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The Development of Children's Understanding of Incarceration

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College of William & Mary - Arts & Sciences

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The Development of Children's Understanding of Incarceration

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A Thesis presented to the Graduate Faculty
of the College of William and Mary in Candidacy for the Degree of
Master of Arts

Department of Psychology

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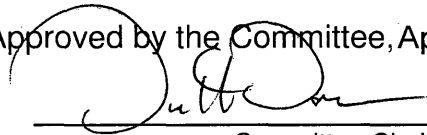
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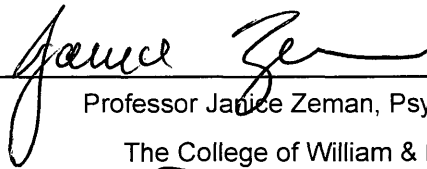


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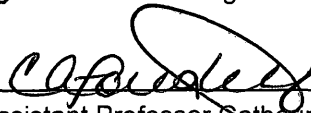
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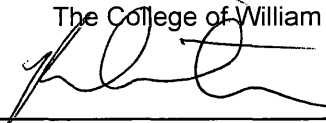
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ABSTRACT PAGE

Although incarceration is a far-reaching social phenomenon, little is known about what children understand about incarceration. The current study assessed 106 children's ($M = 11.54$ years; 43.40% male; 78.30% Black) understanding of jail and arrest using a structured interview protocol. Children's exposure to the criminal justice system through parental arrest and incarceration was reported by their parent/guardian. Results show that age and gender interactively predict the accuracy of children's responses, as well as age and exposure to the criminal justice system for the accuracy of girls' responses. Older girls, as well as girls who had been exposed to the criminal justice system were significantly more accurate in their responses than younger girls and those who had not been exposed to the criminal justice system. In addition, older children who had exposure to the criminal justice system made significantly fewer dispositional attributions about offenders than younger children with exposure, whereas children who did not have exposure to the criminal justice system exhibited the opposite pattern. These findings demonstrate that children's understanding of incarceration cannot be predicted independently by their age, gender, or life experience, but point to the importance of considering their joint effects. Future research and implications of the findings are discussed.

COMPLIANCE PAGE

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The Development of Children's Understanding of Incarceration

Incarceration is a far-reaching phenomenon in the United States, but research has yet to examine what individuals understand about incarceration. By the end of 2010, one in every 33 adults was under the supervision of adult correctional authorities (Glaze, 2011). The majority of state (55%) and federal (63%) prisoners report having a child under the age of 18 (Mumola, 2000), resulting in over two million children being affected by parental incarceration in this country alone (Glaze & Marushak, 2008). The lack of research on what is understood about incarceration leaves a noticeable gap in the literature. Many questions are left unanswered, with some particularly pertinent to the children of incarcerated parents, such as do children think people are safe in jail? What do children believe are the reasons someone goes to jail? The answers to these questions, and many others, may have important implications for both understanding how children's knowledge in this area develops, and if their understanding of incarceration influences their own behaviors or beliefs about offenders and correctional facilities.

The current review of the literature will present potential frameworks for examining the development of children's understanding of incarceration. At this point, there is only one locatable study that asks children about their knowledge of incarceration. The authors of this qualitative study (Council of Crime and Justice, 2006) conducted interviews with children whose fathers were currently in prison. The 34 participants, ages 7 through 18 years, were asked the open-ended question, "When you hear the word prison, what do you think of?" A consistently emerging quality in their responses was the lack of accurate and balanced information. Although some children drew from their real-life observations, most were left to rely on their imaginations, stories

from their fathers, or images from the media. This array of information led them to markedly different conclusions about the nature of prison and prisoners. Some children believed prison was a scary, unsafe place, whereas others saw it as somewhere to bide time until release. In even greater contrast, other children had more positive views of prison, which appeared to stem from their fathers' stories intended to quell their children's worries. Rather than describing their fathers as living in a cave, as a child who relied on his imagination did, these children talked about positive experiences in prison, such as having a gym to play basketball and watching cable TV. Each child's understanding of prison in this study was strikingly different from one another, and prompts the question of what factors are promoting the development of differential understanding. Even though this sample was homogenous in the sense that all of the children had a currently incarcerated father, these children most likely had different experiences in regards to how many separations they had experienced from their father, whether they had ever visited a prison, whether they witnessed their father's arrest, etc. In addition, factors such as age, language abilities, and sources of information about prison might have influenced their understanding. Although none of these questions is systematically answered in this study, the results do highlight some of the existing qualitative differences in children's knowledge of prison and thereby encourage future investigation in this area.

The goal of the current study is to examine children's understanding of jail, which has not yet been examined in the literature. Throughout this investigation, we attempt to uncover the potential influences on children's understanding of jail, as assessed during a one-time interview. In developing our framework for investigation, we first looked at

what the children of incarcerated parents commonly ask during this separation, as jail or prison may be more salient in their experiences. Research suggests that during parental incarceration, children often have four primary questions: 1) Where are you? 2) Why are you there? 3) When are you coming home? and 4) Are you ok? (Adalist-Estrin, 2003). Although not all children will ask these same questions, some may have them but not ask them aloud. These questions have underlying themes of concern about what caused the parent to go away, safety, what the place their parent has gone to is like, and how long the separation will last. As the study of children with fathers in prison demonstrates (Council of Crime and Justice, 2006), how these questions are answered can vary greatly. Although some children were provided with explanations or stories, others relied on sources such as the media for their information about incarceration. It is unclear as to what effect children's understanding of jail may have on their adjustment or behavior, or what factors influence the pace and trajectory at which this understanding develops. The current study seeks to explore potential influences on the development of children's understanding of jail, including age, cognitive and language abilities, and life experience. The lack of previous research on children's understanding of jail has led to the exploration of alternative models of children's conceptual development and understanding, using topics such as mental disorders and disease. Despite the differences in subject, it is expected that many similar factors and patterns of development will emerge between these alternative areas and children's understanding of jail.

Age-Related Trends

Independent of life-experience, research has indicated that developmental trends emerge in children's knowledge and understanding within different domains. Studies of

individuals' knowledge of legal terminology have investigated developmental trends, consistently demonstrating that accuracy in defining legal terms increases with age (Maunsell, Smith, & Stevenson, 2000; Saywitz, Jaenicke, & Camparo, 1990). In contrast, gender, socioeconomic status, and previous involvement in the legal system did not contribute to increases in accuracy (Maunsell et al., 2000). Age has also been found to be a stronger correlate with accuracy than factors such as exposure to court related programs, and to contribute unique variance from general vocabulary abilities (Saywitz et al., 1990). These results indicate that chronological age should be considered separately from factors such as language abilities and life-experience, as it may account for unique variance in children's knowledge.

In addition to increased accuracy when defining legal terms, developmental trends emerged in the actual content of the participants' knowledge. A study of individuals ages 4 to 75 (Maunsell, Smith, & Stevenson, 2000) found that as early as four and five years of age, children had a basic understanding of the terms police, truth, and law. However, before the age of nine, children did not possess an understanding of key concepts such as what occurs during the trial process, the role of a witness, the lawyer, the defendant, or the jury, nor did they demonstrate even a basic understanding of giving evidence, the oath, or prosecution. Similarly, Saywitz and colleagues (1990) found that the majority of legal terms were not accurately defined prior to the age of 10. These findings may indicate the presence of a pivotal transition stage around the age of nine, after which children's knowledge broadens and accuracy increases within the domain of legal terminology and courtroom proceedings. It may be important to consider whether this

type of developmental threshold exists within different knowledge domains, and if it varies based on other factors, such as life-experience.

Developmental shifts in the content of knowledge have been found to occur in multiple areas, including children's knowledge of mental illness. A study of children ages 5 through 11 years (Fox, Buchanan-Barrow, & Barrett, 2008) demonstrated that older children tended to provide more sophisticated and accurate responses than younger children in regards to the causes, timeline, consequences, and curability of mental illnesses. Children were placed into one of three age groups for analyses: 5 - 7, 7 - 9, and 10 - 11 years. Significant developmental trends emerged in regards to children's reasoning and the sophistication of their responses. Of note, older children were more likely to realize that ill health can be caused by both internal and external factors (i.e., she banged her head or she was born that way), and were more accurate in their knowledge and understanding of the curability and timeline of mental illnesses. The developmental shifts did not support a Piagetian interpretation, because the younger children were not vague, illogical or magical in their thinking. The younger children appeared to base their knowledge of mental illness on what they knew about physical illnesses. They may have derived their knowledge from their own experience with common illnesses, leading them to the conclusion that these illnesses are contagious, typically short lived in duration, and cured by a medical professional. They appeared to apply these concepts to the mental illnesses, providing shorter curability and recovery timelines, and referencing medical treatments for the mental illnesses. These findings prompt several important considerations for the current study. As older children were more likely to recognize both internal and external causes, it may be important to consider developmental changes

in attributions about causes of criminal activity. As children get older, they may consider internal, behavioral, and environmental factors in describing the causes for criminal activity. In addition, changes may occur in children's understanding of how long people stay in jail (timeline), as well as what happens when they get out (curability). As children get older, they may develop a more accurate understanding of how long people stay in jail, as well as the changes that may or may not occur following release.

Cognitive Abilities

Cognitive abilities may play a crucial role in the emergence of developmental trends. During childhood, numerous changes in cognitive abilities occur, including those during the 5-to-7-shift (i.e., Lagattuta, 2005). In particular, these abilities may influence children's understanding of why people go to jail as well as the attributions they make about law-breakers.

Between the ages of four and seven years, children's understanding of mental states, rules, and emotions, grows rapidly (Hoffman, 2000). As these developments occur, children become more competent at combining multiple perspectives, such as victim and victimizer. This phenomenon is similar to Piaget's (1952) assertions regarding decentration. Prior to the age of seven or eight, children primarily focus on one aspect of the situation, but older children are capable of taking multiple dimensions into account simultaneously. In a story-telling task involving rule abiders and transgressors (Lagattuta, 2005), 7-year-olds and adults attributed positive emotions to people who exhibited willpower in order to follow the rules and negative emotions to those who transgressed against the rules. As children become more adept at considering multiple dimensions of a situation, they become capable of experiencing empathetic distress, and

therefore begin to attribute negative emotions to characters that broke moral rules, such as stealing or lying (Hoffman, 2000). In conjunction with this ability, around the age of seven, there appears to be a dramatic increase in rule and future-oriented explanations. This occurrence further signifies the presence of an ability to consider multiple dimensions simultaneously, including the transgressors' desires, the reasons why the transgressors should not behave as they are, and potential future consequences. Children around the age of seven begin to understand how actions may satisfy a person's present self, but jeopardize his or her future self. This may be linked to a greater understanding of causality and the ability to consider if-then connections (Siegler & Alibali, 2005). In relation to the current study, these developments may be particularly important when investigating children's understanding of why people engage in law-breaking behavior. For example, children who are more adept at considering multiple perspectives in a situation may express greater negativity when characterizing offenders. However, this pattern may be different in children who have had experienced parental incarceration and may be more likely to consider factors such as environmental influences.

