings call into question recent arguments that adolescents and
adults are equally competent and that laws and social policies should treat them as such.

In an early study that evaluated adolescent decision making and related policy
implications, Lewis (1981) investigated whether, during adolescence, there are
developmental changes in decision-making skills which justify legal discrimination on
the basis of age. Results to this study revealed differences in decision approach among
three grade-level groups (7-8th, 10th, and 11th). Specifically, as grade level increased,
participants’ showed increases in mentioning of the potential risks and potential future
consequences of decisions, recognition of and cautious treatment of the vested interests
of adult professionals, and suggestions to solicit advice from an independent specialist.
Overall, this study found that 14-year-olds were able to demonstrate a level of decision
making equivalent to that of adults, according to the areas described above, and for four
hypothetical dilemmas.

Sherer (1991) examined how minors (children and adolescents) made
hypothetical medical decisions in comparison to young adults when they were influenced
by various degrees of treatment decision gravity and parental influence. Results
indicated that adolescents were just as likely as children and young adults to change their
treatment choice when faced with parental pressure to do so, and children were
significantly more likely to defer to parents in comparison to adolescents or young adults.
This study was important because it suggested that there is an absence of a clear and
consistent developmental trend in the expression of medical decision-making autonomy
across decision-making contexts and that treatment decision-making autonomy may involve a more complex psychological climate between parents and children; rather than being a consistently applied trait.

In one of the most ecologically valid studies to date investigating developmental trends in psychological and legal competence, Ambuel and Rappaport (1992) assessed 75 girls and young women, ranging in age from 13-21, who sought a pregnancy test at a women's medical clinic. The purpose of the study was to: (1) examine whether minors are less competent than legal adults to consent to abortion and, (2) investigate whether decision-making competence could be predicted from individual and ecological factors in addition to age. Results of this study showed that, of those minors who considered abortion, older adolescents (ages 16-17) and young adolescents (<15) did not differ in volition (the degree to which a participant's decision-making process appeared to be voluntary and independent versus unduly influenced by others due to coercion or acquiescence) from the comparison group of adults (ages 18-21) who considered abortion. Although age did not predict volition, psychosocial factors (e.g., social support, decision conflict, educational goals) did. Similarly, psychosocial factors predicted all three sub-criteria of cognitive competence, even after controlling for age. In particular, social support was found to be the most consistent psychosocial predictor of competence. In explaining this finding, the authors commented that perhaps social support enhances competence by providing a forum to obtain information, receive emotional support, and practice decision making. Regarding cognitive competence, neither adolescent group differed from the adult comparison group. Of those adolescents who did not consider abortion, adolescents age 16-17 did not differ in legal competence (cognitive
competence) from those in the criterion group who considered abortion; however, younger adolescents (<15 years-old) who did not consider abortion were clearly less competent than the adult group. The authors concluded that their findings challenged the presumption that minors are not competent, but they cautioned that general conclusions about adolescent development and social policy should not be made due to the fact that a baseline assessment of cognitive development was absent, the study was conducted in a single setting, there was a small sample size, and a lack of random assignment to treatment groups.

Peterson-Badali, Abramovitch, and Duda (1997) investigated age-related changes in young children’s and adolescents’ reasoning about legal issues. They interviewed 67 participants, ranging in age from 7-12, from two different settings. One group consisted of children who had been or were currently involved in a clinic program designed as an intervention for children who had had contact with the police but were “too young to be charged with criminal offense.” The other group was from an upper-middle class laboratory school. The authors found that, while most children possessed some legal knowledge, many were lacking specific information about the workings of the legal system. Specifically, many participants misunderstood important aspects of the lawyer’s advocacy function (e.g., they believed the lawyer could reveal what the client says to the judge, police, and parents), almost none understood what the plea of not guilty meant, and they rarely referred to the principles of jurisprudence. In addition, the younger students showed poorer knowledge than adolescent students. The authors also pointed out that this finding underlines the notion that children’s descriptions of social relationships and social institutions during middle childhood is still very concrete—
particularly when they are dealing with unfamiliar domains, such as the legal setting.

The majority of children's plea choices were found to be congruent with legal knowledge, suggesting that children may be able to use legally relevant information when it is presented in a salient manner. However, participants' ability to give legally relevant reasons for their plea choices was age-dependent; older adolescents were able to tie evidence to the likelihood of conviction, while most younger students mentioned the evidence without making this connection. Peterson-Badali et al. (1997) suggested that the failure of younger children to demonstrate an explicit legal understanding in their reasoning raises questions about their ability to participate in a traditional client-lawyer relationship in which the client instructs counsel on the basis of information and advice received, and to negotiate the cognitive demands necessary for meaningful participation in the youth justice process.