Also of relevance is children's ability to reason about the processes of causality, prevention, and treatment (Legare & Gelman, 2009). Of particular interest is how children reason about these processes in experiences that differ in commonality. For example, in a study of South African children's understanding of AIDS and Influenza (Legare & Gelman, 2009), with participants between the ages of 5 - 15, conceptual sophistication was found to increase with age in regards to knowledge of causality of the diseases, but not for their treatment or prevention. Conceptual sophistication of treatment, however, was higher than for causality or prevention overall. The authors

speculated that children might be more capable of reasoning about treatment because it engages their causal reasoning processes, whereas prevention does not produce a change in state and is essentially a non-effect. In addition, conceptual sophistication scores for treatment of the flu were significantly higher than for AIDS, but conceptual sophistication of causality for AIDS was significantly higher than for the flu after the age of seven. These differences could be the result of the focus of AIDS education. Since there is no known cure for AIDS and it is less commonly experienced than the flu, children may learn less about the treatment than the causes of AIDS through education. In contrast, many children have the flu at some point in their lives, so they may have more knowledge of this treatment from their own experiences. The processes of causality, prevention, and treatment are at work not only in disease, but also in criminal behavior. Unless children have direct experience through the incarceration of a family member, children may be more likely to know about what causes an individual to go to jail, rather than modes of preventing this type of behavior or what happens in jail. As with disease, it may be easier for a child to reason about what would cause a person to go to jail than how to prevent law-breaking behavior or how to help individuals who commit crimes.

Attribution. Attribution research in adults has consistently demonstrated actor-observer differences in attributions for behavior (Campbell & Sedikides, 1999), meaning the same behavior can elicit different attributions from an individual based on whether they personally engaged in the behavior or observed someone else do so. Biases are particularly prominent when processing positive versus negative behaviors as displayed

by self-versus others. Research suggests that this phenomena is not solely represented in adults, but may actually appear early in life.

Around the age of eight, an important developmental shift occurs in how children explain the behavior of others (Johnston & Lee, 2005; Rholes & Ruble, 1984). Before the age of eight, children do not appear to use dispositional causal factors to understand and explain the behavior of others (Rholes & Ruble, 1984). When describing others, children rarely use stable, personal (dispositional) constructs, but instead tend to provide more superficial descriptions, such as appearance or possessions. Although they may use labels such as “kind” or “smart,” these may simply be descriptions of behavior, rather than stable causal factors. Around the age of eight, children typically make developmental advances in skills related to their use of self-report, including demonstrating a more sophisticated understanding of emotions, a more differentiated view of self, and increased accuracy of self-perceptions (Chambers & Johnston, 2002; Harter, 1986; Stone & Lemanek, 1990). In addition, children over the age of eight tend to rely increasingly on internal or psychological attributes to explain behavior (Rholes & Ruble, 1984; Thompson, 1989), demonstrating a significant shift from explanations typically provided by children prior to the age of eight. In a study of boys ages 5 - 11 (Johnston & Lee, 2005), older boys were found to make more internal attributions than younger boys. In addition, boys overall made more internal attributions when describing the behavior of others than when describing their own behavior. These results suggest that a developmental trend may exist whereby older children will make more dispositional attributions about behavior, especially in regards to the behavior of others. This pattern of attributions is of particular interest when considering how children

describe criminal behavior, and may emerge in children's descriptions of offenders in the current study.

Language abilities. It is particularly important to consider the role of language abilities when conducting open-ended interviews. Since children are able to think at more advanced levels than they can typically express, assessing thinking, or their understanding, through language may lead to underestimations of children's cognitive competence (Lourenco & Machado, 1996). This consideration may be especially important in at-risk youth, whose verbal abilities may not be developing at the same rate as their same age peers. In achievement tests of verbal ability, Black students often score below white students (Vanneman, Hamilton, Baldwin Anderson, & Rahman, 2009). On tests such as the National Assessment of Education Progress, Black male fourth graders are the lowest of any of the tested subgroups in their reading scores (Lee, Grigg, & Donahue, 2007). However, studies of children's knowledge of legal terminology have found that while the ability to accurately define legal terms was correlated with raw scores on a vocabulary test, general vocabulary skills account for some, but not all, of the relation between age and knowledge of legal terms (Saywitz et al., 1990). As a result, other life factors, aside from language abilities, may be more important influences on children's understanding. Nonetheless, it is important to take language abilities into account during this type of investigation.

Life Experience

In addition to chronological age and cognitive abilities, life experiences may exert a unique influence on children's knowledge and understanding of incarceration. Having first-hand experience may enable children to develop a more sophisticated understanding

of abstract concepts, such as mental illness, divorce, or incarceration. The influence of life experience on knowledge and understanding may be particularly profound for younger children, who may have a more difficult time thinking hypothetically about things they have not experienced.

One area where the role of experience in the development of understanding has been investigated is mental disorders, specifically attention deficit hyperactivity disorder (ADHD; McMennay & Perrin, 2008). In a study of children ages 7 - 8 and 11 -12 both with and without ADHD, differences emerged in children's understanding of what caused ADHD symptoms as well as how they are treated. Of note, younger children without ADHD were more likely to describe intentionality, or that children with ADHD can control their symptoms. These children appeared to make clear distinctions between mental and physical phenomena, maintaining that people's actions are guided by their thoughts and desires. These views emerged in both their understanding of the causality of symptoms and their treatment. Children without ADHD tended to believe that children with ADHD could simply decide to stop their symptoms. In contrast, younger children with ADHD, as well as older children, described the causes of ADHD with biological and psychological explanations. In this case, the younger children who had direct experience with ADHD demonstrated an understanding of the disorder comparable with older children. Similar patterns emerged in regards to the role of medication in treating ADHD. Younger children without ADHD tended to provide unsophisticated responses about the action of medication, which were often circular in nature (i.e., "It works because they don't have ADHD anymore."). In contrast, younger children with

ADHD tended to provide more sophisticated responses, such as describing the effects of medication on the body.

Children were also asked to answer the same questions about having a cold.

Unlike when describing medication for ADHD, differences in describing the effects of medication on the body based on age did not emerge when describing cold medication. This may be because having a cold is a fairly universal experience and knowledge about cold medication may be more accessible at a younger age.

These findings highlight the need to consider both life experiences and developmental trends when examining children's knowledge and understanding of potentially abstract domains. This clear interaction between the two factors may be present in children's understanding of jail and incarceration as well. Children who have not had an incarcerated parent, visited a correctional facility, or witnessed an arrest or sentencing, may have a more difficult time thinking hypothetically about them and may therefore provide less accurate and sophisticated responses.

Investigations of other topics, however, have not found the same interaction between age and life experience. For example, previous experience with the legal system did not significantly influence accuracy in defining legal terms (Maunsell et al., 2000; Saywitz et al., 1990). Similarly, previous research has shown that children who have experienced their parents' divorce did not demonstrate a greater understanding of marriage, divorce, and remarriage than children whose parents had not been separated (Mazur, 1993). Similar findings have been found in other studies on children's concept of family (i.e., Borduin et al., 1990), adoption (i.e., Newman et al., 1989), and definitions of the word divorce (Newman et al., 1989). The lack of influence by life experience in

this area of knowledge may be because divorce is fairly common, so the majority of children are exposed to it in the families of friends, relatives, or classmates, even if not within their own family (Select Committee, 1987; Wallerstein, 1984). This finding may be of particular relevance to the current study due to the high-risk nature of the population. Just as the commonality of divorce may have washed out the effect of this life experience (Mazur, 1993), living in a poor urban community may make the current sample of children more likely to be exposed to parental incarceration in the families of friends, relatives, or classmates, even if not within their own family.

It is important to recognize, however, that having experience with parental incarceration does not guarantee that the child knows his or her parent is incarcerated or has ever visited a legal facility. Almost 57% of parents in State prisons and 44.1% of those in Federal prisons report having no personal visits with their children. In addition, over one-fifth of those parents in State prison reported having no contact with their children at all during their incarceration (Mumola, 2000). These factors may make the degree of exposure to the criminal justice system an important consideration in determining the influence of life experience on children's knowledge of incarceration, rather than just whether or not the child has experienced parental incarceration. It may be important to consider factors such as if the child witnessed the parent's arrest or sentencing, whether one or both of their parents have been incarcerated, and how many times during the child's life the parent has been incarcerated. It is possible that the degree to which children have been exposed to the criminal justice may be a distinguishable influence.

Sources of Information

An additional influence worth considering is where children get their information about jail and offenders. Of particular interest are media exposure, educational programs, and information provided by parents and peers. Media viewing may exert both positive and negative influences on children's understanding of jail and criminal behavior. For example, older children may be more likely to view court related programming more frequently (Saywitz et al., 1990), which has been correlated with the number of legal terms accurately defined. Other parts of the media, however, may be substantially different from real life occurrence, and may therefore lead children to develop inaccurate understandings of incarceration and offenders. For example, on television, violent crimes such as murder and assault are the most common, whereas most real-world crimes are nonviolent and related to property (Dominick, 1973). In addition, 88% of television crimes are solved compared with only 23% of real life crimes. These depictions, which could potentially influence children's understanding, may provide an inaccurate portrayal of how the justice system actually works, especially in regards to criminals, how crimes are solved, and incarceration. In addition, the media often portrays criminals as animalistic (Surrette, 1998), which may influence children's beliefs about offenders.

Despite the apparent discrepancies between media portrayals and real-life occurrence, by the age of about 10, children can typically discriminate fact from fiction on television on a level comparable to adults (Wright et al., 1995). In addition, there is a developmental shift at this time in the importance of factuality relative to social realism. In other words, children become more focused on whether information provided by the media can be a useful guide in the real world (social realism), rather than whether it is

true and represents real-life events (factuality). On the one hand, children become more adept at determining whether media portrayals are factual as they get older, a skill that is not influenced by the frequency of television viewing. In contrast, perceived social realism, which also increases with age, appears to be more dependent upon media exposure than developmental change. These findings suggest that when children become more immersed in television and engage in more frequent viewing, they may be more likely to accept television portrayals as socially realistic, although not necessarily factual. One demonstration of this has been shown with children's schemata about occupations. When children believed that television shows were factual and that portrayals of occupations were socially realistic, they tended to report "television-like" schemata about real-world jobs, a pattern that was particularly pronounced for fifth graders. These children adapted information from television shows and applied them to real-life situations, which could occur in the case of incarceration and offenders as well. If children are more likely to accept television portrayals as factual and socially realistic, they may be more likely to draw their information about real life constructs, such as jail, from the media.

Despite the prominent influence of the media, children may also learn about incarceration and criminal behavior from educational programs in school and from less formal conversations with others. Educational programs that solely focus on incarceration could not be located, but related programs such as D.A.R.E. (Pegueros, n.d.) address the issue of incarceration peripherally by teaching children about the legal risks of using drugs. Programs such as D.A.R.E. may be important for at-risk children, who may experience higher rates of parental incarceration, especially because many

children report not having someone to talk to about issues regarding parental incarceration (Kampfner, 1995). In addition, some caregivers do not inform educators about a parent's incarceration, and do not allow the children to speak about it (Hagen & Myers, 2003; Nesmithand & Ruhland, 2008). Anecdotal evidence suggests that children with incarcerated parents are sometimes provided with alternative explanations for their parent's absence, such as they are at school, away working, or in the military. These children may therefore be less able to hear informed accounts of what is happening to their parents, and may as a result be more subject to using their imagination and information they get from the media and their peers. Therefore, it may be important to consider where children are getting their information about incarceration and offenders when assessing the accuracy of their knowledge.