Grisso et al. (2003) compared adolescents' (aged 11-17) and adults' (aged 18-24) capacities as trial defendants. Participants (927 adolescents in juvenile detention and community settings, 466 young adults in jails and in the community) completed a standardized measure of abilities relevant for competence to stand trial (the MacArthur Competence Assessment Tool) along with a new measure developed for assessing psychosocial influences on legal decisions (MacArthur Judgment Evaluation; MacJEN). The MacJEN uses vignettes to pose three legal decisions common in the delinquency/criminal process and provides data regarding age-related choices and the psychosocial factors (i.e., risk appraisal, future orientation, resistance to peer influence) that might influence those choices. The finding that is most relevant to the current study is that adolescents tended to make choices (e.g., about plea agreements) that reflected
compliance with authority, and showed influences of psychosocial immaturity (e.g., less likely to recognize risks inherent in various choices they face or consider the long-term, and not merely immediate, consequences of their legal decisions). Furthermore, it was noted that these patterns of age differences did not generally vary with gender, ethnicity, or SES.

It is important to note that the increasing number of youth involved with court do not represent a cross section of minors. As decision making is examined in this context, it is important to take into consideration the characteristics of youth who are expected to interface with Juvenile Court (Grisso, 1997). Studies have consistently shown that youth who become involved with the Juvenile Justice system are more frequently male; have a range of academic, intellectual, and neuropsychological deficits; more commonly have mental, emotional, and attentional disorders; and are more frequently from minority racial or ethnic backgrounds (Cocozza, 1992). Composite studies (Concozza) suggest that, in urban areas, ethnic and cultural minorities compose at least one half of serious youth offenders. Consequently, current data on the developmental capacities of youth in general are not necessarily relevant for youth who enter the justice system (Grisso, 2000).

It is clear that conceptual and empirical work is needed to identify the range of developmental characteristics that are likely to influence the decision making of children and adolescents (Kazdin, 2000). Policymakers, practitioners and mental health professionals need to be familiar with the developmental changes that occur during childhood and adolescence. The capabilities and characteristics that are relevant to competence, culpability, and amenability vary across a variety of contexts. In every-day decisions as well as domain-specific legal or medico-legal contexts, major questions are
raised concerning the abilities of children and adolescents to consider options, weigh
consequences and make choices. Youth may be vulnerable to slipping through the cracks
of our legal system if we neglect to systematically investigate and develop a better
understanding of their decisional processes. Furthermore, legislators need this
information to make laws and statutes that are developmentally appropriate and
scientifically reasonable (Steinberg & Schwartz, 2000). Unfortunately, very little
research currently exists that attends to younger-aged children’s and adolescents’
decision-making capacities in psycho-legal contexts.

Method

Participants

Thirty-six students (17 female, 19 male) who attended urban schools in a large
city in Ohio during the 2003-2004 school year agreed to participate. Thirty-three
participants (91.6%) were African-American, two (5.5%) were Vietnamese-American,
and two (5.5%) were Caucasian. The participants ranged in age from 8- to 17-years-old
with a mean age of 12.01 (SD = 2.47), and grade level ranged from second to eleventh
with a mean grade level of 6.25 (SD = 2.62). All participants were enrolled in regular
(non-special education) classes. To assess developmental differences participants were
divided into 3 age groups: 8-10, 11-13, 14-17 years old. Table 1 presents demographic
information and test scores by age groups. Sex was fairly equal across groups: there
were a total of 6 females and 7 males, 6 females and 6 males, 5 females and 6 males per
age group, respectively. One-way analyses of variance (ANOVA) were computed to
examine any significant difference across the groups. There were no significant

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differences in age \((F = .35, p = .71)\) or cognitive ability \((F = 1.11, p = .34)\) across the three groups. In addition, chi square analyses did not indicate significant differences in race \((\chi^2 = .43, p = .81)\) or sex \((\chi^2 = .05, p = .97)\) distribution across age groups.

**Measures**

*Demographics and Background Information.* Participants were asked to answer questions regarding their age, sex, grade level in school, and other demographic information (i.e., parent/guardian with whom they were living, parent education level).

*Decision Making.* The Youth Decision Making Questionnaire (YDMQ) (Ford, Wentzel, Wood, Stevens, & Seisfeld, 1990) assessed participants’ tendency toward antisocial decision-making (i.e., the extent to which individuals make socially sanctioned choices) (see Appendix A, p. 99). The YDMQ presents participants with a set of hypothetical situations that involve choosing between antisocial and socially accepted courses of action. For each hypothetical situation, participants are asked to indicate, on a four-point scale ranging from definitely choosing the responsible action to definitely choosing the irresponsible action, how they would behave if they were confronted with such a dilemma.

The measure used in the present study was modified from Ford et al.’s (1990) original instrument in three ways. First, in order to satisfy time constraints and to provide the most clear-cut choices between antisocial and socially accepted behavior, only three of Ford’s original nine scenarios were used. These scenarios presented the most clear-cut choices between right and wrong, specifically: (1) smoking marijuana; (2) shoplifting; and (3) cheating on a test. Second, a new scenario was constructed: the “abandon house/construction site trespassing.” This was felt to be a situation children are more
likely to encounter than others in the original Ford instrument. Third, the scenarios were written or revised to capture experiences that would be encountered by both children and adolescents (e.g., smoking cigarettes vs. marijuana; shoplifting candy vs. clothing; copying someone else’s homework vs. borrowing a friend’s test questions in attempt to cheat on a test).

In order to protect participants from examiner influence (e.g., voice inflection), each scenario was presented via a pre-recorded audio-tape. After each scenario was heard, each participant was then presented with two possible choices. First, “Suppose nothing bad would happen to you (such as getting in trouble with the police) if you [made the antisocial choice]. Would you still choose [the socially responsible choice] or would you [engage in the antisocial behavior]?” The next question asked the participant to imagine that something bad would happen. In other words, each choice has a given “enforcement condition” (self-regulation vs. external regulation). Participants were asked to indicate, on a four-point scale, how they would behave if they were confronted in each of the two enforcement conditions for each of the scenarios presented. Non-committal responses were not permitted.

Lastly, for each of the four questionnaire scenarios, participants were asked to respond to two open-ended questions (one after each choice response; two follow-up questions per scenario) about the process by which they came to make the choices they did (e.g., “Why did you choose that?”). Participant responses were audio-taped and then later recorded verbatim by the examiners.

Outside of the above modifications, instrument scoring remained the same. Composite YDMQ scores were computed by adding responses across the four scenarios.
Scores ranged from a minimum of 8 points to a maximum of 32 points. Participants who scored from 8 to 15 points were considered as individuals who make less socially responsible choices while those scoring from 16 to 32 points were considered as individuals who make more socially responsible choices. These cut-off scores are similar to those used by M. Ford (personal communication, January 28, 2003).

*Understanding Future Consequences (Time Perspective).* The Consideration of Future Consequences Scale (CFC) (Strathman, Gleicher, Boninger, & Edwards, 1994) was used to measure participants’ ability to see short- and long-term consequences. The CFC consisted of 12 items on a Likert scale ranging from 1 (extremely uncharacteristic) to 5 (extremely characteristic). For each of the statements (e.g., “I often do things that don’t pay off right away but will help in the long run”), participants were asked to indicate how characteristic the statement is for them. According to Cauffman and Steinberg (2000b), the CFC is highly correlated with other measures of future orientation, such as the Stanford Time Perspective Inventory (Zimbardo, 1990). It should be noted that the original version of the CFC was designed for use with college students, and that Cauffman and Steinberg (2000b) simplified the scale for their study so that participants ranging in age from early adolescence to young adulthood could complete the scale. However, for the present study, the scale was further revised to simplify the wording of several items so that child participants (under the age of ten) would be able to complete the scale (see Appendix B, p. 103). For consistency, the revised simplified version was used for all participants, regardless of age.

CFC scores were converted to standard units. The resultant perspective score was scaled to range from 1 (low perspective) to 5 (high perspective); the total score ranges
from 12 to 60. Participants scoring between 29 and 60 were considered to have a good (socially responsible) understanding of future consequences while those scoring between 12 and 28 were noted as having a less-developed understanding of future consequences.

Cognitive Ability/Receptive Vocabulary. The Peabody Picture Vocabulary Test (PPVT-III) (Dunn & Dunn, 1997) was used to estimate participants’ cognitive ability. Sattler (1992) describes the PPVT as a nonverbal, multiple-choice test designed to evaluate the receptive knowledge of vocabulary of children and adults. It can be used with individuals from ages 2½ years through adulthood. The test is untimed and requires no reading ability; testing time typically took between 10 and 15 minutes. Raw scores were converted into standard scores, with a mean of 100 and a standard deviation of 15. The standard scores for the participants ranged from 71 to 123 with a mean of 92 for the sample.

According to Sattler (1992), numerous studies have correlated the PPVT-R with intelligence and achievement measures and, in turn, have established the concurrent validity of the PPVT-R as a measure of cognitive ability. The PPVT-R and PPVT-III have been used in research to estimate overall cognitive ability.

Self-Efficacy. In order to assess participants’ context specific self-efficacy, they were asked to respond whether or not they feel capable of making socially responsible decisions in the particular scenario presented. Specifically, each scenario contained one self-efficacy question, following the “enforcement condition” questions (see Appendix A, p. 99). Questions selected for inclusion in the present study were used or modeled after Bandura’s Children’s Self-Efficacy Scale (Self-Regulatory Efficacy subscale) as presented in Bandura’s Guide For Constructing Self-Efficacy Scales (Revised March,
Total scores were tallied across all four scenarios. A 7-point Likert scale format was used for each question; total scores ranged from 4 to 28, with 4 to 13 indicating low self-efficacy and 14 to 28 indicating high self-regulatory self-efficacy.

Procedure

Permission to conduct this study was granted by the school principal and educational program director of the participating schools. The study was approved by the Xavier University Institutional Review Board (IRB) (see Appendix D, p. 106). Participants involved in the study were selected at random by the contact person at each of the schools. Permission to participate was granted by each youth’s parent/guardian (see Appendix C, p. 103) and each youth also provided his/her assent (see Appendix C, p. 103). The participants received an optional snack (e.g., granola bar) for participation. Of the approximately 70 parents/guardians contacted, 49 consent forms were returned, and only 1 declined to participate. Of the 37 youth approached (due to availability when data were being collected and to age/gender stratification), no one declined to participate. One participant’s data were discarded because he failed to complete all measures (i.e., it appeared he overlooked one of the questionnaire pages).