Current Study

The review of relevant literatures suggests that significant advances have been made in examining children's understanding of certain constructs, such as disease, but other areas are strikingly uninvestigated. One area that has not been directly addressed in the empirical literature is children's understanding of incarceration, specifically incarceration within jail. Jails are short-term facilities that typically house offenders with sentences of less than one year, or are being held pending trial, awaiting sentencing, or awaiting transfer following a conviction (Bureau of Justice Statistics, 2011). In contrast, prisons are long-term facilities that hold individuals who have sentences of longer than one year. Incarceration within jail is the focus of the current study because these facilities are locally operated, and may therefore be more familiar to children.

Age, cognitive changes, and life experience have all been shown to play important roles in the development of children's understanding of specific constructs, and may therefore be of particular relevance to the current investigation. Using a cross-sectional design, the development of at-risk children's understanding of incarceration will be examined, as they may have more direct experience with parental involvement in the criminal justice system. The effects of age and experience will be the focal points of the current investigation, as well as their potentially interactive effects. The current study will attempt to address the gap in the literature by providing insight into what influences the development of children's understanding of incarceration.

Hypotheses

In light of the previously reviewed literature, the following four hypotheses have been generated.

Hypothesis 1: As children get older, they will demonstrate higher levels of sophistication and accuracy, as well as make more dispositional attributions during their Understanding of Incarceration Interviews (UIIs). Studies examining developmental trends in children's understanding have found that older children provide more sophisticated and accurate responses. Research has also shown that older children tend to make more dispositional attributions about the behavior of others. Therefore, the same patterns are expected to emerge in the current study.

Hypothesis 2: a) Children who have had experience with the criminal justice system will demonstrate higher levels of sophistication and accuracy in their UIIs than children who have not had experience with the criminal justice system; b) Children who have had higher levels of exposure to the criminal justice system will

demonstrate higher levels of sophistication and accuracy in their UIIs than children who have had lower levels of exposure to the criminal justice system. Experience has been found to play a key role in the development of children's understanding of certain areas of knowledge. As a result, children with criminal justice experience are expected to provide more sophisticated and accurate responses, indicative of greater knowledge of the subject than children who do not have criminal justice experience. Additionally, it is possible that not only having experience with the criminal justice system is important, but also the degree to which the exposure has occurred (i.e., how many times the parent has been incarcerated, witnessing arrest). Therefore, within the group who has criminal justice experience, children with a greater degree of exposure are expected to provide more sophisticated and accurate responses than children who have had lower levels of exposure.

Hypothesis 3: Interactive effects of age and criminal justice experience are expected to occur in predicting sophistication, accuracy, and dispositional attributions. The effects of age and criminal justice experience are expected to affect sophistication, accuracy, and attribution scores interactively. Therefore, it is expected that sophistication, accuracy, and attributions will be best understood by the joint effects of these predictors. For example, children who have had experience with the criminal justice system may provide more sophisticated and accurate responses with age, whereas age-related changes may not occur in the group of children with no criminal justice experience.

Method

Participants

Recruitment. Participants were recruited based on their participation in a prior school-based study at two schools in a southeastern city (Time 1). The neighborhoods served by the schools are primarily comprised of low-income families, with as many as 35% of individuals in this area living below the poverty line (U.S. Census Bureau, 2007). In addition, these areas have some of the highest crime rates in the city. Many of the students live in the neighborhoods surrounding the schools, making it likely that they are a high-risk sample and have exposure to risk factors such as poverty and criminal activity.

At Time 1, 390 parents provided contact information (mailing address, telephone number, and email address) and permission to be contacted for the current study.

Children from the Time 1 sample ($n = 435$) were recruited from the second ($n = 113$), third ($n = 89$), fourth ($n = 126$), and fifth ($n = 77$) grades. The participating children were 42.1% male and 79.1% African-American. In addition, 46.44% of the children had a parent/guardian participate ($n = 202$). The majority of the parent/guardian participants were the children's mothers (87.1%).

In order to recruit participants for the current study (Time 2), a total of three mailings were sent over a 3-month period (July-September, 2011). The first mailing consisted of 370 letters. Of those letters, 66 (18%) were returned with no locatable forwarding address. The second mailing consisted of 285 letters with 23 letters (8%) returned. The third mailing consisted of 220 letters with 18 letters (8%) returned. In addition to mailings, phone calls were made to participants with working phone numbers,

and emails were sent to participants with working email addresses. A total of 167 emails were sent out. However, 37 emails (22%) were returned because email addresses were no longer working.

Interviews at Time 2 were scheduled by both phone and email. A total of 103 families (29.23% of the entire recruitment pool) were successfully put in contact with the researchers; all but six families (5.83% of those engaged in correspondence) participated. The participants therefore included 97 families, with a total of 106 children with usable data. Of the children recruited at Time 2, 94.44% had participated at Time 1. The caregivers of the children who did not participate in Time 1 had provided permission for the child to participate and contact information during Time 1 recruitment. However, these children could not be interviewed at Time 1 because they were unavailable during the initial data collection period. Of the Time 2 parent/guardian participants, 67.59% participated at Time 1.

Participants for the current study included a sample of 108 children. Of the child participants, two cases were considered to be unusable for data analysis. These two cases were removed because the child was reported to have Asperger Syndrome or Autism by their parent/guardian. As a result, a total of 106 interviews were considered usable for analyses. The participating children were 43.40% male ($n = 46$). Their ethnicities included 78.30% African-American ($n = 83$), 8.49% Caucasian ($n = 9$), 0.94% Hispanic ($n = 1$), and 12.26% other ethnicities ($n = 13$). Using the parent/guardian (referred to as caregiver from here on out for ease of communication) report of the child's date of birth and the date of the child interview, the child's age in months was calculated. Children

were on average 138.48 months old (approximately 11.54 years old; $SD = 14.25$; range = 107.10 – 170.00 months).

Each child participated with their caregiver. Because siblings participated ($n = 19$), there were only 97 caregiver participants. However, caregivers with more than one child completed a packet for each child so that each child has a unique corresponding set of caregiver data. Thus, data from 106 caregiver-child dyads was available to be used for analysis. All but one of the caregiver participants was female. Mothers comprised the majority of the sample (85.85%; $n = 91$). Other guardians consisted of grandmothers (10.38%; $n = 11$), aunts (1.89%; $n = 2$), one legal guardian (0.94%; $n = 1$), and one father (0.94%; $n = 1$). Additional demographic characteristics (i.e., educational attainment) are presented in Table 1.

Procedure

Interviewer training. Interviews were conducted by the first author and four undergraduate students. Undergraduate students were trained by the first author. Following meetings where the interview procedure was explained and practiced, interviewers observed a live interview conducted by a trained interviewer. They were then observed doing an interview and provided with feedback. Provided the interview was successful, the student was permitted to conduct interviews independently.

Interviews. Interviews for the current study were conducted primarily at five local libraries. When the interviews were scheduled, participants were asked what library was most conveniently located to them. Three interviews were conducted at participants' homes due to the sickness of a younger sibling ($n = 1$) or lack of transportation ($n = 2$).

In addition, two interviews were conducted over the phone because the family had moved out of state.

Participants were met at the front entrance of the library and escorted to a vacant table. The child was asked to sit beside the experimenter and the parent was given the option of sitting at a table within eyesight, but out of earshot. Two grandmothers insisted on sitting at the table with their child. One of the grandmothers fell asleep during the interview and the other worked on her packet. All other parents were comfortable sitting in alternate locations. Parents were given their questionnaire packet and a pen, and were retrieved following the completion of the interview with the child. At the end of the interview, all participants were compensated for their participation. Each child was given \$5 and a small toy. Each parent/guardian was given a \$20 Walmart gift card.

Measures

Parental experience with the criminal justice system. Caregivers were asked to report their family history of parental arrest and incarceration (Appendix A). Caregivers were asked if either of the child's parents had been incarcerated during the target child's lifetime. Children were assigned a one if either or both of their parents had been incarcerated during their lifetime and a zero if neither of them had. About one-third of children (32.4%) had experienced the incarceration of a parent. An additional 8% of children had parents who were arrested at least once during their lifetime. Parents also reported whether the target child had witnessed their parent's arrest or sentencing. Eleven children (10.2%) witnessed their parent's arrest, but only one child (0.9%) witnessed their parent's sentencing. Children with experience with either parental arrest

or incarceration were considered to have experience with the criminal justice system, a total of 45 children (42.5%).

Based on the information provided in this section, a variable was created to capture the amount of exposure to the criminal justice system to which the children had been exposed. Included in this variable were the answers to the questions of whether the child's mother had been arrested, if the child had witnessed his or her mother's arrest, if the child had witnessed his or her mother's sentencing, if the child's mother had ever been incarcerated during the child's life, how many times the mother had been incarcerated during the child's life, mom incarcerated, number of times, and the same variables pertaining to the child's father. For questions which could be answered with a yes/no response, responses of yes were scored as one point (e.g., whether the child's mother had been arrested, whether the child had witnessed his or her mother's arrest). The additional questions were answered with continuous responses, the value of which was added to the other question responses (e.g., how many times the mother had been incarcerated during the child's life). This variable was only computed for children in the criminal justice experience (CJE) group ($n = 44$, $M = 2.68$, $SD = 1.23$).

Understanding of incarceration interview. *The Understanding of Incarceration Interview* (UII) is a 14-question interview developed for this study (Folk & Dallaire, 2011). The interview primarily assessed children's understanding of jail and arrest (i.e., Why do people go to jail?) and where they get their information (i.e., Have you ever learned about jail in school?). Up to six additional questions could be asked depending on children's responses to the primary questions. For example, if a child responded yes to "Can moms and dads go to jail?" they would be asked, "If moms and dads go to jail,

can they see their kids?” Half of the questions were open-ended (i.e., What kind of people go to jail?) and half were based on response choices such as yes, no, or sometimes (i.e., Are people safe while they are in jail?). The children were allowed to elaborate on any question, including those with response choices. The interview also contained two questions pertaining to arrest. Children were asked “What happens when people get arrested?” followed by a query of their experience regarding witnessing arrests in real life. Administration of the UII took from 3 - 10 minutes, depending on the length of the children’s responses. The questions in the UII can be seen in Appendix B.

Transcriptions of the UIIs. The UIIs were recorded on a voice recorder with the children’s and parents’ permission. However, two of the interviews were completed by phone, so recordings could not be obtained. As a result, the interviewer wrote down everything the child said verbatim. Interviews that were audio recorded were subsequently transcribed verbatim (including filler phrases). Two undergraduate students unaware of study hypotheses and one graduate student completed transcriptions. In order to ensure reliability, transcribers overlapped on 15% of the initial cases, which yielded similar word counts and consistent content agreement (over 90% agreement). Discrepancies were resolved and corrected through discussion between the transcribers.

Coding scheme. The coding scheme was developed to capture children’s understanding of jail as an institution, as well as the individuals who are incarcerated. In particular, we sought to identify occasions when the child expressed dispositional attributions for the offenders’ behavior, acknowledged the potential role of external forces in offenders’ behavior, knowledge about how people are treated in jail and what changes occur, if any, following their release, as well as details about safety, arrest

procedures, jail protocol, etc. We focused on 67 categories of statements that we believed captured these elements (i.e., provide a life context reason for why someone goes to jail). Categories were pilot tested on 10 interviews using separate independent observations by seven members of our collaborating lab. We then discussed the difficulties with the coding, clarified meanings, and created a code book, describing the final set of 67 categories. The majority of the variables were dichotomous; children were given a score of one for the presence of a response in that category and zero for its absence.