The testing sessions were conducted in quiet rooms at each of the participating schools; these rooms had either been designated for staff only and/or were located away from other school activities. The sessions took approximately 30 to 40 minutes to complete. A brief interview was conducted at the beginning of the session to collect relevant demographic information and as follow-up to the YDMQ. The PPVT, CFC, and YDMQ were presented in counterbalanced order. Responses from the YDMQ were audiotaped and transcribed to complete each participant’s data set.
Results

The quantitative aspects of the protocols were scored by a research assistant and by the principal investigator. Inter-rater consistency was also examined by determining the agreement of scores. Using this method, there was a high level (98%) of agreement between examiners. Qualitative data were evaluated, and inter-rater reliability obtained, by the primary researcher, the research assistant, and the primary researcher’s dissertation chair/advisor. Specifically, each evaluator read the responses for each participant separately, identified relevant themes, and then met collectively to review common themes and agree upon dominant theme categories. Participant responses were read a second time by the examiners in order to categorize the responses into the identified theme categories. Any differences among themes interpreted by the examiners were discussed until a consensus was reached. There was a high degree of agreement among all three examiners in this case as well.

In order to examine the differences across age groups (8-10, 11-13, 14-17 year-olds) in the understanding of future consequences, a one-way analysis of variance was conducted across age groups, with the total score of the Consideration of Future Consequences (CFC) scale serving as the dependent measure. No significant differences were found. Review of the data revealed that all but two participants reported high CFC scores (scores falling in the 29-60 range; indicating they give consideration to future consequences when making given choices), resulting in a lack of score variation.

In order to examine if there was a statistically significant positive correlation between cognitive/language ability (measured by the PPVT) and consideration of future
consequences (measured by the CFC), a Pearson product-moment correlation coefficient was computed. The correlation was not significant ($r = -.25, p = .15$).

Pearson product-moment correlations were computed to examine the relationships among age, cognitive/language ability, self-efficacy, and decision-making. Results suggested there was a significant negative relationship between age and self-efficacy ($r = -.46, p = .005$), and age and decision making ($r = -.78, p = .001$). However, the correlations between age and cognitive/language ability ($r = .12, p = .48$) and age and consideration of future consequences ($r = .08, p = .65$) were not significant. Although not hypothesized, a significant relationship was found between decision making and self-efficacy ($r = .60, p = .001$). There was no significant relationship found between consideration of future consequences and self-efficacy ($r = .19, p = .27$).

In order to examine whether significant relationships between sex and race, consideration of future consequences, cognitive/language ability, and decision making in situations relevant to legal concerns (measured by the Youth Decision Making Questionnaire scenario #3 total score) existed, Kendall’s Tau correlations were computed. Parent educational level was not included as a demographic variable (as it had been originally planned) because too many participants were uncertain about this information. There were significant correlations found between race and cognitive/language ability ($r = .38, p = .02$), and race and consideration of future consequences ($r = -.35, p = .04$). There were significant negative relationships found between age and decision making ($r = -.77, p = .001$), and grade and decision making ($r = -.82, p = .001$).
Although it was originally planned to examine whether or not better decision-makers would report socially responsible behavior choices under both self- and external-regulation conditions when presented with hypothetical situations, this analysis could not be computed via a t-test due to the lack of response variation among participants. More specifically, all but two participants were found to be “good” decision makers (scores falling in the 16-32 range indicate a socially responsible perspective) by total score. Furthermore, many participants did not seem to make a distinction between the self- and external-regulated conditions, as they tended to provide a similar or identical response to each of the conditions.

Additional results were found that were not originally hypothesized. In particular, an ANOVA was used to examine differences between groups. There was a significant difference between age groups regarding self-efficacy $F(2, 35) = 4.1, p = .03$, and decision making $F(2, 35) = 53.01, p = .001$. Post hoc analyses were conducted using Tukey’s HSD test in order to determine specific differences between age groups. Results indicated that there was a significant difference between the 8 to 10-year-old group and the 14 to 17-year-old group on both self-efficacy ($p = .02$) and decision making ($p = .001$), and between the 11 to 13 year-old and 14 to 17-year-old groups on decision making ($p = .001$); the 8- to 10-year-old and 11- to 13-year-old groups did not differ from one another.

Qualitative data were reviewed to identify common themes in participants’ reasoning of their decisions on the four scenarios (S1 = trespassing, S2 = illegal drug use, S3 = shoplifting, S4 = cheating on schoolwork) presented on the YDMQ. As a way of describing the responses, responses were categorized into nine themes: health/safety,
fear of authority, peer influence, general/vague consequence, no consequence, future consequence, ethical/moral rule, respect for others, and unclear response. Percentages were calculated and examined by scenario and across all four scenarios (overall). These data are presented in Table 2. In addition, some comparisons were made across age groups regarding given themes (i.e., tendency to attribute decision to ethical/moral reasoning).