The coding scheme consisted of codes for individual questions and for the overall interview. A unique set of categories was created for each question based on the content of the responses. For example, the question of “why do people go to jail” contained the categories: include a legal description, list examples of things people do, provide a life context reason, and describe an aspect of their character. In contrast, the question of what kinds of people go to jail contained the categories: bad people, list types of criminals, describe a quality/personality trait, describe adverse environmental circumstances, and anybody/I can go to jail. The categories were created to capture the question specific content. For the overall interview, codes were created to account for the children discussing violence (present/absent) or drugs (present/absent) anywhere in the interview. The full coding scheme is presented in Appendix C.

Prior to being coded, all transcription ID#s were scrambled by the first author, who was the only person aware of the scrambling pattern. Coders included six undergraduate students who were unaware of the children’s identity. All coders were trained by the first author. During the training phase, over 90% agreement was achieved

on 15% of the cases. All transcriptions were double coded. Any disagreements were discussed to achieve a final agreement code. In addition, another 20% of cases were coded by all six coders throughout the coding process. Over 90% agreement was achieved on all of these cases as well.

Aggregate variables. Aggregate variables were created for sophistication, accuracy, attributions, and information sources based on categories from the coding scheme. The variables were created by summing individual category codes.

Sophistication. A total of 11 different sophistication variables were created to determine how comprehensive children's responses were: eight for individual questions, one for the correct number of legal terms, and two for the overall interview. Individual sophistication variables are presented in Table 2, and descriptive statistics are presented in Table 3. As described in the coding scheme, each individual question had a unique set of response categories where children could receive a score of one if the category was present or zero if it was absent. To create the individual question sophistication variables, the category scores within that particular question were summed. The overall sophistication variable was equal to the sum of the eight individual sophistication variables (not including the correct number of legal terms). An average sophistication variable was also created by dividing the total sophistication score by the number of questions the child answered to capture the typical amount of inclusivity across the interview questions for each child.

A variable was also created to account for how many legal terms children used correctly throughout the interview. This variable was not included in the total sophistication score.

Accuracy. Ten questions from the UII were coded for accuracy (see Tables 3 and 5). Based on these questions, three variables were created to assess how accurate children were in answering the questions in the UII. Each statement children made was coded as accurate, inaccurate, or neither. Each accurate or inaccurate statement received a score of 1. Statements that were neither accurate nor inaccurate received a score of 0. The total number of accurate statements throughout the interview were counted to create a total accurate statements variable. The same was done for inaccurate statements. These variables were then divided by the number of questions the child answered. Children could answer up to 10 questions. Several of the children responded that they did not know the answer to a question, and therefore only answered nine questions (10.5%). As a result, it was necessary to create an average score. The final variables included an average of the total number of accuracy statements ($M = .77, SD = .29$), and an average of the total number of inaccuracy statements ($M = .15, SD = .12$).

Lastly, one difference score was created between the average accuracy and inaccuracy scores to examine children's overall accuracy. The difference score was computed by subtracting the total number of inaccurate statements average score from the total number of accurate statements average score ($M = .61, SD = .31$).

Attribution. Two variables were created to assess the types of attributions children made about offenders behavior: dispositional and external forces. Dispositional attributions consisted of describing offenders' behaviors as a result of something internal to the person (i.e., personality characteristic). External forces consisted of describing offenders' behaviors as due to external factors (i.e., adverse life circumstances).

Categories included in these variables are shown in Table 4 and descriptive statistics are presented in Table 3.

Information sources. Children were asked to report whether they had seen anything about jail in the media, learned about it in school, or had talked to anyone about it. Their responses to these questions were summed to create a range of possible scores from one to three.

Wechsler intelligence scale for children-fourth edition (WISC-IV, Wechsler, 2003). Children were asked to complete the vocabulary section of the WISC-IV (Appendix E). The vocabulary section contains four picture items and 31 verbal items; only the verbal items were administered due to the age of the children in the current sample. The U.S. standardization sample was 2,200 children between the ages of 6 and 16 years of age. The WISC-IV is a well-validated measurement of achievement, memory, adaptive behavior, emotional intelligence, and giftedness. Responses to vocabulary items receive two, one, or zero points, depending on response content and quality. Scoring was completed by both the first author, who achieved over 90% agreement on 30% of the cases with a licensed Clinical Psychologist. All scores were reviewed by the same licensed Clinical Psychologist to ensure their accuracy.

Results

UII descriptive statistics

The UIIs varied in regards to the length of time they took to complete and how much each child spoke. Interview length ranged from 3 - 10 minutes. To determine how much children spoke during their interview, a mean word count was calculated for each child by dividing the total number of words they spoke by the number of questions they

answered. Children answered between 16 and 21 questions ($M = 19.46$, $SD = 1.14$).

Children spoke an average of 13.40 words per question ($SD = 9.75$).

Almost all of the children reported viewing jail related media (96.2%), but only 57.1% reported learning about jail in school and 28.6% reported talking to someone about jail. No significant differences emerged in relation to age, gender, or experience with the criminal justice system. A large majority of the children used legal terms in their interview (91.3%). In addition, 64.8% mentioned violence in their interview and 32.4% mentioned drugs. Children who mentioned violence in their interview were less likely to believe that jail is a safe place, $X^2(2, N = 103) = 8.71$, $p = .013$. Of the children who mentioned violence in their interview ($n = 66$), 39 stated that jail is not safe, 10 said it is safe, and 17 said it is safe only sometimes. In addition, 98.1% of children believed that parents can go to jail, but 12.4% stated that these parents could not see their children during this time. In discussing whether children could go to jail, 38.1% of children mentioned “juvie” or a juvenile detention center. However, 4.2% of children believed that children did go to the same jail as adults, at least sometimes. Only 8.7% described an external factor that could influence offenders’ behavior, and this was significantly more common among female children, $X^2 = 3.93$, $p = .047$. Due to the small number of children whose responses fit into the category, the variable was skewed ($skew = 2.98$) and will therefore not be considered in further analyses.

Plan of analysis

Prior to conducting hypothesis testing, preliminary analyses were conducted to examine the potential main effects of gender and language abilities. These analyses were used to determine whether gender and/or language abilities should be treated as control

variables during hypothesis testing. A series of correlations and independent samples t-tests were then conducted to determine whether there are main effects of age in months or experience with the criminal justice system. Following these analyses, interaction effects between these two variables were examined using hierarchical linear regression analyses. When significant interactions were found, linear regressions were conducted to examine different patterns of relations between children who do and do not have experience with the criminal justice system.

Preliminary analyses

Gender differences. Preliminary analyses were conducted to examine potential main effects of gender and language abilities. Using independent samples t-tests, no significant differences were found in age in months, vocabulary scaled score, any of the sophistication variables, attribution variables, or exposure to violence, based on gender. In addition, gender ($X^2 = 0.34, p = .560$) and age in months ($t(104) = 0.84, p = .404, d = .09$) were equally distributed between the children who did and did not have experience with the criminal justice system. A marginally significant difference emerged for the accuracy difference score, in which girls tended to be more accurate than boys ($t(103) = -1.89, p = .061$). Based on these results, gender will only be examined during hypothesis testing when examining accuracy.

Language abilities. Based on correlational analyses, no significant differences were found in children's language abilities (vocabulary scaled score from the WISC-IV) based on gender or experience with the criminal justice system. However, children's vocabulary scaled scores were significantly correlated with both individual question and aggregate variables from the UII (see Table 3). Based on the significant pattern of

bivariate correlations, the vocabulary scaled score will be treated as a control variable during analyses involving correlated variables (e.g., accuracy). Vocabulary scaled score will not be controlled for during analyses where the bivariate correlation was not significant (e.g., dispositional attributions).

Hypothesis 1: As children get older, they will demonstrate higher levels of sophistication, and accuracy, as well as make more dispositional attributions during their UIIs.

To test the hypothesis that sophistication would increase with age, a series of partial correlations were conducted. Vocabulary scaled score was controlled for in these analyses because it was significantly correlated with the majority of the individual sophistication variables, as well as the aggregate sophistication variables (see Table 3). No significant correlations between age in months and any of the sophistication variables were found. Next, a series of partial correlations were conducted to test the hypothesis that accuracy increases with age. Controlling for the vocabulary scaled score, mean child word count, and gender, results show that age in months is positively correlated with the average number of accurate statements, $r(98) = .37, p < .001$, and the statements difference score, $r(98) = .33, p = .001$. No significant correlation was found between age in months and inaccurate statements alone. Lastly, a series of bivariate correlations were conducted to determine whether dispositional attribution statements increase with age. The vocabulary scaled score and mean child word count were not controlled for in this analysis because neither were significantly correlated with dispositional attributions. No significant correlations were found between age in months and dispositional attributions.

(see Table 3). In sum, a main effect of age was found for accuracy, but not sophistication or dispositional attributions.

Hypothesis 2: a) Children who have had experience with the criminal justice system will demonstrate higher levels of sophistication and accuracy in their UIIs; b) Children who have had higher levels of exposure to the criminal justice experience will demonstrate higher levels of sophistication and accuracy in their UIIs.

To test for a main effect of criminal justice experience, independent samples t-tests were conducted. No main effect of criminal justice experience was found for any of the sophistication or accuracy variables (see Table 6).

Second, the the main effect of how much exposure children had to the criminal justice system was tested for using partial correlations. It was hypothesized that children who had more contact with the criminal justice system (e.g., through witnessing their parent's arrest or sentencing, more episodes of parental incarceration) would demonstrate higher levels of sophistication and accuracy in their UIIs. Partial correlational analyses were conducted using only the children who had criminal justice experience (see Table 7). Only one significant correlation emerged between the degree of criminal justice experience and any of the sophistication or accuracy variables while controlling for vocabulary scaled score and mean child word count; children's level of exposure was negatively correlated with their description of violence in their interview ($r(94) = -.23, p = .025$).

Hypothesis 3: Interactive effects of age and criminal justice experience are expected to occur in predicting sophistication, accuracy, and dispositional attributions.

Due to the marginally significant gender differences in overall accuracy, the moderating impact of children's gender on their age in months was first examined. An interaction term was created using the continuous age in months and the binary child gender variables. After standardizing each variable, the product of the two variables was computed, resulting in the interaction term. Hierarchical regression analyses were conducted with the vocabulary scaled score and the mean child word count as control variables and the interaction term entered in the final step (Table 8). Results indicated that the interaction between children's age in months and their gender significantly predicted their overall level of accuracy, as measured by the statement difference score, $\eta^2 = .40$. Children's gender moderated the relationship between their age in months and their overall accuracy (see Figure 2). Specifically, girls demonstrated increases in overall accuracy with age, whereas boys did not. Post-hoc testing indicated that while age in months was a significant predictor of overall accuracy in girls ($\beta = .458, p < .001, \eta^2 = .50$), it was not the case for boys ($\eta^2 = .12$) (see Table 9).