Regarding the likelihood of making decisions based on an ethical/moral rule, notable age differences emerged. Specifically, the 8-10 year-old group showed a higher percentage (55.2%) of reasoning based on reference to an ethical/moral rule or standard in comparison to the 11-13 year olds (17.3%) and 14-17 year olds (27.6%). Regarding the theme that was most reported (across all age groups and scenarios), fear of authority was reported most frequently (36.8%) overall four scenarios, and for scenario #3 (56.2%) (legal concern; shoplifting).

Discussion

The present study explored developmental differences and relationships across three age groups, as well as cognitive and psychosocial factors (future orientation, self-efficacy, external influences) as they relate to decision making. Participants were chosen to reflect a sample of youth who represent the greatest risk for involvement in Juvenile Court (see Concozza, 1992), therefore most of the participants in the current study were from minority backgrounds and all attended urban public schools.

Results showed that the youngest age group (ages 8-10) made significantly more socially responsible choices when compared to the oldest age group (ages 14-17); the
middle age group (ages 11-13) also showed significantly more socially responsible choices than the oldest age group (ages 14-17), although they did not significantly differ from the youngest age group. This suggests that there is a relationship between age and decision-making ability, with younger children (between the ages of 8-13) demonstrating a capacity to make good decisions when posed with given hypothetical situations. When interpreted with reference to qualitative features of the data, it appears that younger children may be more rigidly moralistic, rule-bound, or possess a “black-and-white” reasoning style that makes the decision making process less complicated in comparison to the older adolescents. This finding is consistent with previous research (Peterson-Badali & Abramovitch, 1992) that recognized children’s descriptions of social relationships and social institutions during middle childhood as still very concrete—particularly when they are dealing with unfamiliar domains. Qualitatively, the older adolescents more commonly acknowledged a myriad of influences (e.g., peers influence) that may be more salient or otherwise complicate/interfere with making their choices.

In addition, the youngest age group (ages 8-10) obtained significantly higher self-efficacy scores in comparison to the oldest age group (ages 14-17). This suggests that younger children demonstrated a higher confidence in their choices in comparison to the adolescents. As previously described, this likely reflects that the older age group may have considered a number of different potential influences or outcomes that made them less sure that they would make the “right” choice in a “real life” situation.

Another explanation for the age differences found in decision making quality may be that younger-aged children typically spend more time under the supervision of an adult(s) in comparison to adolescents. It is possible that the younger children in the
current study described more socially responsible choices because their frame of reference was more immediately limited to social support from adults than adolescents who likely reference both adults and peers. Younger children may be more likely to imitate what is told to them by an adult versus reason through their decisions given their tendency for a more concrete thought process.

It should be noted that significant correlations were found between race and cognitive/language ability, and race and consideration of future consequences. These scores indicate that, for the current sample, higher cognitive/language scores and lower CFC scores were found among the Vietnamese and Caucasian participants in comparison to the African-American participants. However, these findings should be interpreted with caution given the small sample size and disproportionate representation of race among participants. Furthermore, all participants in the current study reported “good” CFC scores (scoring 29 or higher), so the negative relationship between race and CFC scores does not necessarily indicate significant categorization changes explained by race.

Another notable finding was that, overall, participants consistently reported “fear of authority” (e.g., fear of police, teacher, parent consequence) as a reason for their choices on the YDMQ scenarios. This finding, although exploratory, is consistent with recent research (Grisso et al., 2003) which found that adolescents tended to make choices (e.g., about plea agreements) that reflected compliance with authority. This finding may suggest that youths’ choices may be frequently tied to a desire to comply with authority. While seemingly common sense, Grisso et al. (2003) pointed out some potentially negative consequences of this influence in the legal setting. Specifically, the authors suggested that if a young person is more likely to talk to the police than are adults
because of different attitudes toward adult authority figures, they may be more vulnerable
to police coercion. In other words, children may be susceptible to giving up certain rights
(e.g., to remain silent) or may not fully understand the circumstances upon which they
can make decisions because of naïve perspectives of authority or other external
influences they may not fully comprehend.

Study Limitations

Three limits of the study must be kept in mind when interpreting the results. They
pertain to measurement, sampling, and the application of the data. Concerning
measurement, no set of standardized observations regarding children and adolescents’
abilities to make decisions can identify all of the abilities relevant for explaining the
decisional processes of youth. The measures utilized in the present study investigating
youths’ decisional processes (e.g., YDMQ, CFC), although modeled from measures used
in previous research (Ford et al., 1990), were tailored for purposes of the current study
(investigating younger age groups) not captured in previous instrument use. Despite pilot
testing of these measures, it is possible that the rewording of the scales used in the current
study may have led to misunderstanding or confusion on some of the items, particularly
for the younger-aged participants. Furthermore, the scoring system devised for obtaining
total scores and categorizing decision making quality and consideration of future
consequences on the YDMQ and CFC may not have adequately captured some of the
important nuances or details in the participants’ responses, rather they may have been too
broad sweeping in nature (e.g., two scoring categories; “good” versus “bad” decision
makers or consideration of future consequences). In sum, these issues may explain why
there was a lack of score variation on both the YDMQ and CFC.
In addition, the manner in which the decision scenarios were presented (hypothetical versus in vivo) on the YDMQ may have impacted the decisional processes reported as well, given that real-world situations often include a variety of influencing factors not present with the methodology used in the current study. In other words, even though the participants in the current study were seemingly “good” decision makers overall, it is possible that different results may have occurred in a real world circumstance. Furthermore, despite the examiner’s attempt to create an unbiased presentation of the scenarios (e.g., audiotape recorded vignettes were presented to participants to prevent voice inflection bias), it is possible that some participants may have still provided responses that they felt the examiner preferred to hear versus how they might really choose to respond. It is also possible that participants may have been indirectly influenced by the study taking place at school, a setting where there are a set of rules and consequences for making wrong choices.