Based on the significant gender differences, the moderating impact of criminal justice experience on children's age in months was examined separately by gender. An interaction term was created using the standardized age in months variable and the standardized criminal justice experience variable. Hierarchical regression analyses were conducted with the vocabulary scaled score and mean child word count as control variables and the interaction term entered in the final step separately for boys and girls (see Table 10). Results indicated that the interaction between children's age in months and their experience with the criminal justice system significantly predicted their overall level of accuracy in girls ($\eta^2 = .54$; Figure 3) but not in boys ($\eta^2 = .14$; Figure 4). Post-

hoc testing indicated that while age in months was a significant predictor of overall accuracy in girls who did and did not have criminal justice experience, the moderating impact of age was more influential in girls who did have criminal justice experience (see Table 11).

A third hierarchical regression analysis was conducted to determine whether the degree of criminal justice experience moderated the relationship between age and overall accuracy in children with criminal justice experience. An interaction term was created using the standardized age in months variable and the degree of criminal justice experience variable. Hierarchical regression analyses were conducted with the vocabulary scaled score and mean child word count in the first step as control variables and the interaction term in the final step (see Table 12). Results indicated that the interaction between age in months and the degree of criminal justice experience significantly predicted the overall level of accuracy, $\eta^2 = .41$. Children with higher levels of criminal justice experience increased in overall accuracy with age, but those with lower levels decreased in overall accuracy with age (Figure 5). This analysis was not conducted separately by gender because there were no gender differences in overall accuracy within this sub-set of children ($t(43) = -.86, p = .396, d = -.26$).

A fourth hierarchical regression analysis was conducted with the standardized age in months and criminal justice interaction variable entered in the final step (see Table 13). In this analysis, vocabulary scaled score and mean child word count were not included as control variables because neither were significantly correlated with the outcome variable: dispositional attributions. The results indicated that the interaction between children's age in months and their experience with the criminal justice system significantly

predicted how often children made dispositional attributions, $\eta^2 = .07$. Children's experience with the criminal justice system moderated the relationship between their age in months and their dispositional attributions (see Figure 6). Specifically, when children had experience with the criminal justice system, they made fewer dispositional attributions as they got older. Post-hoc testing indicated that in the group of children with experience with the criminal justice system, age in months was a significant predictor of dispositional attributions, $\beta = -.446, p = .002, \eta^2 = .20$, whereas age in months was not a significant predictor of dispositional attributions for children who did not have experience with the criminal justice system, $\beta = .109, p = .409, \eta^2 = .01$ (see Table 14).

Discussion

The current study is the first to examine variables that are associated with at-risk children's understanding of incarceration. The results of the study highlight the need to consider multiple factors that may shape children's understanding of incarceration, including gender, age, and life experience, as well as their interactive effects. Overall, the findings indicate that the joint effects of age, gender, and experience with the criminal justice system played important roles in predicting the accuracy of children's knowledge and the attributions they made about offenders. It appears that having experience with the criminal justice system through parental arrest or incarceration may moderate the relation between age and children's understanding of incarceration, as indicated by the accuracy of their statements and the attributions they make about offenders. Surprisingly, the sophistication of children's responses was not predicted by any of these factors, nor was age a relevant predictor of understanding in children without criminal justice experience.

In the following sections, the cognitive processes underlying age-related changes and the role of life experience as they relate to the central findings of the current study will be discussed. Hypothesized reasons underlying the lack of differences in the sophistication of children's responses and lack of age-related changes in children without experience with the criminal justice system will be explored. Lastly, the strengths and limitations of the current study will be discussed, as well as possible avenues for future research.

Developmental Findings

Consistent with previous research (Fox et al., 2009; Maunsell et al., 2000; Saywitz et al., 1990), results of the current study indicated that older children tend to provide more accurate responses than younger children with respect to the overall interview. However, we failed to find age differences in the sophistication of children's responses on any of the individual questions or the overall interview, as previous research has found in other domains of knowledge (Legare & Gelman, 2009). In addition, we did not find an increase in dispositional attributions about offenders with age. In sum, developmental status as marked by chronological age appears to be related to the accuracy of children's understanding of incarceration, but does not appear to be a primary influence on their knowledge, thereby making it necessary to consider other sources of influence.

Our failure to find an increase in sophistication of responses with age could be due to the way in which sophistication was conceptualized in this study. The coding system considered responses to be more sophisticated when they were more inclusive, rather than based on the type of reasoning children were articulating. For example, let us

consider the question of why people go to jail. If a child responded, "Because he was mean and broke the law," he would receive a sophistication score of two because he included two potential explanations in his response (i.e., an aspect of the offender's character and a legal description). In contrast, a child who responded "they broke the law," would receive a sophistication score of one. The former response would be considered more sophisticated because it was more inclusive, even though it does not necessarily reflect more sophisticated thinking. Rather than simply considering how inclusive each child's response was, it may have been more beneficial to probe the children's understanding by asking them why they provided certain responses in order to understand the thought processes operating to produce the response. This approach may have enabled us to more accurately assess the sophistication of children's responses.

Life Experience

Contrary to our second and third hypotheses, we found no main effects of experience with the criminal justice system or the amount of experience with the criminal justice system. This may be explained by the commonality of parental arrest and incarceration in the participant's communities. Although experiencing parental arrest or incarceration is a novel developmental experience in most neighborhoods, our sample demonstrated that these experiences are fairly common within this particular group of individuals. As a result, the children who did not have experience with parental incarceration may have had another relative incarcerated, such as an uncle, grandparent, or sibling, or may have been exposed to incarceration through others in their neighborhood and school. The explanation of shared common experience has been considered in other investigations of children's understanding, such as in the area of

divorce. Previous studies have shown that children who have experienced parental divorce do not possess greater understanding of marriage, divorce, or remarriage than children whose parents have not been separated (Mazur, 1993), which may be the result of the currently high rates of divorce. In another domain, children's experience with the legal system did not significantly influence their accuracy in defining legal terms (Maunsell et al., 2000; Saywitz et al., 1990). The current findings, as well as those from previous studies, indicate that life experience may not be exerting a uniform influence on all groups of children, making it important to consider its potential interactive effects with constructs such as age.

Interactive Effects

Although previous research has not found gender differences in children's accuracy of understanding (Maunsell et al., 2000), our preliminary analyses did indicate the presence of gender differences, thereby prompting us to investigate this factor further. The first interaction we found demonstrated that although girls tended to become more accurate overall with age, boys did not. When examined further, the girls who demonstrated the greatest increase in overall accuracy with age were those who had experience with the criminal justice system. However, this same pattern did not occur in boys. These findings highlight the importance of considering both age and life experience, similar to the Maunsell and colleagues' (2000) study on children's understanding of ADHD. In the current study, it is unclear why the overall accuracy of girls' but not boys' responses increased with age and criminal justice experience. It is especially interesting considering there were no gender differences in language abilities, which may have otherwise been a moderating factor. In addition, there were no gender

differences in whether or not children had spoken to someone about incarceration, or in the content of their conversations with others about incarceration. Girls were slightly more likely to report learning about jail in school, but no differences in overall accuracy were associated with this learning experience. What children learn about incarceration in school, however, may be an important determinant of the accuracy of their knowledge. We were unable to capture a comprehensive picture of the information children receive from various information sources, and these may be useful to explore as potential mediators of this gender difference in children's accuracy. An additional possibility is that boy's overall accuracy increases at a different age than girls when they have experience with the criminal justice system, and the narrow age range of the current cross-sectional sample did not capture this particular time-point. Additional research might consider using a wider age range to test this possibility.

Within the group of children who had at least one experience with the criminal justice system, the amount of experience they had with the criminal justice system does appear to be associated with their understanding of incarceration. Results indicated that when children had more experience with the criminal justice system, they tended to provide more accurate responses with age. In contrast, children who had less experience with the criminal justice system did not demonstrate the same increase in accuracy. These findings support our hypothesis and suggest that children who have more interactions with the criminal justice system do possess greater knowledge of incarceration. It appears that there may be a cumulative effect such that the more experience children have, the more accurate they become in providing information about incarceration. Similarity-based learning models assert that when events are repeated,

they become part of a script, whereas events that are not repeated operate as individual, independent variables (Schank & Abelson, 1977). This assertion suggests that when individuals have more experience with an event or similar events, such as parental arrest or incarceration, they begin to understand more about the event and form a script for how the event normally occurs. It would be useful to understand if certain types of exposure to incarceration might increase knowledge more than others, indicating the presence of a specificity effect. For example, if children have lived through multiple incarcerations of a parent or other relative, it might increase their knowledge of a certain aspect of incarceration, whereas witnessing a parent's arrest might influence other areas of knowledge. It would therefore be useful to determine whether different types of exposure exert different influences on children's understanding of incarceration.

Although dispositional attributions did not increase with age in the overall sample, as previous research has shown in other areas of knowledge (Johnston & Lee, 2005), an interaction between age and experience with the criminal justice system was found. Older children who had experience with the criminal justice system tended to make fewer dispositional attributions about offenders than younger children who had experience with the criminal justice system. In contrast, older children who did not have experience with the criminal justice system tended to make more dispositional attributions about offenders than younger children who did not have experience with the criminal justice system. Children who have experienced parental arrest or incarceration may be more likely to consider alternative explanations as to why a person offends rather than assuming it is something inherent to the person's character. However, this understanding may only come with age.

As children develop cognitively, they become more adept at considering multiple dimensions of a situation (Hoffman, 2000). This skill allows children to consider the perspectives of multiple others as well as the demands of a situation simultaneously, making them capable of experiencing empathetic distress. When children are younger, those who have experience with the criminal justice system actually tend to make higher levels of dispositional attributions. This may be indicative of their inability to consider multiple perspectives (Selman, 1971), or that they do not understand why their parent has offended and cannot produce an alternative explanation. In addition, younger children tend to think more in concrete (Piaget, 1954), black-or-white terms, which may lead them to conclude that people are either good or bad. According to Piaget, children remain in the concrete operational stage until around the age of 11. It is not until children are older and have progressed out of this stage that they begin to realize social rules are more abstract and behavior can change depending on the context and constraints of a situation (Kohlberg, 1963). Particularly within this younger group of children, who, based on their age, are likely still in the concrete operational stage of thought, it may be important to investigate whether children's understanding of incarceration and attributions about offenders influences their psychological adjustment. If children believe their parent is offending because he or she is a bad person, they may feel guilt or shame about judging their parent in this way, or may hold a more negative view of themselves by thinking they are similar to their parent. These questions are beyond the scope of the current study, but would be useful points of investigation in future research.

Strengths and Limitations

As in all research, there are strengths and limitations to the current study. A major strength of the current study was its investigation of a neglected area in the field. There has been no systematic research on children's understanding of incarceration, so the current study was innovative in its pursuits. The use of open-ended questions provides a rich base of information that can be used to guide future research endeavors. An additional strength of this study was the use of the WISC-IV to control for differences in children's language abilities. Especially when using open-ended questions and the use of a sample that had a wide range of socioeconomic disadvantage, as in the current study, verbal abilities may influence children's ability to formulate responses to the questions. By controlling for language abilities, we were able to examine the amount of variance accounted for by the alternate predictors (i.e., age), thereby strengthening our hypothesis testing.

In conjunction with the strength of using open-ended questions, however, comes the limitation of creating a coding system to quantify qualitative data in a reliable and relevant fashion. Although high inter-rater reliability was established, the coding scheme did not encompass all potential indicators of children's understanding of incarceration. One indication of this limitation was our failure to capture the sophistication of children's thinking. This may have been due to a lack of probing during the interview, but also may be attributable to limitations in the coding system. Future research might consider using multiple methods of inquiry such as a combination of self-report and observed conversations with others about incarceration.

Second, the study utilized a cross-sectional design and therefore could not track age-related changes within the same individuals over time, or establish causality. The use of a longitudinal design would allow for the ability to record transitions in children's understanding of incarceration based on their cognitive adaptations and exposure to the criminal justice system. This design would allow researchers to determine whether certain experiences with the criminal justice system prompt shifts in children's understanding, how exposure to different sources of information about incarceration may influence children's knowledge at different developmental stages, and when cognitive changes in children's thinking about incarceration and offenders occur.

Third, our sample was fairly homogenous in regards to the children's race and age. The majority of our sample was Black and between 10-11 years old. These similarities are useful in ruling out some extraneous variable influences (e.g., race), but do reduce the generalizability of the current findings. Future research should utilize a normative sample of children, including those of different racial backgrounds, from a wider age range, and from different neighborhoods, so as to increase the variability of the sample.

Lastly, the interview setting and interviewer demographics may have influenced children's comfort level. Almost all of the interviews were conducted in public libraries with little privacy. Due to the high crime rates in the neighborhoods, there were also police officers within view during the interviews. Even though all of the interviews were conducted with no other individuals at the table (with the exception of the two grandmothers mentioned previously), some children may have been reluctant to discuss a matter as sensitive as incarceration where others could overhear. In addition, three of the

five interviewers were white and all but one was female. Since the majority of the children were Black, the racial differences may have impacted children's comfort level as well. However, the majority of the children seemed fairly comfortable discussing the subject, and the children were given the opportunity skip questions they were uncomfortable answering, although none did so.

Conclusion

The current study takes the first step in exploring children's knowledge of incarceration. These results begin to shed light on factors that predict children's knowledge of incarceration, which, for many children, is an abstract construct. The results also highlight the importance of considering interactive effects and potential group differences (e.g., gender differences). Particularly for the children of incarcerated parents, what is understood about incarceration may be a more salient issue than for children have not experienced this form of parental separation. It may be useful for the children's caregivers to know how children are thinking about incarceration and their incarcerated parent so they can address the subject in the most beneficial manner. This may be particularly important when preparing children to visit their incarcerated parent so they know what to expect, but also for children who will not visit their parent, and may be overwhelmed by imagination-based beliefs about incarceration. Although it is not clear from these findings whether children's understanding of incarceration has implications for their psychological adjustment, this is an area worth exploring in future research, as it could be a target for intervention within this population. Though further research into children's understanding of incarceration is needed to determine the generalizability of the results and additional facets of comprehension, the current study

suggests that the interaction of both personal (e.g., age, gender) and experiential factors may provide the most parsimonious explanation.

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Table 1
Demographic Characteristics

Characteristics	<i>M (SD)</i>	Range
<u>Child Participants (n = 106)</u>		
Gender (% Male)	43.4%	
Age		
Years	11.54 (1.19)	8-14
Months	138.48 (14.25)	107.10-170.00
Race		
African-American (%)	78.3%	
Caucasian (%)	8.5%	
Other (%)	13.2%	
<u>Parent/Guardian Participants (n = 106)</u>		
Relationship to Child		
Mother (%)	85.85%	
Father (%)	0.90%	
Grandmother (%)	10.38%	
Aunt (%)	1.89%	
Legal Guardian (%)	0.90%	
Educational Attainment		
Some high school (%)	7.60%	
Completed high school (%)	17.10%	
Some education after high school (%)	41.00%	
Received bachelor's degree (%)	12.40%	
Beyond Bachelor's degree (%)	21.90%	
<u>Household</u>		
Child's Mother's Age (in years)	37.15 (5.89)	26-54
Child's Father's Age (in years)	39.06 (6.76)	26-55
Number of Children	2.72 (1.14)	1-7
Age of youngest (in years)	7.21 (3.53)	0-13
Age of oldest (in years)	13.90 (3.36)	8-25
Adults Living in the Home		
Mother (%)	88.30%	
Father (%)	38.70%	
Stepfather (%)	6.70%	
Grandmother (%)	13.50%	
Grandfather (%)	5.80%	
Aunt (%)	7.70%	
Other (%)	15.40%	
Annual Income		
Less than \$10,000 (%)	14.40%	
\$10,000-\$20,000 (%)	16.30%	
\$20,000-\$30,000 (%)	20.20%	
\$30,000-\$40,000 (%)	10.60%	
\$40,000-\$50,000 (%)	8.70%	
\$50,000-\$60,000 (%)	12.50%	-
Above \$60,000 (%)	17.30%	-

Table 2

Sophistication Variables

Question #: Variable Name	Categories included
1. What do you know about jail?	-Describe why people go to jail -Describe what kind of people go to jail -Describe how people are treated in jail
5. Why do people go to jail?	-Include legal description -List examples of things people do -Provide a life context reason for why people go to jail -Describe an aspect of the offender's character
6. What kinds of people go to jail?	-Bad people go to jail -List types of criminals -Describe a quality/personality trait of offenders -Describe adverse environmental circumstances
10. How long do people stay in jail?	-Sentences differ based on what the person did -Mention a legal aspect of decision-making
11. What happens after people get out of jail?	-Behavioral changes -Change in the type of person -Describe a legal aspect of post-release -Describe practical concerns following release
12. What is the difference between jail and prison?	-Treatment of people there/conditions -Length of stay -Causes for entry -Location
13. What happens when people get arrested?	-Description of events -Describe things that happen after arrest -Different arrest procedure if the person is guilty or not
2 & 9. Violence Description	-Use of weapons/making weapons -Person-on-person violence -Sexual assault -Guards being protectors -Guards not helping to keep inmates safe -Discuss violence in the media
Total Sophistication	-Sum of the nine individual question sophistication variables
Use of Legal Terminology	-Use of legal terms -Number of legal terms used correctly

Table 3
Bivariate Intercorrelations Between Variables of Interest

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	M	SD
1. Age in Months																			
2. CJE (1=Yes, 0=No)	-.04																		
3. Vocabulary Scaled		-.08																	
4. Mean Child Word Count			.30**	.19	.20*	-.00	-.05	.18	.15	.20*	.08	.26**	.32**	.36*	-.13	.39**	.00	9.58	0.62
Individual UJI Questions				.24*	.24*	.25*	.17	.31**	.34**	.26**	.43**	.56**	.62**	.55**	.24*	.42**	.10	13.40	9.75
5. General Knowledge					.13	.00	-.10	.03	.04	.10	.09	.44**	.15	.30*	.04	.27**	.02	0.92	0.62
6. Causes for Entry						.07	-.02	.03	.30**	.16	.16	.56**	.22*	.21*	-.03	.21*	.02	1.15	0.51
7. Type of People (t)							.12	.01	.18	-.05	.13	.21*	.11	.12	.14	.06	.45**	0.31	0.11
8. Length of Stay								.07	.06	-.10	.09	.40**	.15	.13	.04	.10	.14	0.67	0.70
9. Post-Release (t)									.16	.12	.25**	.27**	.29**	.14	.05	.11	.13	0.37	0.14
10. Jail vs. Prison										.11	.03	.61**	.33**	.42**	.18	.31**	-.02	0.85	0.66
11. Arrest											.08	.46**	.16	.21*	.30**	.08	-.07	1.20	0.56
12. Description of Violence (t)												.31**	.30**	.28*	.09	.22*	-.04	0.16	0.20
Aggregate Variables																			
13. Sophistication Average													.46**	.54**	.23*	.41**	.07	0.70	0.20
14. Correct # of Legal Terms														.53**	.14	.43**	-.08	3.52	2.63
15. Accurate Statements Average															.00	.92**	-.24*	0.77	0.29
16. Inaccurate Statements Average																-.39**	-.01	0.15	0.12
17. Overall Accuracy																	-.18	0.62	0.31
18. Dispositional Attributions																		0.88	0.87

Note. (t) = transformed variable using a log10 transformation; CJE=Experience with the Criminal Justice System; #'s 5-12 are individual question sophistication variables; Overall Accuracy = Accurate Statements Average - Inaccurate Statements Average; ** $p < .05$; * $p < .01$

Table 4
Attribution Variables

Variable Name	Question #: Categories Included
Dispositional Attributions	<p>#1: Describe what kind of people go to jail -i.e. "Bad people go to jail"</p> <p>#5: Describe an aspect of a person's character that causes them to go to jail -i.e., "Stupid people go to jail"</p> <p>#6: Bad people go to jail</p> <p>#6: Describe a quality/personality trait that causes a person to go to jail -i.e., "Mean people go to jail"</p> <p>#11: Changes in the type of person -i.e., "When they come out of jail, they become a good person"</p>
External Forces	<p>#5: Provide a life context reason for why someone goes to jail -i.e., "They were in the wrong place at the wrong time"</p> <p>#6: Describe adverse environmental circumstances as a cause for why a person goes to jail -i.e., "Something bad happened in their childhood"</p>

Table 5
Accuracy Variables from the UII

Question #: Variable Name	Accurate Statements		Inaccurate Statements	
	<i>M</i> (<i>SD</i>)	Min-Max	<i>M</i> (<i>SD</i>)	Min-Max
1. What do you know about jail?	0.66 (0.86)	0-4	0.12 (0.36)	0-2
5. Why do people go to jail?	0.71 (0.95)	0-5	0.04 (0.19)	0-1
6. What kinds of people go to jail?	0.91 (1.00)	0-4	0.02 (0.14)	0-1
7. Can moms and dads go to jail?	0.98 (0.14)	0-1	0.02 (0.14)	0-1
7a. If moms and dads go to jail, can they see their kids?	0.87 (0.34)	0-1	0.13 (0.34)	0-1
8. Can kids go to jail? Do they go to the same jail as adults?	0.95 (0.22)	0-1	0.01 (0.10)	0-1
8a. If Yes: Do they go to the same jail as adults?				
10. How long do people stay in jail?	0.47 (0.52)	0-2	0.03 (0.17)	0-1
11. What happens after people get out of jail?	0.29 (0.57)	0-2	0.11 (0.32)	0-1
12. What is the difference between jail and prison?	0.54 (0.73)	0-3	0.45 (0.57)	0-2
13. What happens when people get arrested?	1.30 (1.10)	0-4	0.56 (0.69)	0-4

Table 6
Dependent Variables by Experience with the Criminal Justice System

Experience with the Criminal Justice System:	Yes (<i>n</i> = 45) <i>M</i> (<i>SD</i>)	No (<i>n</i> = 61) <i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>
Age in months	138.78 (13.48)	138.99 (14.89)	0.43	.666
Vocabulary Scaled	9.36 (2.35)	9.75 (2.47)	0.84	.404
Mean Child Word Count (<i>t</i>)	1.14 (0.25)	1.06 (0.21)	-1.71	.091
<u>Individual Questions from UII</u>				
General Knowledge	0.84 (0.67)	0.98 (0.57)	1.12	.254
Causes for Entry	1.20 (0.55)	1.12 (0.49)	-0.82	.414
Type of People (<i>t</i>)	0.31 (0.12)	0.31 (0.10)	0.09	.925
Length of Stay	0.64 (0.74)	0.68 (0.68)	0.30	.780
Post-Release (<i>t</i>)	0.38 (0.09)	0.36 (0.16)	-0.73	.431
Jail vs. Prison	0.93 (0.69)	0.78 (0.64)	-1.15	.252
Arrest	1.29 (0.59)	1.13 (0.54)	-1.41	.161
Description of Violence (<i>t</i>)	0.13 (0.19)	0.18 (0.20)	1.22	.226
<u>Aggregate Variables from UII</u>				
Average Sophistication	0.72 (0.21)	0.69 (0.20)	-0.61	.545
# of Correct Legal Terms	3.40 (2.52)	3.61 (2.73)	0.41	.685
Dispositional Attributions	0.89 (0.78)	0.87 (0.95)	-0.13	.898
Overall Accuracy	0.60 (0.33)	0.63 (0.30)	0.56	.575

Note. (*t*) = Transformed using a log₁₀ transformation

Table 7
Partial Correlations with Degree of Criminal Justice Exposure

	Degree of Criminal Justice Exposure
<u>Individual Questions from UII</u>	
General Knowledge	-.10
Causes for Entry	.09
Type of People (t)	-.06
Length of Stay	-.10
Post-Release (t)	.04
Jail vs. Prison	.14
Arrest	.02
Description of Violence (t)	-.23*
<u>Aggregate Variables from UII</u>	
Average Sophistication	-.00
# of Correct Legal Terms	-.16
Accuracy Statements Average	-.14
Inaccuracy Statements Average	-.11
Overall Accuracy	-.07

Note. Vocabulary scaled score and mean child word count were controlled for in all correlations;

* $p < .05$.