According to Scott et al. (1995), demographic and cultural characteristics may differentiate adolescent decision making depending on the context. It is also likely that the same holds true for the youth represented in this study. Previous theoretical perspectives and research (Weithorn & Campbell, 1982; Gardner, Sherer, & Tester, 1989) have also warned that methods involving hypothetical scenarios may not accurately reflect real-world decision making situations, or may be situation specific. Likewise, current perspectives pose that competence obtained from one decision may not generalize to other decisions in other contexts, and that understanding development and related choices may require a more detailed analysis of the composite information and processing skills required by a specific decision (Gardner et al., 1989).
Similarly, the type of situations selected for each of the four scenarios may not have been salient to all participants. Some of the participants may have experienced negative consequences from a similar situation in the past or have had a close friend or family member who had, giving them more insight. The examiners did not assess this component or obtain any detail about participants’ past criminal or mental health history, or current social support system. Previous research (Ambuel & Rappaport, 1992) suggested that social support can be an important influencing psychosocial factor in youths’ understanding and knowledge about a given situation, and what might be a better decision. The authors commented that perhaps social support enhances competence by providing a forum to obtain information, receive emotional support, and practice decision making.

Several aspects of the study’s sample potentially affect the generalizability of the findings. In particular, the small sample size suggests that the findings of this study should be interpreted with caution. Despite the examiners attempt to assess a population similar to that described as at risk for involvement in Juvenile Court, the current study used a sample of participants from public schools, not juvenile settings. Furthermore, limited background information was available to determine other potential influences regarding their participation (e.g., mental health history, family history).

The results of the present study suggest that several variables should be considered when examining youth’s decision making process from a developmental perspective. In particular, age differences in decision making quality seem to exist among younger age groups. Although this study had several limitations and is difficult to compare with past studies on decision making, future research needs to consider
psychosocial factors as important criteria in understanding the process by which youth make decisions in psycho-legal scenarios and contexts. Grisso et al. (2003) commented that deficiencies in future orientation and risk perception as well as immature attitudes toward authority figures, may undermine competent decision making in ways standard assessments do not capture. The measures used in the current study (e.g., YDMQ and CFC) may need to be further developed in order to better assess younger-aged children and/or youth who are at risk for involvement in Juvenile Court. Furthermore, ecologically-valid measures and scoring systems are needed to more accurately capture important details in youths' decisional processes. Future research would also benefit from incorporating a broader sample in number, SES, educational, and demographic background.

Implications

This study explored children and adolescents decision making processes to make socially responsible decisions in psycho-legal contexts. Although the findings of the current study are limited in their generalizability, there is suggestion that developmental differences exist when looking at younger-aged children in comparison to adolescents in this area. Policymakers and practitioners should also be aware that psychosocial factors likely impact the decisional processes of youth in different ways, and that the reasons or salient influences for one's decisions may be telling as to the manner in which a decision is made as well as the outcome.

Persons who deal with youth charged with crimes (e.g., attorneys), should be alert to the impact of psychosocial factors on youths' attitudes and decisions, even when their understanding and reasoning appear to be adequate (Grisso et al., 2003). In order to
advocate for youth, we need to become more sensitive to the developmental differences that exist and the different influencing factors that may affect their decisional processes.
References


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Table 1

*Means and Standard Deviations for Demographic Information and Test Scores by Age Group*

<table>
<thead>
<tr>
<th></th>
<th>8-10 years (N=13)</th>
<th>11-13 years (N=12)</th>
<th>14-17 years (N=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>9.45 .86</td>
<td>11.96 .76</td>
<td>15.08 .97</td>
</tr>
<tr>
<td>Grade</td>
<td>3.77 1.10</td>
<td>5.75 .62</td>
<td>9.73 .79</td>
</tr>
<tr>
<td>PPVT Standard Scores</td>
<td>90.62 13.70</td>
<td>89.67 16.71</td>
<td>97.09 10.80</td>
</tr>
<tr>
<td>CFC Total Score</td>
<td>38.65 5.28</td>
<td>41.50 8.54</td>
<td>39.18 6.03</td>
</tr>
<tr>
<td>YDMQ Total Score</td>
<td>29.77 3.00</td>
<td>29.08 3.99</td>
<td>17.45 2.42</td>
</tr>
</tbody>
</table>

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Table 2

**YDMQ Theme Percentages by Scenario (Scenario 1=S1, Scenario 2=S2, Scenario 3=S3, Scenario 4=S4) and Overall (Total S1-S4)**