Table 8
Regression for Overall Accuracy

	Overall Accuracy ($n = 102$)		
	B (SE B)	β	ΔR^2
Step 1			.25***
Vocabulary scaled score	.04 (.01)	.34***	
Child mean word count (t)	.44 (.12)	.32***	
Step 2			.09**
Age in months (s)	.07 (.03)	.23*	
Gender (s)	.04 (.03)	.11	
Step 3			.06**
Age in months x Gender	.08 (.03)	.25**	

Note. (t) = log10 transformed variable; (s) = standardized variable; Total $R^2 = .40$; $F(5, 97) = 12.865$; $p < .001$; $^{\dagger}p < .10$; $*p < .05$; $**p < .01$; $***p < .001$

Table 9
Predicting Overall Accuracy from Age in Months

	Overall Accuracy					
	Boys ($n = 42$)			Girls ($n = 59$)		
	B (SE B)	β	ΔR^2	B (SE B)	β	ΔR^2
Step 1			.12 ^t			.30***
Vocabulary scaled score	.03 (.02)	.24		.05 (.02)	.39**	
Child mean word count (t)	.27 (.18)	.23		.49 (.15)	.34**	
Step 2			.07			.20***
Age in months	-.00 (.00)	-.10		.01 (.00)	.46***	

Note. (t) = log10 transformed variable; Boys: Total $R^2 = .13$; $F(3, 39) = 1.98$, $p = .132$; Girls: Total $R^2 = .50$; $F(3, 56) = 18.58$, $p < .001$; ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 10
Regression for Overall Accuracy

	Overall Accuracy					
	Boys (<i>n</i> = 42)			Girls (<i>n</i> = 59)		
	<i>B</i> (SE <i>B</i>)	β	ΔR^2	<i>B</i> (SE <i>B</i>)	β	ΔR^2
Step 1			.12 ^t			.30***
Vocabulary scaled score	.03 (.02)	.23		.06 (.02)	.61**	
Child mean word count (s)	.26 (.19)	.22		.50 (.16)	.35	
Step 2			.01			.21***
Age in months (s)	-.02 (.05)	-.08		.15 (.03)	.47**	
CJE (s)	-.01 (.04)	-.03		-.02 (.04)	-.05	
Step 3			.01			.04*
Age in months x CJE	.02 (.05)	.08		.07 (.03)	.20*	

Note. (s) = standardized variable; CJE = Criminal Justice Experience; Boys: Total $R^2 = .14$; $F(5, 37) = 1.19$, $p = .331$; Girls: Total $R^2 = .54$; $F(5, 54) = 12.713$, $p < .001$; *** $p < .001$; ** $p < .010$; * $p < .050$; Regression coefficients and errors shown for the final step.

Table 11
Predicting Overall Accuracy from Age in Months

	Overall Accuracy					
	Boys with CJE (<i>n</i> = 23)			Girls with CJE (<i>n</i> = 23)		
	<i>B</i> (SE <i>B</i>)	β	ΔR^2	<i>B</i> (SE <i>B</i>)	β	ΔR^2
Step 1			.02			.22 ^t
Vocabulary scaled score	-.02 (.03)	-.14		.10 (.03)	.64**	
Mean child word count (t)	.03 (.29)	.02				
Step 2			.01			.31**
Age in months	-.00 (.01)	.08		.02 (.01)	.71**	

	Overall Accuracy					
	Boys without CJE (<i>n</i> = 20)			Girls without CJE (<i>n</i> = 35)		
	<i>B</i> (SE <i>B</i>)	β	ΔR^2	<i>B</i> (SE <i>B</i>)	β	ΔR^2
Step 1			.29*			.45***
Vocabulary scaled score	.04 (.02)	.38 ^t		.05 (.02)	.42**	
Mean child word count (t)	.36 (.24)	.30		.54 (.21)	.35*	
Step 2			.01			.11**
Age in months	-.00 (.00)	-.12		.01 (.00)	.34**	

Note. CJE=Criminal Justice Experience; (t) = log10 transformed variable; Boys with CJE: Total $R^2 = .02$; $F(3, 15) = 0.11$, $p = .95$; Boys without CJE: Total $R^2 = .30$; $F(3, 20) = 2.86$, $p = .06$; Girls with CJE: Total $R^2 = .53$; $F(3, 20) = 7.39$, $p = .002$; Girls without CJE: Total $R^2 = .56$; $F(3, 32) = 13.61$, $p < .001$; *** $p < .001$; ** $p < .01$, * $p < .05$; Regression coefficients and errors shown for the final step.

Table 12
Predicting Overall Accuracy from Age in Months and Degree of Criminal Justice Experience

	Overall Accuracy ($n = 43$)		
	B (SE B)	β	ΔR^2
Step 1			.14 ^t
Vocabulary Scaled Score	.03 (.02)	.19	
Mean child word count (t)	.59 (.19)	.44**	
Step 2			.15*
Age in months (s)	.14 (.05)	.04**	
DCJE (s)	.05 (.05)	.16	
Step 3			.13**
Age in months x DCJE	.11 (.04)	.39**	

Note. (t) = log10 transformed variable; (s) = standardized term; DJCE = Degree of Criminal Justice Experience; Total $R^2 = .42$; $F(5, 36) = 5.11$, $p = .0-1$; ** $p < .01$; * $p < .05$; ^t $p < .10$; Regression coefficients and errors shown for the final step.

Table 13
Regression for Dispositional Attributions

	Dispositional Attributions ($n = 104$)		
	B (SE B)	β	ΔR^2
Step 1			.01
Age in months (s)	-.10 (.08)	-.113	
CJE (s)	.01 (.08)	.01	
Step 2			.07**
Age in months x CJE	-.23 (.09)	-.26**	

Note. (s) = standardized term; CJE = Criminal Justice Experience; Total $R^2 = .07$; $F(3, 101) = 2.70$, $p = .049$; ** $p < .010$; Regression coefficients and errors shown for the final step.

Table 14
Predicting Dispositional Attributions from Age in Months

	No CJE (<i>n</i> = 44)			CJE (<i>n</i> = 59)		
	<i>B</i> (SE <i>B</i>)	β	ΔR^2	<i>B</i> (SE <i>B</i>)	β	ΔR^2
Age in months	.01 (.01)	.11	.01	-.03 (.01)	-.45**	.20**

Note. CJE=Criminal Justice Experience; No CJE: $F(1, 58) = 0.69, p = .409$; $F(1, 43) = 10.69, p = .002$

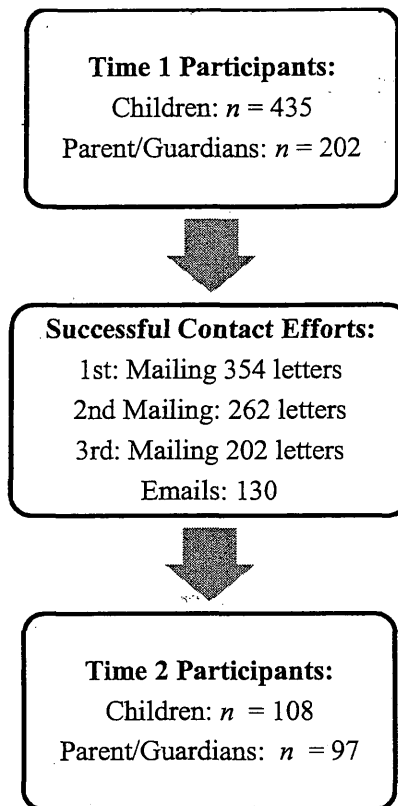


Figure 1. Recruitment Procedures.

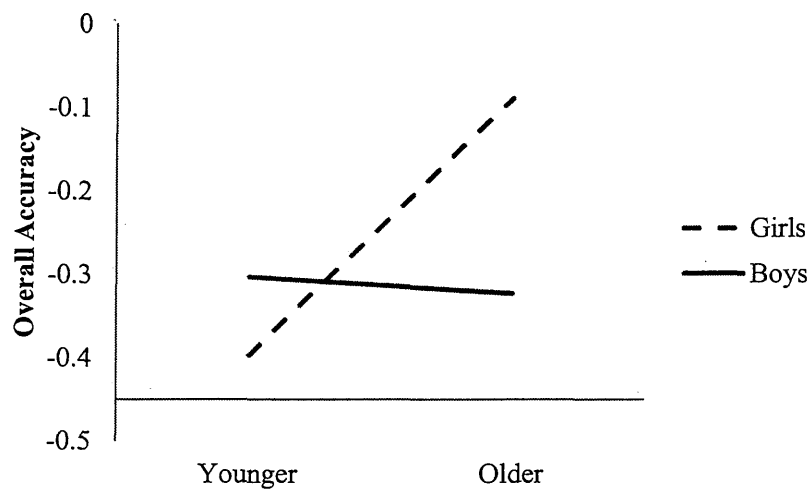


Figure 2. Predicting Overall Accuracy from Child Gender and Age in Months; $F(5, 97) = 12.87, p < .001$; Interaction: $t = 3.07, p = .003$.

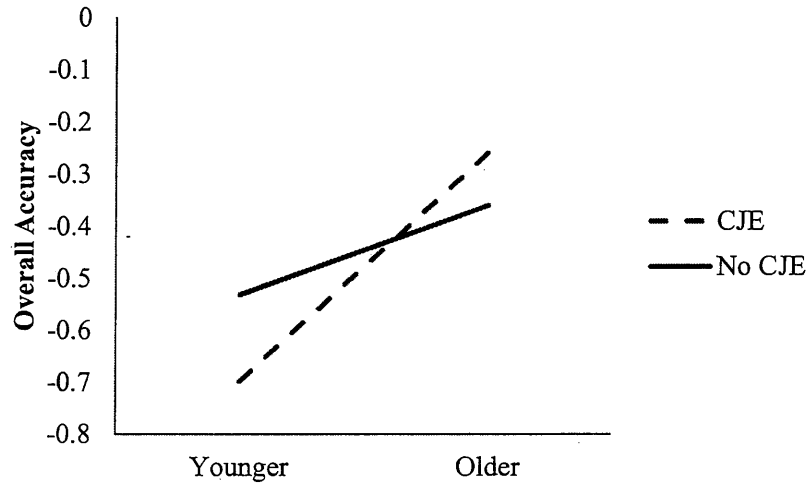


Figure 3. Predicting Overall Accuracy from Age in Months and Criminal Justice Experience in Girls; CJE= Criminal Justice Experience; $F(2, 57) = 12.71, p < .001$; Interaction: $t = 2.10, p = .040$.

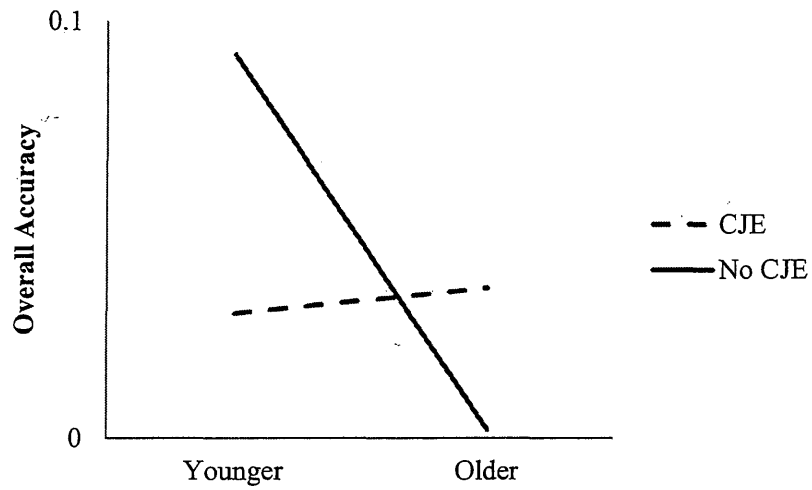


Figure 4. Predicting Overall Accuracy from Age in Months and Criminal Justice Experience in Boys; CJE= Criminal Justice Experience; $F(5, 37) = 1.19, p = .331$.

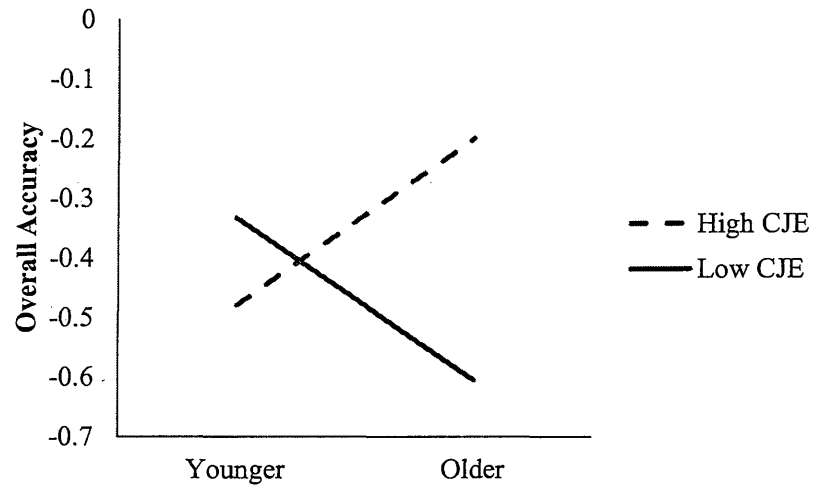


Figure 5. Predicting Overall Accuracy from Age in Months and the Degree of Criminal Justice Experience; CJE = Criminal Justice Experience; $F(5, 36) = 5.11, p = .001$; Interaction: $t = 2.26, p = .030$.

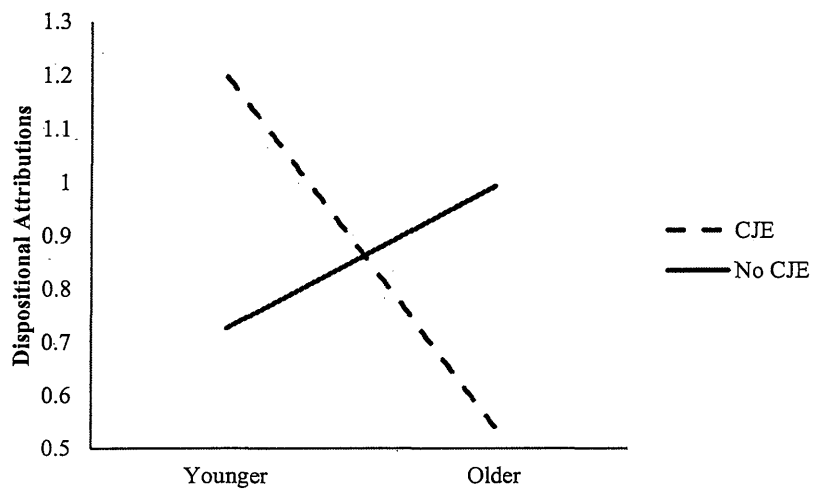


Figure 6. Predicting Dispositional Attributions from Age in Months and Criminal Justice Experience; CJE=Criminal Justice Experience; $F(3, 101) = 2.70, p = .049$; Interaction: $t = -2.69, p = .008$.

Appendix A
History of Parental Incarceration

1. During the child's life, has the child's mother ever been arrested?
 YES (please go to question 2) NO (please go to question 5)
2. Has the child ever witnessed their mother's arrest? YES NO
3. Has the child ever witnessed their mother's sentencing? YES NO
4. In the child's life, has the child's mother ever been incarcerated?
 YES (please go to a.) NO (please go to question 5)
 - a. How many times has the child's mother been incarcerated during the child's life? _____
 - b. Starting with the most recent incarceration, how old was the child?
 TIME 1: _____ years old TIME 2: _____ years old
 TIME 3: _____ years old TIME 4: _____ years old
 - c. Starting with the most recent incarceration, how long was the child's mother incarcerated each time (in days, months, or years)?
 TIME 1: _____ TIME 2: _____
 TIME 3: _____ TIME 4: _____
 - d. Had the child been living with their mother prior to each incarceration? (please circle)
 TIME 1: YES/NO TIME 2: YES/NO TIME 3: YES/NO TIME 4: YES/NO
5. During the child's life, has the child's father ever been arrested?
 YES (please go to question 6) NO (please go to the next page)
6. Has the child ever witnessed their father's arrest? YES NO
7. Has the child ever witnessed their father's sentencing? YES NO
8. In the child's life, has the child's father ever been incarcerated?
 YES (please go to a.) NO (please go to the next page)
 - a. How many times has the child's father been incarcerated during the child's life? _____
 - b. Starting with the most recent incarceration, how old was the child?
 TIME 1: _____ years old TIME 2: _____ years old
 TIME 3: _____ years old TIME 4: _____ years old
 - c. Starting with the most recent incarceration, how long was the child's father incarcerated each time (in days, months, or years)?
 TIME 1: _____ TIME 2: _____
 TIME 3: _____ TIME 4: _____
 - d. Had the child been living with their father prior to each incarceration? (please circle)
 TIME 1: YES/NO TIME 2: YES/NO TIME 3: YES/NO TIME 4: YES/NO

Appendix B
Understanding of Incarceration Interview

Interviewer Prompt: I found out a couple of days ago that my friend is in jail. I am trying to learn about what kids know about jail. Is it ok if we talk about that?

1. What do you know about jail?
2. Have you ever seen anything about jail on TV, in the movies, or maybe in the newspaper?
 - a. What did you see?
3. Have you ever learned about jail in school? (Maybe through books, a speaker, a teacher, or through something else?)
 - a. What did you learn?
4. Have you ever talked to anyone about what jail is like?
 - a. Who was it? (If they say multiple people, prompt: who have you talked to the most about it?)
 - b. What did they say about it?
5. Why do people go to jail?
6. What kinds of people go to jail?
 - a. (If they do not say anything about good/bad, prompt: Do you think people who go to jail are good, bad, or something else?)
7. Can moms and dads go to jail?
 - a. **If Yes:** If moms and dads go to jail, can they see their kids?
8. Can kids go to jail?
 - 8a. **If Yes:** Do they go to the same jail as adults?
9. Are people safe while they are in jail?
10. How long do people stay in jail? (After initial answer, Prompt: What do you think the shortest and the longest amount of time people can spend there is?)
11. What happens after people get out of jail?
12. What is the difference between jail and prison?

Interviewer Prompt: I heard that before my friend went to jail, they got arrested.

13. What happens when people get arrested?
14. Have you ever seen anybody get arrested? (Prompt: In real life, not on T.V., in the movies, or in the newspaper)

Appendix C
Coding Scheme

	<u>Yes=1</u>	<u>No=0</u>
1. What do you know about jail?		
-Describe why people go to jail	Yes	No
-Describe what kind of people go to jail	Yes	No
-Describe how people are treated in jail	Yes	No
-Describe jail as a bad place (simple answer)	Yes	No
2. Seen anything about jail on TV, in the movies, the newspaper	Yes	No
2a. What did you see?	Yes	No
-Causes for people going into jail	Yes	No
-People in/going to jail	Yes	No
-Violence	Yes	No
-Physical Appearance of Jail/Prisoners	Yes	No
-Using jail to scare kids	Yes	No
-Media figure (i.e., Casey Anthony)	Yes	No
3. Learned about jail in school	Yes	No
3a. What did you learn?	Yes	No
-What not to do/making good decisions	Yes	No
-Self-esteem	Yes	No
-Inmates/Jail are scary/undesirable	Yes	No
4. Talked to anyone	Yes	No
3a. Who? What did they say?	Yes	No
-No real information (i.e., you don't want to go there)	Yes	No
-Other	Yes	No
5. Why do people go to jail?		
-Include a legal description	Yes	No
-List examples of things people do	Yes	No
-Provide a life context reason	Yes	No
-Describe an aspect of their character	Yes	No
6. What kinds of people go to jail?		
-Bad people	Yes	No
-List types of criminals	Yes	No
-Describe a quality/personality trait	Yes	No
-Describe adverse environmental circumstances	Yes	No
-Anybody can go to jail/I can go to jail	Yes	No
7. Can moms and dads go to jail?	Yes	No
7a. Can they see their kids?	Yes	No
	No	Sometimes

8. Can kids go to jail?	Yes	No
8a. Do they go to the same jail as adults?	Yes	No
9. Are people safe while they are in jail?		
-Use of weapons/making weapons	Yes	No
-Person-on-person violence	Yes	No
-Sexual Assault	Yes	No
-Guards being protectors	Yes	No
-Guards not helping	Yes	No
10. How long do people stay in jail?		
-Different based on what they did	Yes	No
-Mention a legal aspect of decision-making	Yes	No
11. What happens after people get out of jail?		
-Change their behavior	Yes	No
-Don't change their behavior	Yes	No
-Change the type of person they are	Yes	No
-Don't change the type of person they are	Yes	No
-Describe a legal aspect of post-release	Yes	No
-Describe practical concerns	Yes	No
12. What is the difference between jail and prison?		
-Treatment of people there/conditions	Yes	No
-Length of stay	Yes	No
-Causes for entry	Yes	No
-Location	Yes	No
13. What happens when people get arrested?		
-Description of events	Yes	No
-Describe things after arrest	Yes	No
-Different arrest procedure if they did it or not	Yes	No