<table>
<thead>
<tr>
<th>Theme</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health/Safety</td>
<td>30.13</td>
<td>45.68</td>
<td>1.37</td>
<td>0</td>
<td>20.07</td>
</tr>
<tr>
<td>2. Fear of Authority</td>
<td>13.70</td>
<td>35.80</td>
<td>56.16</td>
<td>41.67</td>
<td>36.79</td>
</tr>
<tr>
<td>3. Peer Influence</td>
<td>4.11</td>
<td>7.41</td>
<td>2.74</td>
<td>33.33</td>
<td>11.71</td>
</tr>
<tr>
<td>5. No Consequence</td>
<td>13.70</td>
<td>0</td>
<td>2.74</td>
<td>0</td>
<td>4.01</td>
</tr>
<tr>
<td>6. Future Consequence</td>
<td>0</td>
<td>1.23</td>
<td>1.37</td>
<td>0</td>
<td>.67</td>
</tr>
<tr>
<td>7. Ethical/Moral Rule</td>
<td>4.11</td>
<td>2.47</td>
<td>19.18</td>
<td>13.89</td>
<td>9.70</td>
</tr>
<tr>
<td>8. Respect for Others</td>
<td>5.48</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.34</td>
</tr>
<tr>
<td>9. Unclear Response (?)</td>
<td>5.48</td>
<td>0</td>
<td>1.37</td>
<td>4.17</td>
<td>2.68</td>
</tr>
</tbody>
</table>

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Appendix A

Youth Decision Making Questionnaire (Revised)

1. You and your friends are out playing and find a house that is being built with dirt piles around the property. It looks like a fun place to ride bikes or play, but there are also signs on the property that say “Keep Off” and “No Trespassing.” At the same time, there are no adults around or anyone to notice you are there. Would you go and play on the property or in the house under construction or find another place to play that you know would be allowed?

A. Suppose NOTHING bad will happen to you (such as getting in trouble or hurt) if you play on the property/construction area. Would you go play in the construction area or would you find another place to play that you know would be allowed?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely go on property</td>
<td>Probably go on property</td>
<td>Probably find another place to play</td>
<td>Definitely find another place to play</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you if you did play on the construction site or in the house. Would you go play there anyway or would you find another place to play that would be allowed?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely go on property</td>
<td>Probably go on property</td>
<td>Probably find another place to play</td>
<td>Definitely find another place to play</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you follow laws when no one is watching?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. You go to your friend's house to play/hang-out one day when his or her parents are not home. While you are there your friend asks you if you want to try smoking a cigarette. All your friends want to try it, but you know your parents have told you they don't want you to smoke. Would you choose to smoke the cigarette or tell your friend you did not want to?

A. Suppose NOTHING bad will happen to you (such as getting caught by your parents) if you smoke the cigarette with your friends. Would you choose to smoke the cigarette or refuse?

1 2 3 4

| Certainly smoke | Probably smoke | Probably refuse to smoke | Definitely refuse to smoke |

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with your parents) if you smoke the cigarette with your friends. Would you choose to smoke the cigarette or refuse?

1 2 3 4

| Definitely smoke | Probably smoke | Probably refuse to smoke | Definitely refuse to smoke |

D. Why did you choose that?

E. How well can you resist peer pressure to smoke cigarettes?

1 2 3 4 5 6 7

| Not well at all | Not too well | Pretty well | Very well |
3. You are out shopping with some of your best friends and they decide to take some candy without paying for it. You don’t think it’s a good idea, but they say you should take something too. Would you take the candy or would you refuse to shoplift?

A. Suppose NOTHING bad will happen to you (such as getting caught by the police) if you took the candy without paying. Would you steal the candy or not?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely take the candy</td>
<td>Probably take the candy</td>
<td>Probably refuse to take the candy</td>
<td>Definitely refuse to take the candy</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with the police) if you stole the candy. Would take the candy or not?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely take the candy</td>
<td>Probably take the candy</td>
<td>Probably refuse to take the candy</td>
<td>Definitely refuse to take the candy</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you resist peer pressure to do things that are against the law?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. You and your friend have the same homework assignment. You have already completed your assignment before class and your friend did not do his or her homework and asks to copy yours. You realize that your friend has a really good reason for not finishing his or her homework, but you know it is against school rules to let others copy your homework. Would you choose to let your friend copy your homework or follow the school rules?

A. Suppose NOTHING bad will happen to you (such as getting caught by the teacher) if you let your friend copy your homework. Would you let your friend copy your homework or follow the school rule no to let others copy your homework?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely let friend copy</td>
<td>Probably let friend copy</td>
<td>Probably refuse</td>
<td>Definitely refuse to let friend copy</td>
</tr>
</tbody>
</table>

B. Why did you choose that?

C. Suppose something bad WOULD happen to you (such as getting into trouble with your teacher) if you let your friend copy your homework. Would you let your friend copy your homework or refuse (following the school rule)?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely let friend copy</td>
<td>Probably let friend copy</td>
<td>Probably refuse</td>
<td>Definitely refuse to let friend copy</td>
</tr>
</tbody>
</table>

D. Why did you choose that?

E. How well can you resist peer pressure to do things in school that can get you into trouble?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not well at all</td>
<td>Not too well</td>
<td>Pretty well</td>
<td>Very well</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix B

### Consideration of Future Consequences Scale (Revised)

Read each of these sentences. Then circle the number that tells how well each sentence describes you.

<table>
<thead>
<tr>
<th></th>
<th>Does not Describe Me at all</th>
<th>Does not Describe me very well</th>
<th>Uncertain</th>
<th>Describes me somewhat</th>
<th>Describes me very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix C

Parent Permission Form
Decision-Making Study

I am giving permission for my child, ____________________ to take part in a study conducted by the Xavier University, Dept. of Psychology. This study is about understanding age differences in youth’s ability to make socially responsible decisions.

The people doing the study are Kathleen J. Hart, Ph.D. of Xavier University, Nancy Henein, M.Ed., M.A, and Heather Bensman (research assistant). Dr. Hart can be reached at 745-3278 if I have any questions about the project.

If I agree, I will be giving permission for the study staff to ask my child if he or she wants to take part in an interview about socially responsible decision making, complete some tests to measure intellectual ability and the youth’s ability to consider future consequences, as well as respond to some brief questions about their demographic background (i.e., age, sex, grade, ethnicity). It will take about 1½ hours to do the interview and the tests. If my child does not want to be interviewed, then he/she will not have to do it.

If I agree and my child agrees to be interviewed, none of my child’s answers or scores will be given to me or my child’s teachers, principal, or anyone outside the bounds of this project. The answers are kept confidential, meaning that they are stored without my child’s name on them. To help record my child’s answers, some interviews may be tape recorded. If this is done, the child’s name will not be on the recording, only the study ID number. When the researchers use the information the children give, they look at the answers of groups of children. Only general results of the study will appear in professional journals or at professional meetings; nothing that might be presented will be only about my child.

Interviews will be done during free time. My child will not miss school or other required activities because of this interview.

I or my child can stop the interview at any time without anything bad happening (i.e., no academic penalty).

I understand if I and my child agree to be in the study, we will not get anything special by doing it, but we will help the researchers learn more about children in these situations.

Signed:

_________________________  __________________________
Signature                  name printed

_________________________  __________________________
Witness signature          date

This is the form we read to you by phone the other day. Please keep this form for your records. There is no need to return anything to us. If you have any questions, you can reach us at the number above.

THANK YOU FOR YOUR HELP

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Child Permission Form
Decision-Making Study

I agree to take part in a study conducted through the Xavier University, Department of Psychology. This study is about understanding age differences in youth's ability to make socially responsible decisions.

The people doing the study are Kathleen J. Hart, Ph.D., of Xavier University, Nancy Henein, M.Ed., M.A., and Heather Bensman (research assistant). Dr. Hart can be reached at 745-3278 if I have any questions about the project.

I understand that if I sign below, I am agreeing to be interviewed and take a few tests. It will take about 1 1/2 hours to do all of this. If I do not want to be interviewed, then I do not have to do it.

None of my answers or scores from the tests will be given to me or my teachers or principal. The answers are kept confidential, meaning that they are stored without my name on them. To help record my answers, some interviews may be tape recorded. If this is done, my name will not be on the recording, only a number. When the researchers use the information that I give, they look at the answers of groups of children. Only general results of the study will appear in professional journals or at professional meetings; nothing that might be presented will be only about me.

Interviews will be done during free time. I will not have to miss school or other required activities because of this interview.

I understand that doing this interview is voluntary. That means that I don't have to do it, and I can stop it at any time. If I say no or stop the interview, nothing bad will happen (i.e., I will not be in trouble with the school or with my teachers).

I understand if I agree to be in the study, I will not get anything special by doing it, but I will be helping the researchers learn more about how kids think about problems.

Signed:

______________________________  ________________________
Signature                     name printed

______________________________  ________________________
Witness signature              date

THANK YOU FOR YOUR HELP!
July 28, 2003

Nancy Henein, M.Ed., M.A.
710 Castlegate Ln. #103
Cincinnati, OH 45231

Dear Ms. Henein:

Your response to the IRB’s June 24 letter regarding your Protocol #0249-4, Psych-Legal Decision Making Among Children and Adolescents: A Developmental Perspective, was received on July 23. You adequately addressed the items needing clarification and revision. You will attempt to obtain written parental consent but wish to conduct the study even if obtaining such consent is not possible. If you are unable to recruit enough participants due to the inability to obtain parental consent as outlined in your protocol, XU’s IRB agrees to waive the parental consent requirement since your research meets the required criteria for waiver.

Your research is approved in the Full Review category. A Final/Status Report is due upon completion of your study or one year from this date. A form is enclosed for your convenience. The form is also available at www.xu.edu/IRB/IRBforms.htm.

If there are any adverse events or modifications to the research, please notify the IRB immediately.

We wish you every success with your research.

Sincerely,

Robert C. Baumiller, S.J.
IRB Chair and Administrator

Encl: Final/Status Report

cc: Dr. Kathleen Hart, ML 6511